GFELLER LINE CONCENTRATOR
49-9-2, 49-11 + 1-2, 49-12-2
APPARATUS REQUIREMENTS AND ADJUSTING PROCEDURES
DC OPERATION

1. GENERAL

1.01 This appendix is issued to include the necessary information on units converted to DC battery operation.

1.02 The following additional information and alteration of the main section is necessary for DC operation. The main section text is valid, as is, for AC operation.

1.03 The following paragraphs, figures and charts of the main section are replaced:

2.002	Fig. 6.	Circuit Requirements for RA to RF relays.

2. REQUIREMENTS

2.002 A special test hook-up is used for testing the marking relays RA through RF in Gfeller units that have been modified for plus-and-minus battery operation. This hook-up shall be in accordance with Fig. 6A (which replaces Fig. 6) and the following steps:

(a) At the 35-type test set open all of the short-circuiting switches of the telegraph keys and operate all sliders to their extreme right position.

(b) Operate the BAT & GRD CO key.

(c) Open the G switch.

(d) Connect the 2W17A cord to the T & R jack.

(e) Remove the short circuit plug from the MC test jack associated with the relay under test and insert the Gfeller test leads.

(f) Connect, by means of No. 141 cord tips, the No. 360C tool of the 2W17A cord to one of the Gfeller test leads, and the No. 360B tool to the other Gfeller test lead.

(g) The specified current valued may be set up using the 35-type test set rheostats, telegraph keys and noting the milliammeter reading.

NOTE: In order to make the current tests of the RA through RF relays at the remote and do not use the MC jacks as they have been wired out of the circuit in modified units. Instead, attach KS-6278 connecting clips to the 360 B and 360 C tools of the 2W17A cord. Remove the heat coil from the protector of the control lead being tested and attach the KS-6278 clips as indicated in Fig. 7A. Place the 310 plug in the T & R jacks and complete the other steps as outlined above.

The circuit requirements for relays RA through RF given on pages 14 and 15 and pages 19 and 20 are incorrect and should be replaced by the following:

(See Table on Page 3)

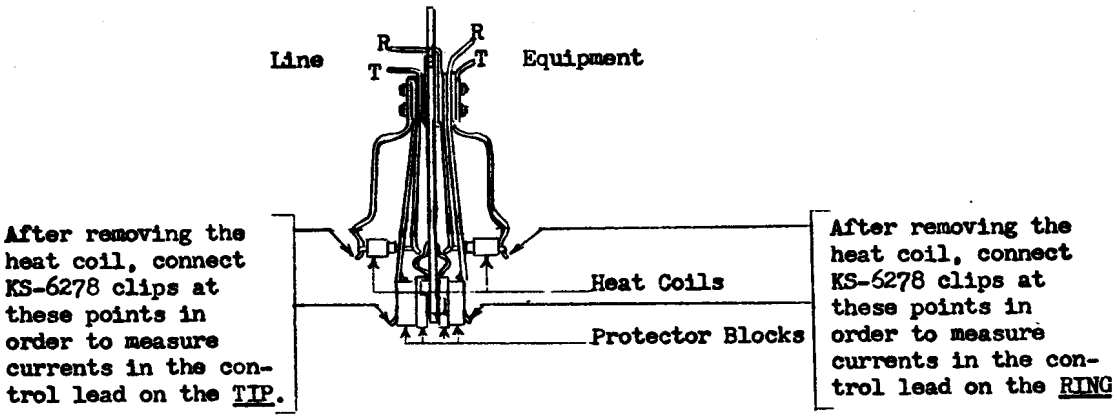

Fig. 7A

Hook-up for Relay Tests at Protector of Remote Unit

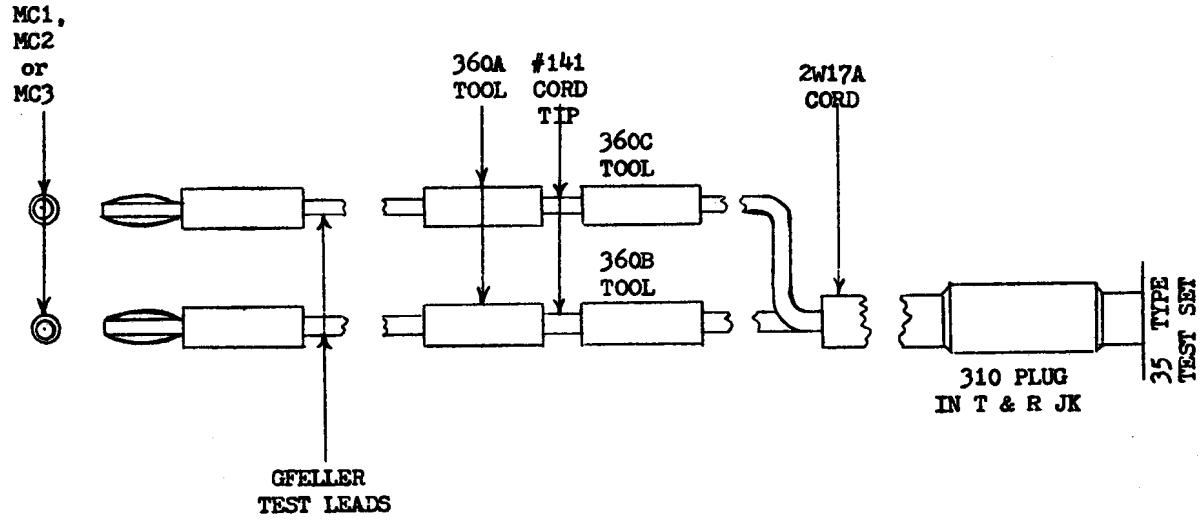

Fig. 6A
Hook-up for Relay Tests at MC Jacks on Central Office Unit

CIRCUIT REQUIREMENTS - CENTRAL OFFICE UNIT

Relay	Contact Sketch No. (Fig. 5) and Pressure Requirement for: CT1	CT2	CT3	CT4	CT5	CT6	Block Operated	Connect Test Set To Term.	Test Set Prep.	Test WDG	Test For	MA	Resid. Disk Inches	Min. Arm. Travel Inches	Remarks
RA	3 B	3 B	3 B	3 B	1 B		4(F3)	MC1	MET	1&4	0	34 Ø	.006	.024	See 2.002
											R	21 Ø			See Note 1
RB	3 B	3 B	1 B				2(F3)	MC2	MET	1&4	0	34 Ø	.008	.024	See 2.002
											R	21 Ø			See Note 1
RC	3 B	3 B	1 B				2(F5)	MC3	MET	1&4	0	34 Ø	.008	.024	See 2.002
											R	21 Ø			See Note 1
RD	3 B	3 B	3 B	3 B	1 B		1(G3)	MC1	MET	1&4	0	34 Ø	.006	.024	See 2.002
											R	21 Ø			See Note 1
RE	3 B	3 B	1 B				3(G3)	MC2	MET	1&4	0	34 Ø	.008	.024	See 2.002
											R	21 Ø			See Note 1
RF	3 B	1 B					3(G5)	MC3	MET	1&4	0	34 Ø	.008	.024	See 2.002
											R	21 Ø			See Note 1
							CIRCUIT REQUIREMENTS - REMOTE UNIT								
RA	3 B	3 B	3 B	3 B				Protector	MET	1&4	0	28 Ø	.006	.024	See 2.002
											R	16 Ø			See Note 1
RB	3 B	3 B						Protector	MET	1&4	0	28 Ø	.008	.024	See 2.002
											R	16 Ø			See Note 1
RC	3 B	3 B	1 B					Protector	MET	1&4	0	28 Ø	.008	.024	See 2.002
											R	16 Ø			See Note 1
RD	3 B	3 B	3 B	3 B				Protector	MET	1&4	0	28 Ø	.006	.024	See 2.002
											R	16 Ø			See Note 1
RE	3 B	3 B						Protector	MET	1&4	0	28 Ø	.008	.024	See 2.002
											R	16 Ø			See Note 1
RF	3 B	(3) (B)						Protector	MET	1&4	0	28 Ø	.008	.024	See 2.002
											R	16 Ø			See Note 1

Note 1: Ø Gfeller concentrator units equipped with 100-ohm RA through RF relays have operate and release requirements different from those specified in this table.