ORIGINATING TROUBLE INDICATOR TESTS NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing the originating trouble indicator in No. 1 crossbar offices. The tests covered are intended to detect trouble that would not be evident in the normal use of the originating trouble indicator.

1.02 This section is reissued to add a step in Table A to provide for testing the INF lamp added for charging directory assistance. This reissue does not affect the Equipment Test List.

1.03 The tests covered are:

1.04 Test B requires verification at the originating marker frames.

1.05 During these tests, markers may be unable to connect to the trouble indicator or, if connected, false indications may be received on the trouble indicator display lamps.

2. APPARATUS

Test A

2.01 One 716C test receiver and a KS-6278 connecting clip (for use in checking for the presence or absence of ground).

2.02 Two 893 cords, 6 feet long, equipped with two 360A tools (1W13B cord), a KS-6278 connecting clip and a 607A relay winding connector (for use in applying battery to winding of DS relays).

Tests A and D

2.03 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-020-801.

Tests B and D

2.04 322A (make-busy) plug.

Test D

2.05 329A (make-busy) plug.

3. METHOD

STEP	ACTION	VERIFICATION
A.	**Preference Chain Lockout Circuit Feature**	
1	At originating trouble indicator frame—Block all DR relays nonoperated. ***Note:*** Disregard any indicator display or alarm.	
2	Connect battery to 4B of the DS relay with first operating preference.	DS relay operated.
3	Momentarily apply battery to 4B of other DS relays.	DS relays not operated.
4	Remove battery from DS relay.	DS relay released.
5	Connect battery to 4B of the DS relay with next lower operating preference.	DS relay operated.
6	Momentarily apply battery to 4B of the DS relays with lower operating preference.	DS relays not operated.
7	Remove battery from DS relay.	DS relay released.
8	Repeat Steps 5, 6, and 7 for remaining DS relays.	
9	Block operated the DS relay with the last operating preference.	
10	Block operated the DS relay with first operating preference.	
11	Momentarily apply battery to 4B winding of intermediate DS relays.	DS relays operate and release.
12	Remove blocking tool from DS relay with first operating preference.	DS relay released.
13	Check for ground on 1T of DS relay with last operating preference.	Ground present.
14	Remove blocking tool from the DS relay.	DS relay released.
15	Block operated, one at a time, the other remaining DS relays and check for the presence of ground on 1T before removing the blocking tool.	Ground present.
16	Remove blocking tools from DR relays.	

STEP	ACTION	VERIFICATION
B.	**Make-Busy Feature**	
1	At originating trouble indicator frame— Insert a 322A plug into the TIB jack associated with marker 0.	At originating marker 0— TIB relay operated.
2	Remove 322A plug.	At originating marker 0— TIB relay released.
3	Repeat Steps 1 and 2 for remaining markers.	
C.	**DT Key Chain and DT Relay Lock Feature**	
1	At originating trouble indicator frame— Originate a test call using DT0 key.	
2	While test call is in progress— Restore DT0 key and operate DT1 key.	Test call completed for marker 0.
3	Originate test call using DT1 key.	
4	While test call is in progress— Restore DT1 key and operate DT2 key.	Test call completed for marker 1.
5	Repeat Steps 2, 3, and 4, substituting remaining DT keys.	
D.	**Lamp Check**	
1	At originating trouble indicator frame— Restore all operated keys.	
2	Operate LP key.	
3	Block operated HD relay.	XOB, XOG, XO5 ◗(Y, YW Option), XSG (E Option), XSB (E Option),◖ XCR, XCL, XTL, XC, XGS XGE, XOF, XSS lamps lighted.
4	Manually operate and release, where provided, the relays listed in Table A.	Observe that lamps listed in Table A are lighted when associated relays are operated.
5	Remove blocking tool from HD relay.	All lamps extinguished.
6	Insert 329A plug into a BM jack.	
7	Operate ST key.	BM lamp lighted.
8	Release ST key.	BM lamp extinguished.
9	Remove 329A plug from BM jack.	
10	Release LP key.	

STEP	ACTION	VERIFICATION
11	Insert make-busy plug into IT jack.	ANE, ANO, AM, IT lamps lighted.
12	Remove make-busy plug from IT jack.	ANE, ANO, IT lamps extinguished.
13	Momentarily operate AMR key.	AM lamp extinguished.
14a	If dynamic overload control features are provided— At miscellaneous relay rack— Momentarily operate RTCA_ relays.	RTCA_ lamps lighted when associated relays are operated.
15a	Insulate M10 or RTX 0, 2, 4, 6 relays, M3 of RTX 1, 3, 5, 7 relays, and M3 of RTCX relay.	
16a	Manually operate RTX_ relays.	Associated RTX_ lamps lighted.
17a	Manually operate RTCX relay.	RTCX lamp lighted.
18a	Momentarily operate RT-AR key.	
19a	Remove insulators placed in Step 15a.	RTCX lamp and RTX_ lamps extinguished.
20b	If marker speedup features are provided— Manually operate and release ABK, BBK, CBK relays.	ABK, BBK and CBK lamps lighted when associated relays are operated.

TABLE A

RELAY OPERATED	MTG PLATE LOCATION	LAMP LIGHTED
DR0-7	AG	DR0-7, G0
DR	AG	G0
DL	AF	DL
DR	AE	G100
DR0-7	AE	DR0-7, G-100
TRL1	AD	TRL
	AC	
EC & RL1	AC	EC
MT1	AC	XLG
XDK	AB	XDK
NM & RL1	AB	NM
	AC	
CF0-9	AA	CF0-9
SN0-9	AA	SN0-9
3DT2, 3	AA	3DT2, 3
OF0-9	Y	OF0-9
PD1	Y	PD1
CC0, 1, 2, 4, 7	Y	CC0, 1, 2, 4, 7
CN0-2	Y	CN0-2
3DT0, 1	Y	3DT0, 1
TL0-14	W	TL0-14
KEL0 to KOR9	U	KEL0 to KOR9
KER0 to KOL9	T	KER0 to KOL9
G0-11	S	G0-11
GT1	S	GT1
GT3	S	GT3
GS1-4	S	GS1-4
DF0-19	R	DF0-19
SW0-11	N	SW0-11
M0-9	N	M0-9
JC0-19	M	JC0-19
P0-9	L	P0-9
CHL0 to CHR9	K	CHL0 to CHR9
ZCK or MICK	J	ZCK or MICK
ZA1 to ZJ1	J	ZA1 to ZJ1
or MIA to MIPS	J	MIA to MIPS
→INF	J	INF←
Z0	J	Z0
ZL	J	ZL
ZK	J	ZK
S	E	S
SL	E	SL
B	E	B
MR	E	MR
SIK	E	SIK

RELAY OPERATED	MTG PLATE LOCATION	LAMP LIGHTED
MRL	E	MRL
7DG	E	7DG
SK2	E	SK2
SK3	E	SK3
TDVK	E	TDVK
ZS	D	ZS
Z	D	Z
OT	D	OT
TC	D	TC
TP2	D	TP2
EXBG	D	EXBG
XTOV	D	XTOV
TM6	D	TM6
R0	D	R0
TB5	D	TB5
CRL	D	CRL
DT3	D	DT3
MR1	D	MR1
ANI	D	ANI
PTK	D	PTK
TK1	D	TK1
AN	D	AN
XDF1	C	XDF1
XX1	C	XX1
XZ	C	XZ
ZXS	C	XZS
XT	C	XT
XTC	C	XTC
XS	C	XS
XS1	C	XS1
XCH	C	XCH
XSM	C	XSM
XMS1	C	XSM1
XTD	C	XTD
XTL1	B	XTL1
XLCE	B	XLCE
XLC0	B	XLC0
XK	B	XK
XRL	B	XRL
XSL	B	XSL
XDC	B	XDC
SDT	B	SDT
CR1-5	B	CR1-5
CL1-5	B	CL1-5

TABLE A (Cont)

RELAY OPERATED	MTG PLATE LOCATION	LAMP LIGHTED
TW	B	TW
OB1	A	OB1
OB2	A	OB2
OB4	A	OB4
SD	A	SD
SD1	A	SD1
OG1, 2, 4, 5	A	OG1, 2, 4, 5
S0	A	S0
OBT	A	OBT
MI0, 1, 2, 4, 7	A	MI0, 1, 2, 4, 7
2L	A	2L
MIN	A	MIN
SG5	A	SG5
OB5	A	OB5
PSI	H	PSI
NCI	H	NCI
OTI	H	OTI
TCI	H	TCI
TCK	H	TCK
TPI	H	TPI
RPI	H	RPI
TPK	H	TPK
ZR0-9	H	ZR0-9
A1, 2, 4, 5	G	A1, 2, 4, 5
B1, 2, 4, 5	G	B1, 2, 4, 5
C1, 2, 4, 5	G	C1, 2, 4, 5
D1, 2, 4, 8	G	D1, 2, 4, 8
F1, 2, 4, 5, 10	G	F1, 2, 4, 5, 10
AR	F	AR

RELAY OPERATED	MTG PLATE LOCATION	LAMP LIGHTED
OF	G	OF
TP	F	TP
EA	F	EA
LA	F	LA
SGR	F	SGR
AIOD	F	AIOD
AIDK	F	AIDK
CKG, K4	F	CKG, A0, D0, F0 K4
CKG, K5	F	B0, C0, K5
SPE	F	SPE
SP0	F	SP0
NSE	F	NSE
NS0	F	NS0
ODN	F	ODN
DK	E	DK
AK	E	AK
TKE	E	TKE
TK	E	TK
SR	E	SR
RL	E	RL
MS	E	MS
CK	E	CK
BK	E	BK
CHE	E	CHE
A	E	A
C	E	C