CHANNEL TESTS
USING THE MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes methods for testing channels, which are composed of line links, junctors, and trunk links. A procedure is provided for isolating trouble conditions. Figure 1 is also provided as a reference for the No. 5 Crossbar network.

1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes. Equipment Test Lists are not affected.

(a) To revise step 26e.

(b) To make minor corrections and changes as required.

1.03 The tests covered are:

1.04 ***Lettered Steps:*** A letter, a, b, c, etc, added to a step number in Parts 3 and 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.05 The manner of selecting some circuits and test conditions at the master test frame (MTF) and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

1.06 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.

1.07 The statement between the asterisks (*—*) after action or verification statements is

added to clarify the function being simulated in the test procedures of Part 4.

2. APPARATUS

All Tests

2.01 Master test control circuit, SD-25800-01.

2.02 Trunk test circuit, SD-25918-01.

3. PREPARATION

STEP	ACTION	VERIFICATION
	Note 1: Refer to paragraph 1.05 and 1.06.	
	Note 2: All tests must be performed under the following conditions: (a) Light traffic (b) Cancel continuity test (CCT) and cancel ground test (CGT) keys ***must not*** be operated at the MTF jack, lamp, and key circuit.	
All Tests		
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
	Note: Local office records must be consulted to determine the equipment, originating register or trunk circuit, assigned to the trunk link frame termination required for each test.	
Test A		
3	Select any originating register or trunk circuit on any trunk link frame.	
Test B		
4	Select an originating register or trunk circuit in trunk link frame (TLF) 0, and on ***any trunk switch.***	
Test C		
5	Select an originating register or trunk circuit in trunk link frame (TLF) 0, and on ***trunk switch 0.***	

STEP	ACTION	VERIFICATION
Test D		
6	Select an originating register or trunk circuit according to information derived from trouble record perforations.	
Tests A, B, C, D		
	When Selection of an Originating Register on a Particular Trunk Switch Is Required:	
7	Select DT class of test.	
8	Select dial tone marker. ***Note:*** When office is arranged for graded dial tone markers, consult local office records to determine marker that is associated with LLFs and TLFs being used.	
9	Select originating register group.	
10	Select originating register.	
11a	If office is arranged for range extension for unigauge cabling and selected line location is a long loop line— Operate NOLL key.	
12	Select trunk link frame associated with selected originating register.	
13b	If a trouble record is required— Operate REC key.	
14	Operate FS, CHT, NTC, TLK, CRV keys.	
Tests A, B, C, D		
	When Selection of Outgoing or IAO Trunk On A Particular Trunk Switch is Required:	
15	Select ORIG class of test.	
16	Select completing marker.	
17	Select originating class of call and associated translator indication.	
18	Select class of service, rate treatment having access to selected route.	

STEP	ACTION	VERIFICATION
19	Select A_ through K_ digits as required to direct call to selected trunk.	
20	Select outgoing or IAO trunk.	
21	Select route advance as required for selected route.	
22c	If trunk is in an allotted group— Operate GPA/GPB key.	
23d	If selected trunk furnishes ground on the tip lead— Operate CRV key. *Reverses tip and ring leads in SD-25918-01 to the PK relay.*	
24b	If a trouble record is required— Operate REC key.	
25	Operate FS, TS, NTC, CHT, TLK keys.	
26e	If IAO trunk is selected— ▶Operate IAO key or TSTB_ switch (IAO). ***Note:*** Insure that the no-test vertical and the terminating test line are not on the same line link frame.◀	

4. METHOD

STEP	ACTION	VERIFICATION
	REGULAR NETWORK	
	A. Channel Test—Line Links ("A" Links)	
27	Select junctor sequence 0.	
28	Operate STP1 key. *Steps 27 and 28 select junctor group 0.*	
29	Select a line location on line link frame 0, horizontal group 0.	
30	Select channel 0.	
31	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies continuity, polarity, and absence of crosses on tip, ring, and sleeve leads.* If trouble record is requested— STP1, JGO, CH_ designation perforated

STEP	ACTION	VERIFICATION
		agree with selected information. If IAO trunk is selected— FLG or SCB designation perforated.
32	Momentarily operate RL key.	All lamps extinguished.
33	Repeat Steps 30, 31, 32 selecting channels 1 through 9.	*Verifies links from one horizontal group to each line junctor switch.*
34	Repeat Steps 29 through 33 selecting line locations in horizontal groups 1 through 9.	*Verifies links from all horizontal groups to all line junctor switches for one line link frame.*
35	Repeat Steps 29 through 34 selecting each remaining line link frame.	*Verifies all links from all horizontal groups in all line link frames to all associated line junctor switches.*
36	Restore all keys and switches not required in next test.	

B. Channel Test—Junctors ("B" Links)

Junctor Group 0

27	Select any working line location on line link frame (LLF) 0.	
28	Select junctor sequence 0.	
29	Operate STP1 key. *Steps 27 and 28 select junctor group 0.*	
30	Select channel 0.	
31	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies continuity, polarity, and absence of crosses on tip, ring, and sleeve leads of selected channel.* If trouble record is requested— STP_, JF_, CH_ designations perforated agree with selected information. If IAO trunk is selected— FLG or SCB designation perforated.
32	Momentarily operate RL key.	All lamps extinguished.
33	Repeat Steps 30, 31, and 32 selecting channels 1 through 9.	*Verifies junctors between selected LLF and selected (TLF0) in junctor group 0.*
34	Repeat Steps 4 through 26e, 30 through 33, making selection of originating registers or trunk circuits in all remaining TLFs.	*Verifies junctors between selected LLF and all TLFs in junctor group 0.*

STEP	ACTION	VERIFICATION
35	Repeat Steps 27, 30 through 34, selecting line locations on each of the remaining LLFs.	*Verifies all junctors between all LLFs and TLFs in junctor group 0.*
36	Restore all keys and switches not required in next test.	
Junctor Groups 1 through 4		
37	Select junctor sequence and STP1/STP2 key for junctor group 1. (Refer to Table A.)	
38	Select any working line location on LLF 0.	
39	Using the junctor distribution charts (Fig. 4 through 33) for the size of office, determine and select the first channel available between LLF 0 and TLF 0 in the selected junctor group. (In a Size 8LL—4TL office (Fig. 6), channels 0 through 9 are available in junctor group 1 while there are no channels available in junctor group 2.)	
40	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies continuity, polarity, and absence of crosses on tip, ring, and sleeve leads of selected channel.* If trouble record is requested— STP_, JG_, CH_ designations perforated agree with selected information. If IAO trunk is selected— FLG or SCB designation perforated.
41	Momentarily operate RL key.	All lamps extinguished.
42	Repeat Steps 39, 40 and 41 selecting all remaining available channels.	*Verifies available junctors between selected LLF and selected TLF in selected junctor group.*
43	Repeat Steps 4 through 26e, 37 through 42, making selection of originating registers or trunk circuits in all remaining TLFs.	*Verifies available junctors between selected LLF and all remaining TLFs in selected junctor group.*
44	Repeat Steps 38 through 43, selecting line locations of each of the remaining LLFs.	*Verifies all available junctors between all LLFs and all TLFs in selected junctor group.*
45	Repeat Steps 37 through 44, for all remaining junctor groups.	*Verifies all junctors in all junctor groups.*
46	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
C. Channel Test—Trunk Links ("C" Links)		
27	Select any working line location on an even-numbered line link frame.	
28	Select junctor sequence 0.	
29	Operate STP1 key. *Steps 27 and 28 select junctor group 0.*	
30	Select channel 0.	
31	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies continuity, polarity, and absence of crosses on tip, ring, and sleeve leads of selected channel.* If trouble record is requested— STP1, JGO, CH_ designations perforated agree with selected information. If IAO trunk is selected— FLB or SCB designation perforated.
32	Momentarily operate RL key.	All lamps extinguished.
33	Repeat Steps 30, 31, and 32, selecting channels 1 through 9.	*Verifies links from left trunk switch to each left trunk junctor switch in one trunk link frame.*
34	Select any line location on an odd-numbered line link frame.	
35	Repeat Steps 30, 31, and 32 for channels 0 through 9.	*Verifies links from right trunk switch to each right trunk junctor switch in one trunk link frame.*
36	Repeat Steps 5 through 35, making selection of an originating register or trunk circuit on trunk switches 1 through 9.	*Verifies all links between trunk switches on one trunk link frame and associated trunk junctor switches.*
37	Repeat Steps 5 through 36, for each remaining trunk link frame.	*Verifies all links between all trunk switches and all trunk junctor switches on all trunk link frames.*
38	Restore all keys and switches not required in next test.	
D. Isolation of Channel Troubles		
	Note: Refer to Fig. 2 for typical 2-wire test linkage and to Fig. 3 for typical link substitutions used in the following test.	

STEP	ACTION	VERIFICATION
	Trouble Record Verification	
27	Select line location per trouble record perforations (FTT_, FUT_, VGT_, HGT_, VFT_).	
28	Select junctor sequence and operate STP1/STP2 key per trouble record perforations (JG_, STP_). (Refer to Table A.)	
29	Select channel per trouble record perforations (CH_).	
30	Momentarily operate ST key.	MRL, AS, PK lamps lighted indicate a satisfactory test call. If trouble condition exists— TRL lamp lighted. Trouble record taken. *Trouble duplicated.*
31	Momentarily operate RL key.	All lamps extinguished.
	Marker Substitution	
32	Select another marker.	
33	Momentarily operate ST key.	TRL lamp lighted. *Verifies that trouble condition is not caused by marker.*
34	Momentarily operate RL key.	All lamps extinguished.
	Channel Substitution	
35	Select another channel.	
36	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies trouble condition is in original channel.*
37	Momentarily operate RL key.	All lamps extinguished.
38	Select original channel, Step 29.	
	Line Link Substitution	
39	Select a line location in another horizontal group on the same line link frame.	
40	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies trouble condition exists in the original line link.*

STEP	ACTION	VERIFICATION
41	Momentarily operate RL key.	All lamps extinguished.
42f	If trouble condition still exists— Select original line location.	
	Trunk Link Substitution	
43	Select an originating register or trunk circuit on another trunk switch in the same trunk link frame.	
44	Momentarily operate ST key.	If MRL, AS, PK lamps lighted— *Trouble condition exists in original trunk link. If TRL lamp lighted— Trouble condition exists in the junctor.
45	Momentarily operate RL key.	All lamps extinguished.
46f	If trouble condition still exists— Select original trunk or originating register.	
	Junctor Substitution	
	Note: The junctor may be substituted ***only*** when another junctor group provides the same channel between the selected line link frame and the selected trunk link frame.	
47	Select junctor sequence and operate STP1/2 key to select another junctor group. (Refer to Table A and junctor distribution charts for size of office.)	
48	Momentarily operate ST key.	MRL, AS, PK lamps lighted. *Verifies trouble condition in original junctor.*
49	Momentarily operate RL key.	All lamps extinguished.
50	Restore all keys and switches not required in next test.	

TABLE A

JUNCTOR SUBGROUP SELECTED (JG- DESIGNATION PERFORATED)

NUMBER OF TRUNKS LINK FRAMES*			JUNCTOR STEP POSITION (STP1 OR STP2)	JUNCTOR SEQUENCE (JSQ-)					
SINGLE	PAIRED	TRIPLED		0	1	2	3	4	5
2	4	6	1	JG0	JG1	JG2	JG0	JG1	JG2
			2	JG3	JG4	JG3	JG4	JG3	JG4
2-3	4-6	6-9	1	JG0	JG1	JG2	JG0	JG1	JG2
			2	JG1	JG2	JG0	JG1	JG2	JG0
3	6	9	1	JG0	JG1	JG2	JG0	JG1	JG2
			2	JG3	JG3	JG3	JG3	JG3	JG3
4	8	12	1	JG0	JG1	JG0	JG1	JG0	JG1
			2	JG2	JG2	JG2	JG2	JG2	JG2
5	10	15	1	JG0	JG1	JG0	JG1	JG0	JG1
				JG1	JG0	JG1	JG0	JG1	JG0
6	12	18	1	JG0	JG0	JG0/1†	JG0	JG0	JG0/1†
			2	JG1	JG1/2‡	JG0/1‡	JG1/2‡	JG1	JG0/2‡
7	14	21	1	JG0	JG0	JG0	JG0	JG0	JG0/1†
			2	JG1	JG1/2‡	JG1	JG1/2‡	JG1	JG0/2‡
8	16	24	1	JG0	JG0	JG0	JG0	JG0	JG0
				JG1	JG1	JG1	JG1	JG1	JG1
9	18	27	1	JG0	JG0	JG0	JG0	JG0	JG0
			2	JG1	JG1	JG1	JG1	JG1	JG1
10	20	30	1	JG0	JG0	JG0	JG0	JG0	JG0

* Two- or 4-wire frames.

†JG0 designation perforated if ▶three◀ junctor subgroups exist between line link and trunk link frames. JG1 designation perforated if two junctor subgroups exist between line link and trunk link frames.

‡ Lower-numbered JG- designation perforated if two junctor subgroups exist between line link and trunk link frames.
Higher-numbered JG- designation perforated if three junctor subgroups exist between line link and trunk link frames.

A channel consists of one of the possible associations of link on a line link frame (LLF), a junctor, and a link on a trunk link frame (TLF). The channel number corresponds to the junctor switch number (0 to 9) on both the LLF and the TLF, to the vertical unit (0 to 9, left or right) on the TLF trunk switch, and the horizontal level (0 to 9) on the LLF line switch. The channel number used on a particular connection therefore identifies the path through the switches. The junctor ("B" link) used is determined by the size of the office in terms of the number of LLF's and TLF's. The particular junctor is determined from the junctor distribution for the size office in question.

For purposes of illustration, Fig. 1A (Typical Channels for an 8LL - 4TL Size Office) and Fig. 6 (8LL - 4TL Junctor Distribution Chart) are used to show a typical connection between a customer on LLF 00, HG 03, VG 01, VF 04, and a trunk circuit appearing on TLF 01, trunk switch 5, level 7 using channel 4 for the connection. Junctor groups for this size office are also shown in Fig. 1 using information taken from the Junctor Distribution Chart, Fig. 6. As shown in Fig. 1, the distribution of line links between the line switches and line junctor switches (the "A" portion of a channel) follows a standard pattern and may be used to determine the channel number. As shown by the heavy line in Fig. 1, horizontal *4* of line switch *3* if permanently connected to horizontal *3* of junctor switch *4*. Similarly, horizontal *4* of line switch *9* is permanently connected to horizontal *9* of junctor switch *4*. The ***numerical designation of the channel*** is taken from the ***line switch horizontal number*** and the ***junctor switch number***, in the example above, ***channel 4***.

The trunk link frame junctor switches are electrically divided into two parts, left and right, by splitting the horizontal multiple between the tenth and eleventh vertical units.

The distribution of trunk links between the trunk junctor switches and the trunk switches (the "C" portion of a channel) is also arranged in a standard pattern as illustrated in Fig. 1. The pattern is used to determine the channel number. As shown by the heavy line in Fig. 1, vertical *4L* of junctor switch *4* on the TLF connects to vertical *4L* on the trunk switch. Similarly, vertical *4R* of junctor switch *4* is connected to vertical *4R* of the trunk switch. Thus, the ***numerical designation of the channel*** is taken from the ***trunk junctor switch number*** and the ***trunk switch vertical number*** of the trunk link.

In the example, channel 4 is to be used to reach the trunk circuit or register on TLF 01, and line junctor switch 4 must connect to trunk junctor switch 4. Fig. 6 for the 8LL - 4TL size office must now be used to determine the junctor (the "B" portion of the channel).

Looking first at Junctor Group 0, the junctor distribution chart shows that for LLF 00, channel 4, the junctor ("B" link) will be from line junctor switch 4, vertical 1 (LLV 1) to trunk junctor switch 4, horizontal 0L (TLH 0L). The trunk link ("C" link) will then be from trunk junctor switch 4L, vertical 5 to trunk switch 5L, vertical 4. This completes one possible path between a customer's line appearance and a trunk or register via channel 4, junctor group 0.

Looking next at junctor group 1, the junctor distribution chart shows that of LLF 00, channel 4 will connect to TLF01 via LLV 8 to TLH 8R (right switch) to complete a second possible path.

Junctor group 2 does not provide a channel 4 between LLF 00 and TLF 01, through channels 1, 3, 5, 7, and 9 are available in the junctor group for possible paths.

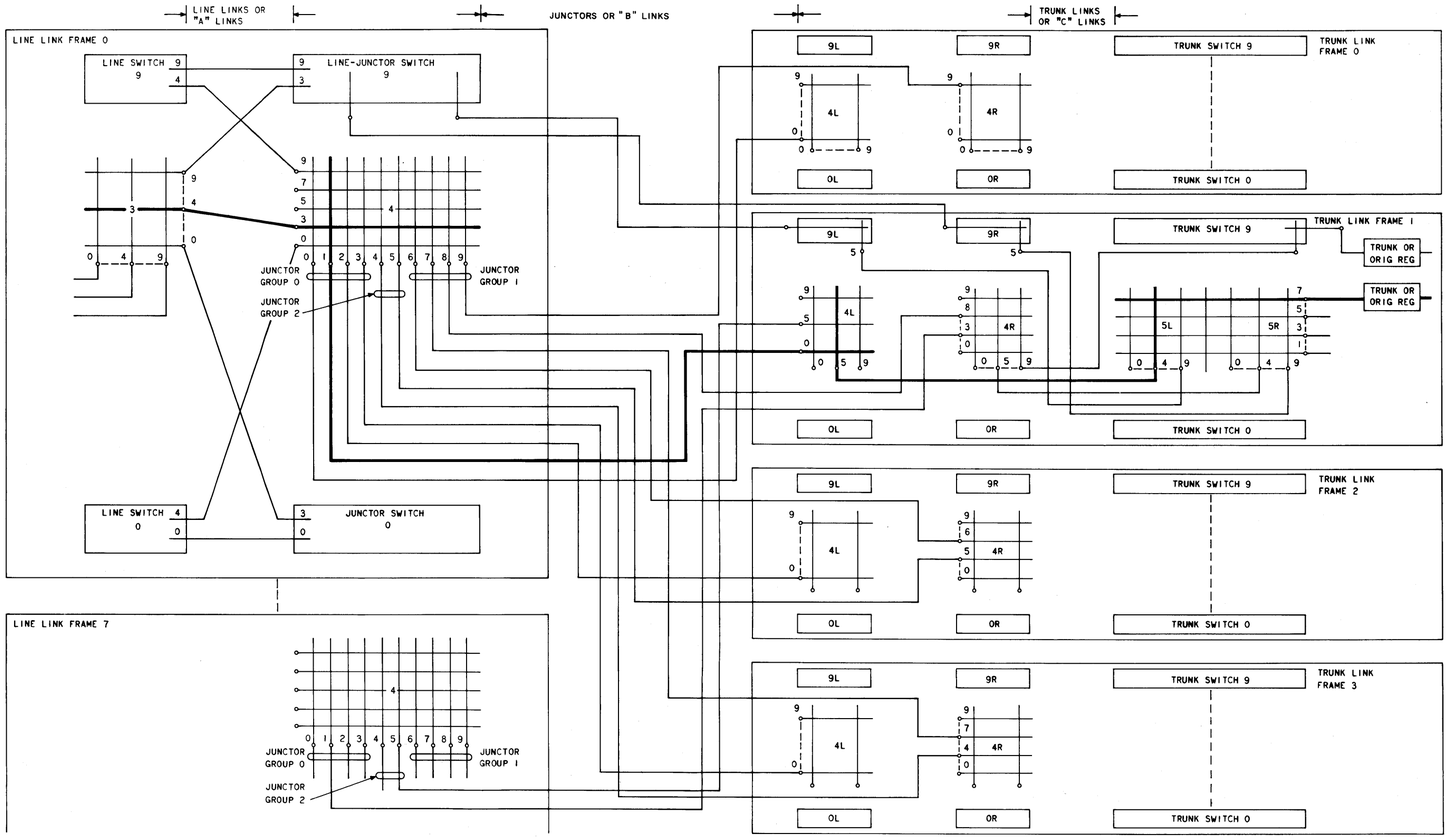


FIG. 1A—

When a 12-level miniature crossbar switch is used in conjunction with the regular 10-level crossbar swith correlation of the JC-relays must be made from local office records.

Figure 1B combines the use of the 12-level miniature crossbar switch with the permanent junctor distribution plan for a size 4LL - 2TL office.

Figures 31, 32, and 33 have been prepared for the three basic permanent junctor distribution plans. The plans provide for three basic patterns that will accomodate all sizes of offices plus require only a small transition from one size to the next when additional trunk link frames are necessary.

Figure 31 covers the junctor distribution plan for a 2 - 3 TL frame office and utilizes three junctor groups. When only 2 TL frames are provided, LLVs 0, 1, 5, 6, 7, and 8 are used.(Figure 1B) When a third TL frame is added, the remaining LLVs are used with the exception of LLV 3.

Figure 32 covers the junctor distribution plan for 4 to 10 TL frame office. When an office expands from a 3 TL frame size, 5 TL frame plan will be used until the expansion exceeds 10 TL frames. Two junctor groups are provided.

Figure 33 covers the plan for a size 10 TL frame office, which may be expanded to a 10-paired or 10-tripled office with the addition of only an additional junctor grouping frame. Only one junctor group is required. Paired and triple operation occurs only in offices larger than 10 TL frames. The pairing or tripling of the trunk link frames form the junctor multiple groups.

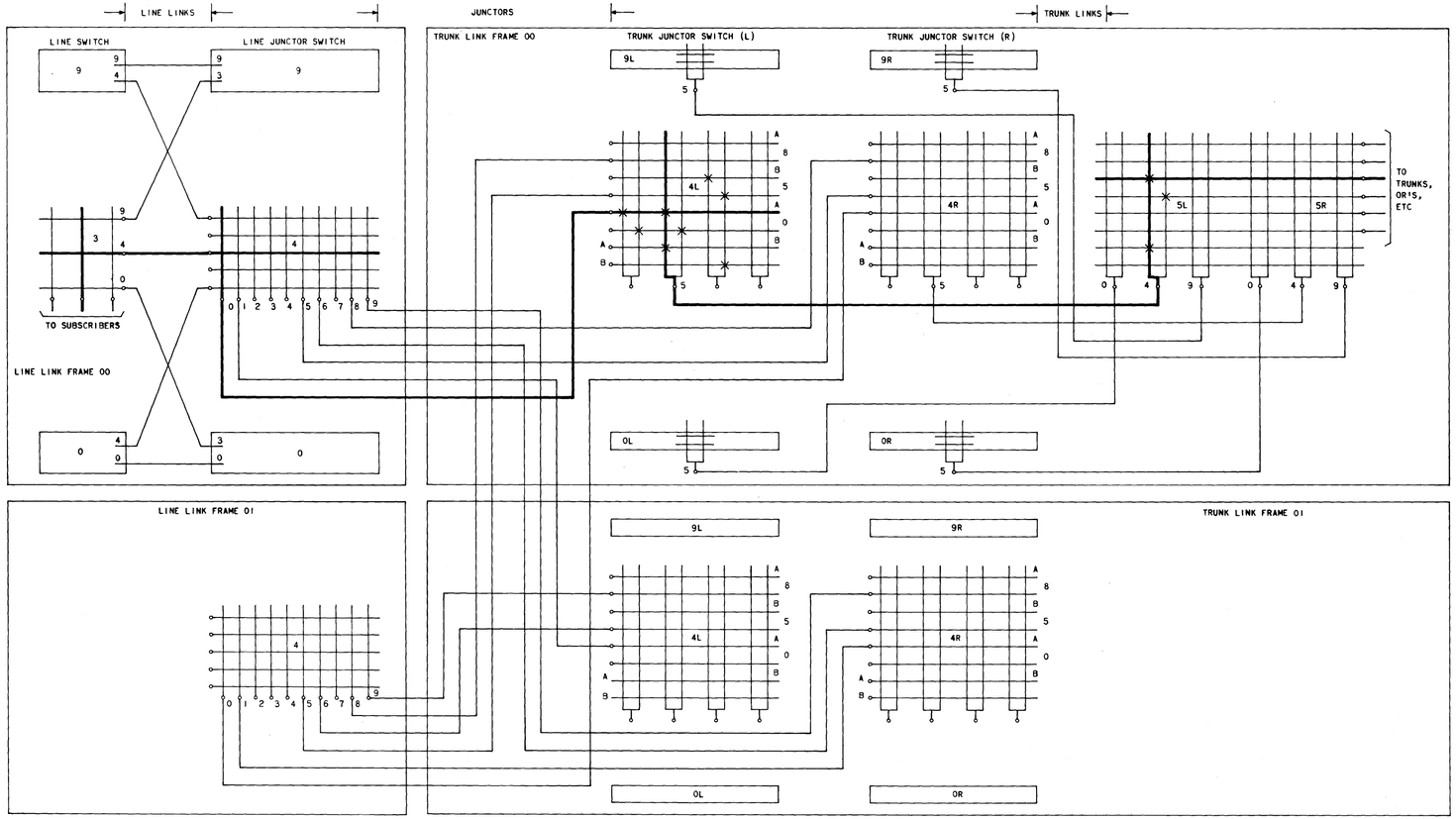


FIG. 1B—

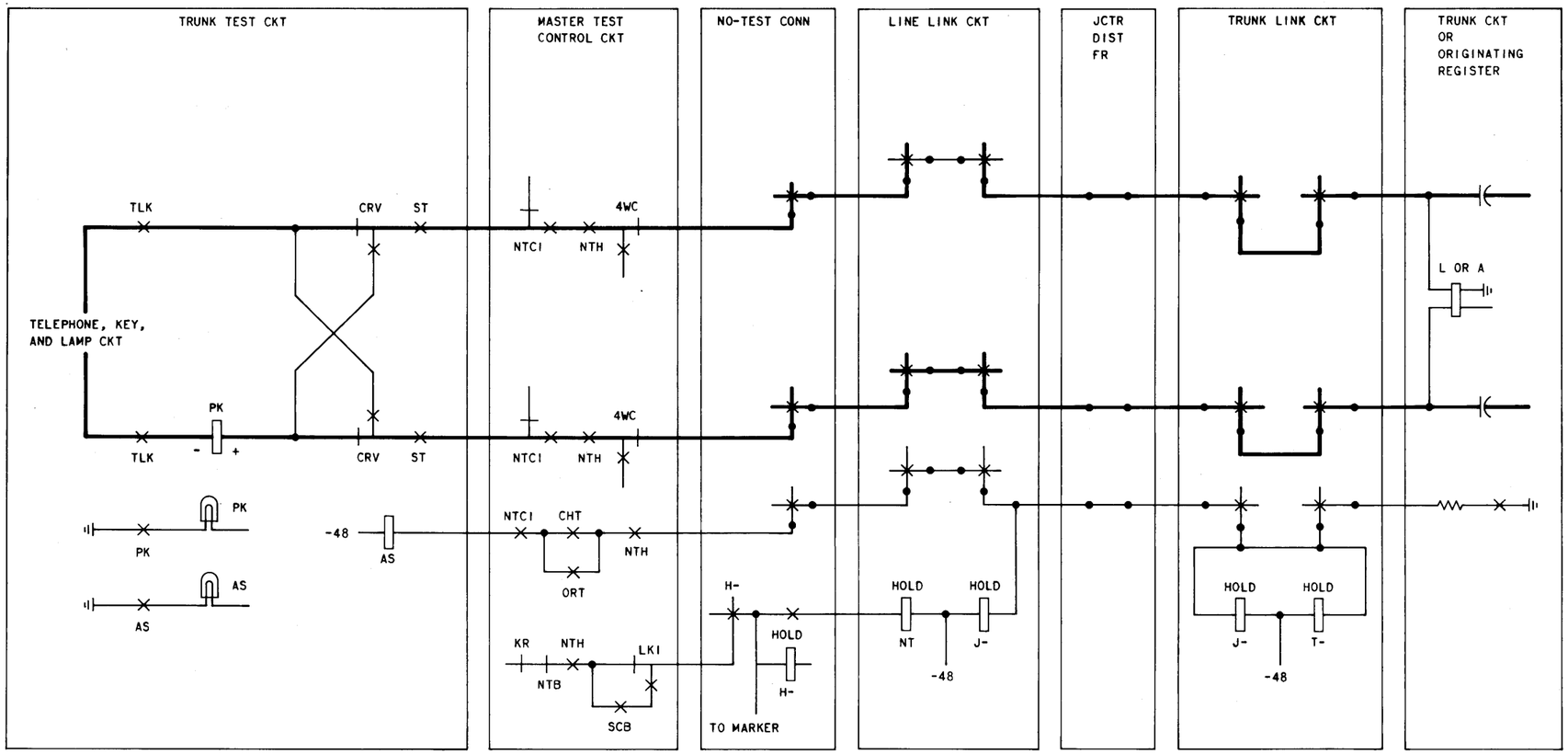
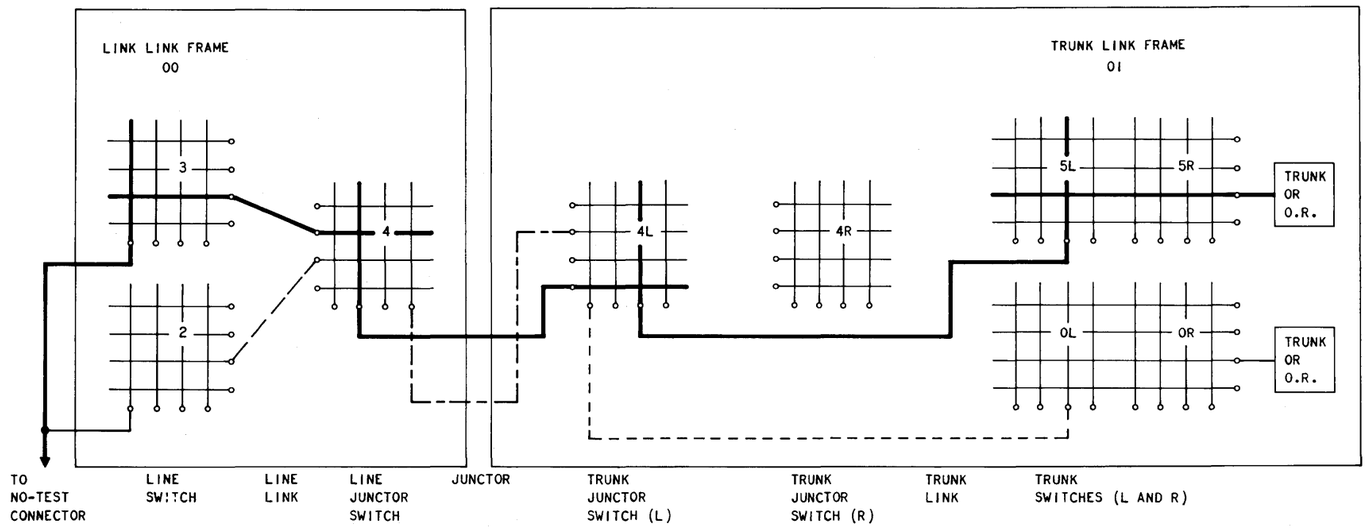

TRUNK TEST CKT
MASTER TEST CONTROL CKT
NO-TEST CONN
LINE LINK CKT
JCTR DIST FR
TRUNK LINK CKT
TRUNK CKT OR ORIGINATING REGISTER
TLK
CRV
ST
4WC
NTCI
NTH
TELEPHONE, KEY, AND LAMP CKT
PK
-
+
L OR A
PK
-48
AS
NTCI
CHT
NTH
ORT
AS
H-
HOLD
HOLD
HOLD
KR
NTH
LKI
NTB
SCB
HOLD
H-
NT
J-
-48
HOLD
HOLD
J-
T-
-48
TO MARKER

FIG. 2—



ORIGINAL CHANNEL ————————
SUBSTITUTE LINE LINK — — — — —
SUBSTITUTE TRUNK LINK - - - - - - -
SUBSTITUTE JUNCTOR ——— ——— ———

FIG. 3—

Junctor Group 0

LLV, TLFr	0 or 1			
	0L	0R	1L	1R
TLH				
JC Rel	0		1	
Ch 9	0	1	2	3
	|	|	|	|
	0	0 1		2 3
LLFr	⌋	⌋		

Junctor Group 1

TLFr	0	0	1	1	
TLH	9R	9L	8R	8L	9R 9L 8R 8L
JC, LLV	9		8		9 8
Ch 9	0	1	2	3	2 3 0 1
	|	|	|	|	| | | |
	0	0 1	2	3	2 3 0 1
LLFr	⌋	⌋			

Junctor Group 2

TLFr	0	0	1	1	
TLH	5R	5L	4R	4L	5R 5L 4R 4L
JC, LLV	5		4		5 4
Ch 9	2	3	0	1	0 1 2 3
	|	|	|	|	| | | |
	0	2 3	0	1	0 1 2 3
LLFr	⌋	⌋			

Junctor Group 3

TLFr	0	0	1	1	
TLH	3L	3R	2L	2R	3L 3R 2L 2R
JC, LLV	3		2		3 2
Ch 9	0	1	2	3	2 3 0 1
	|	|	|	|	| | | |
	0	0 1	2	3	2 3 0 1
LLFr	⌋	⌋			

Junctor Group 4

TLFr	0	0	1	1	
TLH	7R	7L	6R	6L	7R 7L 6R 6L
JC, LLV	7		6		7 6
Ch 9	2	3	0	1	0 1 2 3
	|	|	|	|	| | | |
	0	2 3	0	1	0 1 2 3
LLFr	⌋	⌋			

Figure 4
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 4LL-2TL

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV, TLFr	0, 1, or 2				
TLH	0L	0R	1L	1R	2L 2R
JC Rel	0		1		2
Ch 9	0	1	2	3	4 5
	|	|	|	|	| |
	0	0 1	2	3	4 5
LLFr	⌋	⌋			

Junctor Group 1

TLFr	0	0	0	1	1	1	2	2	2	
TLH	9R	9L	8R	8L	7R	7L	9R	9L	8R	8L 7R 7L
JC, LLV	9		8		7		9		8	7
Ch 9	0	1	4	5	2	3	2	3	0	1 4 5 2 3 0 1
	|	|	|	|	|	|	|	|	|	| | | | | | |
	0	0 1	4	5	2	3	2	3	0	1 4 5 2 3 0 1
LLFr	⌋	⌋								

Junctor Group 2

TLFr	0	0	0	1	1	1	2	2	2	
TLH	6R	6L	5R	5L	4R	4L	6R	6L	5R	5L 4R 4L
JC, LLV	6		5		4		6		5	4
Ch 9	2	3	4	5	0	1	4	5	0	1 2 3 4 5 0 1
	|	|	|	|	|	|	|	|	|	| | | | | | |
	0	2 3	4	5	0	1	4	5	0	1 2 3 4 5 0 1
LLFr	⌋	⌋								

Junctor Group 3

TLFr	0	1	2	
TLH	3L	3R	3L	3R 3L 3R
JC, LLV	3		3	3
Ch 9	2	3	4 5	0 1
8	0	1	2 3	4 5
7	0	1	2 3	4 5
6	4	5	0 1	2 3
5	2	3	4 5	0 1
4	4	5	0 1	2 3
3	2	3	4 5	0 1
2	4	5	0 1	2 3
1	0	1	2 3	4 5
0	0	1	2 3	4 5
LLFr	⌋	⌋		

Figure 5
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 6LL-3TL

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV, TLFr	0, 1, 2, or 3				
TLH	0L 0R	1L 1R	2L 2R	3L 3R	
JC Rel	0	1	2	3	
Ch 9	0 1	2 3	4 5	6 7	
0	0 1	2 3	4 5	6 7	
LLFr	⌟ ⌟				

Junctor Group 1

TLFr	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3
TLH	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L
JC, LLV	9	8	7	6	9	8	7	6	9	8	7	6	9	8	7	6
Ch 9	0 1	6 7	2 3	4 5	2 3	0 1	4 5	6 7	4 5	2 3	6 7	0 1	6 7	4 5	0 1	2 3
0	0 1	6 7	2 3	4 5	2 3	0 1	4 5	6 7	4 5	2 3	6 7	0 1	6 7	4 5	0 1	2 3
LLFr	⌟ ⌟															

Junctor Group 2

TLFr	0	0	1	1	2	2	3	3
TLH	5R 5L	4R 4L	5R 5L	4R 4L	5R 5L	4R 4L	5R 5L	4R 4L
JC, LLV	5	4	5	4	5	4	5	4
Ch 9	6 7	0 1	0 1	2 3	2 3	4 5	4 5	6 7
8	4 5	2 3	6 7	4 5	0 1	6 7	2 3	0 1
7	6 7	0 1	0 1	2 3	2 3	4 5	4 5	6 7
6	4 5	2 3	6 7	4 5	0 1	6 7	2 3	0 1
5	6 7	0 1	0 1	2 3	2 3	4 5	4 5	6 7
4	4 5	2 3	6 7	4 5	0 1	6 7	2 3	0 1
3	6 7	0 1	0 1	2 3	2 3	4 5	4 5	6 7
2	4 5	2 3	6 7	4 5	0 1	6 7	2 3	0 1
1	6 7	0 1	0 1	2 3	2 3	4 5	4 5	6 7
0	4 5	2 3	6 7	4 5	0 1	6 7	2 3	0 1
LLFr	⌟ ⌟							

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 6
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 8LL-4TL

Junctor Group 0

LLV, TLFr	0, 1, 2, 3, or 4					
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	
JC Rel	0	1	2	3	4	
Ch 9	0 1	2 3	4 5	6 7	8 9	
0	0 1	2 3	4 5	6 7	8 9	
LLFr	⌟ ⌟					

Junctor Group 1

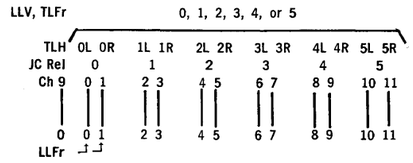
TLF	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L
JC, LLV	9	8	7	6	5	9	8	7	6	5	9	8	7	6	5	9	8	7	6	5	9	8	7	6	5
Ch 9	0 1	8 9	2 3	6 7	4 5	2 3	0 1	4 5	8 9	6 7	4 5	2 3	6 7	0-1	8 9	6 7	4 5	8 9	2 3	0 1	8 9	6 7	0 1	4 5	2 3
0	0 1	8 9	2 3	6 7	4 5	2 3	0 1	4 5	8 9	6 7	4 5	2 3	6 7	0-1	8 9	6 7	4 5	8 9	2 3	0 1	8 9	6 7	0 1	4 5	2 3
LLFr	⌟ ⌟																								

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 7
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 10LL-5TL

Junctor Group 0



Junctor Group 1 and Junctor Group 2 ( )

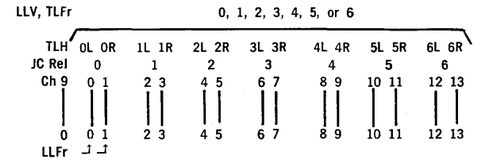
TLF	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
TLH	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L	9R 9L	8R 8L	7R 7L	6R 6L
JC, LLV	9	8	7	6	9	8	7	6	9	8	7	6	9	8	7	6	9	8	7	6	9	8	7	6
Ch 9	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
8	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
7	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
6	6 7	4 5	(6 7)	(4 5)	8 9	6 7	(8 9)	(6 7)	10 11	8 9	(10 11)	(8 9)	0 1	10 11	(0 1)	(10 11)	2 3	0 1	(2 3)	(0 1)	4 5	2 3	(4 5)	(2 3)
5	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
4	6 7	4 5	(6 7)	(4 5)	8 9	6 7	(8 9)	(6 7)	10 11	8 9	(10 11)	(8 9)	0 1	10 11	(0 1)	(10 11)	2 3	0 1	(2 3)	(0 1)	4 5	2 3	(4 5)	(2 3)
3	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
2	6 7	4 5	(6 7)	(4 5)	8 9	6 7	(8 9)	(6 7)	10 11	8 9	(10 11)	(8 9)	0 1	10 11	(0 1)	(10 11)	2 3	0 1	(2 3)	(0 1)	4 5	2 3	(4 5)	(2 3)
1	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
0	0 1	10 11	2 3	8 9	2 3	0 1	4 5	10 11	4 5	2 3	6 7	0 1	6 7	4 5	8 9	2 3	8 9	6 7	10 11	4 5	10 11	8 9	0 1	6 7
LLFr	⌟ ⌟																							

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right
( )—Junctors in Junctor Group 2

Figure 8
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 12LL-6TL

Junctor Group 0



Junctor Group 1 and Junctor Group 2 ( )

TLFr	0	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6
TLH	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L	9R 9L	8R 8L	7R 7L
JC, LLV	9	8	7	9	8	7	9	8	7	9	8	7	9	8	7	9	8	7	9	8	7
Ch 9	0 1	12 13	2 3	2 3	0 1	4 5	5 5	2 3	6 7	6 7	4 5	8 9	8 9	6 7	10 11	10 11	8 9	12 13	12 13	10 11	0 1
8	8 9	4 5	6 7	10 11	6 7	8 9	12 13	8 9	10 11	0 1	10 11	12 13	2 3	12 13	0 1	4 5	0 1	2 3	6 7	2 3	4 5
7	0 1	(10 11)	10 11	2 3	(12 13)	12 13	4 5	(0 1)	0 1	6 7	(2 3)	2 3	8 9	(4 5)	4 5	10 11	6 7)	6 7	12 13	(8 9)	8 9
6	8 9	4 5	6 7	10 11	6 7	8 9	12 13	8 9	10 11	0 1	10 11	12 13	2 3	12 13	0 1	4 5	0 1	2 3	6 7	2 3	4 5
5	0 1	12 13	2 3	2 3	0 1	4 5	4 5	2 3	6 7	6 7	4 5	8 9	8 9	6 7	10 11	10 11	8 9	12 13	12 13	10 11	0 1
4	8 9	4 5	6 7	10 11	6 7	8 9	12 13	8 9	10 11	0 1	10 11	12 13	2 3	12 13	0 1	4 5	0 1	2 3	6 7	2 3	4 5
3	0 1	12 13	2 3	2 3	0 1	4 5	4 5	2 3	6 7	6 7	4 5	8 9	8 9	6 7	10 11	10 11	8 9	12 13	12 13	10 11	0 1
2	8 9	4 5	6 7	10 11	6 7	8 9	12 13	8 9	10 11	0 1	10 11	12 13	2 3	12 13	0 1	4 5	0 1	2 3	6 7	2 3	4 5
1	0 1	12 13	2 3	2 3	0 1	4 5	4 5	2 3	6 7	6 7	4 5	8 9	8 9	6 7	10 11	10 11	8 9	12 13	12 13	10 11	0 1
0	8 9	(10 11)	10 11	10 11	(12 13)	12 13	12 13	(0 1)	0 1	0 1	(2 3)	2 3	2 3	(4 5)	4 5	4 5	(6 7)	6 7	6 7	(8 9)	8 9
LLFr																					

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right
( )—Junctors in Junctor Group 2

Figure 9
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 14LL-7TL

Junctor Group 0

LLV, TLFr	0, 1, 2, 3, 4, 5, 6, or 7							
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7R 7L
JC Rel	0	1	2	3	4	5	6	7
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
	| |	| |	| |	| |	| |	| |	| |	| |
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
LLFr	⌋ ⌋							

Junctor Group 1

TLFr	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
TLH	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L
JC, LLV	9	8	9	8	9	8	9	8	9	8	9	8	9	8	9	8
Ch 9	0 1	14 15	2 3	0 1	4 5	2 3	6 7	4 5	8 9	6 7	10 11	8 9	12 13	10 11	14 15	12 13
8	8 9	6 7	10 11	8 9	12 13	10 11	14 15	12 13	0 1	14 15	2 3	0 1	4 5	2 3	6 7	4 5
7	2 3	12 13	4 5	14 15	6 7	0 1	8 9	2 3	10 11	4 5	12 13	6 7	14 15	8 9	0 1	10 11
6	10 11	4 5	12 13	6 7	14 15	8 9	0 1	10 11	2 3	12 13	4 5	14 15	6 7	0 1	8 9	2 3
5	0 1	14 15	2 3	0 1	4 5	2 3	6 7	4 5	8 9	6 7	10 11	8 9	12 13	10 11	14 15	12 13
4	10 11	4 5	12 13	6 7	14 15	8 9	0 1	10 11	2 3	12 13	4 5	14 15	6 7	0 1	8 9	2 3
3	0 1	14 15	2 3	0 1	4 5	2 3	6 7	4 5	8 9	6 7	10 11	8 9	12 13	10 11	14 15	12 13
2	10 11	4 5	12 13	6 7	14 15	8 9	0 1	10 11	2 3	12 13	4 5	14 15	6 7	0 1	8 9	2 3
1	8 9	6 7	10 11	8 9	12 13	10 11	14 15	12 13	0 1	14 15	2 3	0 1	4 5	2 3	6 7	4 5
0	2 3	12 13	4 5	14 15	6 7	0 1	8 9	2 3	10 11	4 5	12 13	6 7	14 15	8 9	0 1	10 11
LLFr	⌋ ⌋															

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 10
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 16LL-8TL

Junctor Group 0

TLFr, LLV	0, 1, 2, 3, 4, 6, 7, or 8								
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R
JC Rel	0	1	2	3	4	5	6	7	8
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17
	| |	| |	| |	| |	| |	| |	| |	| |	| |
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17
LLFr	⌋ ⌋								

LEGEND

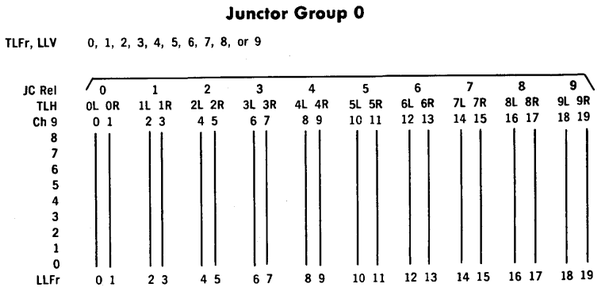
TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 1

TLFr	0	1	2	3	4	5	6	7	8
TLH	9R 9L	9R 9L	9R 9L	9R 9L	9R 9L	9R 9L	9R 9L	9R 9L	9R 9L
JC, LLV	9	9	9	9	9	9	9	9	9
Ch 9	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3
8	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7
7	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1
6	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5
5	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13
4	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
3	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17
2	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11
1	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9
0	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1
LLFr	⌋ ⌋								

Figure 11
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 18LL-9TL

Junctor Group 0

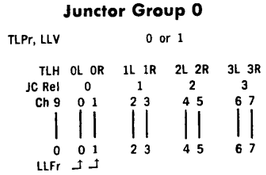


LEGEND

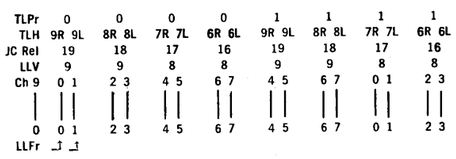
TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 12
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 20LL-10TL

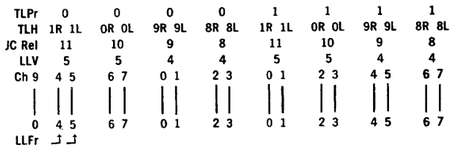
Junctor Group 0



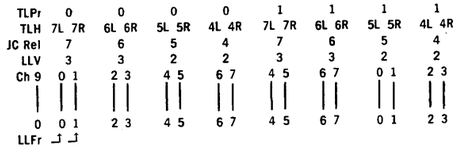
Junctor Group 1



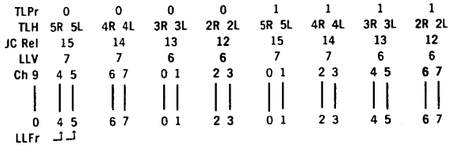
Junctor Group 2



Junctor Group 3



Junctor Group 4



LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 13
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 8LL-2TLPr

Junctor Group 0

TLPr, LLV	0, 1, or 2						
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	
JC Rel	0	1	2	3	4	5	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	
0	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟						

Junctor Group 1

TLPr	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L
JC Rel	19	18	17	16	15	14	19	18	17	16	15	14	19	18	17	16	15	14
LLV	9	9	8	8	7	7	9	9	8	8	7	7	9	9	8	8	7	7
Ch 9	8 9	10 11	4 5	6 7	0 1	2 3	4 5	6 7	0 1	2 3	8 9	10 11	0 1	2 3	8 9	10 11	4 5	6 7
0	8 9	10 11	4 5	6 7	0 1	2 3	4 5	6 7	0 1	2 3	8 9	10 11	0 1	2 3	8 9	10 11	4 5	6 7
LLFr	⌟ ⌟																	

Junctor Group 2

TLPr	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2
TLH	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L
JC Rel	13	12	11	10	9	8	13	12	11	10	9	8	13	12	11	10	9	8
LLV	6	6	5	5	4	4	6	6	5	5	4	4	6	6	5	5	4	4
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	4 5	6 7	8 9	10 11	0 1	2 3	8 9	10 11	0 1	2 3	4 5	6 7
0	0 1	2 3	4 5	6 7	8 9	10 11	4 5	6 7	8 9	10 11	0 1	2 3	8 9	10 11	0 1	2 3	4 5	6 7
LLFr	⌟ ⌟																	
											*	*			†	†	†	†

* Even Ch only

† Odd Ch only

Junctor Group 3

TLPr	0	0	1	1	2	2
TLH	7L 7R	6L 6R	7L 7R	6L 6R	7L 7R	6L 6R
JC Rel	7	6	7	6	7	6
LLV	3	3	3	3	3	3
Ch 9	8 9	10 11	0 1	2 3	4 5	6 7
8	0 1	2 3	4 5	6 7	8 9	10 11
7	0 1	2 3	4 5	6 7	8 9	10 11
6	4 5	6 7	8 9	10 11	0 1	2 3
5	8 9	10 11	0 1	2 3	4 5	6 7
4	4 5	6 7	8 9	10 11	0 1	2 3
3	8 9	10 11	0 1	2 3	4 5	6 7
2	4 5	6 7	8 9	10 11	0 1	2 3
1	0 1	2 3	4 5	6 7	8 9	10 11
0	0 1	2 3	4 5	6 7	8 9	10 11
LLFr	⌟ ⌟					

Figure 14
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 12LL-3TLPr

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

TLPr, LLV 0, 1, 2, or 3

TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R
JC Rel	0	1	2	3	4	5	6	7
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
LLFr	⌟ ⌟							

Junctor Group 1

TLPr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L
JC Rel	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12
LL V	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6
Ch 9	8 9	10 11	4 5	6 7	12 13	14 15	0 1	2 3	12 13	14 15	0 1	2 3	8 9	10 11	4 5	6 7
0	8 9	10 11	4 5	6 7	12 13	14 15	0 1	2 3	12 13	14 15	0 1	2 3	8 9	10 11	4 5	6 7
LLFr	⌟ ⌟															

TLPr	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L
JC Rel	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12
LL V	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6
Ch 9	0 1	2 3	12 13	14 15	4 5	6 7	8 9	10 11	4 5	6 7	8 9	10 11	0 1	2 3	12 13	14 15
0	0 1	2 3	12 13	14 15	4 5	6 7	8 9	10 11	4 5	6 7	8 9	10 11	0 1	2 3	12 13	14 15
LLFr	⌟ ⌟															

Junctor Group 2

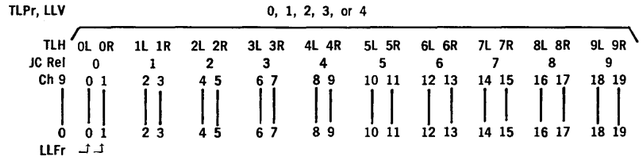
TLPr	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3
TLH	1R 1L	0R 0L	9R 9L	8R 8L	1R 1L	0R 0L	9R 9L	8R 8L	1R 1L	0R 0L	9R 9L	8R 8L	1R 1L	0R 0L	9R 9L	8R 8L
JC Rel	11	10	9	8	11	10	9	8	11	10	9	8	11	10	9	8
LL V	5	5	4	4	5	5	4	4	5	5	4	4	5	5	4	4
Ch 9	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
8	8 9	10 11	12 13	14 15	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7
7	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
6	8 9	10 11	12 13	14 15	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7
5	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
4	8 9	10 11	12 13	14 15	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7
3	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
2	8 9	10 11	12 13	14 15	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7
1	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
0	8 9	10 11	12 13	14 15	4 5	6 7	0 1	2 3	12 13	14 15	8 9	10 11	0 1	2 3	4 5	6 7
LLFr	⌞ ⌞															

Figure 15
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 16LL-4TLPr

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0



Junctor Group 1

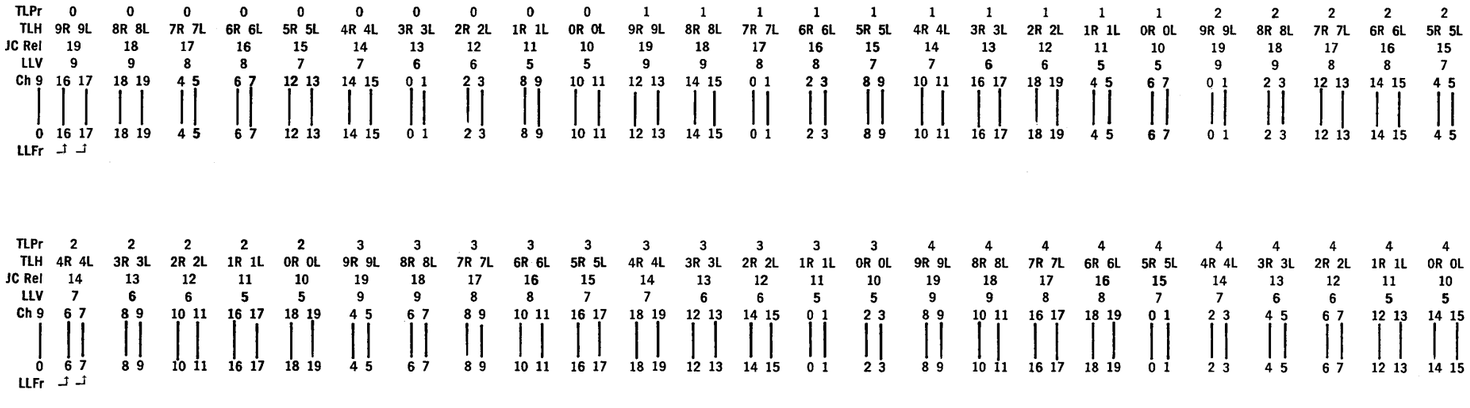


Figure 16
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 20LL-5TLPr

LEGEND

TLPr— Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

TLPr, LLV: 0, 1, 2, 3, 4, or 5

TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R	1L 1R
JC Rel	0	1	2	3	4	5	6	7	8	9	10	11
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23
	| |	| |	| |	| |	| |	| |	| |	| |	| |	| |	| |
	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23
LLFr	⌋ ⌋											

Junctor Group 1 and Junctor Group 2 ( )

TLPr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L
JC Rel	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12
LLV	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6
Ch 9	20 21	22 23	4 5	6 7	12 13	14 15	(20 21)	(22 23)	16 17	18 19	0 1	2 3	8 9	10 11	(16 17)	(18 19)	0 1	2 3	12 13	14 15	20 21	22 23	(0 1)	(2 3)
8	16 17	18 19	4 5	6 7	12 13	14 15	(16 17)	(18 19)	20 21	22 23	0 1	2 3	8 9	10 11	(20 21)	(22 23)	4 5	6 7	12 13	14 15	20 21	22 23	(4 5)	(6 7)
7	16 17	18 19	4 5	6 7	12 13	14 15	(16 17)	(18 19)	20 21	22 23	0 1	2 3	8 9	10 11	(20 21)	(22 23)	4 5	6 7	12 13	14 15	20 21	22 23	(4 5)	(6 7)
6	(8 9)	(10 11)	0 1	2 3	8 9	10 11	(0 1)	(2 3)	(12 13)	(14 15)	4 5	6 7	12 13	14 15	(4 5)	(6 7)	(16 17)	(18 19)	8 9	10 11	16 17	18 19	(8 9)	(10 11)
5	20 21	22 23	4 5	6 7	12 13	14 15	(20 21)	(22 23)	16 17	18 19	0 1	2 3	8 9	10 11	(16 17)	(18 19)	0 1	2 3	12 13	14 15	20 21	22 23	(0 1)	(2 3)
4	(8 9)	(10 11)	0 1	2 3	8 9	10 11	(0 1)	(2 3)	(12 13)	(14 15)	4 5	6 7	12 13	14 15	(4 5)	(6 7)	(16 17)	(18 19)	8 9	10 11	16 17	18 19	(8 9)	(10 11)
3	20 21	22 23	4 5	6 7	12 13	14 15	(20 21)	(22 23)	16 17	18 19	0 1	2 3	8 9	10 11	(16 17)	(18 19)	0 1	2 3	12 13	14 15	20 21	22 23	(0 1)	(2 3)
2	(8 9)	(10 11)	0 1	2 3	8 9	10 11	(0 1)	(2 3)	(12 13)	(14 15)	4 5	6 7	12 13	14 15	(4 5)	(6 7)	(16 17)	(18 19)	8 9	10 11	16 17	18 19	(8 9)	(10 11)
1	16 17	18 19	4 5	6 7	12 13	14 15	(16 17)	(18 19)	20 21	22 23	0 1	2 3	8 9	10 11	(20 21)	(22 23)	4 5	6 7	12 13	14 15	20 21	22 23	(4 5)	(6 7)
0	16 17	18 19	4 5	6 7	12 13	14 15	(16 17)	(18 19)	20 21	22 23	0 1	2 3	8 9	10 11	(20 21)	(22 23)	4 5	6 7	12 13	14 15	20 21	22 23	(4 5)	(6 7)
LLFr	⌋ ⌋																							

TLPr	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L
JC Rel	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12	19	18	17	16	15	14	13	12
LLV	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6	9	9	8	8	7	7	6	6
Ch 9	4 5	6 7	8 9	10 11	16 17	18 19	(4 5)	(6 7)	8 9	10 11	20 21	22 23	0 1	2 3	(8 9)	(10 11)	12 13	14 15	16 17	18 19	4 5	6 7	(12 13)	(14 15)
8	0 1	2 3	8 9	10 11	16 17	18 19	(0 1)	(2 3)	12 13	14 15	20 21	22 23	0 1	2 3	(12 13)	(14 15)	8 9	10 11	16 17	18 19	4 5	6 7	(8 9)	(10 11)
7	0 1	2 3	8 9	10 11	16 17	18 19	(0 1)	(2 3)	12 13	14 15	20 21	22 23	0 1	2 3	(12 13)	(14 15)	8 9	10 11	16 17	18 19	4 5	6 7	(8 9)	(10 11)
6	(20 21)	(22 23)	12 13	14 15	20 21	22 23	(12 13)	(14 15)	(4 5)	(6 7)	16 17	18 19	4 5	6 7	(16 17)	(18 19)	(0 1)	(2 3)	20 21	22 23	0 1	2 3	(20 21)	(22 23)
5	4 5	6 7	8 9	10 11	16 17	18 19	(4 5)	(6 7)	8 9	10 11	20 21	22 23	0 1	2 3	(8 9)	(10 11)	12 13	14 15	16 17	18 19	4 5	6 7	(12 13)	(14 15)
4	(20 21)	(22 23)	12 13	14 15	20 21	22 23	(12 13)	(14 15)	(4 5)	(6 7)	16 17	18 19	4 5	6 7	(16 17)	(18 19)	(0 1)	(2 3)	20 21	22 23	0 1	2 3	(20 21)	(22 23)
3	4 5	6 7	8 9	10 11	16 17	18 19	(4 5)	(6 7)	8 9	10 11	20 21	22 23	0 1	2 3	(8 9)	(10 11)	12 13	14 15	16 17	18 19	4 5	6 7	(12 13)	(14 15)
2	0 1	2 3	8 9	10 11	20 21	22 23	(12 13)	(14 15)	(4 5)	(6 7)	16 17	18 19	4 5	6 7	(16 17)	(18 19)	(0 1)	(2 3)	20 21	22 23	0 1	2 3	(20 21)	(22 23)
1	(20 21)	(22 23)	12 13	14 15	16 17	18 19	(0 1)	(2 3)	12 13	14 15	20 21	22 23	0 1	2 3	(12 13)	(14 15)	8 9	10 11	16 17	18 19	4 5	6 7	(8 9)	(10 11)
0	0 1	2 3	8 9	10 11	16 17	18 19	(0 1)	(2 3)	12 13	14 15	20 21	22 23	0 1	2 3	(12 13)	(14 15)	8 9	10 11	16 17	18 19	4 5	6 7	(8 9)	(10 11)
LLFr	⌋ ⌋																							

Figure 17
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 24LL-6TLPr

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right
( )—Junctors in Junctor Group 2

Junctor Group 0

TLPr, LLV	0, 1, 2, 3, 4, 5, or 6													
TLH	0L OR	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L OR	1L 1R	2L 2R	3L 3R
JC Rel	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27
LLFr	⌟ ⌟													

Junctor Group 1 and Junctor Group 2 ( )

TLPr	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L
JC Rel	19	18	17	16	15	14	19	18	17	16	15	14	19	18	17	16	15	14	19	18	17	16	15	14
LLV	9	9	8	8	7	7	9	9	8	8	7	7	9	9	8	8	7	7	9	9	8	8	7	7
Ch 9	20 21	22 23	24 25	26 27	12 13	14 15	16 17	18 19	0 1	2 3	24 25	26 27	12 13	14 15	4 5	6 7	20 21	22 23	4 5	6 7	8 9	10 11	16 17	18 19
8	16 17	18 19	0 1	2 3	8 9	10 11	20 21	22 23	4 5	6 7	12 13	14 15	24 25	26 27	8 9	10 11	16 17	18 19	0 1	2 3	12 13	14 15	20 21	22 23
7	20 21	22 23	4 5	6 7	(4 5)	(6 7)	16 17	18 19	8 9	10 11	(8 9)	(10 11)	12 13	14 15	0 1	2 3	(0 1)	(2 3)	4 5	6 7	24 25	26 27	(24 25)	(26 27)
6	16 17	18 19	0 1	2 3	8 9	10 11	20 21	22 23	4 5	6 7	12 13	14 15	24 25	26 27	8 9	10 11	16 17	18 19	0 1	2 3	12 13	14 15	20 21	22 23
5	20 21	22 23	24 25	26 27	12 13	14 15	16 17	18 19	0 1	2 3	24 25	26 27	12 13	14 15	4 5	6 7	20 21	22 23	4 5	6 7	8 9	10 11	16 17	18 19
4	16 17	18 19	0 1	2 3	8 9	10 11	20 21	22 23	4 5	6 7	12 13	14 15	24 25	26 27	8 9	10 11	16 17	18 19	0 1	2 3	12 13	14 15	20 21	22 23
3	20 21	22 23	24 25	26 27	12 13	14 15	16 17	18 19	0 1	2 3	24 25	26 27	12 13	14 15	4 5	6 7	20 21	22 23	4 5	6 7	8 9	10 11	16 17	18 19
2	16 17	18 19	0 1	2 3	8 9	10 11	20 21	22 23	4 5	6 7	12 13	14 15	24 25	26 27	8 9	10 11	16 17	18 19	0 1	2 3	12 13	14 15	20 21	22 23
1	20 21	22 23	24 25	26 27	12 13	14 15	16 17	18 19	0 1	2 3	24 25	26 27	12 13	14 15	4 5	6 7	20 21	22 23	4 5	6 7	8 9	10 11	16 17	18 19
0	16 17	18 19	4 5	6 7	(4 5)	(6 7)	20 21	22 23	8 9	10 11	(8 9)	(10 11)	24 25	26 27	0 1	2 3	(0 1)	(2 3)	0 1	2 3	24 25	26 27	(24 25)	(26 27)
LLFr	⌟ ⌟																							

TLPr	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L
JC Rel	19	18	17	16	15	14	19	18	17	16	15	14	19	18	17	16	15	14
LLV	9	9	8	8	7	7	9	9	8	8	7	7	9	9	8	8	7	7
Ch 9	0 1	2 3	12 13	14 15	8 9	10 11	24 25	26 27	16 17	18 19	4 5	6 7	8 9	10 11	20 21	22 23	0 1	2 3
8	4 5	6 7	16 17	18 19	24 25	26 27	8 9	10 11	20 21	22 23	0 1	2 3	12 13	14 15	24 25	26 27	4 5	6 7
7	0 1	2 3	20 21	22 23	(20 21)	(22 23)	24 25	26 27	12 13	14 15	(12 13)	(14 15)	8 9	10 11	16 17	18 19	(16 17)	(18 19)
6	4 5	6 7	16 17	18 19	24 25	26 27	8 9	10 11	20 21	22 23	0 1	2 3	12 13	14 15	24 25	26 27	4 5	6 7
5	0 1	2 3	12 13	14 15	8 9	10 11	24 25	26 27	16 17	18 19	4 5	6 7	8 9	10 11	20 21	22 23	0 1	2 3
4	4 5	6 7	16 17	18 19	24 25	26 27	8 9	10 11	20 21	22 23	0 1	2 3	12 13	14 15	24 25	26 27	4 5	6 7
3	0 1	2 3	12 13	14 15	8 9	10 11	24 25	26 27	16 17	18 19	4 5	6 7	8 9	10 11	20 21	22 23	0 1	2 3
2	4 5	6 7	16 17	18 19	24 25	26 27	8 9	10 11	20 21	22 23	0 1	2 3	12 13	14 15	24 25	26 27	4 5	6 7
1	0 1	2 3	12 13	14 15	8 9	10 11	24 25	26 27	16 17	18 19	4 5	6 7	8 9	10 11	20 21	22 23	0 1	2 3
0	4 5	6 7	20 21	22 23	(20 21)	(22 23)	8 9	10 11	12 13	14 15	(12 13)	(14 15)	12 13	14 15	16 17	18 19	(16 17)	(18 19)

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right
( )—Junctors in Junctor Group 2

Figure 18
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 28LL-7TLPr

Junctor Group 0

TLPr, LLV	0, 1, 2, 3, 4, 5, 6, 7, or 8																			
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R		
JC	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35		
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35		
LLFr	⌋ ⌋																			

Junctor Group 1

TLPr	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
TLH	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L	9R 9L	8R 8L
JC	19	18	19	18	19	18	19	18	19	18	19	18	19	18	19	18	19	18
LLV	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Ch 9	8 9	10 11	32 33	34 35	0 1	2 3	4 5	6 7	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31
8	20 21	22 23	8 9	10 11	12 13	14 15	16 17	18 19	24 25	26 27	28 29	30 31	32 33	34 35	0 1	2 3	4 5	6 7
7	24 25	26 27	12 13	14 15	16 17	18 19	20 21	22 23	28 29	30 31	32 33	34 35	0 1	2 3	4 5	6 7	8 9	10 11
6	16 17	18 19	4 5	6 7	8 9	10 11	12 13	14 15	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	0 1	2 3
5	12 13	14 15	0 1	2 3	4 5	6 7	8 9	10 11	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35
4	4 5	6 7	28 29	30 31	32 33	34 35	0 1	2 3	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27
3	28 29	30 31	16 17	18 19	20 21	22 23	24 25	26 27	32 33	34 35	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15
2	32 33	34 35	20 21	22 23	24 25	26 27	32 33	34 35	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19
1	0 1	2 3	24 25	26 27	28 29	30 31	32 33	34 35	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23
0	24 25	26 27	12 13	14 15	16 17	18 19	20 21	22 23	28 29	30 31	32 33	34 35	0 1	2 3	4 5	6 7	8 9	10 11
LLFr	⌋ ⌋																	

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 20
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 36LL-9TLPr

Junctor Group 0

LLV, TLPr	0, 1, 2, 3, 4, 5, 6, 7, 8, or 9																			
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R
JC Rel	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	36 37	38 39
8																				
7																				
6																				
5																				
4																				
3																				
2																				
1																				
0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	36 37	38 39
LLFr	⌋ ⌋																			

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R Right

Figure 21
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 40LL-10TLPr

Junctor Group 0

LLV, TLT	0 or 1						
TLH	0L OR	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	
JC Rel	0	1	2	3	4	5	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟						

Junctor Group 1

TLT	0	0	0	0	0	0	1	1	1	1	1	1
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L
JC Rel	29	28	27	26	25	24	29	28	27	26	25	24
LLV	9	9	9	9	9	9	8	8	8	8	8	8
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
LLFr	⌟ ⌟											

Junctor Group 2

TLT	0	0	0	0	0	0	1	1	1	1	1	1
TLH	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L
JC Rel	17	16	15	14	13	12	17	16	15	14	13	12
LLV	5	5	5	5	5	5	4	4	4	4	4	4
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
LLFr	⌟ ⌟											

Junctor Group 3

TLT	0	0	0	0	0	0	1	1	1	1	1	1
TLH	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	3R 3L	2R 2L	1R 1L	0R 4L	9R 9L	8R 8L
JC Rel	23	22	21	20	19	18	23	22	21	20	19	18
LLV	7	7	7	7	7	7	6	6	6	6	6	6
Ch 9	11 10	9 8	7 6	5 4	3 2	1 0	11 10	9 8	7 6	5 4	3 2	1 0
Ch 0	11 10	9 8	7 6	5 4	3 2	1 0	11 10	9 8	7 6	5 4	3 2	1 0
LLFr	⌟ ⌟											

Junctor Group 3

TLT	0	0	0	0	0	0	1	1	1	1	1	1
TLH	1R 1L	0R 0L	9R 9L	8R 8L	7R 7L	6R 6L	1R 1L	0R 0L	9R 9L	8R 8L	7R 7L	6R 6L
JC Rel	11	10	9	8	7	6	11	10	9	8	7	6
LLV	3	3	3	3	3	3	2	2	2	2	2	2
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11
LLFr	⌟ ⌟											

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 22
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 12LL-2TLT

Junctor Group 0

TLPr, LLV — 0, 1, 2, 3, 4, 5, 6, 7, or 8

TLH	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	9L	9R	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R
JC	0		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
LLFr	⌐	⌐																																		

Junctor Group 1

TLPr	0		0		1		1		2		2		3		3		4		4		5		5		6		6		7		7		8		8	
TLH	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L	9R	9L	8R	8L
JC	19		18		19		18		19		18		19		18		19		18		19		18		19		18		19		18		19		18	
LLV	9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9		9	
Ch 9	8	9	10	11	32	33	34	35	0	1	2	3	4	5	6	7	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
8	20	21	22	23	8	9	10	11	12	13	14	15	16	17	18	19	24	25	26	27	28	29	30	31	32	33	34	35	0	1	2	3	4	5	6	7
7	24	25	26	27	12	13	14	15	16	17	18	19	20	21	22	23	28	29	30	31	32	33	34	35	0	1	2	3	4	5	6	7	8	9	10	11
6	16	17	18	19	4	5	6	7	8	9	10	11	12	13	14	15	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	0	1	2	3
5	12	13	14	15	0	1	2	3	4	5	6	7	8	9	10	11	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
4	4	5	6	7	28	29	30	31	32	33	34	35	0	1	2	3	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
3	28	29	30	31	16	17	18	19	20	21	22	23	24	25	26	27	32	33	34	35	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	32	33	34	35	20	21	22	23	24	25	26	27	32	33	34	35	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	0	1	2	3	24	25	26	27	28	29	30	31	32	33	34	35	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
0	24	25	26	27	12	13	14	15	16	17	18	19	20	21	22	23	28	29	30	31	32	33	34	35	0	1	2	3	4	5	6	7	8	9	10	11
LLFr	⌐	⌐																																		

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 20
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 36LL-9TLPr

Junctor Group 0

LLV, TLPr — 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9

TLH	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	9L	9R	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	9L	9R
JC Rel	0		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
8																																								
7																																								
6																																								
5																																								
4																																								
3																																								
2																																								
1																																								
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
LLFr	⌐	⌐																																						

LEGEND

TLPr—Trunk Link Pair
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R Right

Figure 21
(A&M Only for 2-Wire)
Junctor Distribution
Crossbar System No. 5
SIZE 40LL-10TLPr

Junctor Group 0

LLV, TLT	0 or 1						
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	
JC Rel	0	1	2	3	4	5	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟						

Junctor Group 1

TLT	0	0	0	0	0	0	1	1	1	1	1	1	
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	
JC Rel	29	28	27	26	25	24	29	28	27	26	25	24	
LLV	9	9	9	9	9	9	8	8	8	8	8	8	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟												

Junctor Group 2

TLT	0	0	0	0	0	0	1	1	1	1	1	1	
TLH	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	
JC Rel	17	16	15	14	13	12	17	16	15	14	13	12	
LLV	5	5	5	5	5	5	4	4	4	4	4	4	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟												

Junctor Group 3

TLT	0	0	0	0	0	0	1	1	1	1	1	1	
TLH	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	3R 3L	2R 2L	1R 1L	0R 4L	9R 9L	8R 8L	
JC Rel	23	22	21	20	19	18	23	22	21	20	19	18	
LLV	7	7	7	7	7	7	6	6	6	6	6	6	
Ch 9	11 10	9 8	7 6	5 4	3 2	1 0	11 10	9 8	7 6	5 4	3 2	1 0	
Ch 0	11 10	9 8	7 6	5 4	3 2	1 0	11 10	9 8	7 6	5 4	3 2	1 0	
LLFr	⌟ ⌟												

Junctor Group 3

TLT	0	0	0	0	0	0	1	1	1	1	1	1	
TLH	1R 1L	0R 0L	9R 9L	8R 8L	7R 7L	6R 6L	1R 1L	0R 0L	9R 9L	8R 8L	7R 7L	6R 6L	
JC Rel	11	10	9	8	7	6	11	10	9	8	7	6	
LLV	3	3	3	3	3	3	2	2	2	2	2	2	
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	0 1	2 3	4 5	6 7	8 9	10 11	
LLFr	⌟ ⌟												

Figure 22
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 12LL-2TLT

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV, TLT	0, 1, or 2													
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R					
JC Rel	0	1	2	3	4	5	6	7	8					
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17					
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17					
LLFr	⌟ ⌟													

Junctor Group 1

TLT	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L			
JC Rel	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21			
LLV	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	9	9	9	7	7	7	7	7	7	7	7	7			
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17			
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17			
LLFr	⌟ ⌟																													

Junctor Group 2

TLT	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2			
TLH	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L			
JC Rel	18	17	16	15	14	13	12	11	10	18	17	16	15	14	13	12	11	10	18	17	16	15	14	13	12	11	10			
LLV	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3			
Ch 9	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15			
Ch 0	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15			
LLFr	⌟ ⌟	*	*	*	*	*					*	*	*	*	*	*	*			*	*	*	*	*	*	*					

* Odd Channels only
are common to 24LL-4TLT size.

Junctor Group 3

TLT	0	0	0	1	1	1	2	2	2
TLH	0R 0L	9R 9L	9R 9L	0R 0L	9R 9L	9R 9L	0R 0L	9R 9L	9R 9L
JC Rel	20	19	9	20	19	9	20	9	9
LLV	6	6	6	6	6	6	6	6	6
Ch 9	5 4	3 2	1 0	17 16	15 14	13 12	11 10	9 8	7 6
8	11 10	9 8	7 6	5 4	3 2	1 0	17 16	15 14	13 12
7	11 10	9 8	7 6	5 4	3 2	1 0	17 16	15 14	13 12
6	17 16	15 14	13 12	11 10	9 8	7 6	5 4	3 2	1 0
5	5 4	3 2	1 0	17 16	15 14	13 12	11 10	9 8	7 6
4	17 16	15 14	13 12	11 10	9 8	7 6	5 4	3 2	1 0
3	5 4	3 2	1 0	17 16	15 14	13 12	11 10	9 8	7 6
2	17 16	15 14	13 12	11 10	9 8	7 6	5 4	3 2	1 0
Ch 0	11 10	9 8	7 6	5 4	3 2	1 0	17 16	15 14	13 12
LLFr	11 10	9 8	7 6	5 4	3 2	1 0	17 16	15 14	13 12

Figure 23
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 18LL-3TLT

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV, TLT	0, 1, 2, or 3																						
TLH	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	9L	9R	0L	0R	1L	1R
JC Rel	0		1		2		3		4		5		6		7		8		9		10		11	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
LLFr	⌟	⌟																						

Junctor Group 1

TLT	0		0		0		0		0		0		0		0		0		1		1		1		1		1		1	
TLH	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L
JC Rel	29		28		27		26		25		24		23		22		21		20		19		18		29		28		27	
LLV	9		9		9		9		9		9		8		8		8		8		8		8		8		8		8	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
LLFr	⌟	⌟																												

TLT	1		1		1		1		1		1		1		1		1		1		1		1		1		1		1	
TLH	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L
JC Rel	26		25		24		23		22		21		20		19		18		29		28		27		26		25		24	
LLV	8		8		8		9		9		9		9		9		9		9		9		9		9		9		9	
Ch 9	6	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	8	8	9	10	11
Ch 0	6	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	8	8	9	10	11
LLFr																														

TLT	2		2		2		2		2		2		2		2		2		3		3		3		3		3		3	
TLH	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L
JC Rel	29		28		27		26		25		24		23		22		21		20		19		18		29		28		27	
LLV	7		7		7		7		7		7		7		7		7		6		6		6		6		6		6	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
LLFr	⌟	⌟																												

TLT	3		3		3		3		3		3		3		3		3		3		3		3		3		3		3	
TLH	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L
JC Rel	26		25		24		23		22		21		20		19		18		29		28		27		26		25		24	
LLV	6		6		6		6		6		6		7		7		7		7		7		7		7		7		7	
Ch 9	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11
Ch 0	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11
LLFr																														

Junctor Group 2

TLT	0		0		0		0		0		0		1		1		1		1		1		2		2		2		2	
TLH	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	7R	7L	6R	6L	5R	5L
JC Rel	17		16		15		14		13		12		17		16		15		14		13		12		17		16		15	
LLV	5		5		5		5		5		5		4		4		4		4		4		4		5		5		5	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	20	21	22	23	12	13
8	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	0	1	2	3	4	5
7	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	20	21	22	23	12	13
6	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	0	1	2	3	4	5
5	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	20	21	22	23	12	13
4	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	0	1	2	3	4	5
3	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	20	21	22	23	12	13
2	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	0	1	2	3	4	5
1	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	20	21	22	23	12	13
Ch 0	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	0	1	2	3	4	5
LLFr	⌟	⌟																												

TLT	2		2		2		2		2		2		3		3		3		3		3		3		3		3		3	
TLH	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	7R	7L	6R	6L	5R	5L	4R	4L
JC Rel	25		24		23		22		21		20		19		18		17		16		15		14		13		12		11	
LLV	5		5		5		5		5		4		4		4		4		4		4		4		4		4		4	
Ch 9	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	12	13	14	15	16	17	18	19	20	21	22	23	12	13
8	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
7	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
6	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
4	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
3	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
2	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
1	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
Ch 0	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11
LLFr																														

Figure 24
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 24LL-4TLT

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV, TLT	0, 1, 2, 3, or 4																													
TLH	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R	5L	5R	6L	6R	7L	7R	8L	8R	9L	9R	0L	0R	1L	1R	2L	2R	3L	3R	4L	4R
JC Rel	0		1		2		3		4		5		6		7		8		9		10		11		12		13		14	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
LLFr	⌋	⌋																												

Junctor Group 1

TLT	0		0		0		0		0		0		0		0		0		1		1		1		1		1		1	
TLH	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L
JC Rel	29		28		27		26		25		24		23		22		21		20		19		18		17		16		15	
LLV	9		9		9		9		9		9		8		8		8		8		8		8		8		8		8	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
LLFr	⌋	⌋																												

TLT	2		2		2		2		2		2		2		2		2		3		3		3		3		3		3	
TLH	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L
JC Rel	29		28		27		26		25		24		23		22		21		20		19		18		17		16		15	
LLV	7		7		7		7		7		7		7		7		7		6		6		6		6		6		6	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
LLFr	⌋	⌋																												

TLT	4		4		4		4		4		4		4		4		4		4		4		4		4		4		4	
TLH	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L	4R	4L	3R	3L	2R	2L	1R	1L	0R	0L	9R	9L	8R	8L	7R	7L	6R	6L	5R	5L
JC Rel	29		28		27		26		25		24		23		22		21		20		19		18		17		16		15	
LLV	5		5		5		5		5		5		5		5		5		5		5		5		5		5		5	
Ch 9	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Ch 0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
LLFr	⌋	⌋																												

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Figure 25
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 30LL-5TLT

Junctor Group 0

LLV, TLT	0, 1, 2, 3, 4, or 5																
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R
JC Rel	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 25
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 25
LLFr	⌟ ⌟																	

Junctor Group 1 and Junctor Group 2 ( )

TLT	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L
JC Rel	29	28	27	26	25	24	23	22	21	20	19	18	29	28	27	26	25	24	23	22	21	20	19	18
LLV	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
8	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
7	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
6	24 25	26 27	28 29	30 31	32 33	34 35	(34 35)	(32 33)	(28 29)	(30 31)	(26 27)	(24 25)	20 21	22 23	16 17	18 19	12 13	14 15	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
5	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
4	24 25	26 27	28 29	30 31	32 33	34 35	(34 35)	(32 33)	(28 29)	(30 31)	(26 27)	(24 25)	20 21	22 23	16 17	18 19	12 13	14 15	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
3	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
2	24 25	26 27	28 29	30 31	32 33	34 35	(34 35)	(32 33)	(28 29)	(30 31)	(26 27)	(24 25)	20 21	22 23	16 17	18 19	12 13	14 15	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
1	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
LLFr	⌟ ⌟																							

TLT	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L
JC Rel	29	28	27	26	25	24	23	22	21	20	19	18	29	28	27	26	25	24	23	22	21	20	19	18
LLV	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
8	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
7	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
6	24 25	26 27	28 29	30 31	32 33	34 35	(24 25)	(26 27)	(28 29)	(30 31)	(32 33)	(34 35)	12 13	14 15	16 17	18 19	20 21	22 23	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
5	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
4	24 25	26 27	28 29	30 31	32 33	34 35	(24 25)	(26 27)	(28 29)	(30 31)	(32 33)	(34 35)	12 13	14 15	16 17	18 19	20 21	22 23	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
3	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
2	24 25	26 27	28 29	30 31	32 33	34 35	(24 25)	(26 27)	(28 29)	(30 31)	(32 33)	(34 35)	12 13	14 15	16 17	18 19	20 21	22 23	(12 13)	(14 15)	(16 17)	(18 19)	(20 21)	(22 23)
1	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	0 1	2 3	4 5	6 7	8 9	10 11	24 25	26 27	28 29	30 31	32 33	34 35
LLFr	⌟ ⌟																							

TLT	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	0R 0L	9R 9L	8R 8L
JC Rel	29	28	27	26	25	24	23	22	21	20	19	18	29	28	27	26	25	24	23	22	21	20	19	18
LLV	6	6	8	8	8	8	9	9	7	9	9	9	8	8	6	6	6	6	7	7	9	7	7	7
Ch 9	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
8	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
7	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
6	0 1	2 3	10 11	6 7	8 9	4 5	(0 1)	(2 3)	(4 5)	(6 7)	(8 9)	(10 11)	0 1	2 3	4 5	6 7	8 9	10 11	(8 9)	(10 11)	(4 5)	(6 7)	(0 1)	(2 3)
5	24 25	26 27	28 29	30 31	32 33	34 35	12 13	16 17	18 19	20 21	22 23	24 25	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
4	0 1	2 3	10 11	6 7	8 9	4 5	(0 1)	(2 3)	(4 5)	(6 7)	(8 9)	(10 11)	0 1	2 3	4 5	6 7	8 9	10 11	(8 9)	(10 11)	(4 5)	(6 7)	(0 1)	(2 3)
3	24 25	26 27	28 29	30 31	32 33	34 35	12 13	16 17	18 19	20 21	22 23	24 25	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
2	0 1	2 3	10 11	6 7	8 9	4 5	(0 1)	(2 3)	(4 5)	(6 7)	(8 9)	(10 11)	0 1	2 3	4 5	6 7	8 9	10 11	(8 9)	(10 11)	(4 5)	(6 7)	(0 1)	(2 3)
1	24 25	26 27	28 29	30 31	32 33	34 35	12 13	16 17	18 19	20 21	22 23	24 25	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
Ch 0	24 25	26 27	28 29	30 31	32 33	34 35	12 13	16 17	18 19	20 21	22 23	24 25	24 25	26 27	28 29	30 31	32 33	34 35	12 13	14 15	16 17	18 19	20 21	22 23
LLFr	⌟ ⌟																							

LEGEND

- TLT Trunk Link Triple
- TLH Trunk Link Horizontal on Junctor Switches
- JC— JC Relay on Trunk Link Frame
- LLFr— Line Link Frame
- LLV— Line Link Vertical on Junctor Switches
- Ch— Channel
- L— Left
- R— Right
- ( )— Junctors in Junctor Group 2

Figure 26
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 36LL-6TLT

Junctor Group 0

LLV, TLT																														
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R	0L 0R									
JC Rel	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20									
Ch 9	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	36 37	38 39	40 41									
Ch 0	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	36 37	38 39	40 41									
LLFr	⌟ ⌟																													

Junctor Group 1 and Junctor Group 2 ( )

TLT	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L
JC Rel	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21
LLV	9	9	9	7	7	7	8	8	8	7	7	7	8	8	8	9	9	9	7	7	7	9	9	9	8	8	8
Ch 9	0 1	2 3	24 25	30 31	8 9	10 11	12 13	14 15	26 27	22 23	34 35	20 21	30 31	8 9	10 11	4 5	6 7	28 29	0 1	2 3	24 25	30 31	8 9	10 11	18 19	32 33	16 17
8	4 5	6 7	28 29	40 41	36 37	38 39	34 35	20 21	22 23	18 19	32 33	16 17	26 27	12 13	14 15	0 1	2 3	24 25	4 5	6 7	28 29	26 27	12 13	14 15	40 41	36 37	38 39
7	0 1	2 3	24 25	(18 19)	(32 33)	(16 17)	32 33	16 17	18 19	(40 41)	(36 37)	(38 39)	40 41	36 37	38 39	4 5	6 7	28 29	(22 23)	(34 35)	(20 21)	30 31	8 9	10 11	22 23	34 35	20 21
6	4 5	6 7	28 29	40 41	36 37	38 39	34 35	20 21	22 23	18 19	32 33	16 17	26 27	12 13	14 15	0 1	2 3	24 25	4 5	6 7	28 29	26 27	12 13	14 15	40 41	36 37	38 39
5	0 1	2 3	24 25	30 31	8 9	10 11	12 13	14 15	26 27	22 23	34 35	20 21	30 31	8 9	10 11	4 5	6 7	28 29	0 1	2 3	24 25	30 31	8 9	10 11	18 19	32 33	16 17
4	4 5	6 7	28 29	40 41	36 37	38 39	34 35	20 21	22 23	18 19	32 33	16 17	26 27	12 13	14 15	0 1	2 3	24 25	4 5	6 7	28 29	26 27	12 13	14 15	40 41	36 37	38 39
3	0 1	2 3	24 25	30 31	8 9	10 11	12 13	14 15	26 27	22 23	34 35	20 21	30 31	8 9	10 11	4 5	6 7	28 29	0 1	2 3	24 25	30 31	8 9	10 11	18 19	32 33	16 17
2	4 5	6 7	28 29	40 41	36 37	38 39	34 35	20 21	22 23	18 19	32 33	16 17	26 27	12 13	14 15	0 1	2 3	24 25	4 5	6 7	28 29	26 27	12 13	14 15	40 41	36 37	38 39
1	0 1	2 3	24 25	30 31	8 9	10 11	14 15	0 1	26 27	22 23	34 35	20 21	30 31	8 9	10 11	4 5	6 7	28 29	0 1	2 3	24 25	30 31	8 9	10 11	18 19	32 33	16 17
Ch 0	4 5	6 7	28 29	(18 19)	(32 33)	(16 17)	32 33	16 17	18 19	(40 41)	(36 37)	(38 39)	40 41	36 37	38 39	0 1	2 3	24 25	(22 23)	(34 35)	(20 21)	26 27	12 13	14 15	22 23	34 35	20 21
LLFr	⌟ ⌟																										

TLT	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L
JC Rel	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21	29	28	27	26	25	24	23	22	21
LLV	8	8	8	9	9	9	7	7	7	7	7	9	8	8	8	9	9	7	8	8	8	9	9	7	7	7	9
Ch 9	0 1	2 3	24 25	22 23	34 35	20 21	36 37	38 39	40 41	18 19	32 33	26 27	4 5	6 7	28 29	12 13	14 15	16 17	40 41	36 37	38 39	18 19	32 33	26 27	12 13	14 15	16 17
8	4 5	6 7	28 29	18 19	32 33	16 17	12 13	14 15	26 27	22 23	34 35	40 41	30 31	8 9	10 11	36 37	38 39	20 21	0 1	2 3	24 25	22 23	34 35	30 31	8 9	10 11	20 21
7	30 31	8 9	10 11	22 23	34 35	20 21	(8 9)	(10 11)	(30 31)	(0 1)	(2 3)	26 27	0 1	2 3	24 25	12 13	14 15	(24 25)	4 5	6 7	28 29	18 19	32 33	(4 5)	(6 7)	(28 29)	16 17
6	4 5	6 7	28 29	18 19	32 33	16 17	12 13	14 15	26 27	22 23	34 35	40 41	30 31	8 9	10 11	36 37	38 39	20 21	0 1	2 3	24 25	22 23	34 35	30 31	8 9	10 11	20 21
5	0 1	2 3	24 25	22 23	34 35	20 21	36 37	38 39	40 41	18 19	32 33	26 27	4 5	6 7	28 29	12 13	14 15	16 17	40 41	36 37	38 39	18 19	32 33	26 27	12 13	14 15	16 17
4	4 5	6 7	28 29	18 19	32 33	16 17	12 13	14 15	26 27	22 23	34 35	40 41	30 31	8 9	10 11	36 37	38 39	20 21	0 1	2 3	24 25	22 23	34 35	30 31	8 9	10 11	20 21
3	0 1	2 3	24 25	22 23	34 35	20 21	36 37	38 39	40 41	18 19	32 33	26 27	4 5	6 7	28 29	12 13	14 15	16 17	40 41	36 37	38 39	18 19	32 33	26 27	12 13	14 15	16 17
2	4 5	6 7	28 29	18 19	32 33	16 17	12 13	14 15	26 27	22 23	34 35	40 41	30 31	8 9	10 11	36 37	38 39	20 21	0 1	2 3	24 25	22 23	34 35	30 31	8 9	10 11	20 21
1	0 1	2 3	24 25	22 23	34 35	20 21	36 37	38 39	40 41	18 19	32 33	26 27	4 5	6 7	28 29	12 13	14 15	16 17	40 41	36 37	38 39	18 19	32 33	26 27	12 13	14 15	16 17
Ch 0	30 31	8 9	10 11	18 19	32 33	16 17	(8 9)	(10 11)	(30 31)	(0 1)	(2 3)	40 41	0 1	2 3	24 25	36 37	38 39	(24 25)	4 5	6 7	28 29	22 23	34 35	(4 5)	(6 7)	(28 29)	20 21
LLFr	⌟ ⌟																										

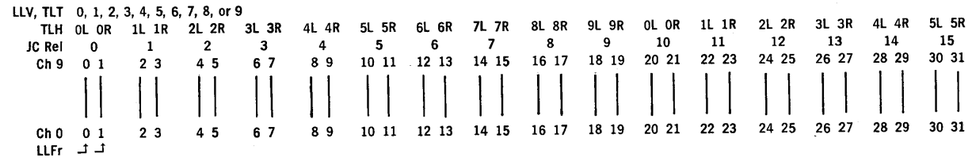
TLT	6	6	6	6	6	6	6	6	6
TLH	9R 9L	8R 8L	7R 7L	6R 6L	5R 5L	4R 4L	3R 3L	2R 2L	1R 1L
JC Rel	29	28	27	26	25	24	23	22	21
LLV	8	8	8	9	9	9	7	7	7
Ch 9	22 23	34 35	20 21	40 41	36 37	38 39	4 5	6 7	28 29
8	18 19	32 33	16 17	30 31	8 9	10 11	0 1	2 3	24 25
7	26 27	12 13	14 15	40 41	36 37	38 39	(26 27)	(12 13)	(14 15)
6	18 19	32 33	16 17	30 31	8 9	10 11	0 1	2 3	24 25
5	22 23	34 35	20 21	40 41	36 37	38 39	4 5	6 7	28 29
4	18 19	32 33	16 17	30 31	8 9	10 11	0 1	2 3	24 25
3	22 23	34 35	20 21	40 41	36 37	38 39	4 5	6 7	28 29
2	18 19	32 33	16 17	30 31	8 9	10 11	0 1	2 3	24 25
1	22 23	34 35	20 21	40 41	36 37	38 39	4 5	6 7	28 29
Ch 0	26 27	12 13	14 15	30 31	8 9	10 11	(26 27)	(12 13)	(14 15)
LLFr	⌟ ⌟								

Figure 27
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 42LL-7TLT

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right
( )—Junctors on Junctor Group 2

Junctor Group 0



Junctor Group 0 (contd)

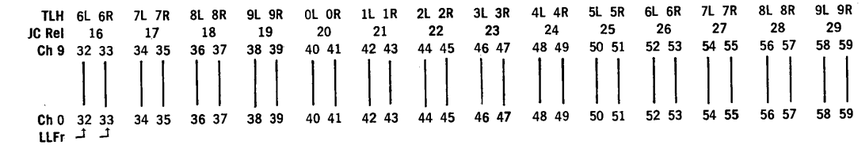


Figure 30
(A&M Only)
Junctor Distribution
Crossbar System No. 5
SIZE 60LL-10TLT

LEGEND

TLT—Trunk Link Triple
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay on Trunk Link Frame
LI Fr—Line Link Frame
LLV—Link Link Vertical on Junctor Switches
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV	0	1	2
TLFr	0	1	2
TLH	0L 0R	1L 1R	2L 2R
JC Rel	A0	A1	A2
Ch	9 9	9 9	9 9
	0 0	0 0	0 0
	0 1	2 3	4 5
LLFr			

Junctor Group 1

LLV	5	6	7
TLFr	0	1	2
TLH	5R 5L	6R 6L	7R 7L
JC Rel	B5	B6	B7
Ch	9 9	9 9	9 9
	0 0	0 0	0 0
	0 1	2 3	4 5
LLFr			

Junctor Group 2

LLV	8	9	4
TLFr	0	1	2
TLH	8R 8L	9R 9L	4R 4L
JC Rel	B8	B9	A4
Ch	9 9	9 9	9 9
	0 0	0 0	0 0
	0 1	2 3	4 5
LLFr			

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC Rel—JC Relay on Trunk Link Circuit
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switch
Ch—Channel
R—Left
L—Right

Figure 31
Permanent Junctor Distribution—2-Wire 2-3 Size Convertible to 5 Size Per Fig. 32

Junctor Group 0

LLV	0	1	2	3	4	5	6	7	8	9
TLFr	0	1	2	3	4	5	6	7	8	9
TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R
JC Rel	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9
Ch	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9
	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19
LLFr	⌋ ⌋									

Junctor Group 1

LLV	5	6	7	8	9	0	1	2	3	4
TLFr	0	1	2	3	4	5	6	7	8	9
TLH	5R 5L	6R 6L	7R 7L	8R 8L	9R 9L	OR OL	1R 1L	2R 2L	3R 3L	4R 4L
JC Rel	B5	B6	B7	B8	B9	B0	B1	B2	B3	B4
Ch	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9
	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19
LLFr	⌋ ⌋									

Figure 32
Permanent Junctor Distribution—2-Wire 5 Size Convertible To 10 Size Per Fig. 33

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC Rel—JC Relay of Trunk Link Circuit
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switch
Ch—Channel
L—Left
R—Right

Junctor Group 0

LLV	0	1	2	3	4	5	6	7	8	9
JMG	0	1	2	3	4	5	6	7	8	9
TLFr	0	1	2	3	4	5	6	7	8	9
TLFr	10	11	12	13	14	15	16	17	18	19
TLFr	20	21	22	23	24	25	26	27	28	29

TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R
JC Rel	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9
Ch	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9
	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 1	2 3	4 5	6 7	8 9	10 11	12 13	14 15	16 17	18 19
LLFr	⌟ ⌟									

TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R
JC Rel	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9
Ch	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9
	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	20 21	22 23	24 25	26 27	28 29	30 31	32 33	34 35	36 37	38 39
LLFr	⌟ ⌟									

TLH	0L 0R	1L 1R	2L 2R	3L 3R	4L 4R	5L 5R	6L 6R	7L 7R	8L 8R	9L 9R
JC Rel	X0	X1	X2	X3	X4	X5	X6	X7	X8	X9
Ch	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9	9 9
	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	40 41	42 43	44 45	46 47	48 49	50 51	52 53	54 55	56 57	58 59
LLFr	⌟ ⌟									

LEGEND

TLFr—Trunk Link Frame
TLH—Trunk Link Horizontal on Junctor Switches
JC—JC Relay of Trunk Link Circuit
LLFr—Line Link Frame
LLV—Line Link Vertical on Junctor Switch
Ch—Channel
L—Left
R—Right
JMG—Junctor Multiple Grouping (pairs or triples)

Figure 33
Permanent Junctor Distribution—2-Wire 10 Size