ZONE REGISTERATION EQUIPMENT - BASIC INFORMATION

CONTENTS

1. GENERAL

1.1 This section provides basic information about zone registration equipment that may be helpful when preparing a transition plan.

2. EQUIPMENT FUNCTIONS

2.1 This equipment provides a means of automatically timing calls made to zones which would otherwise require the services of an operator.

2.2 It can be arranged to time calls to a number of zones, up to a maximum of 5 and will handle the initial as well as the overtime charge.

2.21 This is done by operating the subscribers register as many times as is required, depending upon the initial and overtime rate as well as the duration of the call.

2.3 The duration of a call is measured by a 206 type selector switch which is operated under control of an accurately timed interrupter.

2.31 During the timing period, the switch is advanced one step for each 15 second interval and the number of steps allowed for the initial and each overtime period will vary to satisfy the requirements of the zone being called.

2.4 The subscribers' register is operated at the beginning of the initial and each overtime period.

3. EQUIPMENT DESCRIPTION

3.1 The various units of equipment are arranged to mount on three frames.

3.2 The zone registration district connector frame, RDC, contains the district connector switches.

3.3 The zone registration control frame, RC, contains the relay portion of the equipment.

3.4 The zone registration timing interrupter frame, RTI, contains the timing interrupter units.

3.5 These frames, will in general, be equipped from bottom up, without provision for growth.

3.6 Due to their close association, the various frames should be located together, near the district junctor frames with which they are associated.

3.7 Where ultimate installation requirements are small, it is permissible to locate the timing interrupter units and the relay equipment on the same frame.

3.71 In such cases, the timing interrupters shall be located in the upper portion of the bay and the relay units at the bottom and some space being left above both the timers and the relay equipment.

3.72 These combination frames should be designated RC.

3.8 In addition to the three frames used for subscribers traffic, a fourth frame, the zone registration test frame, RT, is provided for maintenance purposes.

3.9 The general association of these frames is shown in the Figure 1 block diagram.

4. CIRCUIT MULTIPLE DEFINITIONS

4.1 General

4.11 To insure that the registration circuits will be utilized as efficiently as possible, provision is made for grading the horizontal multiple of the district connector frame switches.

4.2 Grading

4.21 Grading is the assignment of registration circuits to the district connector switch horizontal multiple so as to provide for individual groups and common groups.

4.3 Intraframe Grading

4.31 Intraframe grading consists of arranging the registration circuit multiple into indivdual and common groups that are made accessible to only one district junctor frame.

4.4 Interframe Grading

4.41 Interframe grading consists of arranging the registration circuit multiple into individual and common groups; the common group being accessible to the district junctors of two or more frames and the individual groups being accessible to only one district junctor frame each.

4.5 Nongrade Basis

4.51 Under certain conditions, grading of the registration circuit multiple will not be found desirable, in which case the registration circuits will be made common to all the district junctors on a nongraded basis.

4.6 Accessibility

4.61 Individual Groups: Individual groups are those registration circuits that are accessible to a relatively small number of district junctor circuits on one district junctor frame.

4.62 Common Groups: Common groups are those registration circuits that are accessible to a relatively large number of district junctor circuits on one or more district junctor frames.

5. ITEMS ASSOCIATED WITH ZONE REGISTRATION TRANSITION

5.1 Figure 2 shows the probable items of work that would be required for transition on (a) district junctor groups, (b) district junctor frames, (c) zone registration circuits, (d) zone registration timing circuits.

6. APPLICATION OF SD-25320-01 FIGURES

6.1 Figure 3 shows the application of SD-25320-01 drawing Figures 1 to 8.

Arrowed lines indicate new or changed information.

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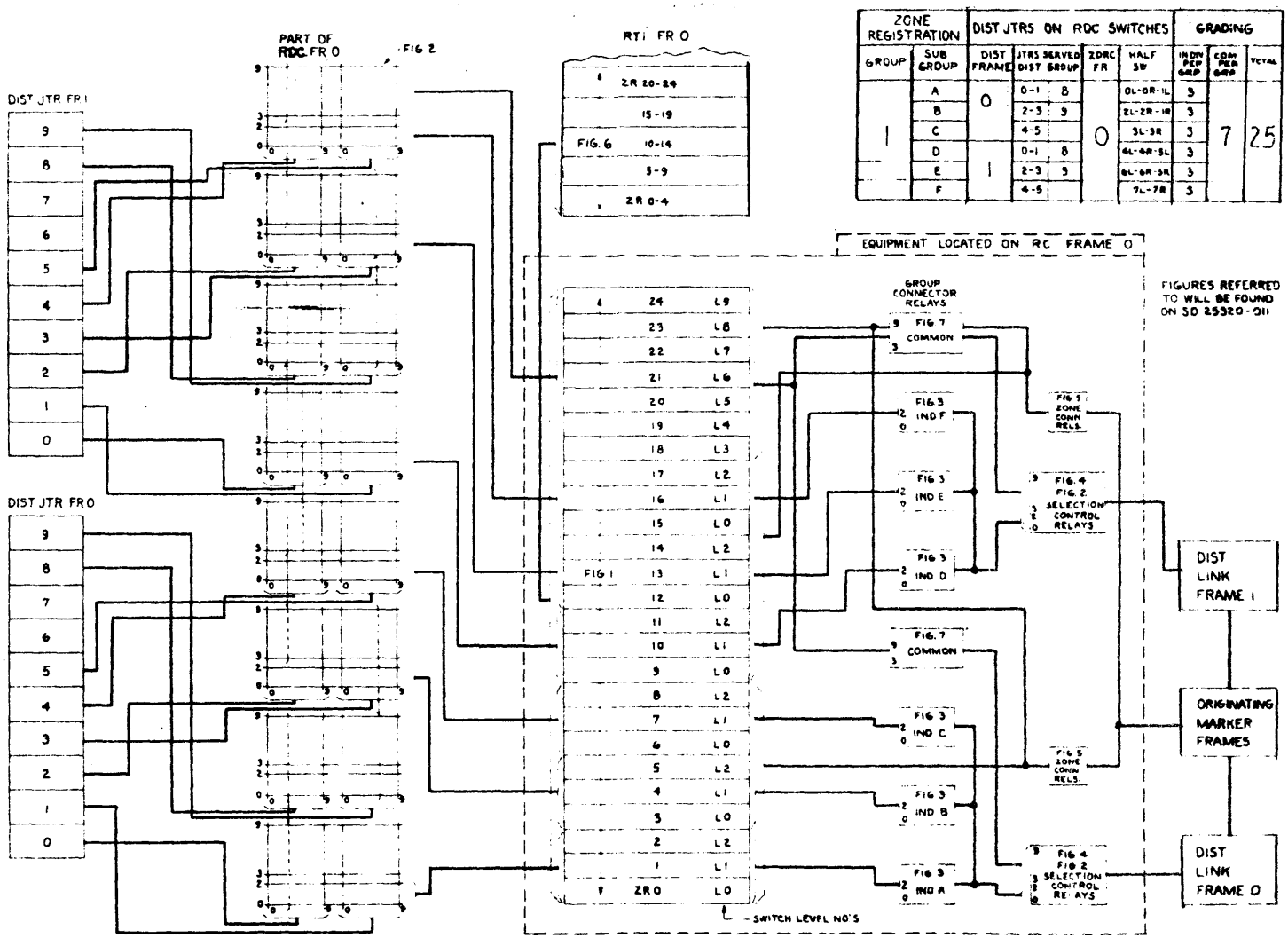
Reason for reissue:
Complete handbook revision

Figures 1, 2 & 3 attached

Replaces Section 24A, dated 4-17-47.



ZONE REGISTRATION		DIST JTRS ON RDC SWITCHES					GRADING		
GROUP	SUB GROUP	DIST FRAME	JTRS SERVED DIST GROUP		ZDRC FR	HALF SW	IND PER GRP	COM PER GRP	TOTAL
1	A	0	0-1	8	0	0L-0R-1L	3	7	25
	B		2-3	9		2L-2R-1R	3		
	C		4-5			3L-3R	3		
	D	1	0-1	8		4L-4R-5L	3		
	E		2-3	9		6L-6R-5R	3		
	F		4-5			7L-7R	3		

FIG. 1 BLOCK DIAGRAM OF ZONE REGISTRATION GROUP
(PAR. 3.9)

If this Equipment is Added to Registration Ckts.	Check These Items For Transition									
	RDC Frame		RC Frame		RT1 Frame		RT FR	D Lk Fr		
Dist Junctor Groups	2	Vertical mult. between switches	3	Add individual group conn. relays as req.	6	Unless there is an addition of timing ckts no action is required.	No action required	Strap LC relays as req.		
	2	Horizontal mult on switches	3	Mult BT & CT leads as required.						
			2	Add SM relays						
			2	Mult SO-S9 & SC & RL leads						
			8	Add individual group busy relays as req.						
Dist.Junctor Frames	2	Vert mult bet. sws.	2	Add SM relays Mult SO-S9 - SC-RL leads.	6	Unless there is an addition of timing ckts no action is required.	No action required	Strap LC relays as req.		
	2	Hor.mult on sws	3	Add Ind grp rels as req. Mult BT-CT leads						
			4	Add ZR Cont Ckt relays						
			5	Add ZR Conn relay. Mult ZA-ZE & ZL & ZR leads						
			7	Add Com grp rels as req.				New leads to MC relays		
			8	Add Ind & grp. busy rel as req.						
			A B C	Add "LL" rels & mod "LL" chain as req.						
Zone Registration Ckts. Figure 1	2	Vert. mult bet. sws.	2	Conn. New Ckts as req.	6	Add new relays sws and timer as required 1 fig 6 per 5 fig. 1	Conn test leads from new ckts.	Strap LC relays as req.		
	2	Hor. mult on sws	3	" " " " "						
			5	" " " " "						
			7	" " " " "						
			8	" " " " "						
			1	Add new relays						
Zone Registration Timing Ckts Figure 6		No action required.	1	Add or reassociate timing ckts. as required.	6	Add new relays sws & timers as required.	Conn test leads to new ckts.	No action required.		
These are the figure numbers on SD-25320-11										

FIG. 2 ITEMS ASSOCIATED WITH ZONE REGISTRATION TRANSITION (PAR. 5.1)

SD-25320-01 Drawing Figure	TITLE	APPLICATION
1	ZONE REGISTRATION CIRCUIT	One Figure 1 is required for each individual or common registration circuit.
2	DISTRICT CONNECTING SWITCH	One Figure 2 is required for each 200 point district connecting switch.
3	INDIVIDUAL GROUP CONNECTOR	One Figure 3 is required for each individual group of one or more Figure 1 registration circuits.
4	REGISTRATION CONTROL CIRCUIT	One Figure 4 is required for each district junctor frame.
5	REGISTRATION CONNECTOR CIRCUIT	One Figure 5 is required for each district junctor frame, for each originating marker frame.
6	TIMING AND INTERRUPTER CIRCUIT	One Figure 6 is required for five or less registration circuits, Figure 1.
7	COMMON GROUP CONNECTOR	One Figure 7 is required for each district junctor frame for each common group of registration circuits, Figure 1.
A,B,C	LL RELAYS	One Figure A, B or C is required for each Figure 7.
8	GROUP BUSY CIRCUIT	One Figure 8 is required for each Figure 3 and each Figure 7.

FIG. 3 APPLICATION OF SD-25320-01 DRAWING FIGURES (PAR. 6.1)