CROSSED NUMBER GROUP CONNECTOR COMMON NS LEAD AND INDIVIDUAL NC LEAD NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers methods to be followed in connection with troubles due to a cross of the common NS lead and an individual NC lead in a number group connector circuit.

2. INDICATIONS OF TROUBLE CONDITION

2.01 Terminating trouble indicator records.

3. REACTIONS DUE TO TROUBLE

3.01 During busy-hour periods this trouble may cause a backup of terminating traffic.

3.02 One-twentieth of the lines in a number group connector may be affected.

4. IMMEDIATE PROCEDURE TO FOLLOW

4.01 If this trouble causes a backup of terminating traffic insert plugs into the TRO (trouble reorder) jacks on the terminating trouble indicator frame.

4.02 Open the S lead on the number group involved.

5. ANALYSIS OF TROUBLE

5.01 When the marker attempts to complete a connection to any line having a units digit corresponding to the NS lead in trouble it will give an indication showing LIN, (local intercept), GLH (ground to line hold magnet), X, (cross), and XC (cross on HGA-D or NC leads) lamps. This results because, when the sleeve lead is grounded to operate the line hold magnet, it will cause the XC relay in the marker to operate. This in turn will operate the XX1 relay which will open the operating circuit of the HG relay. When this occurs and the TLH relay releases it will appear as an open sleeve intercept to the marker and the LIN relay will operate.

6. SUGGESTED PROCEDURE FOR LOCATING AND CLEARING TROUBLE

6.01 By use of two receivers test for:

(a) Crosses between the NS and NC leads.

(b) Crosses between the NS and all HG punchings on the cross-connection field.

7. TROUBLE CONDITIONS CAUSING REACTIONS MAY BE LISTED BELOW

7.01 Wire clipping cross between armature 22 and contact 12 on TB relay.

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TERMINATING TROUBLE INDICATOR RECORD
CROSSBAR OFFICES

OFFICE _____

DATE _____ SHEET NO. ____

NO.	TI	CT	DT	GR	DR	DL	CF	CN	SN	TH	H	T	U	F	TR2	RO	OAB	NGC	HB	HP	L	JF	JC	AL1	AL2	LCF	LLG	LOG	HF	RF	TF	CA	CB	IF	LC	M	CH	LJ	JPN	JP	JG	FS	MAN	TOL	CN	RC	RV	RP	TC
1	✓				1	0,2	1	1	4	0	8	2	2	4				4	24	0					✓									4	2	6		4				✓				✓		✓	
2	✓				0	1,2	1	1	3	0	8	2	2	2				4	24	0					✓																								
3	✓				0	1,2	2	0	4	0	9	6	2	0	✓			0	9	6	2			✓		1	D				1		1,2	0	3	5	5	0				✓				✓			
4	✓				1	0	3	1	5	0	9	6	2	7				4	24	0				✓																								
5	✓				0	2	3	2	7	0	8	4	2	7				0	8	6	2			✓		1	D				1		1,2	7	5	6	0	7				✓				✓			
6	✓				2	0,1	0	3	2	0	9	2	2	4				0	9	6	2				✓	1	D				1		1,2	4	3	3	2	4				✓				✓			
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Column A - Trouble indication.
Column B - Any marker.
Column D - Any number in number group 0 requiring S2 lead.
Column E - NGC-4 lamp with LIN lamp in column J indicates attempt to set up to intercept. With LTR lamp in column R and XC lamp in column S, a crossed S2 and C lead is indicated. XC operates when S2 lead is grounded operating XX1 which opens circuit for HG and simulates an open sleeve intercept. NGC-0 lamp with HTR lamp in column R and XC lamp in column S indicates a crossed S and C lead in number group 0. Check of CB lamp in column F should show C lead crossed with S2.
Columns G,H,I,J,K,L,M,N,Q - Have no significance.

NO.	LIN	LTI	TIN	TTI	OF	BB	SPL	NC	NT	NTX	NH	NHX	NN	NNX	NTT	GS	IP	IT	IPT	PN	TN	PTN	CKG	K1	K2	K3	TBK	LE	FC	AK	TK	LIL	RIL	TE	BC	GJ	SL	GC	GLH	CON	GT2	RL	PG	MKO	MK1	FL	NFL	AL	NAL	LTR	HTR	SDT	TCT	TRL	FCG	X	TIME
1	✓																						✓	✓	✓	✓	✓	✓	✓	✓				✓					✓											✓								X, XC	9:15
2	✓																						✓	✓	✓	✓	✓	✓						✓					✓											✓								X, XC	9:17
3																							✓	✓	✓	✓	✓		✓	✓			✓		✓	✓	✓		✓												✓							X, XC	9:20
4	✓																						✓	✓	✓	✓	✓	✓																						✓							X, XC	9:23
5																							✓	✓	✓	✓	✓		✓	✓			✓		✓	✓	✓		✓												✓							X, XC	9:27
6																							✓	✓	✓	✓	✓		✓	✓			✓		✓	✓	✓		✓												✓							X, XC	9:30
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Analysis of Indication: XC lamp indicates a cross on the C lead. If HTR lamp does not come in, indications will only show S2 lead crossed with some C lead. HTR lamp indicates C lead with which it is crossed.

Immediate Procedure to Follow: Open S2 lead on number group 0.

Procedure for Locating and Clearing Trouble: If C lead is not indicated use two receivers and test for cross between NS and NC leads and NS lead and HG punchings.