

**METALLIC FACILITY TERMINAL
PRESCRIPTION SETTINGS FOR 4-2 WIRE (J99343RB, RC, RG)
AND 2-4 WIRE REPEATERS (J99343RD, RE, RH)**

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1. GENERAL

1.01 This section gives prescription settings for the 4240-type precision balancing networks (PBNs) and 309B equalizers used in 4-2 intermediate/terminal or 2-4 intermediate Metallic Facility Terminal (MFT) repeaters. The settings given in this section are for 4-wire circuits with 2-wire extensions. For 4-wire circuits without 2-wire extensions, see Section 332-912-232.

1.02 This section is reissued to add/include the J99343RG 4-2 wire terminal/intermediate repeater and the J99343RH 2-4 wire intermediate repeater. The J99343RG and RH repeaters are compatible with 25-gauge H88 metropolitan area trunks (MATs) and replace the J99343RB (MD) and J99343RD (MD), respectively. In addition, new prescription setting procedures and information for the 4240C and 4240A precision balancing networks and 309B equalizers used on 25-gauge H88 loaded MAT cable have been added. Also, simplified chart procedures for determining 309B equalizer settings for the J99343RC 4-2 terminal repeater (NL) have been added. Since this reissue is a general revision, no revision arrows have been used to denote significant changes. Equipment Test Lists are not affected.

1.03 The procedures in this section allow the calculation of PBN settings, 309B equalizer settings, the 1-kHz gain of the equalizer, and the 1-kHz cable loss.

1.04 To obtain the correct PBN and equalizer settings, the proper design rules for the circuit must be used. Also, the equalization strategy discussed in Part 5 must be applied as described for proper allocation of equalization.

1.05 Transmission levels for 4-wire circuits with 2-wire extensions are limited by two constraints: crosstalk and stability. The same level requirements used on 2-wire circuits apply. The 4-wire sections of a circuit may contain one or more 4-wire repeaters or a carrier link.

1.06 The maximum gain allowed across the repeater is dictated by crosstalk considerations. The maximum gains are:

- Terminal repeaters 6 dB
- Intermediate repeaters 12 dB.

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SECTION 332-912-222

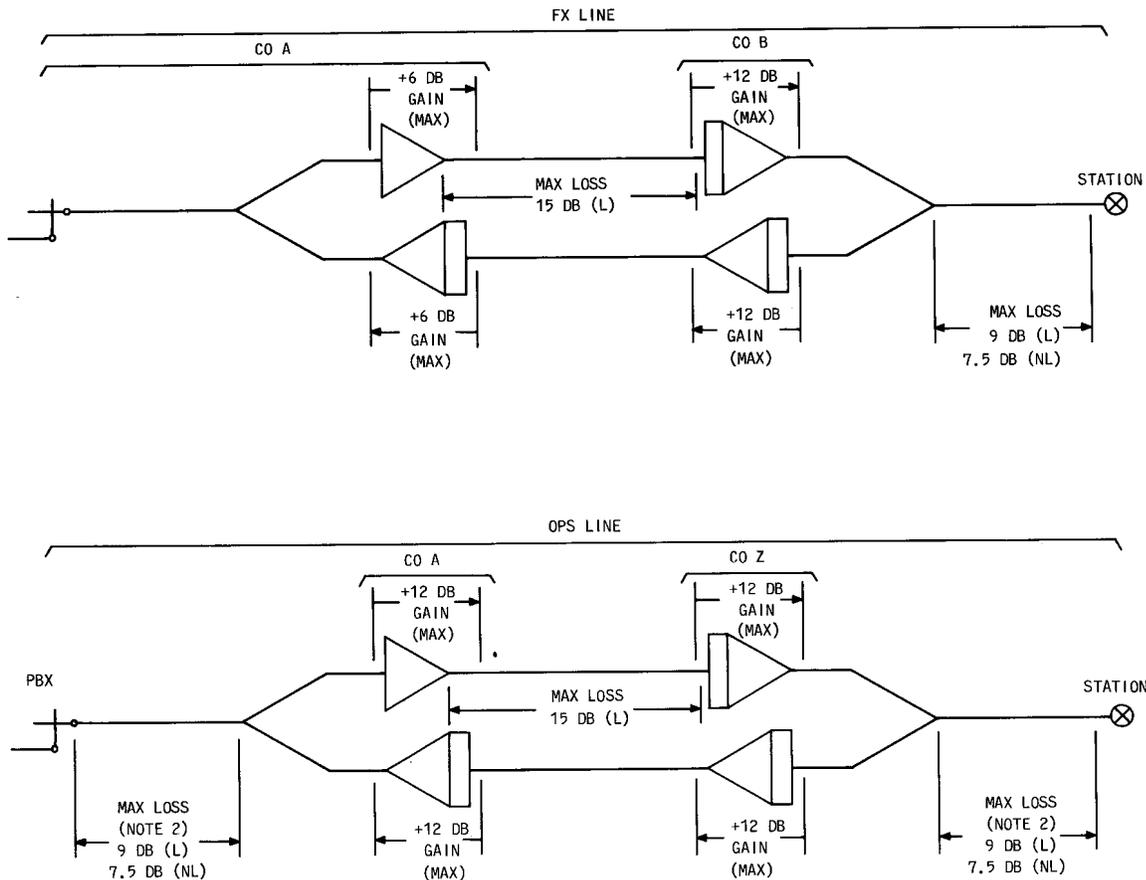
The maximum gain across individual repeaters is limited by rules used for 2-wire circuits since the 4-wire segment acts like a 2-2 repeater. Fig. 1 indicates the maximum gains and losses for both terminal and intermediate 4-2 or 2-4 repeaters.

1.07 Crosstalk considerations determine the minimum input and maximum output levels as shown in Table A. The maximum 1-kHz cable loss between 4-wire repeaters is shown in Table B, while the maximum 2-wire cable loss is limited by the objectives for the individual types of special services and message trunks.

1.08 Table C gives the rules for selecting the 4-wire impedance of the repeater. The rule for mixed loaded and nonloaded cable can be stated as follows: A cable is considered to be mixed nonloaded and loaded if there is *more* than 9 kft

of cable plus bridged tap from a repeater to the first load coil. This end of the cable is considered to be nonloaded and 600-ohm impedance should be selected. If there is less than 9 kft of cable plus bridged tap from the repeater to the first load coil, the cable is considered to be loaded and 1200-ohm impedance is selected.

1.09 Since the MFT repeaters use active equalizers, the total gain of the repeater at 1 kHz is the sum of the flat-gain setting and the gain of the equalizer section. The equalizer section gain consists of two components: the gain of the slope section (SL) and the gain of the bump section (HT and BW). The gain produced by each slope setting is shown in Table D. The bump section gain for any combination of height (HT) and bandwidth (BW) settings is given in Table E. The 309B equalizer is capable of adding 15.3 dB of gain at 1 kHz.



- NOTES:
 1. SEE SECTION 851-300-100 FOR ADDITIONAL APPLICATIONS.
 2. SUM OF LOSS IN BOTH 2-WIRE EXTENSIONS CANNOT EXCEED 14 DB.

Fig. 1—Maximum Gains and Losses for 4-2 and 2-4 Repeaters

TABLE A

**PERMISSIBLE TRANSMITTING AND RECEIVING LEVELS AT 1 KHZ
WITH RESPECT TO TRANSMISSION LEVEL POINT (TLP)**

REPEATER LOCATION	CABLE TYPE	MINIMUM INPUT LEVEL (dB)	MAXIMUM OUTPUT LEVEL (dB)
Central Office	Nonloaded	-9	+6
	H88 loaded	-9	+6
PBX or other customer location	Nonloaded	-9	+6
	H88 loaded	-6	+3

TABLE B

MAXIMUM 1-KHZ LOSS PER LENGTH OF CABLE WITHIN A REPEATER SECTION

REPEATER SECTION	MAXIMUM LOSS	
	NONLOADED	H88 LOADED
PBX or cust to CO	15 dB	12 dB
CO to CO	15 dB	15 dB

TABLE C

4-WIRE IMPEDANCE SELECTION

4-Wire Cable	Impedance Selection
Nonloaded	600 Ohms on Both Ends
H88 Loaded	1200 Ohms on Both Ends
Mixed Nonloaded and Loaded	600 Ohms on the Nonloaded End and 1200 Ohms on the Loaded End

TABLE D

ADDITIONAL 1 KHZ GAIN IN DB
AS A RESULT OF SLOPE SETTINGS

SLOPE SETTING	NL/L SWITCH	
	NL	L
0*	0	0
1	0.4	1.4
2	0.9	2.6
3	1.4	3.7
4	1.8	4.7
5	2.3	5.5
6	2.8	6.3
7	3.4	7.2
8	3.7	7.8
9	4.2	8.4
10	4.6	9.0
11	5.0	9.5
12	5.4	10.0
13	5.8	10.5
14	6.2	11.0
15	6.6	11.4

* SLOPE setting 0 disables the slope unit.

TABLE E
ADDITIONAL 1 KHZ GAIN IN DB AS A
RESULT OF HT AND BW SETTINGS

		HT SETTING																
		0*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
B W S E T T I N G	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
	5	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1
	6	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	7	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
	8	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4
	9	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5
	10	0	0	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.7
	11	0	0	0	0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.6	0.7	0.7	0.9
	12	0	0	0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.8	0.9	0.9	1.2
	13	0	0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.3	1.3	1.7
	14	0	0	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.7	2.0	2.0	2.5
15	0	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.2	1.5	1.7	2.0	2.4	2.8	3.3	3.3	3.9	

* HT setting 0 disables the bump unit for all BW settings.

2. PRESCRIPTION SETTINGS FOR THE 4240A AND 4240C PRECISION BALANCING NETWORKS

2.01 Two methods of obtaining prescription settings for the 4240A and 4240C PBNs are described in this part. The first method uses a flowchart (Chart 1) to supply average PBN settings based on the cable gauge. The second method involves the use of tables with PBN settings based on facility gauge, length, and distant termination.

2.02 The settings obtained from Chart 1 should meet balance requirements for most circuits. If improved balance is desired after completion of the procedure in Chart 1, the return loss of the circuit may be optimized using the manual procedures described in Section 332-912-221. Use of the chart is self-explanatory.

2.03 The prescription setting tables for the 4240A and 4240C PBNs are based on single-gauge and 2-gauge facilities. For circuits using 2-wire facilities composed of more than two gauges, with bridged taps or a mixture of loaded and nonloaded cable, the manual procedures described in Section 332-912-221 must be used. However, the table entry in this section which most closely resembles the actual facility may be used as an initial setting to minimize the time required for optimizing the network.

2.04 The tables list the PBN settings by the type of termination at the far end. Three types of terminations are given:

- 900 ohms in series with 2.16 μF
- 600 ohms in series with 2.16 μF
- Off-hook telephone set with 35 mA of loop current.

The tables also include the 1-kHz loss and the dc resistance of the facility.

2.05 For circuits requiring terminal balance (837- or J99380-type impedance compensators at the location with the balance requirement), the procedures in Part 4 should be used.

2.06 To use the tables, determine the line build-out capacitance (LBOC) setting based on the near end section length from Table F. Table F lists the value of capacitance required by end section length for both Hi-Cap and MAT cable. The table was developed using the formulas:

$$\text{Hi-Cap } C = .008 + [.016 (6-N)]$$

$$\text{MAT } C = .008 + [.0122 (6-N)]$$

where C = the value of LBOC in μF

N = the length of the near end section in kilofeet

The setting column denotes the screws which are turned down.

2.07 For single-gauge facilities, Tables G, H, I, J, and K for 26-, 25-, 24-, 22-, and 19-gauge cable, respectively, locate the facility length. Then, using the appropriate termination column, read the correct PBN setting.

2.08 Tables which give settings for combinations of two gauges (Table L for 26- and 24-gauge; Table M for 24- and 26-gauge; Table N for 26- and 22-gauge; Table O for 22- and 26-gauge; Table P for 24- and 22-gauge; and Table Q for 22- and 24-gauge) must be selected according to the gauge of cable adjacent to the repeater. The adjacent gauge is listed first in the table title. The working length (WL) parameter, which is the total length of the facility between the repeater and the termination, is used to allow a better grouping of PBN settings. The WL is divided into the lengths of the individual gauges for determination of settings.

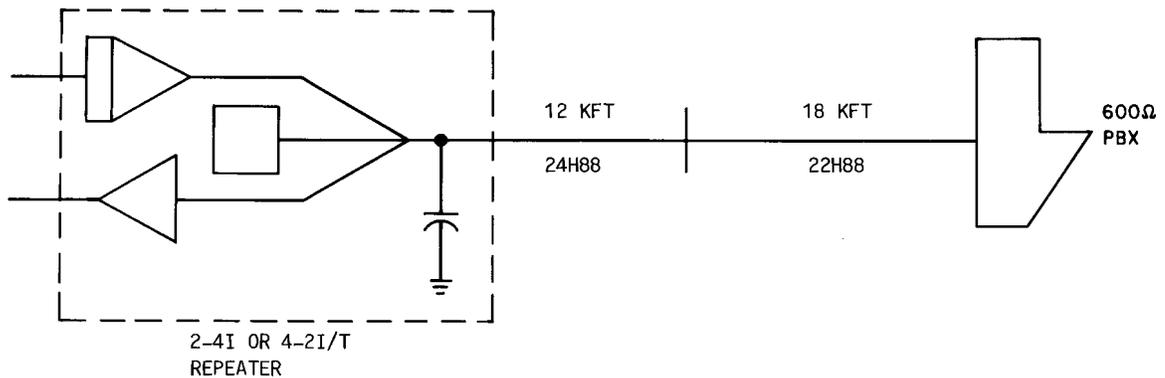
2.09 Tables for combinations of MAT and Hi-Cap cable are not supplied. For facilities of this type, Chart 1 or the manual procedures in Section 332-912-221 must be used.

2.10 To use the 2-gauge tables:

- (1) Determine the proper table by the gauges of the facility. Be sure the gauge adjacent to the repeater is listed first in the table title.

- (2) Locate the WL of the facility and then the lengths of the individual gauges.
- (3) Locate the PBN settings under the appropriate termination heading.
- (4) The 1-kHz cable loss and dc resistance are also given.

Example:



Given: the above circuit with the near end section equal to 3200 feet.

- (1) Calculate the LBOC setting or use Table F. From Table F the LBOC = .052 μ F or screws BDE down.
- (2) Using the 2-gauge tables, determine the PBN settings from Table P (24H88 adjacent to the repeater combined with 22H88)

$$WL = 12 + 18 = 30$$

Under WL = 30, locate 12 and 18.

- (3) Since the circuit terminates in a 600-ohm PBX, the 600 + 2.16 termination column is used. The PBN settings are:

$$R = 5$$

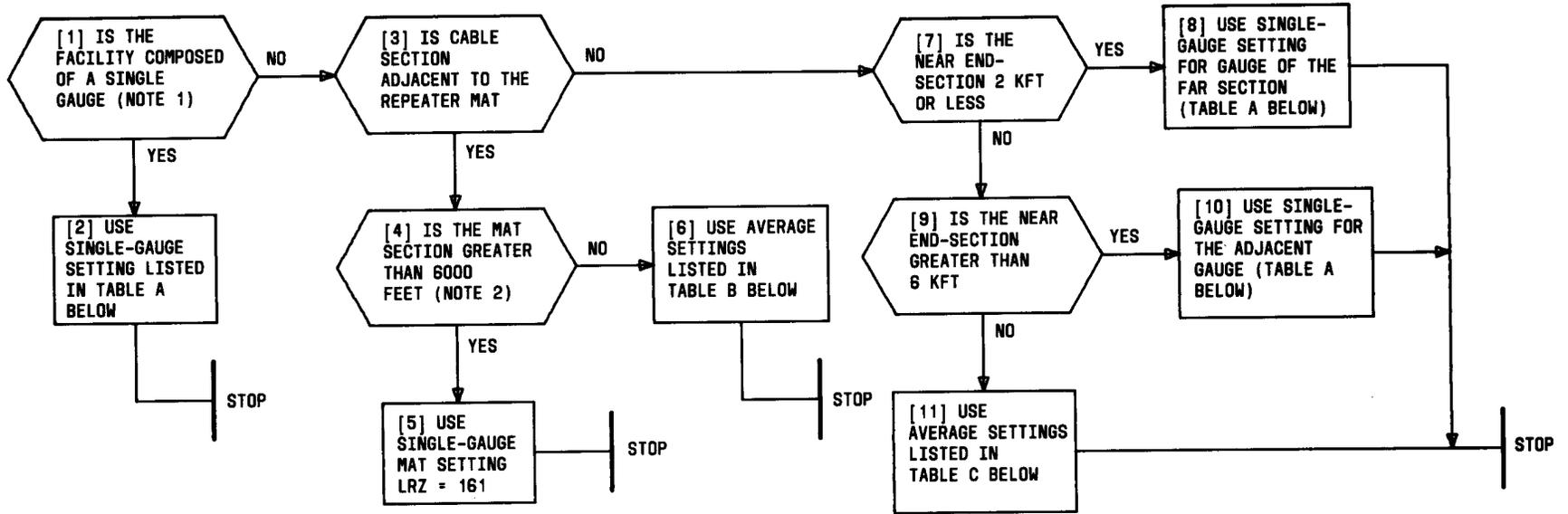
$$Z = 3$$

3. PRESCRIPTION SETTINGS FOR THE 4240B PRECISION BALANCING NETWORK

3.01 The tables for the 4240B PBX used on nonloaded cable are similar to the tables for loaded cable. The major difference in the two networks is that the 4240B does not require the LBOC.

3.02 The same procedures for using the tables apply and if the cable facility does not match the table entry point very closely, the manual procedures described in Section 332-912-221 should be used.

3.03 Tables R, S, T, U, and V are for single-gauge facilities. Settings for 2-gauge facilities may be found in Tables W, X, Y, Z, AA, and BB.



NOTES:

1. FOR FACILITIES COMPOSED OF TWO OR MORE GAUGES, THE NEAR GAUGE IS ADJACENT TO THE REPEATER AND FAR SECTION IS THE NEXT GAUGE. ALL OTHER GAUGES ARE IGNORED.
2. IT IS ASSUMED THAT MAT WILL BE BUILT OUT TO MULTIPLES OF 6 KFT.

TABLE A			
GAUGE	L	R	Z
19	0	0	2
22	0	2	2
24	0	4	3
25	1	6	1
26	0	7	4

TABLE B			
GAUGES	L	R	Z
25 AND 19	1	3	0
25 AND 22	1	3	0
25 AND 24	1	6	1
25 AND 26	1	6	1

TABLE C			
GAUGES	L	R	Z
19 AND 22	0	1	2
19 AND 24	0	2	2
19 AND 25	0	2	3
19 AND 26	0	3	3
22 AND 24	0	3	2
22 AND 25	0	4	5
22 AND 26	0	4	3
24 AND 25	0	4	4
24 AND 26	0	5	3
26 AND 25	0	5	5

Chart 1—Prescription Setting for 4240A or 4240C Precision Balancing Networks

TABLE F
LBOC SETTINGS

N (KFT)	C (μ F)	LBOC SETTING	N (KFT)	C (μ F)	LBOC SETTING
0.0	.104	CEF	3.0	.056	CDE
.1	.102	ABEF	3.1	.054	ABDE
.2	.100	BEF	3.2	.052	BDE
.3	.100	BEF	3.3	.052	BDE
.4	.098	AEF	3.4	.050	ADE
.5	.096	EF	3.5	.048	DE
.6	.094	ABCDF	3.6	.046	ABCE
.7	.092	BCDF	3.7	.044	BCE
.8	.092	BCDF	3.8	.044	BCE
.9	.090	ACDF	3.9	.042	ACE
1.0	.088	CDF	4.0	.040	CE
1.1	.086	ABDF	4.1	.038	ABE
1.2	.084	BDF	4.2	.036	BE
1.3	.084	BDF	4.3	.036	BE
1.4	.082	ADF	4.4	.034	AE
1.5	.080	DF	4.5	.032	E
1.6	.078	ABCF	4.6	.030	ABCD
1.7	.076	BCF	4.7	.028	BCD
1.8	.076	BCF	4.8	.028	BCD
1.9	.074	ACF	4.9	.026	ACD
2.0	.072	CF	5.0	.024	CD
2.1	.070	ABF	5.1	.022	ABD
2.2	.068	BF	5.2	.020	BD
2.3	.068	BF	5.3	.020	BD
2.4	.066	AF	5.4	.018	AD
2.5	.064	F	5.5	.016	D
2.6	.062	ABCDE	5.6	.014	ABC
2.7	.060	BCDE	5.7	.012	BC
2.8	.060	BCDE	5.8	.012	BC
2.9	.058	ACDE	5.9	.010	AC
			6.0	.008	C

TABLE G

4204A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR
26-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

END SECTION = 3.0 KFT

LENGTH (KFT)	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
6.0	5	2	1	0	1	0	2.2	508.4
12.0	7	3	7	3	7	2	4.1	1016.8
18.0	7	4	7	3	7	3	6.0	1525.2
24.0	7	4	7	4	7	4	8.2	2033.6
30.0	7	4	7	4	7	4	10.3	2542.0
36.0	7	4	7	4	7	4	12.4	3050.4
42.0	7	4	7	4	7	4	14.5	3558.8
48.0	7	4	7	4	7	4	16.5	4067.2

*All 4240C L Switch Settings - O (Off).

TABLE H

4240C PRECISION BALANCING NETWORK SETTINGS FOR
25-GAUGE H88 LOADED MAT CABLE WITHOUT BRIDGED TAP AT 68°F

END SECTION = 3.0 kft

LENGTH (kft)	4240C BALANCE NETWORK SETTINGS BY TERMINATION									1 KHZ CABLE LOSS (dB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TEL SET (35 mA)				
	L	R	Z	L	R	Z	L	R	Z		
12.0	1	6	0	1	4	0	1	7	0	3.2	802.5
18.0	1	7	1	1	7	1	1	7	0	4.3	1203.7
24.0	1	7	1	1	7	1	1	7	0	5.9	1605.0
30.0	1	6	1	1	7	1	1	7	1	7.4	2006.2
36.0	1	6	1	1	6	1	1	7	1	9.0	2407.4
42.0	1	6	1	1	6	1	1	6	1	10.5	2808.7
48.0	1	6	1	1	6	1	1	6	1	12.0	3209.9
54.0	1	6	1	1	6	1	1	6	1	13.4	3611.2
60.0	1	6	1	1	6	1	1	6	1	14.9	4012.4

TABLE I

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR
24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

END SECTION = 3.0 KFT

LENGTH (KFT)	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
6.0	2	1	0	0	0	0	1.5	319.8
12.0	4	2	3	2	5	1	2.7	639.5
18.0	5	3	5	3	6	3	4.0	959.3
24.0	4	3	5	3	6	3	5.4	1279.1
30.0	4	3	4	3	5	3	6.8	1598.8
36.0	4	3	4	3	4	3	8.2	1918.6
42.0	4	3	4	3	4	3	9.6	2238.3
48.0	4	3	4	3	4	3	11.0	2558.1
54.0	4	3	4	3	4	3	12.3	2877.9
60.0	4	3	4	3	4	3	13.7	3197.6
66.0	4	3	4	3	4	3	15.1	3517.4

*All 4240C L Switch Settings = O (Off).

TABLE J

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

END SECTION = 3.0 KFT

LENGTH (KFT)	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
12.0	2	2	0	1	2	0	1.8	410.0
18.0	2	2	2	2	4	2	2.6	615.0
24.0	2	2	3	2	5	3	3.5	820.0
30.0	2	2	3	3	4	3	4.5	1025.0
36.0	2	2	3	3	3	3	5.4	1229.9
42.0	2	2	2	2	3	3	6.3	1434.9
48.0	2	2	2	2	2	3	7.2	1639.9
54.0	2	2	2	2	2	3	8.0	1844.9
60.0	2	2	2	2	2	3	8.9	2049.9
66.0	2	2	2	2	2	3	9.9	2254.9
72.0	2	2	2	2	2	3	10.8	2459.9
78.0	2	2	2	2	2	3	11.6	2664.9
84.0	2	2	2	2	2	2	12.5	2869.9
90.0	2	2	2	2	2	2	13.4	3074.9
96.0	2	2	2	2	2	2	14.3	3279.9
102.0	2	2	2	2	2	2	15.2	3484.9

*All 4240C L Switch Settings = O (Off).

TABLE K

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR
19-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

END SECTION = 3.0 KFT

LENGTH (KFT)	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
24.0	0	2	0	1	3	2	1.9	424.5
30.0	0	2	1	2	2	2	2.4	530.6
36.0	0	2	1	2	2	2	2.9	636.8
42.0	0	2	1	2	1	2	3.4	742.9
48.0	0	2	1	2	1	2	3.9	849.0
54.0	0	2	0	2	0	2	4.3	955.1
60.0	0	2	0	2	0	2	4.8	1061.3
66.0	0	2	0	2	0	2	5.3	1167.4
72.0	0	2	0	2	0	2	5.8	1273.5
78.0	0	2	0	2	0	2	6.3	1379.7
84.0	0	2	0	2	0	2	6.7	1485.8
90.0	0	2	0	2	0	2	7.2	1591.9
96.0	0	2	0	2	0	2	7.7	1698.0
102.0	0	2	0	2	0	2	8.2	1804.2
108.0	0	2	0	2	0	2	8.7	1910.3
114.0	0	2	0	2	0	2	9.1	2016.4
120.0	0	2	0	2	0	2	9.6	2122.5
126.0	0	2	0	2	0	2	10.1	2228.7
132.0	0	2	0	2	0	2	10.6	2334.8
138.0	0	2	0	2	0	2	11.1	2440.9
144.0	0	2	0	2	0	2	11.6	2547.1
150.0	0	2	0	2	0	2	12.0	2653.2
156.0	0	2	0	2	0	2	12.5	2759.3
162.0	0	2	0	2	0	2	13.0	2865.4
168.0	0	2	0	2	0	2	13.5	2971.6
174.0	0	2	0	2	0	2	14.0	3077.7
180.0	0	2	0	2	0	2	14.4	3183.8
186.0	0	2	0	2	0	2	14.9	3289.9
192.0	0	2	0	2	0	2	15.4	3396.1

* ALL 4240 C L SWITCH SETTINGS = 0 (OFF)

TABLE L

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26- AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 26-GA 24-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 12.0 6.0 6.0	7	3	6	2	7	2	3.4	828.2
WL = 18.0 6.0 12.0 12.0 6.0	7	3	7	3	7	3	4.7	1147.9
	7	3	7	3	7	3	5.3	1336.6
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	7	3	7	3	7	3	6.2	1467.7
	7	4	7	3	7	3	6.8	1656.3
	7	4	7	4	7	3	7.4	1845.0
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	6	3	7	3	7	3	7.6	1787.5
	7	4	7	4	7	4	8.3	1976.1
	7	4	7	4	7	4	8.9	2164.7
	7	4	7	4	7	4	9.5	2353.4
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	6	3	6	3	7	4	9.0	2107.2
	7	4	7	4	7	4	9.7	2295.9
	7	4	7	4	7	4	10.3	2484.5
	7	4	7	4	7	4	11.0	2673.1
	7	4	7	4	7	4	11.7	2861.8
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	6	3	6	3	6	3	10.3	2427.0
	7	4	7	4	7	4	11.0	2615.6
	7	4	7	4	7	4	11.7	2804.3
	7	4	7	4	7	4	12.4	2992.9
	7	4	7	4	7	4	13.1	3181.5
	7	4	7	4	7	4	13.7	3370.2
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	6	3	6	3	6	3	11.7	2746.7
	7	4	7	4	7	4	12.3	2935.4
	7	4	7	4	7	4	13.0	3124.0
	7	4	7	4	7	4	13.8	3312.7
	7	4	7	4	7	4	14.5	3501.3
	7	4	7	4	7	4	15.1	3689.9
	7	4	7	4	7	4	15.8	3878.6
WL = 54.0 6.0 48.0 12.0 42.0 18.0 36.0 24.0 30.0 30.0 24.0	6	3	6	3	6	3	13.1	3066.5
	7	4	7	4	7	4	13.7	3255.1
	7	4	7	4	7	4	14.4	3443.8
	7	4	7	4	7	4	15.1	3632.4
	7	4	7	4	7	4	15.9	3821.1
WL = 60.0 6.0 54.0	6	3	6	3	6	3	14.5	3386.3

*All 4240C L Switch Settings = O (Off).

TABLE L (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26- AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 26-GA 24-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
12.0 48.0	7	4	7	4	7	4	15.1	3574.9
18.0 42.0	7	4	7	4	7	4	15.8	3763.5
WL = 66.0								
6.0 60.0	6	3	6	3	6	3	15.9	3706.0

*All 4240C L Switch Settings = O (Off).

TABLE M

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 26-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 24-GA 26-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 12.0 6.0 6.0	5	3	4	2	6	2	3.4	828.2
WL = 18.0 6.0 12.0 12.0 6.0	6 5	4 3	6 5	4 3	7 6	4 3	5.3 4.7	1336.6 1147.9
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	6 4 4	4 3 3	6 5 5	4 3 3	6 5 5	4 3 3	7.4 6.8 6.2	1845.0 1656.3 1467.7
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	5 4 4 4	4 3 3 3	5 4 4 4	4 3 3 3	6 5 5 5	4 4 3 3	9.5 8.9 8.3 7.6	2353.4 2164.7 1976.1 1787.5
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	5 4 4 4 4	4 3 3 3 3	5 4 4 4 4	4 3 3 3 3	5 4 4 4 4	4 3 3 3 3	11.7 11.0 10.3 9.7 9.0	2861.8 2673.1 2484.5 2295.9 2107.2
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	5 4 4 4 4 4	4 3 3 3 3 3	5 4 4 4 4 4	4 3 3 3 3 3	5 4 4 4 4 4	4 3 3 3 3 3	13.7 13.1 12.4 11.7 11.0 10.3	3370.2 3181.5 2992.9 2804.3 2615.6 2427.0
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	5 4 4 4 4 4 4	4 3 3 3 3 3 3	5 4 4 4 4 4 4	4 3 3 3 3 3 3	5 4 4 4 4 4 4	4 3 3 3 3 3 3	15.8 15.1 14.5 13.8 13.0 12.3 11.7	3878.6 3689.9 3501.3 3312.7 3124.0 2935.4 2746.7
WL = 54.0 24.0 30.0 30.0 24.0 36.0 18.0 42.0 12.0 48.0 6.0	4 4 4 4 4	3 3 3 3 3	4 4 4 4 4	3 3 3 3 3	3 4 4 4 4	3 3 3 3 3	15.9 15.1 14.4 13.7 13.1	3821.1 3632.4 3443.8 3255.1 3066.5
WL = 60.0 42.0 18.0	4	3	4	3	4	3	15.8	3763.5

*All 4240C L Switch Settings = O (Off).

TABLE M (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 26-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 24-GA 26-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
48.0 12.0	4	3	4	3	4	3	15.1	3574.9
54.0 6.0	4	3	4	3	4	3	14.5	3386.3
WL = 66.0								
60.0 6.0	4	3	4	3	4	3	15.9	3706.0

*All 4240C L Switch Settings = O (Off).

TABLE N

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26- AND 22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 26-GA 22-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION				1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)	
	900 + 2.16		600 + 2.16				TELSET (35MA)
	R	Z	R	Z	R	Z	
WL = 12.0 6.0 6.0	6	2	5	2	7	2	3.0 713.4
WL = 18.0 6.0 12.0 12.0 6.0	7	3	7	3	7	2	3.8 4.8 918.4 1221.8
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	6	3	7	3	7	3	4.8 5.8 6.9 1123.4 1426.8 1730.2
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	6	3	7	3	7	3	5.7 6.8 7.9 9.0 1328.4 1631.8 1935.2 2238.6
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	6	3	6	3	7	3	6.6 7.8 8.9 10.0 11.2 1533.4 1836.8 2140.2 2443.6 2747.0
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	6	3	6	3	6	3	7.5 8.6 9.8 11.0 12.1 13.2 1738.3 2041.8 2345.2 2648.6 2952.0 3255.4
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	6	3	6	3	6	3	8.4 9.4 10.6 11.8 13.1 14.2 15.3 1943.3 2246.7 2550.2 2853.6 3157.0 3460.4 3763.8
WL = 54.0 6.0 48.0 12.0 42.0 18.0 36.0 24.0 30.0 30.0 24.0 36.0 18.0	6	3	6	3	6	3	9.3 10.3 11.4 12.7 14.0 15.1 2148.3 2451.7 2755.1 3058.6 3362.0 3665.4
WL = 60.0							

*All 4240C L Switch Settings = O (Off).

TABLE N (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 26-GA 22-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
6.0 54.0	6	3	6	3	6	3	10.2	2353.3
12.0 48.0	7	4	7	4	7	4	11.3	2656.7
18.0 42.0	7	4	7	4	7	4	12.4	2960.1
24.0 36.0	7	4	7	4	7	4	13.6	3263.5
30.0 30.0	7	4	7	4	7	4	14.8	3567.0
WL = 66.0								
6.0 60.0	6	3	6	3	6	3	11.1	2558.3
12.0 54.0	7	4	7	4	7	4	12.2	2861.7
18.0 48.0	7	4	7	4	7	4	13.3	3165.1
24.0 42.0	7	4	7	4	7	4	14.5	3468.5
30.0 36.0	7	4	7	4	7	4	15.7	3771.9
WL = 72.0								
6.0 66.0	6	3	6	3	6	3	12.0	2763.3
12.0 60.0	7	4	7	4	7	4	13.1	3066.7
18.0 54.0	7	4	7	4	7	4	14.2	3370.1
24.0 48.0	7	4	7	4	7	4	15.4	3673.5
WL = 78.0								
6.0 72.0	6	3	6	3	6	3	12.9	2968.3
12.0 66.0	7	4	7	4	7	4	13.9	3271.7
18.0 60.0	7	4	7	4	7	4	15.1	3575.1
WL = 84.0								
6.0 78.0	6	3	6	3	6	3	13.8	3173.3
12.0 72.0	7	4	7	4	7	4	14.8	3476.7
WL = 90.0								
6.0 84.0	6	3	6	3	6	3	14.7	3378.3
12.0 78.0	7	4	7	4	7	4	15.7	3681.7
WL = 96.0								
6.0 90.0	6	3	6	3	6	3	15.6	3583.3

*All 4240C L Switch Settings = O (Off).

TABLE O

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 26-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 22-GA 26-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 12.0 6.0 6.0	4	3	3	2	5	2	3.0	713.4
WL = 18.0 6.0 12.0 12.0 6.0	4	3	4	3	5	3	4.8	1221.8
	3	3	3	3	4	2	3.8	918.4
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	4	4	5	4	5	4	6.9	1730.2
	3	3	3	3	4	3	5.8	1426.8
	3	3	3	3	4	3	4.8	1123.4
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	4	4	4	4	5	4	9.0	2238.6
	2	3	3	3	3	3	7.9	1935.2
	2	3	2	3	3	3	6.8	1631.8
	2	3	3	3	3	3	5.7	1328.4
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	4	4	4	4	4	4	11.2	2747.0
	2	3	2	3	3	3	10.0	2443.6
	2	3	2	3	2	3	8.9	2140.2
	2	3	2	3	2	3	7.8	1836.8
	2	2	2	2	3	3	6.6	1533.4
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	4	4	4	4	4	4	13.2	3255.4
	2	3	2	3	2	3	12.1	2952.0
	2	3	2	3	2	3	11.0	2648.6
	2	3	2	3	2	3	9.8	2345.2
	2	3	2	3	2	3	8.6	2041.8
	2	2	2	2	2	3	7.5	1738.3
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	4	4	4	4	4	4	15.3	3763.8
	2	3	2	3	2	3	14.2	3460.4
	2	3	2	3	2	3	13.1	3157.0
	2	3	2	3	2	3	11.8	2853.6
	2	3	2	3	2	3	10.6	2550.2
	2	3	2	3	2	3	9.4	2246.7
	2	2	2	2	2	3	8.4	1943.3
WL = 54.0 18.0 36.0 24.0 30.0 30.0 24.0 36.0 18.0 42.0 12.0 48.0 6.0	2	3	2	3	2	3	15.1	3665.4
	1	2	1	2	1	2	14.0	3362.0
	1	2	1	2	1	2	12.7	3058.6
	2	3	2	3	2	3	11.4	2755.1
	2	3	2	3	2	3	10.3	2451.7
	2	2	2	2	2	3	9.3	2148.3
WL = 60.0								

*All 4240C L Switch Settings = O (Off).

TABLE O (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 26-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F22- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 22-GA 26-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
30.0 30.0	1	2	1	2	1	2	14.8	3567.0
36.0 24.0	1	2	2	3	1	2	13.6	3263.5
42.0 18.0	2	3	2	3	2	3	12.4	2960.1
48.0 12.0	2	2	2	2	2	3	11.3	2656.7
54.0 6.0	2	2	2	2	2	3	10.2	2353.3
WL = 66.0								
36.0 30.0	1	2	1	2	1	2	15.7	3771.9
42.0 24.0	2	2	2	3	2	3	14.5	3468.5
48.0 18.0	2	2	2	2	2	3	13.3	3165.1
54.0 12.0	2	2	2	2	2	3	12.2	2861.7
60.0 6.0	2	2	2	2	2	3	11.1	2558.3
WL = 72.0								
48.0 24.0	2	2	2	2	2	2	15.4	3673.5
54.0 18.0	2	2	2	2	2	2	14.2	3370.1
60.0 12.0	2	2	2	2	2	2	13.1	3066.7
66.0 6.0	2	2	2	2	2	3	12.0	2763.3
WL = 78.0								
60.0 18.0	2	2	2	2	2	2	15.1	3575.1
66.0 12.0	2	2	2	2	2	2	13.9	3271.7
72.0 6.0	2	2	2	2	2	2	12.9	2968.3
WL = 84.0								
66.0 18.0	2	2	2	2	2	2	16.0	3780.1
72.0 12.0	2	2	2	2	2	2	14.8	3476.7
78.0 6.0	2	2	2	2	2	2	13.8	3173.3
WL = 90.0								
78.0 12.0	2	2	2	2	2	2	15.7	3681.7
84.0 6.0	2	2	2	2	2	2	14.7	3378.3
WL = 96.0								
90.0 6.0	2	2	2	2	2	2	15.6	3583.3

*All 4240C L Switch Settings = O (Off).

TABLE P

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 24-GA 22-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 12.0 6.0 6.0	3	2	2	1	4	1	2.3	524.8
WL = 18.0 6.0 12.0 12.0 6.0	4 5	3 3	4 5	2 3	6 7	2 3	3.1 3.5	729.7 844.5
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	4 5 5	3 3 3	5 5 5	3 3 3	6 6 6	3 3 3	4.0 4.4 4.9	934.7 1049.5 1164.3
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	4 4 4 4	3 3 3 3	4 5 5 5	3 3 3 3	5 5 5 5	3 3 3 3	5.0 5.4 5.9 6.3	1139.7 1254.5 1369.3 1484.0
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	4 4 4 4 4	3 3 3 3 3	4 5 5 4 4	3 3 3 3 3	5 5 5 5 5	3 3 3 3 3	5.9 6.4 6.8 7.3 7.7	1344.7 1459.5 1574.3 1689.0 1803.8
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	4 4 4 4 4 4	3 3 3 3 3 3	4 4 4 4 4 4	3 3 3 3 3 3	4 4 4 4 4 4	3 3 3 3 3 3	6.8 7.2 7.7 8.2 8.7 9.1	1549.7 1664.5 1779.3 1894.0 2008.8 2123.6
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	4 4 4 4 4 4 4	3 3 3 3 3 3 3	4 4 4 4 4 4 4	3 3 3 3 3 3 3	4 4 4 4 4 4 4	3 3 3 3 3 3 3	7.6 8.1 8.5 9.1 9.6 10.0 10.5	1754.7 1869.5 1984.2 2099.0 2213.8 2328.6 2443.3
WL = 54.0 6.0 48.0 12.0 42.0 18.0 36.0 24.0 30.0 30.0 24.0 36.0 18.0 42.0 12.0 48.0 6.0	4 4 4 4 4 4 4 4	3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4	3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4	3 3 3 3 3 3 3 3	8.5 9.0 9.4 9.9 10.5 10.9 11.4 11.8	1959.7 2074.5 2189.2 2304.0 2418.8 2533.6 2648.3 2763.1

* All 4240C L Switch Settings = O (Off).

TABLE P (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 24-GA 22-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
6.0 54.0	4	3	4	3	3	3	9.4	2164.7
12.0 48.0	4	3	4	3	4	3	9.9	2279.5
18.0 42.0	4	3	4	3	4	3	10.3	2394.2
24.0 36.0	4	3	4	3	4	3	10.8	2509.0
30.0 30.0	4	3	4	3	4	3	11.3	2623.8
36.0 24.0	4	3	4	3	4	3	11.8	2738.5
42.0 18.0	4	3	4	3	4	3	12.3	2853.3
48.0 12.0	4	3	4	3	4	3	12.8	2968.1
54.0 6.0	4	3	4	3	4	3	13.2	3082.9
WL = 66.0								
6.0 60.0	4	3	4	3	3	3	10.4	2369.7
12.0 54.0	4	3	4	3	4	3	10.8	2484.4
18.0 48.0	4	3	4	3	4	3	11.3	2599.2
24.0 42.0	4	3	4	3	4	3	11.7	2714.0
30.0 36.0	4	3	4	3	4	3	12.2	2828.8
36.0 30.0	4	3	4	3	4	3	12.7	2943.5
42.0 24.0	4	3	4	3	4	3	13.2	3058.3
48.0 18.0	4	3	4	3	4	3	13.7	3173.1
54.0 12.0	4	3	4	3	4	3	14.2	3287.9
60.0 6.0	4	3	4	3	4	3	14.6	3402.6
WL = 72.0								
6.0 66.0	4	3	4	3	3	3	11.2	2574.7
12.0 60.0	4	3	4	3	4	3	11.7	2689.4
18.0 54.0	4	3	4	3	4	3	12.2	2804.2
24.0 48.0	4	3	4	3	4	3	12.6	2919.0
30.0 42.0	4	3	4	3	4	3	13.1	3033.8
36.0 36.0	4	3	4	3	4	3	13.6	3148.5
42.0 30.0	4	3	4	3	4	3	14.1	3263.3
48.0 24.0	4	3	4	3	4	3	14.6	3378.1
54.0 18.0	4	3	4	3	4	3	15.1	3492.8
60.0 12.0	4	3	4	3	4	3	15.5	3607.6
WL = 78.0								
6.0 72.0	4	3	4	3	3	3	12.1	2779.7
12.0 66.0	4	3	4	3	4	3	12.6	2894.4
18.0 60.0	4	3	4	3	4	3	13.0	3009.2
24.0 54.0	4	3	4	3	4	3	13.5	3124.0
30.0 48.0	4	3	4	3	4	3	14.0	3238.7
36.0 42.0	4	3	4	3	4	3	14.5	3353.5
42.0 36.0	4	3	4	3	4	3	15.0	3468.3
48.0 30.0	4	3	4	3	4	3	15.5	3583.1
WL = 84.0								
6.0 78.0	4	3	4	3	4	3	13.0	2984.6
12.0 72.0	4	3	4	3	4	3	13.5	3099.4
18.0 66.0	4	3	4	3	4	3	13.9	3214.2
24.0 60.0	4	3	4	3	4	3	14.4	3329.0
30.0 54.0	4	3	4	3	4	3	14.9	3443.7

*All 4240C L SWITCH SETTINGS=0(OFF)

TABLE P (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 24-GA 22-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 84.0								
36.0 48.0	4	3	4	3	4	3	15.4	3558.5
42.0 42.0	4	3	4	3	4	3	15.9	3673.3
WL = 90.0								
6.0 84.0	4	3	4	3	4	3	13.9	3189.6
12.0 78.0	4	3	4	3	4	3	14.4	3304.4
18.0 72.0	4	3	4	3	4	3	14.8	3419.2
24.0 66.0	4	3	4	3	4	3	15.3	3534.0
30.0 60.0	4	3	4	3	4	3	15.8	3648.7
WL = 96.0								
6.0 90.0	4	3	4	3	4	3	14.8	3394.6
12.0 84.0	4	3	4	3	4	3	15.3	3509.4
18.0 78.0	4	3	4	3	4	3	15.7	3624.2
WL = 102.0								
6.0 96.0	4	3	4	3	4	3	15.7	3599.6

*All 4240C L Switch Settings = O (Off).

TABLE Q

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 22-GA 24-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 12.0 6.0 6.0	2	2	1	1	3	1	2.3	524.8
WL = 18.0 6.0 12.0 12.0 6.0	3	3	3	2	5	3	3.5	844.5
	2	2	2	2	4	2	3.1	729.7
WL = 24.0 6.0 18.0 12.0 12.0 18.0 6.0	3	3	3	3	5	3	4.9	1164.3
	3	3	3	3	4	3	4.4	1049.5
	3	3	3	3	4	3	4.0	934.7
WL = 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	3	3	3	3	4	3	6.3	1484.0
	3	3	3	3	3	3	5.9	1369.3
	2	3	3	3	4	3	5.4	1254.5
	2	2	3	3	4	3	5.0	1139.7
WL = 36.0 6.0 30.0 12.0 24.0 18.0 18.0 24.0 12.0 30.0 6.0	3	3	3	3	3	3	7.7	1803.8
	2	3	3	3	3	3	7.3	1689.0
	2	3	2	2	3	3	6.8	1574.3
	2	2	2	2	3	3	6.4	1459.5
	2	2	2	2	3	3	5.9	1344.7
WL = 42.0 6.0 36.0 12.0 30.0 18.0 24.0 24.0 18.0 30.0 12.0 36.0 6.0	3	3	3	3	3	3	9.1	2123.6
	2	3	2	3	2	3	8.7	2008.8
	2	3	2	3	2	3	8.2	1894.0
	2	3	2	2	2	3	7.7	1779.3
	2	2	2	2	3	3	7.2	1664.5
	2	2	2	2	3	3	6.8	1549.7
WL = 48.0 6.0 42.0 12.0 36.0 18.0 30.0 24.0 24.0 30.0 18.0 36.0 12.0 42.0 6.0	3	3	3	3	3	3	10.5	2443.3
	2	3	2	3	2	3	10.0	2328.6
	2	3	2	3	2	3	9.6	2213.8
	2	3	2	3	2	3	9.1	2099.0
	2	3	2	3	2	3	8.5	1984.2
	2	2	2	2	2	3	8.1	1869.5
	2	2	2	2	2	3	7.6	1754.7
WL = 54.0 6.0 48.0 12.0 42.0 18.0 36.0 24.0 30.0 30.0 24.0 36.0 18.0 42.0 12.0 48.0 6.0	3	3	3	3	2	3	11.8	2763.1
	2	3	2	3	2	3	11.4	2648.3
	2	3	2	3	2	3	10.9	2533.6
	2	3	2	3	2	3	10.5	2418.8
	2	3	2	3	2	3	9.9	2304.0
	2	3	2	3	2	3	9.4	2189.2
	2	2	2	2	2	3	9.0	2074.5
	2	2	2	2	2	3	8.5	1959.7

*All 4240C L Switch Settings = O (Off).

TABLE Q (CONTD)

4240A AND 4240C PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 22-GA 24-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 60.0								
6.0 54.0	3	3	3	3	2	3	13.2	3082.9
12.0 48.0	2	3	2	3	2	3	12.8	2968.1
18.0 42.0	2	3	2	3	2	3	12.3	2853.3
24.0 36.0	2	3	2	3	2	3	11.8	2738.5
30.0 30.0	2	3	2	3	2	3	11.3	2623.8
36.0 24.0	2	3	2	3	2	3	10.8	2509.0
42.0 18.0	2	2	2	3	2	3	10.3	2394.2
48.0 12.0	2	2	2	2	2	3	9.9	2279.5
54.0 6.0	2	2	2	2	2	3	9.4	2164.7
WL = 66.0								
6.0 60.0	3	3	3	3	2	3	14.6	3402.6
12.0 54.0	2	3	2	3	2	3	14.2	3287.9
18.0 48.0	2	3	2	3	2	3	13.7	3173.1
24.0 42.0	2	3	2	3	2	3	13.2	3058.3
30.0 36.0	2	3	2	3	2	3	12.7	2943.5
36.0 30.0	2	2	2	3	2	3	12.2	2828.8
42.0 24.0	2	2	2	2	2	3	11.7	2714.0
48.0 18.0	2	2	2	2	2	3	11.3	2599.2
54.0 12.0	2	2	2	2	2	3	10.8	2484.4
60.0 6.0	2	2	2	2	2	3	10.4	2369.7
WL = 72.0								
12.0 60.0	2	3	2	3	2	3	15.5	3607.6
18.0 54.0	2	3	2	3	2	3	15.1	3492.8
24.0 48.0	2	3	2	3	2	3	14.6	3378.1
30.0 42.0	2	3	2	3	2	3	14.1	3263.3
36.0 36.0	2	2	2	3	2	3	13.6	3148.5
42.0 30.0	2	2	2	2	2	3	13.1	3033.8
48.0 24.0	2	2	2	2	2	3	12.6	2919.0
54.0 18.0	2	2	2	2	2	3	12.2	2804.2
60.0 12.0	2	2	2	2	2	3	11.7	2689.4
66.0 6.0	2	2	2	2	2	3	11.2	2574.7
WL = 78.0								
24.0 54.0	2	3	2	3	2	3	16.0	3697.8
30.0 48.0	2	3	2	3	2	3	15.5	3583.1
36.0 42.0	2	2	2	2	2	3	15.0	3468.3
42.0 36.0	2	2	2	2	2	2	14.5	3353.5
48.0 30.0	2	2	2	2	2	2	14.0	3238.7
54.0 24.0	2	2	2	2	2	2	13.5	3124.0
60.0 18.0	2	2	2	2	2	2	13.0	3009.2
66.0 12.0	2	2	2	2	2	2	12.6	2894.4
72.0 6.0	2	2	2	2	2	2	12.1	2779.7
WL = 84.0								
42.0 42.0	2	2	2	2	2	2	15.9	3673.3
48.0 36.0	2	2	2	2	2	2	15.4	3558.5
54.0 30.0	2	2	2	2	2	2	14.9	3443.7
60.0 24.0	2	2	2	2	2	2	14.4	3329.0

*All 4240C L Switch Settings = O (Off).

TABLE Q (CONTD)

4240A AND 4240C* PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68

22- GAUGE ADJACENT TO REPEATER
END SECTION = 3.0 KFT

LENGTH(KFT) 22-GA 24-GA	4240A BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RESISTANCE (OHMS)
	900 + 2.16		600 + 2.16		TELSET (35MA)			
	R	Z	R	Z	R	Z		
WL = 84.0								
66.0 18.0	2	2	2	2	2	2	13.9	3214.2
72.0 12.0	2	2	2	2	2	2	13.5	3099.4
78.0 6.0	2	2	2	2	2	2	13.0	2984.6
WL = 90.0								
60.0 30.0	2	2	2	2	2	2	15.8	3648.7
66.0 24.0	2	2	2	2	2	2	15.3	3534.0
72.0 18.0	2	2	2	2	2	2	14.8	3419.2
78.0 12.0	2	2	2	2	2	2	14.4	3304.4
84.0 6.0	2	2	2	2	2	2	13.9	3189.6
WL = 96.0								
78.0 18.0	2	2	2	2	2	2	15.7	3624.2
84.0 12.0	2	2	2	2	2	2	15.3	3509.4
90.0 6.0	2	2	2	2	2	2	14.8	3394.6
WL = 102.0								
96.0 6.0	2	2	2	2	2	2	15.7	3599.6

*All 4240C L Switch Settings = O (Off).

TABLE R

4240B PRECISION BALANCE NETWORK SETTINGS FOR
26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

LENGTH (KFT)	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
4.0	7	12	0	7	8	0	7	11	0	1.6	333.3
4.5	7	13	2	7	9	0	7	12	0	1.8	375.0
5.0	7	14	5	7	9	0	7	12	0	2.1	416.7
5.5	7	15	10	7	10	1	7	12	0	2.3	458.3
6.0	7	15	10	7	12	5	7	12	0	2.5	500.0
6.5	7	15	10	7	13	7	7	13	2	2.7	541.7
7.0	6	8	0	7	14	10	7	14	5	2.9	583.3
7.5	6	9	2	7	15	13	7	15	10	3.2	625.0
8.0	6	9	2	7	15	13	7	15	10	3.4	666.7
8.5	6	10	5	6	6	0	7	15	10	3.6	708.3
9.0	6	10	5	6	6	0	7	15	11	3.9	750.0
9.5	6	10	5	6	6	0	7	15	11	4.1	791.7
10.0	6	10	6	6	7	1	6	9	2	4.3	833.3
10.5	6	10	6	6	8	3	6	9	2	4.6	875.0
11.0	5	6	1	6	8	3	6	10	5	4.8	916.7
11.5	5	6	1	6	8	4	6	10	5	5.1	958.3
12.0	5	6	2	6	9	5	6	10	5	5.3	1000.0
12.5	5	6	2	6	9	5	6	10	6	5.6	1041.7
13.0	5	6	2	5	4	0	6	10	6	5.8	1083.3
13.5	5	6	2	5	4	0	6	10	6	6.1	1125.0
14.0	5	6	3	5	4	0	6	10	6	6.4	1166.7
14.5	4	3	0	5	4	0	5	6	1	6.6	1208.3
15.0	4	3	0	5	4	0	5	6	1	6.9	1250.0
15.5	4	3	0	5	4	0	5	6	2	7.2	1291.7
16.0	4	3	0	5	4	0	5	6	2	7.4	1333.3
16.5	4	3	0	5	5	2	5	6	2	7.7	1375.0
17.0	4	3	0	5	5	2	5	6	2	8.0	1416.7
17.5	4	3	0	5	5	2	5	6	2	8.3	1458.3
18.0	4	3	0	4	3	0	4	4	0	8.5	1500.0
18.5	4	3	0	4	3	0	4	4	0	8.8	1541.7
19.0	4	3	0	4	3	0	4	3	0	9.1	1583.3
19.5	4	2	0	4	3	0	4	3	0	9.4	1625.0
20.0	4	2	0	4	2	0	4	3	0	9.6	1666.7
20.5	3	2	0	4	2	0	4	3	0	9.9	1708.3
21.0	3	2	0	4	2	0	4	3	0	10.2	1750.0
21.5	3	1	0	4	2	0	4	3	0	10.5	1791.7
22.0	3	1	0	4	2	0	4	3	0	10.8	1833.3
22.5	3	1	0	4	2	0	4	3	0	11.0	1875.0
23.0	3	1	0	4	2	0	4	3	0	11.3	1916.7
23.5	3	1	0	4	2	0	3	2	0	11.6	1958.3
24.0	3	1	0	4	2	0	3	2	0	11.9	2000.0

TABLE S

**4240B PRECISION BALANCING NETWORK SETTINGS FOR
25-GAUGE NONLOADED MAT CABLE WITHOUT BRIDGED TAP AT 68°F**

LENGTH (kft)	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1 KHZ CABLE LOSS (dB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TEL SET (35 mA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
1.0	7	8	0	7	0	0	7	0	0	.3	65.5
1.5	7	10	0	7	0	0	7	0	0	.5	98.2
2.0	7	10	0	7	0	0	7	0	0	.6	130.9
2.5	7	11	0	7	1	0	7	2	0	.8	163.7
3.0	7	12	0	7	3	0	7	5	0	.9	196.4
3.5	7	12	0	7	3	0	7	5	0	1.1	229.4
4.0	7	12	0	7	6	0	7	9	0	1.3	261.9
4.5	7	12	0	7	7	0	7	10	0	1.4	294.6
5.0	7	12	0	7	8	0	7	11	0	1.6	327.4
5.5	7	13	1	7	9	0	7	11	0	1.8	360.1
6.0	7	13	2	7	9	0	7	12	0	1.9	392.8
6.5	7	14	5	7	10	1	7	12	0	2.1	425.6
7.0	7	15	9	7	10	0	7	12	0	2.3	458.3
7.5	7	15	10	7	11	2	7	12	0	2.4	491.1
8.0	7	15	10	7	12	4	7	13	1	2.6	523.8
8.5	7	15	10	7	13	7	7	13	2	2.8	556.5
9.0	6	8	0	7	14	10	7	14	5	2.9	589.3
9.5	6	9	1	7	14	10	7	15	9	3.1	622.0
10.0	6	9	2	7	15	13	7	15	10	3.3	654.7
10.5	6	9	2	7	15	13	7	15	10	3.5	687.5
11.0	6	10	4	6	6	0	7	15	10	3.7	720.2
11.5	6	10	5	6	6	0	7	15	10	3.8	752.9
12.0	6	10	5	6	6	0	7	15	11	4.0	785.7
12.5	6	10	5	6	7	1	6	9	1	4.2	818.4
13.0	6	10	6	6	7	1	6	9	2	4.4	851.2
13.5	6	10	6	6	8	3	6	9	2	4.6	883.9
14.0	5	6	1	6	8	3	6	10	4	4.8	916.6
14.5	5	6	1	6	8	3	6	10	5	5.0	949.4
15.0	5	6	1	6	8	3	6	10	5	5.2	982.1
15.5	5	6	2	6	9	5	6	10	5	5.4	1014.8
16.0	5	6	2	6	9	5	6	10	5	5.6	1047.6
16.5	5	6	2	6	9	5	6	10	6	5.8	1080.3
17.0	5	6	2	5	4	0	6	10	6	6.0	1113.0
17.5	5	6	2	5	4	0	6	10	6	6.2	1145.8
18.0	5	6	2	5	4	0	6	10	6	6.4	1178.5
18.5	4	3	0	5	4	0	5	6	1	6.6	1211.3
19.0	4	3	0	5	4	0	5	6	1	6.8	1244.0
19.5	4	3	0	5	4	0	5	6	1	7.0	1276.7
20.0	4	3	0	5	4	0	5	6	1	7.2	1309.5
20.5	4	3	0	5	4	0	5	6	2	7.4	1342.2
21.0	4	3	0	5	4	0	5	6	2	7.6	1374.9
21.5	4	3	0	5	4	0	5	6	2	7.8	1407.7
22.0	4	3	0	5	4	0	5	6	2	8.0	1440.4
22.5	4	3	0	5	4	0	5	6	2	8.3	1473.2
23.0	4	3	0	4	3	0	4	4	0	8.5	1505.9
23.5	4	3	0	4	3	0	4	4	0	8.7	1538.6
24.0	4	3	0	4	3	0	4	4	0	8.9	1571.4

TABLE T

4240B PRECISION BALANCE NETWORK SETTINGS FOR
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

LENGTH (KFT)	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
4.0	7	11	0	7	4	0	7	8	0	1.1	207.6
4.5	7	13	6	7	6	1	7	9	0	1.2	233.5
5.0	7	15	13	7	9	5	7	10	0	1.4	259.5
5.5	7	15	13	7	11	8	7	10	0	1.6	285.4
6.0	7	15	14	7	12	10	7	10	0	1.7	311.4
6.5	7	15	14	7	13	12	7	12	4	1.9	337.3
7.0	6	9	6	7	14	15	7	13	7	2.1	363.3
7.5	6	10	9	7	15	18	7	15	14	2.2	389.2
8.0	6	10	9	7	15	18	7	15	14	2.4	415.2
8.5	6	11	12	7	15	18	7	15	15	2.6	441.1
9.0	6	11	12	6	6	7	7	15	15	2.8	467.0
9.5	6	11	13	6	7	8	7	15	15	3.0	493.0
10.0	6	12	15	6	8	10	7	15	16	3.1	518.9
10.5	6	12	15	6	8	10	7	15	16	3.3	544.9
11.0	6	12	16	6	8	10	6	10	10	3.5	570.8
11.5	5	8	11	6	9	12	6	10	11	3.7	596.8
12.0	5	8	11	6	9	12	6	11	13	3.9	622.7
12.5	5	8	12	6	9	12	6	11	13	4.1	648.7
13.0	5	8	12	6	10	14	6	11	14	4.3	674.6
13.5	5	8	12	6	10	14	6	11	14	4.5	700.6
14.0	5	8	12	6	10	14	6	11	14	4.8	726.5
14.5	5	7	11	5	5	9	6	11	14	5.0	752.5
15.0	5	8	13	5	5	9	6	11	15	5.2	778.4
15.5	4	5	10	5	5	9	6	11	15	5.4	804.4
16.0	4	5	10	5	5	10	6	11	15	5.6	830.3
16.5	4	4	9	5	5	10	5	7	11	5.8	856.2
17.0	4	4	9	5	5	10	5	7	11	6.0	882.2
17.5	4	4	9	5	5	10	5	7	11	6.3	908.1
18.0	4	4	10	5	5	10	5	7	11	6.5	934.1
18.5	4	4	10	5	5	10	5	7	11	6.7	960.0
19.0	4	4	10	5	5	10	5	7	11	6.9	986.0
19.5	3	2	8	4	2	8	5	7	11	7.1	1011.9
20.0	3	2	8	4	2	8	5	6	10	7.4	1037.9
20.5	3	1	7	4	2	8	4	4	9	7.6	1063.8
21.0	3	1	8	4	2	8	4	4	9	7.8	1089.8
21.5	3	1	8	4	2	8	4	4	9	8.0	1115.7
22.0	3	1	8	4	2	8	4	4	9	8.3	1141.7
22.5	3	1	8	4	2	8	4	3	8	8.5	1167.6
23.0	3	0	7	4	2	8	4	3	8	8.7	1193.6
23.5	3	0	7	4	2	8	4	3	8	8.9	1219.5
24.0	3	0	7	4	2	8	4	3	8	9.2	1245.5

TABLE U

4240B PRECISION BALANCE NETWORK SETTINGS FOR
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

LENGTH (KFT)	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
4.0	7	11	2	7	2	1	7	6	0	.7	131.1
4.5	7	13	8	7	6	5	7	7	0	.9	147.4
5.0	7	15	14	7	8	7	7	8	0	1.0	163.8
5.5	7	15	15	7	10	10	7	8	0	1.1	180.2
6.0	7	15	16	7	12	13	7	8	0	1.2	196.6
6.5	7	15	16	7	13	16	7	10	3	1.3	213.0
7.0	6	9	9	7	14	18	7	12	8	1.5	229.4
7.5	6	10	11	7	15	20	7	14	13	1.6	245.7
8.0	6	11	14	7	15	21	7	15	17	1.7	262.1
8.5	6	12	16	7	15	21	7	15	17	1.9	278.5
9.0	6	12	17	7	15	21	7	15	17	2.0	294.9
9.5	6	12	17	6	7	13	7	15	18	2.2	311.3
10.0	6	12	18	6	8	14	7	15	18	2.3	327.7
10.5	6	13	20	6	8	14	7	15	19	2.5	344.0
11.0	6	13	20	6	9	16	7	15	19	2.6	360.4
11.5	6	13	21	6	9	16	7	15	19	2.8	376.8
12.0	6	13	21	6	9	16	6	11	16	2.9	393.2
12.5	5	9	16	6	10	18	6	11	16	3.1	409.6
13.0	5	10	18	6	10	18	6	12	18	3.2	425.9
13.5	5	9	17	6	10	18	6	12	19	3.4	442.3
14.0	5	9	17	6	10	18	6	12	19	3.6	458.7
14.5	5	10	19	6	11	20	6	12	19	3.7	475.1
15.0	5	9	18	6	11	20	6	12	19	3.9	491.5
15.5	5	9	18	6	11	20	6	12	20	4.1	507.9
16.0	5	9	18	5	6	16	6	12	20	4.2	524.2
16.5	4	7	17	5	6	16	6	12	20	4.4	540.6
17.0	4	7	17	5	6	16	6	12	20	4.6	557.0
17.5	4	6	16	5	6	16	6	12	21	4.8	573.4
18.0	4	6	16	5	6	16	6	12	21	4.9	589.8
18.5	4	6	17	5	6	16	6	12	21	5.1	606.2
19.0	4	6	17	5	6	16	5	8	17	5.3	622.5
19.5	4	6	17	5	6	16	5	8	17	5.5	638.9
20.0	4	6	17	5	6	17	5	8	17	5.7	655.3
20.5	4	5	16	5	6	17	5	8	17	5.8	671.7
21.0	3	3	15	5	6	17	5	8	17	6.0	688.1
21.5	3	3	15	5	6	17	5	8	18	6.2	704.5
22.0	3	3	15	4	3	15	5	8	18	6.4	720.8
22.5	3	3	15	4	3	15	5	8	18	6.6	737.2
23.0	3	3	15	4	3	15	5	7	17	6.7	753.6
23.5	3	3	15	4	3	15	5	7	17	6.9	770.0
24.0	3	2	15	4	3	15	4	5	16	7.1	786.4

TABLE V

4240B PRECISION BALANCE NETWORK SETTINGS FOR
19-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

LENGTH (KFT)	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
4.0	7	12	7	7	4	6	7	3	0	.5	65.2
4.5	7	14	13	7	7	9	7	4	0	.5	73.3
5.0	7	15	16	7	10	13	7	5	0	.6	81.4
5.5	7	15	17	7	12	16	7	5	0	.7	89.6
6.0	7	15	18	7	13	18	7	5	0	.8	97.7
6.5	6	10	13	7	14	20	7	9	5	.9	105.9
7.0	6	11	15	7	15	23	7	12	11	1.0	114.0
7.5	6	11	16	7	15	23	7	14	16	1.1	122.2
8.0	6	12	18	7	15	23	7	15	19	1.2	130.3
8.5	6	13	21	7	15	24	7	15	20	1.3	138.4
9.0	6	13	21	7	15	24	7	15	20	1.4	146.6
9.5	6	14	23	6	9	19	7	15	21	1.5	154.7
10.0	6	14	24	6	9	19	7	15	21	1.6	162.9
10.5	6	14	24	6	10	21	7	15	21	1.7	171.0
11.0	6	14	25	6	10	21	7	15	22	1.8	179.2
11.5	6	15	27	6	11	22	7	15	22	1.9	187.3
12.0	6	15	27	6	11	23	6	12	21	2.1	195.5
12.5	6	15	27	6	11	23	6	12	21	2.2	203.6
13.0	5	12	24	6	12	24	6	13	23	2.3	211.7
13.5	5	12	24	6	12	25	6	13	23	2.4	219.9
14.0	5	12	25	6	12	25	6	13	24	2.6	228.0
14.5	5	12	25	6	12	25	6	13	24	2.7	236.2
15.0	5	12	25	6	12	25	6	14	26	2.8	244.3
15.5	5	12	25	6	12	25	6	14	26	3.0	252.5
16.0	5	12	26	6	13	27	6	14	26	3.1	260.6
16.5	5	12	26	6	13	27	6	14	26	3.2	268.7
17.0	5	12	26	6	13	27	6	14	27	3.4	276.9
17.5	5	12	26	5	9	24	6	14	27	3.5	285.0
18.0	4	10	25	5	9	24	6	14	27	3.7	293.2
18.5	4	10	25	5	9	24	6	14	27	3.8	301.3
19.0	4	10	25	5	9	24	6	14	27	3.9	309.5
19.5	4	10	25	5	9	24	6	14	28	4.1	317.6
20.0	4	9	25	5	8	24	6	14	28	4.2	325.8
20.5	4	9	25	5	8	24	6	14	28	4.4	333.9
21.0	4	9	25	5	8	24	5	11	25	4.5	342.0
21.5	4	9	25	5	8	24	5	11	25	4.6	350.2
22.0	3	7	24	5	8	24	5	10	25	4.8	358.3
22.5	3	7	24	5	8	24	5	10	25	4.9	366.5
23.0	3	7	24	4	6	23	5	10	25	5.1	374.6
23.5	3	7	24	4	5	23	5	10	25	5.2	382.8
24.0	3	7	24	4	5	23	5	10	25	5.4	390.9

TABLE W

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 7.0											
4.0 3.0	6	7	0	7	13	9	7	12	1	2.6	489.0
5.0 2.0	6	8	0	7	13	8	7	13	3	2.7	520.5
6.0 1.0	6	8	0	7	13	8	7	13	3	2.8	551.9
WL = 8.0											
1.0 7.0	6	9	7	7	15	17	7	15	13	2.5	446.6
2.0 6.0	6	8	4	7	14	13	7	14	9	2.7	478.0
3.0 5.0	6	8	3	7	14	13	7	14	9	2.8	509.5
4.0 4.0	6	8	2	7	14	12	7	14	8	2.9	540.9
5.0 3.0	6	8	1	7	14	11	7	15	11	3.0	572.3
6.0 2.0	6	8	1	7	14	11	7	15	10	3.1	603.8
7.0 1.0	6	9	2	7	15	13	7	15	10	3.3	635.2
WL = 9.0											
1.0 8.0	6	10	10	6	5	5	7	15	14	2.9	498.5
2.0 7.0	6	9	7	6	3	1	7	15	13	3.0	529.9
3.0 6.0	6	9	6	6	3	0	7	15	13	3.2	561.4
4.0 5.0	6	9	5	6	4	0	7	15	12	3.3	592.8
5.0 4.0	6	9	4	6	4	0	7	15	12	3.4	624.2
6.0 3.0	6	9	4	6	5	0	7	15	11	3.5	655.7
7.0 2.0	6	9	4	6	5	0	7	15	11	3.6	687.1
8.0 1.0	6	10	5	6	6	0	7	15	11	3.7	718.6
WL = 10.0											
1.0 9.0	6	11	12	6	6	6	7	15	15	3.3	550.4
2.0 8.0	6	10	10	6	5	4	7	15	14	3.4	581.8
3.0 7.0	6	9	7	6	5	3	7	15	14	3.5	613.3
4.0 6.0	6	9	6	6	4	1	7	15	13	3.6	644.7
5.0 5.0	6	9	6	6	5	1	7	15	12	3.8	676.1
6.0 4.0	6	9	5	6	5	0	7	15	12	3.9	707.6
7.0 3.0	6	10	6	6	6	1	7	15	12	4.0	739.0
8.0 2.0	6	10	6	6	6	0	7	15	12	4.1	770.5
9.0 1.0	6	10	6	6	6	0	6	8	0	4.2	801.9
WL = 11.0											
1.0 10.0	6	11	13	6	7	8	6	9	8	3.7	602.3
2.0 9.0	6	10	10	6	6	6	6	8	5	3.8	633.7
3.0 8.0	6	9	8	6	5	3	6	8	4	3.9	665.2
4.0 7.0	6	9	7	6	5	2	6	8	3	4.0	696.6
5.0 6.0	6	9	6	6	5	1	6	8	2	4.1	728.0
6.0 5.0	6	9	6	6	6	2	6	8	2	4.3	759.5
7.0 4.0	6	10	7	6	6	1	6	8	1	4.4	790.9
8.0 3.0	6	10	7	6	7	2	6	9	3	4.5	822.3
9.0 2.0	5	5	0	6	7	2	6	9	3	4.6	853.8
10.0 1.0	5	6	1	6	7	2	6	9	3	4.7	885.2
WL = 12.0											
1.0 11.0	5	6	8	6	8	10	6	10	10	4.1	654.2
2.0 10.0	5	5	5	6	7	7	6	9	7	4.2	685.6
3.0 9.0	5	5	4	6	6	5	6	8	5	4.3	717.0
4.0 8.0	5	4	2	6	6	4	6	8	4	4.4	748.5

TABLE W (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 12.0											
5.0 7.0	5	4	1	6	6	3	6	8	3	4.5	779.9
6.0 6.0	5	4	1	6	6	2	6	8	3	4.7	811.4
7.0 5.0	5	5	1	6	7	3	6	9	4	4.8	842.8
8.0 4.0	5	5	1	6	7	3	6	9	4	4.9	874.2
9.0 3.0	5	5	1	6	8	4	6	9	3	5.0	905.7
10.0 2.0	5	6	2	6	8	4	6	10	5	5.1	937.1
11.0 1.0	5	6	2	6	8	4	6	10	5	5.2	968.6
WL = 13.0											
1.0 12.0	5	6	8	6	8	10	6	10	11	4.5	706.1
2.0 11.0	5	5	6	6	7	8	6	9	8	4.6	737.5
3.0 10.0	5	5	5	6	6	5	6	9	7	4.7	768.9
4.0 9.0	5	4	3	6	6	4	6	8	5	4.8	800.4
5.0 8.0	5	4	2	6	6	4	6	8	4	5.0	831.8
6.0 7.0	5	4	1	6	6	3	6	9	5	5.1	863.3
7.0 6.0	5	4	1	6	7	4	6	9	5	5.2	894.7
8.0 5.0	5	5	2	6	7	3	6	9	4	5.3	926.1
9.0 4.0	5	5	1	6	8	4	6	9	4	5.4	957.6
10.0 3.0	5	5	1	6	8	4	6	10	6	5.5	989.0
11.0 2.0	5	6	2	6	8	4	6	10	6	5.6	1020.5
12.0 1.0	5	6	2	6	9	6	6	10	6	5.7	1051.9
WL = 14.0											
1.0 13.0	5	6	9	6	8	10	6	10	11	4.9	758.0
2.0 12.0	5	5	7	6	7	8	6	9	9	5.0	789.4
3.0 11.0	5	4	4	6	7	7	6	9	8	5.2	820.8
4.0 10.0	5	4	3	6	7	6	6	9	7	5.3	852.3
5.0 9.0	5	4	3	6	6	4	6	8	5	5.4	883.7
6.0 8.0	5	4	2	6	6	3	6	9	6	5.5	915.2
7.0 7.0	5	4	1	6	7	4	6	9	5	5.6	946.6
8.0 6.0	5	4	1	6	7	3	6	9	5	5.7	978.0
9.0 5.0	5	5	2	6	8	5	6	9	5	5.8	1009.5
10.0 4.0	5	5	2	6	8	4	6	10	6	5.9	1040.9
11.0 3.0	5	5	1	5	4	0	6	10	6	6.0	1072.3
12.0 2.0	5	6	3	5	4	0	6	10	6	6.1	1103.8
13.0 1.0	5	6	3	5	4	0	6	10	6	6.2	1135.2
WL = 15.0											
1.0 14.0	5	6	9	5	3	6	6	10	12	5.3	809.8
2.0 13.0	4	2	4	5	2	4	6	9	9	5.5	841.3
3.0 12.0	4	1	2	5	1	2	6	9	8	5.6	872.7
4.0 11.0	4	1	1	5	1	1	6	8	6	5.7	904.2
5.0 10.0	5	4	3	5	1	0	6	8	5	5.8	935.6
6.0 9.0	5	4	2	5	2	0	6	9	6	5.9	967.0
7.0 8.0	5	4	2	5	2	0	6	9	6	6.0	998.5
8.0 7.0	5	4	1	5	3	0	6	9	5	6.1	1029.9
9.0 6.0	5	4	1	5	3	0	6	9	5	6.2	1061.4
10.0 5.0	5	5	2	5	3	0	6	10	7	6.3	1092.8
11.0 4.0	5	5	2	5	4	0	6	10	7	6.4	1124.2
12.0 3.0	4	3	0	5	4	0	5	6	1	6.5	1155.7
13.0 2.0	4	3	0	5	4	0	5	6	1	6.6	1187.1

TABLE W (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 15.0 14.0 1.0	4	3	0	5	4	0	5	6	1	6.8	1218.6
WL = 16.0											
1.0 15.0	4	3	7	5	4	7	5	6	8	5.8	861.7
2.0 14.0	4	2	5	5	2	4	5	5	6	5.9	893.2
3.0 13.0	4	1	3	5	1	2	5	4	3	6.0	924.6
4.0 12.0	4	0	1	5	1	1	5	3	1	6.1	956.1
5.0 11.0	4	0	0	5	1	0	5	3	0	6.2	987.5
6.0 10.0	4	1	0	5	2	0	5	4	1	6.3	1018.9
7.0 9.0	4	1	0	5	2	0	5	4	0	6.4	1050.4
8.0 8.0	4	2	0	5	3	0	5	4	0	6.5	1081.8
9.0 7.0	4	2	0	5	3	0	5	5	1	6.6	1113.3
10.0 6.0	4	2	0	5	3	0	5	5	0	6.7	1144.7
11.0 5.0	4	3	0	5	3	0	5	5	0	6.8	1176.1
12.0 4.0	4	3	0	5	4	0	5	5	0	7.0	1207.6
13.0 3.0	4	3	0	5	4	0	5	6	2	7.1	1239.0
14.0 2.0	4	3	0	5	4	0	5	6	2	7.2	1270.5
15.0 1.0	4	3	0	5	4	0	5	6	2	7.3	1301.9
WL = 17.0											
1.0 16.0	4	3	7	5	3	7	5	6	8	6.2	913.6
2.0 15.0	4	1	4	5	2	5	5	5	6	6.3	945.1
3.0 14.0	4	0	2	5	2	3	5	4	4	6.5	976.5
4.0 13.0	4	0	1	5	1	1	5	3	2	6.6	1008.0
5.0 12.0	4	0	0	5	1	0	5	3	1	6.7	1039.4
6.0 11.0	4	0	0	5	1	0	5	3	0	6.8	1070.8
7.0 10.0	4	1	0	5	2	0	5	4	1	6.9	1102.3
8.0 9.0	4	1	0	5	2	0	5	4	0	7.0	1133.7
9.0 8.0	4	2	0	5	3	0	5	4	0	7.1	1165.2
10.0 7.0	4	2	0	5	3	0	5	5	1	7.2	1196.6
11.0 6.0	4	2	0	5	3	0	5	5	1	7.3	1228.0
12.0 5.0	4	2	0	5	4	1	5	5	1	7.4	1259.5
13.0 4.0	4	3	0	5	4	0	5	6	2	7.5	1290.9
14.0 3.0	4	3	0	5	4	0	5	6	2	7.6	1322.3
15.0 2.0	4	3	0	5	4	0	5	6	2	7.7	1353.8
16.0 1.0	4	3	0	5	5	2	5	6	2	7.8	1385.2
WL = 18.0											
1.0 17.0	4	2	7	5	3	7	5	6	9	6.6	965.5
2.0 16.0	4	1	4	5	2	5	5	4	5	6.8	997.0
3.0 15.0	4	0	2	5	1	3	5	4	4	6.9	1028.4
4.0 14.0	4	0	1	5	1	2	5	3	2	7.0	1059.8
5.0 13.0	4	0	0	5	1	1	5	3	1	7.1	1091.3
6.0 12.0	4	0	0	5	1	0	5	3	0	7.2	1122.7
7.0 11.0	4	1	0	5	2	0	5	3	0	7.3	1154.2
8.0 10.0	4	1	0	5	2	0	5	4	0	7.4	1185.6
9.0 9.0	4	1	0	5	3	0	5	4	0	7.5	1217.0
10.0 8.0	4	2	0	5	3	0	5	4	0	7.6	1248.5
11.0 7.0	4	2	0	5	3	0	5	5	1	7.7	1279.9
12.0 6.0	4	2	0	5	4	1	5	5	1	7.8	1311.4
13.0 5.0	4	2	0	5	4	1	5	5	1	7.9	1342.8

TABLE W (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA		4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
		900 + 2.16			600 + 2.16			TELSET (35MA)				
		R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 18.0												
14.0	4.0	4	3	0	5	4	1	5	5	1	8.0	1374.2
15.0	3.0	4	3	0	5	4	1	5	6	2	8.1	1405.7
16.0	2.0	4	3	0	5	4	1	5	6	2	8.3	1437.1
17.0	1.0	4	3	0	5	5	2	5	6	2	8.4	1468.6
WL = 19.0												
1.0	18.0	3	0	5	4	0	5	5	5	8	7.1	1017.4
2.0	17.0	4	0	4	5	2	5	5	4	6	7.2	1048.9
3.0	16.0	4	0	3	5	1	3	5	3	3	7.3	1080.3
4.0	15.0	4	0	1	5	1	2	5	3	2	7.5	1111.7
5.0	14.0	4	0	0	5	1	1	5	3	1	7.6	1143.2
6.0	13.0	4	0	0	5	1	0	5	3	1	7.7	1174.6
7.0	12.0	4	0	0	5	2	0	5	3	0	7.8	1206.1
8.0	11.0	4	1	0	5	2	0	5	4	1	7.9	1237.5
9.0	10.0	4	1	0	5	3	0	5	4	0	8.0	1268.9
10.0	9.0	4	2	0	5	3	0	5	4	0	8.1	1300.4
11.0	8.0	4	2	0	5	3	0	5	4	0	8.2	1331.8
12.0	7.0	4	2	0	5	3	0	5	5	1	8.3	1363.3
13.0	6.0	4	2	0	5	4	1	5	5	1	8.4	1394.7
14.0	5.0	4	2	0	5	4	1	5	5	1	8.5	1426.1
15.0	4.0	4	2	0	5	4	1	5	5	1	8.6	1457.6
16.0	3.0	4	2	0	4	2	0	4	4	0	8.7	1489.0
17.0	2.0	4	3	0	4	3	0	4	4	0	8.8	1520.5
18.0	1.0	4	3	0	4	3	0	4	4	0	8.9	1551.9
WL = 20.0												
1.0	19.0	3	0	5	4	0	5	5	5	8	7.5	1069.3
2.0	18.0	4	0	4	4	0	4	5	4	6	7.7	1100.8
3.0	17.0	4	0	3	4	0	2	5	3	4	7.8	1132.2
4.0	16.0	4	0	1	5	1	2	5	3	3	7.9	1163.6
5.0	15.0	4	0	0	5	1	1	5	3	2	8.0	1195.1
6.0	14.0	4	0	0	5	1	0	5	3	1	8.1	1226.5
7.0	13.0	4	0	0	5	2	0	5	3	0	8.2	1258.0
8.0	12.0	4	1	0	5	2	0	5	3	0	8.3	1289.4
9.0	11.0	4	1	0	5	2	0	5	4	0	8.4	1320.8
10.0	10.0	4	1	0	5	3	0	5	4	0	8.5	1352.3
11.0	9.0	4	2	0	5	3	0	5	4	0	8.6	1383.7
12.0	8.0	4	2	0	5	3	0	5	5	1	8.7	1415.2
13.0	7.0	4	2	0	5	4	1	5	5	1	8.8	1446.6
14.0	6.0	4	2	0	5	4	1	4	3	0	8.9	1478.0
15.0	5.0	4	2	0	4	2	0	4	3	0	9.0	1509.5
16.0	4.0	4	2	0	4	2	0	4	3	0	9.1	1540.9
17.0	3.0	4	2	0	4	2	0	4	3	0	9.2	1572.3
18.0	2.0	4	2	0	4	2	0	4	3	0	9.4	1603.8
19.0	1.0	4	2	0	4	2	0	4	3	0	9.5	1635.2
WL = 21.0												
1.0	20.0	3	0	5	4	0	5	4	2	6	8.0	1121.2
2.0	19.0	4	0	4	4	0	4	4	1	3	8.1	1152.7
3.0	18.0	4	0	3	4	0	2	4	0	1	8.2	1184.1
4.0	17.0	4	0	2	4	0	1	4	0	0	8.4	1215.5

TABLE W (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 21.0											
5.0 16.0	4	0	1	5	1	1	4	0	0	8.5	1247.0
6.0 15.0	4	0	0	5	1	0	5	2	0	8.6	1278.4
7.0 14.0	4	0	0	5	1	0	5	3	0	8.7	1309.8
8.0 13.0	4	0	0	5	2	0	5	3	0	8.8	1341.3
9.0 12.0	4	1	0	5	2	0	5	3	0	8.9	1372.7
10.0 11.0	4	1	0	5	3	0	5	4	0	9.0	1404.2
11.0 10.0	4	2	0	5	3	0	5	4	0	9.1	1435.6
12.0 9.0	4	2	0	5	3	0	4	3	0	9.2	1467.0
13.0 8.0	4	2	0	5	3	0	4	3	0	9.3	1498.5
14.0 7.0	4	2	0	4	2	0	4	3	0	9.4	1529.9
15.0 6.0	4	2	0	4	2	0	4	3	0	9.5	1561.4
16.0 5.0	4	2	0	4	2	0	4	3	0	9.6	1592.8
17.0 4.0	4	2	0	4	2	0	4	3	0	9.7	1624.2
18.0 3.0	4	2	0	4	2	0	4	3	0	9.8	1655.7
19.0 2.0	4	2	0	4	2	0	4	3	0	9.9	1687.1
20.0 1.0	4	2	0	4	2	0	4	3	0	10.1	1718.6
WL = 22.0											
1.0 21.0	3	0	5	4	0	5	4	2	6	8.4	1173.1
2.0 20.0	3	0	4	4	0	4	4	0	3	8.6	1204.5
3.0 19.0	4	0	3	4	0	3	4	0	2	8.7	1236.0
4.0 18.0	4	0	2	4	0	1	4	0	0	8.8	1267.4
5.0 17.0	4	0	1	4	0	0	4	0	0	8.9	1298.9
6.0 16.0	4	0	0	4	0	0	4	1	0	9.1	1330.3
7.0 15.0	4	0	0	5	1	0	4	1	0	9.2	1361.7
8.0 14.0	4	0	0	5	2	0	5	3	0	9.3	1393.2
9.0 13.0	4	1	0	5	2	0	4	2	0	9.4	1424.6
10.0 12.0	4	1	0	5	3	0	4	2	0	9.4	1456.1
11.0 11.0	4	1	0	5	3	0	4	3	0	9.5	1487.5
12.0 10.0	4	2	0	5	3	0	4	3	0	9.6	1518.9
13.0 9.0	4	2	0	4	2	0	4	3	0	9.7	1550.4
14.0 8.0	4	2	0	4	2	0	4	3	0	9.8	1581.8
15.0 7.0	4	2	0	4	2	0	4	3	0	9.9	1613.3
16.0 6.0	4	2	0	4	2	0	4	3	0	10.0	1644.7
17.0 5.0	4	2	0	4	2	0	4	3	0	10.1	1676.1
18.0 4.0	4	2	0	4	2	0	4	3	0	10.2	1707.6
19.0 3.0	4	2	0	4	2	0	4	3	0	10.4	1739.0
20.0 2.0	4	2	0	4	2	0	4	3	0	10.5	1770.5
21.0 1.0	3	1	0	4	2	0	4	3	0	10.6	1801.9
WL = 23.0											
1.0 22.0	3	0	6	4	0	5	4	2	6	8.9	1225.0
2.0 21.0	3	0	4	4	0	4	4	0	3	9.0	1256.4
3.0 20.0	4	0	3	4	0	3	4	0	2	9.2	1287.9
4.0 19.0	4	0	2	4	0	1	4	0	1	9.3	1319.3
5.0 18.0	4	0	1	4	0	0	4	0	0	9.4	1350.8
6.0 17.0	4	0	0	4	0	0	4	0	0	9.5	1382.2
7.0 16.0	4	0	0	4	0	0	4	1	0	9.6	1413.6
8.0 15.0	4	0	0	5	2	0	4	1	0	9.7	1445.1
9.0 14.0	4	1	0	5	2	0	4	2	0	9.8	1476.5
10.0 13.0	4	1	0	5	3	0	4	2	0	9.9	1508.0

TABLE W (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900. + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 23.0											
11.0 12.0	4	1	0	5	3	0	4	2	0	10.0	1539.4
12.0 11.0	4	2	0	4	2	0	4	3	0	10.1	1570.8
13.0 10.0	4	2	0	4	2	0	4	3	0	10.2	1602.3
14.0 9.0	4	2	0	4	2	0	4	3	0	10.3	1633.7
15.0 8.0	4	2	0	4	2	0	4	3	0	10.4	1665.2
16.0 7.0	4	2	0	4	2	0	4	3	0	10.5	1696.6
17.0 6.0	4	2	0	4	2	0	4	3	0	10.6	1728.0
18.0 5.0	4	2	0	4	2	0	4	3	0	10.7	1759.5
19.0 4.0	4	2	0	4	2	0	4	3	0	10.8	1790.9
20.0 3.0	3	1	0	4	2	0	4	3	0	10.9	1822.3
21.0 2.0	3	1	0	4	2	0	4	3	0	11.0	1853.8
22.0 1.0	3	1	0	4	2	0	4	3	0	11.2	1885.2
WL = 24.0											
1.0 23.0	3	0	6	4	0	5	4	1	5	9.3	1276.9
2.0 22.0	3	0	4	4	0	4	4	0	3	9.5	1308.3
3.0 21.0	4	0	3	4	0	3	4	0	2	9.6	1339.8
4.0 20.0	4	0	2	4	0	1	4	0	1	9.7	1371.2
5.0 19.0	4	0	1	4	0	0	4	0	0	9.9	1402.7
6.0 18.0	4	0	0	4	0	0	4	0	0	10.0	1434.1
7.0 17.0	4	0	0	4	0	0	4	1	0	10.1	1465.5
8.0 16.0	4	0	0	4	0	0	4	1	0	10.2	1497.0
9.0 15.0	4	1	0	5	2	0	4	2	0	10.3	1528.4
10.0 14.0	4	1	0	4	1	0	4	2	0	10.4	1559.8
11.0 13.0	4	1	0	4	1	0	4	2	0	10.5	1591.3
12.0 12.0	4	1	0	4	2	0	4	2	0	10.6	1622.7
13.0 11.0	4	2	0	4	2	0	4	3	0	10.6	1654.2
14.0 10.0	4	2	0	4	2	0	4	3	0	10.7	1685.6
15.0 9.0	4	2	0	4	2	0	4	3	0	10.8	1717.0
16.0 8.0	4	2	0	4	2	0	4	3	0	10.9	1748.5
17.0 7.0	4	2	0	4	2	0	4	3	0	11.0	1779.9
18.0 6.0	4	2	0	4	2	0	4	3	0	11.1	1811.4
19.0 5.0	4	2	0	4	2	0	4	3	0	11.2	1842.8
20.0 4.0	3	1	0	4	2	0	4	3	0	11.4	1874.2

TABLE X

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 7.0											
1.0 6.0	6	9	2	7	15	14	7	15	10	2.8	551.9
2.0 5.0	6	10	5	7	15	15	7	15	11	2.7	520.5
3.0 4.0	6	10	6	7	15	15	7	15	12	2.6	489.0
WL = 8.0											
1.0 7.0	6	10	5	7	15	14	7	15	11	3.3	635.2
2.0 6.0	6	11	8	7	15	15	7	15	11	3.1	603.8
3.0 5.0	6	11	9	7	15	16	7	15	12	3.0	572.3
4.0 4.0	6	11	10	7	15	16	7	15	13	2.9	540.9
5.0 3.0	6	11	10	7	15	17	7	15	13	2.8	509.5
6.0 2.0	6	11	11	7	15	17	7	15	14	2.7	478.0
7.0 1.0	6	11	11	7	15	18	7	15	14	2.5	446.6
WL = 9.0											
1.0 8.0	6	11	8	6	7	2	7	15	11	3.7	718.6
2.0 7.0	6	12	11	6	8	5	7	15	12	3.6	687.1
3.0 6.0	6	12	12	6	8	6	7	15	13	3.5	655.7
4.0 5.0	6	12	12	6	8	7	7	15	13	3.4	624.2
5.0 4.0	6	12	13	6	8	8	7	15	14	3.3	592.8
6.0 3.0	6	12	13	6	8	8	7	15	14	3.2	561.4
7.0 2.0	6	12	14	6	7	7	7	15	15	3.0	529.9
8.0 1.0	6	11	12	6	7	8	7	15	15	2.9	498.5
WL = 10.0											
1.0 9.0	6	11	9	6	8	4	6	10	5	4.2	801.9
2.0 8.0	6	12	12	6	9	7	6	11	8	4.1	770.5
3.0 7.0	6	12	13	6	9	8	6	11	9	4.0	739.0
4.0 6.0	6	12	13	6	10	10	6	11	9	3.9	707.6
5.0 5.0	6	13	16	6	10	11	6	11	10	3.8	676.1
6.0 4.0	6	12	14	6	9	10	6	11	10	3.6	644.7
7.0 3.0	6	12	14	6	9	10	6	10	9	3.5	613.3
8.0 2.0	6	12	15	6	9	11	6	10	9	3.4	581.8
9.0 1.0	6	12	15	6	8	10	7	15	16	3.3	550.4
WL = 11.0											
1.0 10.0	5	7	4	6	9	6	6	11	8	4.7	885.2
2.0 9.0	5	8	6	6	10	9	6	11	9	4.6	853.8
3.0 8.0	5	9	9	6	10	10	6	12	11	4.5	822.3
4.0 7.0	5	9	10	6	11	12	6	12	12	4.4	790.9
5.0 6.0	5	9	10	6	10	11	6	12	13	4.3	759.5
6.0 5.0	5	9	11	6	10	12	6	12	13	4.1	728.0
7.0 4.0	5	9	11	6	10	12	6	11	11	4.0	696.6
8.0 3.0	5	9	11	6	10	13	6	11	12	3.9	665.2
9.0 2.0	5	8	10	6	9	11	6	11	12	3.8	633.7
10.0 1.0	6	12	16	6	9	12	6	10	10	3.7	602.3
WL = 12.0											
1.0 11.0	5	7	4	6	10	8	6	11	8	5.2	968.6
2.0 10.0	5	8	7	6	10	9	6	12	11	5.1	937.1
3.0 9.0	5	9	9	6	11	12	6	12	12	5.0	905.7
4.0 8.0	5	9	10	6	11	13	6	12	13	4.9	874.2

TABLE X (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 12.0											
5.0 7.0	5	9	11	6	11	13	6	12	13	4.8	842.8
6.0 6.0	5	9	11	6	11	14	6	12	14	4.7	811.4
7.0 5.0	5	9	12	6	11	14	6	12	14	4.5	779.9
8.0 4.0	5	9	12	6	10	13	6	12	14	4.4	748.5
9.0 3.0	5	9	12	6	10	13	6	12	15	4.3	717.0
10.0 2.0	5	8	11	6	10	13	6	11	13	4.2	685.6
11.0 1.0	5	8	11	6	9	12	6	11	13	4.1	654.2
WL = 13.0											
1.0 12.0	5	7	5	6	10	8	6	11	9	5.7	1051.9
2.0 11.0	5	8	7	6	11	11	6	12	12	5.6	1020.5
3.0 10.0	5	9	10	6	11	12	6	12	13	5.5	989.0
4.0 9.0	5	9	11	6	11	13	6	13	15	5.4	957.6
5.0 8.0	5	9	11	6	11	13	6	13	16	5.3	926.1
6.0 7.0	5	9	12	6	11	14	6	13	16	5.2	894.7
7.0 6.0	5	9	12	6	11	14	6	13	17	5.1	863.3
8.0 5.0	5	9	12	6	11	15	6	12	15	5.0	831.8
9.0 4.0	5	9	13	6	11	15	6	12	15	4.8	800.4
10.0 3.0	5	9	13	6	11	15	6	12	15	4.7	768.9
11.0 2.0	5	8	12	6	10	14	6	12	15	4.6	737.5
12.0 1.0	5	8	12	6	10	14	6	11	14	4.5	706.1
WL = 14.0											
1.0 13.0	5	7	5	5	6	4	6	11	9	6.2	1135.2
2.0 12.0	5	8	8	5	7	6	6	12	12	6.1	1103.8
3.0 11.0	5	9	10	5	7	7	6	12	13	6.0	1072.3
4.0 10.0	5	9	11	5	7	8	6	13	16	5.9	1040.9
5.0 9.0	5	9	12	5	8	10	6	13	16	5.8	1009.5
6.0 8.0	5	9	12	5	7	9	6	13	17	5.7	978.0
7.0 7.0	5	9	12	5	7	10	6	13	17	5.6	946.6
8.0 6.0	5	9	13	5	7	10	6	13	17	5.5	915.2
9.0 5.0	5	9	13	5	7	11	6	12	16	5.4	883.7
10.0 4.0	5	8	12	5	7	11	6	12	16	5.3	852.3
11.0 3.0	5	8	12	5	6	10	6	12	16	5.2	820.8
12.0 2.0	5	8	12	5	6	10	6	12	16	5.0	789.4
13.0 1.0	5	8	12	6	10	14	6	11	14	4.9	758.0
WL = 15.0											
1.0 14.0	4	4	2	5	6	4	5	7	4	6.8	1218.6
2.0 13.0	4	5	4	5	7	6	5	8	7	6.6	1187.1
3.0 12.0	4	6	7	5	7	7	5	9	9	6.5	1155.7
4.0 11.0	4	6	7	5	7	8	5	9	10	6.4	1124.2
5.0 10.0	4	7	9	5	8	10	5	9	10	6.3	1092.8
6.0 9.0	4	7	10	5	8	11	5	9	11	6.2	1061.4
7.0 8.0	4	7	10	5	8	11	5	9	11	6.1	1029.9
8.0 7.0	4	7	11	5	7	10	5	9	12	6.0	998.5
9.0 6.0	4	6	10	5	7	11	5	9	12	5.9	967.0
10.0 5.0	4	6	10	5	7	11	5	8	11	5.8	935.6
11.0 4.0	4	6	10	5	6	10	5	8	11	5.7	904.2
12.0 3.0	4	6	11	5	6	10	6	12	16	5.6	872.7
13.0 2.0	4	5	10	5	6	10	6	12	16	5.5	841.3

TABLE X (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 15.0 14.0 1.0	4	5	10	5	5	9	6	12	16	5.3	809.8
WL = 16.0											
1.0 15.0	4	4	2	5	6	4	5	7	4	7.3	1301.9
2.0 14.0	4	5	5	5	7	6	5	8	7	7.2	1270.5
3.0 13.0	4	6	7	5	8	9	5	9	9	7.1	1239.0
4.0 12.0	4	6	8	5	8	10	5	9	10	7.0	1207.6
5.0 11.0	4	6	8	5	8	10	5	9	11	6.8	1176.1
6.0 10.0	4	7	10	5	8	11	5	9	11	6.7	1144.7
7.0 9.0	4	7	11	5	8	11	5	9	12	6.6	1113.3
8.0 8.0	4	6	10	5	8	12	5	9	12	6.5	1081.8
9.0 7.0	4	6	10	5	7	11	5	9	12	6.4	1050.4
10.0 6.0	4	6	11	5	7	11	5	9	13	6.3	1018.9
11.0 5.0	4	6	11	5	7	11	5	8	11	6.2	987.5
12.0 4.0	4	6	11	5	6	10	5	8	12	6.1	956.1
13.0 3.0	4	5	10	5	6	11	5	8	12	6.0	924.6
14.0 2.0	4	5	10	5	6	11	5	8	12	5.9	893.2
15.0 1.0	4	5	10	5	6	11	5	7	10	5.8	861.7
WL = 17.0											
1.0 16.0	4	4	2	5	6	4	5	7	5	7.8	1385.2
2.0 15.0	4	5	5	5	7	7	5	8	7	7.7	1353.8
3.0 14.0	4	6	7	5	8	9	5	8	8	7.6	1322.3
4.0 13.0	4	6	8	5	8	10	5	9	10	7.5	1290.9
5.0 12.0	4	6	9	5	8	11	5	9	11	7.4	1259.5
6.0 11.0	4	6	9	5	8	11	5	9	12	7.3	1228.0
7.0 10.0	4	6	10	5	8	12	5	9	12	7.2	1196.6
8.0 9.0	4	6	10	5	8	12	5	9	12	7.1	1165.2
9.0 8.0	4	6	10	5	7	11	5	9	13	7.0	1133.7
10.0 7.0	4	6	11	5	7	11	5	9	13	6.9	1102.3
11.0 6.0	4	6	11	5	7	12	5	8	12	6.8	1070.8
12.0 5.0	4	5	10	5	7	12	5	8	12	6.7	1039.4
13.0 4.0	4	5	10	5	6	11	5	8	12	6.6	1008.0
14.0 3.0	4	5	10	5	6	11	5	8	12	6.5	976.5
15.0 2.0	4	5	10	5	6	11	5	8	12	6.3	945.1
16.0 1.0	4	4	9	5	6	11	5	7	11	6.2	913.6
WL = 18.0											
1.0 17.0	4	4	2	4	3	1	4	4	1	8.4	1468.6
2.0 16.0	4	5	5	4	4	3	4	6	5	8.3	1437.1
3.0 15.0	4	5	6	4	5	6	4	6	6	8.1	1405.7
4.0 14.0	4	6	8	4	5	6	4	6	7	8.0	1374.2
5.0 13.0	4	6	9	4	5	7	4	7	9	7.9	1342.8
6.0 12.0	3	5	8	4	6	9	4	7	9	7.8	1311.4
7.0 11.0	3	5	9	4	5	8	4	7	10	7.7	1279.9
8.0 10.0	3	4	8	4	5	9	4	6	9	7.6	1248.5
9.0 9.0	3	4	9	4	5	9	5	9	13	7.5	1217.0
10.0 8.0	3	4	9	4	5	10	5	8	12	7.4	1185.6
11.0 7.0	3	4	9	4	4	9	5	8	12	7.3	1154.2
12.0 6.0	3	4	9	4	4	9	5	8	12	7.2	1122.7
13.0 5.0	3	3	9	4	4	9	5	8	12	7.1	1091.3

TABLE X (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA		4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
		900 + 2.16			600 + 2.16			TELSET (35MA)				
		R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 18.0												
14.0	4.0	3	3	9	4	4	9	5	8	12	7.0	1059.8
15.0	3.0	3	3	9	5	6	11	5	7	11	6.9	1028.4
16.0	2.0	4	4	10	5	6	11	5	7	11	6.8	997.0
17.0	1.0	4	4	10	5	5	10	5	7	11	6.6	965.5
WL = 19.0												
1.0	18.0	3	2	0	4	3	1	4	4	1	8.9	1551.9
2.0	17.0	3	3	3	4	4	3	4	5	4	8.8	1520.5
3.0	16.0	3	4	5	4	5	6	4	6	6	8.7	1489.0
4.0	15.0	3	4	6	4	5	7	4	6	7	8.6	1457.6
5.0	14.0	3	4	7	4	5	7	4	7	9	8.5	1426.1
6.0	13.0	3	4	7	4	5	8	4	7	10	8.4	1394.7
7.0	12.0	3	4	8	4	5	9	4	7	10	8.3	1363.3
8.0	11.0	3	4	8	4	5	9	4	6	9	8.2	1331.8
9.0	10.0	3	4	9	4	5	9	4	6	10	8.1	1300.4
10.0	9.0	3	4	9	4	5	10	4	6	10	8.0	1268.9
11.0	8.0	3	4	9	4	4	9	4	6	10	7.9	1237.5
12.0	7.0	3	3	9	4	4	9	4	6	10	7.8	1206.1
13.0	6.0	3	3	9	4	4	9	4	5	9	7.7	1174.6
14.0	5.0	3	3	9	4	4	9	4	5	9	7.6	1143.2
15.0	4.0	3	3	9	4	3	9	4	5	9	7.5	1111.7
16.0	3.0	3	2	8	4	3	9	5	7	11	7.3	1080.3
17.0	2.0	3	2	8	4	3	9	5	7	11	7.2	1048.9
18.0	1.0	3	2	8	4	2	8	5	7	11	7.1	1017.4
WL = 20.0												
1.0	19.0	3	2	1	4	3	1	4	4	2	9.5	1635.2
2.0	18.0	3	3	3	4	4	4	4	5	4	9.4	1603.8
3.0	17.0	3	3	4	4	5	6	4	6	6	9.2	1572.3
4.0	16.0	3	4	6	4	5	7	4	6	7	9.1	1540.9
5.0	15.0	3	4	7	4	5	7	4	6	8	9.0	1509.5
6.0	14.0	3	4	7	4	5	8	4	7	10	8.9	1478.0
7.0	13.0	3	4	8	4	5	9	4	6	9	8.8	1446.6
8.0	12.0	3	4	8	4	5	9	4	6	10	8.7	1415.2
9.0	11.0	3	4	9	4	5	10	4	6	10	8.6	1383.7
10.0	10.0	3	4	9	4	5	10	4	6	10	8.5	1352.3
11.0	9.0	3	3	9	4	4	9	4	6	10	8.4	1320.8
12.0	8.0	3	3	9	4	4	9	4	5	10	8.3	1289.4
13.0	7.0	3	3	9	4	4	9	4	5	10	8.2	1258.0
14.0	6.0	3	3	9	4	3	9	4	5	10	8.1	1226.5
15.0	5.0	3	2	8	4	3	9	4	5	10	8.0	1195.1
16.0	4.0	3	2	8	4	3	9	4	5	10	7.9	1163.6
17.0	3.0	3	2	8	4	3	9	4	4	9	7.8	1132.2
18.0	2.0	3	2	8	4	3	9	4	4	9	7.7	1100.8
19.0	1.0	3	2	8	4	2	8	4	4	9	7.5	1069.3
WL = 21.0												
1.0	20.0	3	1	0	4	3	1	4	4	2	10.1	1718.6
2.0	19.0	3	2	2	4	4	4	4	5	4	9.9	1687.1
3.0	18.0	3	3	4	4	5	6	4	6	6	9.8	1655.7
4.0	17.0	3	4	6	4	5	7	4	6	7	9.7	1624.2

TABLE X (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 21.0											
5.0 16.0	3	4	7	4	5	8	4	6	8	9.6	1592.8
6.0 15.0	3	4	7	4	5	8	4	6	9	9.5	1561.4
7.0 14.0	3	4	8	4	5	9	4	6	9	9.4	1529.9
8.0 13.0	3	4	9	4	5	9	4	6	10	9.3	1498.5
9.0 12.0	3	4	9	3	3	8	4	6	10	9.2	1467.0
10.0 11.0	3	3	8	3	3	8	4	6	10	9.1	1435.6
11.0 10.0	2	2	8	3	3	8	4	6	11	9.0	1404.2
12.0 9.0	2	2	8	3	2	8	4	5	10	8.9	1372.7
13.0 8.0	3	3	9	3	2	8	4	5	10	8.8	1341.3
14.0 7.0	3	2	8	4	4	10	4	5	10	8.7	1309.8
15.0 6.0	3	2	8	4	3	9	4	5	10	8.6	1278.4
16.0 5.0	3	2	8	4	3	9	4	4	9	8.5	1247.0
17.0 4.0	3	2	8	4	3	9	4	4	9	8.4	1215.5
18.0 3.0	3	2	8	4	3	9	4	4	9	8.2	1184.1
19.0 2.0	3	1	8	4	2	8	4	4	9	8.1	1152.7
20.0 1.0	3	1	8	4	2	8	4	4	9	8.0	1121.2
WL = 22.0											
1.0 21.0	3	1	0	4	3	1	3	2	0	10.6	1801.9
2.0 20.0	3	2	2	4	4	4	3	3	2	10.5	1770.5
3.0 19.0	3	3	4	4	5	6	3	4	4	10.4	1739.0
4.0 18.0	3	4	6	4	5	7	3	4	5	10.2	1707.6
5.0 17.0	3	4	7	3	4	7	3	5	7	10.1	1676.1
6.0 16.0	3	4	8	3	4	7	3	5	8	10.0	1644.7
7.0 15.0	2	3	7	3	4	8	3	5	8	9.9	1613.3
8.0 14.0	2	2	7	3	4	8	3	4	8	9.8	1581.8
9.0 13.0	2	2	7	3	3	8	3	4	8	9.7	1550.4
10.0 12.0	2	2	7	3	3	8	3	4	8	9.6	1518.9
11.0 11.0	2	2	8	3	3	8	3	4	9	9.5	1487.5
12.0 10.0	2	2	8	3	2	8	3	4	9	9.4	1456.1
13.0 9.0	2	1	7	3	2	8	3	3	8	9.4	1424.6
14.0 8.0	2	1	7	3	2	8	3	3	8	9.3	1393.2
15.0 7.0	2	0	7	3	2	8	3	3	8	9.2	1361.7
16.0 6.0	2	0	7	3	1	7	4	4	9	9.1	1330.3
17.0 5.0	2	0	7	4	3	9	4	4	9	8.9	1298.9
18.0 4.0	2	0	7	4	3	9	4	4	9	8.8	1267.4
19.0 3.0	3	1	8	4	2	8	4	4	9	8.7	1236.0
20.0 2.0	3	1	8	4	2	8	4	4	9	8.6	1204.5
21.0 1.0	3	1	8	4	2	8	4	4	9	8.4	1173.1
WL = 23.0											
1.0 22.0	3	1	0	3	1	0	3	2	0	11.2	1885.2
2.0 21.0	3	2	2	3	2	2	3	3	2	11.0	1853.8
3.0 20.0	3	3	4	3	3	4	3	4	4	10.9	1822.3
4.0 19.0	3	3	5	3	3	5	3	4	5	10.8	1790.9
5.0 18.0	3	4	7	3	4	7	3	4	6	10.7	1759.5
6.0 17.0	2	3	7	3	4	7	3	4	7	10.6	1728.0
7.0 16.0	2	3	7	3	4	8	3	4	7	10.5	1696.6
8.0 15.0	2	2	7	3	3	7	3	4	8	10.4	1665.2
9.0 14.0	2	2	7	3	3	8	3	4	8	10.3	1633.7
10.0 13.0	2	2	8	3	3	8	3	4	9	10.2	1602.3

TABLE X (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 23.0											
11.0 12.0	2	2	8	3	3	8	3	4	9	10.1	1570.8
12.0 11.0	2	1	7	3	2	8	3	3	8	10.0	1539.4
13.0 10.0	2	1	7	3	2	8	3	3	8	9.9	1508.0
14.0 9.0	2	1	7	3	2	8	3	3	8	9.8	1476.5
15.0 8.0	2	0	7	3	2	8	3	3	8	9.7	1445.1
16.0 7.0	2	0	7	3	1	7	3	2	8	9.6	1413.6
17.0 6.0	2	0	7	3	1	7	3	2	8	9.5	1382.2
18.0 5.0	2	0	7	3	1	7	3	2	8	9.4	1350.8
19.0 4.0	2	0	7	3	0	7	4	4	9	9.3	1319.3
20.0 3.0	2	0	7	4	2	8	4	4	9	9.2	1287.9
21.0 2.0	3	1	8	4	2	8	4	3	8	9.0	1256.4
22.0 1.0	3	0	7	4	2	8	4	3	8	8.9	1225.0
WL = 24.0											
3.0 21.0	3	3	4	3	3	4	3	4	4	11.5	1905.7
4.0 20.0	2	2	4	3	3	5	3	4	5	11.4	1874.2
5.0 19.0	2	2	5	3	4	7	3	4	6	11.2	1842.8
6.0 18.0	2	2	6	3	4	7	3	4	7	11.1	1811.4
7.0 17.0	2	2	6	3	4	8	3	4	7	11.0	1779.9
8.0 16.0	2	2	7	3	3	8	3	4	8	10.9	1748.5
9.0 15.0	2	2	7	3	3	8	3	4	8	10.8	1717.0
10.0 14.0	2	2	8	3	3	8	3	4	9	10.7	1685.6
11.0 13.0	2	1	7	3	2	8	3	3	8	10.6	1654.2
12.0 12.0	2	1	7	3	2	8	3	3	8	10.6	1622.7
13.0 11.0	2	1	7	3	2	8	3	3	8	10.5	1591.3
14.0 10.0	2	0	7	3	2	8	3	3	8	10.4	1559.8
15.0 9.0	2	0	7	3	2	8	3	2	8	10.3	1528.4
16.0 8.0	2	0	7	3	1	7	3	2	8	10.2	1497.0
17.0 7.0	2	0	7	3	1	8	3	2	8	10.1	1465.5
18.0 6.0	2	0	7	3	0	7	3	2	8	10.0	1434.1
19.0 5.0	2	0	7	3	0	7	3	2	8	9.9	1402.7
20.0 4.0	2	0	7	3	0	7	3	2	8	9.7	1371.2
21.0 3.0	2	0	7	3	0	7	3	1	7	9.6	1339.8
22.0 2.0	3	0	7	3	0	7	3	1	7	9.5	1308.3
23.0 1.0	3	0	7	4	2	8	4	3	8	9.3	1276.9

TABLE Y

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)				
	900 + 2.16			600 + 2.16					TELSET (35MA)			
	R1	R2	Z	R1	R2	Z			R1	R2	Z	
WL = 9.0												
6.0 3.0	6	11	13	7	15	19	7	15	15	2.5	409.7	
7.0 2.0	6	11	13	7	15	19	7	15	15	2.6	428.8	
8.0 1.0	6	11	12	7	15	18	7	15	15	2.7	447.9	
WL = 10.0												
3.0 7.0	6	11	15	6	6	10	7	15	17	2.6	385.0	
4.0 6.0	6	11	14	6	6	9	7	15	17	2.6	404.2	
5.0 5.0	6	11	14	6	6	9	7	15	16	2.7	423.3	
6.0 4.0	6	11	14	6	6	8	7	15	16	2.8	442.4	
7.0 3.0	6	11	14	6	6	8	7	15	16	2.9	461.6	
8.0 2.0	6	11	13	6	7	9	7	15	16	3.0	480.7	
9.0 1.0	6	11	13	6	7	9	7	15	16	3.1	499.8	
WL = 11.0												
1.0 10.0	6	12	18	6	8	14	7	15	19	2.7	379.5	
2.0 9.0	6	12	18	6	7	12	7	15	18	2.8	398.7	
3.0 8.0	6	11	16	6	7	12	7	15	18	2.9	417.8	
4.0 7.0	6	11	15	6	7	11	7	15	18	3.0	436.9	
5.0 6.0	6	11	15	6	7	11	7	15	17	3.0	456.1	
6.0 5.0	6	11	15	6	7	10	7	15	17	3.1	475.2	
7.0 4.0	6	11	14	6	7	10	7	15	17	3.2	494.3	
8.0 3.0	6	11	14	6	8	11	7	15	17	3.3	513.4	
9.0 2.0	6	12	16	6	8	11	6	9	9	3.4	532.6	
10.0 1.0	6	12	16	6	8	10	6	10	10	3.4	551.7	
WL = 12.0												
1.0 11.0	6	12	19	6	9	16	6	10	14	3.0	412.3	
2.0 10.0	6	12	18	6	8	14	6	10	13	3.1	431.4	
3.0 9.0	6	12	18	6	7	12	6	10	13	3.2	450.6	
4.0 8.0	6	11	16	6	7	12	6	9	11	3.3	469.7	
5.0 7.0	5	7	11	6	7	11	6	9	11	3.4	488.8	
6.0 6.0	5	7	11	6	7	11	6	9	10	3.4	508.0	
7.0 5.0	5	7	11	6	8	12	6	9	10	3.5	527.1	
8.0 4.0	5	7	10	6	8	11	6	10	11	3.6	546.2	
9.0 3.0	5	7	10	6	8	11	6	10	11	3.7	565.3	
10.0 2.0	5	7	10	6	8	11	6	10	11	3.8	584.5	
11.0 1.0	5	8	11	6	9	12	6	10	11	3.8	603.6	
WL = 13.0												
1.0 12.0	5	9	16	6	9	16	6	11	16	3.3	445.1	
2.0 11.0	5	8	14	6	8	14	6	10	14	3.4	464.2	
3.0 10.0	5	7	13	6	8	14	6	10	14	3.5	483.3	
4.0 9.0	5	7	12	6	8	13	6	10	13	3.6	502.5	
5.0 8.0	5	7	12	6	8	13	6	10	13	3.7	521.6	
6.0 7.0	5	7	12	6	8	12	6	10	13	3.8	540.7	
7.0 6.0	5	7	11	6	8	12	6	10	12	3.8	559.8	
8.0 5.0	5	7	11	6	8	12	6	10	12	3.9	579.0	
9.0 4.0	5	7	11	6	9	13	6	10	12	4.0	598.1	
10.0 3.0	5	7	11	6	9	13	6	10	12	4.1	617.2	
11.0 2.0	5	8	12	6	9	13	6	11	14	4.2	636.4	
12.0 1.0	5	8	12	6	9	13	6	11	13	4.2	655.5	

TABLE Y (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT)		4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE	DC CABLE
24-GA	22-GA	900 + 2.16			600 + 2.16			TELSET (35MA)			LOSS (DB)	RES (OHMS)
		R1	R2	Z	R1	R2	Z	R1	R2	Z	(900 OHMS)	
WL = 14.0												
1.0	13.0	5	9	17	6	10	18	6	11	17	3.7	477.8
2.0	12.0	5	8	15	6	9	16	6	11	16	3.8	497.0
3.0	11.0	5	7	13	6	8	14	6	10	14	3.8	516.1
4.0	10.0	5	7	13	6	8	14	6	10	14	3.9	535.2
5.0	9.0	5	7	13	6	8	13	6	10	14	4.0	554.4
6.0	8.0	5	7	12	6	8	13	6	10	13	4.1	573.5
7.0	7.0	5	7	12	6	8	12	6	10	13	4.2	592.6
8.0	6.0	5	7	12	6	8	12	6	10	13	4.2	611.7
9.0	5.0	5	7	11	6	8	12	6	11	14	4.3	630.9
10.0	4.0	5	7	11	6	9	13	6	11	14	4.4	650.0
11.0	3.0	5	7	11	6	9	13	6	11	14	4.5	669.1
12.0	2.0	5	7	11	6	9	13	6	11	14	4.6	688.3
13.0	1.0	5	7	11	6	9	13	6	11	14	4.7	707.4
WL = 15.0												
1.0	14.0	5	8	16	6	10	18	6	12	19	4.0	510.6
2.0	13.0	5	8	16	6	9	16	6	11	17	4.1	529.7
3.0	12.0	5	7	14	6	9	16	6	10	15	4.2	548.9
4.0	11.0	5	7	14	6	8	14	6	10	15	4.3	568.0
5.0	10.0	5	6	12	6	8	14	6	10	14	4.4	587.1
6.0	9.0	5	6	12	6	8	13	6	10	14	4.4	606.2
7.0	8.0	5	6	11	6	8	13	6	10	14	4.5	625.4
8.0	7.0	5	6	11	6	9	14	6	10	13	4.6	644.5
9.0	6.0	5	7	12	6	8	12	6	10	13	4.7	663.6
10.0	5.0	5	7	12	6	9	13	6	11	15	4.7	682.8
11.0	4.0	5	7	12	6	9	13	6	11	15	4.8	701.9
12.0	3.0	5	7	12	6	9	13	6	11	15	4.9	721.0
13.0	2.0	5	7	12	5	5	9	6	11	15	5.0	740.2
14.0	1.0	5	7	12	5	5	9	6	11	15	5.1	759.3
WL = 16.0												
1.0	15.0	5	8	17	5	5	14	6	11	18	4.3	543.4
2.0	14.0	5	7	15	5	4	13	6	11	17	4.4	562.5
3.0	13.0	5	7	15	5	4	12	6	11	17	4.5	581.6
4.0	12.0	5	6	13	5	3	10	6	10	15	4.6	600.8
5.0	11.0	5	6	13	5	3	10	6	10	15	4.7	619.9
6.0	10.0	5	6	12	5	3	9	6	10	14	4.8	639.0
7.0	9.0	5	6	12	5	3	9	6	10	14	4.9	658.1
8.0	8.0	5	6	11	5	3	9	6	10	14	4.9	677.3
9.0	7.0	5	6	11	5	4	9	6	10	14	5.0	696.4
10.0	6.0	5	6	11	5	4	9	6	11	15	5.1	715.5
11.0	5.0	5	7	12	5	4	9	6	11	15	5.2	734.7
12.0	4.0	4	4	9	5	4	9	6	11	15	5.2	753.8
13.0	3.0	4	4	9	5	5	10	6	11	15	5.3	772.9
14.0	2.0	4	4	9	5	5	10	6	11	15	5.4	792.0
15.0	1.0	4	5	10	5	5	10	6	11	15	5.5	811.2
WL = 17.0												
1.0	16.0	4	6	15	5	5	14	6	12	20	4.7	576.1
2.0	15.0	4	5	14	5	4	13	6	11	18	4.8	595.3
3.0	14.0	4	4	12	5	4	12	6	10	16	4.9	614.4

TABLE Y (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 17.0											
4.0 13.0	4	3	11	5	3	11	6	10	16	5.0	633.5
5.0 12.0	4	3	10	5	3	10	6	10	15	5.1	652.7
6.0 11.0	4	3	10	5	3	10	6	10	15	5.1	671.8
7.0 10.0	4	3	10	5	3	9	6	10	14	5.2	690.9
8.0 9.0	4	3	9	5	3	9	6	10	14	5.3	710.0
9.0 8.0	4	3	9	5	3	9	6	10	14	5.4	729.2
10.0 7.0	4	3	9	5	4	9	6	10	14	5.4	748.3
11.0 6.0	4	3	9	5	4	9	6	10	14	5.5	767.4
12.0 5.0	4	4	9	5	4	9	6	11	15	5.6	786.6
13.0 4.0	4	4	9	5	4	9	6	11	15	5.7	805.7
14.0 3.0	4	4	9	5	5	10	5	7	11	5.8	824.8
15.0 2.0	4	4	9	5	5	10	5	7	11	5.8	843.9
16.0 1.0	4	4	9	5	5	10	5	7	11	5.9	863.1
WL = 18.0											
1.0 17.0	4	5	15	5	5	15	6	11	19	5.1	608.9
2.0 16.0	4	4	13	5	4	13	6	11	18	5.1	628.0
3.0 15.0	4	3	12	5	3	12	6	10	16	5.2	647.2
4.0 14.0	4	3	11	5	3	11	6	10	16	5.3	666.3
5.0 13.0	4	3	11	5	3	11	6	10	16	5.4	685.4
6.0 12.0	4	3	10	5	3	10	6	10	15	5.5	704.5
7.0 11.0	4	3	10	5	3	10	6	10	15	5.6	723.7
8.0 10.0	4	2	9	5	3	9	5	6	11	5.6	742.8
9.0 9.0	4	3	9	5	3	9	5	6	10	5.7	761.9
10.0 8.0	4	3	9	5	3	9	5	6	10	5.8	781.1
11.0 7.0	4	3	9	5	4	9	5	6	10	5.9	800.2
12.0 6.0	4	3	9	5	4	9	5	6	10	6.0	819.3
13.0 5.0	4	3	9	5	4	9	5	6	10	6.0	838.4
14.0 4.0	4	3	9	5	5	10	5	7	11	6.1	857.6
15.0 3.0	4	4	10	5	5	10	5	7	11	6.2	876.7
16.0 2.0	4	4	10	5	5	10	5	7	11	6.3	895.8
17.0 1.0	4	4	10	5	5	10	5	7	11	6.4	915.0
WL = 19.0											
1.0 18.0	4	5	15	5	5	15	5	7	15	5.4	641.7
2.0 17.0	4	4	14	5	4	13	5	7	15	5.5	660.8
3.0 16.0	4	3	12	5	3	12	5	6	13	5.6	679.9
4.0 15.0	4	2	11	5	3	11	5	6	13	5.7	699.1
5.0 14.0	4	2	10	5	3	11	5	5	11	5.8	718.2
6.0 13.0	4	2	10	5	3	10	5	5	11	5.9	737.3
7.0 12.0	4	2	9	5	3	10	5	5	10	5.9	756.4
8.0 11.0	4	2	9	5	3	9	5	5	10	6.0	775.6
9.0 10.0	4	2	9	5	3	9	5	5	10	6.1	794.7
10.0 9.0	4	2	9	5	3	9	5	6	10	6.2	813.8
11.0 8.0	4	3	9	5	4	10	5	6	10	6.2	833.0
12.0 7.0	4	3	9	5	4	9	5	6	10	6.3	852.1
13.0 6.0	4	3	9	5	4	9	5	6	10	6.4	871.2
14.0 5.0	4	3	9	5	4	9	5	6	10	6.5	890.3
15.0 4.0	4	3	9	5	5	10	5	6	10	6.6	909.5
16.0 3.0	4	3	9	5	5	10	5	7	11	6.6	928.6
17.0 2.0	4	3	9	5	5	10	5	7	11	6.7	947.7

TABLE Y (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 19.0											
18.0 1.0	4	4	10	5	5	10	5	7	11	6.8	966.9
WL = 20.0											
1.0 19.0	4	4	15	5	5	15	5	7	16	5.8	674.4
2.0 18.0	4	3	13	5	4	14	5	6	14	5.9	693.6
3.0 17.0	4	2	12	5	3	12	5	6	13	6.0	712.7
4.0 16.0	4	2	11	5	3	12	5	5	12	6.1	731.8
5.0 15.0	4	2	11	5	3	11	5	5	11	6.1	750.9
6.0 14.0	4	2	10	5	2	10	5	5	11	6.2	770.1
7.0 13.0	4	1	9	5	3	10	5	5	10	6.3	789.2
8.0 12.0	4	2	9	5	3	10	5	5	10	6.4	808.3
9.0 11.0	4	2	9	5	3	9	5	5	10	6.4	827.5
10.0 10.0	4	2	9	5	3	9	5	5	10	6.5	846.6
11.0 9.0	4	2	9	5	3	9	5	6	11	6.6	865.7
12.0 8.0	4	2	8	5	4	10	5	6	10	6.7	884.8
13.0 7.0	4	3	9	5	4	9	5	6	10	6.8	904.0
14.0 6.0	4	3	9	5	4	9	5	6	10	6.8	923.1
15.0 5.0	4	3	9	5	4	9	5	6	10	6.9	942.2
16.0 4.0	4	3	9	5	5	10	5	6	10	7.0	961.4
17.0 3.0	4	3	9	5	5	10	5	6	10	7.1	980.5
18.0 2.0	4	3	9	4	2	8	5	6	10	7.2	999.6
19.0 1.0	3	2	8	4	2	8	5	6	10	7.3	1018.7
WL = 21.0											
1.0 20.0	3	2	13	5	5	15	5	7	16	6.1	707.2
2.0 19.0	3	1	12	4	1	12	5	6	14	6.2	726.3
3.0 18.0	3	0	11	5	3	12	5	5	13	6.3	745.5
4.0 17.0	3	0	10	4	0	10	5	5	12	6.4	764.6
5.0 16.0	3	0	9	5	3	11	5	5	12	6.5	783.7
6.0 15.0	3	0	9	5	2	10	5	5	11	6.6	802.8
7.0 14.0	4	1	9	5	3	10	5	5	11	6.7	822.0
8.0 13.0	4	1	9	5	3	10	5	5	10	6.7	841.1
9.0 12.0	4	1	8	5	3	9	5	5	10	6.8	860.2
10.0 11.0	4	1	8	5	3	9	5	5	10	6.9	879.4
11.0 10.0	4	2	9	5	3	9	5	5	10	7.0	898.5
12.0 9.0	3	0	7	5	4	10	5	5	10	7.0	917.6
13.0 8.0	3	0	7	5	4	10	5	6	11	7.1	936.7
14.0 7.0	3	0	7	5	4	10	5	6	10	7.2	955.9
15.0 6.0	3	0	7	4	1	7	5	6	10	7.3	975.0
16.0 5.0	3	0	7	4	2	8	5	6	10	7.4	994.1
17.0 4.0	3	1	7	4	2	8	5	6	10	7.4	1013.3
18.0 3.0	3	1	7	4	2	8	5	6	10	7.5	1032.4
19.0 2.0	3	1	7	4	2	8	4	4	9	7.6	1051.5
20.0 1.0	3	1	7	4	2	8	4	4	9	7.7	1070.6
WL = 22.0											
1.0 21.0	3	2	14	4	2	13	5	7	16	6.5	740.0
2.0 20.0	3	1	12	4	1	12	5	6	15	6.6	759.1
3.0 19.0	3	0	11	4	0	11	5	5	13	6.7	778.2
4.0 18.0	3	0	10	4	0	10	5	5	12	6.8	797.3
5.0 17.0	3	0	10	4	0	9	5	4	11	6.9	816.5

TABLE Y (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24- AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 22-GA		4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
		900 + 2.16			600 + 2.16			TELSET (35MA)				
		R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 22.0												
6.0	16.0	3	0	9	4	0	9	5	4	10	7.0	835.6
7.0	15.0	3	0	9	4	0	8	5	4	10	7.0	854.7
8.0	14.0	3	0	8	4	0	8	5	4	10	7.1	873.9
9.0	13.0	3	0	8	4	0	8	5	5	10	7.2	893.0
10.0	12.0	3	0	8	4	0	7	5	5	10	7.3	912.1
11.0	11.0	3	0	7	4	0	7	5	5	10	7.3	931.2
12.0	10.0	3	0	7	4	0	7	5	5	10	7.4	950.4
13.0	9.0	3	0	7	4	0	7	5	5	10	7.5	969.5
14.0	8.0	3	0	7	4	1	7	5	6	11	7.6	988.6
15.0	7.0	3	0	7	4	1	7	5	6	11	7.6	1007.8
16.0	6.0	3	0	7	4	1	7	4	3	8	7.7	1026.9
17.0	5.0	3	0	7	4	2	8	4	3	8	7.8	1046.0
18.0	4.0	3	0	7	4	2	8	4	3	8	7.9	1065.2
19.0	3.0	3	0	7	4	2	8	4	3	8	8.0	1084.3
20.0	2.0	3	1	8	4	2	8	4	4	9	8.1	1103.4
21.0	1.0	3	1	8	4	2	8	4	4	9	8.2	1122.5
WL = 23.0												
1.0	22.0	3	1	13	4	1	13	5	6	15	6.9	772.7
2.0	21.0	3	0	12	4	1	12	5	5	14	7.0	791.9
3.0	20.0	3	0	11	4	0	11	5	5	13	7.1	811.0
4.0	19.0	3	0	10	4	0	10	5	4	12	7.1	830.1
5.0	18.0	3	0	10	4	0	9	5	4	11	7.2	849.2
6.0	17.0	3	0	9	4	0	9	5	4	11	7.3	868.4
7.0	16.0	3	0	9	4	0	8	5	4	10	7.4	887.5
8.0	15.0	3	0	8	4	0	8	5	4	10	7.5	906.6
9.0	14.0	3	0	8	4	0	8	5	4	10	7.6	925.8
10.0	13.0	3	0	8	4	0	7	5	5	10	7.6	944.9
11.0	12.0	3	0	7	4	0	7	5	5	10	7.7	964.0
12.0	11.0	3	0	7	4	0	7	5	5	10	7.8	983.1
13.0	10.0	3	0	7	4	0	7	4	2	7	7.9	1002.3
14.0	9.0	3	0	7	4	1	7	4	3	8	7.9	1021.4
15.0	8.0	3	0	7	4	1	7	4	3	8	8.0	1040.5
16.0	7.0	3	0	7	4	1	7	4	3	8	8.1	1059.7
17.0	6.0	3	0	7	4	1	7	4	3	8	8.2	1078.8
18.0	5.0	3	0	7	4	2	8	4	3	8	8.2	1097.9
19.0	4.0	3	0	7	4	2	8	4	3	8	8.3	1117.0
20.0	3.0	3	0	7	4	2	8	4	3	8	8.4	1136.2
21.0	2.0	3	0	7	4	2	8	4	3	8	8.5	1155.3
22.0	1.0	3	0	7	4	2	8	4	3	8	8.6	1174.4
WL = 24.0												
1.0	23.0	3	1	13	4	1	13	4	4	14	7.2	805.5
2.0	22.0	3	0	12	4	1	12	4	2	12	7.3	824.6
3.0	21.0	3	0	11	4	0	11	4	2	11	7.4	843.7
4.0	20.0	3	0	10	4	0	10	4	1	10	7.5	862.9
5.0	19.0	3	0	10	4	0	10	4	1	9	7.6	882.0
6.0	18.0	3	0	9	4	0	9	4	1	9	7.7	901.1
7.0	17.0	3	0	9	4	0	8	4	1	8	7.8	920.3
8.0	16.0	3	0	8	4	0	8	4	1	8	7.8	939.4
9.0	15.0	3	0	8	4	0	8	4	1	7	7.9	958.5

TABLE Y (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 24-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

24-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 24-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 24.0											
10.0 14.0	3	0	8	4	0	7	4	1	7	8.0	977.7
11.0 13.0	3	0	7	4	0	7	4	2	8	8.1	996.8
12.0 12.0	3	0	7	4	0	7	4	2	8	8.2	1015.9
13.0 11.0	3	0	7	4	0	7	4	2	7	8.2	1035.0
14.0 10.0	3	0	7	4	0	7	4	2	7	8.3	1054.2
15.0 9.0	3	0	7	4	1	7	4	3	8	8.4	1073.3
16.0 8.0	3	0	7	4	1	7	4	3	8	8.5	1092.4
17.0 7.0	3	0	7	4	1	7	4	3	8	8.5	1111.6
18.0 6.0	3	0	7	4	1	7	4	3	8	8.6	1130.7
19.0 5.0	3	0	7	4	2	8	4	3	8	8.7	1149.8
20.0 4.0	3	0	7	4	2	8	4	3	8	8.8	1168.9
21.0 3.0	3	0	7	4	2	8	4	3	8	8.9	1188.1
22.0 2.0	3	0	7	4	2	8	4	3	8	9.0	1207.2
23.0 1.0	3	0	7	4	2	8	4	3	8	9.1	1226.3

TABLE Z

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 9.0											
1.0 8.0	6	12	15	6	7	9	7	15	15	2.7	447.9
2.0 7.0	6	12	15	6	7	9	7	15	16	2.6	428.8
3.0 6.0	6	12	15	6	8	11	7	15	16	2.5	409.7
WL = 10.0											
1.0 9.0	6	12	15	6	8	11	7	15	16	3.1	499.8
2.0 8.0	6	13	18	6	9	12	7	15	17	3.0	480.7
3.0 7.0	6	13	18	6	9	13	7	15	17	2.9	461.6
4.0 6.0	6	13	19	6	9	13	7	15	17	2.8	442.4
5.0 5.0	6	13	19	6	9	14	7	15	17	2.7	423.3
6.0 4.0	6	13	19	6	9	14	7	15	18	2.6	404.2
7.0 3.0	6	13	19	6	9	14	7	15	18	2.6	385.0
WL = 11.0											
1.0 10.0	6	12	16	6	9	12	6	11	13	3.4	551.7
2.0 9.0	6	13	19	6	10	14	6	11	13	3.4	532.6
3.0 8.0	6	13	19	6	10	15	6	11	13	3.3	513.4
4.0 7.0	6	13	19	6	10	15	6	11	14	3.2	494.3
5.0 6.0	6	13	19	6	10	16	6	11	14	3.1	475.2
6.0 5.0	6	14	22	6	10	16	6	11	14	3.0	456.1
7.0 4.0	6	13	20	6	10	16	6	11	15	3.0	436.9
8.0 3.0	6	13	20	6	10	16	6	11	15	2.9	417.8
9.0 2.0	6	13	20	6	10	17	7	15	19	2.8	398.7
10.0 1.0	6	13	20	6	9	16	7	15	19	2.7	379.5
WL = 12.0											
1.0 11.0	5	9	13	6	10	14	6	11	13	3.8	603.6
2.0 10.0	5	9	14	6	10	15	6	12	16	3.8	584.5
3.0 9.0	5	9	14	6	10	15	6	12	16	3.7	565.3
4.0 8.0	5	10	16	6	11	17	6	12	16	3.6	546.2
5.0 7.0	5	10	16	6	11	17	6	12	17	3.5	527.1
6.0 6.0	5	10	16	6	11	18	6	12	17	3.4	508.0
7.0 5.0	5	10	17	6	11	18	6	12	17	3.4	488.8
8.0 4.0	5	10	17	6	11	18	6	12	17	3.3	469.7
9.0 3.0	5	10	17	6	10	17	6	12	17	3.2	450.6
10.0 2.0	6	13	21	6	10	17	6	11	16	3.1	431.4
11.0 1.0	6	13	21	6	10	17	6	11	16	3.0	412.3
WL = 13.0											
1.0 12.0	5	9	14	6	10	14	6	12	16	4.2	655.5
2.0 11.0	5	9	14	6	10	15	6	12	16	4.2	636.4
3.0 10.0	5	10	16	6	11	17	6	12	17	4.1	617.2
4.0 9.0	5	10	16	6	11	17	6	13	19	4.0	598.1
5.0 8.0	5	10	17	6	11	18	6	13	19	3.9	579.0
6.0 7.0	5	10	17	6	11	18	6	13	19	3.8	559.8
7.0 6.0	5	10	17	6	11	18	6	13	20	3.8	540.7
8.0 5.0	5	10	17	6	11	19	6	13	20	3.7	521.6
9.0 4.0	5	10	18	6	11	19	6	12	18	3.6	502.5
10.0 3.0	5	10	18	6	11	19	6	12	18	3.5	483.3
11.0 2.0	5	10	18	6	11	19	6	12	18	3.4	464.2
12.0 1.0	5	10	18	6	10	18	6	12	18	3.3	445.1

TABLE Z (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 14.0											
1.0 13.0	5	8	13	6	10	15	6	12	16	4.7	707.4
2.0 12.0	5	9	15	6	11	17	6	12	17	4.6	688.3
3.0 11.0	5	9	15	6	11	17	6	13	19	4.5	669.1
4.0 10.0	5	10	17	6	12	19	6	13	19	4.4	650.0
5.0 9.0	5	10	17	6	11	18	6	13	20	4.3	630.9
6.0 8.0	5	10	18	6	12	20	6	13	20	4.2	611.7
7.0 7.0	5	10	18	6	12	20	6	13	20	4.2	592.6
8.0 6.0	5	10	18	6	12	20	6	13	20	4.1	573.5
9.0 5.0	5	10	18	6	11	19	6	13	20	4.0	554.4
10.0 4.0	5	10	18	6	11	19	6	13	20	3.9	535.2
11.0 3.0	5	10	18	6	11	19	6	12	19	3.8	516.1
12.0 2.0	5	10	19	6	11	19	6	12	19	3.8	497.0
13.0 1.0	5	10	19	6	10	18	6	12	19	3.7	477.8
WL = 15.0											
1.0 14.0	5	8	13	5	6	11	6	12	17	5.1	759.3
2.0 13.0	5	9	15	5	7	13	6	13	19	5.0	740.2
3.0 12.0	5	10	17	5	7	13	6	13	19	4.9	721.0
4.0 11.0	5	10	17	5	8	15	6	13	20	4.8	701.9
5.0 10.0	5	10	18	5	8	15	6	13	20	4.7	682.8
6.0 9.0	5	10	18	5	8	16	6	13	20	4.7	663.6
7.0 8.0	5	10	18	5	8	16	6	13	21	4.6	644.5
8.0 7.0	5	10	18	5	8	16	6	13	21	4.5	625.4
9.0 6.0	5	10	19	5	8	16	6	13	21	4.4	606.2
10.0 5.0	5	10	19	5	7	16	6	13	21	4.4	587.1
11.0 4.0	5	10	19	5	7	16	6	13	21	4.3	568.0
12.0 3.0	5	10	19	6	11	20	6	13	21	4.2	548.9
13.0 2.0	5	10	19	6	11	20	6	13	21	4.1	529.7
14.0 1.0	5	10	19	6	11	20	6	13	21	4.0	510.6
WL = 16.0											
1.0 15.0	4	6	12	5	6	11	6	12	17	5.5	811.2
2.0 14.0	4	6	12	5	7	13	6	12	18	5.4	792.0
3.0 13.0	4	7	14	5	7	13	6	13	20	5.3	772.9
4.0 12.0	4	7	14	5	8	15	6	13	20	5.2	753.8
5.0 11.0	4	8	16	5	8	16	6	13	20	5.2	734.7
6.0 10.0	4	8	16	5	8	16	6	13	21	5.1	715.5
7.0 9.0	4	8	16	5	8	16	6	13	21	5.0	696.4
8.0 8.0	4	8	17	5	8	16	6	13	21	4.9	677.3
9.0 7.0	4	8	17	5	8	17	6	13	21	4.9	658.1
10.0 6.0	4	8	17	5	8	17	6	13	21	4.8	639.0
11.0 5.0	4	8	17	5	7	16	6	13	21	4.7	619.9
12.0 4.0	4	7	16	5	7	16	6	13	22	4.6	600.8
13.0 3.0	5	9	18	5	7	16	6	13	22	4.5	581.6
14.0 2.0	5	9	18	5	7	16	6	12	20	4.4	562.5
15.0 1.0	5	9	18	5	7	16	6	12	20	4.3	543.4
WL = 17.0											
1.0 16.0	4	5	11	5	6	12	5	8	13	5.9	863.1
2.0 15.0	4	6	13	5	7	13	5	8	13	5.8	843.9
3.0 14.0	4	7	14	5	7	14	5	9	15	5.8	824.8

TABLE Z (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 17.0											
4.0 13.0	4	7	15	5	8	15	5	9	15	5.7	805.7
5.0 12.0	4	7	15	5	8	16	5	10	17	5.6	786.6
6.0 11.0	4	7	15	5	8	16	5	10	17	5.5	767.4
7.0 10.0	4	8	17	5	8	16	5	10	18	5.4	748.3
8.0 9.0	4	8	17	5	8	17	5	10	18	5.4	729.2
9.0 8.0	4	8	17	5	8	17	5	10	18	5.3	710.0
10.0 7.0	4	7	16	5	8	17	5	10	18	5.2	690.9
11.0 6.0	4	7	17	5	8	17	6	13	22	5.1	671.8
12.0 5.0	4	7	17	5	7	16	6	13	22	5.1	652.7
13.0 4.0	4	7	17	5	7	17	6	13	22	5.0	633.5
14.0 3.0	4	7	17	5	7	17	6	13	22	4.9	614.4
15.0 2.0	4	7	17	5	7	17	6	13	22	4.8	595.3
16.0 1.0	4	7	17	5	7	17	6	13	22	4.7	576.1
WL = 18.0											
1.0 17.0	4	5	11	5	6	12	5	8	13	6.4	915.0
2.0 16.0	4	6	13	5	7	13	5	9	15	6.3	895.8
3.0 15.0	4	6	13	5	7	14	5	9	15	6.2	876.7
4.0 14.0	4	7	15	5	8	15	5	9	16	6.1	857.6
5.0 13.0	4	7	15	5	8	16	5	9	16	6.0	838.4
6.0 12.0	4	7	16	5	8	16	5	10	18	6.0	819.3
7.0 11.0	4	7	16	5	8	17	5	10	18	5.9	800.2
8.0 10.0	4	7	16	5	8	17	5	10	18	5.8	781.1
9.0 9.0	4	7	17	5	8	17	5	10	18	5.7	761.9
10.0 8.0	4	7	17	5	8	17	5	9	17	5.6	742.8
11.0 7.0	4	7	17	5	8	18	5	10	19	5.6	723.7
12.0 6.0	4	7	17	5	8	18	5	9	18	5.5	704.5
13.0 5.0	4	7	17	5	7	17	5	9	18	5.4	685.4
14.0 4.0	4	7	17	5	7	17	5	9	18	5.3	666.3
15.0 3.0	4	7	17	5	7	17	5	9	18	5.2	647.2
16.0 2.0	4	7	17	5	7	17	5	9	18	5.1	628.0
17.0 1.0	4	6	16	5	7	17	6	12	21	5.1	608.9
WL = 19.0											
1.0 18.0	4	5	11	5	6	12	5	8	13	6.8	966.9
2.0 17.0	4	5	12	5	7	13	5	8	14	6.7	947.7
3.0 16.0	4	6	13	5	7	14	5	9	15	6.6	928.6
4.0 15.0	4	6	14	5	8	16	5	9	16	6.6	909.5
5.0 14.0	4	7	15	5	8	16	5	9	16	6.5	890.3
6.0 13.0	4	7	16	5	8	16	5	10	18	6.4	871.2
7.0 12.0	4	7	16	5	8	17	5	10	18	6.3	852.1
8.0 11.0	4	7	16	5	8	17	5	9	17	6.2	833.0
9.0 10.0	4	7	17	5	8	17	5	10	19	6.2	813.8
10.0 9.0	4	7	17	5	8	18	5	10	19	6.1	794.7
11.0 8.0	4	7	17	5	8	18	5	9	18	6.0	775.6
12.0 7.0	4	7	17	5	8	18	5	9	18	5.9	756.4
13.0 6.0	4	7	17	5	7	17	5	9	18	5.9	737.3
14.0 5.0	4	7	17	5	7	17	5	9	18	5.8	718.2
15.0 4.0	4	6	17	5	7	17	5	9	18	5.7	699.1
16.0 3.0	4	6	17	5	7	17	5	9	18	5.6	679.9
17.0 2.0	4	6	17	5	7	17	5	9	18	5.5	660.8

TABLE Z (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 19.0											
18.0 1.0	4	6	17	5	7	17	5	8	17	5.4	641.7
WL = 20.0											
1.0 19.0	3	3	10	4	3	9	5	7	12	7.3	1018.7
2.0 18.0	3	3	10	4	4	11	5	8	14	7.2	999.6
3.0 17.0	3	4	12	4	5	12	5	9	16	7.1	980.5
4.0 16.0	3	5	13	4	5	13	5	9	16	7.0	961.4
5.0 15.0	3	5	14	4	5	13	5	9	16	6.9	942.2
6.0 14.0	3	5	14	4	6	15	5	9	17	6.8	923.1
7.0 13.0	3	5	15	4	6	15	5	9	17	6.8	904.0
8.0 12.0	3	5	15	4	6	15	5	9	17	6.7	884.8
9.0 11.0	3	5	15	4	5	15	5	9	18	6.6	865.7
10.0 10.0	3	5	15	4	5	15	5	9	18	6.5	846.6
11.0 9.0	3	5	16	4	5	15	5	9	18	6.4	827.5
12.0 8.0	3	5	16	4	5	15	5	9	18	6.4	808.3
13.0 7.0	3	5	16	4	5	16	5	9	18	6.3	789.2
14.0 6.0	3	5	16	4	5	16	5	9	18	6.2	770.1
15.0 5.0	3	5	16	4	4	15	5	9	18	6.1	750.9
16.0 4.0	4	6	17	5	7	17	5	9	18	6.1	731.8
17.0 3.0	4	6	17	5	7	17	5	8	17	6.0	712.7
18.0 2.0	4	6	17	5	7	17	5	8	17	5.9	693.6
19.0 1.0	4	6	17	5	6	17	5	8	17	5.8	674.4
WL = 21.0											
1.0 20.0	3	2	9	4	3	9	4	5	10	7.7	1070.6
2.0 19.0	3	3	10	4	4	11	4	6	12	7.6	1051.5
3.0 18.0	3	4	12	4	4	12	4	6	13	7.5	1032.4
4.0 17.0	3	4	12	4	5	13	4	6	13	7.4	1013.3
5.0 16.0	3	5	14	4	5	14	4	7	15	7.4	994.1
6.0 15.0	3	5	14	4	5	14	4	7	15	7.3	975.0
7.0 14.0	3	5	15	4	6	15	4	7	15	7.2	955.9
8.0 13.0	3	5	15	4	5	15	4	7	16	7.1	936.7
9.0 12.0	3	5	15	4	5	15	4	7	16	7.0	917.6
10.0 11.0	3	5	16	4	5	15	4	7	16	7.0	898.5
11.0 10.0	3	5	16	4	5	15	5	9	18	6.9	879.4
12.0 9.0	3	5	16	4	5	16	5	9	18	6.8	860.2
13.0 8.0	3	5	16	4	5	16	5	9	18	6.7	841.1
14.0 7.0	3	5	16	4	5	16	5	9	19	6.7	822.0
15.0 6.0	3	4	15	4	5	16	5	9	19	6.6	802.8
16.0 5.0	3	4	15	4	4	15	5	9	19	6.5	783.7
17.0 4.0	3	4	16	4	4	15	5	8	18	6.4	764.6
18.0 3.0	3	4	16	4	4	15	5	8	18	6.3	745.5
19.0 2.0	3	3	15	4	4	15	5	8	18	6.2	726.3
20.0 1.0	3	3	15	5	6	17	5	8	18	6.1	707.2
WL = 22.0											
1.0 21.0	3	2	9	4	3	10	4	5	11	8.2	1122.5
2.0 20.0	3	3	11	4	4	11	4	5	11	8.1	1103.4
3.0 19.0	3	3	11	4	4	12	4	6	13	8.0	1084.3
4.0 18.0	3	4	13	4	5	13	4	6	13	7.9	1065.2
5.0 17.0	3	4	13	4	5	14	4	7	15	7.8	1046.0

TABLE Z (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 22.0											
6.0 16.0	3	5	14	4	5	14	4	7	15	7.7	1026.9
7.0 15.0	3	5	15	4	6	15	4	7	16	7.6	1007.8
8.0 14.0	3	5	15	4	5	15	4	7	16	7.6	988.6
9.0 13.0	3	5	15	4	5	15	4	7	16	7.5	969.5
10.0 12.0	3	4	15	4	5	15	4	7	16	7.4	950.4
11.0 11.0	3	4	15	4	5	16	4	7	17	7.3	931.2
12.0 10.0	3	4	15	4	5	16	4	7	17	7.3	912.1
13.0 9.0	3	4	15	4	5	16	4	6	16	7.2	893.0
14.0 8.0	3	4	15	4	5	16	4	6	16	7.1	873.9
15.0 7.0	3	4	16	4	5	16	4	6	16	7.0	854.7
16.0 6.0	3	4	16	4	4	15	4	6	16	7.0	835.6
17.0 5.0	3	3	15	4	4	15	4	6	16	6.9	816.5
18.0 4.0	3	3	15	4	4	15	5	8	18	6.8	797.3
19.0 3.0	3	3	15	4	3	15	5	8	18	6.7	778.2
20.0 2.0	3	3	15	4	3	15	5	8	18	6.6	759.1
21.0 1.0	3	3	15	4	3	15	5	8	18	6.5	740.0
WL = 23.0											
1.0 22.0	3	2	9	4	3	10	4	4	10	8.6	1174.4
2.0 21.0	3	2	10	4	4	11	4	5	11	8.5	1155.3
3.0 20.0	3	3	11	4	4	12	4	6	13	8.4	1136.2
4.0 19.0	3	4	13	4	5	13	4	6	13	8.3	1117.0
5.0 18.0	3	4	13	4	5	14	4	6	14	8.2	1097.9
6.0 17.0	3	4	14	4	5	14	4	7	15	8.2	1078.8
7.0 16.0	3	4	14	4	5	15	4	7	16	8.1	1059.7
8.0 15.0	3	4	14	4	5	15	4	7	16	8.0	1040.5
9.0 14.0	3	4	15	4	5	15	4	7	16	7.9	1021.4
10.0 13.0	3	4	15	4	5	15	4	6	16	7.9	1002.3
11.0 12.0	3	4	15	4	5	16	4	6	16	7.8	983.1
12.0 11.0	3	4	15	4	5	16	4	6	16	7.7	964.0
13.0 10.0	2	3	15	4	5	16	4	6	16	7.6	944.9
14.0 9.0	2	3	15	4	5	16	4	6	16	7.6	925.8
15.0 8.0	3	3	15	4	5	16	4	6	16	7.5	906.6
16.0 7.0	3	3	15	4	4	15	4	6	16	7.4	887.5
17.0 6.0	3	3	15	4	4	16	4	6	16	7.3	868.4
18.0 5.0	3	3	15	4	3	15	4	6	16	7.2	849.2
19.0 4.0	3	3	15	4	3	15	4	6	16	7.1	830.1
20.0 3.0	3	3	15	4	3	15	4	5	15	7.1	811.0
21.0 2.0	3	3	15	4	3	15	4	5	15	7.0	791.9
22.0 1.0	3	3	15	4	3	15	5	8	18	6.9	772.7
WL = 24.0											
1.0 23.0	3	2	9	4	3	10	4	4	10	9.1	1226.3
2.0 22.0	3	2	10	4	4	11	4	5	11	9.0	1207.2
3.0 21.0	3	3	11	4	4	12	4	5	12	8.9	1188.1
4.0 20.0	3	3	12	4	5	13	4	6	14	8.8	1168.9
5.0 19.0	3	4	13	4	5	14	4	6	14	8.7	1149.8
6.0 18.0	3	4	14	4	5	14	4	6	14	8.6	1130.7
7.0 17.0	3	4	14	4	5	15	4	6	15	8.5	1111.6
8.0 16.0	2	3	14	4	5	15	4	6	15	8.5	1092.4
9.0 15.0	2	3	14	4	5	15	4	6	15	8.4	1073.3

TABLE Z (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 24-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 24.0											
10.0 14.0	2	3	14	3	3	14	4	6	16	8.3	1054.2
11.0 13.0	2	3	14	4	5	16	4	6	16	8.2	1035.0
12.0 12.0	2	2	14	4	5	16	4	6	16	8.2	1015.9
13.0 11.0	2	2	14	4	5	16	4	6	16	8.1	996.8
14.0 10.0	2	2	14	4	5	16	4	6	16	8.0	977.7
15.0 9.0	2	2	14	4	4	15	4	6	16	7.9	958.5
16.0 8.0	2	2	14	4	4	16	4	6	16	7.8	939.4
17.0 7.0	3	3	15	4	4	16	4	5	16	7.8	920.3
18.0 6.0	2	1	14	4	3	15	4	5	16	7.7	901.1
19.0 5.0	2	1	14	4	3	15	4	5	16	7.6	882.0
20.0 4.0	2	1	14	4	3	15	4	5	16	7.5	862.9
21.0 3.0	2	1	14	4	3	15	4	5	16	7.4	843.7
22.0 2.0	3	2	15	4	3	15	4	5	16	7.3	824.6
23.0 1.0	3	2	15	4	3	15	4	5	16	7.2	805.5

TABLE AA

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 7.0											
5.0 2.0	7	15	12	7	12	6	7	12	1	2.5	482.2
6.0 1.0	6	8	0	7	13	8	7	13	3	2.7	532.8
WL = 8.0											
4.0 4.0	6	7	2	7	13	10	7	13	6	2.6	464.4
5.0 3.0	6	8	2	7	13	9	7	14	8	2.8	515.0
6.0 2.0	6	8	1	7	14	11	7	14	7	3.0	565.5
7.0 1.0	6	8	1	7	15	14	7	15	10	3.2	616.1
WL = 9.0											
3.0 6.0	6	8	6	7	14	15	7	14	11	2.7	446.6
4.0 5.0	6	8	5	7	14	14	7	15	13	2.9	497.2
5.0 4.0	6	8	4	7	14	13	7	15	12	3.1	547.7
6.0 3.0	6	8	3	7	14	12	7	15	12	3.3	598.3
7.0 2.0	6	9	4	7	15	14	7	15	11	3.5	648.9
8.0 1.0	6	9	3	6	6	0	7	15	11	3.6	699.4
WL = 10.0											
1.0 9.0	6	11	15	6	5	9	7	15	17	2.5	378.2
2.0 8.0	6	9	10	6	3	5	7	15	16	2.8	428.8
3.0 7.0	6	8	7	6	2	2	7	15	15	3.0	479.4
4.0 6.0	6	8	6	6	2	1	7	15	14	3.2	529.9
5.0 5.0	6	8	5	6	3	0	7	15	13	3.4	580.5
6.0 4.0	6	8	4	6	4	0	7	15	12	3.5	631.1
7.0 3.0	6	9	5	6	5	0	7	15	12	3.7	681.6
8.0 2.0	6	9	4	6	6	1	7	15	12	3.9	732.2
9.0 1.0	6	10	6	6	6	0	7	15	11	4.1	782.8
WL = 11.0											
1.0 10.0	6	11	16	6	6	11	7	15	18	2.8	411.0
2.0 9.0	6	10	13	6	4	7	7	15	17	3.1	461.6
3.0 8.0	6	9	10	6	3	4	7	15	16	3.3	512.1
4.0 7.0	6	8	7	6	3	2	7	15	15	3.5	562.7
5.0 6.0	6	8	6	6	3	1	7	15	14	3.7	613.3
6.0 5.0	6	8	5	6	4	0	7	15	13	3.9	663.8
7.0 4.0	6	9	6	6	5	1	7	15	13	4.0	714.4
8.0 3.0	6	9	5	6	6	1	6	8	1	4.2	765.0
9.0 2.0	6	10	7	6	7	2	6	9	3	4.4	815.5
10.0 1.0	5	6	1	6	7	2	6	9	3	4.6	866.1
WL = 12.0											
1.0 11.0	5	7	12	6	7	12	6	9	11	3.2	443.7
2.0 10.0	5	5	8	6	5	8	7	15	17	3.4	494.3
3.0 9.0	5	4	5	6	4	6	7	15	16	3.6	544.9
4.0 8.0	5	3	3	6	4	4	7	15	15	3.8	595.5
5.0 7.0	5	3	1	6	4	2	6	6	1	4.0	646.0
6.0 6.0	5	3	0	6	4	1	6	7	2	4.2	696.6
7.0 5.0	5	4	1	6	5	1	6	7	1	4.4	747.2
8.0 4.0	5	4	0	6	6	2	6	8	2	4.5	797.7
9.0 3.0	5	5	1	6	7	3	6	9	3	4.7	848.3
10.0 2.0	5	5	1	6	7	2	6	9	3	4.9	898.9

TABLE AA (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 12.0 11.0 1.0	5	6	2	6	8	4	6	10	5	5.1	949.4
WL = 13.0											
1.0 12.0	5	7	13	6	8	14	6	10	14	3.5	476.5
2.0 11.0	5	5	9	6	6	10	6	8	9	3.7	527.1
3.0 10.0	5	4	6	6	5	7	6	7	6	3.9	577.7
4.0 9.0	5	3	4	6	4	4	6	7	5	4.1	628.2
5.0 8.0	5	3	2	6	4	3	6	7	4	4.3	678.8
6.0 7.0	5	3	1	6	5	3	6	7	3	4.5	729.4
7.0 6.0	5	3	0	6	5	2	6	8	3	4.7	779.9
8.0 5.0	5	4	1	6	6	2	6	8	3	4.9	830.5
9.0 4.0	5	4	0	6	7	3	6	9	4	5.0	881.1
10.0 3.0	5	5	1	6	7	3	6	9	4	5.2	931.6
11.0 2.0	5	5	1	6	8	4	6	10	6	5.4	982.2
12.0 1.0	5	6	2	6	8	4	6	10	6	5.6	1032.8
WL = 14.0											
1.0 13.0	5	7	14	6	8	14	6	10	14	3.8	509.3
2.0 12.0	5	5	10	6	6	10	6	8	10	4.1	559.8
3.0 11.0	5	4	7	6	5	8	6	7	7	4.3	610.4
4.0 10.0	5	3	4	6	4	5	6	7	6	4.5	661.0
5.0 9.0	5	2	2	6	4	3	6	7	4	4.7	711.6
6.0 8.0	5	3	2	6	5	3	6	7	3	4.8	762.1
7.0 7.0	5	3	1	6	5	2	6	8	4	5.0	812.7
8.0 6.0	5	3	0	6	6	3	6	8	3	5.2	863.3
9.0 5.0	5	4	1	6	6	2	6	9	5	5.4	913.8
10.0 4.0	5	5	2	6	7	3	6	9	4	5.6	964.4
11.0 3.0	5	5	1	6	8	4	6	10	6	5.8	1015.0
12.0 2.0	5	5	1	5	4	0	6	10	6	5.9	1065.5
13.0 1.0	5	6	3	5	4	0	6	10	6	6.2	1116.1
WL = 15.0											
1.0 14.0	5	7	14	6	8	15	6	10	15	4.2	542.0
2.0 13.0	5	5	10	6	6	11	6	9	12	4.4	592.6
3.0 12.0	5	3	7	6	5	8	6	7	8	4.6	643.2
4.0 11.0	5	2	4	6	4	5	6	7	6	4.8	693.7
5.0 10.0	5	2	3	6	4	4	6	7	5	5.0	744.3
6.0 9.0	5	2	1	6	5	4	6	7	4	5.2	794.9
7.0 8.0	5	2	0	6	5	3	6	7	3	5.4	845.5
8.0 7.0	5	3	1	6	6	3	6	8	4	5.6	896.0
9.0 6.0	5	3	0	6	7	4	6	9	5	5.7	946.6
10.0 5.0	5	4	1	6	7	3	6	9	5	5.9	997.2
11.0 4.0	5	5	2	5	3	0	6	9	5	6.1	1047.7
12.0 3.0	5	5	2	5	4	0	6	10	7	6.3	1098.3
13.0 2.0	5	5	2	5	4	0	5	6	1	6.5	1148.9
14.0 1.0	4	3	0	5	4	0	5	6	1	6.7	1199.4
WL = 16.0											
1.0 15.0	4	4	12	5	3	11	6	10	16	4.5	574.8
2.0 14.0	4	1	8	5	0	7	6	9	13	4.7	625.4
3.0 13.0	4	0	5	5	0	5	6	8	10	5.0	675.9

TABLE AA (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 16.0											
4.0 12.0	5	2	5	5	0	3	6	7	7	5.2	726.5
5.0 11.0	5	2	3	5	0	1	6	7	6	5.4	777.1
6.0 10.0	5	2	2	5	0	0	6	7	4	5.6	827.7
7.0 9.0	5	2	1	6	5	3	6	7	4	5.7	878.2
8.0 8.0	5	2	0	6	6	3	6	8	4	5.9	928.8
9.0 7.0	5	3	0	5	2	0	6	8	4	6.1	979.4
10.0 6.0	5	4	1	5	3	0	6	9	5	6.3	1029.9
11.0 5.0	5	4	1	5	3	0	6	9	5	6.4	1080.5
12.0 4.0	5	5	2	5	3	0	5	5	0	6.6	1131.1
13.0 3.0	4	3	0	5	4	0	5	5	0	6.8	1181.6
14.0 2.0	4	3	0	5	4	0	5	6	2	7.0	1232.2
15.0 1.0	4	3	0	5	4	0	5	6	2	7.2	1282.8
WL = 17.0											
1.0 16.0	4	3	12	5	3	12	6	10	16	4.9	607.6
2.0 15.0	4	1	8	5	1	8	6	8	12	5.1	658.1
3.0 14.0	4	0	5	5	0	5	6	7	9	5.3	708.7
4.0 13.0	4	0	4	5	0	3	6	7	7	5.5	759.3
5.0 12.0	4	0	2	5	0	2	6	7	6	5.7	809.8
6.0 11.0	5	1	1	5	0	0	6	7	5	5.9	860.4
7.0 10.0	5	1	0	5	0	0	6	7	4	6.1	911.0
8.0 9.0	5	2	0	5	1	0	6	8	5	6.3	961.6
9.0 8.0	5	3	1	5	2	0	6	8	4	6.4	1012.1
10.0 7.0	5	3	0	5	2	0	5	4	0	6.6	1062.7
11.0 6.0	5	4	1	5	3	0	5	4	0	6.8	1113.3
12.0 5.0	4	2	0	5	3	0	5	5	0	7.0	1163.8
13.0 4.0	4	2	0	5	4	0	5	5	0	7.2	1214.4
14.0 3.0	4	3	0	5	4	0	5	6	2	7.3	1265.0
15.0 2.0	4	3	0	5	4	0	5	6	2	7.5	1315.5
16.0 1.0	4	3	0	5	4	0	5	6	2	7.8	1366.1
WL = 18.0											
1.0 17.0	4	3	12	5	3	12	6	10	16	5.2	640.3
2.0 16.0	4	0	8	5	1	8	6	8	12	5.5	690.9
3.0 15.0	4	0	6	5	0	6	5	2	5	5.7	741.5
4.0 14.0	4	0	4	5	0	4	5	1	3	5.9	792.0
5.0 13.0	4	0	2	5	0	2	5	1	1	6.1	842.6
6.0 12.0	4	0	1	5	0	1	5	1	0	6.3	893.2
7.0 11.0	4	0	0	5	0	0	5	2	0	6.5	943.7
8.0 10.0	4	0	0	5	1	0	5	3	0	6.6	994.3
9.0 9.0	5	2	0	5	2	0	5	3	0	6.8	1044.9
10.0 8.0	5	3	0	5	2	0	5	4	0	7.0	1095.5
11.0 7.0	4	2	0	5	3	0	5	4	0	7.2	1146.0
12.0 6.0	4	2	0	5	3	0	5	5	1	7.3	1196.6
13.0 5.0	4	2	0	5	3	0	5	5	1	7.5	1247.2
14.0 4.0	4	2	0	5	4	0	5	5	1	7.7	1297.7
15.0 3.0	4	3	0	5	4	0	5	5	1	7.9	1348.3
16.0 2.0	4	3	0	5	4	1	5	6	2	8.1	1398.9
17.0 1.0	4	3	0	5	5	2	5	6	2	8.3	1449.4
WL = 19.0											

TABLE AA (CONTD)

4240R PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 19.0											
1.0 18.0	4	3	12	5	3	12	5	6	13	5.6	673.1
2.0 17.0	4	0	8	5	0	8	5	3	8	5.8	723.7
3.0 16.0	4	0	6	5	0	6	5	2	6	6.0	774.2
4.0 15.0	4	0	4	5	0	4	5	1	3	6.3	824.8
5.0 14.0	4	0	3	5	0	2	5	1	1	6.5	875.4
6.0 13.0	4	0	1	5	0	1	5	1	0	6.7	925.9
7.0 12.0	4	0	0	5	0	0	5	2	0	6.8	976.5
8.0 11.0	4	0	0	5	1	0	5	3	0	7.0	1027.1
9.0 10.0	4	0	0	5	2	0	5	3	0	7.2	1077.7
10.0 9.0	4	1	0	5	2	0	5	4	0	7.4	1128.2
11.0 8.0	4	1	0	5	3	0	5	4	0	7.5	1178.8
12.0 7.0	4	2	0	5	3	0	5	4	0	7.7	1229.4
13.0 6.0	4	2	0	5	3	0	5	5	1	7.9	1279.9
14.0 5.0	4	2	0	5	4	1	5	5	1	8.0	1330.5
15.0 4.0	4	2	0	5	4	1	5	5	1	8.2	1381.1
16.0 3.0	4	2	0	5	4	1	5	5	1	8.4	1431.6
17.0 2.0	4	3	0	5	4	1	4	4	0	8.6	1482.2
18.0 1.0	4	3	0	4	3	0	4	4	0	8.9	1532.8
WL = 20.0											
1.0 19.0	4	2	12	5	3	12	5	5	13	5.9	705.9
2.0 18.0	4	0	8	5	0	8	5	3	9	6.2	756.4
3.0 17.0	4	0	6	5	0	6	5	2	6	6.4	807.0
4.0 16.0	4	0	5	5	0	4	5	1	3	6.6	857.6
5.0 15.0	4	0	3	5	0	2	5	0	1	6.8	908.1
6.0 14.0	5	0	1	5	0	1	5	1	0	7.0	958.7
7.0 13.0	4	0	0	5	0	0	5	2	0	7.2	1009.3
8.0 12.0	4	0	0	5	1	0	5	2	0	7.4	1059.8
9.0 11.0	4	0	0	5	1	0	5	3	0	7.6	1110.4
10.0 10.0	4	1	0	5	2	0	5	3	0	7.7	1161.0
11.0 9.0	4	1	0	5	3	0	5	4	0	7.9	1211.6
12.0 8.0	4	2	0	5	3	0	5	4	0	8.1	1262.1
13.0 7.0	4	2	0	5	3	0	5	4	0	8.2	1312.7
14.0 6.0	4	2	0	5	3	0	5	5	1	8.4	1363.3
15.0 5.0	4	2	0	5	4	1	5	5	1	8.6	1413.8
16.0 4.0	4	2	0	5	4	1	5	5	1	8.8	1464.4
17.0 3.0	4	2	0	4	2	0	4	3	0	9.0	1515.0
18.0 2.0	4	2	0	4	2	0	4	3	0	9.2	1565.5
19.0 1.0	4	2	0	4	2	0	4	3	0	9.4	1616.1
WL = 21.0											
1.0 20.0	3	0	11	4	0	11	5	5	13	6.3	738.6
2.0 19.0	4	0	9	5	0	8	5	3	9	6.6	789.2
3.0 18.0	4	0	7	5	0	6	5	1	6	6.8	839.8
4.0 17.0	4	0	5	5	0	4	5	0	3	7.0	890.3
5.0 16.0	4	0	3	5	0	3	5	0	1	7.2	940.9
6.0 15.0	5	0	1	5	0	1	5	0	0	7.4	991.5
7.0 14.0	5	0	0	5	0	0	5	1	0	7.6	1042.0
8.0 13.0	4	0	0	5	0	0	5	2	0	7.8	1092.6
9.0 12.0	4	0	0	5	1	0	5	3	0	7.9	1143.2
10.0 11.0	4	0	0	5	2	0	5	3	0	8.1	1193.7

TABLE AA (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION						1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)			
	900 + 2.16			600 + 2.16					TELSET (35MA)		
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 21.0											
11.0 10.0	4	1	0	5	2	0	5	4	0	8.3	1244.3
12.0 9.0	4	1	0	5	3	0	5	4	0	8.4	1294.9
13.0 8.0	4	2	0	5	3	0	5	4	0	8.6	1345.5
14.0 7.0	4	2	0	5	3	0	5	4	0	8.8	1396.0
15.0 6.0	4	2	0	5	4	1	5	5	1	9.0	1446.6
16.0 5.0	4	2	0	5	4	1	4	3	0	9.1	1497.2
17.0 4.0	4	2	0	4	2	0	4	3	0	9.3	1547.7
18.0 3.0	4	2	0	4	2	0	4	3	0	9.5	1598.3
19.0 2.0	4	2	0	4	2	0	4	3	0	9.7	1648.9
20.0 1.0	4	2	0	4	2	0	4	3	0	10.0	1699.4
WL = 22.0											
1.0 21.0	3	0	11	4	0	11	5	5	13	6.7	771.4
2.0 20.0	4	0	9	5	0	8	5	3	9	6.9	822.0
3.0 19.0	4	0	7	5	0	6	5	1	6	7.2	872.5
4.0 18.0	4	0	5	5	0	4	5	0	3	7.4	923.1
5.0 17.0	4	0	3	5	0	3	5	0	1	7.6	973.7
6.0 16.0	5	0	2	5	0	1	5	0	0	7.8	1024.2
7.0 15.0	5	0	0	5	0	0	5	1	0	8.0	1074.8
8.0 14.0	4	0	0	5	0	0	5	2	0	8.1	1125.4
9.0 13.0	4	0	0	5	1	0	5	3	0	8.3	1175.9
10.0 12.0	4	0	0	5	2	0	5	3	0	8.5	1226.5
11.0 11.0	4	1	0	5	2	0	5	3	0	8.6	1277.1
12.0 10.0	4	1	0	5	3	0	5	4	0	8.8	1327.7
13.0 9.0	4	2	0	5	3	0	5	4	0	9.0	1378.2
14.0 8.0	4	2	0	5	3	0	5	4	0	9.2	1428.8
15.0 7.0	4	2	0	5	3	0	4	3	0	9.3	1479.4
16.0 6.0	4	2	0	4	2	0	4	3	0	9.5	1529.9
17.0 5.0	4	2	0	4	2	0	4	3	0	9.7	1580.5
18.0 4.0	4	2	0	4	2	0	4	3	0	9.9	1631.1
19.0 3.0	4	2	0	4	2	0	4	3	0	10.1	1681.6
20.0 2.0	4	2	0	4	2	0	4	3	0	10.3	1732.2
21.0 1.0	3	1	0	4	2	0	4	3	0	10.5	1782.8
WL = 23.0											
1.0 22.0	3	0	11	4	0	11	5	5	13	7.0	804.2
2.0 21.0	4	0	9	5	0	9	5	2	9	7.3	854.7
3.0 20.0	4	0	7	5	0	6	5	1	6	7.5	905.3
4.0 19.0	4	0	5	5	0	4	5	0	3	7.7	955.9
5.0 18.0	5	0	3	5	0	3	5	0	2	8.0	1006.4
6.0 17.0	5	0	2	5	0	1	5	0	0	8.1	1057.0
7.0 16.0	5	0	0	5	0	0	5	1	0	8.3	1107.6
8.0 15.0	4	0	0	5	0	0	5	2	0	8.5	1158.1
9.0 14.0	4	0	0	5	1	0	5	2	0	8.7	1208.7
10.0 13.0	4	0	0	5	2	0	5	3	0	8.9	1259.3
11.0 12.0	4	1	0	5	2	0	5	3	0	9.0	1309.8
12.0 11.0	4	1	0	5	3	0	5	4	0	9.2	1360.4
13.0 10.0	4	1	0	5	3	0	5	4	0	9.4	1411.0
14.0 9.0	4	2	0	5	3	0	5	4	0	9.5	1461.6
15.0 8.0	4	2	0	5	3	0	4	3	0	9.7	1512.1
16.0 7.0	4	2	0	4	2	0	4	3	0	9.9	1562.7

TABLE AA (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 26-
AND 22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

26-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 26-GA 22-GA		4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
		900 + 2.16			600 + 2.16			TELSET (35MA)				
		R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 23.0												
17.0	6.0	4	2	0	4	2	0	4	3	0	10.1	1613.3
18.0	5.0	4	2	0	4	2	0	4	3	0	10.3	1663.8
19.0	4.0	4	2	0	4	2	0	4	3	0	10.4	1714.4
20.0	3.0	4	2	0	4	2	0	4	3	0	10.6	1765.0
21.0	2.0	3	1	0	4	2	0	4	3	0	10.9	1815.5
22.0	1.0	3	1	0	4	2	0	4	3	0	11.1	1866.1
WL = 24.0												
1.0	23.0	3	0	11	4	0	11	4	2	11	7.4	836.9
2.0	22.0	4	0	9	5	0	9	4	0	8	7.7	887.5
3.0	21.0	4	0	7	5	0	7	5	0	5	7.9	938.1
4.0	20.0	4	0	5	5	0	5	5	0	3	8.1	988.6
5.0	19.0	5	0	3	5	0	3	5	0	2	8.3	1039.2
6.0	18.0	5	0	2	5	0	1	5	0	0	8.5	1089.8
7.0	17.0	5	0	0	5	0	0	5	1	0	8.7	1140.3
8.0	16.0	5	0	0	5	0	0	5	1	0	8.9	1190.9
9.0	15.0	4	0	0	5	1	0	5	2	0	9.1	1241.5
10.0	14.0	4	0	0	5	2	0	5	3	0	9.2	1292.0
11.0	13.0	4	1	0	5	2	0	5	3	0	9.4	1342.6
12.0	12.0	4	1	0	5	3	0	5	4	0	9.6	1393.2
13.0	11.0	4	1	0	5	3	0	5	4	0	9.7	1443.7
14.0	10.0	4	2	0	5	3	0	4	3	0	9.9	1494.3
15.0	9.0	4	2	0	5	3	0	4	3	0	10.1	1544.9
16.0	8.0	4	2	0	4	2	0	4	3	0	10.3	1595.5
17.0	7.0	4	2	0	4	2	0	4	3	0	10.4	1646.0
18.0	6.0	4	2	0	4	2	0	4	3	0	10.6	1696.6
19.0	5.0	4	2	0	4	2	0	4	3	0	10.8	1747.2
20.0	4.0	4	2	0	4	2	0	4	3	0	11.0	1797.7
21.0	3.0	4	2	0	4	2	0	4	3	0	11.2	1848.3

TABLE BB

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 7.0											
1.0 6.0	6	9	3	7	15	14	7	15	10	2.7	532.8
2.0 5.0	6	10	6	7	15	16	7	15	12	2.5	482.2
WL = 8.0											
1.0 7.0	6	11	8	7	15	14	7	15	11	3.2	616.1
2.0 6.0	6	12	11	7	15	16	7	15	12	3.0	565.5
3.0 5.0	6	12	12	7	15	17	7	15	13	2.8	515.0
4.0 4.0	6	12	13	7	15	18	7	15	14	2.6	464.4
WL = 9.0											
1.0 8.0	6	12	11	6	8	4	7	15	12	3.6	699.4
2.0 7.0	6	12	12	6	9	8	7	15	13	3.5	648.9
3.0 6.0	6	13	15	6	9	9	7	15	14	3.3	598.3
4.0 5.0	6	13	16	6	10	12	7	15	15	3.1	547.7
5.0 4.0	6	13	17	6	10	13	7	15	16	2.9	497.2
6.0 3.0	6	13	17	6	9	12	7	15	16	2.7	446.6
WL = 10.0											
1.0 9.0	6	12	11	6	9	6	6	10	5	4.1	782.8
2.0 8.0	6	13	15	6	10	10	6	11	9	3.9	732.2
3.0 7.0	6	13	16	6	11	13	6	12	12	3.7	681.6
4.0 6.0	6	14	19	6	11	14	6	12	13	3.5	631.1
5.0 5.0	6	14	20	6	11	15	6	12	14	3.4	580.5
6.0 4.0	6	14	20	6	11	16	6	12	14	3.2	529.9
7.0 3.0	6	14	21	6	10	15	6	11	13	3.0	479.4
8.0 2.0	6	13	19	6	10	15	7	15	18	2.8	428.8
9.0 1.0	6	13	19	6	9	15	7	15	18	2.5	378.2
WL = 11.0											
1.0 10.0	5	8	6	6	10	8	6	11	8	4.6	866.1
2.0 9.0	5	9	9	6	11	12	6	12	12	4.4	815.5
3.0 8.0	6	14	19	6	11	13	6	13	15	4.2	765.0
4.0 7.0	6	14	19	6	12	16	6	13	16	4.0	714.4
5.0 6.0	6	14	20	6	12	17	6	13	16	3.9	663.8
6.0 5.0	6	14	21	6	12	17	6	13	17	3.7	613.3
7.0 4.0	6	14	21	6	12	18	6	13	18	3.5	562.7
8.0 3.0	6	14	21	6	11	17	6	12	16	3.3	512.1
9.0 2.0	6	14	22	6	10	16	6	12	16	3.1	461.6
10.0 1.0	6	13	20	6	10	17	6	11	15	2.8	411.0
WL = 12.0											
1.0 11.0	5	8	6	6	10	9	6	12	11	5.1	949.4
2.0 10.0	5	9	9	6	11	12	6	12	12	4.9	898.9
3.0 9.0	5	10	12	6	12	15	6	13	15	4.7	848.3
4.0 8.0	5	11	15	6	12	16	6	14	19	4.5	797.7
5.0 7.0	5	11	16	6	13	19	6	14	19	4.4	747.2
6.0 6.0	5	11	17	6	13	19	6	14	20	4.2	696.6
7.0 5.0	5	11	17	6	12	18	6	13	18	4.0	646.0
8.0 4.0	5	11	18	6	12	19	6	13	19	3.8	595.5
9.0 3.0	5	11	18	6	12	19	6	13	19	3.6	544.9
10.0 2.0	5	10	17	6	11	18	6	12	17	3.4	494.3

TABLE BB (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 12.0											
11.0 1.0	5	10	17	6	10	17	6	11	16	3.2	443.7
WL = 13.0											
1.0 12.0	5	8	7	6	11	11	6	12	11	5.6	1032.8
2.0 11.0	5	9	10	6	12	14	6	13	15	5.4	982.2
3.0 10.0	5	10	13	6	12	15	6	13	16	5.2	931.6
4.0 9.0	5	11	15	6	13	18	6	14	19	5.0	881.1
5.0 8.0	5	11	16	6	13	19	6	14	20	4.9	830.5
6.0 7.0	5	11	17	6	13	20	6	14	20	4.7	779.9
7.0 6.0	5	11	18	6	13	20	6	14	21	4.5	729.4
8.0 5.0	5	11	18	6	13	21	6	14	21	4.3	678.8
9.0 4.0	5	11	18	6	13	21	6	14	21	4.1	628.2
10.0 3.0	5	11	19	6	12	20	6	13	20	3.9	577.7
11.0 2.0	5	11	19	6	11	19	6	13	20	3.7	527.1
12.0 1.0	5	10	18	6	11	19	6	12	18	3.5	476.5
WL = 14.0											
1.0 13.0	5	8	7	5	6	4	6	12	12	6.2	1116.1
2.0 12.0	5	9	10	5	8	9	6	13	15	5.9	1065.5
3.0 11.0	5	10	13	5	9	11	6	14	19	5.8	1015.0
4.0 10.0	5	11	16	5	9	13	6	14	19	5.6	964.4
5.0 9.0	5	11	17	5	10	15	6	14	20	5.4	913.8
6.0 8.0	5	11	17	5	10	16	6	14	21	5.2	863.3
7.0 7.0	5	11	18	5	9	15	6	14	21	5.0	812.7
8.0 6.0	5	12	20	5	9	16	6	14	22	4.8	762.1
9.0 5.0	5	11	19	5	9	16	6	14	22	4.7	711.6
10.0 4.0	5	11	19	5	9	17	6	14	22	4.5	661.0
11.0 3.0	5	10	18	6	12	20	6	13	20	4.3	610.4
12.0 2.0	5	10	18	6	11	19	6	13	21	4.1	559.8
13.0 1.0	5	10	18	6	11	19	6	12	19	3.8	509.3
WL = 15.0											
1.0 14.0	4	5	4	5	7	6	5	8	6	6.7	1199.4
2.0 13.0	4	7	8	5	8	9	5	9	9	6.5	1148.9
3.0 12.0	4	8	11	5	9	12	5	10	12	6.3	1098.3
4.0 11.0	4	8	12	5	9	13	5	11	15	6.1	1047.7
5.0 10.0	4	9	14	5	10	15	5	11	16	5.9	997.2
6.0 9.0	4	9	15	5	10	16	5	11	16	5.7	946.6
7.0 8.0	4	9	16	5	10	17	5	11	17	5.6	896.0
8.0 7.0	4	9	16	5	10	17	6	14	22	5.4	845.5
9.0 6.0	4	9	17	5	10	18	6	14	22	5.2	794.9
10.0 5.0	4	9	17	5	9	17	6	14	23	5.0	744.3
11.0 4.0	5	11	20	5	9	17	6	14	23	4.8	693.7
12.0 3.0	5	10	19	5	8	17	6	13	21	4.6	643.2
13.0 2.0	5	10	19	5	8	17	6	13	21	4.4	592.6
14.0 1.0	5	10	19	6	11	20	6	13	21	4.2	542.0
WL = 16.0											
1.0 15.0	4	5	4	5	7	6	5	8	6	7.2	1282.8
2.0 14.0	4	7	8	5	8	9	5	9	10	7.0	1232.2
3.0 13.0	4	8	11	5	9	12	5	10	12	6.8	1181.6

TABLE BB (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 16.0											
4.0 12.0	4	8	12	5	9	13	5	11	15	6.6	1131.1
5.0 11.0	4	9	14	5	10	15	5	11	16	6.4	1080.5
6.0 10.0	4	9	15	5	10	16	5	11	17	6.3	1029.9
7.0 9.0	4	9	16	5	10	17	5	11	17	6.1	979.4
8.0 8.0	4	9	17	5	10	18	5	11	18	5.9	928.8
9.0 7.0	4	9	17	5	10	18	5	11	18	5.7	878.2
10.0 6.0	4	9	18	5	9	17	5	11	19	5.6	827.7
11.0 5.0	4	9	18	5	9	18	5	11	19	5.4	777.1
12.0 4.0	4	8	17	5	9	18	5	10	18	5.2	726.5
13.0 3.0	4	8	17	5	8	17	6	13	22	5.0	675.9
14.0 2.0	4	8	17	5	8	17	6	13	22	4.7	625.4
15.0 1.0	5	9	18	5	7	16	6	12	20	4.5	574.8
WL = 17.0											
1.0 16.0	4	5	4	5	7	6	5	8	7	7.8	1366.1
2.0 15.0	4	6	7	5	8	9	5	9	10	7.5	1315.5
3.0 14.0	4	7	10	5	9	12	5	10	13	7.3	1265.0
4.0 13.0	4	8	12	5	10	15	5	11	15	7.2	1214.4
5.0 12.0	4	9	15	5	10	16	5	11	16	7.0	1163.8
6.0 11.0	4	9	16	5	10	16	5	11	17	6.8	1113.3
7.0 10.0	4	9	16	5	10	17	5	11	18	6.6	1062.7
8.0 9.0	4	9	17	5	10	18	5	11	18	6.4	1012.1
9.0 8.0	4	9	17	5	10	18	5	11	19	6.3	961.6
10.0 7.0	4	9	18	5	10	19	5	11	19	6.1	911.0
11.0 6.0	4	9	18	5	9	18	5	11	19	5.9	860.4
12.0 5.0	4	8	17	5	9	18	5	10	18	5.7	809.8
13.0 4.0	4	8	18	5	8	17	5	10	18	5.5	759.3
14.0 3.0	4	8	18	5	8	17	5	10	18	5.3	708.7
15.0 2.0	4	7	17	5	7	17	6	13	22	5.1	658.1
16.0 1.0	4	7	17	5	7	17	6	13	22	4.9	607.6
WL = 18.0											
1.0 17.0	4	4	3	4	4	3	4	5	3	8.3	1449.4
2.0 16.0	4	6	7	4	6	7	5	9	10	8.1	1398.9
3.0 15.0	4	7	10	4	7	10	5	10	13	7.9	1348.3
4.0 14.0	4	8	12	4	7	11	5	10	14	7.7	1297.7
5.0 13.0	4	9	15	4	8	13	5	11	17	7.5	1247.2
6.0 12.0	4	9	16	4	8	14	5	11	17	7.3	1196.6
7.0 11.0	3	7	14	4	8	15	5	11	18	7.2	1146.0
8.0 10.0	3	8	16	4	8	16	5	11	18	7.0	1095.5
9.0 9.0	3	7	15	4	8	16	5	11	19	6.8	1044.9
10.0 8.0	3	7	16	4	8	17	5	11	19	6.6	994.3
11.0 7.0	3	7	16	4	7	16	5	11	20	6.5	943.7
12.0 6.0	3	7	17	4	7	16	5	11	20	6.3	893.2
13.0 5.0	4	8	18	4	6	16	5	10	19	6.1	842.6
14.0 4.0	4	8	18	5	8	18	5	10	19	5.9	792.0
15.0 3.0	4	7	17	5	8	18	5	10	19	5.7	741.5
16.0 2.0	4	7	17	5	7	17	5	9	18	5.5	690.9
17.0 1.0	4	7	17	5	7	17	5	9	18	5.2	640.3
WL = 19.0											

TABLE BB (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22- AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)	
	900 + 2.16			600 + 2.16			TELSET (35MA)					
	R1	R2	Z	R1	R2	Z	R1	R2	Z			
WL = 19.0												
1.0	18.0	3	3	2	4	4	3	4	5	3	8.9	1532.8
2.0	17.0	3	4	5	4	6	7	4	7	8	8.6	1482.2
3.0	16.0	3	6	9	4	7	10	4	8	10	8.4	1431.6
4.0	15.0	3	6	10	4	7	11	4	8	12	8.2	1381.1
5.0	14.0	3	7	12	4	8	13	4	9	14	8.0	1330.5
6.0	13.0	3	7	13	4	8	14	4	9	15	7.9	1279.9
7.0	12.0	3	7	14	4	8	15	4	9	16	7.7	1229.4
8.0	11.0	3	7	15	4	8	16	4	9	16	7.5	1178.8
9.0	10.0	3	7	16	4	8	16	4	9	17	7.4	1128.2
10.0	9.0	3	7	16	4	8	17	4	9	17	7.2	1077.7
11.0	8.0	3	7	16	4	7	16	4	9	18	7.0	1027.1
12.0	7.0	3	7	17	4	7	17	5	10	19	6.8	976.5
13.0	6.0	3	6	16	4	7	17	5	10	19	6.7	925.9
14.0	5.0	3	6	16	4	6	16	5	10	19	6.5	875.4
15.0	4.0	3	6	17	4	6	16	5	9	18	6.3	824.8
16.0	3.0	3	5	16	5	8	18	5	9	18	6.0	774.2
17.0	2.0	4	6	17	5	7	17	5	9	18	5.8	723.7
18.0	1.0	4	6	17	5	7	17	5	9	18	5.6	673.1
WL = 20.0												
1.0	19.0	3	2	1	4	4	3	4	5	3	9.4	1616.1
2.0	18.0	3	4	5	4	6	7	4	6	6	9.2	1565.5
3.0	17.0	3	5	8	4	7	10	4	7	9	9.0	1515.0
4.0	16.0	3	6	10	4	7	11	4	8	12	8.8	1464.4
5.0	15.0	3	7	13	4	8	13	4	9	14	8.6	1413.8
6.0	14.0	3	7	14	4	8	14	4	9	15	8.4	1363.3
7.0	13.0	3	7	14	4	8	15	4	9	16	8.2	1312.7
8.0	12.0	3	7	15	4	8	16	4	9	16	8.1	1262.1
9.0	11.0	3	7	16	4	8	16	4	9	17	7.9	1211.6
10.0	10.0	3	7	16	4	8	17	4	9	17	7.7	1161.0
11.0	9.0	3	7	17	4	7	16	4	9	18	7.6	1110.4
12.0	8.0	3	6	16	4	7	17	4	8	17	7.4	1059.8
13.0	7.0	3	6	16	4	7	17	4	8	17	7.2	1009.3
14.0	6.0	3	6	17	4	6	16	4	8	17	7.0	958.7
15.0	5.0	3	5	16	4	6	16	4	7	16	6.8	908.1
16.0	4.0	3	5	16	4	5	16	5	9	18	6.6	857.6
17.0	3.0	3	5	16	4	5	16	5	9	18	6.4	807.0
18.0	2.0	3	5	16	4	4	15	5	9	18	6.2	756.4
19.0	1.0	4	6	17	5	7	17	5	8	17	5.9	705.9
WL = 21.0												
1.0	20.0	3	2	1	4	4	3	4	5	4	10.0	1699.4
2.0	19.0	3	4	5	4	5	6	4	6	7	9.7	1648.9
3.0	18.0	3	5	8	4	7	10	4	7	9	9.5	1598.3
4.0	17.0	3	6	10	4	7	11	4	8	12	9.3	1547.7
5.0	16.0	3	7	13	4	8	14	4	8	13	9.1	1497.2
6.0	15.0	3	7	14	4	8	14	4	9	15	9.0	1446.6
7.0	14.0	3	7	14	4	8	15	4	9	16	8.8	1396.0
8.0	13.0	3	7	15	4	8	16	4	9	17	8.6	1345.5
9.0	12.0	3	7	16	4	8	17	4	9	17	8.4	1294.9
10.0	11.0	3	7	16	4	8	17	4	9	18	8.3	1244.3

TABLE BB (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 21.0											
11.0 10.0	2	6	16	3	6	16	4	8	17	8.1	1193.7
12.0 9.0	3	6	16	4	7	17	4	8	17	7.9	1143.2
13.0 8.0	2	5	16	4	7	17	4	8	17	7.8	1092.6
14.0 7.0	2	5	16	4	6	16	4	8	18	7.6	1042.0
15.0 6.0	3	5	16	4	6	17	4	7	17	7.4	991.5
16.0 5.0	3	5	16	4	5	16	4	7	17	7.2	940.9
17.0 4.0	3	5	16	4	5	16	4	7	17	7.0	890.3
18.0 3.0	3	4	16	4	5	16	5	9	19	6.8	839.8
19.0 2.0	3	4	16	4	4	15	5	8	18	6.6	789.2
20.0 1.0	3	4	16	4	4	15	5	8	18	6.3	738.6
WL = 22.0											
1.0 21.0	3	2	1	4	4	3	3	3	1	10.5	1782.8
2.0 20.0	3	4	5	4	5	6	4	6	7	10.3	1732.2
3.0 19.0	3	5	8	4	7	10	3	6	8	10.1	1681.6
4.0 18.0	3	6	10	4	7	11	4	8	12	9.9	1631.1
5.0 17.0	3	6	12	4	8	14	3	7	12	9.7	1580.5
6.0 16.0	3	7	14	3	6	12	3	7	13	9.5	1529.9
7.0 15.0	2	6	13	3	7	14	3	8	15	9.3	1479.4
8.0 14.0	2	6	14	3	7	15	3	8	16	9.2	1428.8
9.0 13.0	2	6	15	3	7	16	3	7	15	9.0	1378.2
10.0 12.0	2	6	15	3	6	15	3	7	16	8.8	1327.7
11.0 11.0	2	5	15	3	6	16	3	7	16	8.6	1277.1
12.0 10.0	2	5	15	3	6	16	3	7	16	8.5	1226.5
13.0 9.0	2	5	16	3	5	15	4	8	18	8.3	1175.9
14.0 8.0	2	4	15	3	5	16	4	8	18	8.1	1125.4
15.0 7.0	2	4	15	3	4	15	4	7	17	8.0	1074.8
16.0 6.0	2	3	15	3	4	15	4	7	17	7.8	1024.2
17.0 5.0	2	3	15	4	5	16	4	7	17	7.6	973.7
18.0 4.0	2	3	15	4	5	16	4	6	16	7.4	923.1
19.0 3.0	3	4	16	4	5	16	4	6	16	7.2	872.5
20.0 2.0	3	3	15	4	4	16	4	6	16	6.9	822.0
21.0 1.0	3	3	15	4	3	15	5	8	18	6.7	771.4
WL = 23.0											
1.0 22.0	3	2	1	3	2	1	3	3	2	11.1	1866.1
2.0 21.0	3	4	5	3	4	5	3	4	4	10.9	1815.5
3.0 20.0	3	5	8	3	5	8	3	6	8	10.6	1765.0
4.0 19.0	3	6	10	3	6	10	3	6	10	10.4	1714.4
5.0 18.0	3	6	12	3	6	11	3	7	12	10.3	1663.8
6.0 17.0	2	6	13	3	6	12	3	7	13	10.1	1613.3
7.0 16.0	2	6	13	3	7	14	3	7	14	9.9	1562.7
8.0 15.0	2	6	14	3	7	15	3	7	15	9.7	1512.1
9.0 14.0	2	6	15	3	6	15	3	7	15	9.5	1461.6
10.0 13.0	2	5	15	3	6	15	3	7	16	9.4	1411.0
11.0 12.0	2	5	15	3	6	16	3	7	16	9.2	1360.4
12.0 11.0	2	5	15	3	6	16	3	7	17	9.0	1309.8
13.0 10.0	2	5	16	3	5	16	3	6	16	8.9	1259.3
14.0 9.0	2	4	15	3	5	16	3	6	16	8.7	1208.7
15.0 8.0	2	4	15	3	4	15	3	6	16	8.5	1158.1
16.0 7.0	2	3	15	3	4	15	4	7	17	8.3	1107.6

TABLE BB (CONTD)

4240B PRECISION BALANCE NETWORK SETTINGS FOR MIXED 22-
AND 26-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

22-GAUGE ADJACENT TO REPEATER

LENGTH(KFT) 22-GA 26-GA	4240B BALANCE NETWORK SETTINGS BY TERMINATION									1KHZ CABLE LOSS (DB) (900 OHMS)	DC CABLE RES (OHMS)
	900 + 2.16			600 + 2.16			TELSET (35MA)				
	R1	R2	Z	R1	R2	Z	R1	R2	Z		
WL = 23.0											
17.0 6.0	2	3	15	3	3	15	4	7	17	8.1	1057.0
18.0 5.0	2	3	15	3	3	15	4	6	16	8.0	1006.4
19.0 4.0	2	3	15	3	3	15	4	6	16	7.7	955.9
20.0 3.0	3	3	15	4	4	16	4	6	16	7.5	905.3
21.0 2.0	3	3	15	4	3	15	4	6	16	7.3	854.7
22.0 1.0	3	3	15	4	3	15	4	5	15	7.0	804.2
WL = 24.0											
2.0 22.0	3	4	5	3	4	5	3	4	5	11.4	1898.9
3.0 21.0	3	5	8	3	5	8	3	5	7	11.2	1848.3
4.0 20.0	3	6	10	3	6	10	3	6	10	11.0	1797.7
5.0 19.0	2	5	11	3	6	11	3	7	12	10.8	1747.2
6.0 18.0	2	5	12	3	6	12	3	7	13	10.6	1696.6
7.0 17.0	2	6	14	3	7	14	3	7	14	10.4	1646.0
8.0 16.0	2	6	14	3	7	15	3	7	15	10.3	1595.5
9.0 15.0	2	6	15	3	6	15	3	7	15	10.1	1544.9
10.0 14.0	2	5	15	3	6	15	3	7	16	9.9	1494.3
11.0 13.0	2	5	15	3	6	16	3	7	16	9.7	1443.7
12.0 12.0	2	5	15	3	6	16	3	6	16	9.6	1393.2
13.0 11.0	2	4	15	3	5	16	3	6	16	9.4	1342.6
14.0 10.0	2	4	15	3	5	16	3	6	16	9.2	1292.0
15.0 9.0	1	3	15	3	5	16	3	6	16	9.1	1241.5
16.0 8.0	2	3	15	3	4	15	3	5	16	8.9	1190.9
17.0 7.0	2	3	15	3	3	15	3	5	16	8.7	1140.3
18.0 6.0	2	3	15	3	3	15	3	5	16	8.5	1089.8
19.0 5.0	2	2	15	3	3	15	3	4	15	8.3	1039.2
20.0 4.0	2	2	15	3	3	15	4	5	16	8.1	988.6
21.0 3.0	2	1	14	4	4	16	4	5	16	7.9	938.1
22.0 2.0	2	1	14	4	3	15	4	5	16	7.7	887.5
23.0 1.0	2	1	14	4	3	15	4	5	16	7.4	836.9

4. PRESCRIPTION SETTINGS FOR CIRCUITS REQUIRING 837- OR J99380-TYPE IMPEDANCE COMPENSATORS

4.01 MFT repeaters may be used in conjunction with impedance compensators on circuits requiring terminal balance. The 837- or J99380-type network is used to improve the circuit performance by permitting a better impedance match at the location with the balance requirement.

4.02 Different procedures must be used to determine the PBN settings when impedance compensators are used with MFT 4-2 or 2-4 repeaters. Two tables are given for nonloaded cable (using 4240B PBNs): Table CC is for an impedance of 600 ohms on the drop side of the impedance compensator and Table DD is for 900 ohms impedance. The tables list the PBN and

impedance compensator settings and the 1-kHz loss of the facility. When impedance compensators are used, the equalizers must be adjusted manually as described in Section 332-912-221.

Note: Nonloaded 25-gauge MAT cable is not recommended for use on circuits requiring terminal balance.

4.03 Table EE lists the settings for the 4240A and 4240C PBN and various 837- or J99380-type impedance compensators used on H88 loaded cable. The table assumes 3-kft end sections and gives settings for building out the end section to 6 kft. The 1-kHz loss is also given. When the facility does not match the table entry points very closely, the manual procedures described in Section 332-912-221 should be used.

TABLE CC

PRESCRIPTION SETTINGS FOR 4240B PBN AND 837- OR J99380-TYPE IMPEDANCE COMPENSATORS

837D/J99380AA DROP SIDE IMPEDANCE = 600 OHMS

LENGTH (KFT)	4240B PBN			IMPEDANCE COMPENSATOR		1 KHZ CKT LOSS (dB)
	R1	R2	Z	837D/J99380AA (600 OHM SCREWS DOWN) BOR	R POTENTIOMETER	
26 GA NL						
8.0	6	7	0	114	32	8.1
9.0	6	7	0	114	30	8.6
10.0	6	8	2	114	28	9.2
24 GA NL						
9.0	6	7	6	114	22	7.5
10.0	6	9	10	114	20	7.9
11.0	6	10	12	114	18	8.3
12.0	6	10	13	114	18	8.7
13.0	5	6	9	114	16	9.1
14.0	5	6	10	114	16	9.5
22 GA NL						
9.0	6	10	13	228	28	7.2
10.0	6	11	16	228	26	7.5
11.0	6	12	18	228	24	7.8
12.0	6	10	16	114	10	7.6
13.0	6	11	18	114	10	7.9
14.0	6	11	19	114	8	8.2
15.0	5	7	15	114	8	8.5
16.0	5	7	16	114	6	8.9
17.0	5	7	16	114	6	9.2
18.0	5	7	17	114	6	9.5

TABLE DD

PRESCRIPTION SETTINGS FOR 4240B PBN
AND 837- OR J99380-TYPE IMPEDANCE
COMPENSATORS

837D/J99380AA DROP SIDE IMPEDANCE = 900 OHMS

LENGTH (KFT)	4240B PBN			IMPEDANCE COMPENSATOR		1 KHZ CKT LOSS (dB)
	R1	R2	Z	837D/J99380AA (900 OHM SCREWS DOWN) BOR	R POTENTIOMETER	
26 GA NL						
8.0	7	15	12	114	36	8.2
9.0	6	7	0	114	34	8.7
10.0	6	8	2	114	34	9.2
11.0	6	9	4	114	32	9.7
24 GA NL						
9.0	6	6	5	114	30	7.5
10.0	6	8	9	114	28	7.9
11.0	6	9	11	114	26	8.3
12.0	6	10	13	114	24	8.7
13.0	6	10	13	114	24	9.1
14.0	5	6	10	114	24	9.5
22 GA NL						
9.0	6	9	12	228	36	7.1
10.0	6	11	16	228	34	7.4
11.0	6	11	17	228	34	7.7
12.0	6	10	16	114	18	7.6
13.0	6	11	18	114	18	7.9
14.0	6	11	19	114	16	8.3
15.0	6	11	19	114	16	8.6
16.0	5	7	16	114	16	8.9
17.0	5	7	16	114	14	9.2
18.0	5	7	17	114	14	9.5

TABLE EE

PRESCRIPTION SETTINGS FOR 4240A/4240C PBN
AND 837- OR J99380-TYPE IMPEDANCE
COMPENSATORS

END SECTION = 3.0 kft
IMPEDANCE COMPENSATOR ADJUSTED FOR 3.0 kft END SECTION

LENGTH (kft)	22H88 *				24H88 *				25H88				26H88 *											
	837A, B		837E, F/J99380AB		837A, B		837E, F/J99380AB		837J		837G		837G											
	L	R	Z	LOSS	L	R	Z	LOSS	L	R	Z	LOSS	L	R	Z	LOSS								
12.0	0	2	2	2.1	0	3	2	2.3	0	4	2	2.9	0	5	3	3.1	1	5	0	5.7	0	7	3	6.4
18.0	0	2	2	2.9	0	3	2	3.1	0	5	3	4.2	0	5	3	4.5	1	7	1	7.0	0	7	4	8.4
24.0	0	3	3	3.8	0	3	3	4.0	0	5	3	5.6	0	5	3	5.9	1	7	1	8.4				
30.0	0	3	3	4.8	0	3	3	5.0	0	4	3	7.1	0	4	3	7.3	1	6	1	9.9				
36.0	0	2	2	5.7	0	2	2	5.9	0	4	3	8.5	0	4	3	8.7								
42.0	0	2	2	6.6	0	2	3	6.8																
48.0	0	2	2	7.5	0	2	3	7.6																
54.0	0	2	2	8.3	0	2	3	8.5																

*All 4240C L Switch Settings = O (Off).

5. EQUALIZATION STRATEGY

5.01 Since the 4-wire repeaters (4-4, 4-2, or 2-4) can be used in a variety of circuit configurations, a consistent set of rules for the allocation of equalization among repeaters is necessary.

5.02 The strategy applies to the entire metallic portion of the circuit. When the circuit includes 4-4 or 2-4 terminal repeaters with 4-2 or 2-4 intermediate repeaters, the equalization allocation must follow the guidelines in this section.

Note: In some cases the 4-4 repeaters may use the same strategy as described in Section 332-912-232 (post equalization).

5.03 The procedures in this section may require the equalizers to post equalize, pre-equalize, both post and pre-equalize, or be set to zero. The typical equalization strategy for circuits without 4-4 intermediate repeaters is shown in Fig. 2. For additional information, see Section 851-300-130.

5.04 All the circuits in Fig. 2 have H88 loaded 4-wire facilities. For nonloaded or combinations of loaded and nonloaded facilities, the manual adjustment procedures described in Section 332-912-221 must be used to determine the equalizer settings.

5.05 Four basic rules for equalization of circuits with 2-wire extensions have been developed.

- Circuits with a single repeater and single-loaded 2-wire extension are not equalized (Fig. 2A).
- Repeaters with two equalizers other than 4-4 intermediate are set alike (Fig. 2B).
- A maximum of two cable sections may be equalized by a single repeater.
- Repeaters with only one 309B equalizer must have a corresponding equalizer for the other voice path (Fig. 2C).

5.06 The circuits shown in Fig. 2 indicate the type of equalization, which cable sections are equalized by each equalizer and which equalizers have identical settings. The repeater type is also shown but the type used will depend on the office wiring arrangement (see Section 332-910-101 for a discussion of MFT wiring arrangements).

5.07 The circuit configurations shown in Fig. 3 include the use of 4-4 intermediate repeaters. When additional 4-4 intermediate repeaters are used, the additional 4-wire link should be equalized as shown in Fig. 3(F).

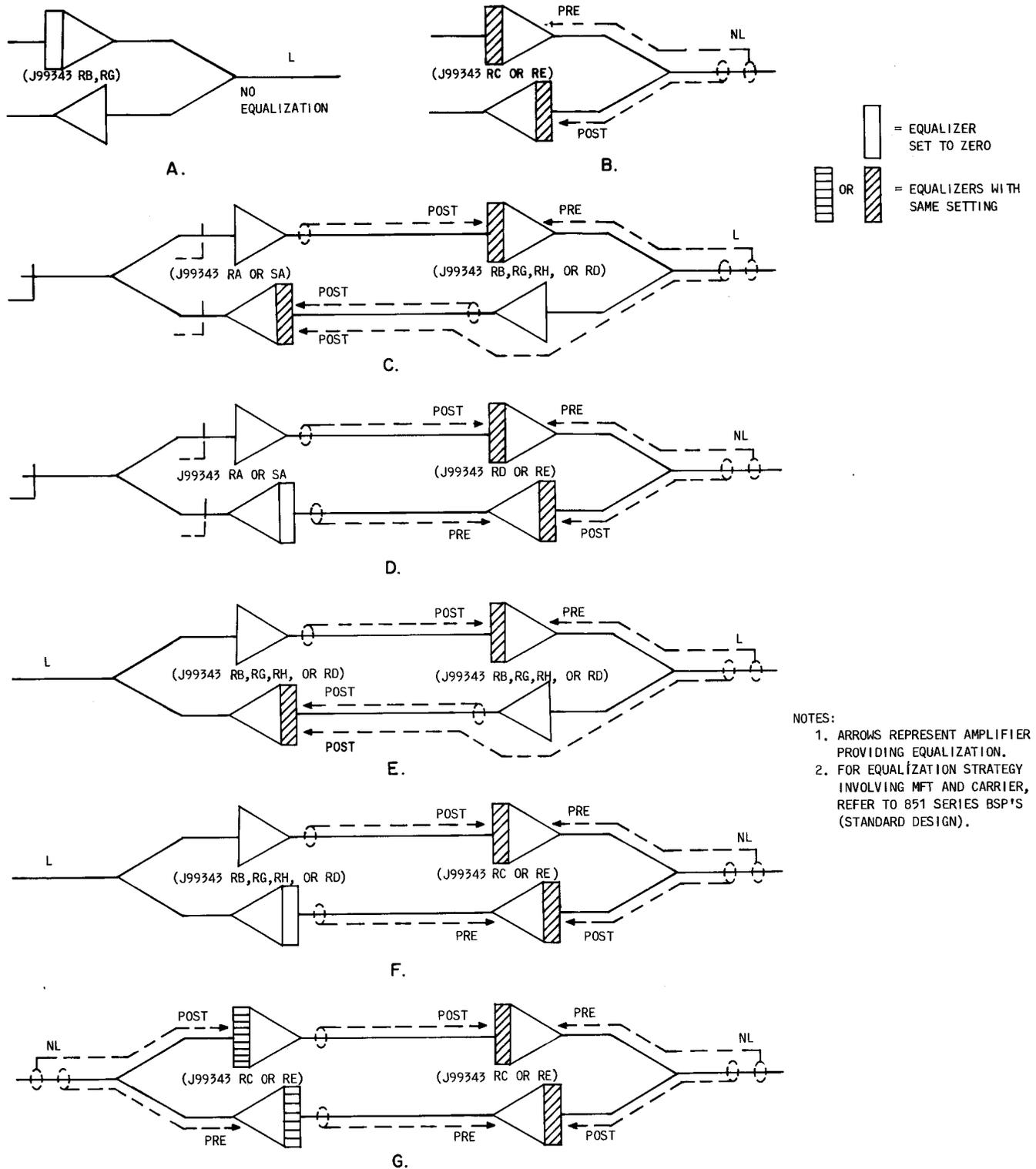


Fig. 2—Equalization Strategy

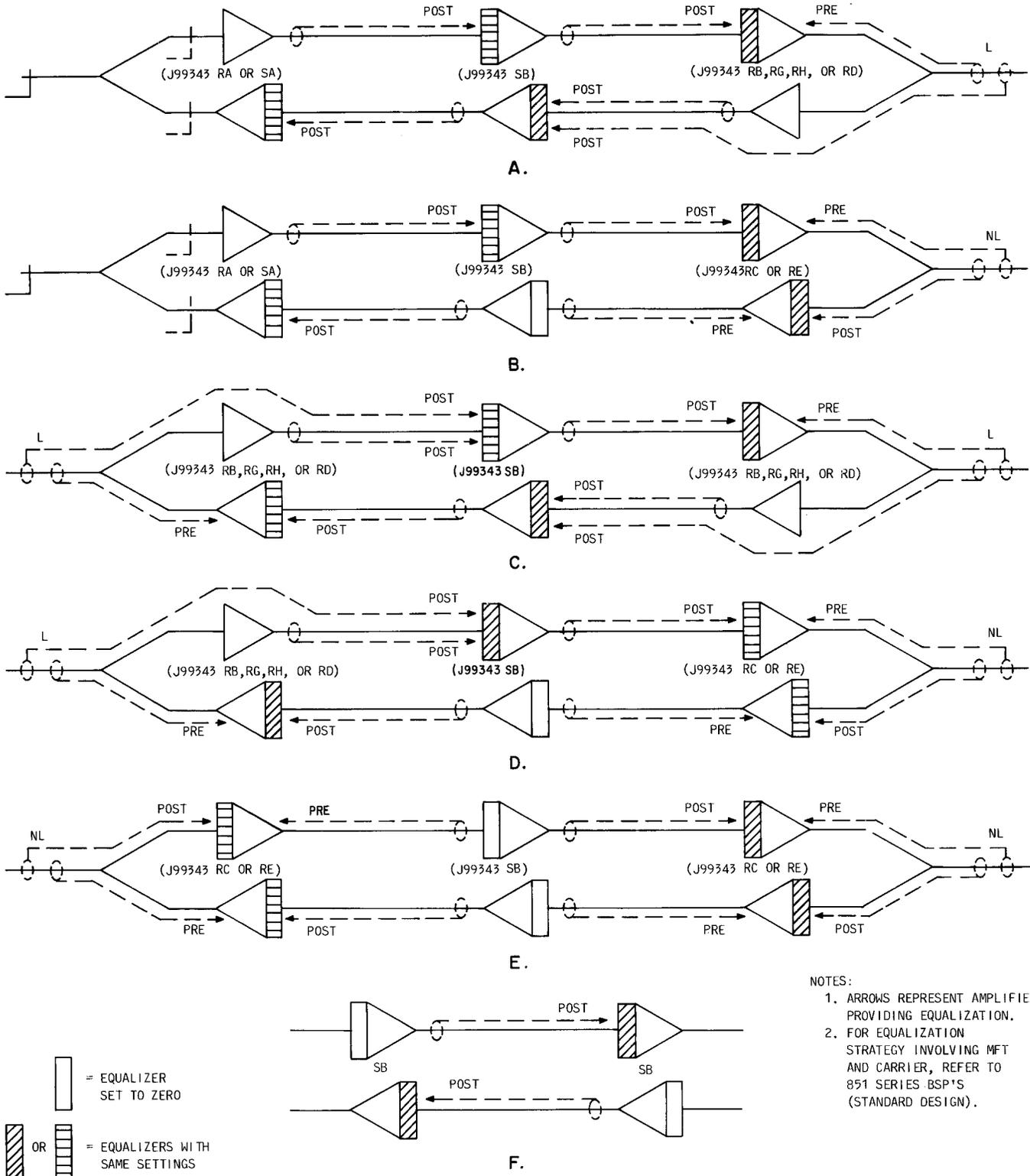


Fig. 3—Equalization Strategy

6. CABLE LOSS COMPUTATIONS

6.01 The 1-kHz loss of nonloaded cable may be computed using the total length of the facility, the dc resistance, and the terminating impedances. Use the following procedure to determine the 1-kHz cable loss.

- (a) Calculate the total length of the cable in kilofeet.

Note: 25-gauge MAT cable should be converted to an equivalent length of 26-gauge cable before determining total length (see paragraph 7.05).

- (b) Calculate the total resistance of the cable from Table FF.

- (c) Using the values determined in (a) and (b), find the estimated insertion loss using Fig. 4 for 900-ohm terminations on both ends, Fig. 5 for a 600- and 900-ohm combination termination, or Fig. 6 for 600-ohm terminations on both ends.

- (d) If bridge tap (BT) is present, include the length of BT(s) in the total facility length, but do not include the resistance of the BT in the total resistance.

6.02 To determine the 1-kHz loss of loaded cable, multiply the lengths of the gauges by the loss/kft values shown in Table GG. Add the losses of individual sections to determine the total 1-kHz loss.

TABLE FF

**DC RESISTANCE CONSTANTS
FOR NL CABLE**

GAUGE	OHMS/KFT
19	16.3
22	32.8
24	51.9
26	88.3

TABLE GG

H88 LOADED CABLE LOSS

GAUGE	LOSS/KFT (dB)
26	.34
24	.23
22	.15
19	.08

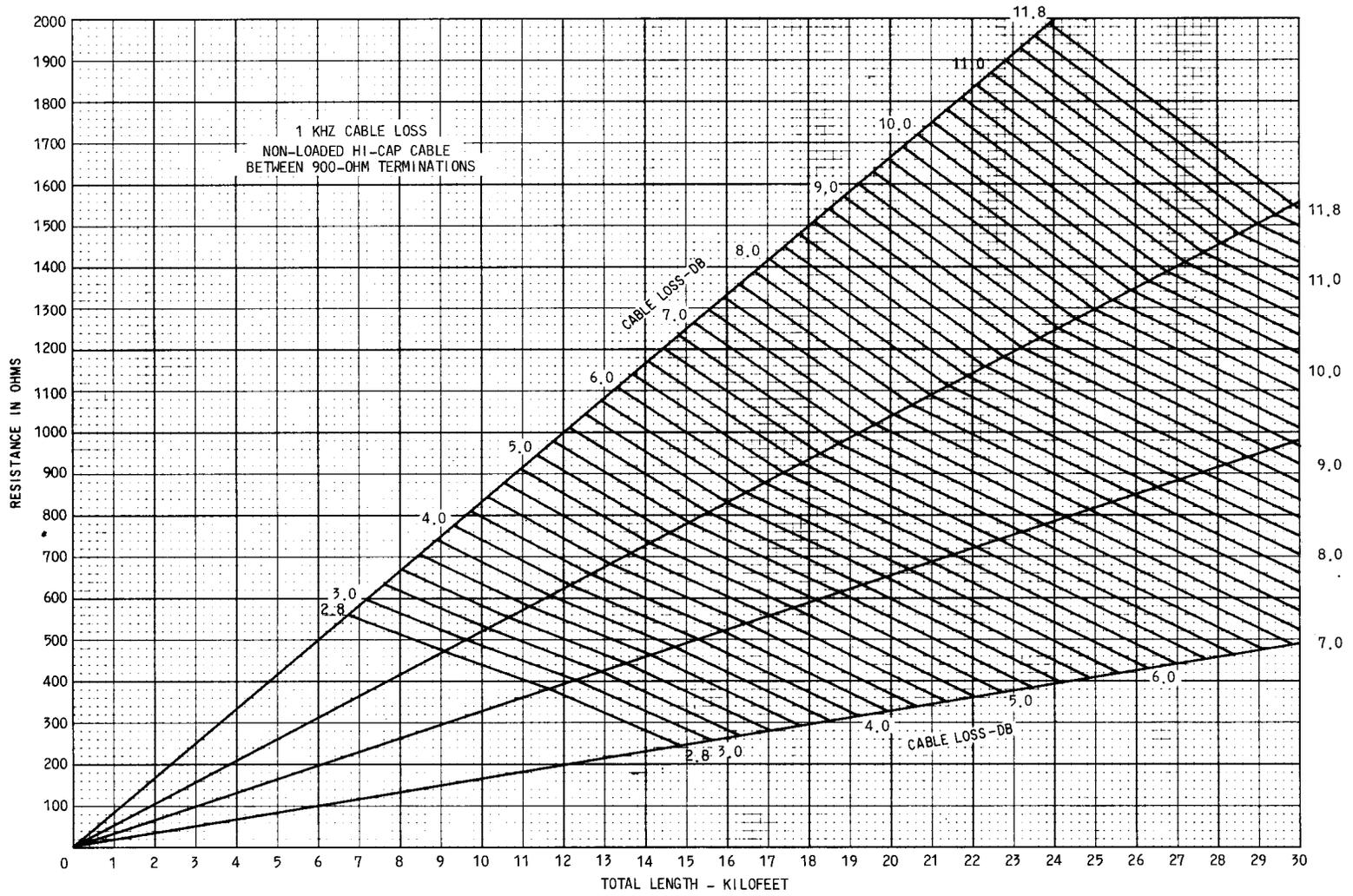


Fig. 4—1 kHz Cable Loss (900 to 900)

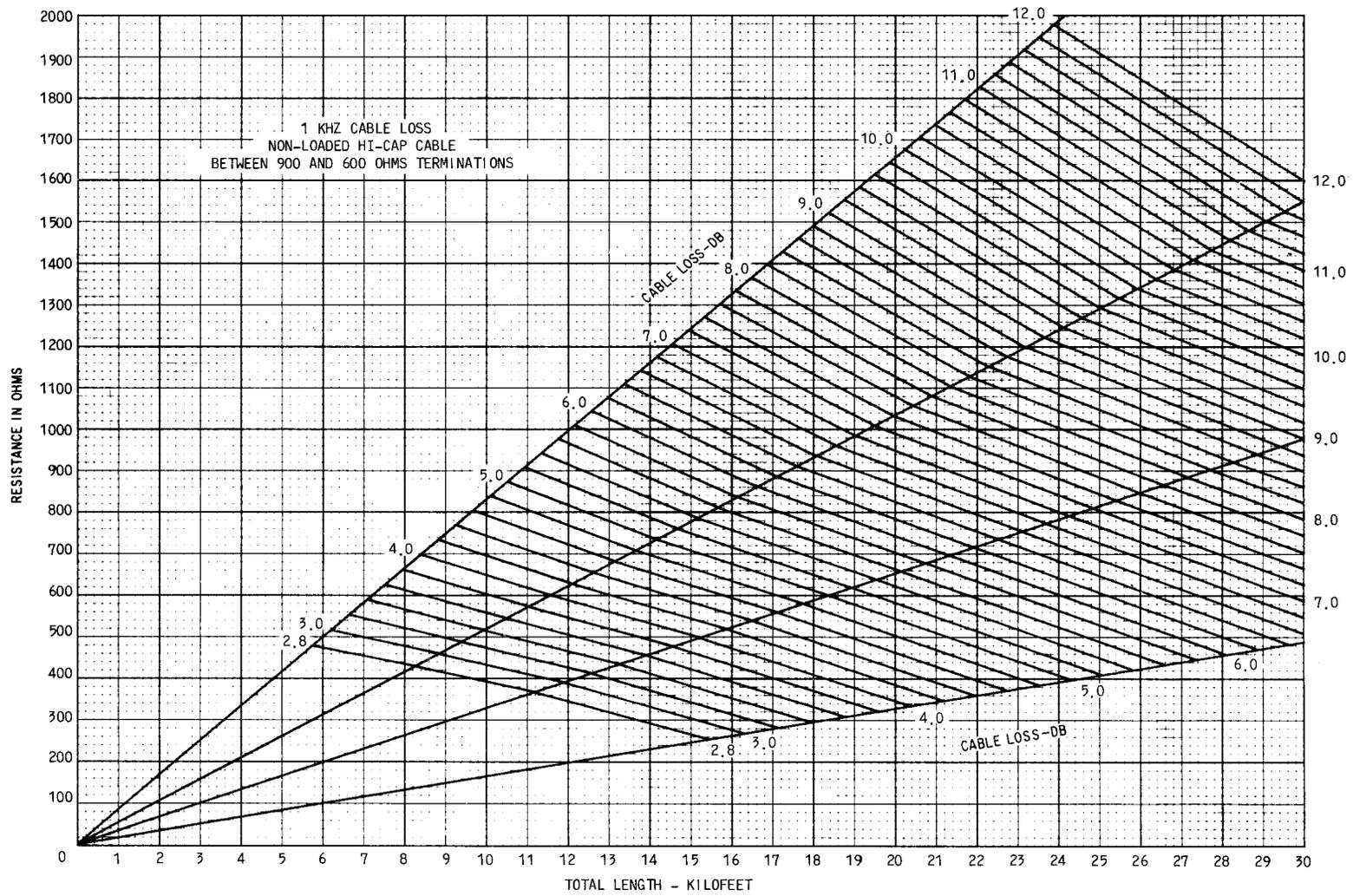


Fig. 5—1 kHz Cable Loss (900 to 600)

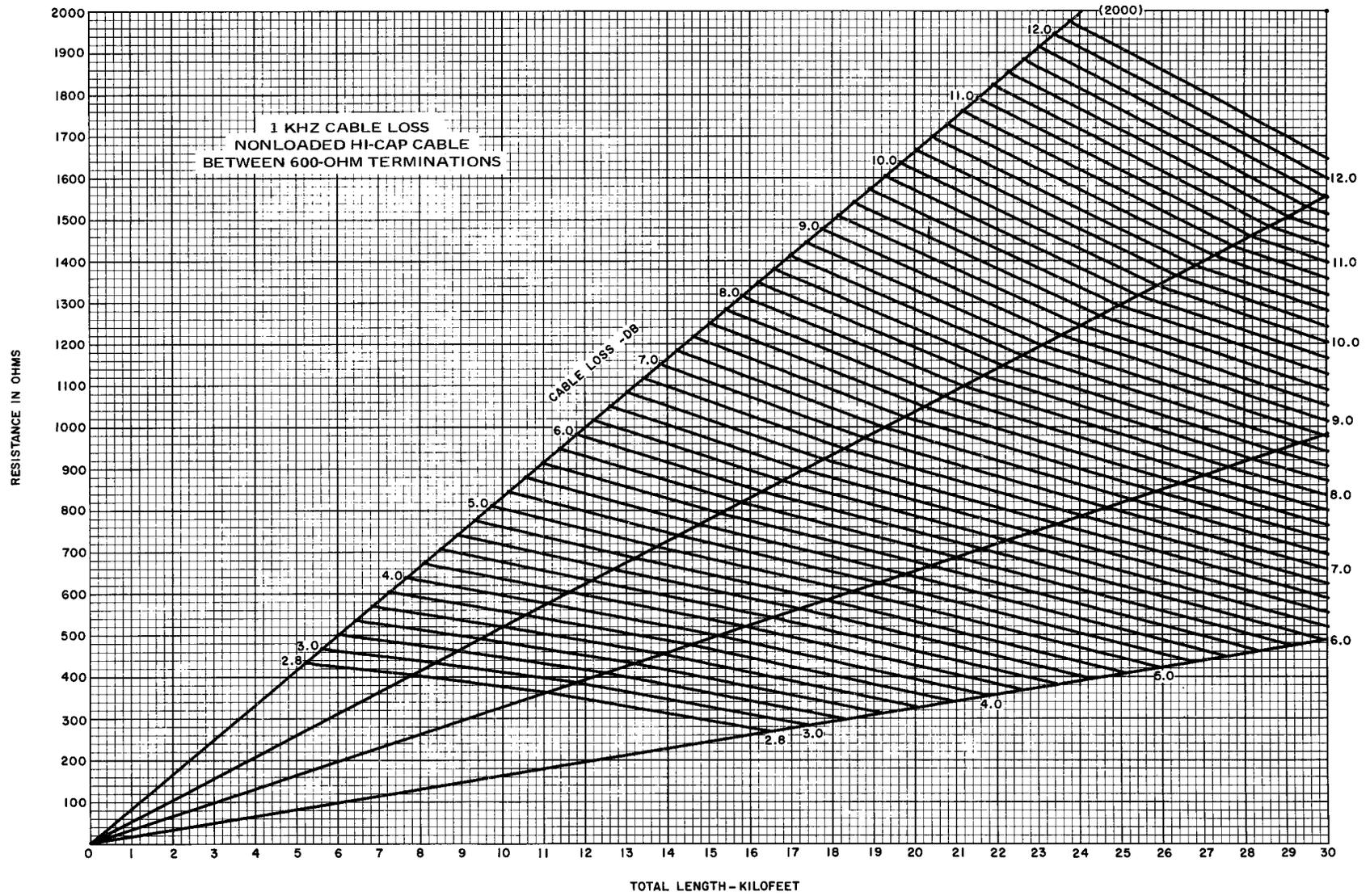


Fig. 6—1 kHz Cable Loss (600 to 600)

7. PRESCRIPTION EQUALIZER SETTINGS

A. Prescription Equalizer Setting Tables

7.01 The tables in this section are divided into four categories:

- Terminal repeaters with 2-wire extensions
- Loaded 4-wire facilities with loaded 2-wire extensions
- Loaded 4-wire facilities with nonloaded 2-wire extensions
- Loaded 4-wire facilities between 4-wire repeaters (4-4 type).

7.02 The tables are computed for only loaded 4-wire facilities and most are for single-gauge facilities. To use the tables for multigauge facilities, equivalence procedures must be used to determine the single- or double-gauge equivalent length (see paragraph 7.03). The equivalence procedures given in this section are for computing equalizer settings only.

7.03 To convert a cable facility with two gauges to the equivalent single-gauge length, use the total length of the facility and the gauge of the longest segment. To convert a cable facility containing more than two gauges (mixed gauges) to a 2-gauge equivalent, use the two gauges which have the longest lengths as the major gauges, and add the lengths of the remaining segments to the major gauges with the closest gauge.

7.04 Conversion of nonloaded facilities to a single-gauge must consider the termination at the far end. Two conversion factor tables are given: one for 900-ohm terminations and one for 600-ohm terminations (Table HH for 900 ohms and Table II for 600 ohms). The equivalent length of a major gauge is found by the formula:

$$\text{Equivalent length} = K \text{ times the length of the minor gauge.}$$

The constant K is obtained from Table HH for 900-ohm terminations or Table II for 600-ohm terminations. This equivalent length is added to the length of the major gauge for entry in the tables. For conversion of bridged taps to an equivalent length of nonloaded cable, see Part 8.

TABLE HH

CONSTANT (K) FOR CONVERSION TO EQUIVALENT GAUGE (900 TO 900 OHMS)

		Minor Gauge			
		19	22	24	26
MAJOR GAUGE	19	1.00	1.06	1.17	1.30
	22	.95	1.00	1.10	1.22
	24	.86	.91	1.00	1.11
	26	.79	.83	.91	1.00

TABLE II

CONSTANT (K) FOR CONVERSION TO EQUIVALENT GAUGE (900 TO 600 OHMS)

		Minor Gauge			
		19	22	24	26
MAJOR GAUGE	19	1.00	1.11	1.27	1.48
	22	.91	1.00	1.14	1.32
	24	.80	.88	1.00	1.15
	26	.70	.77	.88	1.00

7.05 Nonloaded MAT cable may be converted to an equivalent length of 26-gauge cable for entry into the tables for facilities composed of more than one gauge. The 25-gauge length is multiplied by .77 to equate to a 26-gauge nonloaded cable.

7.06 The 309B equalizer settings for 4-2 terminal repeaters are given in four sets of tables. Table JJ is for single-gauge, 2-wire extensions with a 900-ohm termination at the far end. Table KK is for single-gauge with a 600-ohm termination. Tables LL and MM are for 2-gauge extensions with 900- and 600-ohm terminations, respectively.

Note: Nonloaded 25-gauge MAT cable may be converted to an equivalent length of 26-gauge nonloaded cable by multiplying by .77 and using the resultant length as 26-gauge in Tables JJ, KK, LL, and MM.

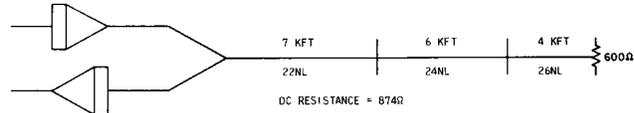
7.07 The tables for intermediate repeaters are given by the gauge of the 4-wire cable section and the far end termination. Tables NN, OO, PP, and QQ are for 19-, 22-, 24-, and 26-gauge loaded 4-wire facilities with loaded 2-wire extensions terminated in 900 ohms. Tables RR, SS, TT, and UU are for the same facilities terminated in 600 ohms. Loaded 24H88 cable values can be used for loaded 25H88 MAT cable values in these tables (LL through RR).

7.08 Settings for 19-, 22-, 24-, and 26-gauge loaded 4-wire facilities with nonloaded 2-wire extensions terminated in 900 ohms are given in Tables VV, WW, XX, and YY, respectively. Tables ZZ, AAA, BBB, and CCC are for the same facilities terminated in 600 ohms. Values shown in Tables XX and BBB for 24-gauge H88 loaded 4-wire cable can be used for 25-gauge H88 loaded 4-wire MAT cable. However, the nonloaded 25-gauge MAT 2-wire extension length is converted to an equivalent nonloaded 26-gauge length by multiplying by .77.

7.09 For convenience, Tables DDD, EEE, and FFF are given for 4-wire cable sections. These tables are used only for circuit segments as shown in Fig. 3(F).

7.10 The following examples demonstrate the use of the equalizer tables.

Example 1:



Determine the equalizer settings and 1-kHz loss of the circuit above.

- (1) Since this circuit uses a terminal repeater, it is equalized as shown in Fig. 2(B).
- (2) The 2-wire extension must be converted to a 2-gauge equivalent to use Table MM (600-ohm termination).
- (3) Convert 4 kft 26-gauge to a 24-gauge equivalent (paragraph 7.04).

$$EL = 4(K)$$

$$EL = 4(1.15) \text{ from Table II}$$

$$EL = 4.6 \text{ kft of 24-gauge}$$

- (4) Using Table MM, the entry points are:

$$WL = 18 \text{ kft} \quad (7 \text{ kft} + 6 \text{ kft} + 4.6 \text{ kft})$$

$$GA1 = 10.6 \text{ or } 11 \text{ kft 24-gauge rounded off}$$

$$GA2 = 7 \text{ kft 22-gauge}$$

Therefore

$$BW = 15$$

$$HT = 0$$

$$SLOPE = 8, NL$$

$$EQLR \text{ GAIN} = 3.7 \text{ dB}$$

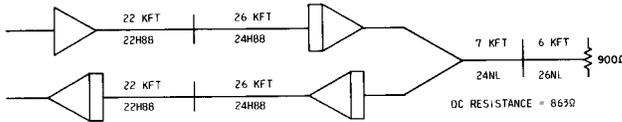
- (5) The 1-kHz loss is computed using Fig. 5.

$$\text{Total length} = 17 \text{ kft}$$

$$\text{DC resistance} = 874 \text{ ohms}$$

$$1\text{-kHz loss} = 6.1 \text{ dB}$$

Example 2:



Determine the equalizer settings and 1-kHz loss for the above circuit.

- (1) The circuit should be equalized as shown in Fig. 2(D).
- (2) Convert the 4-wire facility to a single-gauge equivalent (paragraph 7.03).

Major gauge = 24H88
 Minor gauge = 22H88

Equivalent length = 22 kft + 26 kft = 48 kft 24H88

- (3) Convert the 2-wire extension to a single-gauge equivalent (paragraph 7.04).

Major gauge = 24
 Minor gauge = 26

From Table HH $K = 1.11$

Therefore $EL = 6(1.11)$

Therefore $EL = 6.6$ kft 24-gauge

Total length of 24-gauge = 6.6 + 7 = 13.6 kft or 14 kft rounded off

- (4) Using Table XX:

4-wire facility = 48 kft 24H88
 2-wire facility = 14 kft 24 NL

The equalizer settings are:

BW = 15
 HT = 0
 SLOPE = 13, NL
 EQLR GAIN = 5.8 dB

- (5) The 1-kHz loss of the circuit equals the 4-wire loss plus the 2-wire loss.

4-wire loss

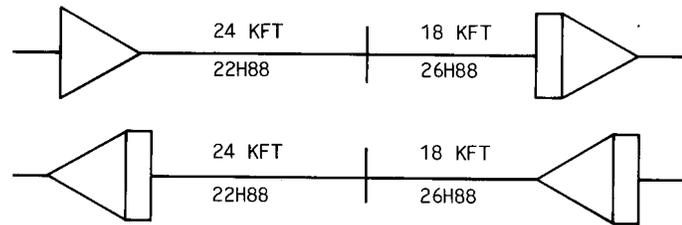
22 kft 22H88 $22 \times .15$ dB/kft (Table GG)
 26 kft 24H88 $26 \times .23$ dB/kft (Table GG)
 4-wire loss = 3.3 dB + 6.0 dB = 9.3 dB

2-wire loss

Total length = 14 kft
 DC resistance = 863 ohms
 From Fig. 4 1-kHz loss = 5.3 dB

Total facility loss = 9.3 dB + 5.3 dB = 14.6 dB

Example 3:



Determine the equalizer settings and 1-kHz loss of the 4-wire segment of the circuit above.

- (1) Since this is a segment of a circuit between 4-wire repeaters, the 4-wire tables must be used (Table FFF).

- (2) The table entry points are:

GA1 = 18 kft 26H88
 GA2 = 24 kft 22H88

- (3) From Table FFF 26/22 column, the settings for 18 kft 26-gauge and 24 kft 22-gauge are:

BW = 5
 HT = 5
 SLOPE = 3, L
 EQLR GAIN = 3.7 dB

- (4) The 1-kHz loss can be estimated using the factors from Table GG:

24 kft 22H88 = $24 \times .15$ dB/kft = 3.6 dB
 18 kft 26H88 = $18 \times .34$ dB/kft = 6.1 dB

Total facility loss = 9.7 dB

TABLE JJ

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR SINGLE
GAUGE NONLOADED 2-WIRE FACILITIES WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)	2-WIRE = 19GA				2-WIRE = 22GA				2-WIRE = 24GA				2-WIRE = 26GA							
	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN
1.0	0	0	L	0.0	0.0	0	0	L	0.0	0.0	0	0	L	0.0	0.0	0	0	L	0.0	0.0
2.0	0	1	L	1.4	1.4	0	1	L	1.4	1.4	0	1	L	1.4	1.4	0	1	L	1.4	1.4
3.0	0	1	L	1.4	1.4	0	1	L	1.4	1.4	0	1	L	1.4	1.4	0	1	L	1.4	1.4
4.0	0	2	L	2.6	2.6	0	2	L	2.6	2.6	0	2	L	2.6	2.6	0	2	L	2.6	2.6
5.0	0	2	L	2.6	2.6	0	2	L	2.6	2.6	0	2	L	2.6	2.6	0	2	L	2.6	2.6
6.0	0	3	L	3.7	3.7	0	3	L	3.7	3.7	0	3	L	3.7	3.7	0	3	L	3.7	3.7
7.0	0	4	L	4.7	4.7	0	4	L	4.7	4.7	0	4	L	4.7	4.7	0	4	L	4.7	4.7
8.0	0	5	L	5.5	5.5	0	5	L	5.5	5.5	0	5	L	5.5	5.5	1	5	L	5.6	5.6
9.0	1	5	L	5.6	5.6	1	5	L	5.6	5.6	1	6	L	6.4	6.4	2	5	L	5.7	5.7
10.0	2	5	L	5.7	5.7	2	5	L	5.7	5.7	2	6	L	6.5	6.5	3	6	L	6.6	6.6
11.0	2	7	L	7.4	7.4	3	6	L	6.6	6.6	3	7	L	7.5	7.5	4	6	L	6.7	6.7
12.0	3	7	L	7.5	7.5	3	8	L	8.0	8.0	4	7	L	7.6	7.6	5	7	L	7.7	7.7
13.0	4	8	L	8.1	8.1	4	8	L	8.1	8.1	5	8	L	8.3	8.3	0	7	NL	3.4	3.4
14.0	4	11	L	9.9	9.9	5	8	L	8.3	8.3	0	7	NL	3.4	3.4	1	7	NL	3.4	3.4
15.0	5	11	L	10.0	10.0	5	13	L	11.0	11.0	0	8	NL	3.7	3.7	1	9	NL	4.2	4.2
16.0	5	15	L	11.9	11.9	0	8	NL	3.7	3.7	1	8	NL	3.8	3.8	2	9	NL	4.3	4.3
17.0	0	8	NL	3.7	3.7	0	9	NL	4.2	4.2	1	9	NL	4.2	4.2	2	10	NL	4.8	4.8
18.0	0	9	NL	4.2	4.2	1	9	NL	4.2	4.2	2	10	NL	4.8	4.8	3	11	NL	5.3	5.3

TABLE KK

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR SINGLE
GAUGE NONLOADED 2-WIRE FACILITIES WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)	2-WIRE = 19GA				2-WIRE = 22GA				2-WIRE = 24GA				2-WIRE = 26GA			
	BW = 15		EQLR		BW = 15		EQLR		BW = 15		EQLR		BW = 15		EQLR	
	HT	SLOPE	L	GAIN												
1.0	0	0	L	0.0												
2.0	0	1	L	1.4												
3.0	0	1	L	1.4												
4.0	0	1	L	1.4												
5.0	0	2	L	2.6												
6.0	0	2	L	2.6												
7.0	0	3	L	3.7												
8.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
9.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5	0	5	L	5.5
10.0	0	5	L	5.5	0	5	L	5.5	1	5	L	5.6	1	6	L	6.4
11.0	1	5	L	5.6	1	5	L	5.6	2	5	L	5.7	2	6	L	6.5
12.0	1	6	L	6.4	2	5	L	5.7	3	5	L	5.8	3	7	L	7.5
13.0	2	6	L	6.5	2	7	L	7.4	3	7	L	7.5	4	7	L	7.6
14.0	3	6	L	6.6	3	7	L	7.5	4	7	L	7.6	5	8	L	8.3
15.0	3	8	L	8.0	4	7	L	7.6	5	7	L	7.7	6	8	L	8.5
16.0	4	8	L	8.1	4	10	L	9.3	5	12	L	10.6	6	15	L	12.1
17.0	4	11	L	9.9	5	9	L	8.9	6	11	L	10.2	7	14	L	11.9
18.0	5	10	L	9.5	5	15	L	11.9	6	15	L	12.1	8	11	L	10.8

TABLE LL

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT) GA1 GA2	309B EQUALIZER SETTINGS BY GAUGE											
	24/22 GAUGE				26/24 GAUGE				26/22 GAUGE			
	BW = 15 HT	EQLR SLOPE	EQLR GAIN		BW = 15 HT	EQLR SLOPE	EQLR GAIN		BW = 15 HT	EQLR SLOPE	EQLR GAIN	
WL= 2.0 1.0 1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
WL= 3.0 1.0 2.0 2.0 1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
WL= 4.0 1.0 3.0 2.0 2.0 3.0 1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
WL= 5.0 1.0 4.0 2.0 3.0 3.0 2.0 4.0 1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
WL= 6.0 1.0 5.0 2.0 4.0 3.0 3.0 4.0 2.0 5.0 1.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
WL= 7.0 1.0 6.0 2.0 5.0 3.0 4.0 4.0 3.0 5.0 2.0 6.0 1.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
WL= 8.0 1.0 7.0 2.0 6.0 3.0 5.0 4.0 4.0 5.0 3.0 6.0 2.0	0	5	L	5.5	1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	0	5	L	5.5
					1	4	L	4.7	1	4	L	4.7

TABLE LL (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT) GA1 GA2		309B EQUALIZER SETTINGS BY GAUGE								
		24/22 GAUGE			26/24 GAUGE			26/22 GAUGE		
		BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN
WL= 8.0 7.0 1.0		0	5 L	5.5	1	5 L	5.6	1	4 L	4.7
WL= 9.0 1.0 8.0		1	5 L	5.6	2	5 L	5.7	1	5 L	5.6
2.0 7.0		1	5 L	5.6	2	5 L	5.7	1	6 L	6.4
3.0 6.0		1	5 L	5.6	2	5 L	5.7	1	6 L	6.4
4.0 5.0		1	5 L	5.6	2	5 L	5.7	1	6 L	6.4
5.0 4.0		1	5 L	5.6	2	5 L	5.7	1	6 L	6.4
6.0 3.0		1	6 L	6.4	2	5 L	5.7	2	5 L	5.7
7.0 2.0		1	6 L	6.4	2	5 L	5.7	2	5 L	5.7
8.0 1.0		1	6 L	6.4	2	5 L	5.7	2	5 L	5.7
WL= 10.0 1.0 9.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
2.0 8.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
3.0 7.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
4.0 6.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
5.0 5.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
6.0 4.0		2	6 L	6.5	3	5 L	5.8	2	6 L	6.5
7.0 3.0		2	6 L	6.5	3	5 L	5.8	3	5 L	5.8
8.0 2.0		2	6 L	6.5	3	5 L	5.8	3	5 L	5.8
9.0 1.0		2	6 L	6.5	3	6 L	6.6	3	5 L	5.8
WL= 11.0 1.0 10.0		3	6 L	6.6	3	7 L	7.5	3	6 L	6.6
2.0 9.0		3	6 L	6.6	3	7 L	7.5	3	6 L	6.6
3.0 8.0		3	6 L	6.6	3	8 L	8.0	3	7 L	7.5
4.0 7.0		3	6 L	6.6	3	8 L	8.0	3	7 L	7.5
5.0 6.0		3	6 L	6.6	3	8 L	8.0	3	7 L	7.5
6.0 5.0		3	6 L	6.6	4	6 L	6.7	3	7 L	7.5
7.0 4.0		3	6 L	6.6	4	6 L	6.7	3	7 L	7.5
8.0 3.0		3	6 L	6.6	4	6 L	6.7	3	7 L	7.5
9.0 2.0		3	7 L	7.5	4	6 L	6.7	4	6 L	6.7
10.0 1.0		3	7 L	7.5	4	6 L	6.7	4	6 L	6.7
WL= 12.0 1.0 11.0		3	8 L	8.0	4	8 L	8.1	4	6 L	6.7
2.0 10.0		3	9 L	8.6	4	8 L	8.1	4	7 L	7.6
3.0 9.0		4	6 L	6.7	4	8 L	8.1	4	7 L	7.6

TABLE LL (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT) GA1 GA2	309B EQUALIZER SETTINGS BY GAUGE									
	24/22 GAUGE			26/24 GAUGE			26/22 GAUGE			
	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	
WL= 12.0										
4.0	8.0	4	6 L	6.7	4	9 L	8.7	4	7 L	7.6
5.0	7.0	4	6 L	6.7	4	9 L	8.7	4	7 L	7.6
6.0	6.0	4	7 L	7.6	4	9 L	8.7	4	7 L	7.6
7.0	5.0	4	7 L	7.6	4	9 L	8.7	4	7 L	7.6
8.0	4.0	4	7 L	7.6	4	9 L	8.7	4	8 L	8.1
9.0	3.0	4	7 L	7.6	4	9 L	8.7	4	8 L	8.1
10.0	2.0	4	7 L	7.6	4	9 L	8.7	4	8 L	8.1
11.0	1.0	4	7 L	7.6	5	6 L	6.9	4	9 L	8.7
WL= 13.0										
1.0	12.0	4	9 L	8.7	5	8 L	8.3	4	9 L	8.7
2.0	11.0	4	9 L	8.7	5	9 L	8.9	4	10 L	9.3
3.0	10.0	4	9 L	8.7	5	9 L	8.9	4	10 L	9.3
4.0	9.0	4	9 L	8.7	5	9 L	8.9	4	11 L	9.9
5.0	8.0	4	10 L	9.3	5	9 L	8.9	5	7 L	7.7
6.0	7.0	4	10 L	9.3	5	9 L	8.9	5	7 L	7.7
7.0	6.0	4	10 L	9.3	5	9 L	8.9	5	8 L	8.3
8.0	5.0	4	10 L	9.3	5	10 L	9.5	5	8 L	8.3
9.0	4.0	4	10 L	9.3	5	10 L	9.5	5	8 L	8.3
10.0	3.0	4	11 L	9.9	5	10 L	9.5	5	9 L	8.9
11.0	2.0	5	7 L	7.7	5	10 L	9.5	5	9 L	8.9
12.0	1.0	5	7 L	7.7	0	7 NL	3.4	5	10 L	9.5
WL= 14.0										
1.0	13.0	5	9 L	8.9	0	7 NL	3.4	5	9 L	8.9
2.0	12.0	5	9 L	8.9	0	7 NL	3.4	5	10 L	9.5
3.0	11.0	5	9 L	8.9	0	7 NL	3.4	5	11 L	10.0
4.0	10.0	5	9 L	8.9	0	7 NL	3.4	5	11 L	10.0
5.0	9.0	5	10 L	9.5	0	7 NL	3.4	5	12 L	10.6
6.0	8.0	5	10 L	9.5	0	8 NL	3.7	5	12 L	10.6
7.0	7.0	5	10 L	9.5	0	8 NL	3.7	0	7 NL	3.4
8.0	6.0	5	10 L	9.5	0	8 NL	3.7	0	7 NL	3.4
9.0	5.0	5	11 L	10.0	6	10 L	9.7	0	7 NL	3.4
10.0	4.0	5	11 L	10.0	6	10 L	9.7	0	7 NL	3.4
11.0	3.0	5	11 L	10.0	6	10 L	9.7	6	9 L	9.1
12.0	2.0	5	12 L	10.6	6	11 L	10.2	6	10 L	9.7
13.0	1.0	5	12 L	10.6	6	12 L	10.7	6	11 L	10.2
WL= 15.0										

TABLE LL (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT) GA1 GA2	309B EQUALIZER SETTINGS BY GAUGE												
	24/22 GAUGE			26/24 GAUGE			26/22 GAUGE						
	BW = 15 HT	EQLR SLOPE	EQLR GAIN	BW = 15 HT	EQLR SLOPE	EQLR GAIN	BW = 15 HT	EQLR SLOPE	EQLR GAIN				
WL= 15.0													
1.0	14.0	5	14	L	11.5	6	15	L	12.1	5	15	L	11.9
2.0	13.0	5	15	L	11.9	6	15	L	12.1	0	7	NL	3.4
3.0	12.0	5	15	L	11.9	6	15	L	12.1	0	8	NL	3.7
4.0	11.0	0	7	NL	3.4	6	15	L	12.1	0	8	NL	3.7
5.0	10.0	0	7	NL	3.4	6	15	L	12.1	0	8	NL	3.7
6.0	9.0	0	7	NL	3.4	1	8	NL	3.8	0	8	NL	3.7
7.0	8.0	0	7	NL	3.4	1	8	NL	3.8	6	12	L	10.7
8.0	7.0	0	7	NL	3.4	1	8	NL	3.8	6	13	L	11.2
9.0	6.0	0	8	NL	3.7	1	8	NL	3.8	6	14	L	11.7
10.0	5.0	0	8	NL	3.7	1	8	NL	3.8	6	15	L	12.1
11.0	4.0	0	8	NL	3.7	1	8	NL	3.8	1	8	NL	3.8
12.0	3.0	0	8	NL	3.7	1	8	NL	3.8	1	8	NL	3.8
13.0	2.0	0	8	NL	3.7	1	8	NL	3.8	1	8	NL	3.8
14.0	1.0	0	8	NL	3.7	1	8	NL	3.8	1	8	NL	3.8
WL= 16.0													
1.0	15.0	0	8	NL	3.7	1	8	NL	3.8	0	8	NL	3.7
2.0	14.0	0	8	NL	3.7	1	9	NL	4.2	0	8	NL	3.7
3.0	13.0	0	8	NL	3.7	1	9	NL	4.2	6	15	L	12.1
4.0	12.0	0	8	NL	3.7	1	9	NL	4.2	6	15	L	12.1
5.0	11.0	0	8	NL	3.7	1	9	NL	4.2	0	9	NL	4.2
6.0	10.0	6	15	L	12.1	1	9	NL	4.2	1	8	NL	3.8
7.0	9.0	6	15	L	12.1	1	9	NL	4.2	1	8	NL	3.8
8.0	8.0	6	15	L	12.1	1	9	NL	4.2	1	8	NL	3.8
9.0	7.0	6	15	L	12.1	7	15	L	12.4	1	9	NL	4.2
10.0	6.0	6	15	L	12.1	7	15	L	12.4	1	9	NL	4.2
11.0	5.0	6	15	L	12.1	7	15	L	12.4	7	14	L	11.9
12.0	4.0	1	8	NL	3.8	7	15	L	12.4	7	15	L	12.4
13.0	3.0	1	8	NL	3.8	2	9	NL	4.3	7	15	L	12.4
14.0	2.0	1	8	NL	3.8	2	9	NL	4.3	7	15	L	12.4
15.0	1.0	1	8	NL	3.8	2	9	NL	4.3	2	9	NL	4.3
WL= 17.0													
1.0	16.0	0	9	NL	4.2	1	10	NL	4.7	0	9	NL	4.2
2.0	15.0	0	9	NL	4.2	1	10	NL	4.7	0	9	NL	4.2
3.0	14.0	0	9	NL	4.2	1	10	NL	4.7	1	9	NL	4.2
4.0	13.0	0	9	NL	4.2	1	10	NL	4.7	1	9	NL	4.2
5.0	12.0	0	9	NL	4.2	2	9	NL	4.3	1	9	NL	4.2
6.0	11.0	1	8	NL	3.8	2	9	NL	4.3	1	9	NL	4.2

TABLE LL (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT) GA1 GA2	309B EQUALIZER SETTINGS BY GAUGE									
	24/22 GAUGE			26/24 GAUGE			26/22 GAUGE			
	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	
WL= 17.0										
7.0	10.0	1	9 NL	4.2	2	9 NL	4.3	1	9 NL	4.2
8.0	9.0	1	9 NL	4.2	2	9 NL	4.3	1	9 NL	4.2
9.0	8.0	1	9 NL	4.2	2	9 NL	4.3	7	15 L	12.4
10.0	7.0	1	9 NL	4.2	2	9 NL	4.3	2	9 NL	4.3
11.0	6.0	1	9 NL	4.2	2	10 NL	4.8	2	9 NL	4.3
12.0	5.0	1	9 NL	4.2	2	10 NL	4.8	2	9 NL	4.3
13.0	4.0	1	9 NL	4.2	2	10 NL	4.8	2	9 NL	4.3
14.0	3.0	1	9 NL	4.2	2	10 NL	4.8	2	9 NL	4.3
15.0	2.0	1	9 NL	4.2	2	10 NL	4.8	2	10 NL	4.8
16.0	1.0	1	9 NL	4.2	2	10 NL	4.8	2	10 NL	4.8
WL= 18.0										
1.0	17.0	1	9 NL	4.2	2	10 NL	4.8	1	9 NL	4.2
2.0	16.0	1	9 NL	4.2	2	10 NL	4.8	1	9 NL	4.2
3.0	15.0	1	9 NL	4.2	2	10 NL	4.8	1	10 NL	4.7
4.0	14.0	1	9 NL	4.2	2	10 NL	4.8	1	10 NL	4.7
5.0	13.0	1	9 NL	4.2	2	10 NL	4.8	1	10 NL	4.7
6.0	12.0	1	9 NL	4.2	2	10 NL	4.8	1	10 NL	4.7
7.0	11.0	1	9 NL	4.2	2	10 NL	4.8	2	9 NL	4.3
8.0	10.0	1	10 NL	4.7	2	10 NL	4.8	2	9 NL	4.3
9.0	9.0	1	10 NL	4.7	2	11 NL	5.2	2	10 NL	4.8
10.0	8.0	1	10 NL	4.7	2	11 NL	5.2	2	10 NL	4.8
11.0	7.0	1	10 NL	4.7	3	10 NL	4.9	2	10 NL	4.8
12.0	6.0	1	10 NL	4.7	3	10 NL	4.9	2	10 NL	4.8
13.0	5.0	1	10 NL	4.7	3	10 NL	4.9	3	9 NL	4.4
14.0	4.0	1	10 NL	4.7	3	10 NL	4.9	3	10 NL	4.9
15.0	3.0	2	9 NL	4.3	3	10 NL	4.9	3	10 NL	4.9
16.0	2.0	2	9 NL	4.3	3	10 NL	4.9	3	10 NL	4.9
17.0	1.0	2	9 NL	4.3	3	10 NL	4.9	3	10 NL	4.9

TABLE MM (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) GA1 GA2		309B EQUALIZER SETTINGS BY GAUGE											
		24/22 GAUGE				26/24 GAUGE				26/22 GAUGE			
		BW = 15 HT	EQLR SLOPE	EQLR GAIN		BW = 15 HT	EQLR SLOPE	EQLR GAIN		BW = 15 HT	EQLR SLOPE	EQLR GAIN	
WL= 2.0													
1.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
WL= 3.0													
1.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
2.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
WL= 4.0													
1.0	3.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
2.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
3.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
WL= 5.0													
1.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
2.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
3.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
4.0	1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
WL= 6.0													
1.0	5.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
2.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
3.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
4.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
5.0	1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
WL= 7.0													
1.0	6.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
2.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
3.0	4.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
4.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
5.0	2.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
6.0	1.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
WL= 8.0													
1.0	7.0	0	3	L	3.7	0	4	L	4.7	0	3	L	3.7
2.0	6.0	0	3	L	3.7	0	4	L	4.7	0	3	L	3.7
3.0	5.0	0	3	L	3.7	0	4	L	4.7	0	3	L	3.7
4.0	4.0	0	3	L	3.7	0	4	L	4.7	0	3	L	3.7
5.0	3.0	0	3	L	3.7	0	4	L	4.7	0	3	L	3.7
6.0	2.0	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7

TABLE MM

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) GA1 GA2		309B EQUALIZER SETTINGS BY GAUGE								
		24/22 GAUGE			26/24 GAUGE			26/22 GAUGE		
		BW = 15	EQLR		BW = 15	EQLR		BW = 15	EQLR	
		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN
WL= 8.0										
7.0	1.0	0	4	L 4.7	0	4	L 4.7	0	4	L 4.7
WL= 9.0										
1.0	8.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
2.0	7.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
3.0	6.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
4.0	5.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
5.0	4.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
6.0	3.0	0	4	L 4.7	0	5	L 5.5	0	4	L 4.7
7.0	2.0	0	4	L 4.7	0	5	L 5.5	0	5	L 5.5
8.0	1.0	0	4	L 4.7	0	5	L 5.5	0	5	L 5.5
WL= 10.0										
1.0	9.0	0	5	L 5.5	1	5	L 5.6	0	5	L 5.5
2.0	8.0	0	5	L 5.5	1	5	L 5.6	0	5	L 5.5
3.0	7.0	0	5	L 5.5	1	5	L 5.6	1	4	L 4.7
4.0	6.0	0	5	L 5.5	1	5	L 5.6	1	4	L 4.7
5.0	5.0	0	5	L 5.5	1	5	L 5.6	1	5	L 5.6
6.0	4.0	1	4	L 4.7	1	5	L 5.6	1	5	L 5.6
7.0	3.0	1	5	L 5.6	1	5	L 5.6	1	5	L 5.6
8.0	2.0	1	5	L 5.6	1	5	L 5.6	1	5	L 5.6
9.0	1.0	1	5	L 5.6	1	5	L 5.6	1	5	L 5.6
WL= 11.0										
1.0	10.0	1	5	L 5.6	2	5	L 5.7	1	6	L 6.4
2.0	9.0	1	6	L 6.4	2	5	L 5.7	1	6	L 6.4
3.0	8.0	1	6	L 6.4	2	5	L 5.7	1	6	L 6.4
4.0	7.0	1	6	L 6.4	2	5	L 5.7	1	6	L 6.4
5.0	6.0	1	6	L 6.4	2	5	L 5.7	1	6	L 6.4
6.0	5.0	1	6	L 6.4	2	5	L 5.7	2	5	L 5.7
7.0	4.0	1	6	L 6.4	2	5	L 5.7	2	5	L 5.7
8.0	3.0	1	6	L 6.4	2	6	L 6.5	2	5	L 5.7
9.0	2.0	2	5	L 5.7	2	6	L 6.5	2	5	L 5.7
10.0	1.0	2	5	L 5.7	2	6	L 6.5	2	6	L 6.5
WL= 12.0										
1.0	11.0	2	6	L 6.5	3	5	L 5.8	2	6	L 6.5
2.0	10.0	2	6	L 6.5	3	6	L 6.6	2	6	L 6.5
3.0	9.0	2	6	L 6.5	3	6	L 6.6	2	6	L 6.5

TABLE MM (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) GA1 GA2		309B EQUALIZER SETTINGS BY GAUGE											
		24/22 GAUGE				26/24 GAUGE			26/22 GAUGE				
		BW = 15 HT	EQLR SLOPE	EQLR GAIN		BW = 15 HT	EQLR SLOPE	EQLR GAIN	BW = 15 HT	EQLR SLOPE	EQLR GAIN		
WL= 12.0													
4.0	8.0	2	6	L	6.5	3	6	L	6.6	2	6	L	6.5
5.0	7.0	2	6	L	6.5	3	6	L	6.6	2	6	L	6.5
6.0	6.0	2	6	L	6.5	3	6	L	6.6	2	6	L	6.5
7.0	5.0	2	6	L	6.5	3	6	L	6.6	2	6	L	6.5
8.0	4.0	2	6	L	6.5	3	6	L	6.6	3	5	L	5.8
9.0	3.0	2	6	L	6.5	3	6	L	6.6	3	5	L	5.8
10.0	2.0	2	6	L	6.5	3	6	L	6.6	3	6	L	6.6
11.0	1.0	2	7	L	7.4	3	6	L	6.6	3	6	L	6.6
WL= 13.0													
1.0	12.0	3	6	L	6.6	3	7	L	7.5	3	6	L	6.6
2.0	11.0	3	6	L	6.6	3	8	L	8.0	3	6	L	6.6
3.0	10.0	3	6	L	6.6	3	8	L	8.0	3	6	L	6.6
4.0	9.0	3	6	L	6.6	4	6	L	6.7	3	6	L	6.6
5.0	8.0	3	6	L	6.6	4	6	L	6.7	3	6	L	6.6
6.0	7.0	3	6	L	6.6	4	6	L	6.7	3	6	L	6.6
7.0	6.0	3	6	L	6.6	4	6	L	6.7	3	6	L	6.6
8.0	5.0	3	6	L	6.6	4	6	L	6.7	3	7	L	7.5
9.0	4.0	3	6	L	6.6	4	6	L	6.7	3	7	L	7.5
10.0	3.0	3	6	L	6.6	4	6	L	6.7	4	6	L	6.7
11.0	2.0	3	7	L	7.5	4	7	L	7.6	4	6	L	6.7
12.0	1.0	3	7	L	7.5	4	7	L	7.6	4	7	L	7.6
WL= 14.0													
1.0	13.0	3	7	L	7.5	4	8	L	8.1	3	8	L	8.0
2.0	12.0	3	8	L	8.0	4	8	L	8.1	3	8	L	8.0
3.0	11.0	3	8	L	8.0	4	8	L	8.1	3	8	L	8.0
4.0	10.0	3	8	L	8.0	4	8	L	8.1	4	6	L	6.7
5.0	9.0	3	8	L	8.0	4	8	L	8.1	4	6	L	6.7
6.0	8.0	3	8	L	8.0	4	8	L	8.1	4	6	L	6.7
7.0	7.0	3	8	L	8.0	4	9	L	8.7	4	7	L	7.6
8.0	6.0	4	6	L	6.7	4	9	L	8.7	4	7	L	7.6
9.0	5.0	4	6	L	6.7	4	9	L	8.7	4	7	L	7.6
10.0	4.0	4	6	L	6.7	5	6	L	6.9	4	7	L	7.6
11.0	3.0	4	6	L	6.7	5	6	L	6.9	4	8	L	8.1
12.0	2.0	4	7	L	7.6	5	7	L	7.7	5	6	L	6.9
13.0	1.0	4	7	L	7.6	5	7	L	7.7	5	7	L	7.7
WL= 15.0													

TABLE MM (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) GA1 GA2		309B EQUALIZER SETTINGS BY GAUGE								
		24/22 GAUGE			26/24 GAUGE			26/22 GAUGE		
		BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN
WL= 15.0										
1.0	14.0	4	7 L	7.6	5	8 L	8.3	4	8 L	8.1
2.0	13.0	4	7 L	7.6	5	8 L	8.3	4	8 L	8.1
3.0	12.0	4	8 L	8.1	5	8 L	8.3	4	8 L	8.1
4.0	11.0	4	8 L	8.1	5	8 L	8.3	4	9 L	8.7
5.0	10.0	4	8 L	8.1	5	9 L	8.9	4	9 L	8.7
6.0	9.0	4	8 L	8.1	5	9 L	8.9	4	9 L	8.7
7.0	8.0	4	8 L	8.1	5	9 L	8.9	4	9 L	8.7
8.0	7.0	4	8 L	8.1	5	9 L	8.9	5	7 L	7.7
9.0	6.0	4	9 L	8.7	5	9 L	8.9	5	7 L	7.7
10.0	5.0	4	9 L	8.7	5	9 L	8.9	5	7 L	7.7
11.0	4.0	4	9 L	8.7	5	10 L	9.5	5	8 L	8.3
12.0	3.0	4	9 L	8.7	0	7 NL	3.4	5	9 L	8.9
13.0	2.0	4	10 L	9.3	0	7 NL	3.4	5	10 L	9.5
14.0	1.0	5	7 L	7.7	0	7 NL	3.4	0	7 NL	3.4
WL= 16.0										
1.0	15.0	4	11 L	9.9	0	7 NL	3.4	4	11 L	9.9
2.0	14.0	4	11 L	9.9	0	7 NL	3.4	5	8 L	8.3
3.0	13.0	4	11 L	9.9	0	7 NL	3.4	5	8 L	8.3
4.0	12.0	4	11 L	9.9	0	7 NL	3.4	5	8 L	8.3
5.0	11.0	5	7 L	7.7	0	7 NL	3.4	5	9 L	8.9
6.0	10.0	5	8 L	8.3	0	7 NL	3.4	5	9 L	8.9
7.0	9.0	5	8 L	8.3	0	7 NL	3.4	5	9 L	8.9
8.0	8.0	5	8 L	8.3	0	7 NL	3.4	5	10 L	9.5
9.0	7.0	5	8 L	8.3	6	9 L	9.1	5	10 L	9.5
10.0	6.0	5	8 L	8.3	6	9 L	9.1	0	7 NL	3.4
11.0	5.0	5	9 L	8.9	6	9 L	9.1	0	7 NL	3.4
12.0	4.0	5	9 L	8.9	6	10 L	9.7	0	7 NL	3.4
13.0	3.0	5	9 L	8.9	6	11 L	10.2	6	9 L	9.1
14.0	2.0	5	10 L	9.5	6	11 L	10.2	6	10 L	9.7
15.0	1.0	5	11 L	10.0	6	13 L	11.2	6	12 L	10.7
WL= 17.0										
1.0	16.0	5	10 L	9.5	6	12 L	10.7	5	11 L	10.0
2.0	15.0	5	10 L	9.5	6	13 L	11.2	5	12 L	10.6
3.0	14.0	5	11 L	10.0	6	13 L	11.2	5	12 L	10.6
4.0	13.0	5	11 L	10.0	6	14 L	11.7	5	13 L	11.0
5.0	12.0	5	11 L	10.0	6	14 L	11.7	0	7 NL	3.4
6.0	11.0	5	11 L	10.0	6	14 L	11.7	0	7 NL	3.4

TABLE MM (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 TERMINAL REPEATERS FOR
MIXED GAUGE NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

4-WIRE IMPEDANCE = 600 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) GA1 GA2	309B EQUALIZER SETTINGS BY GAUGE								
	24/22 GAUGE			26/24 GAUGE			26/22 GAUGE		
	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN
WL= 17.0									
7.0 10.0	5	12 L	10.6	6	15 L	12.1	0	7 NL	3.4
8.0 9.0	5	12 L	10.6	1	8 NL	3.8	0	7 NL	3.4
9.0 8.0	5	12 L	10.6	1	8 NL	3.8	6	9 L	9.1
10.0 7.0	0	7 NL	3.4	1	8 NL	3.8	6	10 L	9.7
11.0 6.0	0	7 NL	3.4	1	8 NL	3.8	6	11 L	10.2
12.0 5.0	0	7 NL	3.4	1	8 NL	3.8	6	12 L	10.7
13.0 4.0	0	7 NL	3.4	1	8 NL	3.8	1	8 NL	3.8
14.0 3.0	0	7 NL	3.4	7	10 L	9.9	1	8 NL	3.8
15.0 2.0	0	7 NL	3.4	7	11 L	10.4	1	8 NL	3.8
16.0 1.0	0	8 NL	3.7	7	12 L	11.0	7	11 L	10.4
WL= 18.0									
1.0 17.0	0	7 NL	3.4	1	8 NL	3.8	0	7 NL	3.4
2.0 16.0	0	7 NL	3.4	1	8 NL	3.8	0	8 NL	3.7
3.0 15.0	0	7 NL	3.4	1	8 NL	3.8	0	8 NL	3.7
4.0 14.0	0	7 NL	3.4	1	8 NL	3.8	0	8 NL	3.7
5.0 13.0	0	7 NL	3.4	1	9 NL	4.2	0	8 NL	3.7
6.0 12.0	0	8 NL	3.7	1	9 NL	4.2	6	13 L	11.2
7.0 11.0	0	8 NL	3.7	1	9 NL	4.2	6	14 L	11.7
8.0 10.0	0	8 NL	3.7	7	13 L	11.5	6	14 L	11.7
9.0 9.0	0	8 NL	3.7	7	14 L	11.9	1	8 NL	3.8
10.0 8.0	0	8 NL	3.7	7	14 L	11.9	1	8 NL	3.8
11.0 7.0	0	8 NL	3.7	7	15 L	12.4	1	8 NL	3.8
12.0 6.0	6	12 L	10.7	7	15 L	12.4	7	10 L	9.9
13.0 5.0	6	13 L	11.2	2	8 NL	3.9	7	11 L	10.4
14.0 4.0	6	14 L	11.7	2	8 NL	3.9	7	12 L	11.0
15.0 3.0	6	15 L	12.1	2	9 NL	4.3	7	15 L	12.4
16.0 2.0	6	15 L	12.1	2	9 NL	4.3	2	8 NL	3.9
17.0 1.0	1	8 NL	3.8	2	9 NL	4.3	2	9 NL	4.3

TABLE NN

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
12.0	12.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	5	L	5.5
12.0	18.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	8	L	7.8
12.0	24.0	0	3	L	3.7	0	4	L	4.7	0	7	L	7.2	1	15	L	11.5
12.0	30.0	0	3	L	3.7	0	4	L	4.7	0	9	L	8.4	1	15	L	11.5
12.0	36.0	1	4	L	4.7	0	6	L	6.3	0	15	L	11.4				
12.0	42.0	0	3	L	3.7	0	6	L	6.3	0	15	L	11.4				
12.0	48.0	0	4	L	4.7	0	7	L	7.2								
12.0	54.0	1	3	L	3.8	0	8	L	7.8								
12.0	60.0	0	4	L	4.7	0	9	L	8.4								
12.0	66.0	1	4	L	4.7	0	10	L	9.0								
12.0	72.0	0	4	L	4.7												
12.0	78.0	1	4	L	4.7												
18.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	6	L	6.3
18.0	18.0	0	2	L	2.6	0	3	L	3.7	0	4	L	4.7	0	12	L	10.0
18.0	24.0	0	3	L	3.7	0	4	L	4.7	0	8	L	7.8	0	15	L	11.4
18.0	30.0	0	3	L	3.7	0	5	L	5.5	0	13	L	10.5	1	15	L	11.5
18.0	36.0	1	3	L	3.8	0	6	L	6.3	0	15	L	11.4				
18.0	42.0	0	4	L	4.7	0	6	L	6.3	0	15	L	11.4				
18.0	48.0	0	4	L	4.7	0	7	L	7.2								
18.0	54.0	0	5	L	5.5	0	8	L	7.8								
18.0	60.0	0	4	L	4.7	0	9	L	8.4								
18.0	66.0	1	4	L	4.7	0	11	L	9.5								
18.0	72.0	0	5	L	5.5												
18.0	78.0	0	8	L	7.8												
24.0	12.0	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7	0	6	L	6.3
24.0	18.0	0	2	L	2.6	0	3	L	3.7	0	4	L	4.7	0	13	L	10.5
24.0	24.0	0	6	L	6.3	0	4	L	4.7	0	9	L	8.4	1	15	L	11.5
24.0	30.0	0	4	L	4.7	0	5	L	5.5	0	14	L	11.0	1	15	L	11.5
24.0	36.0	2	1	L	1.5	0	9	L	8.4	0	15	L	11.4				
24.0	42.0	0	4	L	4.7	0	6	L	6.3	0	15	L	11.4				
24.0	48.0	0	5	L	5.5	0	8	L	7.8								
24.0	54.0	1	3	L	3.8	0	9	L	8.4								
24.0	60.0	0	5	L	5.5	0	10	L	9.0								
24.0	66.0	1	7	L	7.3	0	12	L	10.0								
24.0	72.0	0	5	L	5.5												
24.0	78.0	1	4	L	4.7												

TABLE NN (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
30.0	12.0	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7	0	6	L	6.3
30.0	18.0	0	3	L	3.7	0	3	L	3.7	0	5	L	5.5	0	12	L	10.0
30.0	24.0	0	4	L	4.7	0	5	L	5.5	0	9	L	8.4	1	15	L	11.5
30.0	30.0	0	3	L	3.7	0	5	L	5.5	0	14	L	11.0	1	15	L	11.5
30.0	36.0	1	5	L	5.6	0	7	L	7.2	0	15	L	11.4				
30.0	42.0	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4				
30.0	48.0	0	5	L	5.5	0	9	L	8.4								
30.0	54.0	1	4	L	4.7	0	10	L	9.0								
30.0	60.0	0	5	L	5.5	0	11	L	9.5								
30.0	66.0	1	5	L	5.6	0	14	L	11.0								
30.0	72.0	0	5	L	5.5												
30.0	78.0	1	4	L	4.7												
36.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	6	L	6.3
36.0	18.0	0	5	L	5.5	0	4	L	4.7	0	5	L	5.5	1	9	L	8.4
36.0	24.0	1	3	L	3.8	0	5	L	5.5	1	6	L	6.4	1	15	L	11.5
36.0	30.0	0	3	L	3.7	0	5	L	5.5	0	13	L	10.5	1	15	L	11.5
36.0	36.0	2	2	L	2.8	1	5	L	5.6	1	15	L	11.5				
36.0	42.0	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4				
36.0	48.0	1	4	L	4.7	1	6	L	6.4								
36.0	54.0	1	4	L	4.7	0	11	L	9.5								
36.0	60.0	1	4	L	4.7	0	12	L	10.0								
36.0	66.0	2	3	L	3.8	1	8	L	7.8								
36.0	72.0	1	4	L	4.7												
36.0	78.0	2	3	L	3.8												
42.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5
42.0	18.0	0	4	L	4.7	0	3	L	3.7	0	5	L	5.5	1	8	L	7.8
42.0	24.0	1	3	L	3.8	0	4	L	4.7	1	6	L	6.4	1	15	L	11.5
42.0	30.0	0	3	L	3.7	0	5	L	5.5	0	12	L	10.0	1	15	L	11.5
42.0	36.0	2	2	L	2.8	1	5	L	5.6	1	14	L	11.1				
42.0	42.0	0	4	L	4.7	0	6	L	6.3	0	15	L	11.4				
42.0	48.0	1	3	L	3.8	1	5	L	5.6								
42.0	54.0	1	4	L	4.7	0	10	L	9.0								
42.0	60.0	1	3	L	3.8	0	10	L	9.0								
42.0	66.0	2	3	L	3.8	1	7	L	7.3								
42.0	72.0	1	4	L	4.7												
42.0	78.0	2	2	L	2.8												

TABLE NN (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88									
4-WIRE	2-WIRE	BW = 15	EQLR														
19H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE								
			GAIN		GAIN		GAIN		GAIN								
48.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5
48.0	18.0	0	5	L	5.5	0	3	L	3.7	0	5	L	5.5	0	11	L	9.5
48.0	24.0	1	3	L	3.8	0	4	L	4.7	1	6	L	6.4	1	15	L	11.5
48.0	30.0	0	3	L	3.7	0	5	L	5.5	0	11	L	9.5	1	15	L	11.5
48.0	36.0	2	2	L	2.8	1	4	L	4.7	1	11	L	9.6				
48.0	42.0	0	4	L	4.7	0	6	L	6.3	0	15	L	11.4				
48.0	48.0	1	3	L	3.8	0	12	L	10.0								
48.0	54.0	1	3	L	3.8	0	9	L	8.4								
48.0	60.0	1	3	L	3.8	0	9	L	8.4								
48.0	66.0	2	2	L	2.8	1	7	L	7.3								
48.0	72.0	1	4	L	4.7												
48.0	78.0	1	6	L	6.4												
54.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5
54.0	18.0	1	1	L	1.5	0	5	L	5.5	0	5	L	5.5	1	8	L	7.8
54.0	24.0	1	3	L	3.8	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
54.0	30.0	0	3	L	3.7	0	5	L	5.5	0	12	L	10.0	2	15	L	11.6
54.0	36.0	2	3	L	3.8	1	4	L	4.7	1	11	L	9.6				
54.0	42.0	0	4	L	4.7	0	6	L	6.3	1	15	L	11.5				
54.0	48.0	1	3	L	3.8	1	5	L	5.6								
54.0	54.0	1	5	L	5.6	1	5	L	5.6								
54.0	60.0	1	3	L	3.8	1	6	L	6.4								
54.0	66.0	2	3	L	3.8	1	6	L	6.4								
54.0	72.0	1	3	L	3.8												
54.0	78.0	2	2	L	2.8												
60.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5
60.0	18.0	1	1	L	1.5	0	5	L	5.5	0	5	L	5.5	1	7	L	7.3
60.0	24.0	1	3	L	3.8	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
60.0	30.0	0	3	L	3.7	0	4	L	4.7	0	11	L	9.5	2	15	L	11.6
60.0	36.0	2	3	L	3.8	1	4	L	4.7	1	11	L	9.6				
60.0	42.0	0	4	L	4.7	0	6	L	6.3	1	15	L	11.5				
60.0	48.0	1	3	L	3.8	1	5	L	5.6								
60.0	54.0	1	5	L	5.6	1	5	L	5.6								
60.0	60.0	1	3	L	3.8	1	6	L	6.4								
60.0	66.0	2	3	L	3.8	1	7	L	7.3								
60.0	72.0	1	4	L	4.7												
60.0	78.0	2	2	L	2.8												

TABLE NN (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
 REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
 H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE 19H88	2-WIRE	BW = 15 HT SLOPE	EQLR GAIN						
66.0	12.0	0 3	L 3.7	0 3	L 3.7	0 4	L 4.7	0 5	L 5.5
66.0	18.0	1 2	L 2.7	1 2	L 2.7	1 3	L 3.8	1 8	L 7.8
66.0	24.0	2 2	L 2.8	1 3	L 3.8	1 7	L 7.3	2 15	L 11.6
66.0	30.0	0 3	L 3.7	0 5	L 5.5	1 8	L 7.8	2 15	L 11.6
66.0	36.0	3 1	L 1.6	2 3	L 3.8	1 14	L 11.1		
66.0	42.0	0 4	L 4.7	0 6	L 6.3	1 15	L 11.5		
66.0	48.0	2 2	L 2.8	1 6	L 6.4				
66.0	54.0	2 2	L 2.8	1 6	L 6.4				
66.0	60.0	1 3	L 3.8	1 7	L 7.3				
66.0	66.0	3 1	L 1.6	2 4	L 4.8				
66.0	72.0	1 4	L 4.7						
66.0	78.0	2 3	L 3.8						
72.0	12.0	0 3	L 3.7	0 3	L 3.7	0 4	L 4.7	0 5	L 5.5
72.0	18.0	1 2	L 2.7	1 2	L 2.7	1 3	L 3.8	1 8	L 7.8
72.0	24.0	2 2	L 2.8	1 3	L 3.8	2 4	L 4.8	2 15	L 11.6
72.0	30.0	0 4	L 4.7	0 5	L 5.5	1 9	L 8.4	2 15	L 11.6
72.0	36.0	3 1	L 1.6	2 3	L 3.8	2 6	L 6.5		
72.0	42.0	0 4	L 4.7	0 7	L 7.2	1 15	L 11.5		
72.0	48.0	2 2	L 2.8	1 6	L 6.4				
72.0	54.0	2 2	L 2.8	1 6	L 6.4				
72.0	60.0	1 4	L 4.7	1 7	L 7.3				
72.0	66.0	3 1	L 1.6	2 4	L 4.8				
72.0	72.0	2 3	L 3.8						
72.0	78.0	2 3	L 3.8						
78.0	12.0	0 3	L 3.7	0 4	L 4.7	0 5	L 5.5	0 6	L 6.3
78.0	18.0	1 2	L 2.7	1 2	L 2.7	1 4	L 4.7	1 9	L 8.4
78.0	24.0	2 2	L 2.8	1 4	L 4.7	2 4	L 4.8	2 15	L 11.6
78.0	30.0	0 4	L 4.7	0 5	L 5.5	1 10	L 9.0	2 15	L 11.6
78.0	36.0	3 1	L 1.6	2 3	L 3.8	2 7	L 7.4		
78.0	42.0	0 4	L 4.7	0 7	L 7.2	1 15	L 11.5		
78.0	48.0	2 2	L 2.8	1 6	L 6.4				
78.0	54.0	2 2	L 2.8	1 6	L 6.4				
78.0	60.0	1 4	L 4.7	1 7	L 7.3				
78.0	66.0	3 1	L 1.6	2 4	L 4.8				
78.0	72.0	1 6	L 6.4						
78.0	78.0	2 3	L 3.8						

TABLE NN (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88								
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	
19H88																						
84.0	12.0	0	4	L		4.7	0	4	L		4.7	0	5	L		5.5	1	5	L		5.6	
84.0	18.0	1	3	L		3.8	1	3	L		3.8	1	4	L		4.7	1	10	L		9.0	
84.0	24.0	2	2	L		2.8	1	4	L		4.7	2	5	L		5.7	2	15	L		11.6	
84.0	30.0	0	5	L		5.5	0	6	L		6.3	1	11	L		9.6	2	15	L		11.6	
84.0	36.0	3	1	L		1.6	2	3	L		3.8	2	7	L		7.4						
84.0	42.0	0	6	L		6.3	0	9	L		8.4	1	15	L		11.5						
84.0	48.0	2	2	L		2.8	1	13	L		10.6											
84.0	54.0	2	3	L		3.8	1	7	L		7.3											
84.0	60.0	1	4	L		4.7	1	8	L		7.8											
84.0	66.0	3	1	L		1.6	2	4	L		4.8											
84.0	72.0	2	3	L		3.8																
84.0	78.0	2	5	L		5.7																
90.0	12.0	0	4	L		4.7	0	4	L		4.7	0	5	L		5.5	1	6	L		6.4	
90.0	18.0	1	4	L		4.7	1	3	L		3.8	1	4	L		4.7	1	11	L		9.6	
90.0	24.0	2	2	L		2.8	1	4	L		4.7	2	5	L		5.7	2	15	L		11.6	
90.0	30.0	1	3	L		3.8	0	6	L		6.3	1	12	L		10.1	2	15	L		11.6	
90.0	36.0	3	1	L		1.6	2	3	L		3.8	2	8	L		7.9						
90.0	42.0	0	6	L		6.3	0	10	L		9.0	1	15	L		11.5						
90.0	48.0	2	2	L		2.8	2	3	L		3.8											
90.0	54.0	2	3	L		3.8	1	7	L		7.3											
90.0	60.0	2	3	L		3.8	1	9	L		8.4											
90.0	66.0	3	1	L		1.6	2	5	L		5.7											
90.0	72.0	2	3	L		3.8																
90.0	78.0	2	6	L		6.5																
96.0	12.0	0	4	L		4.7	0	5	L		5.5	0	6	L		6.3	1	6	L		6.4	
96.0	18.0	2	1	L		1.5	1	6	L		6.4	1	4	L		4.7	2	7	L		7.4	
96.0	24.0	2	3	L		3.8	2	3	L		3.8	2	6	L		6.5	2	15	L		11.6	
96.0	30.0	1	3	L		3.8	1	5	L		5.6	1	14	L		11.1	2	15	L		11.6	
96.0	36.0	3	2	L		2.9	2	4	L		4.8	2	9	L		8.5						
96.0	42.0	1	4	L		4.7	1	6	L		6.4	2	12	L		10.2						
96.0	48.0	2	3	L		3.8	2	4	L		4.8											
96.0	54.0	2	5	L		5.7	2	5	L		5.7											
96.0	60.0	2	3	L		3.8	2	5	L		5.7											
96.0	66.0	3	3	L		3.9	2	5	L		5.7											
96.0	72.0	2	3	L		3.8																
96.0	78.0	3	1	L		1.6																

TABLE OO

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88				
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	GAIN
22H88			GAIN				GAIN				GAIN				GAIN			
12.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5	
12.0	18.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5	0	10	L	9.0	
12.0	24.0	1	3	L	3.8	0	4	L	4.7	0	8	L	7.8	1	15	L	11.5	
12.0	30.0	0	3	L	3.7	0	4	L	4.7	0	11	L	9.5	1	15	L	11.5	
12.0	36.0	2	2	L	2.8	1	5	L	5.6	1	15	L	11.5					
12.0	42.0	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4					
12.0	48.0	1	4	L	4.7	0	9	L	8.4									
12.0	54.0	1	4	L	4.7	0	10	L	9.0									
12.0	60.0	0	4	L	4.7	0	10	L	9.0									
12.0	66.0	2	3	L	3.8	1	9	L	8.4									
12.0	72.0	0	5	L	5.5													
12.0	78.0	1	5	L	5.6													
18.0	12.0	0	4	L	4.7	0	5	L	5.5	0	6	L	6.3	0	8	L	7.8	
18.0	18.0	0	4	L	4.7	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4	
18.0	24.0	0	5	L	5.5	0	6	L	6.3	0	14	L	11.0	1	15	L	11.5	
18.0	30.0	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4	1	15	L	11.5	
18.0	36.0	1	4	L	4.7	0	10	L	9.0	0	15	L	11.4					
18.0	42.0	0	5	L	5.5	0	10	L	9.0	0	15	L	11.4					
18.0	48.0	0	7	L	7.2	0	15	L	11.4									
18.0	54.0	0	7	L	7.2	0	15	L	11.4									
18.0	60.0	0	7	L	7.2	0	15	L	11.4									
18.0	66.0	1	6	L	6.4	0	15	L	11.4									
18.0	72.0	0	7	L	7.2													
18.0	78.0	1	6	L	6.4													
24.0	12.0	0	6	L	6.3	0	6	L	6.3	0	7	L	7.2	0	12	L	10.0	
24.0	18.0	0	4	L	4.7	0	4	L	4.7	0	7	L	7.2	0	15	L	11.4	
24.0	24.0	0	6	L	6.3	0	7	L	7.2	0	15	L	11.4	1	15	L	11.5	
24.0	30.0	0	6	L	6.3	0	10	L	9.0	0	15	L	11.4	2	15	L	11.6	
24.0	36.0	1	7	L	7.3	0	12	L	10.0	0	15	L	11.4					
24.0	42.0	0	6	L	6.3	0	13	L	10.5	0	15	L	11.4					
24.0	48.0	0	8	L	7.8	0	15	L	11.4									
24.0	54.0	1	5	L	5.6	0	15	L	11.4									
24.0	60.0	0	8	L	7.8	0	15	L	11.4									
24.0	66.0	1	7	L	7.3	0	15	L	11.4									
24.0	72.0	0	9	L	8.4													
24.0	78.0	1	6	L	6.4													

TABLE OO (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE	2-WIRE	BW = 15	EQLR						
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
30.0	12.0	0 6	L 6.3	0 7	L 7.2	0 9	L 8.4	0 15	L 11.4
30.0	18.0	0 4	L 4.7	0 5	L 5.5	0 9	L 8.4	0 15	L 11.4
30.0	24.0	0 7	L 7.2	0 9	L 8.4	0 15	L 11.4	1 15	L 11.5
30.0	30.0	0 6	L 6.3	0 11	L 9.5	0 15	L 11.4	2 15	L 11.6
30.0	36.0	1 6	L 6.4	0 15	L 11.4	0 15	L 11.4		
30.0	42.0	0 7	L 7.2	0 15	L 11.4	0 15	L 11.4		
30.0	48.0	0 10	L 9.0	0 15	L 11.4				
30.0	54.0	0 13	L 10.5	0 15	L 11.4				
30.0	60.0	0 10	L 9.0	0 15	L 11.4				
30.0	66.0	1 8	L 7.8	0 15	L 11.4				
30.0	72.0	0 11	L 9.5						
30.0	78.0	1 7	L 7.3						
36.0	12.0	0 7	L 7.2	0 7	L 7.2	0 10	L 9.0	0 15	L 11.4
36.0	18.0	0 5	L 5.5	0 7	L 7.2	0 12	L 10.0	1 15	L 11.5
36.0	24.0	1 6	L 6.4	0 10	L 9.0	1 15	L 11.5	1 15	L 11.5
36.0	30.0	0 7	L 7.2	0 12	L 10.0	0 15	L 11.4	2 15	L 11.6
36.0	36.0	2 4	L 4.8	1 10	L 9.0	1 15	L 11.5		
36.0	42.0	0 8	L 7.8	0 15	L 11.4	1 15	L 11.5		
36.0	48.0	1 6	L 6.4	0 15	L 11.4				
36.0	54.0	1 7	L 7.3	0 15	L 11.4				
36.0	60.0	0 12	L 10.0	0 15	L 11.4				
36.0	66.0	2 5	L 5.7	1 15	L 11.5				
36.0	72.0	0 14	L 11.0						
36.0	78.0	1 9	L 8.4						
42.0	12.0	0 7	L 7.2	0 7	L 7.2	0 10	L 9.0	0 15	L 11.4
42.0	18.0	0 6	L 6.3	0 7	L 7.2	0 13	L 10.5	1 15	L 11.5
42.0	24.0	1 6	L 6.4	0 11	L 9.5	1 15	L 11.5	2 15	L 11.6
42.0	30.0	0 7	L 7.2	0 12	L 10.0	0 15	L 11.4	2 15	L 11.6
42.0	36.0	2 4	L 4.8	1 10	L 9.0	1 15	L 11.5		
42.0	42.0	0 9	L 8.4	0 15	L 11.4	1 15	L 11.5		
42.0	48.0	1 7	L 7.3	1 14	L 11.1				
42.0	54.0	1 8	L 7.8	0 15	L 11.4				
42.0	60.0	0 12	L 10.0	0 15	L 11.4				
42.0	66.0	2 5	L 5.7	1 15	L 11.5				
42.0	72.0	1 8	L 7.8						
42.0	78.0	1 10	L 9.0						

TABLE OO (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F.

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88									
4-WIRE	2-WIRE	BW = 15	EQLR	BW = 15	EQLR	BW = 15	EQLR	BW = 15	EQLR								
22H88		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN							
48.0	12.0	0	7	L	7.2	0	8	L	7.8	0	10	L	9.0	0	15	L	11.4
48.0	18.0	0	6	L	6.3	0	7	L	7.2	0	13	L	10.5	1	15	L	11.5
48.0	24.0	1	6	L	6.4	0	11	L	9.5	1	15	L	11.5	2	15	L	11.6
48.0	30.0	0	7	L	7.2	0	13	L	10.5	0	15	L	11.4	2	15	L	11.6
48.0	36.0	2	4	L	4.8	1	10	L	9.0	1	15	L	11.5				
48.0	42.0	0	9	L	8.4	0	15	L	11.4	1	15	L	11.5				
48.0	48.0	1	6	L	6.4	1	13	L	10.6								
48.0	54.0	1	7	L	7.3	0	15	L	11.4								
48.0	60.0	0	15	L	11.4	0	15	L	11.4								
48.0	66.0	2	5	L	5.7	1	15	L	11.5								
48.0	72.0	1	8	L	7.8												
48.0	78.0	1	10	L	9.0												
54.0	12.0	0	7	L	7.2	0	8	L	7.8	0	11	L	9.5	0	15	L	11.4
54.0	18.0	0	6	L	6.3	0	7	L	7.2	0	13	L	10.5	1	15	L	11.5
54.0	24.0	1	6	L	6.4	0	11	L	9.5	1	15	L	11.5	2	15	L	11.6
54.0	30.0	0	7	L	7.2	0	14	L	11.0	0	15	L	11.4	2	15	L	11.6
54.0	36.0	2	4	L	4.8	1	10	L	9.0	1	15	L	11.5				
54.0	42.0	0	9	L	8.4	0	15	L	11.4	1	15	L	11.5				
54.0	48.0	1	6	L	6.4	1	13	L	10.6								
54.0	54.0	1	7	L	7.3	1	15	L	11.5								
54.0	60.0	0	13	L	10.5	1	15	L	11.5								
54.0	66.0	2	5	L	5.7	1	15	L	11.5								
54.0	72.0	1	9	L	8.4												
54.0	78.0	2	4	L	4.8												
60.0	12.0	0	8	L	7.8	0	9	L	8.4	0	12	L	10.0	0	15	L	11.4
60.0	18.0	0	7	L	7.2	0	7	L	7.2	0	13	L	10.5	1	15	L	11.5
60.0	24.0	1	6	L	6.4	0	12	L	10.0	1	15	L	11.5	2	15	L	11.6
60.0	30.0	0	8	L	7.8	0	15	L	11.4	0	15	L	11.4	2	15	L	11.6
60.0	36.0	2	4	L	4.8	1	11	L	9.6	1	15	L	11.5				
60.0	42.0	0	9	L	8.4	0	15	L	11.4	1	15	L	11.5				
60.0	48.0	1	7	L	7.3	1	14	L	11.1								
60.0	54.0	1	8	L	7.8	1	15	L	11.5								
60.0	60.0	1	8	L	7.8	1	15	L	11.5								
60.0	66.0	2	5	L	5.7	1	15	L	11.5								
60.0	72.0	1	9	L	8.4												
60.0	78.0	2	5	L	5.7												

TABLE OO (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88					
4-WIRE	2-WIRE	BW = 15	EQLR										
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE				
			GAIN		GAIN		GAIN		GAIN				
66.0	12.0	0	9 L	8.4	0	10 L	9.0	0	13 L	10.5	0	15 L	11.4
66.0	18.0	1	3 L	3.8	0	12 L	10.0	0	15 L	11.4	1	15 L	11.5
66.0	24.0	1	6 L	6.4	1	8 L	7.8	1	15 L	11.5	2	15 L	11.6
66.0	30.0	0	9 L	8.4	0	15 L	11.4	0	15 L	11.4	2	15 L	11.6
66.0	36.0	2	5 L	5.7	1	13 L	10.6	1	15 L	11.5			
66.0	42.0	0	10 L	9.0	0	15 L	11.4	1	15 L	11.5			
66.0	48.0	1	7 L	7.3	1	15 L	11.5						
66.0	54.0	1	13 L	10.6	1	15 L	11.5						
66.0	60.0	1	9 L	8.4	1	15 L	11.5						
66.0	66.0	2	6 L	6.5	1	15 L	11.5						
66.0	72.0	1	10 L	9.0									
66.0	78.0	2	5 L	5.7									
72.0	12.0	0	10 L	9.0	0	11 L	9.5	0	15 L	11.4	0	15 L	11.4
72.0	18.0	1	4 L	4.7	1	4 L	4.7	0	15 L	11.4	1	15 L	11.5
72.0	24.0	1	7 L	7.3	1	9 L	8.4	1	15 L	11.5	2	15 L	11.6
72.0	30.0	0	10 L	9.0	0	15 L	11.4	1	15 L	11.5	2	15 L	11.6
72.0	36.0	2	7 L	7.4	1	15 L	11.5	1	15 L	11.5			
72.0	42.0	0	12 L	10.0	0	15 L	11.4	1	15 L	11.5			
72.0	48.0	1	8 L	7.8	1	15 L	11.5						
72.0	54.0	2	5 L	5.7	1	15 L	11.5						
72.0	60.0	1	11 L	9.6	1	15 L	11.5						
72.0	66.0	2	7 L	7.4	1	15 L	11.5						
72.0	72.0	1	12 L	10.1									
72.0	78.0	2	6 L	6.5									
78.0	12.0	0	11 L	9.5	0	13 L	10.5	0	15 L	11.4	0	15 L	11.4
78.0	18.0	1	4 L	4.7	1	5 L	5.6	1	9 L	8.4	1	15 L	11.5
78.0	24.0	1	11 L	9.6	1	11 L	9.6	1	15 L	11.5	2	15 L	11.6
78.0	30.0	0	11 L	9.5	0	15 L	11.4	1	15 L	11.5	2	15 L	11.6
78.0	36.0	2	11 L	9.7	2	6 L	6.5	2	15 L	11.6			
78.0	42.0	0	15 L	11.4	0	15 L	11.4	1	15 L	11.5			
78.0	48.0	1	10 L	9.0	1	15 L	11.5						
78.0	54.0	2	5 L	5.7	1	15 L	11.5						
78.0	60.0	1	12 L	10.1	1	15 L	11.5						
78.0	66.0	2	12 L	10.2	2	11 L	9.7						
78.0	72.0	1	14 L	11.1									
78.0	78.0	2	6 L	6.5									

TABLE OO (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE	2-WIRE	BW = 15	EQLR						
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
84.0	12.0	0	14	L	11.0	0	15	L	11.4
84.0	18.0	1	4	L	4.7	1	5	L	5.6
84.0	24.0	2	4	L	4.8	1	13	L	10.6
84.0	30.0	0	14	L	11.0	0	15	L	11.4
84.0	36.0	3	2	L	2.9	2	7	L	7.4
84.0	42.0	0	15	L	11.4	0	15	L	11.4
84.0	48.0	1	14	L	11.1	1	15	L	11.5
84.0	54.0	2	5	L	5.7	1	15	L	11.5
84.0	60.0	1	15	L	11.5	1	15	L	11.5
84.0	66.0	3	2	L	2.9	2	12	L	10.2
84.0	72.0	1	15	L	11.5				
84.0	78.0	2	7	L	7.4				
90.0	12.0	0	15	L	11.4	0	15	L	11.4
90.0	18.0	1	4	L	4.7	1	6	L	6.4
90.0	24.0	2	5	L	5.7	1	15	L	11.5
90.0	30.0	0	15	L	11.4	0	15	L	11.4
90.0	36.0	3	2	L	2.9	2	8	L	7.9
90.0	42.0	0	15	L	11.4	0	15	L	11.4
90.0	48.0	2	5	L	5.7	1	15	L	11.5
90.0	54.0	2	6	L	6.5	1	15	L	11.5
90.0	60.0	1	15	L	11.5	1	15	L	11.5
90.0	66.0	3	3	L	3.9	2	15	L	11.6
90.0	72.0	1	15	L	11.5				
90.0	78.0	2	7	L	7.4				
96.0	12.0	0	15	L	11.4	0	15	L	11.4
96.0	18.0	1	5	L	5.6	1	6	L	6.4
96.0	24.0	2	6	L	6.5	1	15	L	11.5
96.0	30.0	0	15	L	11.4	0	15	L	11.4
96.0	36.0	3	2	L	2.9	2	9	L	8.5
96.0	42.0	0	15	L	11.4	1	15	L	11.5
96.0	48.0	2	5	L	5.7	2	10	L	9.1
96.0	54.0	2	7	L	7.4	1	15	L	11.5
96.0	60.0	1	15	L	11.5	1	15	L	11.5
96.0	66.0	3	3	L	3.9	2	15	L	11.6
96.0	72.0	2	8	L	7.9				
96.0	78.0	2	9	L	8.5				

TABLE PP

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE	2-WIRE	BW = 15	EQLR						
24H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
12.0	12.0	0 4	L 4.7	0 4	L 4.7	0 5	L 5.5	0 6	L 6.3
12.0	18.0	0 6	L 6.3	0 5	L 5.5	0 7	L 7.2	1 11	L 9.6
12.0	24.0	1 4	L 4.7	1 5	L 5.6	1 8	L 7.8	1 15	L 11.5
12.0	30.0	0 4	L 4.7	0 6	L 6.3	0 15	L 11.4	2 15	L 11.6
12.0	36.0	2 3	L 3.8	1 7	L 7.3	1 15	L 11.5		
12.0	42.0	0 5	L 5.5	0 9	L 8.4	1 15	L 11.5		
12.0	48.0	1 5	L 5.6	1 10	L 9.0				
12.0	54.0	1 5	L 5.6	1 10	L 9.0				
12.0	60.0	1 5	L 5.6	1 11	L 9.6				
12.0	66.0	2 4	L 4.8	1 13	L 10.6				
12.0	72.0	1 5	L 5.6						
12.0	78.0	2 4	L 4.8						
18.0	12.0	0 7	L 7.2	0 8	L 7.8	0 10	L 9.0	0 15	L 11.4
18.0	18.0	0 7	L 7.2	0 9	L 8.4	0 15	L 11.4	0 15	L 11.4
18.0	24.0	0 12	L 10.0	0 13	L 10.5	1 15	L 11.5	2 15	L 11.6
18.0	30.0	0 7	L 7.2	0 13	L 10.5	0 15	L 11.4	2 15	L 11.6
18.0	36.0	2 5	L 5.7	1 15	L 11.5	1 15	L 11.5		
18.0	42.0	0 10	L 9.0	0 15	L 11.4	1 15	L 11.5		
18.0	48.0	0 15	L 11.4	0 15	L 11.4				
18.0	54.0	1 10	L 9.0	0 15	L 11.4				
18.0	60.0	0 13	L 10.5	0 15	L 11.4				
18.0	66.0	2 7	L 7.4	1 15	L 11.5				
18.0	72.0	0 15	L 11.4						
18.0	78.0	1 12	L 10.1						
24.0	12.0	0 15	L 11.4						
24.0	18.0	0 10	L 9.0	0 13	L 10.5	0 15	L 11.4	1 15	L 11.5
24.0	24.0	1 10	L 9.0	0 15	L 11.4	1 15	L 11.5	2 15	L 11.6
24.0	30.0	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4	3 15	L 11.7
24.0	36.0	2 6	L 6.5	1 15	L 11.5	1 15	L 11.5		
24.0	42.0	0 15	L 11.4	0 15	L 11.4	1 15	L 11.5		
24.0	48.0	1 12	L 10.1	0 15	L 11.4				
24.0	54.0	1 15	L 11.5	0 15	L 11.4				
24.0	60.0	0 15	L 11.4	0 15	L 11.4				
24.0	66.0	2 8	L 7.9	1 15	L 11.5				
24.0	72.0	1 15	L 11.5						
24.0	78.0	1 15	L 11.5						

TABLE PP (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
24H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
30.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	18.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
30.0	24.0	1	15	L	11.5	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6
30.0	30.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	3	15	L	11.7
30.0	36.0	2	9	L	8.5	1	15	L	11.5	1	15	L	11.5				
30.0	42.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5				
30.0	48.0	1	15	L	11.5	1	15	L	11.5								
30.0	54.0	1	15	L	11.5	0	15	L	11.4								
30.0	60.0	0	15	L	11.4	1	15	L	11.5								
30.0	66.0	2	14	L	11.1	1	15	L	11.5								
30.0	72.0	1	15	L	11.5												
30.0	78.0	1	15	L	11.5												
36.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	18.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
36.0	24.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	3	15	L	11.7
36.0	30.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	3	15	L	11.7
36.0	36.0	2	14	L	11.1	1	15	L	11.5	1	15	L	11.5				
36.0	42.0	0	15	L	11.4	0	15	L	11.4	2	15	L	11.6				
36.0	48.0	1	15	L	11.5	1	15	L	11.5								
36.0	54.0	1	15	L	11.5	1	15	L	11.5								
36.0	60.0	1	15	L	11.5	1	15	L	11.5								
36.0	66.0	2	15	L	11.6	1	15	L	11.5								
36.0	72.0	1	15	L	11.5												
36.0	78.0	2	15	L	11.6												
42.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	18.0	1	14	L	11.1	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
42.0	24.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7
42.0	30.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	3	15	L	11.7
42.0	36.0	2	15	L	11.6	1	15	L	11.5	2	15	L	11.6				
42.0	42.0	0	15	L	11.4	0	15	L	11.4	2	15	L	11.6				
42.0	48.0	1	15	L	11.5	1	15	L	11.5								
42.0	54.0	2	15	L	11.6	1	15	L	11.5								
42.0	60.0	1	15	L	11.5	1	15	L	11.5								
42.0	66.0	2	15	L	11.6	2	15	L	11.6								
42.0	72.0	1	15	L	11.5												
42.0	78.0	2	15	L	11.6												

TABLE PP (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88			
4-WIRE	2-WIRE	BW = 15	EQLR								
24H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE		
			GAIN		GAIN		GAIN		GAIN		
48.0	12.0	0	15	L	11.4	0	15	L	11.4		
48.0	18.0	1	15	L	11.5	1	15	L	11.5		
48.0	24.0	1	15	L	11.5	1	15	L	11.5		
48.0	30.0	0	15	L	11.4	0	15	L	11.4		
48.0	36.0	2	15	L	11.6	2	15	L	11.6		
48.0	42.0	0	15	L	11.4	1	15	L	11.5		
48.0	48.0	1	15	L	11.5	1	15	L	11.5		
48.0	54.0	2	15	L	11.6	1	15	L	11.5		
48.0	60.0	1	15	L	11.5	1	15	L	11.5		
48.0	66.0	2	15	L	11.6	2	15	L	11.6		
48.0	72.0	1	15	L	11.5						
48.0	78.0	2	15	L	11.6						
54.0	12.0	0	15	L	11.4	0	15	L	11.4		
54.0	18.0	1	15	L	11.5	1	15	L	11.5		
54.0	24.0	2	15	L	11.6	1	15	L	11.5		
54.0	30.0	0	15	L	11.4	0	15	L	11.4		
54.0	36.0	3	5	L	5.8	2	15	L	11.6		
54.0	42.0	0	15	L	11.4	1	15	L	11.5		
54.0	48.0	2	15	L	11.6	1	15	L	11.5		
54.0	54.0	2	15	L	11.6	1	15	L	11.5		
54.0	60.0	1	15	L	11.5	1	15	L	11.5		
54.0	66.0	3	8	L	8.0	2	15	L	11.6		
54.0	72.0	1	15	L	11.5						
54.0	78.0	2	15	L	11.6						
60.0	12.0	0	15	L	11.4	0	15	L	11.4		
60.0	18.0	1	15	L	11.5	1	15	L	11.5		
60.0	24.0	2	15	L	11.6	1	15	L	11.5		
60.0	30.0	0	15	L	11.4	1	15	L	11.5		
60.0	36.0	3	7	L	7.5	2	15	L	11.6		
60.0	42.0	1	15	L	11.5	1	15	L	11.5		
60.0	48.0	2	15	L	11.6	2	15	L	11.6		
60.0	54.0	2	15	L	11.6	1	15	L	11.5		
60.0	60.0	1	15	L	11.5	2	15	L	11.6		
60.0	66.0	3	10	L	9.2	2	15	L	11.6		
60.0	72.0	2	15	L	11.6						
60.0	78.0	2	15	L	11.6						
								1	15	L	11.5
								2	15	L	11.6
								3	15	L	11.7
								4	15	L	11.8

TABLE PP (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88		
4-WIRE 24H88	2-WIRE	BW = 15 HT	EQLR SLOPE	GAIN									
66.0	12.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4	1	15 L	11.5
66.0	18.0	1	15 L	11.5	1	15 L	11.5	1	15 L	11.5	2	15 L	11.6
66.0	24.0	2	15 L	11.6	1	15 L	11.5	2	15 L	11.6	3	15 L	11.7
66.0	30.0	0	15 L	11.4	1	15 L	11.5	2	15 L	11.6	4	15 L	11.8
66.0	36.0	3	9 L	8.6	2	15 L	11.6	2	15 L	11.6			
66.0	42.0	1	15 L	11.5	1	15 L	11.5	2	15 L	11.6			
66.0	48.0	2	15 L	11.6	2	15 L	11.6						
66.0	54.0	2	15 L	11.6	2	15 L	11.6						
66.0	60.0	1	15 L	11.5	2	15 L	11.6						
66.0	66.0	3	15 L	11.7	2	15 L	11.6						
66.0	72.0	2	15 L	11.6									
66.0	78.0	3	15 L	11.7									

TABLE QQ

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
26H88																	
12.0	12.0	0	5	L	5.5	0	5	L	5.5	0	7	L	7.2	0	10	L	9.0
12.0	18.0	1	6	L	6.4	1	6	L	6.4	1	8	L	7.8	1	15	L	11.5
12.0	24.0	2	4	L	4.8	1	6	L	6.4	2	9	L	8.5	2	15	L	11.6
12.0	30.0	1	4	L	4.7	0	8	L	7.8	1	15	L	11.5				
12.0	36.0	3	4	L	4.9	2	7	L	7.4	2	15	L	11.6				
12.0	42.0	0	7	L	7.2	0	15	L	11.4	2	15	L	11.6				
12.0	48.0	2	6	L	6.5	1	15	L	11.5								
12.0	54.0	2	6	L	6.5	1	15	L	11.5								
12.0	60.0	1	8	L	7.8	1	15	L	11.5								
12.0	66.0	3	5	L	5.8	2	15	L	11.6								
12.0	72.0	2	6	L	6.5												
12.0	78.0	2	6	L	6.5												
18.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
18.0	18.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
18.0	24.0	2	15	L	11.6	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7
18.0	30.0	1	15	L	11.5	0	15	L	11.4	1	15	L	11.5				
18.0	36.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7				
18.0	42.0	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6				
18.0	48.0	2	15	L	11.6	2	15	L	11.6								
18.0	54.0	2	15	L	11.6	1	15	L	11.5								
18.0	60.0	1	15	L	11.5	2	15	L	11.6								
18.0	66.0	2	15	L	11.6	2	15	L	11.6								
18.0	72.0	1	15	L	11.5												
18.0	78.0	2	15	L	11.6												
24.0	12.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6
24.0	18.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7
24.0	24.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8
24.0	30.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6				
24.0	36.0	3	15	L	11.7	2	15	L	11.6	3	15	L	11.7				
24.0	42.0	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7				
24.0	48.0	2	15	L	11.6	2	15	L	11.6								
24.0	54.0	2	15	L	11.6	2	15	L	11.6								
24.0	60.0	2	15	L	11.6	2	15	L	11.6								
24.0	66.0	3	15	L	11.7	3	15	L	11.7								
24.0	72.0	2	15	L	11.6												
24.0	78.0	2	15	L	11.6												

TABLE QQ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
26H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
30.0	12.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6
30.0	18.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	4	15	L	11.8
30.0	24.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8
30.0	30.0	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7				
30.0	36.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7				
30.0	42.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7				
30.0	48.0	2	15	L	11.6	3	15	L	11.7								
30.0	54.0	3	15	L	11.7	3	15	L	11.7								
30.0	60.0	2	15	L	11.6	3	15	L	11.7								
30.0	66.0	3	15	L	11.7	3	15	L	11.7								
30.0	72.0	3	15	L	11.7												
30.0	78.0	3	15	L	11.7												
36.0	12.0	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
36.0	18.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8
36.0	24.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
36.0	30.0	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8				
36.0	36.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8				
36.0	42.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8				
36.0	48.0	3	15	L	11.7	3	15	L	11.7								
36.0	54.0	3	15	L	11.7	3	15	L	11.7								
36.0	60.0	3	15	L	11.7	4	15	L	11.8								
36.0	66.0	3	15	L	11.7	4	15	L	11.8								
36.0	72.0	3	15	L	11.7												
36.0	78.0	3	15	L	11.7												

TABLE RR

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88					
4-WIRE	2-WIRE	BW = 15	EQLR										
19H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE				
			GAIN		GAIN		GAIN		GAIN				
12.0	12.0	0	2 L	2.6	0	2 L	2.6	0	3 L	3.7	0	4 L	4.7
12.0	18.0	1	3 L	3.8	1	1 L	1.5	0	3 L	3.7	1	4 L	4.7
12.0	24.0	1	4 L	4.7	1	2 L	2.7	1	4 L	4.7	1	10 L	9.0
12.0	30.0	1	2 L	2.7	0	3 L	3.7	0	6 L	6.3	1	15 L	11.5
12.0	36.0	4	0 L	.4	2	2 L	2.8	1	9 L	8.4			
12.0	42.0	1	2 L	2.7	0	5 L	5.5	0	15 L	11.4			
12.0	48.0	1	4 L	4.7	1	5 L	5.6						
12.0	54.0	1	5 L	5.6	0	8 L	7.8						
12.0	60.0	1	4 L	4.7	0	9 L	8.4						
12.0	66.0	3	1 L	1.6									
12.0	72.0	1	4 L	4.7									
12.0	78.0	2	3 L	3.8									
18.0	12.0	0	3 L	3.7	0	3 L	3.7	0	4 L	4.7	0	4 L	4.7
18.0	18.0	1	2 L	2.7	0	7 L	7.2	0	3 L	3.7	0	6 L	6.3
18.0	24.0	1	2 L	2.7	0	3 L	3.7	1	4 L	4.7	1	15 L	11.5
18.0	30.0	1	2 L	2.7	0	4 L	4.7	0	8 L	7.8	1	15 L	11.5
18.0	36.0	3	2 L	2.9	2	2 L	2.8	1	9 L	8.4			
18.0	42.0	0	5 L	5.5	0	5 L	5.5	0	15 L	11.4			
18.0	48.0	1	4 L	4.7	1	4 L	4.7						
18.0	54.0	1	3 L	3.8	0	8 L	7.8						
18.0	60.0	1	3 L	3.8	0	10 L	9.0						
18.0	66.0	3	1 L	1.6									
18.0	72.0	0	7 L	7.2									
18.0	78.0	1	8 L	7.8									
24.0	12.0	0	3 L	3.7	0	4 L	4.7	0	4 L	4.7	0	5 L	5.5
24.0	18.0	1	3 L	3.8	1	1 L	1.5	0	4 L	4.7	1	4 L	4.7
24.0	24.0	1	6 L	6.4	1	2 L	2.7	1	4 L	4.7	1	15 L	11.5
24.0	30.0	1	2 L	2.7	0	4 L	4.7	0	9 L	8.4	1	15 L	11.5
24.0	36.0	4	0 L	.4	2	2 L	2.8	1	12 L	10.1			
24.0	42.0	0	5 L	5.5	0	6 L	6.3	1	15 L	11.5			
24.0	48.0	1	5 L	5.6	1	4 L	4.7						
24.0	54.0	2	1 L	1.5	1	5 L	5.6						
24.0	60.0	1	4 L	4.7	1	7 L	7.3						
24.0	66.0	3	1 L	1.6									
24.0	72.0	1	4 L	4.7									
24.0	78.0	2	2 L	2.8									

TABLE RR (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88		
4-WIRE 19H88	2-WIRE	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN	BW = 15 HT	EQLR SLOPE	GAIN
30.0	12.0	0	3	L 3.7	0	3	L 3.7	0	4	L 4.7	0	5	L 5.5
30.0	18.0	1	4	L 4.7	1	1	L 1.5	0	4	L 4.7	0	9	L 8.4
30.0	24.0	1	5	L 5.6	1	2	L 2.7	1	5	L 5.6	1	15	L 11.5
30.0	30.0	1	3	L 3.8	0	5	L 5.5	0	8	L 7.8	1	15	L 11.5
30.0	36.0	4	0	L .4	2	3	L 3.8	1	11	L 9.6			
30.0	42.0	1	2	L 2.7	0	6	L 6.3	0	15	L 11.4			
30.0	48.0	1	7	L 7.3	1	5	L 5.6						
30.0	54.0	1	7	L 7.3	0	10	L 9.0						
30.0	60.0	1	5	L 5.6	1	7	L 7.3						
30.0	66.0	3	1	L 1.6									
30.0	72.0	1	4	L 4.7									
30.0	78.0	2	3	L 3.8									
36.0	12.0	0	3	L 3.7	0	3	L 3.7	0	4	L 4.7	0	4	L 4.7
36.0	18.0	2	1	L 1.5	1	4	L 4.7	1	2	L 2.7	1	5	L 5.6
36.0	24.0	2	2	L 2.8	1	3	L 3.8	2	3	L 3.8	2	10	L 9.1
36.0	30.0	2	1	L 1.5	1	3	L 3.8	1	6	L 6.4	2	15	L 11.6
36.0	36.0	4	1	L 1.8	3	1	L 1.6	2	6	L 6.5			
36.0	42.0	1	3	L 3.8	0	6	L 6.3	1	15	L 11.5			
36.0	48.0	2	2	L 2.8	2	3	L 3.8						
36.0	54.0	2	2	L 2.8	1	7	L 7.3						
36.0	60.0	2	2	L 2.8	1	8	L 7.8						
36.0	66.0	3	4	L 4.9									
36.0	72.0	1	5	L 5.6									
36.0	78.0	2	6	L 6.5									
42.0	12.0	0	3	L 3.7	0	3	L 3.7	0	3	L 3.7	0	4	L 4.7
42.0	18.0	2	1	L 1.5	1	3	L 3.8	1	2	L 2.7	1	5	L 5.6
42.0	24.0	2	2	L 2.8	1	3	L 3.8	2	3	L 3.8	2	9	L 8.5
42.0	30.0	2	1	L 1.5	1	3	L 3.8	1	6	L 6.4	2	15	L 11.6
42.0	36.0	4	1	L 1.8	3	1	L 1.6	2	6	L 6.5			
42.0	42.0	1	3	L 3.8	0	6	L 6.3	1	15	L 11.5			
42.0	48.0	2	2	L 2.8	2	3	L 3.8						
42.0	54.0	2	2	L 2.8	1	6	L 6.4						
42.0	60.0	2	2	L 2.8	1	7	L 7.3						
42.0	66.0	3	4	L 4.9									
42.0	72.0	1	5	L 5.6									
42.0	78.0	2	6	L 6.5									

TABLE RR (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
48.0	12.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7
48.0	18.0	2	1	L	1.5	1	4	L	4.7	1	2	L	2.7	1	5	L	5.6
48.0	24.0	2	2	L	2.8	1	2	L	2.7	2	3	L	3.8	2	9	L	8.5
48.0	30.0	2	1	L	1.5	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
48.0	36.0	4	1	L	1.8	2	5	L	5.7	2	5	L	5.7				
48.0	42.0	1	2	L	2.7	0	5	L	5.5	1	15	L	11.5				
48.0	48.0	2	2	L	2.8	1	10	L	9.0								
48.0	54.0	2	2	L	2.8	1	6	L	6.4								
48.0	60.0	2	2	L	2.8	1	7	L	7.3								
48.0	66.0	3	4	L	4.9												
48.0	72.0	1	4	L	4.7												
48.0	78.0	2	5	L	5.7												
54.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
54.0	18.0	2	1	L	1.5	2	0	L	.1	1	2	L	2.7	1	5	L	5.6
54.0	24.0	2	3	L	3.8	1	4	L	4.7	2	3	L	3.8	2	9	L	8.5
54.0	30.0	2	0	L	.1	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
54.0	36.0	4	2	L	3.0	3	1	L	1.6	2	5	L	5.7				
54.0	42.0	1	2	L	2.7	0	5	L	5.5	1	15	L	11.5				
54.0	48.0	2	2	L	2.8	2	2	L	2.8								
54.0	54.0	2	4	L	4.8	1	5	L	5.6								
54.0	60.0	2	2	L	2.8	1	7	L	7.3								
54.0	66.0	4	0	L	.4												
54.0	72.0	2	3	L	3.8												
54.0	78.0	3	1	L	1.6												
60.0	12.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7
60.0	18.0	2	2	L	2.8	2	0	L	.1	1	2	L	2.7	1	5	L	5.6
60.0	24.0	2	3	L	3.8	1	4	L	4.7	2	3	L	3.8	2	8	L	7.9
60.0	30.0	2	1	L	1.5	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
60.0	36.0	4	2	L	3.0	3	1	L	1.6	2	5	L	5.7				
60.0	42.0	1	3	L	3.8	0	5	L	5.5	1	14	L	11.1				
60.0	48.0	2	3	L	3.8	2	3	L	3.8								
60.0	54.0	2	3	L	3.8	1	6	L	6.4								
60.0	60.0	2	2	L	2.8	1	7	L	7.3								
60.0	66.0	4	0	L	.4												
60.0	72.0	2	3	L	3.8												
60.0	78.0	3	1	L	1.6												

TABLE RR (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
66.0	12.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7
66.0	18.0	2	3	L	3.8	2	1	L	1.5	2	1	L	1.5	2	3	L	3.8
66.0	24.0	3	0	L	.2	2	2	L	2.8	2	5	L	5.7	3	6	L	6.6
66.0	30.0	2	1	L	1.5	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
66.0	36.0	5	0	L	.5	3	2	L	2.9	3	3	L	3.9				
66.0	42.0	2	1	L	1.5	1	4	L	4.7	2	8	L	7.9				
66.0	48.0	3	0	L	.2	2	3	L	3.8								
66.0	54.0	3	1	L	1.6	2	4	L	4.8								
66.0	60.0	2	4	L	4.8	2	4	L	4.8								
66.0	66.0	4	1	L	1.8												
66.0	72.0	2	3	L	3.8												
66.0	78.0	3	2	L	2.9												
72.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
72.0	18.0	2	4	L	4.8	2	2	L	2.8	2	1	L	1.5	2	3	L	3.8
72.0	24.0	3	1	L	1.6	2	2	L	2.8	3	2	L	2.9	3	6	L	6.6
72.0	30.0	2	2	L	2.8	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
72.0	36.0	5	0	L	.5	3	2	L	2.9	3	3	L	3.9				
72.0	42.0	2	2	L	2.8	1	4	L	4.7	2	9	L	8.5				
72.0	48.0	3	0	L	.2	2	4	L	4.8								
72.0	54.0	3	1	L	1.6	2	4	L	4.8								
72.0	60.0	2	5	L	5.7	2	5	L	5.7								
72.0	66.0	4	2	L	3.0												
72.0	72.0	2	3	L	3.8												
72.0	78.0	3	2	L	2.9												
78.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	5	L	5.5
78.0	18.0	3	0	L	.2	2	2	L	2.8	2	1	L	1.5	2	3	L	3.8
78.0	24.0	3	1	L	1.6	2	2	L	2.8	3	2	L	2.9	3	6	L	6.6
78.0	30.0	2	2	L	2.8	1	3	L	3.8	1	6	L	6.4	2	15	L	11.6
78.0	36.0	5	0	L	.5	3	2	L	2.9	3	3	L	3.9				
78.0	42.0	2	2	L	2.8	1	4	L	4.7	2	9	L	8.5				
78.0	48.0	3	1	L	1.6	2	5	L	5.7								
78.0	54.0	3	1	L	1.6	2	4	L	4.8								
78.0	60.0	3	1	L	1.6	2	5	L	5.7								
78.0	66.0	4	2	L	3.0												
78.0	72.0	2	3	L	3.8												
78.0	78.0	3	3	L	3.9												

TABLE RR (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
19H88																	
84.0	12.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	1	4	L	4.7
84.0	18.0	3	0	L	.2	2	3	L	3.8	2	1	L	1.5	2	3	L	3.8
84.0	24.0	3	1	L	1.6	2	2	L	2.8	3	2	L	2.9	3	7	L	7.5
84.0	30.0	2	2	L	2.8	1	4	L	4.7	1	7	L	7.3	2	15	L	11.6
84.0	36.0	5	0	L	.5	3	4	L	4.9	3	3	L	3.9				
84.0	42.0	2	2	L	2.8	1	5	L	5.6	2	9	L	8.5				
84.0	48.0	3	1	L	1.6	2	8	L	7.9								
84.0	54.0	3	1	L	1.6	2	4	L	4.8								
84.0	60.0	2	6	L	6.5	2	5	L	5.7								
84.0	66.0	4	3	L	4.1												
84.0	72.0	2	4	L	4.8												
84.0	78.0	3	4	L	4.9												
90.0	12.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5	1	5	L	5.6
90.0	18.0	3	0	L	.2	2	3	L	3.8	2	1	L	1.5	2	4	L	4.8
90.0	24.0	3	1	L	1.6	2	2	L	2.8	3	2	L	2.9	3	7	L	7.5
90.0	30.0	2	3	L	3.8	1	5	L	5.6	1	8	L	7.8	2	15	L	11.6
90.0	36.0	5	0	L	.5	3	4	L	4.9	3	3	L	3.9				
90.0	42.0	2	2	L	2.8	1	5	L	5.6	2	10	L	9.1				
90.0	48.0	3	1	L	1.6	2	10	L	9.1								
90.0	54.0	3	2	L	2.9	2	4	L	4.8								
90.0	60.0	3	1	L	1.6	2	5	L	5.7								
90.0	66.0	4	3	L	4.1												
90.0	72.0	2	4	L	4.8												
90.0	78.0	3	4	L	4.9												
96.0	12.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5	1	5	L	5.6
96.0	18.0	3	1	L	1.6	3	0	L	.2	2	2	L	2.8	2	5	L	5.7
96.0	24.0	3	2	L	2.9	2	4	L	4.8	3	3	L	3.9	3	8	L	8.0
96.0	30.0	2	4	L	4.8	2	3	L	3.8	2	6	L	6.5	3	15	L	11.7
96.0	36.0	5	1	L	1.9	4	0	L	.4	3	4	L	4.9				
96.0	42.0	2	2	L	2.8	1	6	L	6.4	2	13	L	10.7				
96.0	48.0	3	2	L	2.9	3	2	L	2.9								
96.0	54.0	3	3	L	3.9	2	5	L	5.7								
96.0	60.0	3	1	L	1.6	2	7	L	7.4								
96.0	66.0	5	0	L	.5												
96.0	72.0	3	2	L	2.9												
96.0	78.0	4	0	L	.4												

TABLE SS

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88					
4-WIRE	2-WIRE	BW = 15	EQLR										
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE				
12.0	12.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7
12.0	18.0	1	6	L	6.4	1	2	L	2.7	0	5	L	5.5
12.0	24.0	2	1	L	1.5	1	3	L	3.8	1	5	L	5.6
12.0	30.0	2	1	L	1.5	1	3	L	3.8	0	7	L	7.2
12.0	36.0	4	0	L	.4	2	3	L	3.8	2	7	L	7.4
12.0	42.0	1	3	L	3.8	0	6	L	6.3	1	15	L	11.5
12.0	48.0	2	2	L	2.8	1	6	L	6.4				
12.0	54.0	2	2	L	2.8	1	7	L	7.3				
12.0	60.0	2	2	L	2.8	1	8	L	7.8				
12.0	66.0	3	2	L	2.9								
12.0	72.0	1	4	L	4.7								
12.0	78.0	2	3	L	3.8								
18.0	12.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
18.0	18.0	1	4	L	4.7	1	1	L	1.5	0	4	L	4.7
18.0	24.0	1	4	L	4.7	0	5	L	5.5	1	6	L	6.4
18.0	30.0	1	3	L	3.8	0	5	L	5.5	0	12	L	10.0
18.0	36.0	3	3	L	3.9	2	3	L	3.8	1	15	L	11.5
18.0	42.0	1	3	L	3.8	0	8	L	7.8	0	15	L	11.4
18.0	48.0	1	6	L	6.4	1	7	L	7.3				
18.0	54.0	1	5	L	5.6	0	15	L	11.4				
18.0	60.0	1	5	L	5.6	0	15	L	11.4				
18.0	66.0	3	2	L	2.9								
18.0	72.0	1	6	L	6.4								
18.0	78.0	2	4	L	4.8								
24.0	12.0	0	5	L	5.5	0	6	L	6.3	0	7	L	7.2
24.0	18.0	1	4	L	4.7	1	1	L	1.5	0	5	L	5.5
24.0	24.0	1	7	L	7.3	0	11	L	9.5	1	7	L	7.3
24.0	30.0	1	2	L	2.7	0	7	L	7.2	0	15	L	11.4
24.0	36.0	3	5	L	5.8	2	4	L	4.8	1	15	L	11.5
24.0	42.0	0	6	L	6.3	0	10	L	9.0	1	15	L	11.5
24.0	48.0	1	7	L	7.3	1	8	L	7.8				
24.0	54.0	1	11	L	9.6	1	10	L	9.0				
24.0	60.0	1	5	L	5.6	1	14	L	11.1				
24.0	66.0	3	2	L	2.9								
24.0	72.0	1	7	L	7.3								
24.0	78.0	2	4	L	4.8								

TABLE SS (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
22H88																	
30.0	12.0	0	6	L	6.3	0	6	L	6.3	0	8	L	7.8	0	10	L	9.0
30.0	18.0	1	4	L	4.7	1	1	L	1.5	0	5	L	5.5	0	15	L	11.4
30.0	24.0	1	6	L	6.4	0	8	L	7.8	1	9	L	8.4	1	15	L	11.5
30.0	30.0	1	3	L	3.8	0	8	L	7.8	0	15	L	11.4	1	15	L	11.5
30.0	36.0	3	4	L	4.9	2	4	L	4.8	1	15	L	11.5				
30.0	42.0	0	10	L	9.0	0	13	L	10.5	1	15	L	11.5				
30.0	48.0	1	7	L	7.3	1	10	L	9.0								
30.0	54.0	1	8	L	7.8	0	15	L	11.4								
30.0	60.0	1	6	L	6.4	1	15	L	11.5								
30.0	66.0	3	2	L	2.9												
30.0	72.0	1	8	L	7.8												
30.0	78.0	2	5	L	5.7												
36.0	12.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8	0	10	L	9.0
36.0	18.0	2	1	L	1.5	1	3	L	3.8	1	3	L	3.8	1	12	L	10.1
36.0	24.0	2	1	L	1.5	1	5	L	5.6	2	6	L	6.5	2	15	L	11.6
36.0	30.0	1	5	L	5.6	0	9	L	8.4	0	15	L	11.4	2	15	L	11.6
36.0	36.0	4	1	L	1.8	2	5	L	5.7	2	15	L	11.6				
36.0	42.0	1	5	L	5.6	0	15	L	11.4	1	15	L	11.5				
36.0	48.0	2	3	L	3.8	1	15	L	11.5								
36.0	54.0	2	3	L	3.8	1	15	L	11.5								
36.0	60.0	2	4	L	4.8	1	15	L	11.5								
36.0	66.0	3	3	L	3.9												
36.0	72.0	1	10	L	9.0												
36.0	78.0	2	6	L	6.5												
42.0	12.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8	0	10	L	9.0
42.0	18.0	2	1	L	1.5	1	3	L	3.8	1	4	L	4.7	1	13	L	10.6
42.0	24.0	2	2	L	2.8	1	5	L	5.6	2	7	L	7.4	2	15	L	11.6
42.0	30.0	1	6	L	6.4	0	12	L	10.0	0	15	L	11.4	2	15	L	11.6
42.0	36.0	4	1	L	1.8	2	6	L	6.5	2	15	L	11.6				
42.0	42.0	1	5	L	5.6	0	15	L	11.4	1	15	L	11.5				
42.0	48.0	2	3	L	3.8	1	15	L	11.5								
42.0	54.0	2	3	L	3.8	1	15	L	11.5								
42.0	60.0	2	4	L	4.8	1	15	L	11.5								
42.0	66.0	3	4	L	4.9												
42.0	72.0	1	10	L	9.0												
42.0	78.0	2	6	L	6.5												

TABLE SS (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE	2-WIRE	BW = 15	EQLR		BW = 15	EQLR		BW = 15	EQLR	BW = 15	EQLR						
22H88		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	HT	SLOPE	GAIN					
48.0	12.0	0	7	L	7.2			0	8	L	7.8	0	11	L	9.5		
48.0	18.0	2	1	L	1.5	1	4	L	4.7	1	4	L	4.7	1	13	L	10.6
48.0	24.0	2	2	L	2.8	1	5	L	5.6	2	7	L	7.4	2	15	L	11.6
48.0	30.0	1	7	L	7.3	1	6	L	6.4	1	15	L	11.5	2	15	L	11.6
48.0	36.0	4	1	L	1.8	2	7	L	7.4	2	15	L	11.6				
48.0	42.0	1	5	L	5.6	0	15	L	11.4	1	15	L	11.5				
48.0	48.0	2	3	L	3.8	2	5	L	5.7								
48.0	54.0	2	3	L	3.8	1	15	L	11.5								
48.0	60.0	2	4	L	4.8	1	15	L	11.5								
48.0	66.0	3	5	L	5.8												
48.0	72.0	1	10	L	9.0												
48.0	78.0	2	7	L	7.4												
54.0	12.0	0	8	L	7.8	0	7	L	7.2	0	9	L	8.4	0	12	L	10.0
54.0	18.0	2	1	L	1.5	1	5	L	5.6	1	3	L	3.8	1	12	L	10.1
54.0	24.0	2	3	L	3.8	1	5	L	5.6	2	7	L	7.4	2	15	L	11.6
54.0	30.0	1	6	L	6.4	0	12	L	10.0	1	15	L	11.5	2	15	L	11.6
54.0	36.0	4	1	L	1.8	2	10	L	9.1	2	15	L	11.6				
54.0	42.0	1	5	L	5.6	0	15	L	11.4	1	15	L	11.5				
54.0	48.0	2	3	L	3.8	2	5	L	5.7								
54.0	54.0	2	3	L	3.8	1	15	L	11.5								
54.0	60.0	2	4	L	4.8	1	15	L	11.5								
54.0	66.0	3	7	L	7.5												
54.0	72.0	1	10	L	9.0												
54.0	78.0	2	12	L	10.2												
60.0	12.0	0	8	L	7.8	0	8	L	7.8	0	9	L	8.4	0	13	L	10.5
60.0	18.0	2	2	L	2.8	1	6	L	6.4	1	4	L	4.7	1	13	L	10.6
60.0	24.0	2	3	L	3.8	1	5	L	5.6	2	7	L	7.4	2	15	L	11.6
60.0	30.0	1	9	L	8.4	1	7	L	7.3	1	15	L	11.5	2	15	L	11.6
60.0	36.0	4	2	L	3.0	2	13	L	10.7	2	15	L	11.6				
60.0	42.0	1	5	L	5.6	0	15	L	11.4	1	15	L	11.5				
60.0	48.0	2	3	L	3.8	2	5	L	5.7								
60.0	54.0	2	4	L	4.8	1	15	L	11.5								
60.0	60.0	2	4	L	4.8	1	15	L	11.5								
60.0	66.0	3	8	L	8.0												
60.0	72.0	1	11	L	9.6												
60.0	78.0	2	15	L	11.6												

TABLE SS (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE	2-WIRE	BW = 15	EQLR						
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
66.0	12.0	0	9 L	0	8 L	0	10 L	0	14 L
66.0	18.0	2	2 L	1	15 L	1	4 L	1	15 L
66.0	24.0	2	5 L	1	9 L	2	8 L	2	15 L
66.0	30.0	2	2 L	1	7 L	1	15 L	2	15 L
66.0	36.0	4	3 L	3	3 L	2	15 L		
66.0	42.0	1	6 L	0	15 L	2	15 L		
66.0	48.0	2	4 L	2	6 L				
66.0	54.0	2	7 L	1	15 L				
66.0	60.0	2	5 L	2	10 L				
66.0	66.0	4	1 L						
66.0	72.0	2	7 L						
66.0	78.0	3	3 L						
72.0	12.0	0	9 L	0	9 L	0	11 L	0	15 L
72.0	18.0	2	3 L	2	1 L	1	5 L	2	7 L
72.0	24.0	2	7 L	1	15 L	2	9 L	2	15 L
72.0	30.0	2	2 L	1	8 L	1	15 L	2	15 L
72.0	36.0	4	3 L	3	3 L	2	15 L		
72.0	42.0	1	6 L	0	15 L	2	15 L		
72.0	48.0	2	5 L	2	7 L				
72.0	54.0	2	10 L	2	9 L				
72.0	60.0	2	5 L	2	12 L				
72.0	66.0	4	1 L						
72.0	72.0	2	8 L						
72.0	78.0	3	3 L						
78.0	12.0	0	11 L	0	11 L	0	14 L	0	15 L
78.0	18.0	2	3 L	2	2 L	1	7 L	2	8 L
78.0	24.0	2	10 L	2	4 L	2	10 L	3	15 L
78.0	30.0	2	2 L	1	9 L	1	15 L	2	15 L
78.0	36.0	4	5 L	3	3 L	3	7 L		
78.0	42.0	1	7 L	1	15 L	2	15 L		
78.0	48.0	2	7 L	2	7 L				
78.0	54.0	3	2 L	2	11 L				
78.0	60.0	2	6 L	2	14 L				
78.0	66.0	4	1 L						
78.0	72.0	2	9 L						
78.0	78.0	3	3 L						

TABLE SS (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
84.0	12.0	0	14	L	11.0			0	15	L	11.4		
84.0	18.0	2	4	L	4.8	2	2	L	2.8	1	12	L	10.1
84.0	24.0	3	1	L	1.6	2	5	L	5.7	2	12	L	10.2
84.0	30.0	2	2	L	2.8	1	11	L	9.6	1	15	L	11.5
84.0	36.0	4	6	L	6.7	3	4	L	4.9	3	7	L	7.5
84.0	42.0	1	8	L	7.8	1	15	L	11.5	2	15	L	11.6
84.0	48.0	2	10	L	9.1	2	8	L	7.9				
84.0	54.0	3	2	L	2.9	2	12	L	10.2				
84.0	60.0	2	6	L	6.5	2	15	L	11.6				
84.0	66.0	4	2	L	3.0								
84.0	72.0	2	10	L	9.1								
84.0	78.0	3	3	L	3.9								
90.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
90.0	18.0	2	5	L	5.7	2	2	L	2.8	2	2	L	2.8
90.0	24.0	3	1	L	1.6	2	5	L	5.7	2	14	L	11.1
90.0	30.0	2	2	L	2.8	1	13	L	10.6	1	15	L	11.5
90.0	36.0	4	8	L	8.1	3	4	L	4.9	3	8	L	8.0
90.0	42.0	1	9	L	8.4	1	15	L	11.5	2	15	L	11.6
90.0	48.0	3	2	L	2.9	2	9	L	8.5				
90.0	54.0	3	2	L	2.9	2	14	L	11.1				
90.0	60.0	2	7	L	7.4	2	15	L	11.6				
90.0	66.0	4	2	L	3.0								
90.0	72.0	2	11	L	9.7								
90.0	78.0	3	4	L	4.9								
96.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
96.0	18.0	2	6	L	6.5	2	3	L	3.8	2	3	L	3.8
96.0	24.0	3	2	L	2.9	2	6	L	6.5	3	5	L	5.8
96.0	30.0	2	3	L	3.8	1	15	L	11.5	1	15	L	11.5
96.0	36.0	3	6	L	6.6	3	5	L	5.8	3	9	L	8.6
96.0	42.0	1	11	L	9.6	1	15	L	11.5	2	15	L	11.6
96.0	48.0	3	2	L	2.9	2	15	L	11.6				
96.0	54.0	3	2	L	2.9	2	15	L	11.6				
96.0	60.0	2	9	L	8.5	2	15	L	11.6				
96.0	66.0	4	3	L	4.1								
96.0	72.0	2	14	L	11.1								
96.0	78.0	3	5	L	5.8								

TABLE TT

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88								
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	
24H88																						
12.0	12.0	0	4	L		4.7	0	4	L		4.7	0	4	L		4.7	0	5	L		5.5	
12.0	18.0	2	2	L		2.8	1	5	L		5.6	1	4	L		4.7	1	7	L		7.3	
12.0	24.0	2	2	L		2.8	1	4	L		4.7	2	5	L		5.7	2	12	L		10.2	
12.0	30.0	2	1	L		1.5	1	4	L		4.7	1	7	L		7.3	2	15	L		11.6	
12.0	36.0	4	1	L		1.8	3	2	L		2.9	2	11	L		9.7						
12.0	42.0	1	4	L		4.7	0	7	L		7.2	1	15	L		11.5						
12.0	48.0	2	3	L		3.8	2	6	L		6.5											
12.0	54.0	2	4	L		4.8	1	10	L		9.0											
12.0	60.0	2	4	L		4.8	1	11	L		9.6											
12.0	66.0	3	5	L		5.8																
12.0	72.0	2	4	L		4.8																
12.0	78.0	2	7	L		7.4																
18.0	12.0	0	7	L		7.2	0	7	L		7.2	0	8	L		7.8	0	11	L		9.5	
18.0	18.0	1	11	L		9.6	1	3	L		3.8	0	9	L		8.4	1	15	L		11.5	
18.0	24.0	1	15	L		11.5	1	6	L		6.4	1	13	L		10.6	2	15	L		11.6	
18.0	30.0	1	6	L		6.4	0	12	L		10.0	0	15	L		11.4	2	15	L		11.6	
18.0	36.0	4	0	L		4	2	6	L		6.5	2	15	L		11.6						
18.0	42.0	1	6	L		6.4	0	15	L		11.4	1	15	L		11.5						
18.0	48.0	2	5	L		5.7	1	15	L		11.5											
18.0	54.0	2	5	L		5.7	1	15	L		11.5											
18.0	60.0	2	5	L		5.7	1	15	L		11.5											
18.0	66.0	3	4	L		4.9																
18.0	72.0	1	12	L		10.1																
18.0	78.0	2	8	L		7.9																
24.0	12.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	
24.0	18.0	2	2	L		2.8	1	4	L		4.7	1	6	L		6.4	1	15	L		11.5	
24.0	24.0	2	3	L		3.8	1	9	L		8.4	2	13	L		10.7	2	15	L		11.6	
24.0	30.0	1	6	L		6.4	0	15	L		11.4	1	15	L		11.5	3	15	L		11.7	
24.0	36.0	4	1	L		1.8	2	9	L		8.5	2	15	L		11.6						
24.0	42.0	1	9	L		8.4	0	15	L		11.4	1	15	L		11.5						
24.0	48.0	2	6	L		6.5	1	15	L		11.5											
24.0	54.0	2	6	L		6.5	1	15	L		11.5											
24.0	60.0	2	6	L		6.5	1	15	L		11.5											
24.0	66.0	3	4	L		4.9																
24.0	72.0	1	15	L		11.5																
24.0	78.0	2	11	L		9.7																

TABLE TT (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
24H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
30.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	18.0	2	3	L	3.8	1	4	L	4.7	1	8	L	7.8
30.0	24.0	2	3	L	3.8	1	15	L	11.5	2	15	L	11.6
30.0	30.0	1	8	L	7.8	0	15	L	11.4	1	15	L	11.5
30.0	36.0	4	1	L	1.8	2	15	L	11.6	2	15	L	11.6
30.0	42.0	1	14	L	11.1	0	15	L	11.4	1	15	L	11.5
30.0	48.0	2	7	L	7.4	2	15	L	11.6				
30.0	54.0	2	7	L	7.4	1	15	L	11.5				
30.0	60.0	2	10	L	9.1	1	15	L	11.5				
30.0	66.0	3	6	L	6.6								
30.0	72.0	1	15	L	11.5								
30.0	78.0	2	15	L	11.6								
36.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	18.0	2	3	L	3.8	1	9	L	8.4	1	14	L	11.1
36.0	24.0	2	4	L	4.8	1	15	L	11.5	2	15	L	11.6
36.0	30.0	2	4	L	4.8	1	15	L	11.5	1	15	L	11.5
36.0	36.0	4	2	L	3.0	3	7	L	7.5	2	15	L	11.6
36.0	42.0	1	15	L	11.5	0	15	L	11.4	2	15	L	11.6
36.0	48.0	2	11	L	9.7	2	15	L	11.6				
36.0	54.0	2	11	L	9.7	1	15	L	11.5				
36.0	60.0	2	15	L	11.6	1	15	L	11.5				
36.0	66.0	4	3	L	4.1								
36.0	72.0	2	15	L	11.6								
36.0	78.0	3	7	L	7.5								
42.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	18.0	2	3	L	3.8	2	3	L	3.8	1	15	L	11.5
42.0	24.0	2	7	L	7.4	2	14	L	11.1	2	15	L	11.6
42.0	30.0	2	6	L	6.5	1	15	L	11.5	1	15	L	11.5
42.0	36.0	4	4	L	5.0	3	9	L	8.6	3	15	L	11.7
42.0	42.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
42.0	48.0	2	15	L	11.6	2	15	L	11.6				
42.0	54.0	2	15	L	11.6	2	15	L	11.6				
42.0	60.0	2	15	L	11.6	2	15	L	11.6				
42.0	66.0	4	3	L	4.1								
42.0	72.0	2	15	L	11.6								
42.0	78.0	3	10	L	9.2								

TABLE TT (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88	
4-WIRE 24H88	2-WIRE	BW = 15 HT	EQLR SLOPE	BW = 15 HT	EQLR GAIN	BW = 15 HT	EQLR SLOPE	BW = 15 HT	EQLR GAIN
48.0	12.0	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4
48.0	18.0	2 4	L 4.8	2 4	L 4.8	1 15	L 11.5	2 15	L 11.6
48.0	24.0	2 10	L 9.1	2 15	L 11.6	2 15	L 11.6	3 15	L 11.7
48.0	30.0	2 6	L 6.5	1 15	L 11.5	1 15	L 11.5	3 15	L 11.7
48.0	36.0	4 5	L 5.9	3 12	L 10.3	3 15	L 11.7		
48.0	42.0	1 15	L 11.5	1 15	L 11.5	2 15	L 11.6		
48.0	48.0	2 15	L 11.6	2 15	L 11.6				
48.0	54.0	3 5	L 5.8	2 15	L 11.6				
48.0	60.0	2 15	L 11.6	2 15	L 11.6				
48.0	66.0	4 4	L 5.0						
48.0	72.0	2 15	L 11.6						
48.0	78.0	3 12	L 10.3						
54.0	12.0	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4	1 15	L 11.5
54.0	18.0	2 5	L 5.7	2 5	L 5.7	2 8	L 7.9	2 15	L 11.6
54.0	24.0	3 3	L 3.9	2 15	L 11.6	2 15	L 11.6	3 15	L 11.7
54.0	30.0	2 7	L 7.4	1 15	L 11.5	2 15	L 11.6	3 15	L 11.7
54.0	36.0	4 8	L 8.1	3 15	L 11.7	3 15	L 11.7		
54.0	42.0	1 15	L 11.5	1 15	L 11.5	2 15	L 11.6		
54.0	48.0	3 6	L 6.6	2 15	L 11.6				
54.0	54.0	3 6	L 6.6	2 15	L 11.6				
54.0	60.0	2 15	L 11.6	2 15	L 11.6				
54.0	66.0	4 4	L 5.0						
54.0	72.0	2 15	L 11.6						
54.0	78.0	3 15	L 11.7						
60.0	12.0	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4	1 15	L 11.5
60.0	18.0	2 7	L 7.4	2 6	L 6.5	2 12	L 10.2	2 15	L 11.6
60.0	24.0	3 4	L 4.9	2 15	L 11.6	3 15	L 11.7	3 15	L 11.7
60.0	30.0	2 10	L 9.1	1 15	L 11.5	2 15	L 11.6	4 15	L 11.8
60.0	36.0	3 15	L 11.7	3 15	L 11.7	3 15	L 11.7		
60.0	42.0	1 15	L 11.5	1 15	L 11.5	2 15	L 11.6		
60.0	48.0	3 7	L 7.5	2 15	L 11.6				
60.0	54.0	3 9	L 8.6	2 15	L 11.6				
60.0	60.0	2 15	L 11.6	2 15	L 11.6				
60.0	66.0	4 5	L 5.9						
60.0	72.0	2 15	L 11.6						
60.0	78.0	3 15	L 11.7						

TABLE TT (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88				2-WIRE = 22H88				2-WIRE = 24H88				2-WIRE = 26H88			
4-WIRE	2-WIRE	BW = 15		EQLR		BW = 15		EQLR		BW = 15		EQLR		BW = 15		EQLR	
24H88		HT	SLOPE	GAIN			HT	SLOPE	GAIN	HT	SLOPE	GAIN			HT	SLOPE	GAIN
66.0	12.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
66.0	18.0	2	14	L	11.1	2	8	L	7.9	2	15	L	11.6	2	15	L	11.6
66.0	24.0	3	5	L	5.8	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
66.0	30.0	2	15	L	11.6	1	15	L	11.5	2	15	L	11.6	4	15	L	11.8
66.0	36.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7				
66.0	42.0	1	15	L	11.5	1	15	L	11.5	3	15	L	11.7				
66.0	48.0	3	10	L	9.2	3	15	L	11.7								
66.0	54.0	3	13	L	10.8	2	15	L	11.6								
66.0	60.0	3	15	L	11.7	2	15	L	11.6								
66.0	66.0	4	6	L	6.7												
66.0	72.0	2	15	L	11.6												
66.0	78.0	3	15	L	11.7												

TABLE UU

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88		2-WIRE = 22H88		2-WIRE = 24H88		2-WIRE = 26H88					
4-WIRE	2-WIRE	BW = 15	EQLR										
26H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE				
			GAIN		GAIN		GAIN		GAIN				
12.0	12.0	1	7 L	7.3	0	5 L	5.5	0	6 L	6.3	0	7 L	7.2
12.0	18.0	3	1 L	1.6	2	3 L	3.8	2	4 L	4.8	2	7 L	7.4
12.0	24.0	3	1 L	1.6	2	4 L	4.8	3	5 L	5.8	3	14 L	11.2
12.0	30.0	3	1 L	1.6	2	4 L	4.8	1	10 L	9.0			
12.0	36.0	5	0 L	.5	3	5 L	5.8	3	13 L	10.8			
12.0	42.0	2	4 L	4.8	1	9 L	8.4	2	15 L	11.6			
12.0	48.0	3	3 L	3.9	2	11 L	9.7						
12.0	54.0	3	4 L	4.9	2	12 L	10.2						
12.0	60.0	3	4 L	4.9	2	13 L	10.7						
12.0	66.0	4	3 L	4.1									
12.0	72.0	2	6 L	6.5									
12.0	78.0	3	5 L	5.8									
18.0	12.0	1	15 L	11.5	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
18.0	18.0	2	8 L	7.9	2	6 L	6.5	1	15 L	11.5	2	15 L	11.6
18.0	24.0	2	10 L	9.1	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7
18.0	30.0	2	7 L	7.4	1	15 L	11.5	1	15 L	11.5			
18.0	36.0	4	5 L	5.9	3	14 L	11.2	3	15 L	11.7			
18.0	42.0	2	13 L	10.7	1	15 L	11.5	3	15 L	11.7			
18.0	48.0	3	8 L	8.0	2	15 L	11.6						
18.0	54.0	3	9 L	8.6	2	15 L	11.6						
18.0	60.0	2	15 L	11.6	2	15 L	11.6						
18.0	66.0	4	6 L	6.7									
18.0	72.0	2	15 L	11.6									
18.0	78.0	3	15 L	11.7									
24.0	12.0	1	15 L	11.5	0	15 L	11.4	0	15 L	11.4	1	15 L	11.5
24.0	18.0	2	15 L	11.6	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7
24.0	24.0	3	7 L	7.5	2	15 L	11.6	3	15 L	11.7	4	15 L	11.8
24.0	30.0	2	15 L	11.6	2	15 L	11.6	2	15 L	11.6			
24.0	36.0	4	15 L	11.8	3	15 L	11.7	3	15 L	11.7			
24.0	42.0	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7			
24.0	48.0	3	15 L	11.7	3	15 L	11.7						
24.0	54.0	3	15 L	11.7	3	15 L	11.7						
24.0	60.0	3	15 L	11.7	3	15 L	11.7						
24.0	66.0	4	14 L	11.4									
24.0	72.0	2	15 L	11.6									
24.0	78.0	3	15 L	11.7									

TABLE UU (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
H88 LOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19H88			2-WIRE = 22H88			2-WIRE = 24H88			2-WIRE = 26H88						
4-WIRE 26H88	2-WIRE	BW = 15 HT	EQLR SLOPE	GAIN													
30.0	12.0	1	15	L	11.5	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6
30.0	18.0	3	15	L	11.7	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
30.0	24.0	3	15	L	11.7	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8
30.0	30.0	3	15	L	11.7	2	15	L	11.6	3	15	L	11.7				
30.0	36.0	5	3	L	4.2	3	15	L	11.7	4	15	L	11.8				
30.0	42.0	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8				
30.0	48.0	3	15	L	11.7	3	15	L	11.7								
30.0	54.0	3	15	L	11.7	3	15	L	11.7								
30.0	60.0	3	15	L	11.7	3	15	L	11.7								
30.0	66.0	4	15	L	11.8												
30.0	72.0	3	15	L	11.7												
30.0	78.0	3	15	L	11.7												
36.0	12.0	2	15	L	11.6	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7
36.0	18.0	3	15	L	11.7	3	15	L	11.7	2	15	L	11.6	4	15	L	11.8
36.0	24.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
36.0	30.0	3	15	L	11.7	2	15	L	11.6	4	15	L	11.8				
36.0	36.0	5	6	L	6.9	4	15	L	11.8	4	15	L	11.8				
36.0	42.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8				
36.0	48.0	3	15	L	11.7	4	15	L	11.8								
36.0	54.0	3	15	L	11.7	4	15	L	11.8								
36.0	60.0	3	15	L	11.7	4	15	L	11.8								
36.0	66.0	5	15	L	11.9												
36.0	72.0	4	15	L	11.8												
36.0	78.0	4	15	L	11.8												

TABLE VV

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL	
4-WIRE	2-WIRE	BW = 15	EQLR						
19H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
12.0	1.0	0 0	L 0.0						
12.0	2.0	0 1	L 1.4						
12.0	3.0	0 1	L 1.4						
12.0	4.0	0 2	L 2.6						
12.0	5.0	0 3	L 3.7						
12.0	6.0	0 3	L 3.7	0 3	L 3.7	0 3	L 3.7	0 4	L 4.7
12.0	7.0	0 4	L 4.7	0 4	L 4.7	0 4	L 4.7	0 5	L 5.5
12.0	8.0	0 5	L 5.5	0 5	L 5.5	1 5	L 5.6	1 5	L 5.6
12.0	9.0	1 6	L 6.4	1 6	L 6.4	2 5	L 5.7	2 6	L 6.5
12.0	10.0	2 6	L 6.5	2 6	L 6.5	3 6	L 6.6	3 7	L 7.5
12.0	11.0	3 6	L 6.6	3 7	L 7.5	4 6	L 6.7	4 7	L 7.6
12.0	12.0	3 9	L 8.6	4 7	L 7.6	4 9	L 8.7	5 8	L 8.3
12.0	13.0	4 9	L 8.7	4 10	L 9.3	5 9	L 8.9	0 7	NL 3.4
12.0	14.0	5 9	L 8.9	5 10	L 9.5	0 7	NL 3.4	1 8	NL 3.8
12.0	15.0	5 14	L 11.5	0 7	NL 3.4	1 8	NL 3.8	2 8	NL 3.9
12.0	16.0	0 8	NL 3.7	0 8	NL 3.7	1 9	NL 4.2	2 9	NL 4.3
12.0	17.0	0 9	NL 4.2	1 8	NL 3.8	2 9	NL 4.3	3 10	NL 4.9
12.0	18.0	0 9	NL 4.2	1 9	NL 4.2	2 10	NL 4.8	3 11	NL 5.3
18.0	1.0	0 0	L 0.0						
18.0	2.0	0 0	L 0.0						
18.0	3.0	0 1	L 1.4						
18.0	4.0	0 2	L 2.6						
18.0	5.0	0 3	L 3.7						
18.0	6.0	0 4	L 4.7						
18.0	7.0	0 5	L 5.5	0 5	L 5.5	0 6	L 6.3	0 6	L 6.3
18.0	8.0	0 7	L 7.2	0 7	L 7.2	1 6	L 6.4	1 7	L 7.3
18.0	9.0	1 8	L 7.8	1 8	L 7.8	2 7	L 7.4	2 8	L 7.9
18.0	10.0	2 8	L 7.9	2 8	L 7.9	2 10	L 9.1	3 9	L 8.6
18.0	11.0	3 9	L 8.6	3 9	L 8.6	3 12	L 10.3	4 10	L 9.3
18.0	12.0	3 13	L 10.8	3 14	L 11.2	4 13	L 10.9	5 11	L 10.0
18.0	13.0	4 13	L 10.9	4 15	L 11.8	5 14	L 11.5	0 7	NL 3.4
18.0	14.0	4 15	L 11.8	5 15	L 11.9	5 15	L 11.9	0 9	NL 4.2
18.0	15.0	5 15	L 11.9	5 15	L 11.9	0 9	NL 4.2	1 9	NL 4.2
18.0	16.0	0 8	NL 3.7	0 8	NL 3.7	1 9	NL 4.2	2 10	NL 4.8
18.0	17.0	0 9	NL 4.2	0 9	NL 4.2	1 10	NL 4.7	2 11	NL 5.2
18.0	18.0	0 10	NL 4.6	0 10	NL 4.6	2 10	NL 4.8	3 12	NL 5.7

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
19H88																	
24.0	1.0	0	0	L	0.0												
24.0	2.0	0	0	L	0.0												
24.0	3.0	0	1	L	1.4												
24.0	4.0	0	2	L	2.6												
24.0	5.0	0	3	L	3.7												
24.0	6.0	0	5	L	5.5	0	4	L	4.7	0	5	L	5.5	0	5	L	5.5
24.0	7.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3	0	7	L	7.2
24.0	8.0	0	8	L	7.8	1	6	L	6.4	1	7	L	7.3	1	8	L	7.8
24.0	9.0	1	9	L	8.4	1	9	L	8.4	2	8	L	7.9	2	9	L	8.5
24.0	10.0	2	10	L	9.1	2	10	L	9.1	3	9	L	8.6	3	11	L	9.8
24.0	11.0	3	10	L	9.2	3	11	L	9.8	4	10	L	9.3	4	13	L	10.9
24.0	12.0	4	10	L	9.3	4	11	L	9.9	4	15	L	11.8	5	15	L	11.9
24.0	13.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
24.0	14.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
24.0	15.0	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4
24.0	16.0	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4	8	15	L	12.7
24.0	17.0	6	15	L	12.1	7	15	L	12.4	1	11	NL	5.1	9	15	L	12.9
24.0	18.0	0	10	NL	4.6	1	10	NL	4.7	2	11	NL	5.2	3	12	NL	5.7
30.0	1.0	0	0	L	0.0												
30.0	2.0	0	1	L	1.4												
30.0	3.0	0	2	L	2.6												
30.0	4.0	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7	0	3	L	3.7
30.0	5.0	0	3	L	3.7												
30.0	6.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
30.0	7.0	0	6	L	6.3	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
30.0	8.0	0	7	L	7.2	0	7	L	7.2	1	6	L	6.4	1	7	L	7.3
30.0	9.0	1	8	L	7.8	1	8	L	7.8	2	7	L	7.4	2	8	L	7.9
30.0	10.0	2	9	L	8.5	2	9	L	8.5	3	8	L	8.0	3	9	L	8.6
30.0	11.0	3	9	L	8.6	3	9	L	8.6	4	8	L	8.1	4	11	L	9.9
30.0	12.0	4	9	L	8.7	4	10	L	9.3	4	14	L	11.4	5	12	L	10.6
30.0	13.0	4	14	L	11.4	4	15	L	11.8	5	15	L	11.9	6	13	L	11.2
30.0	14.0	5	13	L	11.0	5	15	L	11.9	6	14	L	11.7	1	8	NL	3.8
30.0	15.0	5	15	L	11.9	6	14	L	11.7	6	15	L	12.1	1	9	NL	4.2
30.0	16.0	6	15	L	12.1	6	15	L	12.1	1	9	NL	4.2	2	10	NL	4.8
30.0	17.0	0	9	NL	4.2	1	9	NL	4.2	1	10	NL	4.7	3	10	NL	4.9
30.0	18.0	0	10	NL	4.6	1	10	NL	4.7	2	11	NL	5.2	3	12	NL	5.7

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL	
4-WIRE	2-WIRE	BW = 15	EQLR						
19H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
48.0	1.0	0 0	L 0.0						
48.0	2.0	0 1	L 1.4						
48.0	3.0	0 2	L 2.6	0 1	L 1.4	0 2	L 2.6	0 2	L 2.6
48.0	4.0	0 2	L 2.6						
48.0	5.0	0 3	L 3.7						
48.0	6.0	0 4	L 4.7						
48.0	7.0	0 5	L 5.5	0 5	L 5.5	0 5	L 5.5	1 5	L 5.6
48.0	8.0	1 5	L 5.6	1 5	L 5.6	1 6	L 6.4	2 5	L 5.7
48.0	9.0	2 6	L 6.5	2 6	L 6.5	2 6	L 6.5	3 6	L 6.6
48.0	10.0	3 6	L 6.6	3 6	L 6.6	3 7	L 7.5	4 6	L 6.7
48.0	11.0	3 8	L 8.0	4 6	L 6.7	4 7	L 7.6	5 6	L 6.9
48.0	12.0	4 8	L 8.1	4 8	L 8.1	5 7	L 7.7	5 10	L 9.5
48.0	13.0	5 8	L 8.3	5 8	L 8.3	5 12	L 10.6	6 11	L 10.2
48.0	14.0	5 11	L 10.0	5 13	L 11.0	6 12	L 10.7	7 11	L 10.4
48.0	15.0	6 10	L 9.7	6 12	L 10.7	7 11	L 10.4	2 8	NL 3.9
48.0	16.0	6 15	L 12.1	1 8	NL 3.8	7 15	L 12.4	3 9	NL 4.4
48.0	17.0	1 8	NL 3.8	1 9	NL 4.2	2 9	NL 4.3	3 10	NL 4.9
48.0	18.0	1 9	NL 4.2	2 9	NL 4.3	3 9	NL 4.4	4 10	NL 5.0
54.0	1.0	0 0	L 0.0						
54.0	2.0	0 1	L 1.4						
54.0	3.0	0 1	L 1.4						
54.0	4.0	0 2	L 2.6						
54.0	5.0	0 3	L 3.7						
54.0	6.0	0 4	L 4.7						
54.0	7.0	0 5	L 5.5	0 5	L 5.5	1 4	L 4.7	1 5	L 5.6
54.0	8.0	1 5	L 5.6	1 5	L 5.6	2 5	L 5.7	2 5	L 5.7
54.0	9.0	2 6	L 6.5	2 6	L 6.5	3 5	L 5.8	3 6	L 6.6
54.0	10.0	3 6	L 6.6	3 6	L 6.6	4 5	L 5.9	4 6	L 6.7
54.0	11.0	4 6	L 6.7	4 6	L 6.7	4 7	L 7.6	5 6	L 6.9
54.0	12.0	4 8	L 8.1	4 9	L 8.7	5 8	L 8.3	6 7	L 7.9
54.0	13.0	5 8	L 8.3	5 9	L 8.9	6 8	L 8.5	6 11	L 10.2
54.0	14.0	5 12	L 10.6	6 8	L 8.5	6 13	L 11.2	7 11	L 10.4
54.0	15.0	6 10	L 9.7	6 12	L 10.7	7 11	L 10.4	8 9	L 9.6
54.0	16.0	6 15	L 12.1	7 10	L 9.9	7 15	L 12.4	9 10	L 10.4
54.0	17.0	7 13	L 11.5	7 15	L 12.4	8 15	L 12.7	10 11	L 11.2
54.0	18.0	7 15	L 12.4	2 9	NL 4.3	9 15	L 12.9	11 11	L 11.5

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
60.0	1.0	0	0	L	0.0			0	0	L	0.0		
60.0	2.0	0	1	L	1.4			0	1	L	1.4		
60.0	3.0	0	2	L	2.6			0	2	L	2.6		
60.0	4.0	0	2	L	2.6			0	2	L	2.6		
60.0	5.0	0	3	L	3.7			0	3	L	3.7		
60.0	6.0	0	4	L	4.7			0	4	L	4.7		
60.0	7.0	0	5	L	5.5			1	4	L	4.7		
60.0	8.0	1	5	L	5.6			2	5	L	5.7		
60.0	9.0	2	5	L	5.7			3	5	L	5.8		
60.0	10.0	3	6	L	6.6			4	5	L	5.9		
60.0	11.0	4	6	L	6.7			4	7	L	7.6		
60.0	12.0	4	7	L	7.6			5	7	L	7.7		
60.0	13.0	5	7	L	7.7			6	7	L	7.9		
60.0	14.0	5	10	L	9.5			6	11	L	10.2		
60.0	15.0	6	9	L	9.1			7	10	L	9.9		
60.0	16.0	6	15	L	12.1			7	15	L	12.4		
60.0	17.0	1	8	NL	3.8			8	14	L	12.2		
60.0	18.0	1	9	NL	4.2			3	10	NL	4.9		
66.0	1.0	0	1	L	1.4			0	1	L	1.4		
66.0	2.0	0	1	L	1.4			0	1	L	1.4		
66.0	3.0	0	2	L	2.6			0	2	L	2.6		
66.0	4.0	0	2	L	2.6			0	2	L	2.6		
66.0	5.0	0	3	L	3.7			0	3	L	3.7		
66.0	6.0	0	4	L	4.7			0	4	L	4.7		
66.0	7.0	1	4	L	4.7			1	4	L	4.7		
66.0	8.0	2	4	L	4.8			2	5	L	5.7		
66.0	9.0	3	4	L	4.9			3	5	L	5.8		
66.0	10.0	3	6	L	6.6			4	5	L	5.9		
66.0	11.0	4	6	L	6.7			5	5	L	6.1		
66.0	12.0	5	5	L	6.1			5	7	L	7.7		
66.0	13.0	5	7	L	7.7			6	7	L	7.9		
66.0	14.0	6	7	L	7.9			7	6	L	7.3		
66.0	15.0	6	9	L	9.1			7	10	L	9.9		
66.0	16.0	1	8	NL	3.8			8	8	L	9.0		
66.0	17.0	1	8	NL	3.8			8	13	L	11.8		
66.0	18.0	2	8	NL	3.9			9	14	L	12.5		

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR										
19H88		HT	SLOPE	GAIN									
72.0	1.0	0	1	L	1.4			0	1	L	1.4		
72.0	2.0	0	1	L	1.4			0	1	L	1.4		
72.0	3.0	0	2	L	2.6			0	2	L	2.6		
72.0	4.0	0	3	L	3.7			0	3	L	3.7		
72.0	5.0	0	3	L	3.7			0	3	L	3.7		
72.0	6.0	0	4	L	4.7			0	4	L	4.7		
72.0	7.0	1	4	L	4.7			1	4	L	4.7		
72.0	8.0	2	4	L	4.8			2	5	L	5.7		
72.0	9.0	3	4	L	4.9			3	5	L	5.8		
72.0	10.0	3	6	L	6.6			4	5	L	5.9		
72.0	11.0	4	6	L	6.7			5	5	L	6.1		
72.0	12.0	5	6	L	6.9			5	7	L	7.7		
72.0	13.0	5	7	L	7.7			6	7	L	7.9		
72.0	14.0	6	7	L	7.9			7	7	L	8.1		
72.0	15.0	6	10	L	9.7			7	10	L	9.9		
72.0	16.0	1	8	NL	3.8			8	8	L	9.0		
72.0	17.0	2	8	NL	3.9			8	14	L	12.2		
72.0	18.0	2	8	NL	3.9			9	15	L	12.9		
78.0	1.0	0	1	L	1.4			0	1	L	1.4		
78.0	2.0	0	1	L	1.4			0	1	L	1.4		
78.0	3.0	0	2	L	2.6			0	2	L	2.6		
78.0	4.0	0	3	L	3.7			0	3	L	3.7		
78.0	5.0	0	3	L	3.7			0	4	L	4.7		
78.0	6.0	0	4	L	4.7			0	5	L	5.5		
78.0	7.0	1	5	L	5.6			1	5	L	5.6		
78.0	8.0	2	5	L	5.7			2	5	L	5.7		
78.0	9.0	3	5	L	5.8			3	6	L	6.6		
78.0	10.0	3	6	L	6.6			4	6	L	6.7		
78.0	11.0	4	6	L	6.7			5	6	L	6.9		
78.0	12.0	5	6	L	6.9			5	9	L	8.9		
78.0	13.0	5	9	L	8.9			6	8	L	8.5		
78.0	14.0	6	8	L	8.5			7	7	L	8.1		
78.0	15.0	6	11	L	10.2			7	12	L	11.0		
78.0	16.0	7	9	L	9.3			8	9	L	9.6		
78.0	17.0	7	14	L	11.9			8	15	L	12.7		
78.0	18.0	7	15	L	12.4			9	15	L	12.9		

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL				
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	GAIN
19H88																		
84.0	1.0	0	1	L	1.4													
84.0	2.0	0	1	L	1.4													
84.0	3.0	0	2	L	2.6													
84.0	4.0	0	3	L	3.7													
84.0	5.0	0	4	L	4.7													
84.0	6.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	1	4	L	4.7	
84.0	7.0	1	5	L	5.6	1	5	L	5.6	1	5	L	5.6	2	5	L	5.7	
84.0	8.0	2	5	L	5.7	2	5	L	5.7	2	6	L	6.5	3	5	L	5.8	
84.0	9.0	3	5	L	5.8	3	5	L	5.8	3	6	L	6.6	4	5	L	5.9	
84.0	10.0	4	5	L	5.9	4	5	L	5.9	4	6	L	6.7	5	5	L	6.1	
84.0	11.0	4	7	L	7.6	4	7	L	7.6	5	6	L	6.9	5	8	L	8.3	
84.0	12.0	5	7	L	7.7	5	7	L	7.7	6	6	L	7.0	6	8	L	8.5	
84.0	13.0	5	10	L	9.5	6	7	L	7.9	6	10	L	9.7	7	8	L	8.7	
84.0	14.0	6	9	L	9.1	6	10	L	9.7	7	9	L	9.3	8	7	L	8.5	
84.0	15.0	6	14	L	11.7	7	9	L	9.3	7	15	L	12.4	8	12	L	11.3	
84.0	16.0	7	11	L	10.4	7	14	L	11.9	8	11	L	10.8	9	14	L	12.5	
84.0	17.0	7	15	L	12.4	8	10	L	10.2	9	12	L	11.5	10	15	L	13.1	
84.0	18.0	2	9	NL	4.3	8	15	L	12.7	9	15	L	12.9	11	15	L	13.4	
90.0	1.0	0	1	L	1.4													
90.0	2.0	0	1	L	1.4													
90.0	3.0	0	2	L	2.6													
90.0	4.0	0	3	L	3.7													
90.0	5.0	0	4	L	4.7													
90.0	6.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	1	4	L	4.7	
90.0	7.0	1	5	L	5.6	1	5	L	5.6	1	6	L	6.4	2	5	L	5.7	
90.0	8.0	2	6	L	6.5	2	6	L	6.5	2	6	L	6.5	3	5	L	5.8	
90.0	9.0	3	6	L	6.6	3	6	L	6.6	3	7	L	7.5	4	5	L	5.9	
90.0	10.0	4	6	L	6.7	4	6	L	6.7	4	7	L	7.6	5	6	L	6.9	
90.0	11.0	4	8	L	8.1	4	8	L	8.1	5	7	L	7.7	5	9	L	8.9	
90.0	12.0	5	7	L	7.7	5	8	L	8.3	6	7	L	7.9	6	9	L	9.1	
90.0	13.0	5	11	L	10.0	6	7	L	7.9	6	10	L	9.7	7	9	L	9.3	
90.0	14.0	6	10	L	9.7	6	11	L	10.2	7	9	L	9.3	8	7	L	8.5	
90.0	15.0	6	15	L	12.1	7	9	L	9.3	7	15	L	12.4	8	13	L	11.8	
90.0	16.0	7	12	L	11.0	7	15	L	12.4	8	12	L	11.3	9	15	L	12.9	
90.0	17.0	7	15	L	12.4	8	11	L	10.8	9	13	L	12.0	10	15	L	13.1	
90.0	18.0	2	9	NL	4.3	8	15	L	12.7	9	15	L	12.9	11	15	L	13.4	

TABLE VV (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
19H88																	
96.0	1.0	0	1	L	1.4												
96.0	2.0	0	2	L	2.6												
96.0	3.0	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7	0	3	L	3.7
96.0	4.0	0	3	L	3.7												
96.0	5.0	0	4	L	4.7												
96.0	6.0	0	5	L	5.5	0	5	L	5.5	1	5	L	5.6	1	5	L	5.6
96.0	7.0	1	6	L	6.4	1	6	L	6.4	2	5	L	5.7	2	5	L	5.7
96.0	8.0	2	6	L	6.5	2	6	L	6.5	3	5	L	5.8	3	5	L	5.8
96.0	9.0	3	6	L	6.6	3	6	L	6.6	4	5	L	5.9	4	6	L	6.7
96.0	10.0	4	6	L	6.7	4	6	L	6.7	4	7	L	7.6	5	6	L	6.9
96.0	11.0	4	8	L	8.1	5	6	L	6.9	5	7	L	7.7	6	6	L	7.0
96.0	12.0	5	8	L	8.3	5	8	L	8.3	6	7	L	7.9	6	9	L	9.1
96.0	13.0	6	7	L	7.9	6	8	L	8.5	6	12	L	10.7	7	9	L	9.3
96.0	14.0	6	10	L	9.7	6	12	L	10.7	7	10	L	9.9	8	8	L	9.0
96.0	15.0	7	8	L	8.7	7	10	L	9.9	8	8	L	9.0	9	9	L	9.8
96.0	16.0	7	13	L	11.5	7	15	L	12.4	8	13	L	11.8	10	9	L	10.1
96.0	17.0	7	15	L	12.4	8	11	L	10.8	9	14	L	12.5	11	9	L	10.4
96.0	18.0	8	14	L	12.2	8	15	L	12.7	10	13	L	12.2	12	8	L	10.1

TABLE WW

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL	
4-WIRE	2-WIRE	BW = 15	EQLR						
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
12.0	1.0	0 1	L 1.4						
12.0	2.0	0 1	L 1.4						
12.0	3.0	0 2	L 2.6						
12.0	4.0	0 2	L 2.6						
12.0	5.0	0 3	L 3.7						
12.0	6.0	0 4	L 4.7						
12.0	7.0	0 5	L 5.5						
12.0	8.0	1 5	L 5.6	1 5	L 5.6	1 6	L 6.4	1 6	L 6.4
12.0	9.0	2 5	L 5.7	2 5	L 5.7	2 6	L 6.5	2 7	L 7.4
12.0	10.0	2 7	L 7.4	2 7	L 7.4	3 6	L 6.6	3 8	L 8.0
12.0	11.0	3 7	L 7.5	3 7	L 7.5	4 7	L 7.6	4 9	L 8.7
12.0	12.0	4 7	L 7.6	4 8	L 8.1	5 7	L 7.7	5 10	L 9.5
12.0	13.0	4 11	L 9.9	5 8	L 8.3	5 11	L 10.0	6 10	L 9.7
12.0	14.0	5 10	L 9.5	5 12	L 10.6	0 8	NL 3.7	1 8	NL 3.8
12.0	15.0	0 7	NL 3.4	0 8	NL 3.7	1 8	NL 3.8	2 9	NL 4.3
12.0	16.0	0 8	NL 3.7	0 9	NL 4.2	1 9	NL 4.2	2 10	NL 4.8
12.0	17.0	0 9	NL 4.2	1 9	NL 4.2	2 9	NL 4.3	3 10	NL 4.9
12.0	18.0	1 9	NL 4.2	1 10	NL 4.7	2 10	NL 4.8	4 10	NL 5.0
18.0	1.0	0 1	L 1.4						
18.0	2.0	0 1	L 1.4						
18.0	3.0	0 2	L 2.6						
18.0	4.0	0 3	L 3.7						
18.0	5.0	0 4	L 4.7						
18.0	6.0	0 6	L 6.3	0 5	L 5.5	0 6	L 6.3	0 6	L 6.3
18.0	7.0	0 7	L 7.2	0 7	L 7.2	0 8	L 7.8	0 8	L 7.8
18.0	8.0	0 10	L 9.0	0 10	L 9.0	1 9	L 8.4	1 10	L 9.0
18.0	9.0	1 11	L 9.6	1 11	L 9.6	2 10	L 9.1	2 12	L 10.2
18.0	10.0	2 12	L 10.2	2 13	L 10.7	3 11	L 9.8	3 14	L 11.2
18.0	11.0	3 13	L 10.8	3 14	L 11.2	3 15	L 11.7	4 15	L 11.8
18.0	12.0	3 15	L 11.7	4 15	L 11.8	4 15	L 11.8	5 15	L 11.9
18.0	13.0	4 15	L 11.8	4 15	L 11.8	5 15	L 11.9	0 8	NL 3.7
18.0	14.0	5 15	L 11.9	5 15	L 11.9	0 8	NL 3.7	0 10	NL 4.6
18.0	15.0	5 15	L 11.9	0 8	NL 3.7	0 10	NL 4.6	1 10	NL 4.7
18.0	16.0	0 9	NL 4.2	0 9	NL 4.2	1 10	NL 4.7	2 11	NL 5.2
18.0	17.0	0 10	NL 4.6	0 10	NL 4.6	1 11	NL 5.1	2 12	NL 5.6
18.0	18.0	0 11	NL 5.0	0 11	NL 5.0	2 11	NL 5.2	3 13	NL 6.1

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
24.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
24.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
24.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
24.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
24.0	5.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3
24.0	6.0	0	8	L	7.8	0	8	L	7.8	0	8	L	7.8
24.0	7.0	0	11	L	9.5	0	11	L	9.5	0	13	L	10.5
24.0	8.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
24.0	9.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
24.0	10.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
24.0	11.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
24.0	12.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
24.0	13.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
24.0	14.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
24.0	15.0	6	15	L	12.1	6	15	L	12.1	0	10	NL	4.6
24.0	16.0	0	9	NL	4.2	0	10	NL	4.6	1	10	NL	4.7
24.0	17.0	0	10	NL	4.6	0	11	NL	5.0	1	12	NL	5.5
24.0	18.0	0	11	NL	5.0	0	12	NL	5.4	2	12	NL	5.6
30.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
30.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
30.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
30.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
30.0	5.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3
30.0	6.0	0	9	L	8.4	0	9	L	8.4	0	9	L	8.4
30.0	7.0	0	13	L	10.5	0	13	L	10.5	0	15	L	11.4
30.0	8.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
30.0	9.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
30.0	10.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
30.0	11.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
30.0	12.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
30.0	13.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
30.0	14.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
30.0	15.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6
30.0	16.0	0	9	NL	4.2	0	10	NL	4.6	0	10	NL	4.6
30.0	17.0	0	10	NL	4.6	0	11	NL	5.0	1	12	NL	5.5
30.0	18.0	0	11	NL	5.0	0	12	NL	5.4	1	13	NL	5.9
30.0	18.0	0	11	NL	5.0	0	12	NL	5.4	1	13	NL	5.9

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR							
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE	
			GAIN		GAIN		GAIN		GAIN	
36.0	1.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
36.0	2.0	0	2 L	2.6	0	2 L	2.6	0	2 L	2.6
36.0	3.0	0	3 L	3.7	0	3 L	3.7	0	3 L	3.7
36.0	4.0	0	5 L	5.5	0	5 L	5.5	0	5 L	5.5
36.0	5.0	0	7 L	7.2	0	7 L	7.2	0	7 L	7.2
36.0	6.0	0	9 L	8.4	0	9 L	8.4	0	10 L	9.0
36.0	7.0	0	14 L	11.0	0	14 L	11.0	0	15 L	11.4
36.0	8.0	1	15 L	11.5	1	15 L	11.5	1	15 L	11.5
36.0	9.0	2	15 L	11.6	2	15 L	11.6	2	15 L	11.6
36.0	10.0	3	15 L	11.7	3	15 L	11.7	3	15 L	11.7
36.0	11.0	3	15 L	11.7	3	15 L	11.7	4	15 L	11.8
36.0	12.0	4	15 L	11.8	4	15 L	11.8	5	15 L	11.9
36.0	13.0	5	15 L	11.9	5	15 L	11.9	5	15 L	11.9
36.0	14.0	5	15 L	11.9	6	15 L	12.1	0	9 NL	4.2
36.0	15.0	0	9 NL	4.2	0	9 NL	4.2	0	9 NL	4.2
36.0	16.0	0	9 NL	4.2	0	9 NL	4.2	0	10 NL	4.6
36.0	17.0	0	10 NL	4.6	0	10 NL	4.6	1	11 NL	5.1
36.0	18.0	0	11 NL	5.0	0	11 NL	5.0	1	11 NL	5.1
		0	11 NL	5.0	1	11 NL	5.1	2	12 NL	5.6
		1	11 NL	5.1	2	12 NL	5.6	3	12 NL	5.7
		2	12 NL	5.6	3	12 NL	5.6	3	14 NL	6.5
42.0	1.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
42.0	2.0	0	2 L	2.6	0	2 L	2.6	0	2 L	2.6
42.0	3.0	0	4 L	4.7	0	3 L	3.7	0	4 L	4.7
42.0	4.0	0	5 L	5.5	0	5 L	5.5	0	5 L	5.5
42.0	5.0	0	7 L	7.2	0	7 L	7.2	0	7 L	7.2
42.0	6.0	0	9 L	8.4	0	9 L	8.4	0	10 L	9.0
42.0	7.0	0	14 L	11.0	0	13 L	10.5	0	15 L	11.4
42.0	8.0	1	15 L	11.5	1	15 L	11.5	1	15 L	11.5
42.0	9.0	2	15 L	11.6	2	15 L	11.6	2	15 L	11.6
42.0	10.0	3	15 L	11.7	3	15 L	11.7	3	15 L	11.7
42.0	11.0	3	15 L	11.7	4	15 L	11.8	4	15 L	11.8
42.0	12.0	4	15 L	11.8	4	15 L	11.8	5	15 L	11.9
42.0	13.0	5	15 L	11.9	5	15 L	11.9	6	15 L	12.1
42.0	14.0	5	15 L	11.9	6	15 L	12.1	0	9 NL	4.2
42.0	15.0	0	9 NL	4.2	0	9 NL	4.2	0	9 NL	4.2
42.0	16.0	0	9 NL	4.2	0	9 NL	4.2	1	10 NL	4.7
42.0	17.0	0	10 NL	4.6	0	10 NL	4.6	1	10 NL	4.6
42.0	18.0	0	10 NL	4.6	1	10 NL	4.7	1	11 NL	5.1
		0	10 NL	4.6	1	10 NL	4.6	2	11 NL	5.2
		0	11 NL	5.0	1	11 NL	5.1	2	11 NL	5.2
		1	11 NL	5.1	2	12 NL	5.6	3	12 NL	5.7
		2	12 NL	5.6	3	12 NL	5.6	4	13 NL	6.2

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
48.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
48.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
48.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
48.0	4.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
48.0	5.0	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2
48.0	6.0	0	10	L	9.0	0	10	L	9.0	0	10	L	9.5
48.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	10.6
48.0	8.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.6
48.0	9.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.7
48.0	10.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.8
48.0	11.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.9
48.0	12.0	4	15	L	11.8	4	15	L	11.8	5	15	L	12.1
48.0	13.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
48.0	14.0	5	15	L	11.9	6	15	L	12.1	0	9	NL	4.2
48.0	15.0	0	9	NL	4.2	0	9	NL	4.2	0	9	NL	4.2
48.0	16.0	0	10	NL	4.6	0	10	NL	4.6	1	10	NL	4.7
48.0	17.0	0	10	NL	4.6	1	10	NL	4.7	1	11	NL	5.1
48.0	18.0	0	11	NL	5.0	1	10	NL	4.7	2	11	NL	5.2
						1	11	NL	5.1	2	12	NL	5.6
54.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
54.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
54.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
54.0	4.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
54.0	5.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8
54.0	6.0	0	11	L	9.5	0	10	L	9.0	0	11	L	9.5
54.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
54.0	8.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
54.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
54.0	10.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
54.0	11.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
54.0	12.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
54.0	13.0	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9
54.0	14.0	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1
54.0	15.0	6	15	L	12.1	0	9	NL	4.2	0	9	NL	4.2
54.0	16.0	0	10	NL	4.6	0	9	NL	4.2	1	10	NL	4.7
54.0	17.0	0	11	NL	5.0	1	10	NL	4.7	1	10	NL	4.7
54.0	18.0	1	11	NL	5.1	1	11	NL	5.1	1	11	NL	5.1
						1	11	NL	5.1	2	12	NL	5.6

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL	
4-WIRE	2-WIRE	BW = 15	EQLR						
22H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE
			GAIN		GAIN		GAIN		GAIN
60.0	1.0	0 1	L 1.4						
60.0	2.0	0 2	L 2.6						
60.0	3.0	0 3	L 3.7						
60.0	4.0	0 5	L 5.5	0 5	L 5.5	0 6	L 6.3	0 6	L 6.3
60.0	5.0	0 8	L 7.8						
60.0	6.0	0 11	L 9.5	0 11	L 9.5	0 12	L 10.0	0 12	L 10.0
60.0	7.0	0 15	L 11.4	0 15	L 11.4	0 15	L 11.4	1 15	L 11.5
60.0	8.0	1 15	L 11.5	1 15	L 11.5	2 15	L 11.6	2 15	L 11.6
60.0	9.0	2 15	L 11.6	2 15	L 11.6	3 15	L 11.7	3 15	L 11.7
60.0	10.0	3 15	L 11.7	3 15	L 11.7	3 15	L 11.7	4 15	L 11.8
60.0	11.0	4 15	L 11.8	4 15	L 11.8	4 15	L 11.8	5 15	L 11.9
60.0	12.0	4 15	L 11.8	4 15	L 11.8	5 15	L 11.9	6 15	L 12.1
60.0	13.0	5 15	L 11.9	5 15	L 11.9	6 15	L 12.1	0 9	NL 4.2
60.0	14.0	5 15	L 11.9	6 15	L 12.1	0 9	NL 4.2	1 10	NL 4.7
60.0	15.0	6 15	L 12.1	0 9	NL 4.2	1 10	NL 4.7	2 10	NL 4.8
60.0	16.0	0 10	NL 4.6	0 10	NL 4.6	1 11	NL 5.1	2 12	NL 5.6
60.0	17.0	0 11	NL 5.0	1 11	NL 5.1	2 12	NL 5.6	3 13	NL 6.1
60.0	18.0	0 12	NL 5.4	1 12	NL 5.5	2 13	NL 6.0	4 13	NL 6.2
66.0	1.0	0 1	L 1.4						
66.0	2.0	0 2	L 2.6						
66.0	3.0	0 4	L 4.7						
66.0	4.0	0 6	L 6.3						
66.0	5.0	0 9	L 8.4	0 8	L 7.8	0 9	L 8.4	0 9	L 8.4
66.0	6.0	0 12	L 10.0	0 12	L 10.0	0 13	L 10.5	0 14	L 11.0
66.0	7.0	0 15	L 11.4	0 15	L 11.4	1 15	L 11.5	1 15	L 11.5
66.0	8.0	1 15	L 11.5	1 15	L 11.5	2 15	L 11.6	2 15	L 11.6
66.0	9.0	2 15	L 11.6	2 15	L 11.6	3 15	L 11.7	3 15	L 11.7
66.0	10.0	3 15	L 11.7	3 15	L 11.7	4 15	L 11.8	4 15	L 11.8
66.0	11.0	4 15	L 11.8	4 15	L 11.8	5 15	L 11.9	5 15	L 11.9
66.0	12.0	4 15	L 11.8	5 15	L 11.9	5 15	L 11.9	6 15	L 12.1
66.0	13.0	5 15	L 11.9	5 15	L 11.9	6 15	L 12.1	7 15	L 12.4
66.0	14.0	6 15	L 12.1	6 15	L 12.1	0 10	NL 4.6	1 10	NL 4.7
66.0	15.0	0 9	NL 4.2	0 10	NL 4.6	1 10	NL 4.7	2 11	NL 5.2
66.0	16.0	0 10	NL 4.6	0 11	NL 5.0	1 11	NL 5.1	3 11	NL 5.3
66.0	17.0	0 11	NL 5.0	1 11	NL 5.1	2 12	NL 5.6	3 13	NL 6.1
66.0	18.0	1 11	NL 5.1	1 12	NL 5.5	2 13	NL 6.0	4 13	NL 6.2

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15		EQLR													
22H88		HT	SLOPE	GAIN		HT	SLOPE	GAIN		HT	SLOPE	GAIN		HT	SLOPE	GAIN	
72.0	1.0	0	2	L	2.6												
72.0	2.0	0	3	L	3.7												
72.0	3.0	0	4	L	4.7												
72.0	4.0	0	7	L	7.2	0	6	L	6.3	0	7	L	7.2	0	7	L	7.2
72.0	5.0	0	10	L	9.0	0	9	L	8.4	0	10	L	9.0	0	10	L	9.0
72.0	6.0	0	14	L	11.0	0	14	L	11.0	0	15	L	11.4	0	15	L	11.4
72.0	7.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
72.0	8.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
72.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
72.0	10.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
72.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
72.0	12.0	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
72.0	13.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
72.0	14.0	6	15	L	12.1	6	15	L	12.1	0	10	NL	4.6	1	10	NL	4.7
72.0	15.0	0	9	NL	4.2	0	10	NL	4.6	1	10	NL	4.7	2	11	NL	5.2
72.0	16.0	0	10	NL	4.6	0	11	NL	5.0	1	12	NL	5.5	3	11	NL	5.3
72.0	17.0	0	11	NL	5.0	1	11	NL	5.1	2	12	NL	5.6	3	13	NL	6.1
72.0	18.0	1	12	NL	5.5	1	12	NL	5.5	2	13	NL	6.0	4	14	NL	6.6
78.0	1.0	0	2	L	2.6												
78.0	2.0	0	3	L	3.7												
78.0	3.0	0	5	L	5.5	0	4	L	4.7	0	5	L	5.5	0	5	L	5.5
78.0	4.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8	0	8	L	7.8
78.0	5.0	0	11	L	9.5	0	11	L	9.5	0	12	L	10.0	0	12	L	10.0
78.0	6.0	0	15	L	11.4												
78.0	7.0	1	15	L	11.5												
78.0	8.0	2	15	L	11.6												
78.0	9.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
78.0	10.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
78.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
78.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1
78.0	13.0	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4
78.0	14.0	6	15	L	12.1	6	15	L	12.1	0	10	NL	4.6	1	11	NL	5.1
78.0	15.0	0	9	NL	4.2	0	10	NL	4.6	1	11	NL	5.1	2	11	NL	5.2
78.0	16.0	0	11	NL	5.0	1	10	NL	4.7	1	12	NL	5.5	3	12	NL	5.7
78.0	17.0	0	12	NL	5.4	1	12	NL	5.5	2	12	NL	5.6	3	14	NL	6.5
78.0	18.0	1	12	NL	5.5	1	13	NL	5.9	2	14	NL	6.4	4	14	NL	6.6

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
84.0	1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
84.0	2.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
84.0	3.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
84.0	4.0	0	8	L	7.8	0	8	L	7.8	0	9	L	8.4
84.0	5.0	0	14	L	11.0	0	13	L	10.5	0	15	L	11.4
84.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
84.0	7.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
84.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
84.0	9.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
84.0	10.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
84.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
84.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
84.0	13.0	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1
84.0	14.0	6	15	L	12.1	6	15	L	12.1	0	11	NL	5.0
84.0	15.0	0	10	NL	4.6	0	10	NL	4.6	1	11	NL	5.1
84.0	16.0	0	11	NL	5.0	1	10	NL	4.7	2	11	NL	5.2
84.0	17.0	0	12	NL	5.4	1	12	NL	5.5	2	13	NL	6.0
84.0	18.0	1	12	NL	5.5	1	13	NL	5.9	3	13	NL	6.1
90.0	1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
90.0	2.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
90.0	3.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
90.0	4.0	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0
90.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
90.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
90.0	7.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
90.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
90.0	9.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
90.0	10.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
90.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
90.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
90.0	13.0	6	15	L	12.1	6	15	L	12.1	6	15	L	12.1
90.0	14.0	6	15	L	12.1	6	15	L	12.1	0	11	NL	5.0
90.0	15.0	0	10	NL	4.6	0	10	NL	4.6	1	11	NL	5.1
90.0	16.0	0	11	NL	5.0	1	11	NL	5.1	2	11	NL	5.2
90.0	17.0	1	11	NL	5.1	1	12	NL	5.5	2	13	NL	6.0
90.0	18.0	1	12	NL	5.5	2	12	NL	5.6	3	13	NL	6.1

TABLE WW (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	
22H88		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	
96.0	1.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
96.0	2.0	0	4	L	4.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
96.0	3.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3
96.0	4.0	0	11	L	9.5	0	11	L	9.5	0	12	L	10.0	0	12	L	10.0
96.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
96.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
96.0	7.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
96.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
96.0	9.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
96.0	10.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
96.0	11.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
96.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1
96.0	13.0	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4	7	15	L	12.4
96.0	14.0	6	15	L	12.1	7	15	L	12.4	7	15	L	12.4	8	15	L	12.7
96.0	15.0	0	10	NL	4.6	0	11	NL	5.0	1	11	NL	5.1	2	12	NL	5.6
96.0	16.0	0	11	NL	5.0	1	11	NL	5.1	2	11	NL	5.2	3	12	NL	5.7
96.0	17.0	1	11	NL	5.1	1	12	NL	5.5	2	13	NL	6.0	4	12	NL	5.8
96.0	18.0	1	13	NL	5.9	2	12	NL	5.6	3	13	NL	6.1	4	15	NL	6.9

TABLE XX (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL				
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	GAIN
24H88																		
24.0	1.0	0	2	L	2.6													
24.0	2.0	0	3	L	3.7													
24.0	3.0	0	5	L	5.5													
24.0	4.0	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0	0	10	L	9.0	
24.0	5.0	0	15	L	11.4													
24.0	6.0	0	15	L	11.4													
24.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	
24.0	8.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	
24.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	
24.0	10.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	
24.0	11.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	
24.0	12.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	
24.0	13.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	0	10	NL	4.6	
24.0	14.0	0	8	NL	3.7	0	9	NL	4.2	0	10	NL	4.6	0	12	NL	5.4	
24.0	15.0	0	9	NL	4.2	0	10	NL	4.6	0	12	NL	5.4	0	13	NL	5.9	
24.0	16.0	0	11	NL	5.0	0	11	NL	5.0	0	14	NL	6.2	2	13	NL	6.0	
24.0	17.0	0	12	NL	5.4	0	13	NL	5.8	1	14	NL	6.3	2	15	NL	6.7	
24.0	18.0	0	13	NL	5.8	0	14	NL	6.2	2	14	NL	6.4	3	15	NL	6.8	
30.0	1.0	0	3	L	3.7													
30.0	2.0	0	4	L	4.7													
30.0	3.0	0	8	L	7.8	0	7	L	7.2	0	8	L	7.8	0	8	L	7.8	
30.0	4.0	0	15	L	11.4													
30.0	5.0	0	15	L	11.4													
30.0	6.0	0	15	L	11.4													
30.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	
30.0	8.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6	
30.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	
30.0	10.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	
30.0	11.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	
30.0	12.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	
30.0	13.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	0	11	NL	5.0	
30.0	14.0	0	9	NL	4.2	0	9	NL	4.2	0	11	NL	5.0	0	13	NL	5.8	
30.0	15.0	0	10	NL	4.6	0	11	NL	5.0	0	13	NL	5.8	1	14	NL	6.3	
30.0	16.0	0	11	NL	5.0	0	12	NL	5.4	0	14	NL	6.2	2	14	NL	6.4	
30.0	17.0	0	13	NL	5.8	0	14	NL	6.2	1	15	NL	6.6	2	15	NL	6.7	
30.0	18.0	0	14	NL	6.2	0	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8	

TABLE XX (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
24H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
36.0	1.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
36.0	2.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3
36.0	3.0	0	12	L	10.0	0	12	L	10.0	0	13	L	10.5	0	13	L	10.5
36.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	7.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
36.0	8.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
36.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
36.0	10.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
36.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
36.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6
36.0	13.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6	0	12	NL	5.4
36.0	14.0	0	10	NL	4.6	0	10	NL	4.6	0	12	NL	5.4	0	13	NL	5.8
36.0	15.0	0	11	NL	5.0	0	12	NL	5.4	0	13	NL	5.8	1	14	NL	6.3
36.0	16.0	0	12	NL	5.4	0	13	NL	5.8	1	14	NL	6.3	2	15	NL	6.7
36.0	17.0	0	14	NL	6.2	0	14	NL	6.2	1	15	NL	6.6	3	15	NL	6.8
36.0	18.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7	4	15	NL	6.9
42.0	1.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
42.0	2.0	0	8	L	7.8	0	7	L	7.2	0	8	L	7.8	0	8	L	7.8
42.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	7.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
42.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
42.0	9.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
42.0	10.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
42.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
42.0	12.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6
42.0	13.0	6	15	L	12.1	0	9	NL	4.2	0	10	NL	4.6	0	12	NL	5.4
42.0	14.0	0	10	NL	4.6	0	10	NL	4.6	0	12	NL	5.4	1	13	NL	5.9
42.0	15.0	0	11	NL	5.0	0	12	NL	5.4	0	13	NL	5.8	1	14	NL	6.3
42.0	16.0	0	13	NL	5.8	0	13	NL	5.8	1	14	NL	6.3	2	15	NL	6.7
42.0	17.0	0	14	NL	6.2	1	14	NL	6.3	2	15	NL	6.7	3	15	NL	6.8
42.0	18.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7	4	15	NL	6.9

TABLE XX (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR							
24H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE	
			GAIN		GAIN		GAIN		GAIN	
48.0	1.0	0	5 L	5.5	0	5 L	5.5	0	5 L	5.5
48.0	2.0	0	9 L	8.4	0	8 L	7.8	0	9 L	8.4
48.0	3.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	4.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	5.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	6.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	7.0	1	15 L	11.5	1	15 L	11.5	1	15 L	11.5
48.0	8.0	2	15 L	11.6	2	15 L	11.6	2	15 L	11.6
48.0	9.0	3	15 L	11.7	3	15 L	11.7	3	15 L	11.7
48.0	10.0	4	15 L	11.8	4	15 L	11.8	4	15 L	11.8
48.0	11.0	4	15 L	11.8	5	15 L	11.9	5	15 L	11.9
48.0	12.0	5	15 L	11.9	5	15 L	11.9	0	9 NL	4.2
48.0	13.0	6	15 L	12.1	0	9 NL	4.2	0	11 NL	5.0
48.0	14.0	0	10 NL	4.6	0	11 NL	5.0	0	13 NL	5.8
48.0	15.0	0	12 NL	5.4	0	12 NL	5.4	0	14 NL	6.2
48.0	16.0	0	13 NL	5.8	0	14 NL	6.2	1	15 NL	6.6
48.0	17.0	0	14 NL	6.2	0	15 NL	6.6	2	15 NL	6.7
48.0	18.0	0	15 NL	6.6	1	15 NL	6.6	2	15 NL	6.7
54.0	1.0	0	6 L	6.3	0	6 L	6.3	0	6 L	6.3
54.0	2.0	0	10 L	9.0	0	10 L	9.0	0	11 L	9.5
54.0	3.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	4.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	5.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	6.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	7.0	1	15 L	11.5	1	15 L	11.5	1	15 L	11.5
54.0	8.0	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7
54.0	9.0	3	15 L	11.7	3	15 L	11.7	4	15 L	11.8
54.0	10.0	4	15 L	11.8	4	15 L	11.8	5	15 L	11.9
54.0	11.0	5	15 L	11.9	5	15 L	11.9	5	15 L	11.9
54.0	12.0	5	15 L	11.9	6	15 L	12.1	0	9 NL	4.2
54.0	13.0	0	9 NL	4.2	0	9 NL	4.2	0	11 NL	5.0
54.0	14.0	0	10 NL	4.6	0	11 NL	5.0	0	13 NL	5.8
54.0	15.0	0	12 NL	5.4	0	13 NL	5.8	0	15 NL	6.6
54.0	16.0	0	14 NL	6.2	0	15 NL	6.6	1	15 NL	6.6
54.0	17.0	0	15 NL	6.6	1	15 NL	6.6	2	15 NL	6.7
54.0	18.0	0	15 NL	6.6	1	15 NL	6.6	3	15 NL	6.8

TABLE XX (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
24H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
60.0	1.0	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2
60.0	2.0	0	15	L	11.4	0	14	L	11.0	0	15	L	11.4	0	15	L	11.4
60.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
60.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
60.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
60.0	6.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
60.0	7.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
60.0	8.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
60.0	9.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
60.0	10.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
60.0	11.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1
60.0	12.0	6	15	L	12.1	6	15	L	12.1	0	9	NL	4.2	0	11	NL	5.0
60.0	13.0	0	9	NL	4.2	0	10	NL	4.6	0	11	NL	5.0	0	13	NL	5.8
60.0	14.0	0	11	NL	5.0	0	11	NL	5.0	0	14	NL	6.2	1	14	NL	6.3
60.0	15.0	0	13	NL	5.8	0	13	NL	5.8	1	14	NL	6.3	2	15	NL	6.7
60.0	16.0	0	14	NL	6.2	0	15	NL	6.6	1	15	NL	6.6	3	15	NL	6.8
60.0	17.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8
60.0	18.0	1	15	NL	6.6	1	15	NL	6.6	3	15	NL	6.8	4	15	NL	6.9
66.0	1.0	0	10	L	9.0	0	10	L	9.0	0	10	L	9.0	0	10	L	9.0
66.0	2.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
66.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
66.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
66.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
66.0	6.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
66.0	7.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
66.0	8.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
66.0	9.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
66.0	10.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
66.0	11.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	0	9	NL	4.2
66.0	12.0	6	15	L	12.1	6	15	L	12.1	0	10	NL	4.6	0	11	NL	5.0
66.0	13.0	0	10	NL	4.6	0	10	NL	4.6	0	12	NL	5.4	0	14	NL	6.2
66.0	14.0	0	11	NL	5.0	0	12	NL	5.4	0	14	NL	6.2	1	15	NL	6.6
66.0	15.0	0	13	NL	5.8	0	14	NL	6.2	1	15	NL	6.6	2	15	NL	6.7
66.0	16.0	0	15	NL	6.6	0	15	NL	6.6	1	15	NL	6.6	3	15	NL	6.8
66.0	17.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7	4	15	NL	6.9
66.0	18.0	1	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8	4	15	NL	6.9

TABLE YY

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL				
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	GAIN
26H88																		
12.0	1.0	0	3	L	3.7													
12.0	2.0	0	3	L	3.7													
12.0	3.0	0	3	L	3.7													
12.0	4.0	0	4	L	4.7													
12.0	5.0	0	5	L	5.5													
12.0	6.0	0	6	L	6.3	0	6	L	6.3	0	7	L	7.2	0	7	L	7.2	
12.0	7.0	1	7	L	7.3	1	7	L	7.3	1	7	L	7.3	1	8	L	7.8	
12.0	8.0	2	7	L	7.4	2	7	L	7.4	2	8	L	7.9	3	6	L	6.6	
12.0	9.0	3	7	L	7.5	3	7	L	7.5	3	9	L	8.6	4	7	L	7.6	
12.0	10.0	3	10	L	9.2	3	11	L	9.8	4	9	L	8.7	4	11	L	9.9	
12.0	11.0	4	11	L	9.9	4	11	L	9.9	5	9	L	8.9	0	7	NL	3.4	
12.0	12.0	5	10	L	9.5	5	11	L	10.0	0	7	NL	3.4	1	7	NL	3.4	
12.0	13.0	0	7	NL	3.4	0	7	NL	3.4	1	8	NL	3.8	1	9	NL	4.2	
12.0	14.0	0	8	NL	3.7	0	8	NL	3.7	1	9	NL	4.2	2	9	NL	4.3	
12.0	15.0	0	9	NL	4.2	1	9	NL	4.2	2	9	NL	4.3	3	9	NL	4.4	
12.0	16.0	1	9	NL	4.2	1	10	NL	4.7	2	10	NL	4.8	3	11	NL	5.3	
12.0	17.0	1	10	NL	4.7	2	10	NL	4.8	3	10	NL	4.9	4	11	NL	5.4	
12.0	18.0	1	11	NL	5.1	2	10	NL	4.8	3	11	NL	5.3	4	12	NL	5.8	
18.0	1.0	0	8	L	7.8													
18.0	2.0	0	9	L	8.4													
18.0	3.0	0	12	L	10.0	0	11	L	9.5	0	12	L	10.0	0	12	L	10.0	
18.0	4.0	0	15	L	11.4													
18.0	5.0	0	15	L	11.4													
18.0	6.0	0	15	L	11.4													
18.0	7.0	1	15	L	11.5													
18.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	
18.0	9.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	
18.0	10.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	
18.0	11.0	4	15	L	11.8	5	15	L	11.9	0	8	NL	3.7	0	9	NL	4.2	
18.0	12.0	0	8	NL	3.7	0	8	NL	3.7	0	9	NL	4.2	0	10	NL	4.6	
18.0	13.0	0	9	NL	4.2	0	10	NL	4.6	0	11	NL	5.0	0	12	NL	5.4	
18.0	14.0	0	10	NL	4.6	0	11	NL	5.0	0	12	NL	5.4	1	12	NL	5.5	
18.0	15.0	0	11	NL	5.0	0	12	NL	5.4	1	12	NL	5.5	2	13	NL	6.0	
18.0	16.0	0	12	NL	5.4	0	13	NL	5.8	1	14	NL	6.3	2	15	NL	6.7	
18.0	17.0	0	13	NL	5.8	1	13	NL	5.9	2	14	NL	6.4	3	15	NL	6.8	
18.0	18.0	1	13	NL	5.9	1	14	NL	6.3	2	15	NL	6.7	4	15	NL	6.9	

TABLE YY (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
26H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
24.0	1.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	2.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	6.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
24.0	7.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
24.0	8.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.8
24.0	9.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.9
24.0	10.0	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9
24.0	11.0	0	7	NL	3.4	0	8	NL	3.7	0	9	NL	4.2
24.0	12.0	0	9	NL	4.2	0	9	NL	4.2	0	11	NL	5.0
24.0	13.0	0	10	NL	4.6	0	11	NL	5.0	0	13	NL	5.8
24.0	14.0	0	12	NL	5.4	0	13	NL	5.8	0	15	NL	6.6
24.0	15.0	0	14	NL	6.2	0	14	NL	6.2	1	15	NL	6.6
24.0	16.0	0	15	NL	6.6	0	15	NL	6.6	1	15	NL	6.6
24.0	17.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7
24.0	18.0	1	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8
30.0	1.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	2.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	5.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
30.0	6.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
30.0	7.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7
30.0	8.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
30.0	9.0	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9
30.0	10.0	6	15	L	12.1	6	15	L	12.1	0	8	NL	3.7
30.0	11.0	0	9	NL	4.2	0	9	NL	4.2	0	10	NL	4.6
30.0	12.0	0	10	NL	4.6	0	11	NL	5.0	0	12	NL	5.4
30.0	13.0	0	12	NL	5.4	0	13	NL	5.8	0	15	NL	6.6
30.0	14.0	0	14	NL	6.2	0	15	NL	6.6	0	15	NL	6.6
30.0	15.0	0	15	NL	6.6	0	15	NL	6.6	1	15	NL	6.6
30.0	16.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7
30.0	17.0	1	15	NL	6.6	1	15	NL	6.6	3	15	NL	6.8
30.0	18.0	1	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8
										4	15	NL	6.9
										5	15	NL	7.1

TABLE YY (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
26H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
36.0	1.0	0 15	L	11.4									
36.0	2.0	0 15	L	11.4									
36.0	3.0	0 15	L	11.4									
36.0	4.0	0 15	L	11.4									
36.0	5.0	1 15	L	11.5	1 15	L	11.5	2 15	L	11.6	2 15	L	11.6
36.0	6.0	2 15	L	11.6	2 15	L	11.6	3 15	L	11.7	3 15	L	11.7
36.0	7.0	4 15	L	11.8									
36.0	8.0	5 15	L	11.9									
36.0	9.0	5 15	L	11.9	6 15	L	12.1	0 8	NL	3.7	0 8	NL	3.7
36.0	10.0	0 8	NL	3.7	0 9	NL	4.2	0 9	NL	4.2	0 10	NL	4.6
36.0	11.0	0 10	NL	4.6	0 10	NL	4.6	0 12	NL	5.4	0 13	NL	5.8
36.0	12.0	0 12	NL	5.4	0 12	NL	5.4	0 14	NL	6.2	0 15	NL	6.6
36.0	13.0	0 14	NL	6.2	0 15	NL	6.6	0 15	NL	6.6	1 15	NL	6.6
36.0	14.0	0 15	NL	6.6	0 15	NL	6.6	1 15	NL	6.6	2 15	NL	6.7
36.0	15.0	0 15	NL	6.6	0 15	NL	6.6	2 15	NL	6.7	3 15	NL	6.8
36.0	16.0	1 15	NL	6.6	1 15	NL	6.6	2 15	NL	6.7	4 15	NL	6.9
36.0	17.0	1 15	NL	6.6	2 15	NL	6.7	3 15	NL	6.8	4 15	NL	6.9
36.0	18.0	2 15	NL	6.7	2 15	NL	6.7	4 15	NL	6.9	5 15	NL	7.1
42.0	1.0	0 15	L	11.4									
42.0	2.0	0 15	L	11.4									
42.0	3.0	1 15	L	11.5									
42.0	4.0	2 15	L	11.6									
42.0	5.0	3 15	L	11.7									
42.0	6.0	4 15	L	11.8									
42.0	7.0	5 15	L	11.9									
42.0	8.0	5 15	L	11.9	5 15	L	11.9	6 15	L	12.1	6 15	L	12.1
42.0	9.0	0 8	NL	3.7	0 8	NL	3.7	0 9	NL	4.2	0 9	NL	4.2
42.0	10.0	0 9	NL	4.2	0 10	NL	4.6	0 10	NL	4.6	0 12	NL	5.4
42.0	11.0	0 11	NL	5.0	0 11	NL	5.0	0 13	NL	5.8	0 15	NL	6.6
42.0	12.0	0 13	NL	5.8	0 14	NL	6.2	0 15	NL	6.6	0 15	NL	6.6
42.0	13.0	0 15	NL	6.6	0 15	NL	6.6	0 15	NL	6.6	1 15	NL	6.6
42.0	14.0	0 15	NL	6.6	0 15	NL	6.6	1 15	NL	6.6	2 15	NL	6.7
42.0	15.0	1 15	NL	6.6	1 15	NL	6.6	2 15	NL	6.7	3 15	NL	6.8
42.0	16.0	1 15	NL	6.6	2 15	NL	6.7	3 15	NL	6.8	4 15	NL	6.9
42.0	17.0	2 15	NL	6.7	2 15	NL	6.7	4 15	NL	6.9	5 15	NL	7.1
42.0	18.0	2 15	NL	6.7	3 15	NL	6.8	4 15	NL	6.9	6 15	NL	7.3

TABLE YY (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 900 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
26H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
48.0	1.0	0	15	L	11.4								
48.0	2.0	1	15	L	11.5								
48.0	3.0	2	15	L	11.6								
48.0	4.0	2	15	L	11.6								
48.0	5.0	3	15	L	11.7								
48.0	6.0	4	15	L	11.8								
48.0	7.0	5	15	L	11.9								
48.0	8.0	6	15	L	12.1			0	9	NL	4.2		
48.0	9.0	0	9	NL	4.2			0	10	NL	4.6		
48.0	10.0	0	11	NL	5.0			0	12	NL	5.4		
48.0	11.0	0	12	NL	5.4			0	13	NL	5.8		
48.0	12.0	0	15	NL	6.6			0	15	NL	6.6		
48.0	13.0	0	15	NL	6.6			1	15	NL	6.6		
48.0	14.0	0	15	NL	6.6			2	15	NL	6.7		
48.0	15.0	1	15	NL	6.6			2	15	NL	6.7		
48.0	16.0	2	15	NL	6.7			3	15	NL	6.8		
48.0	17.0	2	15	NL	6.7			4	15	NL	6.9		
48.0	18.0	3	15	NL	6.8			5	15	NL	7.1		

TABLE ZZ

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR							
19H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE	
12.0	1.0	0	0 L	0.0	0	0 L	0.0	0	0 L	0.0
12.0	2.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
12.0	3.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
12.0	4.0	0	2 L	2.6	0	2 L	2.6	0	2 L	2.6
12.0	5.0	0	2 L	2.6	0	2 L	2.6	0	2 L	2.6
12.0	6.0	0	3 L	3.7	0	3 L	3.7	0	3 L	3.7
12.0	7.0	0	3 L	3.7	0	3 L	3.7	0	3 L	3.7
12.0	8.0	0	4 L	4.7	0	4 L	4.7	0	4 L	4.7
12.0	9.0	0	5 L	5.5	0	5 L	5.5	1	5 L	5.6
12.0	10.0	0	6 L	6.3	1	5 L	5.6	1	6 L	6.4
12.0	11.0	1	6 L	6.4	1	6 L	6.4	2	6 L	6.5
12.0	12.0	2	6 L	6.5	2	6 L	6.5	3	6 L	6.6
12.0	13.0	2	7 L	7.4	3	6 L	6.6	4	6 L	6.7
12.0	14.0	3	7 L	7.5	3	9 L	8.6	4	9 L	8.7
12.0	15.0	4	7 L	7.6	4	8 L	8.1	5	9 L	8.9
12.0	16.0	4	10 L	9.3	5	8 L	8.3	0	7 NL	3.4
12.0	17.0	4	14 L	11.4	5	12 L	10.6	1	7 NL	3.4
12.0	18.0	5	12 L	10.6	0	8 NL	3.7	1	8 NL	3.8
18.0	1.0	0	0 L	0.0	0	0 L	0.0	0	0 L	0.0
18.0	2.0	0	0 L	0.0	0	0 L	0.0	0	0 L	0.0
18.0	3.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
18.0	4.0	0	1 L	1.4	0	1 L	1.4	0	1 L	1.4
18.0	5.0	0	2 L	2.6	0	2 L	2.6	0	2 L	2.6
18.0	6.0	0	3 L	3.7	0	3 L	3.7	0	3 L	3.7
18.0	7.0	0	4 L	4.7	0	4 L	4.7	0	4 L	4.7
18.0	8.0	0	5 L	5.5	0	5 L	5.5	0	6 L	6.3
18.0	9.0	0	6 L	6.3	0	6 L	6.3	0	7 L	7.2
18.0	10.0	0	7 L	7.2	0	7 L	7.2	1	7 L	7.3
18.0	11.0	1	7 L	7.3	1	8 L	7.8	2	8 L	7.9
18.0	12.0	2	8 L	7.9	2	8 L	7.9	3	8 L	8.0
18.0	13.0	2	10 L	9.1	3	8 L	8.0	3	12 L	10.3
18.0	14.0	3	10 L	9.2	3	12 L	10.3	4	13 L	10.9
18.0	15.0	3	15 L	11.7	4	12 L	10.4	5	13 L	11.0
18.0	16.0	4	14 L	11.4	4	15 L	11.8	5	15 L	11.9
18.0	17.0	4	15 L	11.8	5	15 L	11.9	6	15 L	12.1
18.0	18.0	5	15 L	11.9	0	8 NL	3.7	1	9 NL	4.2

TABLE ZZ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
36.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
36.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
36.0	3.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
36.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
36.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
36.0	6.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
36.0	7.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
36.0	8.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
36.0	9.0	0	6	L	6.3	0	6	L	6.3	1	5	L	5.6
36.0	10.0	1	6	L	6.4	1	6	L	6.4	2	6	L	6.5
36.0	11.0	2	6	L	6.5	2	6	L	6.5	3	6	L	6.6
36.0	12.0	2	7	L	7.4	3	6	L	6.6	3	8	L	8.0
36.0	13.0	3	7	L	7.5	3	8	L	8.0	4	8	L	8.1
36.0	14.0	4	7	L	7.6	4	8	L	8.1	5	8	L	8.3
36.0	15.0	4	9	L	8.7	5	7	L	7.7	0	7	NL	3.4
36.0	16.0	5	8	L	8.3	5	11	L	10.0	1	7	NL	3.4
36.0	17.0	5	12	L	10.6	0	7	NL	3.4	1	8	NL	3.8
36.0	18.0	0	7	NL	3.4	1	7	NL	3.4	2	8	NL	3.9
42.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
42.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
42.0	3.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
42.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
42.0	5.0	0	3	L	3.7	0	2	L	2.6	0	3	L	3.7
42.0	6.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
42.0	7.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
42.0	8.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
42.0	9.0	0	5	L	5.5	0	6	L	6.3	1	5	L	5.6
42.0	10.0	1	6	L	6.4	1	6	L	6.4	2	5	L	5.7
42.0	11.0	2	6	L	6.5	2	6	L	6.5	3	5	L	5.8
42.0	12.0	2	7	L	7.4	3	6	L	6.6	3	7	L	7.5
42.0	13.0	3	7	L	7.5	3	8	L	8.0	4	7	L	7.6
42.0	14.0	4	6	L	6.7	4	7	L	7.6	5	7	L	7.7
42.0	15.0	4	9	L	8.7	5	7	L	7.7	0	7	NL	3.4
42.0	16.0	5	8	L	8.3	5	10	L	9.5	1	7	NL	3.4
42.0	17.0	5	11	L	10.0	0	7	NL	3.4	2	7	NL	3.5
42.0	18.0	0	7	NL	3.4	1	7	NL	3.4	2	8	NL	3.9

TABLE ZZ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE 19H88	2-WIRE	BW = 15 HT	EQLR SLOPE	GAIN									
48.0	1.0	0	0	L 0.0									
48.0	2.0	0	1	L 1.4									
48.0	3.0	0	1	L 1.4									
48.0	4.0	0	2	L 2.6									
48.0	5.0	0	2	L 2.6									
48.0	6.0	0	3	L 3.7									
48.0	7.0	0	4	L 4.7									
48.0	8.0	0	4	L 4.7	0	4	L 4.7	0	5	L 5.5	0	5	L 5.5
48.0	9.0	0	5	L 5.5	0	6	L 6.3	1	5	L 5.6	1	6	L 6.4
48.0	10.0	1	6	L 6.4	1	6	L 6.4	2	5	L 5.7	2	6	L 6.5
48.0	11.0	2	6	L 6.5	2	6	L 6.5	3	5	L 5.8	3	7	L 7.5
48.0	12.0	2	7	L 7.4	3	6	L 6.6	3	7	L 7.5	4	7	L 7.6
48.0	13.0	3	7	L 7.5	3	8	L 8.0	4	8	L 8.1	5	7	L 7.7
48.0	14.0	4	7	L 7.6	4	7	L 7.6	5	7	L 7.7	6	7	L 7.9
48.0	15.0	4	9	L 8.7	5	7	L 7.7	5	12	L 10.6	6	13	L 11.2
48.0	16.0	5	8	L 8.3	5	10	L 9.5	6	11	L 10.2	7	12	L 11.0
48.0	17.0	5	11	L 10.0	6	9	L 9.1	7	9	L 9.3	8	10	L 10.2
48.0	18.0	5	15	L 11.9	6	14	L 11.7	7	15	L 12.4	9	11	L 11.0
54.0	1.0	0	0	L 0.0									
54.0	2.0	0	1	L 1.4									
54.0	3.0	0	1	L 1.4									
54.0	4.0	0	2	L 2.6									
54.0	5.0	0	2	L 2.6									
54.0	6.0	0	3	L 3.7									
54.0	7.0	0	4	L 4.7									
54.0	8.0	0	5	L 5.5	0	5	L 5.5	0	5	L 5.5	1	4	L 4.7
54.0	9.0	1	5	L 5.6	1	5	L 5.6	1	5	L 5.6	2	5	L 5.7
54.0	10.0	1	6	L 6.4	2	5	L 5.7	2	5	L 5.7	3	5	L 5.8
54.0	11.0	2	6	L 6.5	2	6	L 6.5	3	6	L 6.6	4	5	L 5.9
54.0	12.0	3	6	L 6.6	3	6	L 6.6	4	6	L 6.7	4	7	L 7.6
54.0	13.0	3	7	L 7.5	4	6	L 6.7	4	8	L 8.1	5	8	L 8.3
54.0	14.0	4	7	L 7.6	4	8	L 8.1	5	8	L 8.3	6	8	L 8.5
54.0	15.0	4	9	L 8.7	5	7	L 7.7	6	7	L 7.9	7	7	L 8.1
54.0	16.0	5	8	L 8.3	5	10	L 9.5	6	11	L 10.2	7	13	L 11.5
54.0	17.0	5	12	L 10.6	6	9	L 9.1	7	10	L 9.9	8	10	L 10.2
54.0	18.0	6	10	L 9.7	6	14	L 11.7	7	15	L 12.4	9	11	L 11.0

TABLE ZZ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN	BW = 15	EQLR	GAIN	BW = 15	EQLR	GAIN	BW = 15	EQLR	GAIN	BW = 15	EQLR	GAIN	
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE		
72.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
72.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
72.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
72.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
72.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
72.0	6.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
72.0	7.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
72.0	8.0	0	5	L	5.5	0	5	L	5.5	1	4	L	4.7	1	4	L	4.7
72.0	9.0	1	5	L	5.6	1	5	L	5.6	2	4	L	4.8	2	5	L	5.7
72.0	10.0	2	4	L	4.8	2	5	L	5.7	3	4	L	4.9	3	5	L	5.8
72.0	11.0	3	4	L	4.9	3	5	L	5.8	3	5	L	5.8	4	5	L	5.9
72.0	12.0	3	5	L	5.8	3	6	L	6.6	4	6	L	6.7	5	5	L	6.1
72.0	13.0	4	5	L	5.9	4	6	L	6.7	5	5	L	6.1	6	5	L	6.2
72.0	14.0	4	7	L	7.6	5	5	L	6.1	5	7	L	7.7	6	7	L	7.9
72.0	15.0	5	6	L	6.9	5	7	L	7.7	6	7	L	7.9	7	7	L	8.1
72.0	16.0	5	8	L	8.3	6	6	L	7.0	7	6	L	7.3	8	6	L	7.6
72.0	17.0	6	7	L	7.9	6	9	L	9.1	7	9	L	9.3	8	10	L	10.2
72.0	18.0	6	9	L	9.1	7	7	L	8.1	8	7	L	8.5	9	11	L	11.0
78.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
78.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
78.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
78.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
78.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
78.0	6.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
78.0	7.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
78.0	8.0	0	5	L	5.5	0	5	L	5.5	1	4	L	4.7	1	5	L	5.6
78.0	9.0	1	5	L	5.6	1	5	L	5.6	2	5	L	5.7	2	5	L	5.7
78.0	10.0	2	5	L	5.7	2	5	L	5.7	3	5	L	5.8	3	5	L	5.8
78.0	11.0	3	5	L	5.8	3	5	L	5.8	3	6	L	6.6	4	6	L	6.7
78.0	12.0	3	6	L	6.6	3	6	L	6.6	4	6	L	6.7	5	6	L	6.9
78.0	13.0	4	6	L	6.7	4	6	L	6.7	5	6	L	6.9	6	6	L	7.0
78.0	14.0	4	7	L	7.6	5	6	L	6.9	5	9	L	8.9	6	8	L	8.5
78.0	15.0	5	7	L	7.7	5	8	L	8.3	6	8	L	8.5	7	8	L	8.7
78.0	16.0	5	9	L	8.9	6	7	L	7.9	7	7	L	8.1	8	7	L	8.5
78.0	17.0	6	7	L	7.9	6	10	L	9.7	7	11	L	10.4	9	7	L	8.7
78.0	18.0	6	10	L	9.7	7	8	L	8.7	8	8	L	9.0	10	7	L	8.9

TABLE ZZ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
19H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
84.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
84.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
84.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
84.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
84.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
84.0	6.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
84.0	7.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
84.0	8.0	0	6	L	6.3	1	5	L	5.6	1	5	L	5.6	1	5	L	5.6
84.0	9.0	1	6	L	6.4	1	6	L	6.4	2	5	L	5.7	2	6	L	6.5
84.0	10.0	2	6	L	6.5	2	6	L	6.5	3	5	L	5.8	3	6	L	6.6
84.0	11.0	3	5	L	5.8	3	6	L	6.6	4	5	L	5.9	4	6	L	6.7
84.0	12.0	3	7	L	7.5	4	5	L	5.9	4	7	L	7.6	5	6	L	6.9
84.0	13.0	4	6	L	6.7	4	7	L	7.6	5	7	L	7.7	6	6	L	7.0
84.0	14.0	4	8	L	8.1	5	7	L	7.7	6	6	L	7.0	7	6	L	7.3
84.0	15.0	5	8	L	8.3	5	9	L	8.9	6	9	L	9.1	7	9	L	9.3
84.0	16.0	5	10	L	9.5	6	8	L	8.5	7	8	L	8.7	8	8	L	9.0
84.0	17.0	6	9	L	9.1	6	12	L	10.7	7	13	L	11.5	9	8	L	9.2
84.0	18.0	6	13	L	11.2	7	10	L	9.9	8	9	L	9.6	10	8	L	9.5
90.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
90.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
90.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
90.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7
90.0	5.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
90.0	6.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
90.0	7.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
90.0	8.0	0	6	L	6.3	1	5	L	5.6	1	5	L	5.6	1	6	L	6.4
90.0	9.0	1	6	L	6.4	1	6	L	6.4	2	5	L	5.7	2	6	L	6.5
90.0	10.0	2	6	L	6.5	2	6	L	6.5	3	5	L	5.8	3	6	L	6.6
90.0	11.0	3	6	L	6.6	3	6	L	6.6	4	5	L	5.9	4	7	L	7.6
90.0	12.0	3	7	L	7.5	4	6	L	6.7	4	7	L	7.6	5	7	L	7.7
90.0	13.0	4	7	L	7.6	4	7	L	7.6	5	7	L	7.7	6	7	L	7.9
90.0	14.0	4	9	L	8.7	5	7	L	7.7	6	7	L	7.9	7	6	L	7.3
90.0	15.0	5	8	L	8.3	5	10	L	9.5	6	10	L	9.7	7	10	L	9.9
90.0	16.0	5	11	L	10.0	6	9	L	9.1	7	9	L	9.3	8	8	L	9.0
90.0	17.0	6	9	L	9.1	6	13	L	11.2	7	14	L	11.9	9	9	L	9.8
90.0	18.0	6	14	L	11.7	7	10	L	9.9	8	10	L	10.2	10	9	L	10.1

TABLE ZZ (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 19-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
19H88				SLOPE				SLOPE				SLOPE				SLOPE	
96.0	1.0	0	1	L	1.4												
96.0	2.0	0	2	L	2.6												
96.0	3.0	0	2	L	2.6												
96.0	4.0	0	3	L	3.7												
96.0	5.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
96.0	6.0	0	4	L	4.7												
96.0	7.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5	1	5	L	5.6
96.0	8.0	1	5	L	5.6	1	5	L	5.6	1	6	L	6.4	2	5	L	5.7
96.0	9.0	2	5	L	5.7	2	5	L	5.7	2	6	L	6.5	3	5	L	5.8
96.0	10.0	2	6	L	6.5	2	6	L	6.5	3	6	L	6.6	4	5	L	5.9
96.0	11.0	3	6	L	6.6	3	6	L	6.6	4	6	L	6.7	4	7	L	7.6
96.0	12.0	4	6	L	6.7	4	6	L	6.7	5	6	L	6.9	5	7	L	7.7
96.0	13.0	4	7	L	7.6	4	8	L	8.1	5	8	L	8.3	6	7	L	7.9
96.0	14.0	5	7	L	7.7	5	7	L	7.7	6	7	L	7.9	7	7	L	8.1
96.0	15.0	5	9	L	8.9	6	7	L	7.9	6	11	L	10.2	7	11	L	10.4
96.0	16.0	6	7	L	7.9	6	9	L	9.1	7	9	L	9.3	8	9	L	9.6
96.0	17.0	6	10	L	9.7	7	8	L	8.7	8	7	L	8.5	9	9	L	9.8
96.0	18.0	6	15	L	12.1	7	11	L	10.4	8	11	L	10.8	10	10	L	10.7

TABLE AAA

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	
22H88		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	
12.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
12.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
12.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
12.0	4.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
12.0	5.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
12.0	6.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
12.0	7.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
12.0	8.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5	0	5	L	5.5
12.0	9.0	0	5	L	5.5	0	5	L	5.5	1	5	L	5.6	1	5	L	5.6
12.0	10.0	1	5	L	5.6	1	5	L	5.6	1	6	L	6.4	2	6	L	6.5
12.0	11.0	1	6	L	6.4	2	5	L	5.7	2	7	L	7.4	3	6	L	6.6
12.0	12.0	2	7	L	7.4	2	7	L	7.4	3	7	L	7.5	4	7	L	7.6
12.0	13.0	3	6	L	6.6	3	7	L	7.5	4	7	L	7.6	5	7	L	7.7
12.0	14.0	3	9	L	8.6	4	7	L	7.6	5	7	L	7.7	0	7	NL	3.4
12.0	15.0	4	8	L	8.1	4	10	L	9.3	5	11	L	10.0	1	7	NL	3.4
12.0	16.0	4	11	L	9.9	5	9	L	8.9	0	8	NL	3.7	1	9	NL	4.2
12.0	17.0	5	10	L	9.5	0	7	NL	3.4	1	8	NL	3.8	2	9	NL	4.3
12.0	18.0	5	15	L	11.9	0	8	NL	3.7	1	9	NL	4.2	3	9	NL	4.4
18.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
18.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
18.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
18.0	4.0	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7	0	3	L	3.7
18.0	5.0	0	3	L	3.7	0	3	L	3.7	0	4	L	4.7	0	4	L	4.7
18.0	6.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
18.0	7.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
18.0	8.0	0	6	L	6.3	0	6	L	6.3	0	7	L	7.2	0	8	L	7.8
18.0	9.0	0	8	L	7.8	0	8	L	7.8	0	10	L	9.0	1	8	L	7.8
18.0	10.0	0	11	L	9.5	0	11	L	9.5	1	10	L	9.0	2	9	L	8.5
18.0	11.0	1	11	L	9.6	1	12	L	10.1	2	11	L	9.7	3	11	L	9.8
18.0	12.0	2	11	L	9.7	2	13	L	10.7	3	12	L	10.3	4	12	L	10.4
18.0	13.0	2	15	L	11.6	3	13	L	10.8	4	13	L	10.9	4	15	L	11.8
18.0	14.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
18.0	15.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	0	9	NL	4.2
18.0	16.0	4	15	L	11.8	5	15	L	11.9	0	8	NL	3.7	1	9	NL	4.2
18.0	17.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	1	11	NL	5.1
18.0	18.0	5	15	L	11.9	0	9	NL	4.2	0	10	NL	4.6	2	11	NL	5.2

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
24.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
24.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
24.0	3.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
24.0	4.0	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7
24.0	5.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
24.0	6.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3
24.0	7.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8
24.0	8.0	0	9	L	8.4	0	10	L	9.0	0	11	L	9.5
24.0	9.0	0	13	L	10.5	0	14	L	11.0	0	15	L	11.4
24.0	10.0	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
24.0	11.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
24.0	12.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
24.0	13.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
24.0	14.0	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
24.0	15.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
24.0	16.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
24.0	17.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
24.0	18.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6
										0	11	NL	5.0
30.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
30.0	2.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
30.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
30.0	4.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
30.0	5.0	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
30.0	6.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3
30.0	7.0	0	8	L	7.8	0	8	L	7.8	0	9	L	8.4
30.0	8.0	0	11	L	9.5	0	11	L	9.5	0	13	L	10.5
30.0	9.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	10.0	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
30.0	11.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
30.0	12.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
30.0	13.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
30.0	14.0	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
30.0	15.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
30.0	16.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
30.0	17.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1
30.0	18.0	5	15	L	11.9	0	9	NL	4.2	0	10	NL	4.6
										0	11	NL	5.0
										0	11	NL	5.0
										2	12	NL	5.6

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT

4-WIRE TERMINATION = 1200 OHMS

2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	BW = 15		EQLR	
22H88		HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	HT	SLOPE	GAIN	
36.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
36.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
36.0	3.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7
36.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
36.0	5.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
36.0	6.0	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2
36.0	7.0	0	9	L	8.4	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0
36.0	8.0	0	11	L	9.5	0	11	L	9.5	0	13	L	10.5	0	15	L	11.4
36.0	9.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
36.0	10.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
36.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
36.0	12.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
36.0	13.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
36.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
36.0	15.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1	0	9	NL	4.2
36.0	16.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	1	10	NL	4.7
36.0	17.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6	2	11	NL	5.2
36.0	18.0	6	15	L	12.1	0	9	NL	4.2	1	10	NL	4.7	2	12	NL	5.6
42.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
42.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
42.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
42.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
42.0	5.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
42.0	6.0	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2	0	7	L	7.2
42.0	7.0	0	9	L	8.4	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0
42.0	8.0	0	11	L	9.5	0	11	L	9.5	0	13	L	10.5	0	15	L	11.4
42.0	9.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
42.0	10.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
42.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
42.0	12.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
42.0	13.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
42.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
42.0	15.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1	1	9	NL	4.2
42.0	16.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	1	10	NL	4.7
42.0	17.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6	2	10	NL	4.8
42.0	18.0	0	8	NL	3.7	0	9	NL	4.2	1	10	NL	4.7	3	11	NL	5.3

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL						
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN													
22H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE					
60.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
60.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
60.0	3.0	0	2	L	2.6	0	2	L	2.6	0	3	L	3.7	0	3	L	3.7
60.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
60.0	5.0	0	6	L	6.3	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
60.0	6.0	0	8	L	7.8	0	7	L	7.2	0	8	L	7.8	0	8	L	7.8
60.0	7.0	0	10	L	9.0	0	10	L	9.0	0	11	L	9.5	0	12	L	10.0
60.0	8.0	0	14	L	11.0	0	14	L	11.0	0	15	L	11.4	0	15	L	11.4
60.0	9.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6
60.0	10.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7
60.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
60.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8
60.0	13.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
60.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
60.0	15.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
60.0	16.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	1	10	NL	4.7
60.0	17.0	5	15	L	11.9	6	15	L	12.1	1	9	NL	4.2	2	11	NL	5.2
60.0	18.0	6	15	L	12.1	0	10	NL	4.6	1	11	NL	5.1	3	11	NL	5.3
66.0	1.0	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4	0	1	L	1.4
66.0	2.0	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6	0	2	L	2.6
66.0	3.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
66.0	4.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7	0	5	L	5.5
66.0	5.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3	0	7	L	7.2
66.0	6.0	0	8	L	7.8	0	8	L	7.8	0	9	L	8.4	0	9	L	8.4
66.0	7.0	0	11	L	9.5	0	11	L	9.5	0	12	L	10.0	0	13	L	10.5
66.0	8.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
66.0	9.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
66.0	10.0	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
66.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8
66.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
66.0	13.0	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
66.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
66.0	15.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
66.0	16.0	5	15	L	11.9	6	15	L	12.1	0	9	NL	4.2	8	15	L	12.7
66.0	17.0	6	15	L	12.1	6	15	L	12.1	1	10	NL	4.7	2	11	NL	5.2
66.0	18.0	6	15	L	12.1	0	10	NL	4.6	1	11	NL	5.1	3	11	NL	5.3

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL											
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN				
22H88																									
72.0	1.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
72.0	2.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
72.0	3.0	0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7
72.0	4.0	0	5	L	5.5		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5
72.0	5.0	0	7	L	7.2		0	7	L	7.2		0	7	L	7.2		0	7	L	7.2		0	7	L	7.2
72.0	6.0	0	9	L	8.4		0	9	L	8.4		0	10	L	9.0		0	10	L	9.0		0	10	L	9.0
72.0	7.0	0	13	L	10.5		0	13	L	10.5		0	14	L	11.0		0	15	L	11.4		0	15	L	11.4
72.0	8.0	0	15	L	11.4		0	15	L	11.4		0	15	L	11.4		1	15	L	11.5		1	15	L	11.5
72.0	9.0	1	15	L	11.5		1	15	L	11.5		1	15	L	11.5		2	15	L	11.6		2	15	L	11.6
72.0	10.0	1	15	L	11.5		2	15	L	11.6		2	15	L	11.6		3	15	L	11.7		3	15	L	11.7
72.0	11.0	2	15	L	11.6		2	15	L	11.6		3	15	L	11.7		4	15	L	11.8		4	15	L	11.8
72.0	12.0	3	15	L	11.7		3	15	L	11.7		4	15	L	11.8		5	15	L	11.9		5	15	L	11.9
72.0	13.0	4	15	L	11.8		4	15	L	11.8		5	15	L	11.9		6	15	L	12.1		6	15	L	12.1
72.0	14.0	4	15	L	11.8		5	15	L	11.9		5	15	L	11.9		6	15	L	12.1		6	15	L	12.1
72.0	15.0	5	15	L	11.9		5	15	L	11.9		6	15	L	12.1		7	15	L	12.4		7	15	L	12.4
72.0	16.0	5	15	L	11.9		6	15	L	12.1		0	10	NL	4.6		1	11	NL	5.1		1	11	NL	5.1
72.0	17.0	6	15	L	12.1		6	15	L	12.1		1	10	NL	4.7		2	11	NL	5.2		2	11	NL	5.2
72.0	18.0	0	9	NL	4.2		0	10	NL	4.6		1	11	NL	5.1		3	12	NL	5.7		3	12	NL	5.7
78.0	1.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
78.0	2.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
78.0	3.0	0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7
78.0	4.0	0	5	L	5.5		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5
78.0	5.0	0	7	L	7.2		0	7	L	7.2		0	8	L	7.8		0	8	L	7.8		0	8	L	7.8
78.0	6.0	0	11	L	9.5		0	11	L	9.5		0	12	L	10.0		0	12	L	10.0		0	12	L	10.0
78.0	7.0	0	15	L	11.4		0	15	L	11.4		0	15	L	11.4		0	15	L	11.4		0	15	L	11.4
78.0	8.0	0	15	L	11.4		0	15	L	11.4		1	15	L	11.5		1	15	L	11.5		1	15	L	11.5
78.0	9.0	1	15	L	11.5		1	15	L	11.5		2	15	L	11.6		2	15	L	11.6		2	15	L	11.6
78.0	10.0	2	15	L	11.6		2	15	L	11.6		2	15	L	11.6		3	15	L	11.7		3	15	L	11.7
78.0	11.0	2	15	L	11.6		3	15	L	11.7		3	15	L	11.7		4	15	L	11.8		4	15	L	11.8
78.0	12.0	3	15	L	11.7		3	15	L	11.7		4	15	L	11.8		5	15	L	11.9		5	15	L	11.9
78.0	13.0	4	15	L	11.8		4	15	L	11.8		5	15	L	11.9		6	15	L	12.1		6	15	L	12.1
78.0	14.0	4	15	L	11.8		5	15	L	11.9		6	15	L	12.1		6	15	L	12.1		6	15	L	12.1
78.0	15.0	5	15	L	11.9		5	15	L	11.9		6	15	L	12.1		7	15	L	12.4		7	15	L	12.4
78.0	16.0	5	15	L	11.9		6	15	L	12.1		0	10	NL	4.6		8	15	L	12.7		8	15	L	12.7
78.0	17.0	6	15	L	12.1		0	9	NL	4.2		1	10	NL	4.7		2	12	NL	5.6		2	12	NL	5.6
78.0	18.0	0	9	NL	4.2		0	10	NL	4.6		1	12	NL	5.5		3	12	NL	5.7		3	12	NL	5.7

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL			
4-WIRE	2-WIRE	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN	BW = 15	EQLR	HT	GAIN
22H88																	
84.0	1.0	0	2	L	2.6												
84.0	2.0	0	2	L	2.6												
84.0	3.0	0	4	L	4.7												
84.0	4.0	0	5	L	5.5	0	5	L	5.5	0	6	L	6.3	0	6	L	6.3
84.0	5.0	0	9	L	8.4	0	8	L	7.8	0	9	L	8.4	0	10	L	9.0
84.0	6.0	0	13	L	10.5	0	13	L	10.5	0	15	L	11.4	0	15	L	11.4
84.0	7.0	0	15	L	11.4												
84.0	8.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
84.0	9.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
84.0	10.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
84.0	11.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
84.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	5	15	L	11.9
84.0	13.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
84.0	14.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
84.0	15.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
84.0	16.0	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4	8	15	L	12.7
84.0	17.0	6	15	L	12.1	0	9	NL	4.2	1	10	NL	4.7	2	12	NL	5.6
84.0	18.0	0	9	NL	4.2	0	11	NL	5.0	1	12	NL	5.5	3	12	NL	5.7
90.0	1.0	0	2	L	2.6												
90.0	2.0	0	3	L	3.7												
90.0	3.0	0	4	L	4.7												
90.0	4.0	0	6	L	6.3												
90.0	5.0	0	10	L	9.0	0	10	L	9.0	0	11	L	9.5	0	11	L	9.5
90.0	6.0	0	15	L	11.4												
90.0	7.0	0	15	L	11.4												
90.0	8.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5
90.0	9.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
90.0	10.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
90.0	11.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
90.0	12.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
90.0	13.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
90.0	14.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1	7	15	L	12.4
90.0	15.0	5	15	L	11.9	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4
90.0	16.0	6	15	L	12.1	6	15	L	12.1	7	15	L	12.4	8	15	L	12.7
90.0	17.0	6	15	L	12.1	7	15	L	12.4	1	11	NL	5.1	2	12	NL	5.6
90.0	18.0	0	9	NL	4.2	0	11	NL	5.0	2	11	NL	5.2	3	12	NL	5.7

TABLE AAA (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 22-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL												
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN					
22H88																										
96.0	1.0	0	2	L		2.6	0	2	L		2.6	0	2	L		2.6	0	2	L		2.6	0	2	L		2.6
96.0	2.0	0	3	L		3.7	0	3	L		3.7	0	3	L		3.7	0	3	L		3.7	0	3	L		3.7
96.0	3.0	0	4	L		4.7	0	4	L		4.7	0	4	L		4.7	0	4	L		4.7	0	4	L		4.7
96.0	4.0	0	7	L		7.2	0	7	L		7.2	0	7	L		7.2	0	7	L		7.2	0	7	L		7.2
96.0	5.0	0	12	L		10.0	0	11	L		9.5	0	13	L		10.5	0	14	L		11.0	0	14	L		11.0
96.0	6.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
96.0	7.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
96.0	8.0	0	15	L		11.4	1	15	L		11.5	1	15	L		11.5	1	15	L		11.5	1	15	L		11.5
96.0	9.0	1	15	L		11.5	1	15	L		11.5	2	15	L		11.6	2	15	L		11.6	2	15	L		11.6
96.0	10.0	2	15	L		11.6	2	15	L		11.6	3	15	L		11.7	3	15	L		11.7	3	15	L		11.7
96.0	11.0	3	15	L		11.7	3	15	L		11.7	4	15	L		11.8	4	15	L		11.8	4	15	L		11.8
96.0	12.0	3	15	L		11.7	4	15	L		11.8	4	15	L		11.8	5	15	L		11.9	5	15	L		11.9
96.0	13.0	4	15	L		11.8	4	15	L		11.8	5	15	L		11.9	6	15	L		12.1	6	15	L		12.1
96.0	14.0	5	15	L		11.9	5	15	L		11.9	6	15	L		12.1	7	15	L		12.4	7	15	L		12.4
96.0	15.0	5	15	L		11.9	6	15	L		12.1	7	15	L		12.4	1	10	NL		4.7	1	10	NL		4.7
96.0	16.0	6	15	L		12.1	6	15	L		12.1	7	15	L		12.4	2	10	NL		4.8	2	10	NL		4.8
96.0	17.0	6	15	L		12.1	7	15	L		12.4	1	11	NL		5.1	3	11	NL		5.3	3	11	NL		5.3
96.0	18.0	0	10	NL		4.6	1	10	NL		4.7	2	11	NL		5.2	3	13	NL		6.1	3	13	NL		6.1

TABLE BBB

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL											
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN				
24H88																									
12.0	1.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
12.0	2.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
12.0	3.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6
12.0	4.0	0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7
12.0	5.0	0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7		0	3	L	3.7
12.0	6.0	0	4	L	4.7		0	4	L	4.7		0	4	L	4.7		0	4	L	4.7		0	4	L	4.7
12.0	7.0	0	4	L	4.7		0	4	L	4.7		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5
12.0	8.0	0	5	L	5.5		0	5	L	5.5		0	6	L	6.3		0	6	L	6.3		0	6	L	6.3
12.0	9.0	0	6	L	6.3		0	7	L	7.2		1	6	L	6.4		2	5	L	5.7					
12.0	10.0	1	7	L	7.3		1	7	L	7.3		2	6	L	6.5		3	6	L	6.6					
12.0	11.0	2	7	L	7.4		2	7	L	7.4		3	7	L	7.5		3	8	L	8.0					
12.0	12.0	2	9	L	8.5		3	7	L	7.5		3	9	L	8.6		4	9	L	8.7					
12.0	13.0	3	9	L	8.6		3	10	L	9.2		4	10	L	9.3		5	10	L	9.5					
12.0	14.0	4	8	L	8.1		4	10	L	9.3		5	10	L	9.5		6	10	L	9.7					
12.0	15.0	4	11	L	9.9		5	9	L	8.9		0	7	NL	3.4		1	8	NL	3.8					
12.0	16.0	5	10	L	9.5		5	14	L	11.5		0	8	NL	3.7		2	8	NL	3.9					
12.0	17.0	5	15	L	11.9		0	8	NL	3.7		1	9	NL	4.2		2	10	NL	4.8					
12.0	18.0	0	8	NL	3.7		0	9	NL	4.2		2	9	NL	4.3		3	10	NL	4.9					
18.0	1.0	0	2	L	2.6		0	2	L	2.6		0	2	L	2.6		0	2	L	2.6					
18.0	2.0	0	2	L	2.6		0	2	L	2.6		0	3	L	3.7		0	3	L	3.7					
18.0	3.0	0	4	L	4.7		0	4	L	4.7		0	4	L	4.7		0	4	L	4.7					
18.0	4.0	0	5	L	5.5		0	5	L	5.5		0	5	L	5.5		0	5	L	5.5					
18.0	5.0	0	6	L	6.3		0	6	L	6.3		0	6	L	6.3		0	6	L	6.3					
18.0	6.0	0	7	L	7.2		0	7	L	7.2		0	7	L	7.2		0	7	L	7.2					
18.0	7.0	0	9	L	8.4		0	9	L	8.4		0	10	L	9.0		0	10	L	9.0					
18.0	8.0	0	12	L	10.0		0	12	L	10.0		0	14	L	11.0		0	15	L	11.4					
18.0	9.0	0	15	L	11.4		0	15	L	11.4		1	15	L	11.5		1	15	L	11.5					
18.0	10.0	1	15	L	11.5		1	15	L	11.5		1	15	L	11.5		2	15	L	11.6					
18.0	11.0	1	15	L	11.5		2	15	L	11.6		2	15	L	11.6		3	15	L	11.7					
18.0	12.0	2	15	L	11.6		2	15	L	11.6		3	15	L	11.7		4	15	L	11.8					
18.0	13.0	3	15	L	11.7		3	15	L	11.7		4	15	L	11.8		5	15	L	11.9					
18.0	14.0	3	15	L	11.7		4	15	L	11.8		5	15	L	11.9		0	9	NL	4.2					
18.0	15.0	4	15	L	11.8		5	15	L	11.9		0	8	NL	3.7		0	10	NL	4.6					
18.0	16.0	5	15	L	11.9		5	15	L	11.9		0	9	NL	4.2		1	10	NL	4.7					
18.0	17.0	5	15	L	11.9		0	9	NL	4.2		0	11	NL	5.0		1	12	NL	5.5					
18.0	18.0	0	9	NL	4.2		0	10	NL	4.6		1	11	NL	5.1		2	12	NL	5.6					

TABLE BBB (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL				
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	BW = 15	EQLR	HT	SLOPE	GAIN
24H88																		
24.0	1.0	0	2	L	2.6													
24.0	2.0	0	3	L	3.7	0	2	L	2.6	0	3	L	3.7	0	3	L	3.7	
24.0	3.0	0	4	L	4.7													
24.0	4.0	0	6	L	6.3													
24.0	5.0	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0	0	11	L	9.5	
24.0	6.0	0	15	L	11.4													
24.0	7.0	0	15	L	11.4													
24.0	8.0	0	15	L	11.4													
24.0	9.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	1	15	L	11.5	
24.0	10.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6	
24.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7	
24.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	
24.0	13.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	
24.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	0	9	NL	4.2	
24.0	15.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	0	11	NL	5.0	
24.0	16.0	5	15	L	11.9	6	15	L	12.1	0	10	NL	4.6	0	13	NL	5.8	
24.0	17.0	6	15	L	12.1	0	9	NL	4.2	0	11	NL	5.0	1	13	NL	5.9	
24.0	18.0	0	9	NL	4.2	0	10	NL	4.6	0	13	NL	5.8	2	14	NL	6.4	
30.0	1.0	0	2	L	2.6													
30.0	2.0	0	3	L	3.7													
30.0	3.0	0	5	L	5.5													
30.0	4.0	0	9	L	8.4	0	9	L	8.4	0	10	L	9.0	0	10	L	9.0	
30.0	5.0	0	15	L	11.4													
30.0	6.0	0	15	L	11.4													
30.0	7.0	0	15	L	11.4													
30.0	8.0	0	15	L	11.4													
30.0	9.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5	2	15	L	11.6	
30.0	10.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6	3	15	L	11.7	
30.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	4	15	L	11.8	
30.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	
30.0	13.0	3	15	L	11.7	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	
30.0	14.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9	0	9	NL	4.2	
30.0	15.0	5	15	L	11.9	5	15	L	11.9	0	9	NL	4.2	0	11	NL	5.0	
30.0	16.0	5	15	L	11.9	6	15	L	12.1	0	11	NL	5.0	0	13	NL	5.8	
30.0	17.0	6	15	L	12.1	0	10	NL	4.6	0	12	NL	5.4	1	14	NL	6.3	
30.0	18.0	0	10	NL	4.6	0	11	NL	5.0	0	14	NL	6.2	2	15	NL	6.7	

TABLE BBB (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN	BW = 15	EQLR	BW = 15	EQLR	GAIN	BW = 15	EQLR	GAIN	
24H88		HT	SLOPE		HT	SLOPE	HT	SLOPE		HT	SLOPE		
36.0	1.0	0	3	L	3.7	0	3	L	3.7	0	3	L	3.7
36.0	2.0	0	5	L	5.5	0	5	L	5.5	0	5	L	5.5
36.0	3.0	0	7	L	7.2	0	7	L	7.2	0	8	L	7.8
36.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	8.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
36.0	9.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
36.0	10.0	1	15	L	11.5	2	15	L	11.6	2	15	L	11.6
36.0	11.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
36.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
36.0	13.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
36.0	14.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
36.0	15.0	5	15	L	11.9	5	15	L	11.9	0	10	NL	4.6
36.0	16.0	5	15	L	11.9	0	9	NL	4.2	0	11	NL	5.0
36.0	17.0	0	9	NL	4.2	0	11	NL	5.0	0	13	NL	5.8
36.0	18.0	0	11	NL	5.0	0	12	NL	5.4	1	14	NL	6.3
42.0	1.0	0	4	L	4.7	0	4	L	4.7	0	4	L	4.7
42.0	2.0	0	6	L	6.3	0	6	L	6.3	0	6	L	6.3
42.0	3.0	0	10	L	9.0	0	10	L	9.0	0	11	L	9.5
42.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	7.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
42.0	8.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
42.0	9.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
42.0	10.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
42.0	11.0	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
42.0	12.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
42.0	13.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
42.0	14.0	4	15	L	11.8	5	15	L	11.9	6	15	L	12.1
42.0	15.0	5	15	L	11.9	6	15	L	12.1	0	11	NL	5.0
42.0	16.0	6	15	L	12.1	0	10	NL	4.6	0	12	NL	5.4
42.0	17.0	0	10	NL	4.6	0	11	NL	5.0	0	13	NL	5.8
42.0	18.0	0	11	NL	5.0	0	13	NL	5.8	1	14	NL	6.3

TABLE BBB (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL		2-WIRE = 22 NL		2-WIRE = 24 NL		2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR							
24H88		HT	SLOPE	HT	SLOPE	HT	SLOPE	HT	SLOPE	
			GAIN		GAIN		GAIN		GAIN	
48.0	1.0	0	5 L	5.5	0	5 L	5.5	0	5 L	5.5
48.0	2.0	0	7 L	7.2	0	6 L	6.3	0	7 L	7.2
48.0	3.0	0	12 L	10.0	0	12 L	10.0	0	13 L	10.5
48.0	4.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	5.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	6.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	7.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
48.0	8.0	0	15 L	11.4	0	15 L	11.4	1	15 L	11.5
48.0	9.0	1	15 L	11.5	1	15 L	11.5	2	15 L	11.6
48.0	10.0	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7
48.0	11.0	3	15 L	11.7	3	15 L	11.7	4	15 L	11.8
48.0	12.0	3	15 L	11.7	4	15 L	11.8	4	15 L	11.8
48.0	13.0	4	15 L	11.8	4	15 L	11.8	5	15 L	11.9
48.0	14.0	5	15 L	11.9	5	15 L	11.9	0	9 NL	4.2
48.0	15.0	5	15 L	11.9	6	15 L	12.1	0	11 NL	5.0
48.0	16.0	0	9 NL	4.2	6	15 L	12.1	0	13 NL	5.8
48.0	17.0	0	10 NL	4.6	0	10 NL	4.6	0	12 NL	5.4
48.0	18.0	0	11 NL	5.0	0	11 NL	5.0	0	14 NL	6.2
					0	13 NL	5.8	1	14 NL	6.3
								2	15 NL	6.7
								3	15 NL	6.8
54.0	1.0	0	5 L	5.5	0	5 L	5.5	0	5 L	5.5
54.0	2.0	0	8 L	7.8	0	7 L	7.2	0	8 L	7.8
54.0	3.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	4.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	5.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	6.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	7.0	0	15 L	11.4	0	15 L	11.4	0	15 L	11.4
54.0	8.0	0	15 L	11.4	1	15 L	11.5	1	15 L	11.5
54.0	9.0	1	15 L	11.5	1	15 L	11.5	2	15 L	11.6
54.0	10.0	2	15 L	11.6	2	15 L	11.6	3	15 L	11.7
54.0	11.0	3	15 L	11.7	3	15 L	11.7	4	15 L	11.8
54.0	12.0	4	15 L	11.8	4	15 L	11.8	5	15 L	11.9
54.0	13.0	4	15 L	11.8	5	15 L	11.9	5	15 L	11.9
54.0	14.0	5	15 L	11.9	5	15 L	11.9	0	9 NL	4.2
54.0	15.0	6	15 L	12.1	6	15 L	12.1	0	11 NL	5.0
54.0	16.0	0	9 NL	4.2	0	10 NL	4.6	0	13 NL	5.8
54.0	17.0	0	10 NL	4.6	0	12 NL	5.4	0	14 NL	6.2
54.0	18.0	0	12 NL	5.4	0	13 NL	5.8	0	15 NL	6.6
								1	15 NL	6.6
								2	15 NL	6.7
								3	15 NL	6.8

TABLE BBB (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE REPEATERS ON 24-GAUGE H88 LOADED 4-WIRE FACILITIES WITH NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
 4-WIRE TERMINATION = 1200 OHMS
 2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL				2-WIRE = 22 NL				2-WIRE = 24 NL				2-WIRE = 26 NL												
4-WIRE	2-WIRE	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN	BW = 15	EQLR	HT	SLOPE	GAIN					
24H88																										
60.0	1.0	0	6	L		6.3	0	6	L		6.3	0	6	L		6.3	0	6	L		6.3	0	6	L		6.3
60.0	2.0	0	10	L		9.0	0	10	L		9.0	0	10	L		9.0	0	10	L		9.0	0	10	L		9.0
60.0	3.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
60.0	4.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
60.0	5.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
60.0	6.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
60.0	7.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	1	15	L		11.5	1	15	L		11.5
60.0	8.0	1	15	L		11.5	1	15	L		11.5	1	15	L		11.5	2	15	L		11.6	2	15	L		11.6
60.0	9.0	2	15	L		11.6	2	15	L		11.6	2	15	L		11.6	3	15	L		11.7	3	15	L		11.7
60.0	10.0	2	15	L		11.6	3	15	L		11.7	3	15	L		11.7	4	15	L		11.8	4	15	L		11.8
60.0	11.0	3	15	L		11.7	3	15	L		11.7	4	15	L		11.8	5	15	L		11.9	5	15	L		11.9
60.0	12.0	4	15	L		11.8	4	15	L		11.8	5	15	L		11.9	6	15	L		12.1	6	15	L		12.1
60.0	13.0	5	15	L		11.9	5	15	L		11.9	6	15	L		12.1	0	10	NL		4.6	0	10	NL		4.6
60.0	14.0	5	15	L		11.9	6	15	L		12.1	0	9	NL		4.2	0	12	NL		5.4	0	12	NL		5.4
60.0	15.0	6	15	L		12.1	0	9	NL		4.2	0	11	NL		5.0	0	14	NL		6.2	0	14	NL		6.2
60.0	16.0	0	9	NL		4.2	0	10	NL		4.6	0	13	NL		5.8	1	15	NL		6.6	1	15	NL		6.6
60.0	17.0	0	11	NL		5.0	0	12	NL		5.4	0	15	NL		6.6	2	15	NL		6.7	2	15	NL		6.7
60.0	18.0	0	12	NL		5.4	0	14	NL		6.2	1	15	NL		6.6	3	15	NL		6.8	3	15	NL		6.8
66.0	1.0	0	9	L		8.4	0	9	L		8.4	0	9	L		8.4	0	9	L		8.4	0	9	L		8.4
66.0	2.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
66.0	3.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
66.0	4.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
66.0	5.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
66.0	6.0	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4	0	15	L		11.4
66.0	7.0	0	15	L		11.4	0	15	L		11.4	1	15	L		11.5	1	15	L		11.5	1	15	L		11.5
66.0	8.0	1	15	L		11.5	1	15	L		11.5	2	15	L		11.6	2	15	L		11.6	2	15	L		11.6
66.0	9.0	2	15	L		11.6	2	15	L		11.6	3	15	L		11.7	3	15	L		11.7	3	15	L		11.7
66.0	10.0	3	15	L		11.7	3	15	L		11.7	3	15	L		11.7	4	15	L		11.8	4	15	L		11.8
66.0	11.0	3	15	L		11.7	4	15	L		11.8	4	15	L		11.8	5	15	L		11.9	5	15	L		11.9
66.0	12.0	4	15	L		11.8	4	15	L		11.8	5	15	L		11.9	6	15	L		12.1	6	15	L		12.1
66.0	13.0	5	15	L		11.9	5	15	L		11.9	6	15	L		12.1	0	10	NL		4.6	0	10	NL		4.6
66.0	14.0	6	15	L		12.1	6	15	L		12.1	0	10	NL		4.6	0	12	NL		5.4	0	12	NL		5.4
66.0	15.0	6	15	L		12.1	0	9	NL		4.2	0	12	NL		5.4	0	15	NL		6.6	0	15	NL		6.6
66.0	16.0	0	10	NL		4.6	0	11	NL		5.0	0	14	NL		6.2	1	15	NL		6.6	1	15	NL		6.6
66.0	17.0	0	11	NL		5.0	0	13	NL		5.8	1	14	NL		6.3	2	15	NL		6.7	2	15	NL		6.7
66.0	18.0	0	13	NL		5.8	0	15	NL		6.6	1	15	NL		6.6	3	15	NL		6.8	3	15	NL		6.8

TABLE CCC (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR	GAIN									
26H88		HT	SLOPE		HT	SLOPE		HT	SLOPE		HT	SLOPE	
24.0	1.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	2.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
24.0	7.0	0	15	L	11.4	0	15	L	11.4	1	15	L	11.5
24.0	8.0	1	15	L	11.5	1	15	L	11.5	2	15	L	11.6
24.0	9.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7
24.0	10.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
24.0	11.0	4	15	L	11.8	4	15	L	11.8	5	15	L	11.9
24.0	12.0	4	15	L	11.8	5	15	L	11.9	0	7	NL	3.4
24.0	13.0	5	15	L	11.9	0	7	NL	3.4	0	9	NL	4.2
24.0	14.0	0	8	NL	3.7	0	9	NL	4.2	0	11	NL	5.0
24.0	15.0	0	9	NL	4.2	0	10	NL	4.6	0	12	NL	5.4
24.0	16.0	0	11	NL	5.0	0	12	NL	5.4	0	14	NL	6.2
24.0	17.0	0	12	NL	5.4	0	13	NL	5.8	0	15	NL	6.6
24.0	18.0	0	13	NL	5.8	0	15	NL	6.6	1	15	NL	6.6
30.0	1.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	2.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	3.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	4.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	5.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	6.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
30.0	7.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
30.0	8.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
30.0	9.0	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
30.0	10.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
30.0	11.0	4	15	L	11.8	5	15	L	11.9	5	15	L	11.9
30.0	12.0	5	15	L	11.9	6	15	L	12.1	0	8	NL	3.7
30.0	13.0	0	8	NL	3.7	0	8	NL	3.7	0	10	NL	4.6
30.0	14.0	0	9	NL	4.2	0	10	NL	4.6	0	12	NL	5.4
30.0	15.0	0	11	NL	5.0	0	12	NL	5.4	0	14	NL	6.2
30.0	16.0	0	12	NL	5.4	0	14	NL	6.2	0	15	NL	6.6
30.0	17.0	0	14	NL	6.2	0	15	NL	6.6	1	15	NL	6.6
30.0	18.0	0	15	NL	6.6	0	15	NL	6.6	2	15	NL	6.7

TABLE CCC (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT)		2-WIRE = 19 NL			2-WIRE = 22 NL			2-WIRE = 24 NL			2-WIRE = 26 NL		
4-WIRE	2-WIRE	BW = 15	EQLR										
26H88		HT	SLOPE	GAIN									
36.0	1.0	0	15	L 11.4									
36.0	2.0	0	15	L 11.4									
36.0	3.0	0	15	L 11.4									
36.0	4.0	0	15	L 11.4									
36.0	5.0	0	15	L 11.4	0	15	L 11.4	0	15	L 11.4	1	15	L 11.5
36.0	6.0	1	15	L 11.5	1	15	L 11.5	1	15	L 11.5	2	15	L 11.6
36.0	7.0	2	15	L 11.6	2	15	L 11.6	2	15	L 11.6	3	15	L 11.7
36.0	8.0	3	15	L 11.7	3	15	L 11.7	3	15	L 11.7	4	15	L 11.8
36.0	9.0	4	15	L 11.8	4	15	L 11.8	4	15	L 11.8	5	15	L 11.9
36.0	10.0	5	15	L 11.9	5	15	L 11.9	5	15	L 11.9	6	15	L 12.1
36.0	11.0	5	15	L 11.9	6	15	L 12.1	0	8	NL 3.7	0	9	NL 4.2
36.0	12.0	0	8	NL 3.7	0	8	NL 3.7	0	10	NL 4.6	0	12	NL 5.4
36.0	13.0	0	9	NL 4.2	0	10	NL 4.6	0	12	NL 5.4	0	14	NL 6.2
36.0	14.0	0	11	NL 5.0	0	12	NL 5.4	0	14	NL 6.2	0	15	NL 6.6
36.0	15.0	0	12	NL 5.4	0	14	NL 6.2	0	15	NL 6.6	1	15	NL 6.6
36.0	16.0	0	14	NL 6.2	0	15	NL 6.6	1	15	NL 6.6	2	15	NL 6.7
36.0	17.0	0	15	NL 6.6	0	15	NL 6.6	1	15	NL 6.6	3	15	NL 6.8
36.0	18.0	0	15	NL 6.6	1	15	NL 6.6	2	15	NL 6.7	4	15	NL 6.9
42.0	1.0	0	15	L 11.4									
42.0	2.0	0	15	L 11.4									
42.0	3.0	0	15	L 11.4									
42.0	4.0	1	15	L 11.5									
42.0	5.0	2	15	L 11.6									
42.0	6.0	3	15	L 11.7									
42.0	7.0	3	15	L 11.7	3	15	L 11.7	4	15	L 11.8	4	15	L 11.8
42.0	8.0	4	15	L 11.8	4	15	L 11.8	4	15	L 11.8	5	15	L 11.9
42.0	9.0	5	15	L 11.9	5	15	L 11.9	5	15	L 11.9	6	15	L 12.1
42.0	10.0	5	15	L 11.9	5	15	L 11.9	6	15	L 12.1	0	9	NL 4.2
42.0	11.0	0	8	NL 3.7	0	8	NL 3.7	0	9	NL 4.2	0	10	NL 4.6
42.0	12.0	0	9	NL 4.2	0	10	NL 4.6	0	11	NL 5.0	0	13	NL 5.8
42.0	13.0	0	10	NL 4.6	0	11	NL 5.0	0	13	NL 5.8	0	15	NL 6.6
42.0	14.0	0	12	NL 5.4	0	13	NL 5.8	0	15	NL 6.6	1	15	NL 6.6
42.0	15.0	0	14	NL 6.2	0	15	NL 6.6	0	15	NL 6.6	2	15	NL 6.7
42.0	16.0	0	15	NL 6.6	0	15	NL 6.6	1	15	NL 6.6	3	15	NL 6.8
42.0	17.0	0	15	NL 6.6	0	15	NL 6.6	2	15	NL 6.7	4	15	NL 6.9
42.0	18.0	0	15	NL 6.6	1	15	NL 6.6	3	15	NL 6.8	4	15	NL 6.9

TABLE CCC (CONTD)

309B EQUALIZER SETTINGS FOR 4-2 OR 2-4 INTERMEDIATE
REPEATERS ON 26-GAUGE H88 LOADED 4-WIRE FACILITIES WITH
NONLOADED 2-WIRE EXTENSIONS WITHOUT BRIDGED TAPS AT 68 F

END SECTIONS = 3.0 KFT
4-WIRE TERMINATION = 1200 OHMS
2-WIRE TERMINATION = 600 OHMS

LENGTH (KFT) 4-WIRE 2-WIRE 26H88		2-WIRE = 19 NL BW = 15 EQLR HT SLOPE GAIN			2-WIRE = 22 NL BW = 15 EQLR HT SLOPE GAIN			2-WIRE = 24 NL BW = 15 EQLR HT SLOPE GAIN			2-WIRE = 26 NL BW = 15 EQLR HT SLOPE GAIN						
48.0	1.0	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4	0	15	L	11.4
48.0	2.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
48.0	3.0	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5	1	15	L	11.5
48.0	4.0	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6	2	15	L	11.6
48.0	5.0	2	15	L	11.6	2	15	L	11.6	3	15	L	11.7	3	15	L	11.7
48.0	6.0	3	15	L	11.7	3	15	L	11.7	3	15	L	11.7	4	15	L	11.8
48.0	7.0	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8	4	15	L	11.8
48.0	8.0	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9	5	15	L	11.9
48.0	9.0	5	15	L	11.9	5	15	L	11.9	6	15	L	12.1	0	9	NL	4.2
48.0	10.0	6	15	L	12.1	0	8	NL	3.7	0	9	NL	4.2	0	10	NL	4.6
48.0	11.0	0	9	NL	4.2	0	10	NL	4.6	0	10	NL	4.6	0	12	NL	5.4
48.0	12.0	0	10	NL	4.6	0	11	NL	5.0	0	12	NL	5.4	0	15	NL	6.6
48.0	13.0	0	11	NL	5.0	0	12	NL	5.4	0	15	NL	6.6	0	15	NL	6.6
48.0	14.0	0	13	NL	5.8	0	15	NL	6.6	0	15	NL	6.6	1	15	NL	6.6
48.0	15.0	0	15	NL	6.6	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7
48.0	16.0	0	15	NL	6.6	0	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8
48.0	17.0	0	15	NL	6.6	1	15	NL	6.6	2	15	NL	6.7	4	15	NL	6.9
48.0	18.0	1	15	NL	6.6	2	15	NL	6.7	3	15	NL	6.8	5	15	NL	7.1

TABLE DDD

309B EQUALIZER SETTINGS FOR 4-4 TERMINAL AND INTERMEDIATE OR 2-4 TERMINAL REPEATERS FOR SINGLE GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAPS AT 68 F

END SECTION = 3.0 KFT
 INPUT IMPEDANCE = 1200 OHMS
 CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)	19H88					22H88					24H88					26H88					
	SETTINGS				EQLR																
	BW	HT	SLOPE		GAIN	BW	HT	SLOPE		GAIN	BW	HT	SLOPE		GAIN	BW	HT	SLOPE		GAIN	
12.0	3	4	0	L	0.0	6	3	0	L	0.0	7	3	0	L	0.0	8	3	1	L	1.4	
18.0	1	3	0	L	0.0	3	3	0	L	0.0	3	4	1	L	1.4	5	4	3	L	3.7	
24.0	5	2	0	L	0.0	6	2	0	L	0.0	3	4	1	L	1.4	5	4	7	L	7.2	
30.0	5	3	0	L	0.0	4	4	0	L	0.0	3	4	2	L	2.6	6	4	15	L	11.4	
36.0	5	4	0	L	0.0	3	4	1	L	1.4	3	5	2	L	2.6	5	5	15	L	11.4	
42.0	5	4	0	L	0.0	4	4	1	L	1.4	4	5	2	L	2.6	6	5	15	L	11.4	
48.0	5	4	0	L	0.0	4	4	1	L	1.4	3	6	3	L	3.7	6	6	15	L	11.4	
54.0	4	5	0	L	0.0	3	5	1	L	1.4	3	6	3	L	3.7						
60.0	6	4	0	L	0.0	4	5	1	L	1.4	2	7	4	L	4.7						
66.0	5	5	0	L	0.0	4	5	1	L	1.4	3	7	5	L	5.6						
72.0	6	5	0	L	0.0	3	6	1	L	1.4											
78.0	6	5	0	L	0.0	4	6	1	L	1.4											
84.0	6	5	0	L	0.0	4	6	1	L	1.4											
90.0	5	6	0	L	0.0	3	7	1	L	1.4											
96.0	6	6	0	L	0.0	3	7	1	L	1.4											
102.0	6	6	0	L	0.0	4	7	1	L	1.4											
108.0	6	6	0	L	0.0																
114.0	5	7	0	L	0.0																
120.0	5	7	0	L	0.0																
126.0	5	7	0	L	0.0																
132.0	6	7	0	L	0.0																
138.0	6	7	0	L	0.0																
144.0	6	7	0	L	0.0																
150.0	5	8	0	L	0.0																
156.0	5	8	0	L	0.0																
162.0	5	9	0	L	0.0																
168.0	5	9	0	L	0.0																
174.0	5	9	0	L	0.0																
180.0	5	9	0	L	0.0																
186.0	5	10	0	L	0.0																
192.0	5	10	0	L	0.0																

TABLE EEE

309B EQUALIZER SETTING FOR 4-4 TERMINAL AND INTERMEDIATE OR 2-4 TERMINAL
REPEATERS FOR SINGLE 25-GAUGE H88 LOADED MAT CABLE WITHOUT BRIDGED TAPS AT 68 F

NL/L = L

END SECTION = 3.0 KFT

INPUT IMPEDANCE = 1200 OHMS

CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (dB)	1 KHz CABLE LOSS (dB)	DCCABLE RES (OHMS)
	BW	HT	SL			
12.0	15	1	0	0.1	3.0	803.2
18.0	15	1	0	0.1	4.5	1204.8
24.0	15	0	2	2.6	6.0	1606.4
30.0	15	0	3	3.7	7.5	2008.0
36.0	15	0	3	3.7	9.0	2409.6
42.0	15	0	4	4.7	10.5	2811.2
48.0	15	0	5	5.5	12.0	3212.8
54.0	15	0	7	7.2	13.5	3614.4
60.0	15	0	10	9.0	15.0	4016.0

TABLE FFF

309B EQUALIZER SETTINGS FOR 4-4 TERMINAL AND INTERMEDIATE OR 2-4 TERMINAL REPEATERS FOR MIXED GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAPS AT 68 F

END SECTION = 3.0 KFT
 INPUT IMPEDANCE = 1200 OHMS
 CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)		24/22 GAUGE SETTINGS				26/22 GAUGE SETTINGS				26/24 GAUGE SETTINGS			
GA1	GA2	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN
6.0	12.0	4	3	0	L 0.0	2	3	1	L 1.4	4	3	2	L 2.6
6.0	18.0	5	3	0	L 0.0	4	2	1	L 1.4	4	3	2	L 2.6
6.0	24.0	2	4	1	L 1.4	4	3	1	L 1.4	4	4	2	L 2.6
6.0	30.0	4	4	1	L 1.4	4	4	1	L 1.4	4	5	2	L 2.6
6.0	36.0	5	4	1	L 1.4	5	4	1	L 1.4	4	5	3	L 3.7
6.0	42.0	5	4	1	L 1.4	5	4	1	L 1.4	3	6	3	L 3.7
6.0	48.0	4	5	1	L 1.4	4	5	1	L 1.4	3	6	4	L 4.7
6.0	54.0	4	5	1	L 1.4	4	5	1	L 1.4	3	7	4	L 4.7
6.0	60.0	5	5	1	L 1.4	5	5	1	L 1.4	3	7	5	L 5.6
6.0	66.0	4	6	1	L 1.4	4	6	1	L 1.4				
6.0	72.0	4	6	1	L 1.4	4	6	1	L 1.4				
6.0	78.0	4	6	1	L 1.4	5	6	1	L 1.4				
6.0	84.0	3	7	1	L 1.4	5	6	1	L 1.4				
6.0	90.0	4	7	1	L 1.4	3	7	2	L 2.6				
6.0	96.0	3	7	2	L 2.6								
12.0	6.0	4	3	1	L 1.4	6	3	2	L 2.6	6	3	3	L 3.7
12.0	12.0	4	3	1	L 1.4	5	3	2	L 2.6	4	4	3	L 3.7
12.0	18.0	3	4	1	L 1.4	5	4	2	L 2.6	5	4	3	L 3.7
12.0	24.0	5	4	1	L 1.4	6	4	1	L 1.4	5	5	3	L 3.7
12.0	30.0	5	4	1	L 1.4	7	4	1	L 1.4	5	5	4	L 4.7
12.0	36.0	4	5	1	L 1.4	7	4	1	L 1.4	4	6	5	L 5.6
12.0	42.0	4	5	1	L 1.4	5	5	2	L 2.6	4	6	6	L 6.3
12.0	48.0	5	5	1	L 1.4	5	5	2	L 2.6	3	7	7	L 7.2
12.0	54.0	4	6	1	L 1.4	6	5	2	L 2.6				
12.0	60.0	4	6	1	L 1.4	5	6	2	L 2.6				
12.0	66.0	5	6	1	L 1.4	5	6	2	L 2.6				
12.0	72.0	5	6	1	L 1.4	5	6	3	L 3.7				
12.0	78.0	3	7	2	L 2.6	4	7	3	L 3.7				
12.0	84.0	4	7	2	L 2.6								
18.0	6.0	5	3	1	L 1.4	5	4	5	L 5.5	5	4	6	L 6.3
18.0	12.0	3	4	1	L 1.4	4	4	4	L 4.7	3	5	6	L 6.3
18.0	18.0	3	5	1	L 1.4	4	5	3	L 3.7	4	5	6	L 6.3
18.0	24.0	4	5	1	L 1.4	5	5	3	L 3.7	5	5	6	L 6.3
18.0	30.0	4	5	1	L 1.4	6	5	2	L 2.6	4	6	8	L 7.8
18.0	36.0	5	5	1	L 1.4	6	5	3	L 3.7	5	6	7	L 7.2
18.0	42.0	3	6	1	L 1.4	4	6	4	L 4.7	3	7	15	L 11.4
18.0	48.0	4	6	1	L 1.4	5	6	3	L 3.7				
18.0	54.0	4	6	2	L 2.6	5	6	4	L 4.7				
18.0	60.0	4	6	2	L 2.6	5	6	5	L 5.6				
18.0	66.0	3	7	2	L 2.6	4	7	5	L 5.6				

TABLE FFF (CONTD)

309B EQUALIZER SETTINGS FOR 4-4 TERMINAL AND INTERMEDIATE OR 2-4 TERMINAL
REPEATERS FOR MIXED GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAPS AT 68 F

END SECTION = 3.0 KFT
INPUT IMPEDANCE = 1200 OHMS
CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)		24/22 GAUGE				26/22 GAUGE				26/24 GAUGE			
GA1	GA2	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN
18.0	72.0	3	7	2	L 2.6								
18.0	78.0	4	7	2	L 2.6								
24.0	6.0	3	4	2	L 2.6	4	5	9	L 8.4	4	5	13	L 10.5
24.0	12.0	1	5	2	L 2.6	3	5	7	L 7.2	4	5	13	L 10.5
24.0	18.0	3	5	2	L 2.6	4	5	6	L 6.3	5	5	11	L 9.5
24.0	24.0	4	5	2	L 2.6	5	5	5	L 5.6	4	6	15	L 11.4
24.0	30.0	4	5	2	L 2.6	4	6	6	L 6.3	5	6	15	L 11.4
24.0	36.0	3	6	2	L 2.6	4	6	7	L 7.2				
24.0	42.0	3	6	2	L 2.6	5	6	6	L 6.4				
24.0	48.0	4	6	2	L 2.6	5	6	7	L 7.2				
24.0	54.0	3	7	2	L 2.6								
24.0	60.0	3	7	2	L 2.6								
24.0	66.0	3	7	2	L 2.6								
30.0	6.0	3	5	2	L 2.6	5	5	15	L 11.4	5	5	15	L 11.4
30.0	12.0	3	5	2	L 2.6	4	5	15	L 11.4	4	6	15	L 11.4
30.0	18.0	3	5	2	L 2.6	5	5	11	L 9.5	4	6	15	L 11.4
30.0	24.0	2	6	2	L 2.6	4	6	11	L 9.5	5	6	15	L 11.4
30.0	30.0	3	6	2	L 2.6	5	6	9	L 8.4				
30.0	36.0	4	6	2	L 2.6	5	6	12	L 10.0				
30.0	42.0	4	6	2	L 2.6								
30.0	48.0	3	7	2	L 2.6								
30.0	54.0	3	7	2	L 2.6								
30.0	60.0	3	7	3	L 3.7								
36.0	6.0	4	5	2	L 2.6	6	5	15	L 11.4	6	5	15	L 11.4
36.0	12.0	3	5	2	L 2.6	4	6	15	L 11.4	5	6	15	L 11.4
36.0	18.0	3	6	2	L 2.6	4	6	15	L 11.4				
36.0	24.0	3	6	2	L 2.6								
36.0	30.0	4	6	2	L 2.6								
36.0	36.0	3	7	2	L 2.6								
36.0	42.0	3	7	3	L 3.7								
36.0	48.0	3	7	3	L 3.7								
42.0	6.0	2	6	3	L 3.7								
42.0	12.0	2	6	3	L 3.7								
42.0	18.0	3	6	3	L 3.7								
42.0	24.0	2	7	3	L 3.7								
42.0	30.0	3	7	3	L 3.7								
42.0	36.0	3	7	3	L 3.7								
42.0	42.0	3	7	3	L 3.7								
48.0	6.0	3	6	3	L 3.7								
48.0	12.0	3	6	3	L 3.7								

TABLE FFF (CONTD)

309B EQUALIZER SETTINGS FOR 4-4 TERMINAL AND INTERMEDIATE OR 2-4 TERMINAL REPEATERS FOR MIXED GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAPS AT 68 F

END SECTION = 3.0 KFT
 INPUT IMPEDANCE = 1200 OHMS
 CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)		24/22 GAUGE SETTINGS				26/22 GAUGE SETTINGS				26/24 GAUGE SETTINGS			
GA1	GA2	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN	BW	HT	SLOPE	EQLR GAIN
48.0	18.0	2	7	3	L 3.7								
48.0	24.0	3	7	3	L 3.7								
48.0	30.0	3	7	3	L 3.7								
54.0	6.0	2	7	4	L 4.7								
54.0	12.0	2	7	4	L 4.7								
54.0	18.0	2	7	4	L 4.7								
60.0	6.0	3	7	4	L 4.7								
60.0	12.0	2	7	5	L 5.5								

B. Prescription Equalizer Setting Charts

7.11 The prescription setting charts (Charts 2 and 3) are graphic representations of the 309B equalizer settings for the J99343RC 4-2 terminal repeater with nonloaded 2-wire extensions. The charts will supply "optimum" or "near optimum" equalizer settings which meet trunk roll-off objectives for most facilities.

7.12 The procedures for using Charts 2 and 3 are simpler than those required for the prescription setting tables. However, an equivalence procedure is required for 25-gauge MAT cable. (See Note, paragraph 7.13.)

7.13 The following procedures for using the charts give equalizer settings for cable or cable combinations as a function of total length and dc resistance of the nonloaded facility.

(1) Determine the total length (L) of the nonloaded facility in kilofeet, including the length of all bridge taps.

Note: 25-gauge nonloaded MAT cable must be converted to an equivalent length of 26-gauge cable by multiplying the length of 25-gauge cable by .77 before determining the total length.

(2) Determine the dc resistance (R) in ohms of the nonloaded facility found in (1) above. Do not use bridged tap resistance.

(3) Select the applicable chart based on the nonloaded cable termination, ie, 600 or 900 ohms.

(4) Using the length (L) determined in (1) and the resistance (R) determined in (2), locate the point of intersection on the chart selected in (3).

(5) The region in which the point of intersection is located specifies the 309D equalizer setting. If the point is located on a boundary line, choose the larger of the two settings.

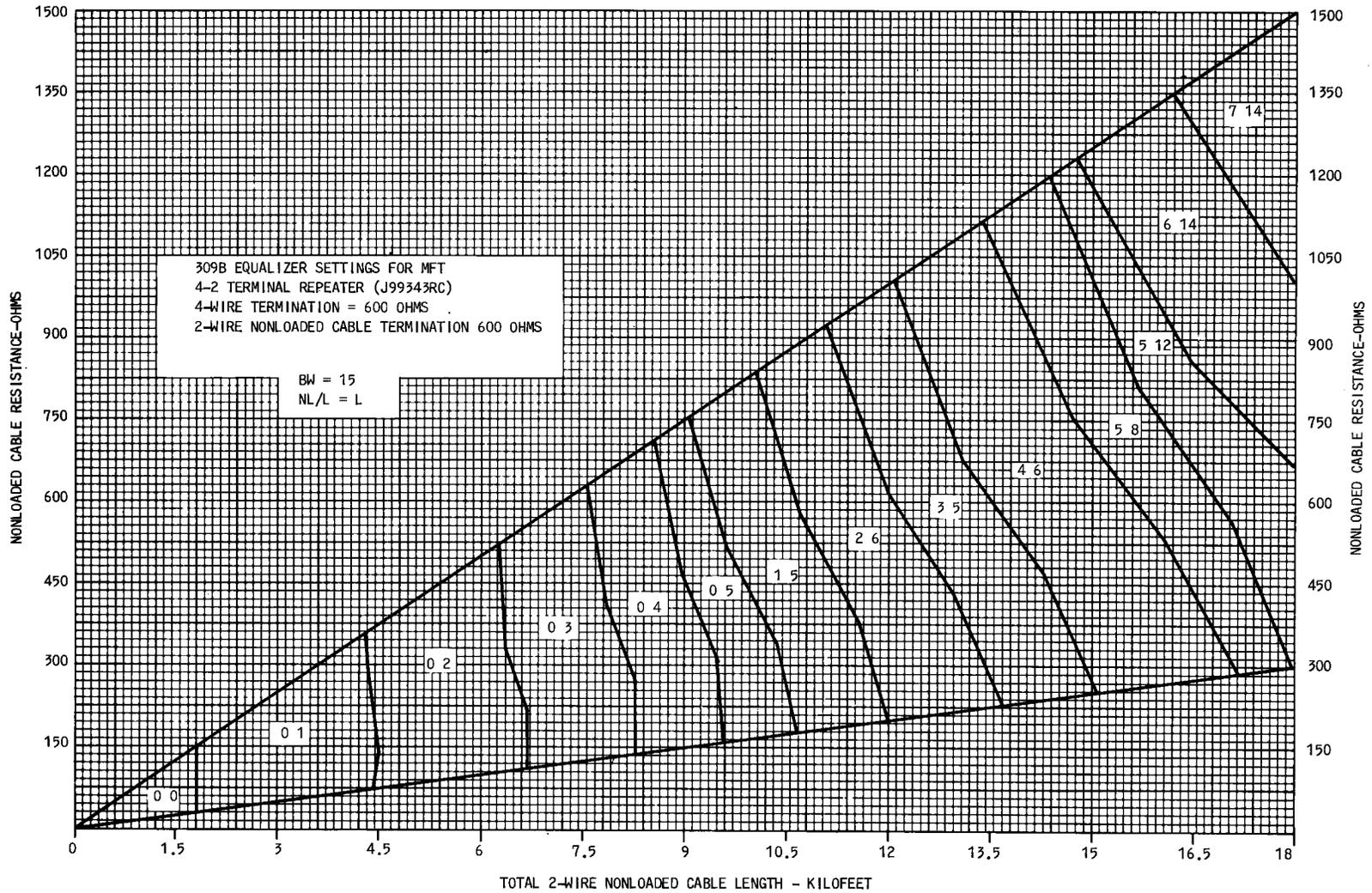


Chart 2—Equalizer Settings for J99343RC 4-2 Wire Terminal Repeater (NL)—Cable Termination = 600 Ohms

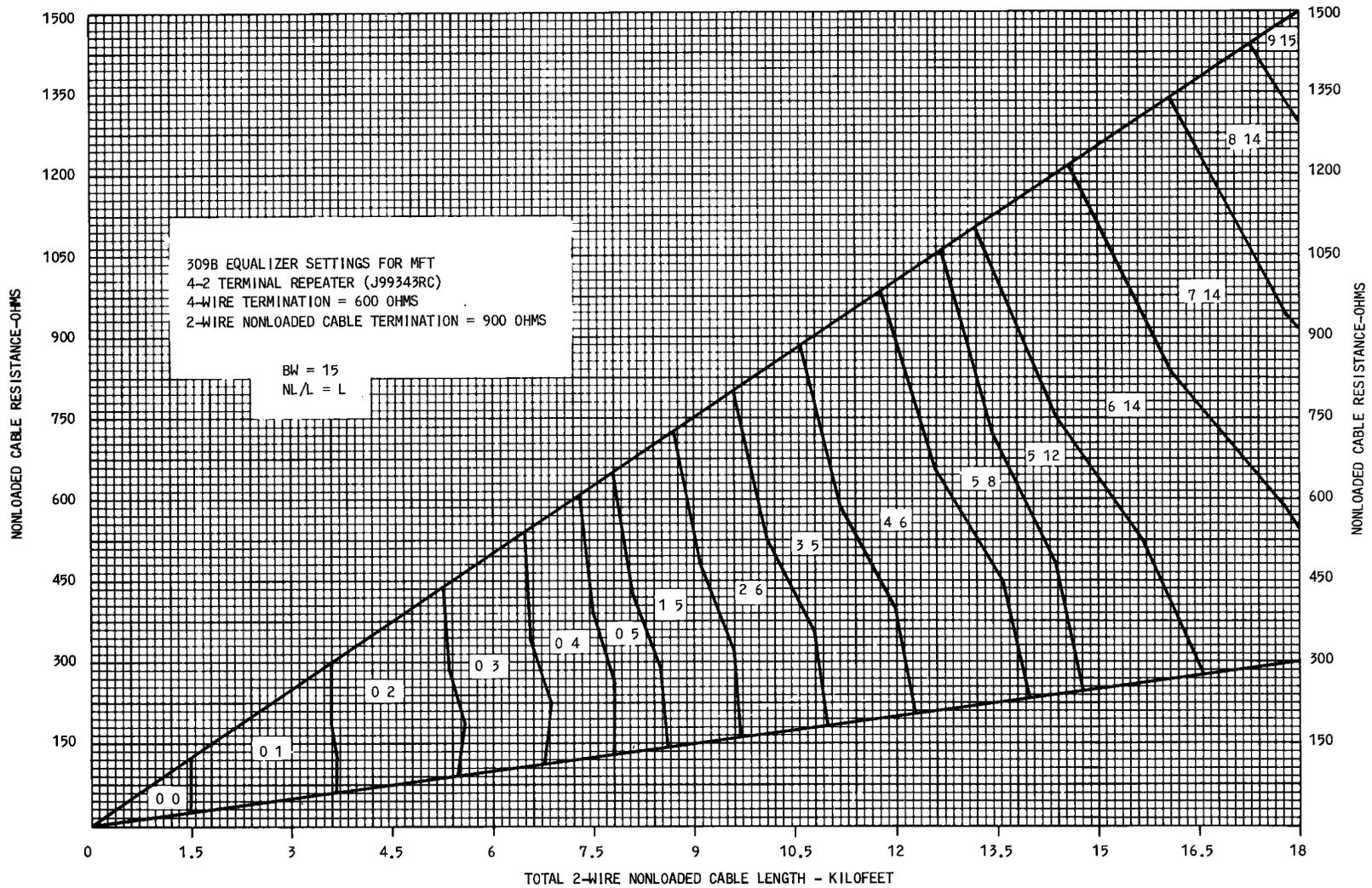


Chart 3—Equalizer Settings for J99343RC 4-2 Wire Terminal Repeater (NL)—Cable Termination = 900 Ohms

8. EQUIVALENCE PROCEDURES FOR BRIDGED TAPS ON NONLOADED CABLE

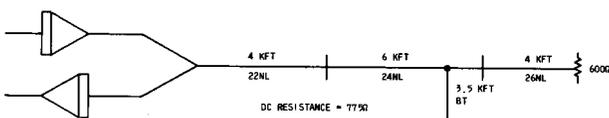
8.01 Bridged taps on nonloaded cable can be related to an equivalent length of cable by using Table GGG. The bridged tap can be converted to an equivalent length using one of the following:

- (1) The gauge of cable to which the bridged tap is connected
- (2) The gauge of the greater length if the bridged tap is connected between two different gauges
- (3) The gauge which comprises the greatest length of cable when the location of the bridged tap is unknown.

8.02 To find the equivalent cable length in Table GGG:

- (1) Find the bridged tap length in Table GGG that is the nearest to the actual length of the bridged tap.
- (2) Locate the equivalent length under the gauge selected using the procedure in paragraph 8.01.
- (3) Insert this equivalent length into the cable facility at the location of the bridged tap and use the single- or 2-gauge prescription setting tables as required.

Example:



Determine the equalizer settings and 1-kHz loss of the circuit above.

- (1) Since this circuit uses a terminal repeater, it is equalized as shown in Fig. 2(B).
- (2) The 2-wire extension must be converted to a 2-gauge equivalent to use Table MM (600-ohm termination).

- (3) Convert 4 kft 26-gauge to a 24-gauge equivalent (paragraph 7.04).

$$EL = 4(K)$$

$$EL = 4(1.15) \text{ from Table GG}$$

$$EL = 4.6 \text{ kft of 24-gauge}$$

- (4) Convert the BT to an equivalent 24-gauge length (paragraph 8.01). From Table GGG, 3.5 kft of BT equates to 2.7 kft of 24-gauge cable.
- (5) Using Table MM, the entry points are:

$$WL = 17 \text{ kft } (4 \text{ kft} + 6 \text{ kft} + 2.7 \text{ kft} + 4.6 \text{ kft})$$

$$GA1 = 13.3 \text{ kft or } 13 \text{ kft 24-gauge rounded off}$$

$$GA2 = 4 \text{ kft 22 gauge}$$

Therefore

$$BW = 15$$

$$HT = 0$$

$$SLOPE = 7, NL$$

$$EQLR \text{ GAIN} = 3.4 \text{ dB}$$

- (6) The 1-kHz loss is computed using Fig. 5.

$$\text{Total length} = 17.5 \text{ kft}$$

$$\text{DC resistance} = 776 \text{ ohms}$$

$$1\text{-kHz loss} = 5.8 \text{ dB}$$

9. REFERENCES

9.01 The following documents contain additional information on the 4-2 repeaters.

SECTION	TITLE
332-910-100	General Description of MFT
332-910-180	General Application Information for MFT
332-912-121	Description of 4-2 and 2-4 Repeater
332-912-221	Installation and Testing 4-2 and 2-4 Repeater
SD-1C359-01	Metallic Facility Terminal Circuit
CD-1C359-01	Common Systems—MFT Circuit

TABLE GGG
CABLE EQUIVALENCES FOR
BRIDGED TAPS

BRIDGED TAP LENGTH	GAUGE			
	26	24	22	19
.5	0.3	0.4	0.4	0.4
1.0	0.6	0.7	0.8	0.9
1.5	0.9	1.1	1.3	1.4
2.0	1.3	1.5	1.7	1.9
2.5	1.6	1.9	2.1	2.3
3.0	2.0	2.3	2.6	2.8
3.5	2.3	2.7	3.1	3.4
4.0	2.7	3.2	3.6	3.9
4.5	3.1	3.6	4.1	4.4
5.0	3.5	4.1	4.6	5.0
5.5	3.9	4.5	5.1	5.5
6.0	4.4	5.0	5.6	6.1