TEST FRAME ADDITIONS

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1. GENERAL

1.1 This section covers miscellaneous items that should be verified in regard to the office test frames when installing additional equipment in the office.

1.2 When new type equipment is added, it is often necessary to modify the test circuits of the test frame associated with the new type equipment. These changes are not covered in this section as detailed change sheets are usually provided.

1.21 All test frame revisions and additions should be made toward the early part of the transition. This is done to insure that the new equipment can be tested with the maintenance facilities when it is put into service.

1.22 Analysis of the test circuits should be made before starting work on the test frames to make sure that they will operate on the present equipment at all times. Generally this can be done by not grounding or crossing any leads and by keeping looped wires closed until connected. It will be found that looped leads, when connected, are usually connected to normally closed relay contacts.

1.3 Added equipment is added to the test frame on an in-serivce basis in periods of light load or when not in use by the operating company.

2. ORIGINATING TROUBLE INDICATOR

2.1 Additional equipment is added to this frame when originating office equipment is added to the office.

2.2 Table 1 shows the possible items to be added to the test frame when making additions in a working office.

TABLE 1

Equipment Added	Test Frame Additions		
	Keys	Lamps	Relays
Originating Markers		DL	DT,DS
Originating Marker Group		GO,G100	RMI
District Link	F10	JC,F10, DF,P★	JC,F10,DF, P★
Office Link		OF,P★	OF,P★
Office Extension		TL(10-14)	TL(10-14)
Originating Marker Connector		CF	CF
Trunks		G	G
Subscriber Sender		SN	SN
Trunk Subgroup		GT1,GT3	GT1,GT3
KP "A" Senders		NM	NM
Zone Registration	ZCT	ZA1,ZJ1, ZCK,ZK,ZO ZL,XZ,XZS	ZA1 to ZJ1 ZCK,ZK,ZO ZL,XZ,XZS
Three Digit Senders	B	BO,B1,B2, B4,B5	BO,B1,B2, B4,B5
2 Party M.R. Service	TP	TP2,TP1, RP1,TPK	TP2,TP1, RP1,TPK
Ext. Service 11 Codes	EA	EA,LA	EA,LA
2 Stage PCI Senders		CL5	CL5
AMA	IND (0-9)	MIN,NIO, MI1,MI2, MI4,MI7, 2L	MIN,MIO, MI2,MI4, MI7,2L

★ When junctor distribution arrangement is 6, 8, 12 to 20 frames.

3. TERMINATING TROUBLE INDICATOR

3.1 Additions to the terminating portion of the office will require that additional equipment be added to the terminating trouble indicator.

3.2 Table 2 shows the possible items to be added to the test frame when making additions in a working office.

TABLE 2

Equipment Added	Test Frame Additions		
	Keys	Lamps	Relays
Terminating Marker	MT	DR,DL	DS,MT DR,DL
Incoming Frames		XP,JG (A-E) 1F,(0-19) JPN,JP (0-8) MK1,F10	XP,JG(A-E) 1F(0-19) JPN,JP (0-8), MK1,F10
Terminating Marker Conn.		CF(0-4), CN(0-3),	CF(0-4), CN(0-3),
Terminating Sender		SN(0-4)	SN(0-4)
Line Choice Connectors		LCF(0-19)	LCF(0-19)
Number Group Connector		NGC(0-24)	NGC(0-24)
Number Checking Feature (also A res. NC Varistor) .05 MF condenser			NC
PBX Feature	NS(0-19) (jacks)		NS(0-19)
Two offices with common term. group	OAB		KY

4. ORIGINATING SENDER TEST FRAME

4.1 The connector unit of the test frame is arranged for a maximum of ten sender subgroups. When the number of subgroups due to an addition is over 10, another crossbar connector switch and associated 0 to 9 and CO relays are required. This is also the case when the total number of subgroups due to an addition, is over 20.

4.2 For each new sender subgroup, one SM relay, one A and B relay and associated contact protection is required.

4.3 When AMA is added to a non-AMA No. 1 crossbar office, one MS relay and associated contact protection is added to each subgroup connector containing AMA senders.

4.4 When one or more senders are added in the office, the following changes on the test frame should be made:

(1) Connect T,R,DC,LR,S,FT,FR and TR leads to cross point switch as assigned on wiring list.

(2) Cross connect A,B,C,D,E,F, (0-9) punchings corresponding to the class of added senders.

(3) Strap the sender group terminal strip (SDT leads) as required.

(4) When the added senders are to be tested by the test frame, disconnect the SPT lead from the assigned position at the crossbar connector switch.

5. TERMINATING SENDER TEST FRAME

5.1 For each sender subgroup added, a SM, SMA, A and B relay is added to the connector unit of the test frame.

5.2 If the added subgroups total more than 10 or 20, on additional crossbar switch, 0 to 9 relays and CO relay are added to the test frame connector circuit.

5.3 In the case of one or more senders added to the working office, the following items should be checked:

(1) That the sender T,R,S,CO,D and FC leads are connected to the crossbar switch in the position assigned as specified on the wiring list. The B lead is connected on the switch in accordance with Note 106 of SD-25159-012.

(2) That the PG 1-3, BS, TS, DS, straps are connected on the position of the new senders as specified in Notes 115, 121 and 124 of SD-25159-012.

(3) That the P and PF cross connections corresponding to the subgroup that the new senders are added conform to the new preference arrangement.

(4) That the SPT strap is removed from the position on the crossbar switch assigned for the new senders.

6. DISTRICT JUNCTOR TEST FRAME

6.1 The district junctor test crossbar connector switch is mounted on the subscriber sender link frame. Each switch accommodates 100 junctors appearing on the associated district junctor frame.

6.2 When adding junctors to an existing district junctor frame the following items should be checked in regard to the test frame.

(1) Removal of "V" wiring SD-25158-012, Figure 1.

(2) Adding of "A" wiring SD-25158-012, Figure 1 where required.

(3) Modification of class cross connections where required.

6.3 When a new district junctor frame is installed, a new G relay is added to the test frame.

7. CONTROLLER TROUBLE INDICATOR

7.1 Additional equipment is added to this frame when additions to the office include, line links, sender selector units, subscriber sender links.

7.2 Table 3 shows the possible items to be added to the indicator frame when making additions to a working office.

TABLE 3

Equipment Added	Indicator Frame Additions		
	Keys	Lamps	Relays
Subs. Line Link Frame		LL	LL
When Subs. Line Link Frames added exceeds a multiple of 10		LLT	
Subs. Sender Link Frame		SLF	SLF
Sender Selector Unit		SGP	SGP
New Marker Group		EM100	EM100

8. INCOMING TRUNK TEST

8.1 Additions to the incoming trunk test connector are made when added office link frames or trunk link frames (in tandem offices) are installed. Associated with each connector is a cross connection field. The cross connections are modified when new trunks are added or the class of existing trunks are changed.

8.2 If a new connector crossbar switch is added to the test connector, multiple of the C1A, C1B, C1C, C1D relays on the present equipment is extended to the new equipment.

9. LINE INSULATION TEST FRAME

9.1 Additional line link frames require additional line link half choice relays be added to the connector circuit of the test frame. Additional line choices require that in addition to the line link half choice relays, line choice relays are added to the test frame.

9.2 In most cases, the added LC relays will require that the associated chain circuit be revised.

9.3 Revision of cross connections per job wiring list is necessary. The cross connections are on the Misc. Terminal Strip on top of frame.

10. ZONE REGISTRATION TEST FRAME

10.1 Installations involving additional zone changes requires that the ZB ZC, ZD, and ZE relays be added to the test frame and the necessary zone cross connections be made on the terminal strip on top of frame.

10.2 When adding zone registration circuits the following items should be checked:

(1) If the number of circuits added total over a multiple of 50, a new connector crossbar switch, GP, GA,GB and G relay is added.

(2) At least on (CI) relay is added to the test circuit when one or more district junctor frames are added.

(3) The CG, TC, CI, BG and T lead straps on the crossbar switch should be cut as specified on SD-25311-01 Notes 112, 113 and 114.

(4) The ECX lead may have to be relocated.

R. E. RAHMES

Engineer of Installation