

METALLIC FACILITY TERMINAL
4-4 REPEATERS (J99343SA, SB)
2-4 TERMINAL REPEATERS (J99343RA, RF)
SD-1C359-01
PRESCRIPTION SETTINGS

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1. GENERAL		
1.01 This section gives prescription equalizer settings based on cable makeup data for the 309B equalizing amplifier used in the 4-wire Metallic Facility Terminal (MFT) transmission units.		1.07 The procedures in this section cannot be used to determine equalizer settings for equalizers which address a combination of loaded and nonloaded cable in a repeater section. For facilities of this type the settings may be calculated

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TABLE A

MAXIMUM 1KHz INSERTION LOSS OF CABLE SECTIONS

CABLE SECTION	MAXIMUM LENGTH IN DB	
	NON LOADED	H88 LOADED
PBX or Cust to PBX or Cust	15	9
PBX or Cust to CO	15	12
CO to CO	15	15

using actual loss measurements as described in Section 332-912-231.

1.08 The proper use of the simplified procedures in Part 2 of this section will result in an equalized repeater section with rolloff between 2.0 dB (more loss) and -0.67 dB (less loss) from 300 Hz to 3 kHz with respect to the 1 kHz loss. Proper use of the tables in Parts 3 and 4 will result in an equalized repeater section with rolloff between 0.8 dB (more loss) and -0.3 dB (less loss) from 300 Hz to 3 kHz with respect to the 1 kHz loss.

2. SIMPLIFIED EQUALIZER SETTINGS FOR NONLOADED CABLE

2.01 A simplified method for determining 309B equalizer settings for nonloaded cable may be used instead of the prescription setting tables in Part 3. This simplified method requires only the length of the nonloaded facility (including the length of any bridged taps) and the dc resistance of the nonloaded facility (do not include the bridged tap resistance). These two values determine the height (HT) and slope (SL) required to equalize the facility.

2.02 Chart 1 may be used to determine 309B equalizer settings for 4-4 repeaters (J99343SA, SB) and 2-4 terminal repeaters (J99343RA, RF) which interface nonloaded cable. The repeater input impedance and cable termination must be 600 ohms. For facilities composed of mixtures of

nonloaded and loaded cable the procedures for manual adjustment in Section 332-912-231 must be used.

2.03 To use the chart:

- (1) Determine the total length (TL) of the nonloaded facility. (Include the length of any bridged taps.)

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

- (2) Compute the dc resistance (R) of the nonloaded facility. See Table B for dc resistance factors. (Do not include resistance of bridged taps.)

- (3) The values determined in Steps 1 and 2 are used to locate a point (TL, R) on Chart 1. The region of the chart located by the point specifies the HT (first number) and SL (second number) setting required. The bandwidth (BW) is set to 14 for all facilities. If the point falls on a boundary line, select the region to the right of the boundary.

- (4) Equalizer gain may be determined from Table C, and Fig. 1 may be used to determine the 1 kHz cable loss using the values from Steps 2 and 3. (See 3.04 for procedures for using Fig. 1.)

TABLE B
DC RESISTANCE
CONSTANTS FOR
NL CABLE

GAUGE	OHMS/KFT
19	16.3
22	32.8
24	51.9
25	65.5
26	83.3

TABLE C
309B EQUALIZER GAIN BY SETTINGS
BW = 14
NL/L = NL

HEIGHT SETTING	SLOPE SETTING															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0.4	0.9	1.4	1.8	2.3	2.8	3.4	3.7	4.2	4.6	5.0	5.4	5.8	6.2	6.6
1	0	0.4	0.9	1.4	1.8	2.3	2.8	3.4	3.7	4.2	4.6	5.0	5.4	5.8	6.2	6.6
2	0.1	0.5	1.0	1.5	1.9	2.4	2.9	3.5	3.8	4.3	4.7	5.1	5.5	5.9	6.3	6.7
3	0.1	0.5	1.0	1.5	1.9	2.4	2.9	3.5	3.8	4.3	4.7	5.1	5.5	5.9	6.3	6.7
4	0.2	0.6	1.1	1.6	2.0	2.5	3.0	3.6	3.9	4.4	4.8	5.2	5.6	6.0	6.4	6.8
5	0.3	0.7	1.2	1.7	2.1	2.6	3.1	3.7	4.0	4.5	4.9	5.3	5.7	6.1	6.5	6.9
6	0.4	0.8	1.3	1.8	2.2	2.7	3.2	3.8	4.1	4.6	5.0	5.4	5.8	6.2	6.6	7.0
7	0.5	0.9	1.4	1.9	2.3	2.8	3.3	3.9	4.2	4.7	5.1	5.5	5.9	6.3	6.7	7.1
8	0.7	1.1	1.6	2.1	2.5	3.0	3.5	4.1	4.4	4.9	5.3	5.7	6.1	6.5	6.9	7.3
9	0.8	1.2	1.7	2.2	2.6	3.1	3.6	4.2	4.5	5.0	5.4	5.8	6.2	6.6	7.0	7.4
10	1.0	1.4	1.9	2.4	2.8	3.3	3.8	4.4	4.7	5.2	5.6	6.0	6.4	6.8	7.2	7.6
11	1.2	1.6	2.1	2.6	3.0	3.5	4.0	4.6	4.9	5.4	5.8	6.2	6.6	7.0	7.4	7.8
12	1.4	1.8	2.3	2.8	3.2	3.7	4.2	4.8	5.1	5.6	6.0	6.4	6.8	7.2	7.6	8.0
13	1.7	2.1	2.6	3.1	3.5	4.0	4.5	5.1	5.4	5.9	6.3	6.7	7.1	7.5	7.9	8.3
14	2.0	2.4	2.9	3.4	3.8	4.3	4.8	5.4	5.7	6.2	6.6	7.0	7.4	7.8	8.2	8.6
15	2.5	2.9	3.4	3.9	4.3	4.8	5.3	5.9	6.2	6.7	7.1	7.5	7.9	8.3	8.7	9.1

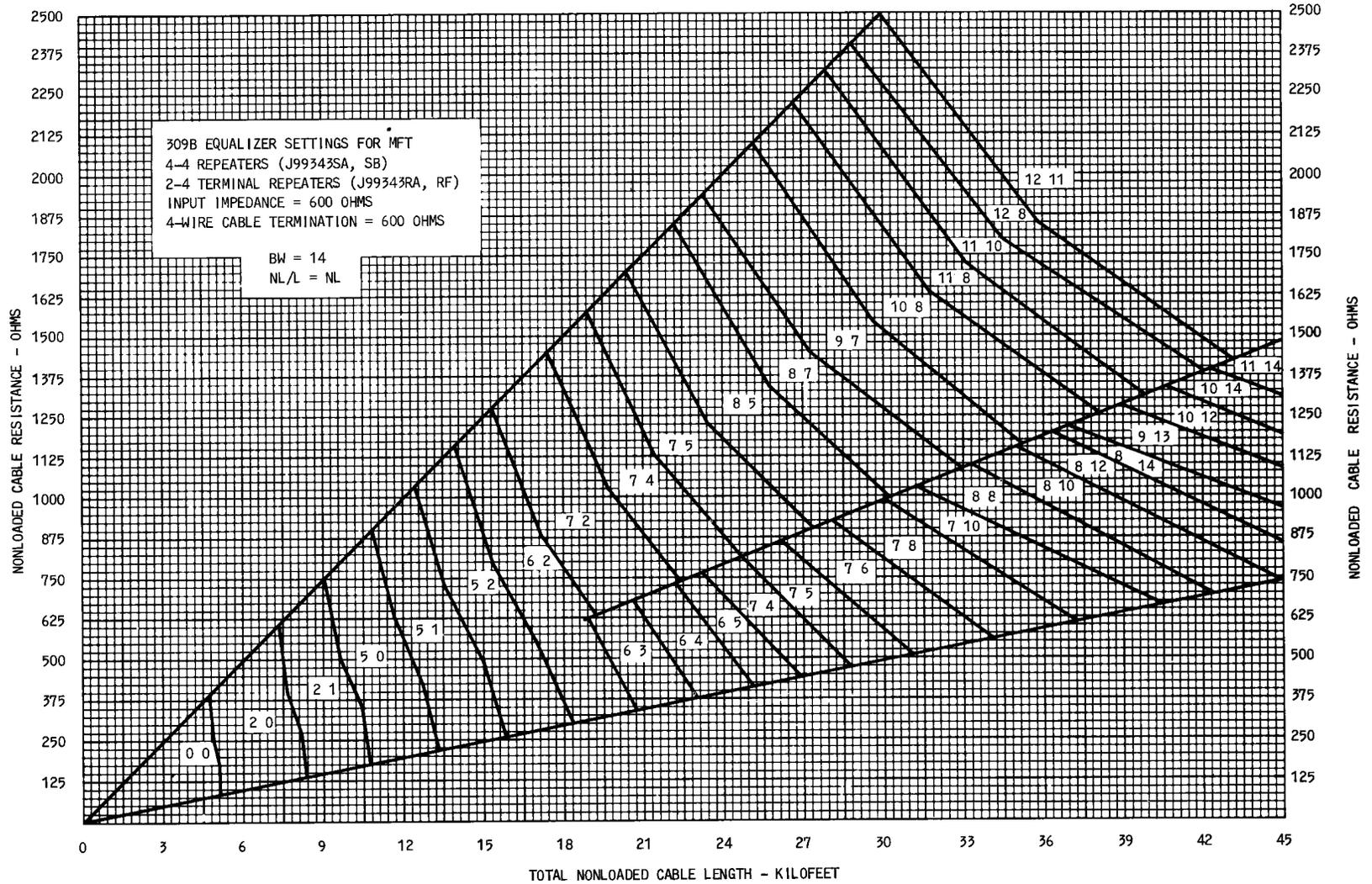


Chart 1—309B Equalizer Settings for MFT 4-4 Repeaters (J99343SA, SB) 2-4 Terminal Repeaters (J99343RA, RF)

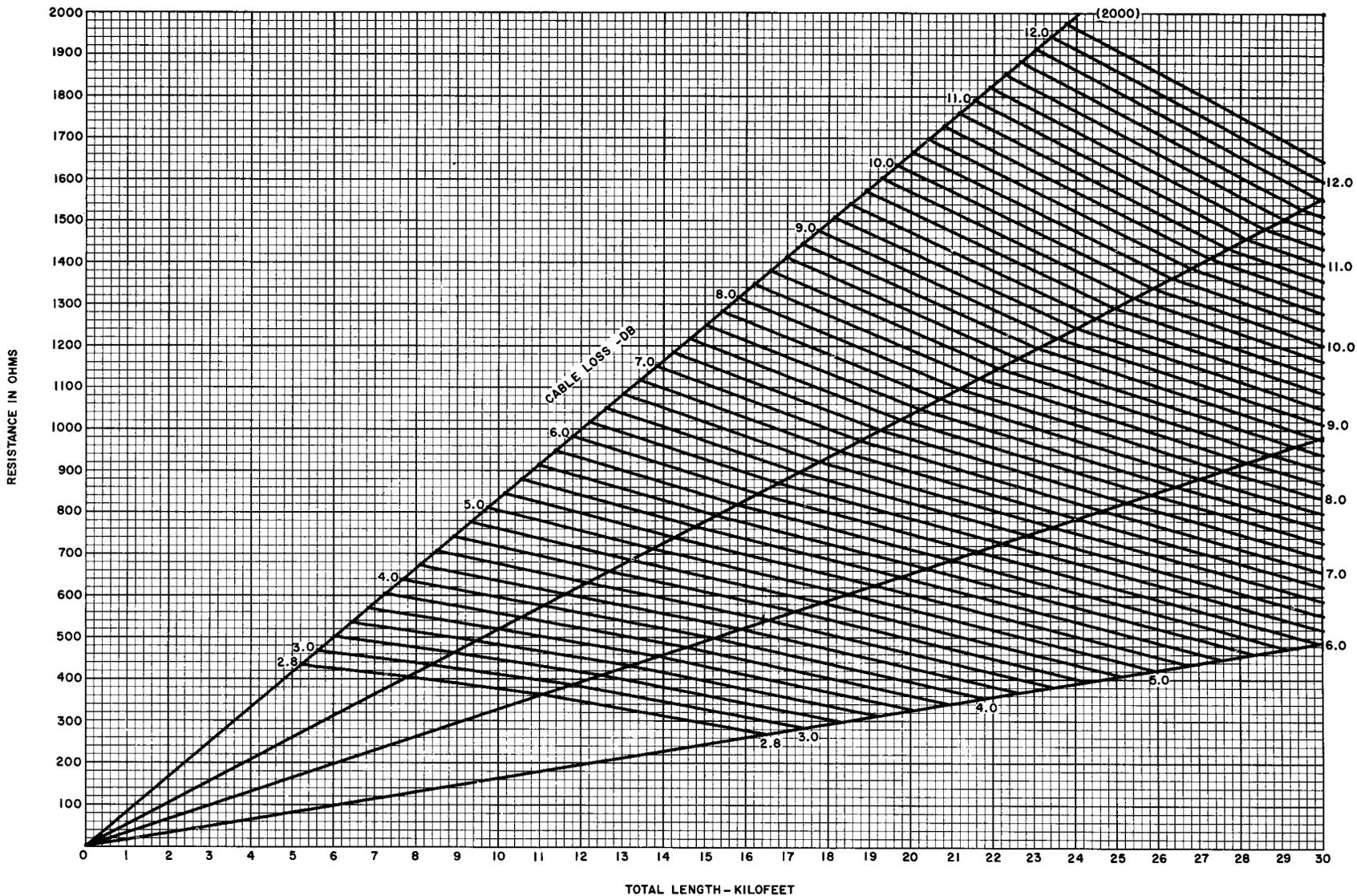


Fig. 1—1 KHz Cable Loss Nonloaded Hi-Cap. (.083 μ F/Mile) Cable Between 600-Ohm Termination

3. PRESCRIPTION EQUALIZER SETTING TABLES FOR NONLOADED CABLE

A. General

3.01 The procedures for using the prescription setting tables for nonloaded cable are divided into five categories:

- Single-Gauge
- Two-Gauge
- More Than Two Gauges
- Bridged Tap
- 19-Gauge.

3.02 The use of the tables referenced by the procedures varies with the cable makeup and the correct procedure must be used to determine accurate equalizer settings. Also the facility must be terminated in 600 ohms and the NL/L switch must be in the NL position.

3.03 The 1 kHz insertion loss of the facility is included in the table for calculating repeater gain. The table loss values are accurate only for single- or two-gauge facilities and should not be used for facilities composed of more than two gauges or with BT.

3.04 The 1 kHz insertion loss may be determined for any nonloaded cable section by using Fig. 1. To determine the insertion loss:

- (a) Calculate the total length of the cable in kilofeet. (25-gauge MAT cable must be converted to an equivalent length of 26-gauge cable. Multiply the length of MAT cable by .77 for the 26-gauge equivalent.)
- (b) Calculate the total resistance of the cable (see Table B).
- (c) Enter Fig. 1 at the values determined in (a) and (b), and read the estimated insertion loss.
- (d) If BT is present, include the length of BT in the total facility length, but do not include the resistance of the BT in the total resistance.

B. Single-Gauge

3.05 For single-gauge facilities, the prescript equalizer settings may be taken directly from the Tables. Tables D, E, F, and G are for 19, 22-, 24-, and 26-gauge cable, respectively. The 26-gauge table may be used for nonloaded 25-gauge cable after conversion to an equivalent length of 26-gauge. To use the tables:

- (a) Round the facility length to the nearest whole number in kft to obtain the table entry point.
- (b) From the table obtain BANDWIDTH (BW), HEIGHT (HT), SLOPE (SL), EQUALIZER GAIN (EQL GN), and CABLE LOSS.
- (c) Correct the cable loss for round-off error by interpolation or use Fig. 1.

Example: Given 14.6 kft of 26-gauge cable

- (1) Round off to 15 kft to get table entry point.
- (2) From Table G, 15 kft of 26-gauge cable has the following settings:

$$BW = 13$$

$$HT = 6$$

$$SL = 3$$

$$EQL GN = 1.6 \text{ dB}$$

$$\text{Cable Loss} = 7.6 \text{ dB.}$$

- (3) By interpolation, 14.6 kft of 26-gauge cable has 1 kHz loss of 7.4 dB, or from Fig. 1

$$\text{Total length} = 14.6 \text{ kft}$$

$$\text{Total Resistance} = 14.6 \times 83.3 = 1216 \text{ ohms}$$

$$1 \text{ kHz loss} = 7.4 \text{ dB.}$$

TABLE D

**309B EQUALIZER SETTINGS FOR 19-GAUGE
NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
10.0	14	4	0	0.2	1.5	162.9
11.0	14	3	1	0.6	1.7	179.2
12.0	14	5	0	0.3	1.9	195.5
13.0	14	4	1	0.6	2.1	211.7
14.0	14	6	0	0.4	2.3	228.0
15.0	14	5	1	0.7	2.5	244.3
16.0	13	5	2	1.1	2.7	260.6
17.0	14	5	2	1.2	2.9	276.9
18.0	13	5	3	1.5	3.1	293.2
19.0	14	6	2	1.3	3.4	309.5
20.0	14	6	2	1.3	3.6	325.8
21.0	14	6	3	1.7	3.8	342.0
22.0	14	7	2	1.4	4.1	358.3
23.0	14	6	4	2.2	4.3	374.6
24.0	14	6	4	2.2	4.5	390.9
25.0	14	7	3	1.9	4.8	407.2
26.0	14	6	5	2.7	5.0	423.5
27.0	14	7	4	2.4	5.3	439.8
28.0	14	7	4	2.4	5.5	456.1
29.0	14	7	5	2.8	5.8	472.3
30.0	14	7	5	2.8	6.0	488.6
31.0	14	7	6	3.3	6.3	504.9
32.0	14	7	6	3.3	6.5	521.2
33.0	14	7	6	3.3	6.8	537.5
34.0	14	7	7	3.9	7.0	553.8
35.0	14	7	8	4.2	7.3	570.1
36.0	14	7	8	4.2	7.6	586.4
37.0	14	7	9	4.7	7.8	602.7
38.0	14	7	10	5.1	8.1	618.9
39.0	14	7	11	5.5	8.3	635.2

TABLE D (CONT)

309B EQUALIZER SETTINGS FOR 19-GAUGE
NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
40.0	14	7	11	5.5	8.6	651.5
41.0	14	8	8	4.4	8.8	667.8
42.0	14	8	9	4.9	9.1	684.1
43.0	14	8	9	4.9	9.3	700.4
44.0	14	8	10	5.3	9.6	716.7
45.0	14	8	11	5.7	9.8	733.0
46.0	14	8	12	6.1	10.1	749.2
47.0	14	8	13	6.5	10.3	765.5
48.0	14	8	14	6.9	10.6	781.8
49.0	14	9	12	6.2	10.8	798.1
50.0	14	9	13	6.6	11.1	814.4
51.0	14	9	14	7.0	11.3	830.7
52.0	14	9	15	7.4	11.6	847.0
53.0	14	9	15	7.4	11.8	863.3
54.0	14	10	13	6.8	12.1	879.5
55.0	14	10	14	7.2	12.3	895.8
56.0	14	10	15	7.5	12.6	912.1
57.0	14	10	15	7.5	12.8	928.4
58.0	14	11	14	7.4	13.1	944.7
59.0	14	11	15	7.7	13.3	961.0
60.0	14	11	15	7.7	13.6	977.3
61.0	14	11	15	7.7	13.8	993.6
62.0	14	12	14	7.6	14.0	1009.8
63.0	14	12	15	8.0	14.3	1026.1
64.0	14	12	15	8.0	14.5	1042.4
65.0	14	12	15	8.0	14.8	1058.7
66.0	14	13	15	8.2	15.0	1075.0

TABLE E

309B EQUALIZER SETTINGS FOR 22-GAUGE
NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
8.0	14	3	0	0.1	2.0	262.1
9.0	13	2	1	0.5	2.2	294.9
10.0	14	4	0	0.2	2.5	327.7
11.0	14	5	0	0.3	2.8	360.4
12.0	14	4	1	0.6	3.1	393.2
13.0	14	6	0	0.4	3.4	425.9
14.0	14	5	1	0.7	3.6	458.7
15.0	13	5	2	1.1	3.9	491.5
16.0	14	6	1	0.8	4.2	524.2
17.0	13	5	3	1.5	4.6	557.0
18.0	14	6	2	1.3	4.9	589.8
19.0	13	6	3	1.6	5.2	622.5
20.0	14	7	2	1.4	5.5	655.3
21.0	14	6	4	2.2	5.8	688.1
22.0	14	7	3	1.9	6.1	720.8
23.0	14	6	5	2.7	6.5	753.6
24.0	14	7	4	2.4	6.8	786.4
25.0	14	7	5	2.8	7.1	819.1
26.0	14	7	5	2.8	7.5	851.9
27.0	14	8	4	2.5	7.8	884.7
28.0	14	8	5	3.0	8.2	917.4
29.0	14	8	5	3.0	8.5	950.2
30.0	14	8	6	3.5	8.8	983.0
31.0	14	8	7	4.1	9.2	1015.7
32.0	14	8	8	4.4	9.5	1048.5
33.0	14	8	9	4.9	9.9	1081.3
34.0	14	9	8	4.5	10.2	1114.0
35.0	14	9	9	5.0	10.6	1146.8
36.0	14	9	10	5.4	10.9	1179.5
37.0	14	10	8	4.7	11.3	1212.3
38.0	14	10	9	5.1	11.6	1245.1
39.0	14	10	11	6.0	12.0	1277.8
40.0	14	11	9	5.3	12.3	1310.6
41.0	14	11	10	5.8	12.7	1343.4
42.0	14	11	12	6.6	13.0	1376.1
43.0	14	11	13	7.0	13.4	1408.9
44.0	14	12	11	6.4	13.7	1441.7
45.0	14	12	12	6.8	14.1	1474.4
46.0	14	12	14	7.6	14.4	1507.2
47.0	14	13	11	6.7	14.8	1540.0
48.0	13	13	15	7.7	15.1	1572.7

TABLE F

309B EQUALIZER SETTINGS FOR 24-GAUGE
NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
6.0	14	2	0	0.1	2.2	311.4
7.0	13	3	0	0.1	2.5	363.3
8.0	14	3	0	0.1	2.9	415.2
9.0	14	4	0	0.2	3.2	467.0
10.0	14	3	1	0.6	3.6	518.9
11.0	14	4	1	0.6	4.0	570.8
12.0	14	6	0	0.4	4.3	622.7
13.0	14	5	1	0.7	4.7	674.6
14.0	14	6	1	0.8	5.1	726.5
15.0	13	5	3	1.5	5.5	778.4
16.0	14	6	2	1.3	5.9	830.3
17.0	13	6	3	1.6	6.3	882.2
18.0	14	7	2	1.4	6.7	934.1
19.0	14	7	3	1.9	7.1	986.0
20.0	14	8	2	1.6	7.5	1037.9
21.0	14	7	4	2.4	7.9	1089.8
22.0	14	7	5	2.8	8.4	1141.7
23.0	14	8	4	2.5	8.8	1193.6
24.0	14	8	5	3.0	9.2	1245.5
25.0	14	8	5	3.0	9.6	1297.3
26.0	14	9	5	3.1	10.1	1349.2
27.0	14	9	6	3.6	10.5	1401.1
28.0	14	9	7	4.2	11.0	1453.0
29.0	14	9	8	4.5	11.4	1504.9
30.0	14	10	7	4.3	11.8	1556.8
31.0	14	10	9	5.1	12.3	1608.7
32.0	14	10	10	5.6	12.7	1660.6
33.0	14	11	9	5.3	13.2	1712.5
34.0	13	11	13	6.6	13.6	1764.4
35.0	14	12	9	5.6	14.0	1816.3
36.0	13	12	13	6.7	14.5	1868.2
37.0	13	12	15	7.5	14.9	1920.1
38.0	13	13	12	6.5	15.4	1972.0

TABLE G

309B EQUALIZER SETTINGS FOR 26-GAUGE
NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
4.0	13	1	0	0.0	2.2	333.3
5.0	15	1	0	0.1	2.7	416.7
6.0	14	2	0	0.1	3.2	500.0
7.0	13	3	0	0.1	3.7	583.3
8.0	13	2	1	0.5	4.2	666.7
9.0	13	3	1	0.5	4.7	750.0
10.0	14	5	0	0.3	5.1	833.3
11.0	14	6	0	0.4	5.6	916.7
12.0	14	5	1	0.7	6.1	1000.0
13.0	14	6	1	0.8	6.6	1083.3
14.0	13	6	2	1.1	7.1	1166.7
15.0	13	6	3	1.6	7.6	1250.0
16.0	14	7	2	1.4	8.1	1333.3
17.0	14	7	3	1.9	8.6	1416.7
18.0	14	8	2	1.6	9.1	1500.0
19.0	14	8	3	2.1	9.7	1583.3
20.0	14	8	4	2.5	10.2	1666.7
21.0	14	8	5	3.0	10.7	1750.0
22.0	14	8	6	3.5	11.3	1833.3
23.0	14	9	6	3.6	11.8	1916.7
24.0	14	9	7	4.2	12.4	2000.0
25.0	14	11	5	3.5	12.9	2083.3
26.0	14	11	6	4.0	13.5	2166.7
27.0	13	11	9	4.9	14.0	2250.0
28.0	13	11	11	5.8	14.6	2333.3
29.0	13	12	10	5.5	15.1	2416.7

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C. Two-Gauge

3.06 For facilities composed of two segments of different gauge nonloaded cable, prescription settings may be obtained from the tables. Table H is for 24- and 22-gauge combinations; Table I is for 26- and 22-gauge combinations, and Table J is for 26- and 24-gauge combinations. Combinations of 19-gauge cable are covered separately in 3.13. To find equalizer settings for two-gauge cable sections:

- (a) Determine the table entry point by adding the length of the two gauges together and rounding to the nearest kft for the working length (WL). Enter the table at the WL and round the finer gauge to the nearest whole number.
- (b) Obtain the BW, HT, SL, EQL GN, and the cable loss from the appropriate table.
- (c) Correct the cable loss from (b) by interpolation for round-off error or use Fig. 1.

Example:

Given a facility composed of 10.4 kft of 24-gauge and 8.2 kft of 26-gauge cable.

- (1) Determine table entry points by finding WL.

$$\begin{array}{r} 10.4 \text{ kft 24-gauge} \\ + 8.2 \text{ kft 26-gauge} \\ \hline 18.6 \text{ kft or rounding WL} = 19 \text{ kft} \end{array}$$

Round the finer gauge (26) to the nearest kft (8.2 = 8.0).

Therefore, the table entry points become:
WL = 19 kft
8 kft of 26-gauge

- (2) From Table J:

$$BW = 14$$

$$HT = 8$$

$$SL = 2$$

$$EQL \text{ GN} = 1.6 \text{ dB}$$

$$\text{Cable loss} = 8.3 \text{ dB.}$$

- (3) Alternatively, use Fig. 1 to determine the cable loss of 8.2 kft of 26-gauge and 10.4 kft of 24-gauge.

$$\text{Total length} = 18.6 \text{ kft}$$

$$\text{Total Resistance} = 1223 \text{ ohms}$$

$$\text{Cable loss} = 8.1 \text{ dB.}$$

TABLE H

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 9.0							
7.0	2.0	14	4	0	0.2	3.0	428.8
8.0	1.0	14	4	0	0.2	3.1	447.9
WL= 10.0							
5.0	5.0	13	3	1	0.5	3.1	423.3
6.0	4.0	13	3	1	0.5	3.2	442.4
7.0	3.0	13	3	1	0.5	3.3	461.6
8.0	2.0	13	3	1	0.5	3.4	480.7
9.0	1.0	14	3	1	0.6	3.5	499.8
WL= 11.0							
2.0	9.0	14	5	0	0.3	3.0	398.7
3.0	8.0	14	5	0	0.3	3.1	417.8
4.0	7.0	14	5	0	0.3	3.2	436.9
5.0	6.0	14	5	0	0.3	3.3	456.1
6.0	5.0	14	5	0	0.3	3.4	475.2
7.0	4.0	14	5	0	0.3	3.5	494.3
8.0	3.0	14	5	0	0.3	3.7	513.4
9.0	2.0	13	4	1	0.5	3.8	532.6
10.0	1.0	13	4	1	0.5	3.9	551.7
WL= 12.0							
1.0	11.0	14	4	1	0.6	3.2	412.3
2.0	10.0	14	4	1	0.6	3.3	431.4
3.0	9.0	14	4	1	0.6	3.4	450.6
4.0	8.0	14	4	1	0.6	3.5	469.7
5.0	7.0	14	4	1	0.6	3.6	488.8
6.0	6.0	14	4	1	0.6	3.7	508.0
7.0	5.0	14	4	1	0.6	3.8	527.1
8.0	4.0	14	4	1	0.6	3.9	546.2
9.0	3.0	14	4	1	0.6	4.0	565.3
10.0	2.0	14	6	0	0.4	4.1	584.5
11.0	1.0	14	6	0	0.4	4.2	603.6
WL= 13.0							
1.0	12.0	14	6	0	0.4	3.5	445.1
2.0	11.0	14	6	0	0.4	3.6	464.2
3.0	10.0	14	6	0	0.4	3.7	483.3
4.0	9.0	14	5	1	0.7	3.8	502.5
5.0	8.0	14	5	1	0.7	3.9	521.6
6.0	7.0	14	5	1	0.7	4.0	540.7
7.0	6.0	14	5	1	0.7	4.1	559.8
8.0	5.0	14	5	1	0.7	4.2	579.0
9.0	4.0	14	5	1	0.7	4.3	598.1
10.0	3.0	14	5	1	0.7	4.4	617.2
11.0	2.0	14	5	1	0.7	4.5	636.4
12.0	1.0	14	5	1	0.7	4.6	655.5
WL= 14.0							
1.0	13.0	14	5	1	0.7	3.8	477.8

TABLE H (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 14.0							
2.0	12.0	14	5	1	0.7	3.9	497.0
3.0	11.0	14	4	2	1.1	4.0	516.1
4.0	10.0	14	4	2	1.1	4.1	535.2
5.0	9.0	14	4	2	1.1	4.2	554.4
6.0	8.0	14	4	2	1.1	4.3	573.5
7.0	7.0	14	4	2	1.1	4.4	592.6
8.0	6.0	12	5	2	1.0	4.5	611.7
9.0	5.0	13	5	2	1.1	4.6	630.9
10.0	4.0	13	5	2	1.1	4.7	650.0
11.0	3.0	13	5	2	1.1	4.8	669.1
12.0	2.0	13	5	2	1.1	4.9	688.3
13.0	1.0	14	7	0	0.5	5.0	707.4
WL= 15.0							
1.0	14.0	13	5	2	1.1	4.1	510.6
2.0	13.0	14	6	1	0.8	4.2	529.7
3.0	12.0	14	6	1	0.8	4.3	548.9
4.0	11.0	14	6	1	0.8	4.4	568.0
5.0	10.0	14	6	1	0.8	4.5	587.1
6.0	9.0	14	6	1	0.8	4.6	606.3
7.0	8.0	14	6	1	0.8	4.7	625.4
8.0	7.0	14	6	1	0.8	4.8	644.5
9.0	6.0	14	6	1	0.8	4.9	663.6
10.0	5.0	14	6	1	0.8	5.0	682.8
11.0	4.0	14	6	1	0.8	5.1	701.9
12.0	3.0	14	5	2	1.2	5.2	721.0
13.0	2.0	14	5	2	1.2	5.3	740.2
14.0	1.0	14	5	2	1.2	5.4	759.3
WL= 16.0							
1.0	15.0	14	5	2	1.2	4.4	543.4
2.0	14.0	14	5	2	1.2	4.5	562.5
3.0	13.0	14	5	2	1.2	4.6	581.6
4.0	12.0	13	5	3	1.5	4.7	600.8
5.0	11.0	13	5	3	1.5	4.8	619.9
6.0	10.0	13	5	3	1.5	4.9	639.0
7.0	9.0	13	5	3	1.5	5.0	658.1
8.0	8.0	13	5	3	1.5	5.1	677.3
9.0	7.0	13	5	3	1.5	5.2	696.4
10.0	6.0	13	5	3	1.5	5.3	715.5
11.0	5.0	13	6	2	1.1	5.4	734.7
12.0	4.0	13	6	2	1.1	5.5	753.8
13.0	3.0	14	6	2	1.3	5.6	772.9
14.0	2.0	14	6	2	1.3	5.7	792.0
15.0	1.0	14	6	2	1.3	5.8	811.2
WL= 17.0							
1.0	16.0	13	5	3	1.5	4.7	576.1
2.0	15.0	14	6	2	1.3	4.8	595.3
3.0	14.0	14	6	2	1.3	4.9	614.4

TABLE H (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22- GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 17.0							
4.0	13.0	14	6	2	1.3	5.0	633.5
5.0	12.0	14	6	2	1.3	5.1	652.7
6.0	11.0	14	6	2	1.3	5.2	671.8
7.0	10.0	14	6	2	1.3	5.3	690.9
8.0	9.0	14	6	2	1.3	5.4	710.0
9.0	8.0	14	6	2	1.3	5.5	729.2
10.0	7.0	14	6	2	1.3	5.6	748.3
11.0	6.0	14	6	2	1.3	5.7	767.4
12.0	5.0	14	6	2	1.3	5.8	786.6
13.0	4.0	14	6	2	1.3	5.9	805.7
14.0	3.0	14	6	2	1.3	6.0	824.8
15.0	2.0	13	6	3	1.6	6.1	843.9
16.0	1.0	13	6	3	1.6	6.2	863.1
WL= 18.0							
1.0	17.0	14	6	2	1.3	5.0	608.9
2.0	16.0	14	6	2	1.3	5.1	628.0
3.0	15.0	13	5	4	2.0	5.2	647.2
4.0	14.0	13	5	4	2.0	5.3	666.3
5.0	13.0	13	6	3	1.6	5.4	685.4
6.0	12.0	13	6	3	1.6	5.5	704.5
7.0	11.0	13	6	3	1.6	5.6	723.7
8.0	10.0	13	6	3	1.6	5.7	742.8
9.0	9.0	13	6	3	1.6	5.8	761.9
10.0	8.0	14	6	3	1.7	5.9	781.1
11.0	7.0	14	6	3	1.7	6.0	800.2
12.0	6.0	14	6	3	1.7	6.1	819.3
13.0	5.0	14	6	3	1.7	6.2	838.4
14.0	4.0	14	6	3	1.7	6.3	857.6
15.0	3.0	14	7	2	1.4	6.4	876.7
16.0	2.0	14	7	2	1.4	6.5	895.8
17.0	1.0	14	7	2	1.4	6.6	915.0
WL= 19.0							
1.0	18.0	14	6	3	1.7	5.3	641.7
2.0	17.0	14	6	3	1.7	5.4	660.8
3.0	16.0	14	6	3	1.7	5.5	679.9
4.0	15.0	14	6	3	1.7	5.6	699.1
5.0	14.0	14	7	2	1.4	5.7	718.2
6.0	13.0	14	7	2	1.4	5.8	737.3
7.0	12.0	14	7	2	1.4	5.9	756.4
8.0	11.0	14	7	2	1.4	6.0	775.6
9.0	10.0	14	7	2	1.4	6.1	794.7
10.0	9.0	14	7	2	1.4	6.2	813.8
11.0	8.0	14	7	2	1.4	6.3	833.0
12.0	7.0	14	7	2	1.4	6.4	852.1
13.0	6.0	14	7	2	1.4	6.5	871.2
14.0	5.0	13	6	4	2.1	6.6	890.3
15.0	4.0	13	6	4	2.1	6.7	909.5
16.0	3.0	14	6	4	2.2	6.8	928.6

TABLE H (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 19.0							
17.0	2.0	14	6	4	2.2	6.9	947.7
18.0	1.0	14	6	4	2.2	7.0	966.9
WL= 20.0							
1.0	19.0	14	7	2	1.4	5.6	674.4
2.0	18.0	14	7	2	1.4	5.7	693.6
3.0	17.0	14	7	2	1.4	5.9	712.7
4.0	16.0	13	6	4	2.1	6.0	731.8
5.0	15.0	13	6	4	2.1	6.1	750.9
6.0	14.0	14	6	4	2.2	6.2	770.1
7.0	13.0	14	6	4	2.2	6.3	789.2
8.0	12.0	14	6	4	2.2	6.4	808.3
9.0	11.0	14	6	4	2.2	6.4	827.5
10.0	10.0	14	6	4	2.2	6.5	846.6
11.0	9.0	14	6	4	2.2	6.6	865.7
12.0	8.0	14	7	3	1.9	6.7	884.8
13.0	7.0	14	7	3	1.9	6.8	904.0
14.0	6.0	14	7	3	1.9	6.9	923.1
15.0	5.0	14	7	3	1.9	7.0	942.2
16.0	4.0	14	7	3	1.9	7.1	961.4
17.0	3.0	14	7	3	1.9	7.2	980.5
18.0	2.0	14	7	3	1.9	7.3	999.6
19.0	1.0	14	8	2	1.6	7.4	1018.7
WL= 21.0							
1.0	20.0	14	6	4	2.2	5.9	707.2
2.0	19.0	14	6	4	2.2	6.1	726.3
3.0	18.0	14	6	4	2.2	6.2	745.5
4.0	17.0	14	7	3	1.9	6.3	764.6
5.0	16.0	14	7	3	1.9	6.4	783.7
6.0	15.0	14	7	3	1.9	6.5	802.8
7.0	14.0	14	7	3	1.9	6.6	822.0
8.0	13.0	14	7	3	1.9	6.7	841.1
9.0	12.0	14	7	3	1.9	6.8	860.2
10.0	11.0	14	7	3	1.9	6.9	879.4
11.0	10.0	14	7	3	1.9	6.9	898.5
12.0	9.0	14	8	2	1.6	7.0	917.6
13.0	8.0	14	8	2	1.6	7.1	936.7
14.0	7.0	14	8	2	1.6	7.2	955.9
15.0	6.0	14	8	2	1.6	7.3	975.0
16.0	5.0	14	8	2	1.6	7.4	994.1
17.0	4.0	14	7	4	2.4	7.5	1013.3
18.0	3.0	14	7	4	2.4	7.6	1032.4
19.0	2.0	14	7	4	2.4	7.7	1051.5
20.0	1.0	14	7	4	2.4	7.8	1070.6
WL= 22.0							
1.0	21.0	14	7	3	1.9	6.3	740.0
2.0	20.0	14	7	3	1.9	6.4	759.1
3.0	19.0	14	7	3	1.9	6.5	778.2

TABLE H (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 22.0							
4.0	18.0	14	7	3	1.9	6.6	797.3
5.0	17.0	14	6	5	2.7	6.7	816.5
6.0	16.0	14	6	5	2.7	6.8	835.6
7.0	15.0	14	6	5	2.7	6.9	854.7
8.0	14.0	14	7	4	2.4	7.0	873.9
9.0	13.0	14	7	4	2.4	7.1	893.0
10.0	12.0	14	7	4	2.4	7.2	912.1
11.0	11.0	14	7	4	2.4	7.3	931.3
12.0	10.0	14	7	4	2.4	7.4	950.4
13.0	9.0	14	7	4	2.4	7.5	969.5
14.0	8.0	14	7	4	2.4	7.5	988.6
15.0	7.0	14	7	4	2.4	7.6	1007.8
16.0	6.0	14	7	4	2.4	7.7	1026.9
17.0	5.0	14	8	3	2.1	7.8	1046.0
18.0	4.0	14	8	3	2.1	7.9	1065.2
19.0	3.0	14	8	3	2.1	8.0	1084.3
20.0	2.0	14	8	3	2.1	8.1	1103.4
21.0	1.0	14	8	3	2.1	8.2	1122.5
WL= 23.0							
1.0	22.0	14	7	4	2.4	6.6	772.7
2.0	21.0	14	7	4	2.4	6.7	791.9
3.0	20.0	14	7	4	2.4	6.8	811.0
4.0	19.0	14	7	4	2.4	7.0	830.1
5.0	18.0	14	7	4	2.4	7.1	849.2
6.0	17.0	14	7	4	2.4	7.2	868.4
7.0	16.0	14	7	4	2.4	7.3	887.5
8.0	15.0	14	7	4	2.4	7.3	906.6
9.0	14.0	14	7	4	2.4	7.4	925.8
10.0	13.0	14	7	4	2.4	7.5	944.9
11.0	12.0	14	8	3	2.1	7.6	964.0
12.0	11.0	14	8	3	2.1	7.7	983.1
13.0	10.0	14	8	3	2.1	7.8	1002.3
14.0	9.0	14	8	3	2.1	7.9	1021.4
15.0	8.0	14	7	5	2.8	8.0	1040.5
16.0	7.0	14	7	5	2.8	8.1	1059.7
17.0	6.0	14	7	5	2.8	8.2	1078.8
18.0	5.0	14	7	5	2.8	8.2	1097.9
19.0	4.0	14	7	5	2.8	8.3	1117.0
20.0	3.0	14	7	5	2.8	8.5	1136.2
21.0	2.0	14	8	4	2.5	8.6	1155.3
22.0	1.0	14	8	4	2.5	8.7	1174.4
WL= 24.0							
1.0	23.0	14	7	4	2.4	6.9	805.5
2.0	22.0	14	7	4	2.4	7.1	824.6
3.0	21.0	14	7	4	2.4	7.2	843.8
4.0	20.0	14	8	3	2.1	7.3	862.9
5.0	19.0	14	7	5	2.8	7.4	882.0
6.0	18.0	14	7	5	2.8	7.5	901.1

TABLE H (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 24.0							
7.0	17.0	14	7	5	2.8	7.6	920.3
8.0	16.0	14	7	5	2.8	7.7	939.4
9.0	15.0	14	7	5	2.8	7.8	958.5
10.0	14.0	14	7	5	2.8	7.9	977.7
11.0	13.0	14	7	5	2.8	8.0	996.8
12.0	12.0	14	7	5	2.8	8.0	1015.9
13.0	11.0	14	7	5	2.8	8.1	1035.0
14.0	10.0	14	7	6	3.3	8.2	1054.2
15.0	9.0	14	8	4	2.5	8.3	1073.3
16.0	8.0	14	8	4	2.5	8.4	1092.4
17.0	7.0	14	8	4	2.5	8.5	1111.6
18.0	6.0	14	8	4	2.5	8.6	1130.7
19.0	5.0	14	8	4	2.5	8.7	1149.8
20.0	4.0	14	8	4	2.5	8.8	1168.9
21.0	3.0	14	8	4	2.5	8.9	1188.1
22.0	2.0	14	8	4	2.5	9.0	1207.2
23.0	1.0	14	8	4	2.5	9.1	1226.3
WL= 25.0							
1.0	24.0	14	7	5	2.8	7.3	838.3
2.0	23.0	14	7	5	2.8	7.4	857.4
3.0	22.0	14	7	5	2.8	7.5	876.5
4.0	21.0	14	7	5	2.8	7.6	895.6
5.0	20.0	14	7	5	2.8	7.7	914.8
6.0	19.0	14	7	5	2.8	7.8	933.9
7.0	18.0	14	7	6	3.3	7.9	953.0
8.0	17.0	14	7	6	3.3	8.0	972.2
9.0	16.0	14	7	6	3.3	8.1	991.3
10.0	15.0	14	8	4	2.5	8.2	1010.4
11.0	14.0	14	8	4	2.5	8.3	1029.5
12.0	13.0	14	8	4	2.5	8.4	1048.7
13.0	12.0	14	8	4	2.5	8.5	1067.8
14.0	11.0	14	8	4	2.5	8.6	1086.9
15.0	10.0	14	8	4	2.5	8.6	1106.1
16.0	9.0	14	8	4	2.5	8.7	1125.2
17.0	8.0	14	8	5	3.0	8.8	1144.3
18.0	7.0	14	8	5	3.0	8.9	1163.4
19.0	6.0	14	8	5	3.0	9.0	1182.6
20.0	5.0	14	8	5	3.0	9.1	1201.7
21.0	4.0	14	8	5	3.0	9.2	1220.8
22.0	3.0	14	8	5	3.0	9.3	1240.0
23.0	2.0	14	8	5	3.0	9.4	1259.1
24.0	1.0	14	8	5	3.0	9.5	1278.2
WL= 26.0							
1.0	25.0	14	7	6	3.3	7.6	871.0
2.0	24.0	14	7	6	3.3	7.7	890.2
3.0	23.0	14	7	6	3.3	7.9	909.3
4.0	22.0	14	7	6	3.3	8.0	928.4
5.0	21.0	14	8	4	2.5	8.1	947.5

TABLE H (CONT)

309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 26.0							
6.0	20.0	14	8	4	2.5	8.2	966.7
7.0	19.0	14	8	4	2.5	8.3	985.8
8.0	18.0	14	8	4	2.5	8.4	1004.9
9.0	17.0	14	8	4	2.5	8.5	1024.1
10.0	16.0	14	7	7	3.9	8.5	1043.2
11.0	15.0	14	7	7	3.9	8.6	1062.3
12.0	14.0	14	8	5	3.0	8.7	1081.4
13.0	13.0	14	8	5	3.0	8.8	1100.6
14.0	12.0	14	8	5	3.0	8.9	1119.7
15.0	11.0	14	8	5	3.0	9.0	1138.8
16.0	10.0	14	8	5	3.0	9.1	1158.0
17.0	9.0	14	8	5	3.0	9.2	1177.1
18.0	8.0	14	8	5	3.0	9.2	1196.2
19.0	7.0	14	8	6	3.5	9.3	1215.3
20.0	6.0	14	8	6	3.5	9.4	1234.5
21.0	5.0	14	8	6	3.5	9.5	1253.6
22.0	4.0	14	8	6	3.5	9.6	1272.7
23.0	3.0	14	8	6	3.5	9.7	1291.9
24.0	2.0	14	9	5	3.1	9.8	1311.0
25.0	1.0	14	9	5	3.1	10.0	1330.1
WL= 27.0							
1.0	26.0	14	8	4	2.5	8.0	903.8
2.0	25.0	14	7	6	3.3	8.1	922.9
3.0	24.0	14	7	7	3.9	8.2	942.0
4.0	23.0	14	7	7	3.9	8.3	961.2
5.0	22.0	14	7	7	3.9	8.4	980.3
6.0	21.0	14	7	7	3.9	8.5	999.4
7.0	20.0	14	8	5	3.0	8.6	1018.6
8.0	19.0	14	8	5	3.0	8.7	1037.7
9.0	18.0	14	8	5	3.0	8.8	1056.8
10.0	17.0	14	8	5	3.0	8.9	1075.9
11.0	16.0	14	8	5	3.0	9.0	1095.1
12.0	15.0	14	8	5	3.0	9.1	1114.2
13.0	14.0	14	8	5	3.0	9.2	1133.3
14.0	13.0	14	8	6	3.5	9.2	1152.5
15.0	12.0	14	8	6	3.5	9.3	1171.6
16.0	11.0	14	8	6	3.5	9.4	1190.7
17.0	10.0	14	8	6	3.5	9.5	1209.8
18.0	9.0	14	9	5	3.1	9.6	1229.0
19.0	8.0	14	9	5	3.1	9.7	1248.1
20.0	7.0	14	9	5	3.1	9.8	1267.2
21.0	6.0	14	9	5	3.1	9.9	1286.4
22.0	5.0	14	9	5	3.1	10.0	1305.5
23.0	4.0	14	8	7	4.1	10.1	1324.6
24.0	3.0	14	8	7	4.1	10.2	1343.7
25.0	2.0	14	9	6	3.6	10.3	1362.9
26.0	1.0	14	9	6	3.6	10.4	1382.0
WL= 28.0							

TABLE H (CONT)

309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 28.0							
1.0	27.0	14	8	5	3.0	8.3	936.6
2.0	26.0	14	8	5	3.0	8.4	955.7
3.0	25.0	14	8	5	3.0	8.5	974.8
4.0	24.0	14	8	5	3.0	8.7	993.9
5.0	23.0	14	8	5	3.0	8.8	1013.1
6.0	22.0	14	8	5	3.0	8.9	1032.2
7.0	21.0	14	8	5	3.0	9.0	1051.3
8.0	20.0	14	8	6	3.5	9.1	1070.5
9.0	19.0	14	8	6	3.5	9.2	1089.6
10.0	18.0	14	8	6	3.5	9.2	1108.7
11.0	17.0	14	8	6	3.5	9.3	1127.8
12.0	16.0	14	8	6	3.5	9.4	1147.0
13.0	15.0	14	8	6	3.5	9.5	1166.1
14.0	14.0	14	9	5	3.1	9.6	1185.2
15.0	13.0	14	9	5	3.1	9.7	1204.4
16.0	12.0	14	8	7	4.1	9.8	1223.5
17.0	11.0	14	8	7	4.1	9.8	1242.6
18.0	10.0	14	8	7	4.1	9.9	1261.7
19.0	9.0	14	9	6	3.6	10.0	1280.9
20.0	8.0	14	9	6	3.6	10.1	1300.0
21.0	7.0	14	9	6	3.6	10.2	1319.1
22.0	6.0	14	9	6	3.6	10.3	1338.3
23.0	5.0	14	9	6	3.6	10.4	1357.4
24.0	4.0	14	9	6	3.6	10.5	1376.5
25.0	3.0	14	10	5	3.3	10.6	1395.6
26.0	2.0	14	10	5	3.3	10.7	1414.8
27.0	1.0	14	9	7	4.2	10.8	1433.9
WL= 29.0							
1.0	28.0	14	8	5	3.0	8.6	969.3
2.0	27.0	14	8	6	3.5	8.8	988.4
3.0	26.0	14	8	6	3.5	8.9	1007.6
4.0	25.0	14	8	6	3.5	9.0	1026.7
5.0	24.0	14	8	6	3.5	9.1	1045.8
6.0	23.0	14	8	6	3.5	9.2	1065.0
7.0	22.0	14	8	6	3.5	9.3	1084.1
8.0	21.0	14	8	6	3.5	9.4	1103.2
9.0	20.0	14	8	6	3.5	9.5	1122.3
10.0	19.0	14	8	6	3.5	9.6	1141.5
11.0	18.0	14	8	7	4.1	9.7	1160.6
12.0	17.0	14	8	7	4.1	9.8	1179.7
13.0	16.0	14	8	7	4.1	9.8	1198.9
14.0	15.0	14	9	6	3.6	9.9	1218.0
15.0	14.0	14	9	6	3.6	10.0	1237.1
16.0	13.0	14	9	6	3.6	10.1	1256.3
17.0	12.0	14	9	6	3.6	10.2	1275.4
18.0	11.0	14	9	6	3.6	10.3	1294.5
19.0	10.0	14	10	5	3.3	10.4	1313.6
20.0	9.0	14	9	7	4.2	10.4	1332.8
21.0	8.0	14	9	7	4.2	10.5	1351.9

TABLE H (CONT)

309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 29.0							
22.0	7.0	14	9	7	4.2	10.6	1371.0
23.0	6.0	14	9	7	4.2	10.7	1390.2
24.0	5.0	14	9	7	4.2	10.8	1409.3
25.0	4.0	14	9	7	4.2	10.9	1428.4
26.0	3.0	14	10	6	3.8	11.0	1447.5
27.0	2.0	14	10	6	3.8	11.2	1466.7
28.0	1.0	14	10	6	3.8	11.3	1485.8
WL= 30.0							
1.0	29.0	14	8	6	3.5	9.0	1002.1
2.0	28.0	14	8	6	3.5	9.1	1021.2
3.0	27.0	14	8	6	3.5	9.2	1040.3
4.0	26.0	14	8	6	3.5	9.3	1059.5
5.0	25.0	14	8	7	4.1	9.5	1078.6
6.0	24.0	14	8	7	4.1	9.6	1097.7
7.0	23.0	14	8	7	4.1	9.7	1116.9
8.0	22.0	14	8	7	4.1	9.8	1136.0
9.0	21.0	14	8	7	4.1	9.8	1155.1
10.0	20.0	14	8	7	4.1	9.9	1174.2
11.0	19.0	14	9	6	3.6	10.0	1193.4
12.0	18.0	14	9	6	3.6	10.1	1212.5
13.0	17.0	14	9	6	3.6	10.2	1231.6
14.0	16.0	14	8	8	4.4	10.3	1250.8
15.0	15.0	14	9	7	4.2	10.4	1269.9
16.0	14.0	14	9	7	4.2	10.5	1289.0
17.0	13.0	14	9	7	4.2	10.5	1308.1
18.0	12.0	14	9	7	4.2	10.6	1327.3
19.0	11.0	14	9	7	4.2	10.7	1346.4
20.0	10.0	14	10	6	3.8	10.8	1365.5
21.0	9.0	14	10	6	3.8	10.9	1384.7
22.0	8.0	14	10	6	3.8	11.0	1403.8
23.0	7.0	14	10	6	3.8	11.1	1422.9
24.0	6.0	14	10	6	3.8	11.2	1442.0
25.0	5.0	14	9	9	5.0	11.3	1461.2
26.0	4.0	14	9	9	5.0	11.4	1480.3
27.0	3.0	14	10	7	4.3	11.5	1499.4
28.0	2.0	14	10	7	4.3	11.6	1518.6
29.0	1.0	14	10	7	4.3	11.7	1537.7

TABLE I

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 7.0							
5.0	2.0	13	3	0	0.1	3.2	482.2
6.0	1.0	13	3	0	0.1	3.4	532.8
WL= 8.0							
4.0	4.0	14	3	0	0.1	3.1	464.4
5.0	3.0	14	3	0	0.1	3.4	515.0
6.0	2.0	14	3	0	0.1	3.7	565.5
7.0	1.0	12	2	1	0.5	3.9	616.1
WL= 9.0							
3.0	6.0	14	4	0	0.2	3.1	446.6
4.0	5.0	14	4	0	0.2	3.4	497.2
5.0	4.0	14	4	0	0.2	3.6	547.7
6.0	3.0	14	4	0	0.2	3.9	598.3
7.0	2.0	14	4	0	0.2	4.2	648.9
8.0	1.0	14	4	0	0.2	4.4	699.4
WL= 10.0							
2.0	8.0	13	3	1	0.5	3.1	428.8
3.0	7.0	14	3	1	0.6	3.4	479.4
4.0	6.0	14	3	1	0.6	3.7	529.9
5.0	5.0	14	3	1	0.6	3.9	580.5
6.0	4.0	14	3	1	0.6	4.2	631.1
7.0	3.0	14	3	1	0.6	4.4	681.6
8.0	2.0	14	5	0	0.3	4.6	732.2
9.0	1.0	14	5	0	0.3	4.9	782.8
WL= 11.0							
1.0	10.0	14	5	0	0.3	3.1	411.0
2.0	9.0	14	5	0	0.3	3.4	461.6
3.0	8.0	13	4	1	0.5	3.7	512.1
4.0	7.0	13	4	1	0.5	3.9	562.7
5.0	6.0	13	4	1	0.5	4.2	613.3
6.0	5.0	14	4	1	0.6	4.4	663.8
7.0	4.0	14	4	1	0.6	4.7	714.4
8.0	3.0	14	4	1	0.6	4.9	765.0
9.0	2.0	14	4	1	0.6	5.1	815.5
10.0	1.0	14	4	1	0.6	5.4	866.1
WL= 12.0							
1.0	11.0	14	4	1	0.6	3.4	443.8
2.0	10.0	14	4	1	0.6	3.7	494.3
3.0	9.0	14	4	1	0.6	3.9	544.9
4.0	8.0	14	6	0	0.4	4.2	595.5
5.0	7.0	14	6	0	0.4	4.4	646.0
6.0	6.0	14	6	0	0.4	4.7	696.6
7.0	5.0	14	6	0	0.4	4.9	747.2
8.0	4.0	14	6	0	0.4	5.2	797.7
9.0	3.0	14	6	0	0.4	5.4	848.3
10.0	2.0	14	5	1	0.7	5.6	898.9

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 12.0							
11.0	1.0	14	5	1	0.7	5.9	949.4
WL= 13.0							
1.0	12.0	14	6	0	0.4	3.7	476.5
2.0	11.0	14	5	1	0.7	4.0	527.1
3.0	10.0	14	5	1	0.7	4.2	577.7
4.0	9.0	14	5	1	0.7	4.5	628.2
5.0	8.0	14	5	1	0.7	4.7	678.8
6.0	7.0	14	5	1	0.7	5.0	729.4
7.0	6.0	14	5	1	0.7	5.2	779.9
8.0	5.0	14	5	1	0.7	5.4	830.5
9.0	4.0	14	4	2	1.1	5.7	881.1
10.0	3.0	12	5	2	1.0	5.9	931.6
11.0	2.0	13	5	2	1.1	6.1	982.2
12.0	1.0	14	7	0	0.5	6.4	1032.8
WL= 14.0							
1.0	13.0	14	4	2	1.1	4.0	509.3
2.0	12.0	12	4	3	1.4	4.2	559.8
3.0	11.0	13	5	2	1.1	4.5	610.4
4.0	10.0	13	5	2	1.1	4.8	661.0
5.0	9.0	14	7	0	0.5	5.0	711.6
6.0	8.0	14	7	0	0.5	5.3	762.1
7.0	7.0	14	6	1	0.8	5.5	812.7
8.0	6.0	14	6	1	0.8	5.7	863.3
9.0	5.0	14	6	1	0.8	5.9	913.8
10.0	4.0	14	6	1	0.8	6.2	964.4
11.0	3.0	14	6	1	0.8	6.4	1015.0
12.0	2.0	14	5	2	1.2	6.6	1065.5
13.0	1.0	13	5	3	1.5	6.9	1116.1
WL= 15.0							
1.0	14.0	14	6	1	0.8	4.3	542.0
2.0	13.0	14	6	1	0.8	4.5	592.6
3.0	12.0	14	6	1	0.8	4.8	643.2
4.0	11.0	14	5	2	1.2	5.1	693.8
5.0	10.0	14	5	2	1.2	5.3	744.3
6.0	9.0	14	5	2	1.2	5.6	794.9
7.0	8.0	13	5	3	1.5	5.8	845.5
8.0	7.0	13	5	3	1.5	6.0	896.0
9.0	6.0	13	5	3	1.5	6.2	946.6
10.0	5.0	13	6	2	1.1	6.4	997.2
11.0	4.0	13	6	2	1.1	6.7	1047.7
12.0	3.0	14	7	1	0.9	6.9	1098.3
13.0	2.0	14	7	1	0.9	7.1	1148.9
14.0	1.0	14	7	1	0.9	7.4	1199.4
WL= 16.0							
1.0	15.0	14	5	2	1.2	4.6	574.8
2.0	14.0	13	5	3	1.5	4.9	625.4

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 16.0							
3.0	13.0	13	5	3	1.5	5.1	675.9
4.0	12.0	13	6	2	1.1	5.4	726.5
5.0	11.0	14	6	2	1.3	5.6	777.1
6.0	10.0	14	6	2	1.3	5.9	827.7
7.0	9.0	14	6	2	1.3	6.1	878.2
8.0	8.0	14	7	1	0.9	6.3	928.8
9.0	7.0	14	7	1	0.9	6.5	979.4
10.0	6.0	14	7	1	0.9	6.7	1029.9
11.0	5.0	14	6	2	1.3	6.9	1080.5
12.0	4.0	13	6	3	1.6	7.2	1131.1
13.0	3.0	13	6	3	1.6	7.4	1181.6
14.0	2.0	13	6	3	1.6	7.6	1232.2
15.0	1.0	14	7	2	1.4	7.9	1282.8
WL= 17.0							
1.0	16.0	14	6	2	1.3	4.9	607.6
2.0	15.0	14	6	2	1.3	5.2	658.1
3.0	14.0	14	6	2	1.3	5.4	708.7
4.0	13.0	14	6	2	1.3	5.7	759.3
5.0	12.0	14	6	2	1.3	5.9	809.8
6.0	11.0	13	6	3	1.6	6.2	860.4
7.0	10.0	13	6	3	1.6	6.4	911.0
8.0	9.0	13	6	3	1.6	6.6	961.6
9.0	8.0	13	6	3	1.6	6.8	1012.1
10.0	7.0	14	6	3	1.7	7.0	1062.7
11.0	6.0	14	7	2	1.4	7.2	1113.3
12.0	5.0	14	7	2	1.4	7.5	1163.8
13.0	4.0	14	7	2	1.4	7.7	1214.4
14.0	3.0	14	8	1	1.1	7.9	1265.0
15.0	2.0	14	8	1	1.1	8.1	1315.5
16.0	1.0	13	7	3	1.7	8.4	1366.1
WL= 18.0							
1.0	17.0	13	5	4	2.0	5.2	640.3
2.0	16.0	13	6	3	1.6	5.5	690.9
3.0	15.0	14	6	3	1.7	5.8	741.5
4.0	14.0	14	6	3	1.7	6.0	792.0
5.0	13.0	14	6	3	1.7	6.3	842.6
6.0	12.0	14	7	2	1.4	6.5	893.2
7.0	11.0	14	7	2	1.4	6.7	943.8
8.0	10.0	14	7	2	1.4	6.9	994.3
9.0	9.0	14	7	2	1.4	7.1	1044.9
10.0	8.0	14	7	2	1.4	7.3	1095.5
11.0	7.0	13	6	4	2.1	7.5	1146.0
12.0	6.0	13	7	3	1.7	7.8	1196.6
13.0	5.0	13	7	3	1.7	8.0	1247.2
14.0	4.0	14	7	3	1.9	8.2	1297.7
15.0	3.0	14	7	3	1.9	8.4	1348.3
16.0	2.0	14	7	3	1.9	8.6	1398.9
17.0	1.0	14	8	2	1.6	8.9	1449.4

TABLE I (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 19.0							
1.0	18.0	14	6	3	1.7	5.5	673.1
2.0	17.0	14	7	2	1.4	5.8	723.7
3.0	16.0	14	7	2	1.4	6.1	774.2
4.0	15.0	14	7	2	1.4	6.3	824.8
5.0	14.0	13	6	4	2.1	6.6	875.4
6.0	13.0	14	6	4	2.2	6.8	925.9
7.0	12.0	14	6	4	2.2	7.0	976.5
8.0	11.0	14	6	4	2.2	7.2	1027.1
9.0	10.0	14	7	3	1.9	7.5	1077.7
10.0	9.0	14	7	3	1.9	7.7	1128.2
11.0	8.0	14	7	3	1.9	7.9	1178.8
12.0	7.0	14	7	3	1.9	8.1	1229.4
13.0	6.0	14	8	2	1.6	8.3	1279.9
14.0	5.0	14	8	2	1.6	8.5	1330.5
15.0	4.0	14	8	2	1.6	8.7	1381.1
16.0	3.0	14	7	4	2.4	8.9	1431.6
17.0	2.0	14	7	4	2.4	9.2	1482.2
18.0	1.0	14	9	2	1.7	9.4	1532.8
WL= 20.0							
1.0	19.0	14	7	2	1.4	5.8	705.9
2.0	18.0	14	6	4	2.2	6.1	756.4
3.0	17.0	14	6	4	2.2	6.4	807.0
4.0	16.0	14	6	4	2.2	6.7	857.6
5.0	15.0	14	7	3	1.9	6.9	908.1
6.0	14.0	14	7	3	1.9	7.1	958.7
7.0	13.0	14	7	3	1.9	7.4	1009.3
8.0	12.0	14	7	3	1.9	7.6	1059.8
9.0	11.0	14	8	2	1.6	7.8	1110.4
10.0	10.0	14	8	2	1.6	8.0	1161.0
11.0	9.0	14	7	4	2.4	8.2	1211.6
12.0	8.0	14	7	4	2.4	8.4	1262.1
13.0	7.0	14	7	4	2.4	8.6	1312.7
14.0	6.0	14	7	4	2.4	8.8	1363.3
15.0	5.0	14	9	2	1.7	9.0	1413.8
16.0	4.0	14	8	3	2.1	9.2	1464.4
17.0	3.0	14	8	3	2.1	9.5	1515.0
18.0	2.0	14	8	3	2.1	9.7	1565.5
19.0	1.0	13	8	4	2.3	9.9	1616.1
WL= 21.0							
1.0	20.0	14	6	4	2.2	6.1	738.6
2.0	19.0	14	7	3	1.9	6.4	789.2
3.0	18.0	14	7	3	1.9	6.7	839.8
4.0	17.0	14	7	3	1.9	7.0	890.3
5.0	16.0	14	6	5	2.7	7.2	940.9
6.0	15.0	14	6	5	2.7	7.5	991.5
7.0	14.0	14	7	4	2.4	7.7	1042.0
8.0	13.0	14	7	4	2.4	7.9	1092.6
9.0	12.0	14	7	4	2.4	8.1	1143.2

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 21.0							
10.0	11.0	14	7	4	2.4	8.3	1193.8
11.0	10.0	14	8	3	2.1	8.5	1244.3
12.0	9.0	14	8	3	2.1	8.7	1294.9
13.0	8.0	14	8	3	2.1	8.9	1345.5
14.0	7.0	14	8	3	2.1	9.1	1396.0
15.0	6.0	14	8	3	2.1	9.3	1446.6
16.0	5.0	13	8	4	2.3	9.5	1497.2
17.0	4.0	14	8	4	2.5	9.8	1547.7
18.0	3.0	14	8	4	2.5	10.0	1598.3
19.0	2.0	14	8	4	2.5	10.2	1648.9
20.0	1.0	13	8	5	2.8	10.5	1699.4
WL= 22.0							
1.0	21.0	14	7	3	1.9	6.5	771.4
2.0	20.0	14	6	5	2.7	6.8	822.0
3.0	19.0	14	7	4	2.4	7.1	872.5
4.0	18.0	14	7	4	2.4	7.3	923.1
5.0	17.0	14	7	4	2.4	7.6	973.7
6.0	16.0	14	7	4	2.4	7.8	1024.2
7.0	15.0	14	7	4	2.4	8.0	1074.8
8.0	14.0	14	8	3	2.1	8.2	1125.4
9.0	13.0	14	8	3	2.1	8.4	1175.9
10.0	12.0	14	7	5	2.8	8.6	1226.5
11.0	11.0	14	7	5	2.8	8.8	1277.1
12.0	10.0	14	7	5	2.8	9.0	1327.7
13.0	9.0	14	8	4	2.5	9.2	1378.2
14.0	8.0	14	8	4	2.5	9.4	1428.8
15.0	7.0	14	8	4	2.5	9.6	1479.4
16.0	6.0	14	8	4	2.5	9.9	1529.9
17.0	5.0	13	8	5	2.8	10.1	1580.5
18.0	4.0	14	8	5	3.0	10.3	1631.1
19.0	3.0	14	9	4	2.7	10.5	1681.6
20.0	2.0	14	9	4	2.7	10.8	1732.2
21.0	1.0	14	9	4	2.7	11.0	1782.8
WL= 23.0							
1.0	22.0	14	7	4	2.4	6.8	804.2
2.0	21.0	14	7	4	2.4	7.1	854.7
3.0	20.0	14	7	4	2.4	7.4	905.3
4.0	19.0	14	7	4	2.4	7.7	955.9
5.0	18.0	14	7	5	2.8	7.9	1006.4
6.0	17.0	14	7	5	2.8	8.1	1057.0
7.0	16.0	14	7	5	2.8	8.4	1107.6
8.0	15.0	14	7	5	2.8	8.6	1158.1
9.0	14.0	14	7	5	2.8	8.8	1208.7
10.0	13.0	14	8	4	2.5	9.0	1259.3
11.0	12.0	14	8	4	2.5	9.2	1309.8
12.0	11.0	14	8	4	2.5	9.4	1360.4
13.0	10.0	14	8	4	2.5	9.6	1411.0
14.0	9.0	14	8	5	3.0	9.8	1461.6

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 23.0							
15.0	8.0	14	8	5	3.0	10.0	1512.1
16.0	7.0	14	9	4	2.7	10.2	1562.7
17.0	6.0	14	9	4	2.7	10.4	1613.3
18.0	5.0	14	9	4	2.7	10.6	1663.8
19.0	4.0	14	8	6	3.5	10.8	1714.4
20.0	3.0	14	9	5	3.1	11.1	1765.0
21.0	2.0	14	9	5	3.1	11.3	1815.5
22.0	1.0	14	10	4	2.8	11.6	1866.1
WL= 24.0							
1.0	23.0	14	7	4	2.4	7.1	836.9
2.0	22.0	14	7	5	2.8	7.5	887.5
3.0	21.0	14	7	5	2.8	7.7	938.1
4.0	20.0	14	7	5	2.8	8.0	988.6
5.0	19.0	14	7	5	2.8	8.3	1039.2
6.0	18.0	14	7	6	3.3	8.5	1089.8
7.0	17.0	14	7	6	3.3	8.7	1140.3
8.0	16.0	14	8	4	2.5	8.9	1190.9
9.0	15.0	14	8	4	2.5	9.1	1241.5
10.0	14.0	14	8	4	2.5	9.3	1292.0
11.0	13.0	14	8	5	3.0	9.5	1342.6
12.0	12.0	14	8	5	3.0	9.7	1393.2
13.0	11.0	14	9	4	2.7	9.9	1443.8
14.0	10.0	14	9	4	2.7	10.1	1494.3
15.0	9.0	14	8	6	3.5	10.3	1544.9
16.0	8.0	14	9	5	3.1	10.5	1595.5
17.0	7.0	14	9	5	3.1	10.7	1646.0
18.0	6.0	14	10	4	2.8	10.9	1696.6
19.0	5.0	14	10	4	2.8	11.1	1747.2
20.0	4.0	14	9	6	3.6	11.4	1797.7
21.0	3.0	14	9	6	3.6	11.6	1848.3
22.0	2.0	14	10	5	3.3	11.8	1898.9
23.0	1.0	14	10	5	3.3	12.1	1949.4
WL= 25.0							
1.0	24.0	14	7	5	2.8	7.5	869.7
2.0	23.0	14	7	5	2.8	7.8	920.3
3.0	22.0	14	7	6	3.3	8.1	970.8
4.0	21.0	14	7	6	3.3	8.4	1021.4
5.0	20.0	14	7	6	3.3	8.6	1072.0
6.0	19.0	14	7	6	3.3	8.8	1122.5
7.0	18.0	14	7	7	3.9	9.1	1173.1
8.0	17.0	14	7	7	3.9	9.3	1223.7
9.0	16.0	14	8	5	3.0	9.5	1274.2
10.0	15.0	14	8	5	3.0	9.7	1324.8
11.0	14.0	14	8	5	3.0	9.9	1375.4
12.0	13.0	14	8	6	3.5	10.1	1425.9
13.0	12.0	14	8	6	3.5	10.3	1476.5
14.0	11.0	14	9	5	3.1	10.5	1527.1
15.0	10.0	14	10	4	2.8	10.6	1577.7

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 25.0							
16.0	9.0	14	10	4	2.8	10.8	1628.2
17.0	8.0	14	9	6	3.6	11.0	1678.8
18.0	7.0	14	9	6	3.6	11.3	1729.4
19.0	6.0	14	10	5	3.3	11.5	1779.9
20.0	5.0	14	10	5	3.3	11.7	1830.5
21.0	4.0	14	10	5	3.3	11.9	1881.1
22.0	3.0	14	10	6	3.8	12.1	1931.6
23.0	2.0	14	10	6	3.8	12.4	1982.2
24.0	1.0	14	10	6	3.8	12.7	2032.8
WL= 26.0							
1.0	25.0	14	7	6	3.3	7.8	902.5
2.0	24.0	14	7	6	3.3	8.1	953.0
3.0	23.0	14	7	6	3.3	8.4	1003.6
4.0	22.0	14	7	7	3.9	8.7	1054.2
5.0	21.0	14	7	7	3.9	8.9	1104.7
6.0	20.0	14	8	5	3.0	9.2	1155.3
7.0	19.0	14	8	5	3.0	9.4	1205.9
8.0	18.0	14	8	5	3.0	9.6	1256.4
9.0	17.0	14	8	6	3.5	9.8	1307.0
10.0	16.0	14	8	6	3.5	10.0	1357.6
11.0	15.0	14	9	5	3.1	10.2	1408.1
12.0	14.0	14	9	5	3.1	10.4	1458.7
13.0	13.0	14	8	7	4.1	10.6	1509.3
14.0	12.0	14	9	6	3.6	10.8	1559.8
15.0	11.0	14	9	6	3.6	11.0	1610.4
16.0	10.0	14	10	5	3.3	11.2	1661.0
17.0	9.0	14	10	5	3.3	11.4	1711.6
18.0	8.0	14	9	7	4.2	11.6	1762.1
19.0	7.0	14	10	6	3.8	11.8	1812.7
20.0	6.0	14	10	6	3.8	12.0	1863.3
21.0	5.0	14	11	5	3.5	12.2	1913.8
22.0	4.0	14	11	5	3.5	12.5	1964.4
23.0	3.0	13	10	8	4.3	12.7	2015.0
24.0	2.0	14	10	7	4.3	12.9	2065.5
25.0	1.0	14	11	6	4.0	13.2	2116.1
WL= 27.0							
1.0	26.0	14	7	7	3.9	8.2	935.2
2.0	25.0	14	7	7	3.9	8.5	985.8
3.0	24.0	14	8	5	3.0	8.8	1036.4
4.0	23.0	14	8	5	3.0	9.0	1086.9
5.0	22.0	14	8	5	3.0	9.3	1137.5
6.0	21.0	14	8	5	3.0	9.5	1188.1
7.0	20.0	14	8	6	3.5	9.8	1238.6
8.0	19.0	14	8	6	3.5	10.0	1289.2
9.0	18.0	14	8	6	3.5	10.2	1339.8
10.0	17.0	14	9	5	3.1	10.4	1390.3
11.0	16.0	14	8	7	4.1	10.6	1440.9
12.0	15.0	14	9	6	3.6	10.8	1491.5

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 27.0							
13.0	14.0	14	9	6	3.6	11.0	1542.0
14.0	13.0	14	10	5	3.3	11.1	1592.6
15.0	12.0	14	9	7	4.2	11.3	1643.2
16.0	11.0	14	10	6	3.8	11.5	1693.8
17.0	10.0	14	10	6	3.8	11.7	1744.3
18.0	9.0	14	11	5	3.5	11.9	1794.9
19.0	8.0	14	11	5	3.5	12.1	1845.5
20.0	7.0	14	10	7	4.3	12.3	1896.0
21.0	6.0	13	10	9	4.8	12.6	1946.6
22.0	5.0	14	11	6	4.0	12.8	1997.2
23.0	4.0	14	11	6	4.0	13.0	2047.7
24.0	3.0	14	11	6	4.0	13.2	2098.3
25.0	2.0	13	11	8	4.5	13.5	2148.9
26.0	1.0	14	11	7	4.5	13.8	2199.4
WL= 28.0							
1.0	27.0	14	8	5	3.0	8.5	968.0
2.0	26.0	14	8	5	3.0	8.8	1018.6
3.0	25.0	14	8	6	3.5	9.1	1069.1
4.0	24.0	14	8	6	3.5	9.4	1119.7
5.0	23.0	14	8	6	3.5	9.6	1170.3
6.0	22.0	14	8	6	3.5	9.9	1220.8
7.0	21.0	14	8	6	3.5	10.1	1271.4
8.0	20.0	14	8	7	4.1	10.3	1322.0
9.0	19.0	14	8	7	4.1	10.5	1372.5
10.0	18.0	14	9	6	3.6	10.7	1423.1
11.0	17.0	14	9	6	3.6	10.9	1473.7
12.0	16.0	14	9	7	4.2	11.1	1524.2
13.0	15.0	14	9	7	4.2	11.3	1574.8
14.0	14.0	14	10	6	3.8	11.5	1625.4
15.0	13.0	14	10	6	3.8	11.7	1675.9
16.0	12.0	14	11	5	3.5	11.9	1726.5
17.0	11.0	14	10	7	4.3	12.1	1777.1
18.0	10.0	13	10	9	4.8	12.3	1827.7
19.0	9.0	14	11	6	4.0	12.5	1878.2
20.0	8.0	14	11	6	4.0	12.7	1928.8
21.0	7.0	13	11	8	4.5	12.9	1979.4
22.0	6.0	13	11	8	4.5	13.1	2029.9
23.0	5.0	14	11	7	4.5	13.3	2080.5
24.0	4.0	13	11	9	4.9	13.6	2131.1
25.0	3.0	13	11	9	4.9	13.8	2181.6
26.0	2.0	13	11	10	5.3	14.0	2232.2
27.0	1.0	13	11	10	5.3	14.3	2282.8
WL= 29.0							
1.0	28.0	14	8	6	3.5	8.9	1000.8
2.0	27.0	14	8	6	3.5	9.2	1051.3
3.0	26.0	14	8	6	3.5	9.5	1101.9
4.0	25.0	14	8	6	3.5	9.7	1152.5
5.0	24.0	14	8	7	4.1	10.0	1203.0

TABLE I (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 29.0							
6.0	23.0	14	8	7	4.1	10.2	1253.6
7.0	22.0	14	8	7	4.1	10.5	1304.2
8.0	21.0	14	8	8	4.4	10.7	1354.7
9.0	20.0	14	8	8	4.4	10.9	1405.3
10.0	19.0	14	9	7	4.2	11.1	1455.9
11.0	18.0	14	9	7	4.2	11.3	1506.4
12.0	17.0	14	10	6	3.8	11.5	1557.0
13.0	16.0	14	10	6	3.8	11.7	1607.6
14.0	15.0	14	10	7	4.3	11.9	1658.1
15.0	14.0	14	10	7	4.3	12.0	1708.7
16.0	13.0	14	11	6	4.0	12.2	1759.3
17.0	12.0	14	11	6	4.0	12.4	1809.8
18.0	11.0	13	10	10	5.2	12.6	1860.4
19.0	10.0	14	11	7	4.5	12.8	1911.0
20.0	9.0	14	11	7	4.5	13.0	1961.6
21.0	8.0	13	11	9	4.9	13.2	2012.1
22.0	7.0	13	11	10	5.3	13.4	2062.7
23.0	6.0	13	11	10	5.3	13.6	2113.3
24.0	5.0	13	11	11	5.8	13.9	2163.8
25.0	4.0	13	11	11	5.8	14.1	2214.4
26.0	3.0	14	12	7	4.7	14.3	2265.0
27.0	2.0	14	12	7	4.7	14.6	2315.5
28.0	1.0	13	12	9	5.1	14.9	2366.1
WL= 30.0							
1.0	29.0	14	8	6	3.5	9.2	1033.5
2.0	28.0	14	8	7	4.1	9.5	1084.1
3.0	27.0	14	8	7	4.1	9.8	1134.7
4.0	26.0	14	8	7	4.1	10.1	1185.2
5.0	25.0	14	8	8	4.4	10.4	1235.8
6.0	24.0	14	8	8	4.4	10.6	1286.4
7.0	23.0	14	8	8	4.4	10.8	1336.9
8.0	22.0	14	8	9	4.9	11.0	1387.5
9.0	21.0	14	9	7	4.2	11.3	1438.1
10.0	20.0	14	9	7	4.2	11.5	1488.6
11.0	19.0	14	9	8	4.5	11.6	1539.2
12.0	18.0	14	9	9	5.0	11.8	1589.8
13.0	17.0	14	10	7	4.3	12.0	1640.3
14.0	16.0	14	10	7	4.3	12.2	1690.9
15.0	15.0	14	10	8	4.7	12.4	1741.5
16.0	14.0	14	10	9	5.1	12.6	1792.0
17.0	13.0	14	11	7	4.5	12.8	1842.6
18.0	12.0	13	11	9	4.9	13.0	1893.2
19.0	11.0	14	12	6	4.2	13.2	1943.7
20.0	10.0	13	11	10	5.3	13.4	1994.3
21.0	9.0	13	11	11	5.8	13.6	2044.9
22.0	8.0	13	12	8	4.6	13.8	2095.5
23.0	7.0	13	12	9	5.1	14.0	2146.0
24.0	6.0	13	12	9	5.1	14.2	2196.6
25.0	5.0	13	12	9	5.1	14.4	2247.2

TABLE I (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 30.0							
26.0	4.0	13	12	10	5.5	14.7	2297.7
27.0	3.0	13	12	10	5.5	14.9	2348.3
28.0	2.0	13	12	11	5.9	15.2	2398.9

TABLE J

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 6.0							
5.0	1.0	14	2	0	0.1	3.0	468.6
WL= 7.0							
3.0	4.0	13	3	0	0.1	3.0	457.6
4.0	3.0	13	3	0	0.1	3.2	489.0
5.0	2.0	13	3	0	0.1	3.4	520.5
6.0	1.0	13	3	0	0.1	3.5	551.9
WL= 8.0							
1.0	7.0	14	3	0	0.1	3.1	446.6
2.0	6.0	12	2	1	0.5	3.2	478.0
3.0	5.0	12	2	1	0.5	3.4	509.5
4.0	4.0	12	2	1	0.5	3.5	540.9
5.0	3.0	12	2	1	0.5	3.7	572.3
6.0	2.0	12	2	1	0.5	3.9	603.8
7.0	1.0	12	2	1	0.5	4.0	635.2
WL= 9.0							
1.0	8.0	14	4	0	0.2	3.4	498.5
2.0	7.0	14	4	0	0.2	3.6	529.9
3.0	6.0	14	4	0	0.2	3.7	561.4
4.0	5.0	14	4	0	0.2	3.9	592.8
5.0	4.0	14	4	0	0.2	4.0	624.2
6.0	3.0	14	4	0	0.2	4.2	655.7
7.0	2.0	14	4	0	0.2	4.3	687.1
8.0	1.0	13	3	1	0.5	4.5	718.6
WL= 10.0							
1.0	9.0	14	3	1	0.6	3.8	550.4
2.0	8.0	14	5	0	0.3	3.9	581.8
3.0	7.0	14	5	0	0.3	4.1	613.3
4.0	6.0	14	5	0	0.3	4.3	644.7
5.0	5.0	14	5	0	0.3	4.4	676.1
6.0	4.0	14	5	0	0.3	4.5	707.6
7.0	3.0	14	5	0	0.3	4.7	739.0
8.0	2.0	14	5	0	0.3	4.8	770.5
9.0	1.0	14	5	0	0.3	5.0	801.9
WL= 11.0							
1.0	10.0	14	4	1	0.6	4.1	602.3
2.0	9.0	14	4	1	0.6	4.3	633.7
3.0	8.0	14	4	1	0.6	4.5	665.2
4.0	7.0	14	4	1	0.6	4.6	696.6
5.0	6.0	14	4	1	0.6	4.8	728.0
6.0	5.0	14	4	1	0.6	4.9	759.5
7.0	4.0	14	4	1	0.6	5.0	790.9
8.0	3.0	14	4	1	0.6	5.2	822.3
9.0	2.0	14	4	1	0.6	5.3	853.8
10.0	1.0	14	4	1	0.6	5.5	885.2
WL= 12.0							

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 12.0							
1.0	11.0	14	6	0	0.4	4.5	654.2
2.0	10.0	14	6	0	0.4	4.7	685.6
3.0	9.0	14	5	1	0.7	4.8	717.0
4.0	8.0	14	5	1	0.7	5.0	748.5
5.0	7.0	14	5	1	0.7	5.1	779.9
6.0	6.0	14	5	1	0.7	5.3	811.4
7.0	5.0	14	5	1	0.7	5.4	842.8
8.0	4.0	14	5	1	0.7	5.5	874.2
9.0	3.0	14	5	1	0.7	5.7	905.7
10.0	2.0	14	5	1	0.7	5.8	937.1
11.0	1.0	14	5	1	0.7	6.0	968.6
WL= 13.0							
1.0	12.0	14	4	2	1.1	4.9	706.1
2.0	11.0	14	4	2	1.1	5.1	737.5
3.0	10.0	12	5	2	1.0	5.2	768.9
4.0	9.0	13	5	2	1.1	5.4	800.4
5.0	8.0	13	5	2	1.1	5.5	831.8
6.0	7.0	13	5	2	1.1	5.6	863.3
7.0	6.0	13	5	2	1.1	5.8	894.7
8.0	5.0	13	5	2	1.1	5.9	926.1
9.0	4.0	13	5	2	1.1	6.0	957.6
10.0	3.0	14	7	0	0.5	6.2	989.0
11.0	2.0	14	7	0	0.5	6.3	1020.5
12.0	1.0	14	6	1	0.8	6.5	1051.9
WL= 14.0							
1.0	13.0	14	6	1	0.8	5.3	758.0
2.0	12.0	14	6	1	0.8	5.4	789.4
3.0	11.0	14	6	1	0.8	5.6	820.8
4.0	10.0	14	6	1	0.8	5.7	852.3
5.0	9.0	14	6	1	0.8	5.9	883.7
6.0	8.0	14	6	1	0.8	6.0	915.2
7.0	7.0	14	5	2	1.2	6.1	946.6
8.0	6.0	14	5	2	1.2	6.3	978.0
9.0	5.0	14	5	2	1.2	6.4	1009.5
10.0	4.0	12	5	3	1.5	6.5	1040.9
11.0	3.0	13	5	3	1.5	6.7	1072.3
12.0	2.0	13	5	3	1.5	6.8	1103.8
13.0	1.0	13	5	3	1.5	6.9	1135.2
WL= 15.0							
1.0	14.0	13	5	3	1.5	5.7	809.8
2.0	13.0	13	5	3	1.5	5.8	841.3
3.0	12.0	13	6	2	1.1	6.0	872.7
4.0	11.0	13	6	2	1.1	6.1	904.2
5.0	10.0	14	6	2	1.3	6.3	935.6
6.0	9.0	14	6	2	1.3	6.4	967.0
7.0	8.0	14	6	2	1.3	6.5	998.5
8.0	7.0	14	6	2	1.3	6.7	1029.9

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL = 15.0							
9.0	6.0	14	7	1	0.9	6.8	1061.4
10.0	5.0	14	7	1	0.9	6.9	1092.8
11.0	4.0	14	7	1	0.9	7.0	1124.2
12.0	3.0	14	7	1	0.9	7.2	1155.7
13.0	2.0	14	7	1	0.9	7.3	1187.1
14.0	1.0	14	6	2	1.3	7.5	1218.6
WL = 16.0							
1.0	15.0	14	6	2	1.3	6.1	861.7
2.0	14.0	14	6	2	1.3	6.2	893.2
3.0	13.0	14	6	2	1.3	6.4	924.6
4.0	12.0	14	6	2	1.3	6.5	956.1
5.0	11.0	13	6	3	1.6	6.7	987.5
6.0	10.0	13	6	3	1.6	6.8	1018.9
7.0	9.0	13	6	3	1.6	6.9	1050.4
8.0	8.0	13	6	3	1.6	7.0	1081.8
9.0	7.0	13	6	3	1.6	7.2	1113.3
10.0	6.0	13	6	3	1.6	7.3	1144.7
11.0	5.0	13	6	3	1.6	7.4	1176.1
12.0	4.0	14	6	3	1.7	7.5	1207.6
13.0	3.0	14	6	3	1.7	7.7	1239.0
14.0	2.0	14	7	2	1.4	7.8	1270.5
15.0	1.0	14	7	2	1.4	8.0	1301.9
WL = 17.0							
1.0	16.0	14	6	3	1.7	6.5	913.6
2.0	15.0	14	6	3	1.7	6.6	945.1
3.0	14.0	14	6	3	1.7	6.8	976.5
4.0	13.0	14	7	2	1.4	6.9	1008.0
5.0	12.0	14	7	2	1.4	7.1	1039.4
6.0	11.0	14	7	2	1.4	7.2	1070.8
7.0	10.0	14	7	2	1.4	7.3	1102.3
8.0	9.0	14	7	2	1.4	7.4	1133.7
9.0	8.0	14	7	2	1.4	7.6	1165.2
10.0	7.0	14	7	2	1.4	7.7	1196.6
11.0	6.0	14	8	1	1.1	7.8	1228.0
12.0	5.0	14	8	1	1.1	7.9	1259.5
13.0	4.0	14	8	1	1.1	8.1	1290.9
14.0	3.0	13	7	3	1.7	8.2	1322.3
15.0	2.0	13	7	3	1.7	8.3	1353.8
16.0	1.0	13	7	3	1.7	8.5	1385.2
WL = 18.0							
1.0	17.0	14	7	2	1.4	6.9	965.5
2.0	16.0	13	6	4	2.1	7.0	997.0
3.0	15.0	14	6	4	2.2	7.2	1028.4
4.0	14.0	14	6	4	2.2	7.3	1059.8
5.0	13.0	14	6	4	2.2	7.5	1091.3
6.0	12.0	14	6	4	2.2	7.6	1122.7
7.0	11.0	14	6	4	2.2	7.7	1154.2

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 18.0							
8.0	10.0	14	7	3	1.9	7.8	1185.6
9.0	9.0	14	7	3	1.9	8.0	1217.0
10.0	8.0	14	7	3	1.9	8.1	1248.5
11.0	7.0	14	7	3	1.9	8.2	1279.9
12.0	6.0	14	7	3	1.9	8.3	1311.4
13.0	5.0	14	7	3	1.9	8.4	1342.8
14.0	4.0	14	7	3	1.9	8.6	1374.2
15.0	3.0	14	8	2	1.6	8.7	1405.7
16.0	2.0	14	8	2	1.6	8.8	1437.1
17.0	1.0	14	8	2	1.6	9.0	1468.6
WL= 19.0							
1.0	18.0	14	7	3	1.9	7.3	1017.4
2.0	17.0	14	7	3	1.9	7.5	1048.9
3.0	16.0	14	7	3	1.9	7.6	1080.3
4.0	15.0	14	7	3	1.9	7.8	1111.7
5.0	14.0	14	7	3	1.9	7.9	1143.2
6.0	13.0	14	8	2	1.6	8.0	1174.6
7.0	12.0	14	8	2	1.6	8.1	1206.1
8.0	11.0	14	8	2	1.6	8.3	1237.5
9.0	10.0	14	8	2	1.6	8.4	1268.9
10.0	9.0	14	8	2	1.6	8.5	1300.4
11.0	8.0	14	7	4	2.4	8.6	1331.8
12.0	7.0	14	7	4	2.4	8.7	1363.3
13.0	6.0	14	7	4	2.4	8.8	1394.7
14.0	5.0	14	7	4	2.4	9.0	1426.1
15.0	4.0	14	7	4	2.4	9.1	1457.6
16.0	3.0	14	7	4	2.4	9.2	1489.0
17.0	2.0	14	9	2	1.7	9.4	1520.5
18.0	1.0	14	8	3	2.1	9.5	1551.9
WL= 20.0							
1.0	19.0	14	8	2	1.6	7.7	1069.3
2.0	18.0	14	7	4	2.4	7.9	1100.8
3.0	17.0	14	7	4	2.4	8.0	1132.2
4.0	16.0	14	7	4	2.4	8.2	1163.6
5.0	15.0	14	7	4	2.4	8.3	1195.1
6.0	14.0	14	7	4	2.4	8.4	1226.5
7.0	13.0	14	7	4	2.4	8.6	1258.0
8.0	12.0	14	7	4	2.4	8.7	1289.4
9.0	11.0	14	7	4	2.4	8.8	1320.8
10.0	10.0	14	8	3	2.1	8.9	1352.3
11.0	9.0	14	8	3	2.1	9.0	1383.7
12.0	8.0	14	8	3	2.1	9.1	1415.2
13.0	7.0	14	8	3	2.1	9.2	1446.6
14.0	6.0	14	8	3	2.1	9.4	1478.0
15.0	5.0	14	8	3	2.1	9.5	1509.5
16.0	4.0	14	8	3	2.1	9.6	1540.9
17.0	3.0	14	8	3	2.1	9.8	1572.3
18.0	2.0	13	8	4	2.3	9.9	1603.8

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 20.0							
19.0	1.0	14	8	4	2.5	10.0	1635.2
WL= 21.0							
1.0	20.0	14	7	4	2.4	8.1	1121.2
2.0	19.0	14	8	3	2.1	8.3	1152.7
3.0	18.0	14	8	3	2.1	8.4	1184.1
4.0	17.0	14	8	3	2.1	8.6	1215.5
5.0	16.0	14	8	3	2.1	8.7	1247.0
6.0	15.0	14	7	5	2.8	8.9	1278.4
7.0	14.0	14	7	5	2.8	9.0	1309.8
8.0	13.0	14	7	5	2.8	9.1	1341.3
9.0	12.0	14	7	5	2.8	9.2	1372.7
10.0	11.0	14	7	5	2.8	9.3	1404.2
11.0	10.0	14	8	4	2.5	9.4	1435.6
12.0	9.0	14	8	4	2.5	9.6	1467.0
13.0	8.0	14	8	4	2.5	9.7	1498.5
14.0	7.0	14	8	4	2.5	9.8	1529.9
15.0	6.0	14	8	4	2.5	9.9	1561.4
16.0	5.0	14	8	4	2.5	10.0	1592.8
17.0	4.0	14	8	4	2.5	10.2	1624.2
18.0	3.0	14	8	4	2.5	10.3	1655.7
19.0	2.0	13	8	5	2.8	10.4	1687.1
20.0	1.0	14	8	5	3.0	10.6	1718.6
WL= 22.0							
1.0	21.0	14	7	5	2.8	8.5	1173.1
2.0	20.0	14	7	5	2.8	8.7	1204.5
3.0	19.0	14	7	5	2.8	8.9	1236.0
4.0	18.0	14	7	6	3.3	9.0	1267.4
5.0	17.0	14	8	4	2.5	9.2	1298.9
6.0	16.0	14	8	4	2.5	9.3	1330.3
7.0	15.0	14	8	4	2.5	9.4	1361.7
8.0	14.0	14	8	4	2.5	9.5	1393.2
9.0	13.0	14	8	4	2.5	9.6	1424.6
10.0	12.0	14	8	4	2.5	9.8	1456.1
11.0	11.0	14	8	4	2.5	9.9	1487.5
12.0	10.0	14	8	4	2.5	10.0	1518.9
13.0	9.0	14	8	5	3.0	10.1	1550.4
14.0	8.0	14	8	5	3.0	10.2	1581.8
15.0	7.0	14	8	5	3.0	10.3	1613.3
16.0	6.0	14	9	4	2.7	10.4	1644.7
17.0	5.0	14	9	4	2.7	10.6	1676.1
18.0	4.0	14	9	4	2.7	10.7	1707.6
19.0	3.0	14	9	4	2.7	10.8	1739.0
20.0	2.0	14	9	4	2.7	11.0	1770.5
21.0	1.0	14	8	6	3.5	11.1	1801.9
WL= 23.0							
1.0	22.0	14	8	4	2.5	9.0	1225.0
2.0	21.0	14	8	4	2.5	9.1	1256.4

TABLE J (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 23.0							
3.0	20.0	14	8	4	2.5	9.3	1287.9
4.0	19.0	14	8	4	2.5	9.5	1319.3
5.0	18.0	14	8	4	2.5	9.6	1350.8
6.0	17.0	14	8	5	3.0	9.7	1382.2
7.0	16.0	14	8	5	3.0	9.8	1413.6
8.0	15.0	14	8	5	3.0	10.0	1445.1
9.0	14.0	14	8	5	3.0	10.1	1476.5
10.0	13.0	14	8	5	3.0	10.2	1508.0
11.0	12.0	14	9	4	2.7	10.3	1539.4
12.0	11.0	14	9	4	2.7	10.4	1570.8
13.0	10.0	14	9	4	2.7	10.5	1602.3
14.0	9.0	14	8	6	3.5	10.6	1633.7
15.0	8.0	14	8	6	3.5	10.7	1665.2
16.0	7.0	14	9	5	3.1	10.8	1696.6
17.0	6.0	14	9	5	3.1	11.0	1728.0
18.0	5.0	14	9	5	3.1	11.1	1759.5
19.0	4.0	14	9	5	3.1	11.2	1790.9
20.0	3.0	14	10	4	2.8	11.4	1822.3
21.0	2.0	14	10	4	2.8	11.5	1853.8
22.0	1.0	14	10	4	2.8	11.7	1885.2
WL= 24.0							
1.0	23.0	14	8	5	3.0	9.4	1276.9
2.0	22.0	14	8	5	3.0	9.6	1308.3
3.0	21.0	14	8	5	3.0	9.7	1339.8
4.0	20.0	14	8	5	3.0	9.9	1371.2
5.0	19.0	14	8	5	3.0	10.0	1402.7
6.0	18.0	14	8	5	3.0	10.2	1434.1
7.0	17.0	14	8	6	3.5	10.3	1465.5
8.0	16.0	14	8	6	3.5	10.4	1497.0
9.0	15.0	14	8	6	3.5	10.5	1528.4
10.0	14.0	14	8	6	3.5	10.6	1559.8
11.0	13.0	14	9	5	3.1	10.7	1591.3
12.0	12.0	14	9	5	3.1	10.8	1622.7
13.0	11.0	14	9	5	3.1	10.9	1654.2
14.0	10.0	14	10	4	2.8	11.1	1685.6
15.0	9.0	14	10	4	2.8	11.2	1717.0
16.0	8.0	14	9	6	3.6	11.3	1748.5
17.0	7.0	14	9	6	3.6	11.4	1779.9
18.0	6.0	14	9	6	3.6	11.5	1811.4
19.0	5.0	14	9	6	3.6	11.6	1842.8
20.0	4.0	14	10	5	3.3	11.8	1874.2
21.0	3.0	14	10	5	3.3	11.9	1905.7
22.0	2.0	14	10	5	3.3	12.1	1937.1
23.0	1.0	14	10	5	3.3	12.2	1968.6
WL= 25.0							
1.0	24.0	14	8	6	3.5	9.8	1328.8
2.0	23.0	14	8	6	3.5	10.0	1360.2
3.0	22.0	14	8	6	3.5	10.2	1391.7

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 25.0							
4.0	21.0	14	8	6	3.5	10.3	1423.1
5.0	20.0	14	9	5	3.1	10.5	1454.5
6.0	19.0	14	9	5	3.1	10.6	1486.0
7.0	18.0	14	9	5	3.1	10.7	1517.4
8.0	17.0	14	9	5	3.1	10.8	1548.9
9.0	16.0	14	8	7	4.1	10.9	1580.3
10.0	15.0	14	8	7	4.1	11.1	1611.7
11.0	14.0	14	9	6	3.6	11.2	1643.2
12.0	13.0	14	9	6	3.6	11.3	1674.6
13.0	12.0	14	9	6	3.6	11.4	1706.1
14.0	11.0	14	10	5	3.3	11.5	1737.5
15.0	10.0	14	10	5	3.3	11.6	1768.9
16.0	9.0	14	10	5	3.3	11.7	1800.4
17.0	8.0	14	10	5	3.3	11.8	1831.8
18.0	7.0	14	9	7	4.2	11.9	1863.3
19.0	6.0	14	10	6	3.8	12.1	1894.7
20.0	5.0	14	10	6	3.8	12.2	1926.1
21.0	4.0	14	10	6	3.8	12.3	1957.6
22.0	3.0	14	10	6	3.8	12.5	1989.0
23.0	2.0	14	10	6	3.8	12.6	2020.5
24.0	1.0	14	10	6	3.8	12.8	2051.9
WL= 26.0							
1.0	25.0	14	9	5	3.1	10.3	1380.7
2.0	24.0	14	8	7	4.1	10.4	1412.1
3.0	23.0	14	8	7	4.1	10.6	1443.6
4.0	22.0	14	8	7	4.1	10.8	1475.0
5.0	21.0	14	9	6	3.6	10.9	1506.4
6.0	20.0	14	9	6	3.6	11.0	1537.9
7.0	19.0	14	9	6	3.6	11.2	1569.3
8.0	18.0	14	9	6	3.6	11.3	1600.8
9.0	17.0	14	9	6	3.6	11.4	1632.2
10.0	16.0	14	10	5	3.3	11.5	1663.6
11.0	15.0	14	9	7	4.2	11.6	1695.1
12.0	14.0	14	9	7	4.2	11.7	1726.5
13.0	13.0	14	9	7	4.2	11.8	1758.0
14.0	12.0	14	10	6	3.8	11.9	1789.4
15.0	11.0	14	10	6	3.8	12.0	1820.8
16.0	10.0	14	10	6	3.8	12.1	1852.3
17.0	9.0	14	11	5	3.5	12.2	1883.7
18.0	8.0	14	11	5	3.5	12.4	1915.2
19.0	7.0	14	11	5	3.5	12.5	1946.6
20.0	6.0	14	10	7	4.3	12.6	1978.0
21.0	5.0	14	10	7	4.3	12.7	2009.5
22.0	4.0	14	10	7	4.3	12.9	2040.9
23.0	3.0	13	10	9	4.8	13.0	2072.3
24.0	2.0	14	11	6	4.0	13.1	2103.8
25.0	1.0	14	11	6	4.0	13.3	2135.2
WL= 27.0							

TABLE J (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 27.0							
1.0	26.0	14	9	6	3.6	10.7	1432.6
2.0	25.0	14	9	6	3.6	10.9	1464.0
3.0	24.0	14	9	6	3.6	11.0	1495.5
4.0	23.0	14	9	7	4.2	11.2	1526.9
5.0	22.0	14	9	7	4.2	11.3	1558.3
6.0	21.0	14	9	7	4.2	11.5	1589.8
7.0	20.0	14	9	7	4.2	11.6	1621.2
8.0	19.0	14	9	7	4.2	11.7	1652.7
9.0	18.0	14	9	7	4.2	11.8	1684.1
10.0	17.0	14	10	6	3.8	11.9	1715.5
11.0	16.0	14	10	6	3.8	12.0	1747.0
12.0	15.0	14	10	6	3.8	12.2	1778.4
13.0	14.0	14	9	9	5.0	12.3	1809.8
14.0	13.0	14	10	7	4.3	12.4	1841.3
15.0	12.0	14	10	7	4.3	12.5	1872.7
16.0	11.0	14	10	7	4.3	12.6	1904.2
17.0	10.0	14	11	6	4.0	12.7	1935.6
18.0	9.0	14	11	6	4.0	12.8	1967.0
19.0	8.0	14	11	6	4.0	12.9	1998.5
20.0	7.0	14	11	6	4.0	13.0	2029.9
21.0	6.0	13	10	10	5.2	13.1	2061.4
22.0	5.0	13	11	8	4.5	13.3	2092.8
23.0	4.0	13	11	8	4.5	13.4	2124.2
24.0	3.0	14	11	7	4.5	13.6	2155.7
25.0	2.0	14	11	7	4.5	13.7	2187.1
26.0	1.0	14	11	7	4.5	13.9	2218.6
WL= 28.0							
1.0	27.0	14	9	7	4.2	11.1	1484.5
2.0	26.0	14	9	7	4.2	11.3	1515.9
3.0	25.0	14	9	8	4.5	11.5	1547.3
4.0	24.0	14	9	8	4.5	11.6	1578.8
5.0	23.0	14	9	8	4.5	11.8	1610.2
6.0	22.0	14	9	8	4.5	11.9	1641.7
7.0	21.0	14	9	8	4.5	12.0	1673.1
8.0	20.0	14	9	9	5.0	12.2	1704.5
9.0	19.0	14	9	9	5.0	12.3	1736.0
10.0	18.0	14	10	7	4.3	12.4	1767.4
11.0	17.0	14	10	7	4.3	12.5	1798.9
12.0	16.0	14	10	7	4.3	12.6	1830.3
13.0	15.0	14	10	8	4.7	12.7	1861.7
14.0	14.0	14	10	8	4.7	12.8	1893.2
15.0	13.0	13	10	10	5.2	12.9	1924.6
16.0	12.0	14	10	9	5.1	13.0	1956.1
17.0	11.0	14	11	7	4.5	13.1	1987.5
18.0	10.0	14	11	7	4.5	13.2	2018.9
19.0	9.0	14	11	7	4.5	13.3	2050.4
20.0	8.0	13	11	9	4.9	13.5	2081.8
21.0	7.0	13	11	9	4.9	13.6	2113.3
22.0	6.0	13	11	9	4.9	13.7	2144.7

TABLE J (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26-AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
INPUT IMPEDANCE = 600 OHMS
CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 28.0							
23.0	5.0	13	11	10	5.3	13.8	2176.1
24.0	4.0	13	11	10	5.3	14.0	2207.6
25.0	3.0	13	11	10	5.3	14.1	2239.0
26.0	2.0	13	11	10	5.3	14.3	2270.5
27.0	1.0	13	11	11	5.8	14.4	2301.9
WL= 29.0							
1.0	28.0	14	9	8	4.5	11.6	1536.4
2.0	27.0	14	9	9	5.0	11.8	1567.8
3.0	26.0	14	10	7	4.3	11.9	1599.2
4.0	25.0	14	10	7	4.3	12.1	1630.7
5.0	24.0	14	10	7	4.3	12.2	1662.1
6.0	23.0	14	10	7	4.3	12.4	1693.6
7.0	22.0	14	10	7	4.3	12.5	1725.0
8.0	21.0	14	10	8	4.7	12.6	1756.4
9.0	20.0	14	10	8	4.7	12.7	1787.9
10.0	19.0	14	10	8	4.7	12.8	1819.3
11.0	18.0	14	10	8	4.7	12.9	1850.8
12.0	17.0	14	10	9	5.1	13.0	1882.2
13.0	16.0	14	11	7	4.5	13.1	1913.6
14.0	15.0	14	11	7	4.5	13.3	1945.1
15.0	14.0	14	11	7	4.5	13.4	1976.5
16.0	13.0	14	11	8	4.9	13.5	2008.0
17.0	12.0	14	11	8	4.9	13.6	2039.4
18.0	11.0	13	11	10	5.3	13.7	2070.8
19.0	10.0	13	11	10	5.3	13.8	2102.3
20.0	9.0	13	11	11	5.8	13.9	2133.7
21.0	8.0	13	11	11	5.8	14.0	2165.2
22.0	7.0	13	11	12	6.2	14.1	2196.6
23.0	6.0	14	12	7	4.7	14.3	2228.0
24.0	5.0	14	12	7	4.7	14.4	2259.5
25.0	4.0	13	12	9	5.1	14.5	2290.9
26.0	3.0	13	12	9	5.1	14.7	2322.3
27.0	2.0	13	12	9	5.1	14.8	2353.8
28.0	1.0	14	12	8	5.1	15.0	2385.2
WL= 30.0							
1.0	29.0	14	10	7	4.3	12.0	1588.3
2.0	28.0	14	10	8	4.7	12.2	1619.7
3.0	27.0	14	10	8	4.7	12.4	1651.1
4.0	26.0	14	10	8	4.7	12.5	1682.6
5.0	25.0	14	10	8	4.7	12.7	1714.0
6.0	24.0	14	10	8	4.7	12.8	1745.5
7.0	23.0	14	10	9	5.1	12.9	1776.9
8.0	22.0	14	10	9	5.1	13.1	1808.3
9.0	21.0	14	10	9	5.1	13.2	1839.8
10.0	20.0	14	11	7	4.5	13.3	1871.2
11.0	19.0	14	11	7	4.5	13.4	1902.7
12.0	18.0	14	11	8	4.9	13.5	1934.1
13.0	17.0	14	11	8	4.9	13.6	1965.5

TABLE J (CONT)
309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE NONLOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = NL
 INPUT IMPEDANCE = 600 OHMS
 CABLE TERMINATION = 600 OHMS

LENGTH (KFT)		EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 30.0							
14.0	16.0	14	11	8	4.9	13.7	1997.0
15.0	15.0	13	11	10	5.3	13.8	2028.4
16.0	14.0	13	11	11	5.8	13.9	2059.8
17.0	13.0	13	11	12	6.2	14.0	2091.3
18.0	12.0	14	12	7	4.7	14.1	2122.7
19.0	11.0	13	12	9	5.1	14.2	2154.2
20.0	10.0	13	12	9	5.1	14.3	2185.6
21.0	9.0	13	12	10	5.5	14.4	2217.0
22.0	8.0	13	12	10	5.5	14.6	2248.5
23.0	7.0	13	12	10	5.5	14.7	2279.9
24.0	6.0	13	12	10	5.5	14.8	2311.4
25.0	5.0	13	12	11	5.9	14.9	2342.8
26.0	4.0	13	12	11	5.9	15.1	2374.2
27.0	3.0	13	12	11	5.9	15.2	2405.7
28.0	2.0	13	12	12	6.3	15.4	2437.1

D. More Than Two Gauges

3.07 To determine prescription equalizer settings for facilities composed of more than two gauges, it is necessary to obtain an equivalent facility. This equivalent facility is composed of major and minor gauge segments. The two longest segments are designated the major gauges and the remaining segments of cable are minor gauges. The minor gauge segments are converted to major gauge equivalents. Table K lists the constants for equivalent length conversion. The rules for conversion of a minor gauge to the equivalent major gauge are:

Rule a: Convert a minor gauge to the major gauge that is in closest physical proximity in the actual makeup of the cable.

Rule b. Convert the minor gauges to the major gauge that is nearest in gauge size.

Note: 25-gauge MAT cable must be converted to an equivalent length of 26-gauge before determining major and minor gauges.

3.08 The following procedures are used to determine the equalizer settings for facilities composed of more than two gauges.

TABLE K

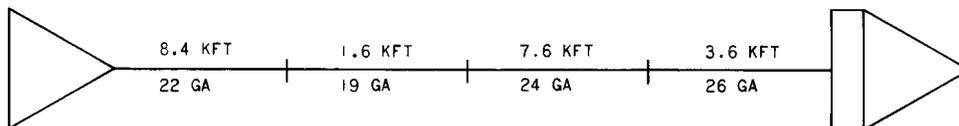
EQUIVALENT LENGTH CONVERSION CONSTANTS

		MINOR GAUGE			
		19	22	24	26
MAJOR GAUGE	19	1.00	1.19	1.41	1.70
	22	0.87	1.00	1.17	1.38
	24	0.76	0.86	1.00	1.17
	26	0.67	0.74	0.86	1.00

STEP	PROCEDURE
------	-----------

- 1 Select the two longest sections of cable as the major gauges. The remaining sections are minor gauges.
- 2 Convert a minor gauge to a major gauge.
 - (a) Select the proper constant from Table K.
 - (b) Multiply the length of the minor gauge by the constant.
 - (c) Add the results to the length of the major gauge.
- 3 Repeat Step 2 for all minor gauges.
- 4 Use the results of Step 3 to enter the tables for two-gauge facilities (Tables H, I, or J).
- 5 Obtain BW, HT, SL, and EQL GN from the table. DO NOT USE THE CABLE LOSS VALUE IN THE TABLE.
- 6 Compute the cable loss using Fig. 1.

Example:



- (1) Select 22- and 24-gauge segments as the major gauges.
- (2) Convert 19-gauge to 22-gauge (Rule b)

STEP	PROCEDURE
------	-----------

$$\begin{array}{r}
 1.6 \text{ kft 19-gauge} \\
 \times \quad .87 \text{ 19 to 22 conversion factor (Table J)} \\
 \hline
 1.39 \text{ kft equivalent length of 22-gauge}
 \end{array}$$

$$\begin{array}{r}
 8.4 \text{ kft 22-gauge} \\
 + \quad 1.39 \text{ kft 22-gauge equivalent} \\
 \hline
 9.79 \text{ kft 22-gauge table entry}
 \end{array}$$

(3) Convert 26-gauge to 24-gauge (Rule a or b)

$$\begin{array}{r}
 3.6 \text{ kft 26-gauge} \\
 \times \quad 1.17 \text{ 26 to 24 conversion factor (Table J)} \\
 \hline
 4.21 \text{ kft 24-gauge equivalent}
 \end{array}$$

$$\begin{array}{r}
 7.6 \text{ kft 24-gauge} \\
 + \quad 4.21 \text{ kft 24-gauge equivalent} \\
 \hline
 11.81 \text{ kft 24-gauge table entry}
 \end{array}$$

(4) From 3.06:

$$\begin{array}{r}
 \text{WL} = \quad 9.79 \text{ kft 22-gauge} \\
 \quad + \quad 11.81 \text{ kft 24-gauge} \\
 \quad \quad \quad 21.6 \text{ kft or WL} = 22 \text{ kft}
 \end{array}$$

Round the finer gauge (24) to the nearest whole number.
 11.81 kft = 12 kft 24 gauge

Table entry points are:
 WL = 22 kft
 24 gauge = 12 kft

(5) From Table H
 BW = 14
 HT = 7
 SL = 4
 EQL GN = 2.4 dB

STEP

PROCEDURE

(6) Calculate the 1 kHz cable loss from Fig. 1.

1.6	kft 19-gauge
8.4	kft 22-gauge
7.6	kft 24-gauge
<u>+ 3.6</u>	kft 26-gauge
21.2	kft total length

26	ohms 19-gauge
276	ohms 22-gauge
394	ohms 24-gauge
<u>+ 300</u>	ohms 26-gauge
996	ohms total resistance

From Fig. 1 Cable loss equals 7.5 dB.

E. Bridged Tap

3.09 The procedure for determining equalizer settings for nonloaded cable with BT requires that the BT be converted to an equivalent length of cable. The gauge of the BT is not pertinent since loss and amplitude distortion is caused primarily by cable capacitance. The four gauges of cable considered in this section have essentially the same capacitance (.083 μF) per mile. Bridge tap should be converted to an equivalent length as follows.

- If the BT is connected at the junction of two gauges, convert to the equivalent length of the longer gauge.
- Convert the BT to an equivalent length of the gauge to which it connects.
- If the location of the BT is unknown, convert to the gauge which makes up the largest part of the facility.

3.10 Table L lists the constants (K) used in computing the equivalent length of BT. The conversion formula is:

EQUIVALENT length of BT equals constant K plus .023 times the length of BT times the length of BT.

$$\text{ELBT} = [\text{K} + (\text{LBT} \times .023)] \times \text{LBT}$$

The resultant equivalent length of BT is added to the length of the conversion gauge. This resultant length is used to obtain the prescription equalizer settings as previously described for single-, two-, or more than two-gauge facilities.

3.11 The 1 kHz insertion loss of cable containing BT can be estimated using Fig. 1. However, 0.5 dB errors can occur particularly in long 26-gauge facilities with long BT.

3.12 An example of computing equalizer settings for a facility containing BT is shown below.

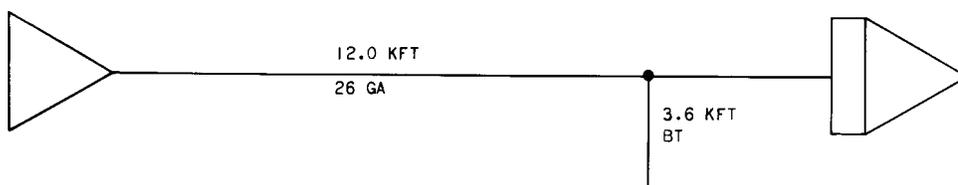


TABLE L

CONSTANTS FOR CONVERTING BTs TO EQUIVALENT LENGTHS OF CABLE

FACILITY LENGTH	26 GA	24 GA	22 GA	19 GA
2	.91	.96	1.04	1.07
3	.86	.92	1.01	1.04
4	.82	.89	.98	1.0
5	.78	.85	.95	.98
6	.74	.82	.92	.97
7	.70	.79	.89	.95
8	.66	.77	.87	.93
9	.63	.74	.84	.91
10	.61	.72	.82	.90
11	.59	.70	.80	.88
12	.57	.68	.79	.87
13	.56	.67	.78	.86
14	.55	.65	.77	.85
15	.54	.64	.75	.84
16	.53	.62	.74	.83
17	.53	.62	.73	.83
18	.52	.61	.72	.82
19	.52	.61	.72	.82
20	.52	.6	.72	.81
21	.52	.6	.72	.81
22	.52	.6	.71	.80
Over 22	.51	.6	.7	.8

TABLE M

H88 LOADED CABLE LOSS

GAUGE	LOSS/KFT(dB)
26	.34
25	.25
24	.23
22	.15
19	.08

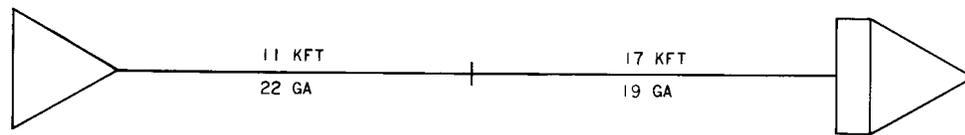
STEP	PROCEDURE
1	Determine constant K for 12 kft of 26-gauge cable from Table L. $K = .57$
2	Apply the formula $ELBT = [K + (.023 \times LBT)] \times LBT$ $ELBT = [.57 + (.023 \times 3.6)] \times 3.6$ $ELBT = 2.35 \text{ kft}$
3	Add facility length to ELBT. 12.0 kft facility length + 2.35 kft equivalent length of BT <u>14.35 kft equivalent length of facility</u>
4	From single gauge table determine the equalizer settings. Use Table G with an entry point of 14 kft. BW = 13 HT = 6 SL = 2 EQL GN = 1.1
5	Determine the estimated cable loss from Fig. 1. Total Resistance 12 kft 26-gauge = 1000 ohms Total length 12 kft 26-gauge + 3.6 kft BT = 15.6 kft Cable loss = 6.6 dB

F. 19-Gauge

3.13 Since only small quantities of 19-gauge cable exist in outside plant, it was not included in the two-gauge tables. When two-gauge facilities containing 19-gauge cable are encountered, the facility should be reduced to an equivalent single gauge as follows:

STEP	PROCEDURE
1	Select the longer of the two gauges as the major gauge and the shorter as the minor gauge.

STEP	PROCEDURE
2	Obtain the constant from Table K to convert the minor gauge to the major gauge.
3	Multiply the length of the minor gauge by the constant to obtain the equivalent length of major gauge.
4	Use the result of Step 3 to enter the appropriate single gauge table and obtain BW, HT, SL and EQL GN settings.
5	Determine cable loss using Fig. 1.

Example:

- (1) Major gauge is 19-gauge.
Minor gauge is 22-gauge.
- (2) From Table K the constant K is 1.19.
- (3)

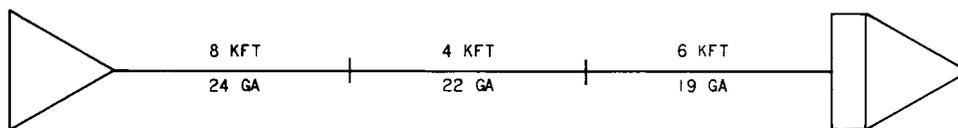
11 kft	Length of minor gauge
$\times 1.19$	Constant K
13.09 kft	Equivalent 19-gauge length
17 kft 19-gauge	
$+ 13.09$ kft 19-gauge equivalent	
30.09 kft	
- (4) From Table D, BW, HT, SL and EQL GN for 30 kft of 19-gauge:

BW = 14
HT = 7
SL = 5
EQL GN = 2.8 dB
- (5) Total Resistance = 637.9 ohms
Total Length = 28 kft
Cable loss from Fig. 1 = 6.6 dB.

3.14 When the facility contains more than two gauges and the 19-gauge segment is a minor gauge, the procedure discussed in 3.07 should be used. If the 19-gauge segment comprises more than one-half of the total length, the facility should

be reduced to a 19-gauge equivalent as described in 3.13. If neither of the cases described in this paragraph fit the facility, consider the 19-gauge segment for minor gauge and follow the procedure in 3.07.

Example:



STEP	PROCEDURE
1	Since the length of the 19-gauge segment is less than one-half of the total length, the major gauges are 24 and 22.
2	Convert 19-gauge to 22-gauge.
	$\begin{array}{r} 6 \text{ kft 19-gauge (minor gauge)} \\ \times \quad .87 \text{ (Constant from Table K)} \\ \hline 5.22 \text{ kft 22-gauge equivalent} \end{array}$
3	Determine table entry points.
	$\begin{array}{r} 5.22 \text{ kft 22-gauge equivalent} \\ 4.00 \text{ kft 22-gauge} \\ + 8.00 \text{ kft 24-gauge} \\ \hline \text{WL} = 17.22 = 17.0 \text{ kft} \\ \text{24-gauge} = 8.0 \text{ kft} \end{array}$
4	From Table H 24- and 22-gauge
	$\begin{array}{l} \text{WL} = 17 \text{ kft 24-gauge} = 8 \text{ kft} \\ \text{BW} = 14 \\ \text{HT} = 6 \\ \text{SL} = 2 \\ \text{EQL GN} = 1.3 \text{ dB} \end{array}$
5	Determine cable loss. Total Length = 18 kft Total Resistance = 644 ohms From Fig. 1 cable loss = 5.2 dB

4. EQUALIZER SETTINGS FOR H88 LOADED CABLE

A. General

4.01 To use the procedures and tables in this section, loaded cable must be terminated in 1200 ohms and the NL/L switch on the 309B repeater unit must be in the L position. The tables are computed for nominal 3.0 kft end sections.

End sections from 1.5 kft to 4.5 kft will result in additional rolloff at 3.0 kHz of up to 0.8 dB. End sections over 4.5 kft or BT in the end sections will require field touch-up as described in Section 332-912-231.

4.02 The tables contain 1 kHz insertion loss values for facilities with 3 kft end sections and 6 kft load coil spacing. Insertion loss may be

calculated by multiplying the gauge length by the 1 kHz loss per kft constants in Table M.

4.03 The procedures in this section for H88 loaded cable are divided into two categories; single- and two-gauge facilities and more than two-gauge facilities.

4.04 No procedures are given for loaded facilities with BT. If the BT is at the end of the facility and fairly short, the prescription settings may be used as follows:

- (a) Disregard the BT and obtain settings from the appropriate table for the facility.
- (b) Make touchup adjustments as described in Section 332-912-231 as required.

Note: If the above steps do not equalize the facility, the BT must be removed or actual loss measurements as described in Section 332-912-231 used to determine the equalizer settings.

B. Single- or Two-Gauge

4.05 Prescription equalizer settings for single-gauge facilities of 19-, 22-, 24-, 25- and 26-gauge loaded cable are found in Tables N, O, P, Q and R respectively. Settings for facilities composed of two gauges, 26/24, 26/22, or 24/22 may be found in Tables S, T, and U respectively. For facilities composed of mixtures of 25H88 MAT and H88 loaded Hi-Cap. cable, equalizer settings must be determined by the manual procedures in Section 332-912-231.

4.06 The following procedures are used for single- or two-gauge facilities.

STEP	PROCEDURE
1	Obtain BW, HT, and SL settings and EQL GN from the appropriate table for the entry nearest to the facility length.
2	If the facility length differs by 500 feet from the table entry length, the 1 kHz cable loss must be calculated using the loss constants in Table M.

Note: Table entry points for two-gauge facilities should be determined as follows:

- (a) Choose the table entry closer to the actual cable segment length.

Example:

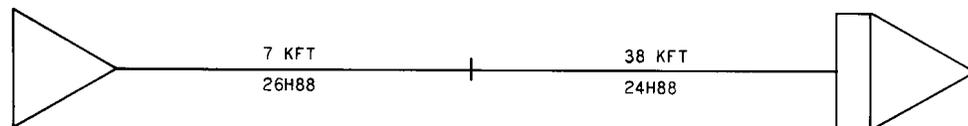


Table entry is 6 kft 26-gauge and 36 kft 24-gauge.

- (b) If one segment rounds to a lower entry length and the other segment is exactly midway between entry points, that segment should be rounded to the higher entry point.

STEP	PROCEDURE
------	-----------

Example:

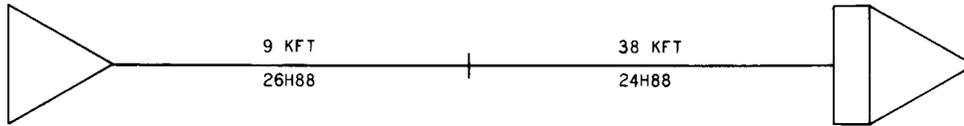


Table entry is 12 kft 26-gauge and 36 kft 24-gauge.

- (c) If one segment rounds to a higher entry length and the other segment is exactly midway between entry points, that segment should be rounded to the lower entry point.

Example:



Table entry is 6 kft 26-gauge and 42 kft 24-gauge.

- (d) If both segments are exactly midway between entry points, round one to the lower entry length and the other to the higher entry length.

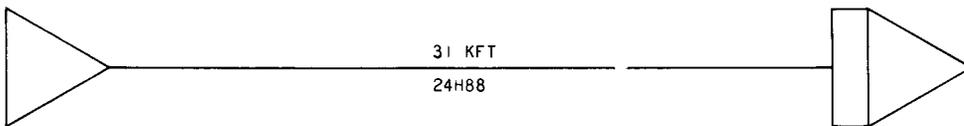
Example:



Table entry points 12 kft 26-gauge and 36 kft 24-gauge.

4.07 The following examples are for single- and two-gauge facilities, respectively.

Example 1:



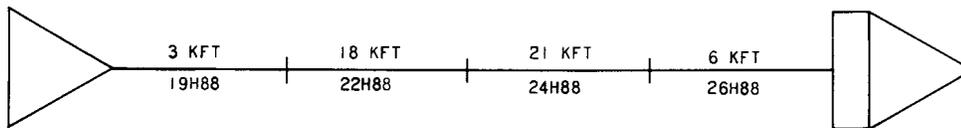
STEP	PROCEDURE
1	Obtain BW, HT, and SL settings and EQL GN from Table P (24 gauge) BW = 3 HT = 4 SL = 2 EQL GN = 2.6 dB
2	Since the facility length differs by more than 500 feet from the table entry point, the cable loss must be calculated $\begin{array}{r} 31 \text{ kft 24H88} \\ \times \quad .23 \text{ loss constant from Table M} \\ \hline 7.13 \text{ dB cable loss} \end{array}$
Example 2:	
1	Obtain settings from Table S 26/24 gauge Entry Point = 24 kft of 26-gauge = 18 kft of 24-gauge BW = 5 HT = 5 SL = 11 EQL GN = 9.5 dB
2	Since the facility length differs by more than 500 feet from the table entry point the cable loss must be calculated. $\begin{array}{r} 21 \text{ kft 26-gauge} \\ \times \quad .34 \text{ constant from Table M} \\ \hline 7.14 \text{ dB loss of 26-gauge segment} \end{array}$ $\begin{array}{r} 20 \text{ kft 24-gauge} \\ \times \quad .23 \text{ constant Table M} \\ \hline 4.60 \text{ dB loss of 24-gauge segment} \end{array}$ $\begin{array}{r} 7.14 \text{ dB loss of 26-gauge} \\ + \quad 4.60 \text{ dB loss of 24-gauge} \\ \hline 11.74 \text{ dB total cable loss} \end{array}$

SECTION 332-912-232

C. More Than Two Gauges

4.08 When more than two gauges make up the facility, the 1 kHz insertion loss for the individual segments is used to determine the two major gauges. The remaining segments are minor gauges. The length of the minor gauges is added to the length of the nearest gauge size of major gauge to determine the table entry points. The settings are then determined from the appropriate two-gauge table.

Example:



STEP	PROCEDURE
------	-----------

1 Compute the 1 kHz insertion loss of each segment using the constants in Table M.

$$\begin{array}{r}
 3 \text{ kft } 19\text{H}88 \\
 \times \quad .08 \text{ constant} \\
 \hline
 .24 \text{ dB } 1 \text{ kHz loss} \\
 \\
 18 \text{ kft } 22\text{H}88 \\
 \times \quad .15 \text{ constant} \\
 \hline
 2.7 \text{ dB } 1 \text{ kHz loss} \\
 \\
 21 \text{ kft } 24\text{H}88 \\
 \times \quad .23 \text{ constant} \\
 \hline
 4.83 \text{ dB } 1 \text{ kHz loss} \\
 \\
 6 \text{ kft } 26\text{H}88 \\
 \times \quad .34 \text{ constant} \\
 \hline
 2.04 \text{ dB } 1 \text{ kHz loss} \\
 \\
 .24 \text{ dB } 19\text{-gauge} \\
 2.7 \text{ dB } 22\text{-gauge} \\
 4.83 \text{ dB } 24\text{-gauge} \\
 + \quad 2.04 \text{ dB } 26\text{-gauge} \\
 \hline
 9.81 \text{ dB total } 1 \text{ kHz insertion loss}
 \end{array}$$

2 Select two major gauges as segments with greatest loss in Step 1. 22-gauge and 24-gauge are major gauges.

3 Add length of 19-gauge to 22-gauge.

STEP	PROCEDURE
	$\begin{array}{r} 18 \text{ kft 22-gauge} \\ + \quad 3 \text{ kft 19-gauge} \\ \hline 21 \text{ kft 22-gauge for table Entry} \end{array}$
4	Add length of 26-gauge to 24-gauge.
	$\begin{array}{r} 21 \text{ kft 24-gauge} \\ + \quad 6 \text{ kft 26-gauge} \\ \hline 27 \text{ kft 24-gauge for table Entry} \end{array}$
5	From Table U, the closest table entry to 21 kft of 22-gauge is 18 kft. The closest entry to 27 kft of 24-gauge is 30 kft.
	<p>From the table</p> <p>BW = 3</p> <p>HT = 5</p> <p>SL = 2</p> <p>EQL GN = 2.6 dB</p>

5. REFERENCES

5.01 The following references contain additional information on MFT units:

REFERENCES	TITLE
332-910-100	General Description of MFT
332-910-180	MFT—General Applications Information
332-912-131	MFT—4-4 Repeaters and 2-4 Terminal Repeaters—Description
332-912-231	MFT—4-4 Repeaters and 2-4 Terminal Repeaters—Installation and Tests

TABLE N

309B EQUALIZER SETTINGS FOR 19-GAUGE
H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
18.0	1	3	0	0.0	1.5	318.4
24.0	5	2	0	0.0	2.0	424.5
30.0	5	3	0	0.0	2.4	530.6
36.0	5	4	0	0.0	2.9	636.8
42.0	5	4	0	0.0	3.4	742.9
48.0	5	4	0	0.0	3.9	849.0
54.0	4	5	0	0.0	4.4	955.1
60.0	6	4	0	0.0	4.9	1061.3
66.0	5	5	0	0.0	5.3	1167.4
72.0	6	5	0	0.0	5.8	1273.5
78.0	6	5	0	0.0	6.3	1379.7
84.0	6	5	0	0.0	6.8	1485.8
90.0	5	6	0	0.0	7.3	1591.9
96.0	6	6	0	0.0	7.7	1698.0
102.0	6	6	0	0.0	8.2	1804.2
108.0	6	6	0	0.0	8.7	1910.3
114.0	5	7	0	0.0	9.2	2016.4
120.0	5	7	0	0.0	9.7	2122.5
126.0	5	7	0	0.0	10.1	2228.7
132.0	6	7	0	0.0	10.6	2334.8
138.0	6	7	0	0.0	11.1	2440.9
144.0	6	7	0	0.0	11.6	2547.1
150.0	5	8	0	0.0	12.1	2653.2
156.0	5	8	0	0.0	12.5	2759.3
162.0	5	9	0	0.0	13.0	2865.4
168.0	5	9	0	0.0	13.5	2971.6
174.0	5	9	0	0.0	14.0	3077.7
180.0	5	9	0	0.0	14.5	3183.8
186.0	5	10	0	0.0	14.9	3289.9
192.0	5	10	0	0.0	15.4	3396.1

TABLE O

**309B EQUALIZER SETTINGS FOR 22-GAUGE
H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
END SECTION = 3.0 KFT
INPUT IMPEDANCE = 1200 OHMS
CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
18.0	3	3	0	0.0	2.7	615.0
24.0	6	2	0	0.0	3.6	820.0
30.0	4	4	0	0.0	4.5	1025.0
36.0	3	4	1	1.4	5.3	1229.9
42.0	4	4	1	1.4	6.2	1434.9
48.0	4	4	1	1.4	7.1	1639.9
54.0	3	5	1	1.4	8.1	1844.9
60.0	4	5	1	1.4	9.0	2049.9
66.0	4	5	1	1.4	9.8	2254.9
72.0	3	6	1	1.4	10.7	2459.9
78.0	4	6	1	1.4	11.6	2664.9
84.0	4	6	1	1.4	12.5	2869.9
90.0	3	7	1	1.4	13.4	3074.9
96.0	3	7	1	1.4	14.3	3279.9
102.0	4	7	1	1.4	15.2	3484.9

TABLE P

**309B EQUALIZER SETTINGS FOR 24-GAUGE
H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = NL
END SECTION = 3.0 KFT
INPUT IMPEDANCE = 1200 OHMS
CABLE TERMINATION = 1200 OHMS

LENGTH (KFT)	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
18.0	3	4	1	1.4	4.0	959.3
24.0	3	4	1	1.4	5.4	1279.1
30.0	3	4	2	2.6	6.8	1598.8
36.0	3	5	2	2.6	8.2	1918.6
42.0	4	5	2	2.6	9.5	2238.3
48.0	3	6	3	3.7	10.9	2558.1
54.0	3	6	3	3.7	12.3	2877.9
60.0	2	7	4	4.7	13.7	3197.6
66.0	3	7	5	5.6	15.1	3517.4

TABLE Q

309B EQUALIZER SETTINGS FOR 25-GAUGE
H88 LOADED MAT CABLE WITHOUT BRIDGED TAP 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 R

309B EQUALIZER SETTINGS FOR 26-GAUGE
H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
12.0	8	3	1	1.4	3.8	1016.8
18.0	5	4	3	3.7	5.9	1525.2
24.0	5	4	7	7.2	8.1	2033.6
30.0	6	4	15	11.4	10.2	2542.0
36.0	5	5	15	11.4	12.2	3050.4
42.0	6	5	15	11.4	14.3	3558.8
48.0	6	6	15	11.4	16.4	4067.2

TABLE S

309B EQUALIZER SETTINGS FOR MIXED 26- AND 24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F

NL/L = L
 END SECTION = 3.0 KFT
 INPUT IMPEDANCE = 1200 OHMS
 CABLE TERMINATION = 1200 OHMS

LENGTH (KFT) 26-GA 24-GA	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
WL= 12.0 6.0 6.0	7	3	1	1.4	3.2	828.2
WL= 18.0 6.0 12.0 12.0 6.0	4 6	3 3	2 3	2.6 3.7	4.7 5.3	1147.9 1336.6
WL= 24.0 6.0 18.0 12.0 12.0 18.0 6.0	4 4 5	3 4 4	2 3 6	2.6 3.7 6.3	6.1 6.8 7.4	1467.7 1656.3 1845.0
WL= 30.0 6.0 24.0 12.0 18.0 18.0 12.0 24.0 6.0	4 5 3 4	4 4 5 5	2 3 6 13	2.6 3.7 6.3 10.5	7.5 8.2 8.8 9.5	1787.5 1976.1 2164.7 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	4 5 4 4 5	5 5 5 5 5	2 3 6 13 15	2.6 3.7 6.3 10.5 11.4	8.8 9.5 10.2 10.9 11.6	2107.2 2295.9 2484.5 2673.1 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	4 5 5 5 4 6	5 5 5 5 6 5	3 4 6 11 15 15	3.7 4.7 6.3 9.5 11.4 11.4	10.2 10.8 11.5 12.3 13.0 13.6	2427.0 2615.6 2804.3 2992.9 3181.5 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	3 4 4 4 4 5	6 6 6 6 6 6	3 5 8 15 15 15	3.7 5.6 7.8 11.4 11.4 11.4	11.6 12.2 12.9 13.6 14.4 15.1	2746.7 2935.4 3124.0 3312.7 3501.3 3689.9
WL= 54.0 6.0 48.0 12.0 42.0 18.0 36.0 24.0 30.0 30.0 24.0	3 4 5 5 5	6 6 6 6 6	4 6 7 15 15	4.7 6.3 7.2 11.4 11.4	13.0 13.6 14.3 15.0 15.8	3066.5 3255.1 3443.8 3632.4 3821.1
WL= 60.0 6.0 54.0	3	7	4	4.7	14.4	3386.3

TABLE S (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
24-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	24-GA	BW	HT	SL			
WL= 60.0							
12.0	48.0	3	7	7	7.2	15.0	3574.9
18.0	42.0	3	7	15	11.4	15.7	3763.5
WL= 66.0							
6.0	60.0	3	7	5	5.6	15.7	3706.0

TABLE T

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 18.0							
6.0	12.0	2	3	1	1.4	3.8	918.4
12.0	6.0	6	3	2	2.6	4.8	1221.8
WL= 24.0							
6.0	18.0	4	2	1	1.4	4.8	1123.4
12.0	12.0	5	3	2	2.6	5.8	1426.8
18.0	6.0	5	4	5	5.5	6.9	1730.2
WL= 30.0							
6.0	24.0	4	3	1	1.4	5.6	1328.4
12.0	18.0	5	4	2	2.6	6.7	1631.8
18.0	12.0	4	4	4	4.7	7.9	1935.2
24.0	6.0	4	5	9	8.4	9.0	2238.6
WL= 36.0							
6.0	30.0	4	4	1	1.4	6.4	1533.4
12.0	24.0	6	4	1	1.4	7.5	1836.8
18.0	18.0	4	5	3	3.7	8.8	2140.2
24.0	12.0	3	5	7	7.2	10.0	2443.6
30.0	6.0	5	5	15	11.4	11.1	2747.0
WL= 42.0							
6.0	36.0	5	4	1	1.4	7.3	1738.3
12.0	30.0	7	4	1	1.4	8.4	2041.8
18.0	24.0	5	5	3	3.7	9.6	2345.2
24.0	18.0	4	5	6	6.3	10.9	2648.6
30.0	12.0	4	5	15	11.4	12.1	2952.0
36.0	6.0	6	5	15	11.4	13.2	3255.4
WL= 48.0							
6.0	42.0	5	4	1	1.4	8.2	1943.3
12.0	36.0	7	4	1	1.4	9.3	2246.7
18.0	30.0	6	5	2	2.6	10.5	2550.2
24.0	24.0	5	5	5	5.6	11.7	2853.6
30.0	18.0	5	5	11	9.5	13.0	3157.0
36.0	12.0	4	6	15	11.4	14.2	3460.4
WL= 54.0							
6.0	48.0	4	5	1	1.4	9.2	2148.3
12.0	42.0	5	5	2	2.6	10.3	2451.7
18.0	36.0	6	5	3	3.7	11.4	2755.1
24.0	30.0	4	6	6	6.3	12.6	3058.6
30.0	24.0	4	6	11	9.5	13.8	3362.0
36.0	18.0	4	6	15	11.4	15.1	3665.4
WL= 60.0							
6.0	54.0	4	5	1	1.4	10.1	2353.3
12.0	48.0	5	5	2	2.6	11.2	2656.7
18.0	42.0	4	6	4	4.7	12.3	2960.1

TABLE T (CONT)

309B EQUALIZER SETTINGS FOR MIXED 26- AND
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
26-GA	22-GA	BW	HT	SL			
WL= 60.0							
24.0	36.0	4	6	7	7.2	13.5	3263.5
30.0	30.0	5	6	9	8.4	14.7	3567.0
WL= 66.0							
6.0	60.0	5	5	1	1.4	10.9	2558.3
12.0	54.0	6	5	2	2.6	12.0	2861.7
18.0	48.0	5	6	3	3.7	13.2	3165.1
24.0	42.0	5	6	6	6.4	14.4	3468.5
30.0	36.0	5	6	12	10.0	15.6	3771.9
WL= 72.0							
6.0	66.0	4	6	1	1.4	11.8	2763.3
12.0	60.0	5	6	2	2.6	12.9	3066.7
18.0	54.0	5	6	4	4.7	14.1	3370.1
24.0	48.0	5	6	7	7.2	15.3	3673.5
WL= 78.0							
6.0	72.0	4	6	1	1.4	12.7	2968.3
12.0	66.0	5	6	2	2.6	13.8	3271.7
18.0	60.0	5	6	5	5.6	15.0	3575.1
WL= 84.0							
6.0	78.0	5	6	1	1.4	13.6	3173.3
12.0	72.0	5	6	3	3.7	14.7	3476.7
18.0	66.0	4	7	5	5.6	15.9	3780.1
WL= 90.0							
6.0	84.0	5	6	1	1.4	14.5	3378.3
12.0	78.0	4	7	3	3.7	15.6	3681.7
WL= 96.0							
6.0	90.0	3	7	2	2.6	15.4	3583.3

TABLE U

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP AT 68 F**

NL/L = L
END SECTION = 3.0 KFT
INPUT IMPEDANCE = 1200 OHMS
CABLE TERMINATION = 1200 OHMS

LENGTH (KFT) 24-GA 22-GA	EQUALIZER SETTINGS			EQUALIZER GAIN (DB)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
	BW	HT	SL			
WL= 18.0						
6.0 12.0	4	3	0	0.0	3.1	729.7
12.0 6.0	4	3	1	1.4	3.6	844.5
WL= 24.0						
6.0 18.0	5	3	0	0.0	4.1	934.7
12.0 12.0	4	3	1	1.4	4.5	1049.5
18.0 6.0	5	3	1	1.4	5.0	1164.3
WL= 30.0						
6.0 24.0	2	4	1	1.4	4.9	1139.7
12.0 18.0	3	4	1	1.4	5.4	1254.5
18.0 12.0	3	4	1	1.4	5.9	1369.3
24.0 6.0	3	4	2	2.6	6.4	1484.0
WL= 36.0						
6.0 30.0	4	4	1	1.4	5.8	1344.7
12.0 24.0	5	4	1	1.4	6.2	1459.5
18.0 18.0	3	5	1	1.4	6.7	1574.3
24.0 12.0	1	5	2	2.6	7.3	1689.0
30.0 6.0	3	5	2	2.6	7.7	1803.8
WL= 42.0						
6.0 36.0	5	4	1	1.4	6.7	1549.7
12.0 30.0	5	4	1	1.4	7.1	1664.5
18.0 24.0	4	5	1	1.4	7.6	1779.3
24.0 18.0	3	5	2	2.6	8.1	1894.0
30.0 12.0	3	5	2	2.6	8.6	2008.8
36.0 6.0	4	5	2	2.6	9.1	2123.6
WL= 48.0						
6.0 42.0	5	4	1	1.4	7.6	1754.7
12.0 36.0	4	5	1	1.4	8.0	1869.5
18.0 30.0	4	5	1	1.4	8.5	1984.2
24.0 24.0	4	5	2	2.6	9.0	2099.0
30.0 18.0	3	5	2	2.6	9.5	2213.8
36.0 12.0	3	5	2	2.6	10.0	2328.6
42.0 6.0	2	6	3	3.7	10.5	2443.3
WL= 54.0						
6.0 48.0	4	5	1	1.4	8.5	1959.7
12.0 42.0	4	5	1	1.4	9.0	2074.5
18.0 36.0	5	5	1	1.4	9.4	2189.2
24.0 30.0	4	5	2	2.6	9.9	2304.0
30.0 24.0	2	6	2	2.6	10.4	2418.8
36.0 18.0	3	6	2	2.6	10.9	2533.6
42.0 12.0	2	6	3	3.7	11.4	2648.3
48.0 6.0	3	6	3	3.7	11.9	2763.1
WL= 60.0						

TABLE U (CONT)

309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 60.0							
6.0	54.0	4	5	1	1.4	9.4	2164.7
12.0	48.0	5	5	1	1.4	9.9	2279.5
18.0	42.0	3	6	1	1.4	10.3	2394.2
24.0	36.0	3	6	2	2.6	10.8	2509.0
30.0	30.0	3	6	2	2.6	11.3	2623.8
36.0	24.0	3	6	2	2.6	11.8	2738.5
42.0	18.0	3	6	3	3.7	12.3	2853.3
48.0	12.0	3	6	3	3.7	12.8	2968.1
54.0	6.0	2	7	4	4.7	13.2	3082.9
WL= 66.0							
6.0	60.0	5	5	1	1.4	10.3	2369.7
12.0	54.0	4	6	1	1.4	10.7	2484.4
18.0	48.0	4	6	1	1.4	11.2	2599.2
24.0	42.0	3	6	2	2.6	11.7	2714.0
30.0	36.0	4	6	2	2.6	12.2	2828.8
36.0	30.0	4	6	2	2.6	12.7	2943.5
42.0	24.0	2	7	3	3.7	13.2	3058.3
48.0	18.0	2	7	3	3.7	13.7	3173.1
54.0	12.0	2	7	4	4.7	14.2	3287.9
60.0	6.0	3	7	4	4.7	14.6	3402.6
WL= 72.0							
6.0	66.0	4	6	1	1.4	11.2	2574.7
12.0	60.0	4	6	1	1.4	11.6	2689.4
18.0	54.0	4	6	2	2.6	12.1	2804.2
24.0	48.0	4	6	2	2.6	12.6	2919.0
30.0	42.0	4	6	2	2.6	13.1	3033.8
36.0	36.0	3	7	2	2.6	13.6	3148.5
42.0	30.0	3	7	3	3.7	14.0	3263.3
48.0	24.0	3	7	3	3.7	14.5	3378.1
54.0	18.0	2	7	4	4.7	15.0	3492.8
60.0	12.0	2	7	5	5.5	15.5	3607.6
WL= 78.0							
6.0	72.0	4	6	1	1.4	12.1	2779.7
12.0	66.0	5	6	1	1.4	12.5	2894.4
18.0	60.0	4	6	2	2.6	13.0	3009.2
24.0	54.0	3	7	2	2.6	13.5	3124.0
30.0	48.0	3	7	2	2.6	14.0	3238.7
36.0	42.0	3	7	3	3.7	14.5	3353.5
42.0	36.0	3	7	3	3.7	15.0	3468.3
48.0	30.0	3	7	3	3.7	15.4	3583.1
WL= 84.0							
6.0	78.0	4	6	1	1.4	13.0	2984.6
12.0	72.0	5	6	1	1.4	13.4	3099.4
18.0	66.0	3	7	2	2.6	13.9	3214.2
24.0	60.0	3	7	2	2.6	14.4	3329.0

TABLE U (CONT)

**309B EQUALIZER SETTINGS FOR MIXED 24- AND
22-GAUGE H88 LOADED CABLE WITHOUT BRIDGED TAP 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)	1KHZ CABLE LOSS (DB)	DC CABLE RES (OHMS)
24-GA	22-GA	BW	HT	SL			
WL= 84.0							
30.0	54.0	3	7	2	2.6	14.9	3443.7
36.0	48.0	3	7	3	3.7	15.4	3558.5
42.0	42.0	3	7	3	3.7	15.9	3673.3
WL= 90.0							
6.0	84.0	3	7	1	1.4	13.9	3189.6
12.0	78.0	3	7	2	2.6	14.3	3304.4
18.0	72.0	3	7	2	2.6	14.8	3419.2
24.0	66.0	3	7	2	2.6	15.3	3534.0
30.0	60.0	3	7	3	3.7	15.8	3648.7
WL= 96.0							
6.0	90.0	4	7	1	1.4	14.8	3394.6
12.0	84.0	4	7	2	2.6	15.2	3509.4
18.0	78.0	4	7	2	2.6	15.7	3624.2
WL= 102.0							
6.0	96.0	3	7	2	2.6	15.7	3599.6