TERMINATING MARKER AND TERMINATING MARKER APPLIQUE TESTS LINE JUNCTOR GROUP SELECTION

Replaces: Section 225.5 Dated 11-22-68

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1. GENERAL INFORMATION

1.1 Refer to Terminating Marker and Terminating Marker Applique Tests per Section 225 for General Information, Test Procedure, Records and Requirements, Test Equipment, and Test Set Up.

1.2 On additions and transitions, test only the added or changed junctors. The test to be applied shall be determined by the junctor pattern specified for the job.

2. LINE JUNCTOR GROUP SELECTION

NOTE: This test is omitted on jobs having 10 incoming frames or 10 incoming groups.

2.1 This test is made by busying the channels between an incoming link frame and a line link frame used for test.

2.11 Any incoming link frame and line link frame may be used for this test. The channels should be made busy at incoming link or line link secondary switch verticals using 351C make busy plugs. Refer to Line Junctor Assignment Chart for the channels to be busied.

2.12 Observe that the marker tests the channels in all junctor subgroups between these frames in the proper sequence and, finding all channels busy, will set up the overflow signal.

2.2 The lighted JG lamp indicates the junctor subgroup used.

2.21 Subgroups JGA, JGB, JGC and JGE, as provided, are automatically selected on successive calls in the order named except when subgroup JGE does not contain 10 line junctors. In this case subgroup JGE is selected only on an overflow basis.

2.22 The subgroups as provided for the various size jobs are as follows:

I or IG	Subgroups Equipped
2	JGA, JGB, JGC, JGE
3	JGA, JGB, JGE
4 or 5	JGA, JGE
6,7,8 or 9	JGA, (JGE on Overflow Basis)

2.3 Make test calls as indicated in Paragraphs 2.33 through 2.37 which are based on the assumption that all four subgroups are equipped.

2.31 Where subgroups are not equipped as indicated in Paragraph 2.22, disregard the tests described for these subgroups. For example, when testing a job having 3 incoming frames or incoming groups, Paragraph 2.35 is omitted.

2.32 Make a test to include subgroup JGD when provided.

2.33 Busy the junctors in the first subgroup (subgroup JGA) between the frames used for test. With the marker in position to use subgroup JGA on the next call, make a test call to the line link frame. Observe that the test call is completed OK and that a junctor in the next subgroup is used.

2.34 Busy the junctors in subgroup JGB between the frames used for test. With the marker in position to use subgroup JGA or JGB on the next call, make a test call and observe that the call is completed OK and a junctor in the next subgroup is used.

2.35 Busy the junctors in subgroup JGC between the frames used for test. With the marker in position to use subgroup JGA, JGB or JGC on the next call, make a test call and observe that the call is completed OK and a junctor in the next subgroup is used.

2.36 Busy the junctors in subgroup JGE between the frames used for test. With the marker in position to use subgroup

JGA, JGB or JGC on the next call, make a test call and observe that the overflow signal is received (lamps OF, TC, RV and RC are lighted).

2.37 Remove the make busy plugs from the junctors in all subgroups.

3. JUNCTOR SUBGROUPS AND PATTERNS

3.1 Make test calls as described in Paragraphs 3.5 and 3.6 using each junctor subgroup as provided.

3.11 Observe that each call is completed successfully and that lamps light as described in the following paragraphs and charts.

3.2 The lighted LJ lamp indicates the operated line junctor relay in the line choice connector circuit.

3.21 The lighted LJ lamp agrees in number with the operated line junctor relay in offices of 20, 18, 10 or 9 line choices.

3.22 In offices of other sizes, the lighted LJ lamp agrees with the operated line junctor relay when the first subgroup of line junctors (JGA) is being used and when the tests are made to line choice 0, but they may or may not agree when tests are made to other line choices using other subgroups. In this latter case, the lighted LJ lamp agrees with "JA or JB punching - marker side" as shown on the Line Junctor Assignment Chart.

3.3 The lighted JG lamp (JGA, JGB, JGC, or JGE) indicates the junctor subgroup used.

3.31 When testing a particular subgroup, block the line junctor group selection circuit (by blocking RT- relays as required), to prevent it from "walking" and to cause it to reselect the same subgroup on successive test calls.

3.32 On jobs of 6, 7, 8 or 9 incoming frames or incoming groups, it is not necessary to block the selection circuit when testing the A subgroup as this subgroup is always selected except on an overflow basis.

3.33 Remove block from RT- relays at completion of test.

3.4 The junctor subgroups which do not contain the full 10 line junctors require junctor pattern relays to busy the unequipped channels.

3.41 The lighted JP lamp indicates the pattern relay operated on the test call.

3.42 Lamp JPN lights, on jobs of 6 to 9 incoming frames or incoming groups, when no pattern relay is required on the test call, that is, when the subgroup used contains 10 line junctors.

3.5 Using junctor subgroup A (JGA lamp lighted) make a test call from each incoming frame or incoming group to one line choice.

NOTE: The line junctor selection circuit is not required on jobs of 10 or 20 incoming frames or groups, therefore, lamp JGA does not light on these jobs.

3.51 Divide the calls evenly between half choice A and half choice B of the line choice used for test.

3.52 If the incoming link frames are paired, use the even numbered frame of the pair on calls to half choice A and use the odd numbered frame of the pair to half choice B of the line choice used for test.

3.53 Observe that the lighted LJ lamp always agrees with the incoming frame number if the incoming link frames are not paired and with the incoming group number when the frames are paired.

3.54 Observe that lamp LIL lights on all calls to half choice A and lamp RIL lights on all calls to half choice B.

3.55 Observe that lamp JPN lights on each call on jobs of 6 to 9 incoming frames or groups.

NOTE: Using junctor subgroups B, C and E as provided, make test calls and observe lamps as indicated in the following charts. Paragraph 3.6 covers standard junctor combinations and assignments. Paragraph 3.7 covers manufactured discontinued junctor combinations and assignments.

3.6 Standard Junctor Combinations and Assignments

3.61 2 I. Frs. & 2 L.C.'s or 2 I.G.'s & 4 L.C.'s (40 Junctors per H.C.)

I. Fr. or *I.G.	H.C.	Junctor Subgroup B Lp. LJ	B Lp. IL	C Lp. LJ	C Lp. IL	E Lp. LJ	E Lp. IL
0	0A	9	R	4	L	3	R
1	0A	5	R	7	L	8	R
0	0B	9	L	4	R	3	L
1	0B	5	L	7	R	8	L

*NOTE: If the incoming link frames are paired, make the test calls from the even numbered frame of the pairs in subgroups B and E, and from the odd numbered frame of the pairs in subgroups C.

3.62 3 I. Frs. & 3 L.C.'s or 3 I.G.'s & 6 L.C.'s (30 Junctors per H.C.)

3.621 Junctor Subgroups JGB and JGE

I. Fr. or *I.G.	H.C.	Junctor Subgroup B Lp. LJ	B Lp. IL	E Lp. LJ	E Lp. IL
0	0A	9	R	4	L
1	0A	5	R	7	L
2	0B	6	R	8	L
0	0B	4	R	4	R
1	0B	5	L	7	R
2	0B	6	L	8	R

*NOTE: If the incoming frames are paired, make the test calls from the even numbered frame of the pairs in subgroup B and from the odd numbered frame of the pairs in subgroup E.

3.63 4 I. Frs. & 4 L.C.'s or 4 I.G.'s & 8 L.C.'s (20 Junctors per H.C.)

3.631 Junctor Subgroup JGE

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL
0	0A	9	R
1	0A	5	R
2	0A	6	R
3	0A	7	R
0	0B	9	L
1	0B	5	L
2	0B	6	L
3	0B	7	L

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pair on the calls to half choice 0A and the odd numbered frame of the pair on the calls to half choice 0B.

3.64 5 I. Frs. & 5 L.C.'s or 5 I.G.'s & 10 L.C.'s (20 Junctors per H.C.)

3.641 Junctor Subgroup JGE

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL
0	0A	9	R
1	0A	5	R
2	0A	6	R
3	0A	7	R
4	0A	8	R
0	0B	9	L
1	0B	5	L
2	0B	6	L
3	0B	7	L
4	0B	8	L

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on the calls to half choice 0A, and use the odd numbered frame of the pairs on the calls to half choice 0B.

3.65 6 I. Frs. & 6 L.C.'s or 6 I.G.'s & 12 L.C.'s (15 Junctors per H.C.)

3.651 Junctor Subgroup JGE - Make calls as indicated in the following chart and observe that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B. The first of the double numbers shown in the following chart indicates lamp LJ lighted and the second indicates lamp JP lighted.

		Line Choice					
I.Fr.	-	0A	1B	2A	3B	4A	5B
*I.G.	-	0A	2B	4A	6B	8A	10B
0		9-0	9-1	8-0	8-1	7-0	7-1
1		9-1	9-0	8-1	8-0	7-1	7-0
2		7-0	7-1	9-0	9-1	8-0	8-1
3		7-1	7-0	9-1	9-0	8-1	8-0
4		8-0	8-1	7-0	7-1	9-0	9-1
5		8-1	8-0	7-1	7-0	9-1	9-0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to half choice A and use the odd numbered frame of the pairs on calls to half choice B.

3.652 Make a test call from incoming frame 0 to a line in each line choice as shown and observe that correct LJ and JP lamps light. If incoming frames are paired either frame may be used for these test calls.

(I.G.)	LC	1B	3A	5B	7A	9B	11A
Lamp	LJ	9	9	8	8	7	7
Lamp	JP	0	1	0	1	0	1

3.653 Block relay LLB operated and manually operate relays (JP) 0-1, one at a time, and check CHT relays as follows:

JP Relays	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1,3,5,7,9 (CHT)	0,2,4,6,8
1 (CHT)	0,2,4,6,8 (CHT)	1,3,5,7,9

Remove the block from relay LLB.

3.66 7 I. Frs. & 7 L.C.'s or 7 I.G.'s & 14 L.C.'s (12 or 13 Junctors per H.C.)

3.661 Junctor Subgroup JGE - Make test calls as indicated in the following chart and observe that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B. The first of the double numbers shown in the following chart indicates lamp LJ lighted and the second indicates lamp JP lighted.

		Line Choice						
I. Fr.	-	0A	1B	2A	3B	4A	5B	6A
*I.G.	-	0A	2B	4A	6B	8A	10B	10A
0		9-0	9-3	9-2	9-1	8-0	8-3	8-2
1		9-1	9-0	9-3	9-2	8-1	8-0	8-3
2		9-2	9-1	9-0	9-3	8-2	8-1	8-0
3		9-3	9-2	9-1	9-0	8-3	8-2	8-1
4		8-0	8-3	8-2	8-1	9-0	9-3	9-2
5		8-1	8-0	8-3	8-2	9-1	9-0	9-3
6		8-2	8-1	8-0	8-3	9-2	9-1	9-0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to half choice A, and use the odd numbered frame of the pairs on calls to half choice B.

3.662 Make a test call from incoming link frame 0 to a line in each line choice as shown and observe that correct LJ and JP lamps light. If incoming frames are paired either frame may be used for these test calls.

(I.G.)	LC	1B	3A	5B	7A	9B	11A	13B
Lamp	LJ	9	9	9	9	8	8	8
Lamp	JP	0	3	2	1	0	3	2

3.663 Block relay LLB operated and manually operate relays (JP) 0-3, one at a time, and check CHT relays as follows:

JP Relay	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1-3,5-7,9 (CHT)	0,4,8
1 (CHT)	0,2-4,6-8 (CHT)	1,5,9
2 (CHT)	0,1,3-5,7-9 (CHT)	2,6
3 (CHT)	0-1,4-6,8,9 (CHT)	3,7

Remove the block from relay LLB.

3.67 8 I. Frs. & 8 L.C.'s or 8 I.G.'s & 16 L.C.'s (12 or 13 Junctors per H.C.)

3.671 Junctor Subgroup JGE - Make calls as indicated in the following chart and observe that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B. The first of the double numbers shown in the following chart indicates lamp LJ lighted and the second indicates lamp JP lighted.

		Line Choice							
I. Fr.	-	0A	1B	2A	3B	4A	5B	6A	7B
*I.G.	-	0A	2B	4A	6B	8A	10B	12B	14B
0		9-0	9-3	9-2	9-1	8-0	8-3	8-2	8-1
1		9-1	9-0	9-3	9-2	8-1	8-0	8-3	8-2
2		9-2	9-1	9-0	9-2	8-2	8-1	8-0	8-3
3		9-3	9-2	9-1	9-0	8-3	8-2	8-1	8-0
4		8-0	8-3	8-2	8-1	9-0	9-3	9-2	9-1
5		8-1	8-0	8-2	8-2	9-1	9-0	9-3	9-2
6		8-2	8-1	8-0	8-3	9-2	9-1	9-0	9-3
7		8-3	8-2	8-1	8-0	9-3	9-2	9-1	9-0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to half choice A, and use the odd numbered frame on calls to half choice B.

3.672 Make a test call from incoming link frame 0 to a line in each line choice as shown and observe that correct LJ and JP lamps light. If incoming frames are paired either frame may be used for these test calls.

(I.C.)	LC	1B	3A	5B	7A	9B	11A	13B	15A
Lamp	LJ	9	9	9	9	8	8	8	8
Lamp	JP	0	3	2	1	0	3	2	1

3.673 Block operated relay LLB and manually operate relays (JP) 0-3, one at a time, and check CHT relays as follows:

JP Relay	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1-3,5-7,9 (CHT)	0,4,8 (CHT)
1 (CHT)	0,2-4,6-8 (CHT)	1,5,9 (CHT)
2 (CHT)	0,1,3-5,7-9 (CHT)	2,6 (CHT)
3 (CHT)	0-2,4-6,8,9 (CHT)	3,7 (CHT)

Remove the block from relay LLB.

3.68 9 I. Frs. & 9 L.C.'s or 9 I.G.'s & 18 L.C.'s (11 or 12 Junctors per H.C.)

3.681 Junctor Subgroup JGE - Make calls as indicated in the following chart. Observe that lamp LJ9 lights on each call and that lamp RIL lights if the called line is located on half choice A and

lamp LIL lights if the called line is located on half choice B. The chart shows the lighted JP lamp.

I. Fr. -	Line Choice 0A	1B	2A	3B	4A	5B	6A	7B	8A
*I.G. -	0A	2B	4A	6B	8A	10B	12A	14B	16A
0	0	8	7	6	5	4	3	2	1
1	1	0	8	7	6	5	4	3	2
2	2	1	0	8	7	6	5	4	3
3	3	2	1	0	8	7	6	5	4
4	4	3	2	1	0	8	7	6	5
5	5	4	3	2	1	0	8	7	6
6	6	5	4	3	2	1	0	8	7
7	7	6	5	4	3	2	1	0	8
8	8	7	6	5	4	3	2	1	0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to half choice A, and use the odd numbered frame on calls to half choice B.

3.682 Make a test call from incoming frame 0 to a line in each line choice as shown and observe that correct JP lamp lights. If incoming link frames are paired either frame may be used for these test calls.

(I.G.) LC	1B	3A	5B	7A	9B	11A	13B	15A	17B
Lamp JP	0	8	7	6	5	4	3	2	1

3.683 Block relay LLB operated and manually operate relays (JP) 0-8, one at a time, and check CHT relays as follows:

JP Relay	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1-8 (CHT)	0 and 9
1 (CHT)	0,2-9 (CHT)	1
2 (CHT)	0,1,3-9 (CHT)	2
3 (CHT)	0-2,4-9 (CHT)	3
4 (CHT)	0-3,5-9 (CHT)	4
5 (CHT)	0-4,6-9 (CHT)	5
6 (CHT)	0-5,7-9 (CHT)	6
7 (CHT)	0-6,8,9 (CHT)	7
8 (CHT)	0-7,9 (CHT)	8

Remove the block from relay LLB.

3.7 Manufacture Discontinued Junctor Combinations and Assignments

3.71 2 I. Frs. & 2 L.C.'s or 2 I.G.'s & 4 L.C.'s (50 Junctors per H.C.) Mfg. Disc.

I. Fr. or		Junctor Subgroup B		C		D		E	
*I.G.	H.C.	Lp. LJ	Lp. IL	Lp. LJ	Lp. IL	Lp. LJ	Lp. IL	Lp. LJ	Lp. IL
0	0A	2	R	4	L	6	R	8	L
1	0A	3	R	5	L	7	R	9	L
0	0B	2	L	4	R	6	L	8	R
1	0B	3	L	5	R	7	L	9	R

*NOTE: If the incoming link frames are paired, make the test calls from the even numbered frame of the pairs in subgroups B and D, and from the odd numbered frame of the pairs in subgroups C and E.

3.72 3 I. Frs. & 3 L.C.'s or 3 I.G.'s & 6 L.C.'s (33 or 34 Junctors per H.C.) Mfg. Disc.

3.721 Junctor Subgroups JGB and JGC

I. Fr. or		Junctor Subgroup B		C	
*I.G.	H.C.	Lp. LJ	Lp. IL	Lp. LJ	Lp. IL
0	0A	3	R	6	L
1	0A	4	R	7	L
2	0A	5	R	8	L
0	0B	3	L	6	R
1	0B	4	L	7	R
2	0B	5	L	8	R

*NOTE: If the incoming frames are paired, make the test calls from the even numbered frame of the pairs in subgroup B and from the odd numbered frame of the pairs in subgroup C.

3.722 Junctor Subgroup JGE

I. Fr. or				
*I.G.	H.C.	Lp. LJ	Lp. IL	Lp. JP
0	0A	9	R	0
1	0A	9	R	1
2	0A	9	R	2
0	1B	9	L	2
1	1B	9	L	0
2	1B	9	L	1
0	2A	9	R	1
1	2A	9	R	2
2	2A	9	R	0
0	3A	9	R	0
0	4A	9	R	2
0	5A	9	R	1

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to half choices 0A and 2A and the odd numbered frame of the pairs on calls to half choice 1B, 3A, 4A and 5A.

3.723 Block relay LLB operated and manually operate relays (JP) 0-2, one at a time, and check CHT relay as follows:

JP Relay	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1,2,4,5,7,8 (CHT)	0,3,6,9
1 (CHT)	1,2,3,5,6,8,9 (CHT)	1,4,7
2 (CHT)	0,1,3,4,5,6,7,9 (CHT)	2,5,8

Remove the block from relay LLB.

3.73 4 I. Frs. & 4 L.C.'s or 4 I.G.'s & 8 L.C.'s (25 Junctors per H.C.) Mfg. Disc.

3.731 Junctor Subgroup JGB

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL
0	OA	4	R
1	OA	5	R
2	OA	6	R
3	OA	7	R
0	OB	4	L
1	OB	5	L
2	OB	6	L
3	OB	7	L

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pair on the calls to half choice OA, and use the odd numbered frame of the pair on the calls to half choice B.

3.732 Junctor Subgroup JGE

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL	Lp. JP
0	OA, 2A	8	L	0
1	OA, 2A	8	L	1
2	OA, 2A	9	L	0
3	OA, 2A	9	L	1
0	1B, 3B	8	R	1
1	1B, 3B	8	R	0
2	1B, 3B	9	R	1
3	1B, 3B	9	R	0
0	4A	8	L	0
0	5A	8	L	1
0	6A	8	L	0
0	7A	8	L	1

*NOTE: If the incoming frames are paired, use the even numbered frame of the pairs on calls to half choices OA and 2A, and use the odd numbered frame of the pairs on calls to half choices 1A and 3A. Either frame may be used on the calls to half choices 4A, 5A, 6A and 7A.

3.733 Block relay LLB operated and manually operate relays (JP) 0-1, one at a time, and check CHT relays as follows:

JP Relays	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1,3,5,7,9 (CHT)	0,2,4,6,8
1 (CHT)	0,2,4,6,8 (CHT)	1,3,5,7,9

Remove the block from relay LLB.

3.74 5 I. Frs. & 5 L.C.'s or 5 I.G.'s & 10 L.C.'s (20 Junctors per H.C.) Mfg. Disc. (Changed JCTR Assignments)

3.741 Junctor Subgroup JGE

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL
0	OA	5	R
1	OA	6	R
2	OA	7	R
3	OA	8	R
4	OA	9	R
0	OB	5	L
1	OB	6	L
2	OB	7	L
3	OB	8	L
4	OB	9	L

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on the calls to half choice OA, and use the odd numbered frame of the pairs on the calls to half choice OB.

3.75 6 I. Frs. & 6 L.C.'s or 6 I.G.'s & 12 L.C.'s (16 or 17 Junctors per H.C.) Mfg. Disc.

3.751 Junctor Subgroup JGD

I. Fr. or *I.G.	H.C.	Lp. LJ	Lp. IL	Lp. JP
0	OA, 2A, 4A	6	R	0
1	OA, 2A, 4A	6	R	1
2	OA, 2A, 4A	7	R	0
3	OA, 2A, 4A	7	R	1
4	OA, 2A, 4A	8	R	0
5	OA, 2A, 4A	8	R	1
0	1B, 3B, 5B	6	L	1
1	1B, 3B, 5B	6	L	0
2	1B, 3B, 5B	7	L	1
3	1B, 3B, 5B	7	L	0
4	1B, 3B, 5B	8	L	1
5	1B, 3B, 5B	8	L	0
0	6A	6	R	0
0	7A	6	R	1
0	8A	6	R	0
0	9A	6	R	1
0	10A	6	R	0
0	11A	6	R	1

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pair on calls to half choices 0A, 2A and 4A, and use the odd numbered frame of the pair on calls to half choices 1B, 3B and 5B. Either frame may be used on calls to half choices 6-11A.

3.752 Junctor Subgroup E - Make calls as indicated in the following chart and observe that lamp LJ9 lights on each call and that lamp LIL lights if the called line is located on half choice A and lamp RIL lights if the called line is located on half choice B. The following chart shows the lighted JP lamp.

I. Fr. or *I.G.	Line Choice 0	1	2	3	4	5
0	2	7	6	5	4	3
1	3	2	7	6	5	4
2	4	3	2	7	6	5
3	5	4	3	2	7	6
4	6	5	4	3	2	7
5	7	6	5	4	3	2

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to line choices 0, 2 and 4, and use the odd numbered frame of the pairs on calls to line choices 1, 3 and 5. Make a test call from incoming frame 0 to a line in line choices 6 to 11 and observe that lamp JP lights as follows:

LC	6	7	8	9	10	11
Lamp JP	2	7	6	5	4	3

3.753 Block relay LLB operated and manually operate relays (JP) 0-7, one at a time, and check CHT relays as follows:

JP Relay	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1,3,5,7,9 (CHT)	0,2,4,6,8
1 (CHT)	0,2,4,6,8 (CHT)	1,3,5,7,9
2 (CHT)	0,2-6,8,9 (CHT)	1,7
3 (CHT)	0,1,3-7,9 (CHT)	2,8
4 (CHT)	0-2, 4-8 (CHT)	3,9
5 (CHT)	0-3, 5-9 (CHT)	4
6 (CHT)	0-4, 6-9 (CHT)	5
7 (CHT)	1-5, 7-9 (CHT)	0,6

Remove the block from relay LLB.

3.76 7 I. Frs. & 7 L.C.'s or 7 I.G.'s & 14 L.C.'s (14 or 15 Junctors per H.C.) Mfg. Disc.

3.761 Junctor Subgroup D - Make test calls as indicated in the following chart and observe that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B. The first of the double number shown in the following chart indicates the lighted LJ lamp and the second number indicates the lighted JP lamp.

I. Fr. or *I.G.	Line Choice 0	1	2	3	4	5	6
0	7-0	9-0	8-2	8-1	8-0	7-2	7-1
1	7-1	7-0	9-0	8-2	8-1	8-0	8-2
2	7-2	7-1	7-0	9-0	8-2	8-1	8-0
3	8-0	7-2	7-1	7-0	9-0	8-2	8-1
4	8-1	8-0	7-2	7-1	7-0	9-0	8-2
5	8-2	8-1	8-0	7-2	7-1	7-0	9-0
6	9-0	8-2	8-1	8-0	7-2	7-1	7-0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to line choices 0, 2, 4 and 6, and use the odd numbered frame of the pairs on calls to line choices 1, 3 and 5. Make a test call from incoming link frame 0 to a line in line choices 7 to 13 and observe that lamps LJ and JP light as follows:

LC	7	8	9	10	11	12	13
Lamp LJ	7	9	8	8	8	7	7
Lamp JP	0	0	2	1	0	2	1

3.762 Junctor Subgroup E - Make calls as indicated in the following chart and observe that lamp LJ9 lights on each call and that lamp RIL lights if the called line is located in half choice A and lamp LIL lights if the called line is located in half choice B. The following chart shows the lighted JP lamp.

I. Fr. or *I.G.	Line Choice 0	1	2	3	4	5	6
0	3	0	8	7	6	5	4
1	4	3	0	8	7	6	5
2	5	4	3	0	8	7	6
3	6	5	4	3	0	8	7
4	7	6	5	4	3	0	8
5	8	7	6	5	4	3	0
6	0	8	7	6	5	4	3

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to line choices 0, 2, 4 and 6 and use the odd numbered frame on calls to line choices 1, 3 and 5. Make a test call from incoming link frame 0 to a line in line choices 7 to 13 and observe that lamp JP lights as follows:

LC	7	8	9	10	11	12	13
Lamp JP	3	0	8	7	6	5	4

3.763 Block relay LLB operated and manually operate relays (JP) 0-8, one at a time, and check CHT relays as follows:

JP Relays	CHT Relays Operated	CHT Relays Non-Operated
JP0 (CHT)	1,2,4,5,7,8 (CHT)	0,3,6,9
JP1 (CHT)	0,2,3,5,6,8,9 (CHT)	1,4,7
JP2 (CHT)	0,1,3,4,6,7,9 (CHT)	2,5,8
JP3 (CHT)	0,2-9 (CHT)	
JP4 (CHT)	0,1,3-9 (CHT)	
JP5 (CHT)	0-3,5-9 (CHT)	
JP6 (CHT)	0-4,6-9 (CHT)	
JP7 (CHT)	0-7,9 (CHT)	
JP8 (CHT)	0-6,8,9 (CHT)	

Remove the block from relay LLB.

3.77 8 I. Frs. & 8 L.C.'s or 8 I.G.'s & 16 L.C.'s (12 or 13 Junctors per H.C.) Mfg. Disc. (Changed Jctr. Assignments

3.771 Junctor Subgroup E - Make calls as indicated in the following chart and observe that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B.

I. Fr. or *I.G.	Lamp LJ	Line Choices 0.4	1.5	2.6	3.7
0	8	0	3	2	1
1	8	1	0	3	2
2	8	2	1	0	3
3	8	3	2	1	0
4	9	0	3	2	1
5	9	1	0	3	2
6	9	2	1	0	3
7	9	3	2	1	0

JP Lamps

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to a line in line choices 0, 2, 4 and 6, and use the odd numbered frame on calls to a line in line choices 1, 3, 5 and 7. Make a test call from incoming link frame 0 to line choices 8 to 15 and observe that lamp JP lights as follows:

	LC	8	9	10	11	12	13	14	15
Lamp	JP	0	3	2	1	0	3	2	1

3.772 Block operated relay LLB and manually operate relays (JP) 0-3, one at a time, and check CHT relays as follows:

JP Relays	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1-3,5-7,9 (CHT)	0,4,8
1 (CHT)	0,2-4,6-8 (CHT)	1,5,9
2 (CHT)	0,1,3-5,7-9 (CHT)	2,6
3 (CHT)	0-2, 4-6,8,9 (CHT)	3,7

Remove the block from relay LLB.

3.78 9 I. Frs. & 9 L.C.'s or 9 I.G.'s & 18 L.C.'s (11 or 12 Junctors per H.C.) Mfg. Disc. (Changed Jctr. Assignments)

3.781 Junctor Subgroup E - Make calls as indicated in the following chart. Observe that lamp LJ9 lights on each call and that lamp RIL lights if the called line is located on half choice A and lamp LIL lights if the called line is located on half choice B. The chart shows the lighted JP lamp.

I. Fr. or *I.G.	Line Choice 0	1	2	3	4	5	6	7	8
0	0	8	7	6	5	4	3	2	1
1	1	0	8	7	6	5	4	3	2
2	2	1	0	8	7	6	5	4	3
3	3	2	1	0	8	7	6	5	4
4	4	3	2	1	0	8	7	6	5
5	5	4	3	2	1	0	8	7	6
6	6	5	4	3	2	1	0	8	7
7	7	6	5	4	3	2	1	0	8
8	8	7	6	5	4	3	2	1	0

*NOTE: If the incoming link frames are paired, use the even numbered frame of the pairs on calls to line choices 0, 2, 4, 6 and 8, and use the odd numbered frame on calls to line choices 1, 3, 5 and 7. Make a test call from incoming frame 0 to line choices 9 to 17 and observe that lamp JP lights as follows:

	LC	9	10	11	12	13	14	15	16	17
Lamp	JP	0	8	7	6	5	4	3	2	1

3.782 Block relay LLB operated and manually operate relays (JP) 0-8, one at a time, and check CHT relays as follows:

JP Relays	CHT Relays Operated	CHT Relays Non-Operated
0 (CHT)	1-8 (CHT)	0 and 9
1 (CHT)	0,2-9 (CHT)	1
2 (CHT)	0,1,3-9 (CHT)	2
3 (CHT)	0-2,4-9 (CHT)	3
4 (CHT)	0-3,5-9 (CHT)	4
5 (CHT)	0-4,6-9 (CHT)	5
6 (CHT)	0-5,7-9 (CHT)	6
7 (CHT)	0-6,8,9 (CHT)	7
8 (CHT)	0-7,9 (CHT)	8

Remove the block from relay LLB.

No Changes Indicated Due
To Extensive Revision

Manager, Crossbar Product Engineering
Control Center

Reason for Reissue:

1. To add information required for Marker Speedup.