GFELLER SUBSCRIBER LINE CONCENTRATOR 49-9-2

SCHEMATICS

1. GENERAL

1.01 This is one of a group of sections, pertaining to the Gfeller line concentrator, having the base numbers A804.901 and C85.010. This section contains the schematics S10460-3, S10461-3, S10460-4 and S10461-4 submitted by the Gfeller Company and an explanation of the symbols and drawing methods used.

1.02 The Gfeller concentrator schematics are of the detached contact type similar to those now in use in the Bell System.

1.03 Arrowheads, bearing no designation, are used to indicate a tie-in between two points of the circuit which are separated on the same sheet. The connection of the two points may be found by following the direction of an arrowhead, in a straight line to its associated arrowhead (Fig. 2).

1.04 Resistor strapping drawn with an X on the strap is used to indicate strap removal when 72-volt operation is used (Fig. 2).

1.05 Fuses are represented by an oval-shaped symbol (Fig. 2). The contacts shown above each symbol are the fuse alarm contacts. Each fuse is designated by the equipment to which it supplies power as well as by a number; this number is also associated with arrowheads at the various components of the central office unit to indicate the source of the battery supply.

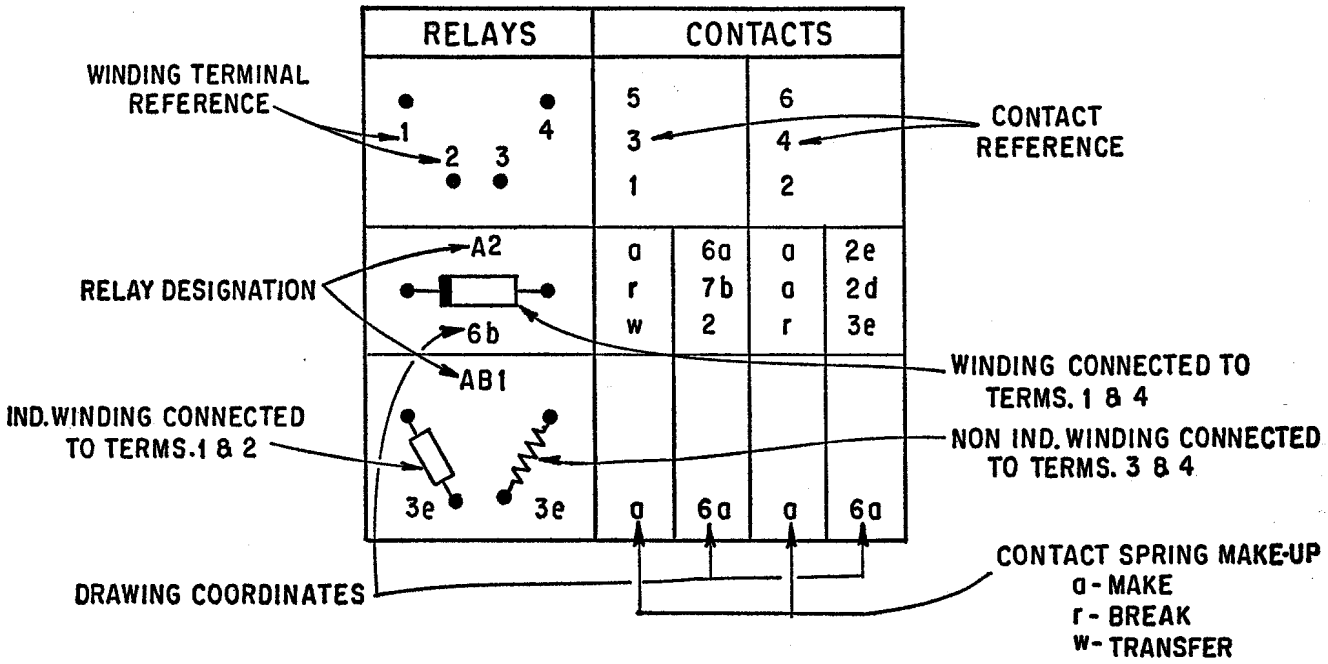


Fig. 1

1.06 The Gfeller switch vertical bars are drawn in a vertical plane and numbered 1 through 9. The horizontal bars are drawn in a horizontal plane and numbered 1 through 49. The horizontal bar designated 50 is a test bar associated only with the central office unit switch. The a, b, and c designations are the European equivalent of the Bell System T, R, and S, respectively.

1.07 The tables at the bottom of the schematics give the location of each relay winding terminal and its associated contacts by drawing coordinates. The contact spring make-up is also shown. Part of a table is shown in Fig. 1 with a labeled description.

1.08 Fig. 2 contains a list of designated symbols as used in the schematics.

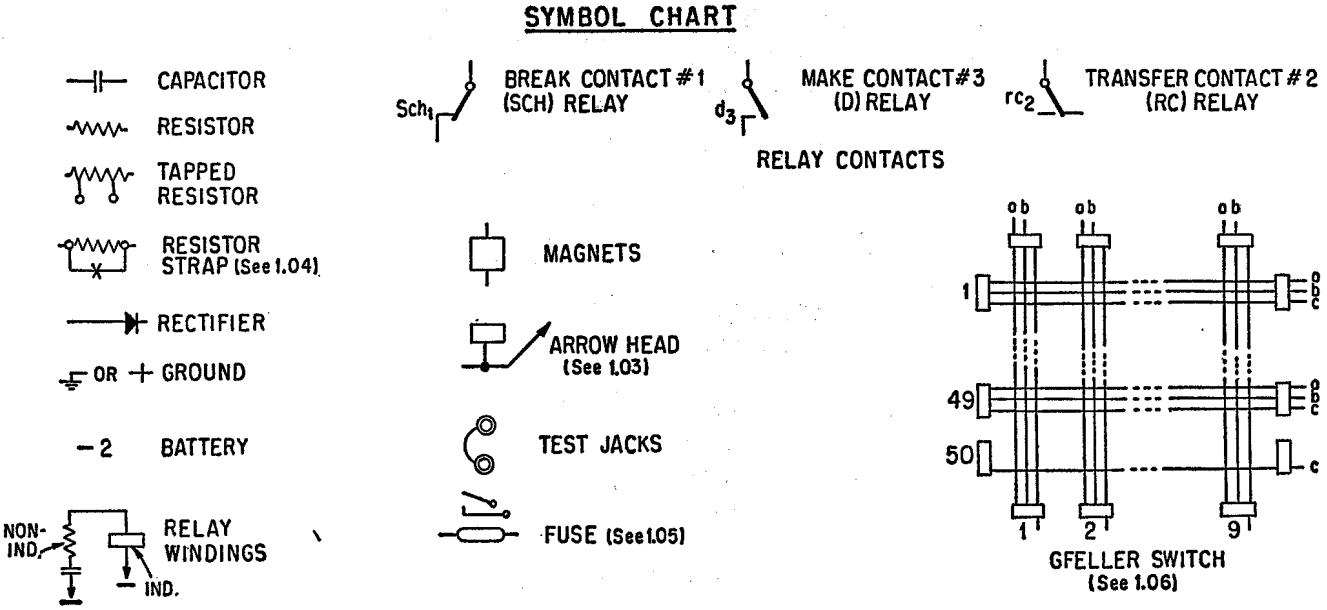
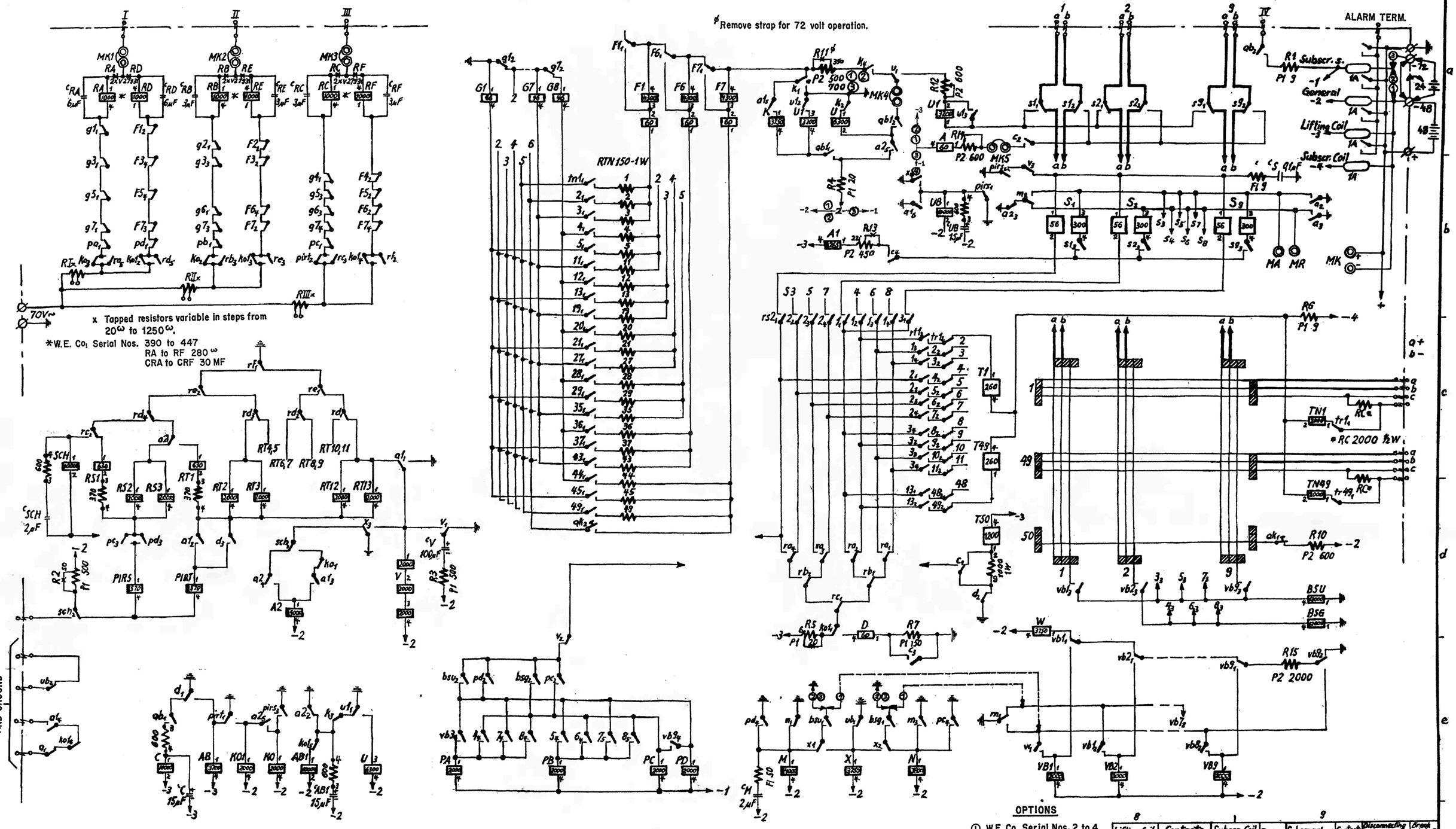
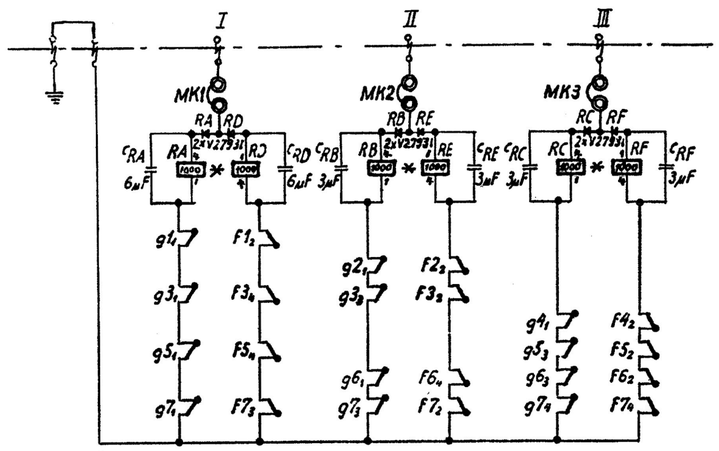
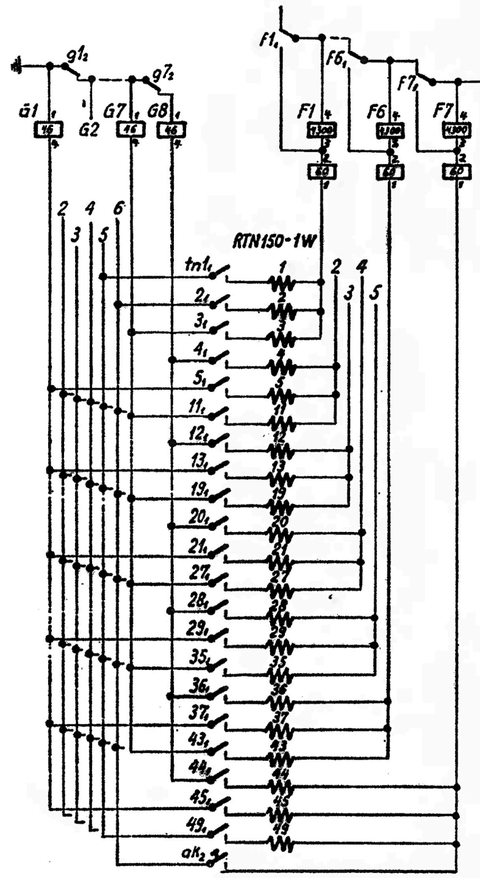


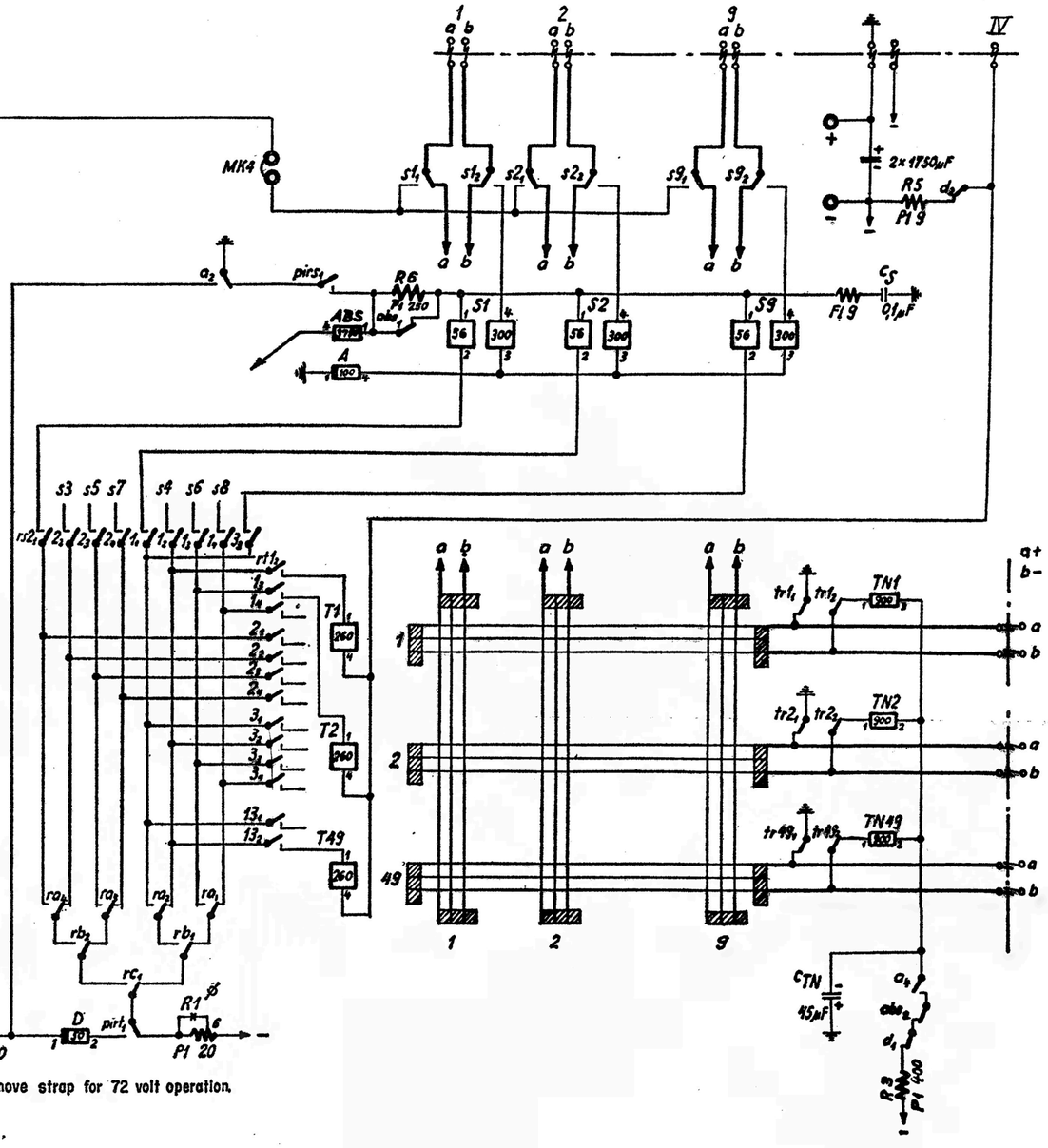
Fig. 2


ALARM TERM.
Remove strap for 72 volt operation.
x Tapped resistors variable in steps from 20Ω to 1250Ω.
*W.E. Co. Serial Nos. 390 to 447
RA to RF 280Ω
CRA to CRF 30 MF
RTN 150-1W
CONNECT TO ALARM TERM. AND GROUND
OPTIONS
① W.E. Co. Serial Nos. 2 to 4
② W.E.Co Serial Nos. 5 to 234
Nos. 270 to 331
③ W.E. Co. Serial Nos. 235 to 269
Nos. 332 to 447
Lifting Coil
Contacts
Subscr. Coil
Subscr. relays
Contacts
Disconnecting rod
Break contacts
GFELLER SUBSCRIBER LINE CONCENTRATOR
49-9-2
CENTRAL OFFICE UNIT
W.E.Co. Serial Nos. 2 thru 447
S10460-3

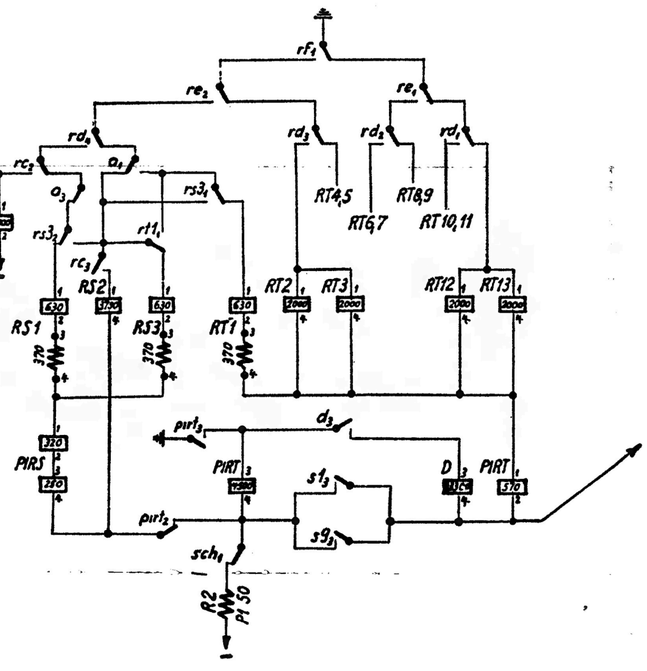


*W.E. Co. Serial Nos. 390 to 447 – RA to RF 280Ω
CRA to CRF 30 MF





Ø Remove strap for 72 volt operation.



Relays	Contacts	FS	G5	RB 2a	RS3	SCH
A 7b	r 1c 2c / w / a 9d 7b	F6	G6	RC 3a	RT1 2d	AKS 7b
D 6a 3d	a 2d 9d / r / r 9a	F7	G7 4a	RD 2a	RT2 2d	
F1 5a 5a	w 5a / (r) r 2a	G1 4a	G8 4a	RE 2a	RT3 2d	
F2	w / (r) r 2b	G2	PIRS 1d 1d	RF 3a	RT9-11 2-3d	
F3	w / r 2b 1b r	G3	PIRT 3d 2d	RS1 1d 3d	RT12 3d	
F4	w / (r) r 3b	G4	RA 1a	RS2 3d	RT13 3d	AK

Lifting Coil	Contacts	Subscr. Coil	Subscr. relays	Conductor	Disconnecting rod	Break contacts
S1 7b 8b	a 3d 7a / w / w 8a	T1 7c	TN1 9c	a 4b	tr1	r 9c / r 9c
S2 8b 8b	a / w 8a / w 8a	T2 7c	TN2 9c	a 4b	tr2	r 9c / r 9c
S9 8b 9b	a 3e 8a / w / w 9a	T49 7d	TN49 9d	a 4d	tr49	r 9d / r 9d

GFELLER SUBSCRIBER LINE CONCENTRATOR
49-9-2
SUBSCRIBER UNIT

W.E. Co. Serial Nos. 2 thru 447 S10461-3

ALARM RELAY TERM.

φ Remove strap for 72 volt operation.

x Tapped resistors variable in steps from 20ω to 1250ω

TO ALARM RELAY TERMS

all trunk busy register

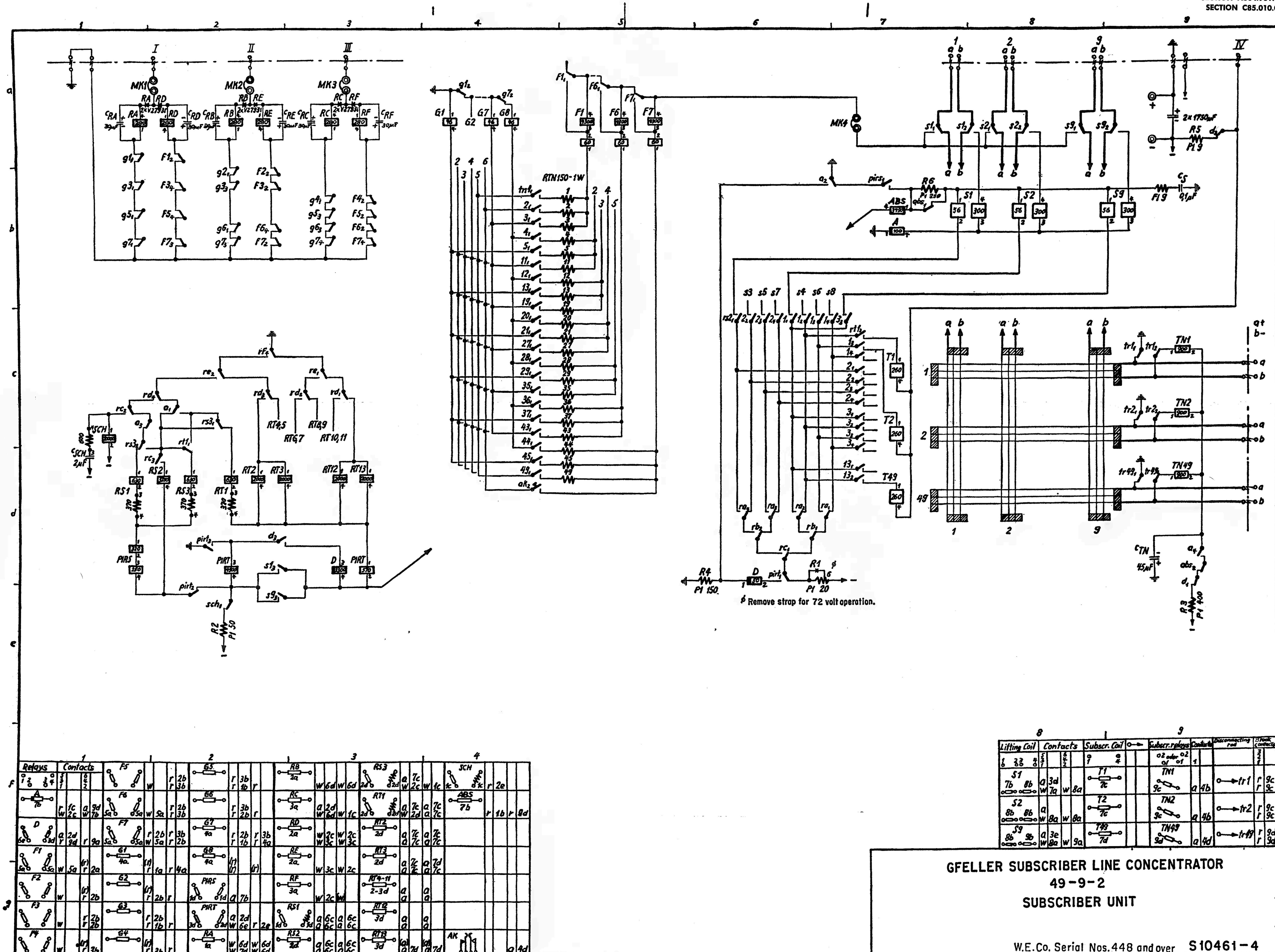
Relays	Contacts	BSU	F5	G5	M	PIRT	RS1	RT12	V1	VB7		
A	7a	C	F6	G6	N	RA	RS2	RT13	VB1	VB8		
A1	6b	D	F7	G7	PA	RB	RS3	SCH	VB2	VB9		
A2	3d	F1	G1	G8	PB	RC	RT1	U	VB3	W		
AB	2e	F2	G2	K	PC	RD	RT2	U1	VB4	X		
AB1	9b	F3	G3	KO	PD	RE	RT3	UB	VB5	A1		
BSG	9d	F4	G4	KO1	PIRS	RF	RT4-11	V	VB6	AK		

Lifting Coil	Contacts	Subscr. Coil	Subscr. relays	Contacts	Disconnecting rod	Break contacts
			T1	TN1	fr1	
S1			T49	TN49	fr49	
S2			T50			
S9						

GFELLER SUBSCRIBER LINE CONCENTRATOR
49-9-2
CENTRAL OFFICE UNIT

W.E.Co. Serial Nos. 448 and over

S10460-4



GFELLER SUBSCRIBER LINE CONCENTRATOR
49-9-2
SUBSCRIBER UNIT

W.E.Co. Serial Nos. 448 and over S10461-4