

SWITCHING SYSTEM NO. 300  
SEQUENCE CHARTS AND OPERATIONAL SKETCHES  
RADIO LINE OPERATION

1.00 INTRODUCTION

1.01 This section covers a portion of radio line operation of Switching System No. 300 using sequence charts and operational sketches.

1.02 Index of sequence charts and operational charts follows:

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<u>Figure</u>	<u>Title</u>	<u>Page</u>
	or Attendant Dial Controlled Combiner	
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2.00 GENERAL

2.01 A general description of the symbols used in the preparation of sequence charts and operational charts can be found in the section entitled Switching System No. 300 - Sequence Charts and Operational Sketches - Land Line Operation.

2.02 Sequence charts and operational sketches supplement but do not replace the written circuit description and schematic drawings.

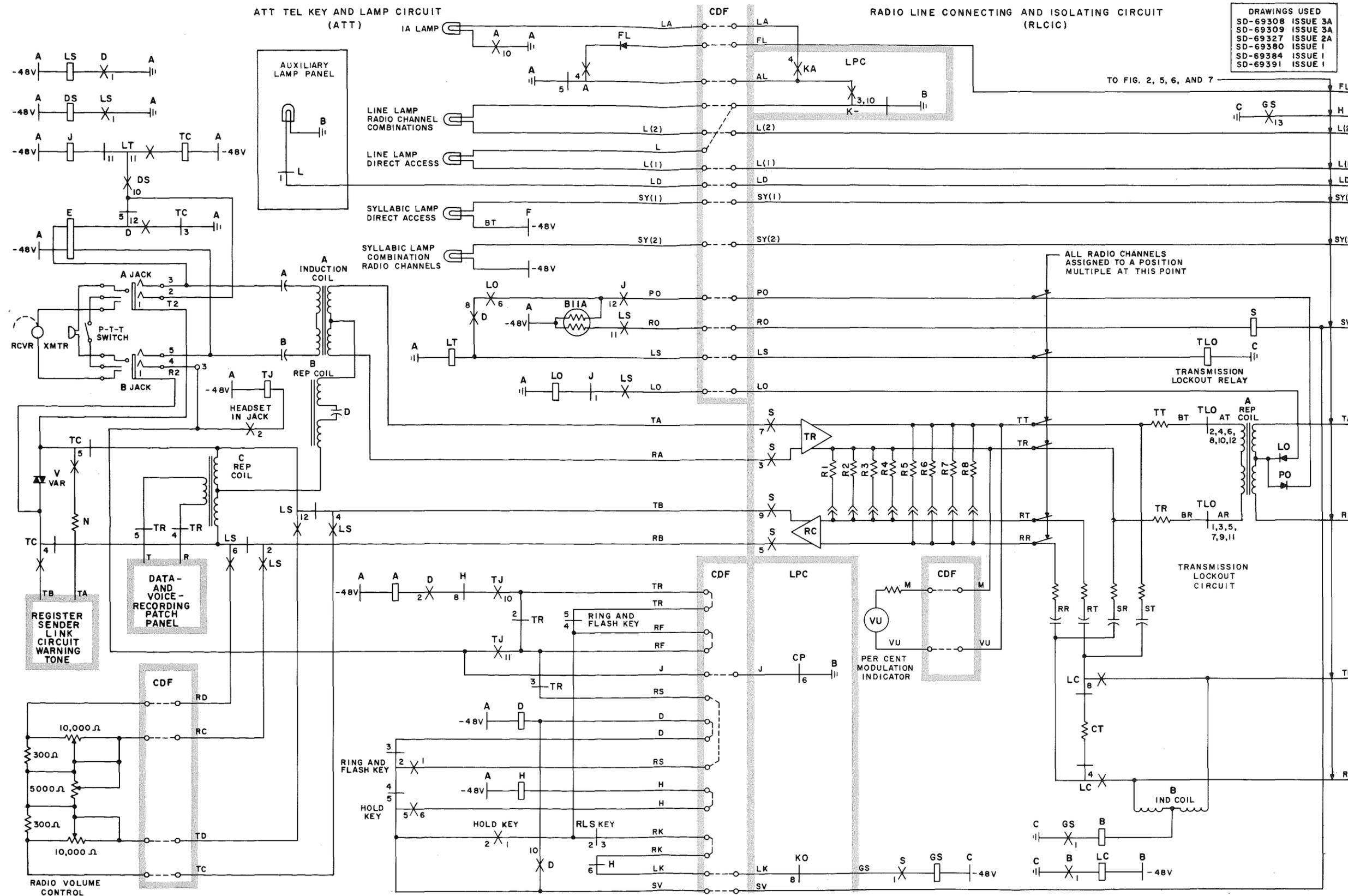


Fig. 1 - Part of the Transmission Path Common to Key-Selected Radio Channels

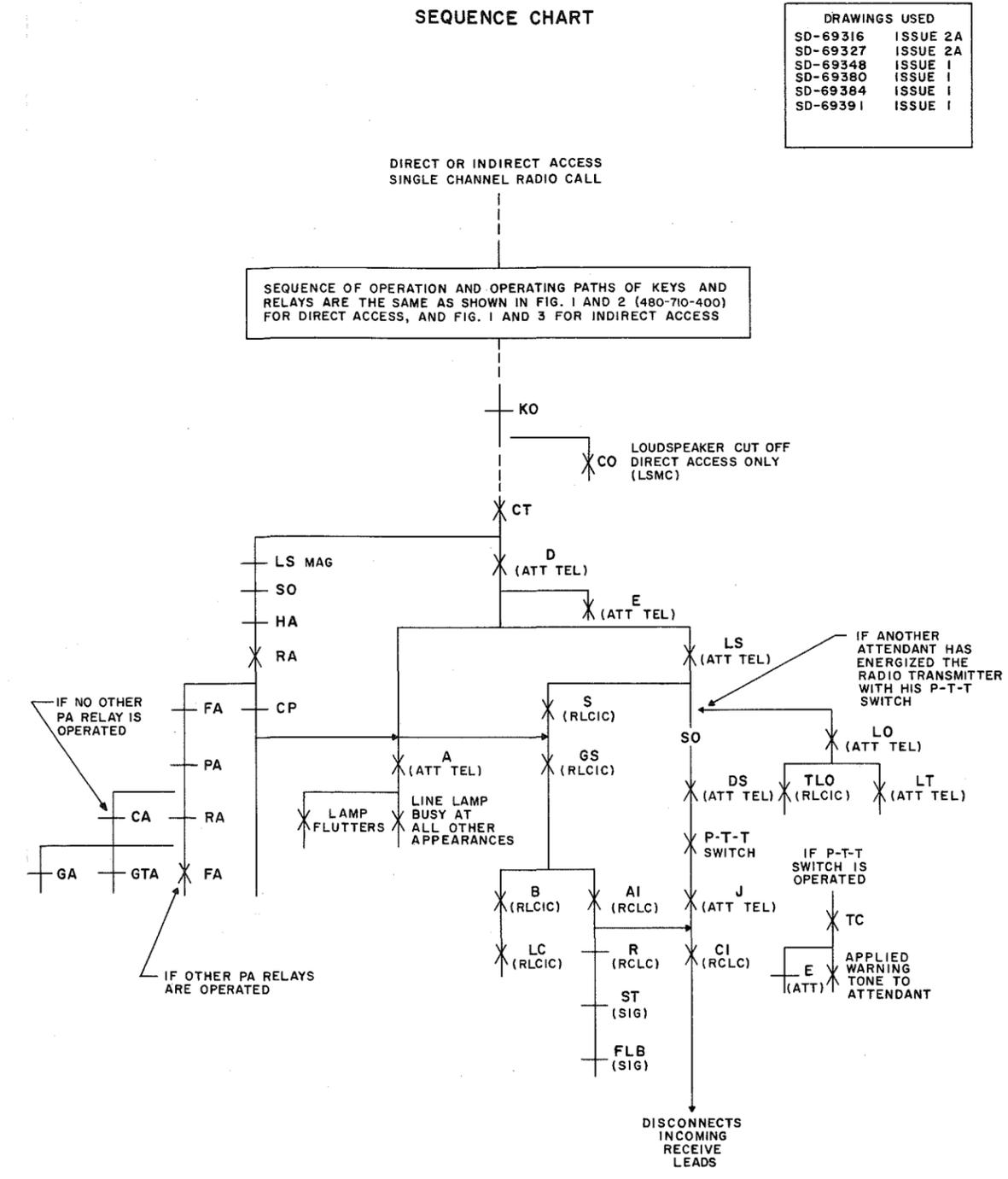
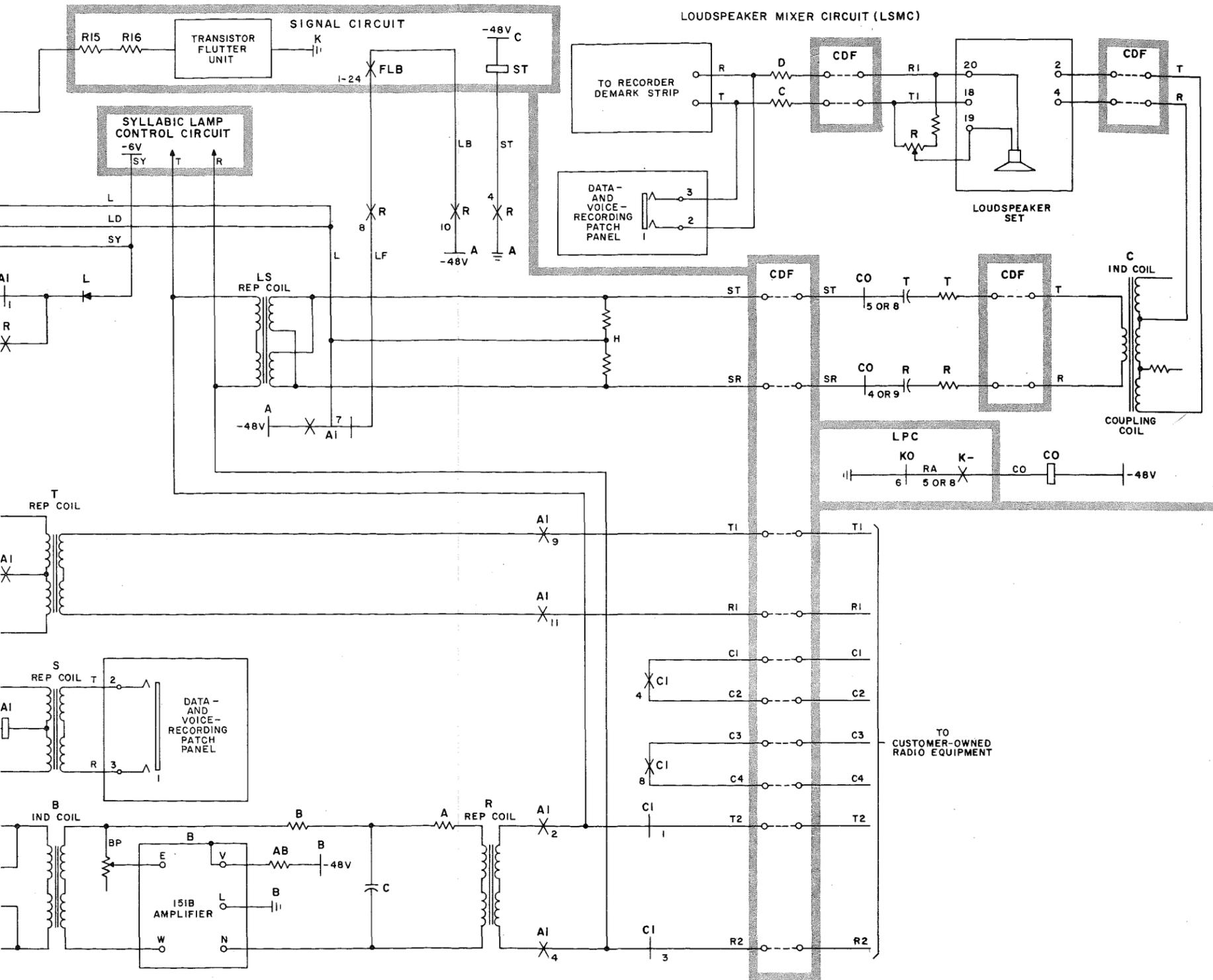


Fig. 2 - Direct or Indirect Selection of Single Radio Channels



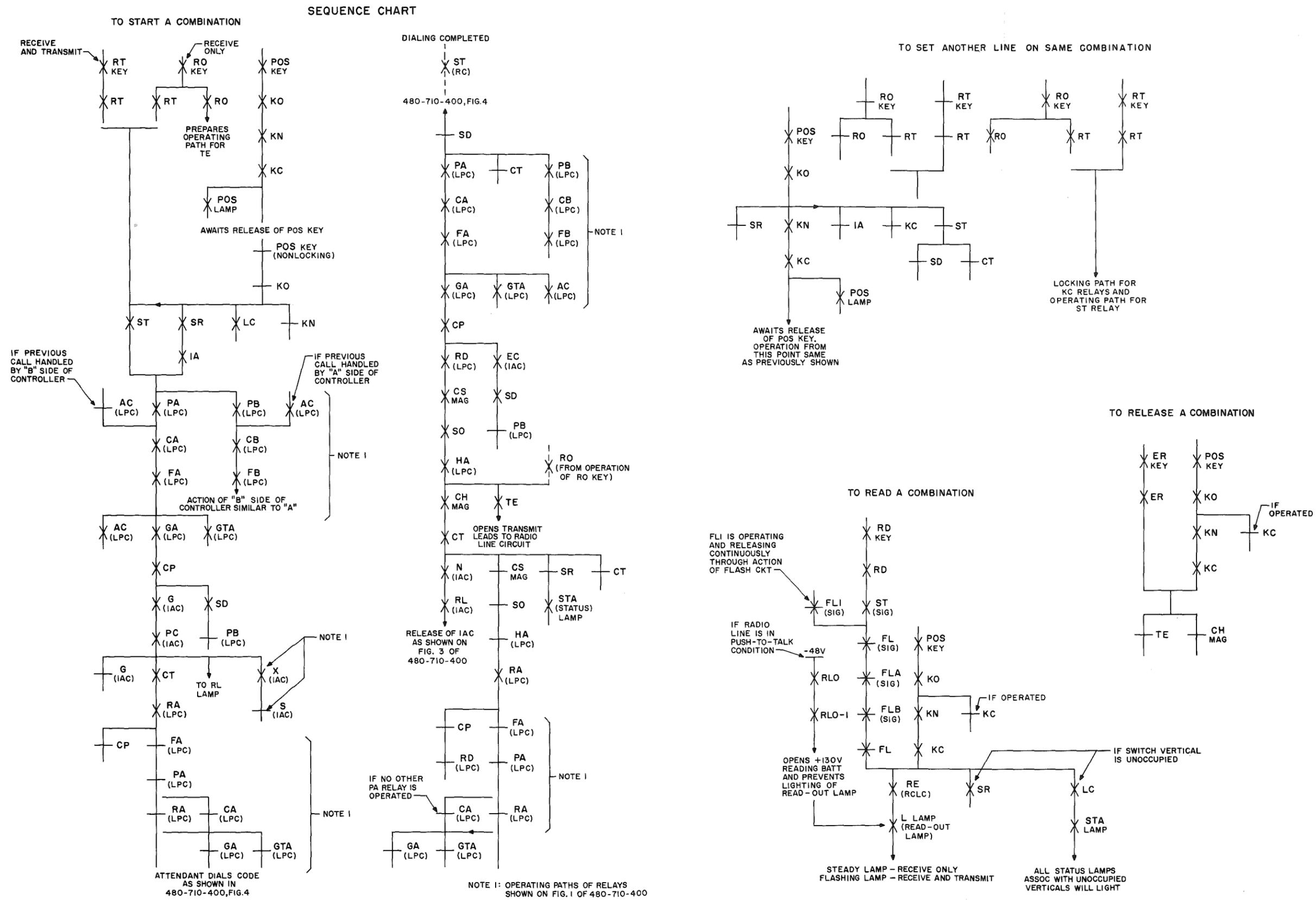


Fig. 3 - Central Combiner - Radio Line Combiner Circuit

DRAWINGS USED	
SD-69308-01	ISSUE 3A
SD-69310-01	ISSUE 3A
SD-69311-01	ISSUE 3A
SD-69316-01	ISSUE 2A
SD-69327-01	ISSUE 2A
SD-69382-01	ISSUE 1

COMBINER

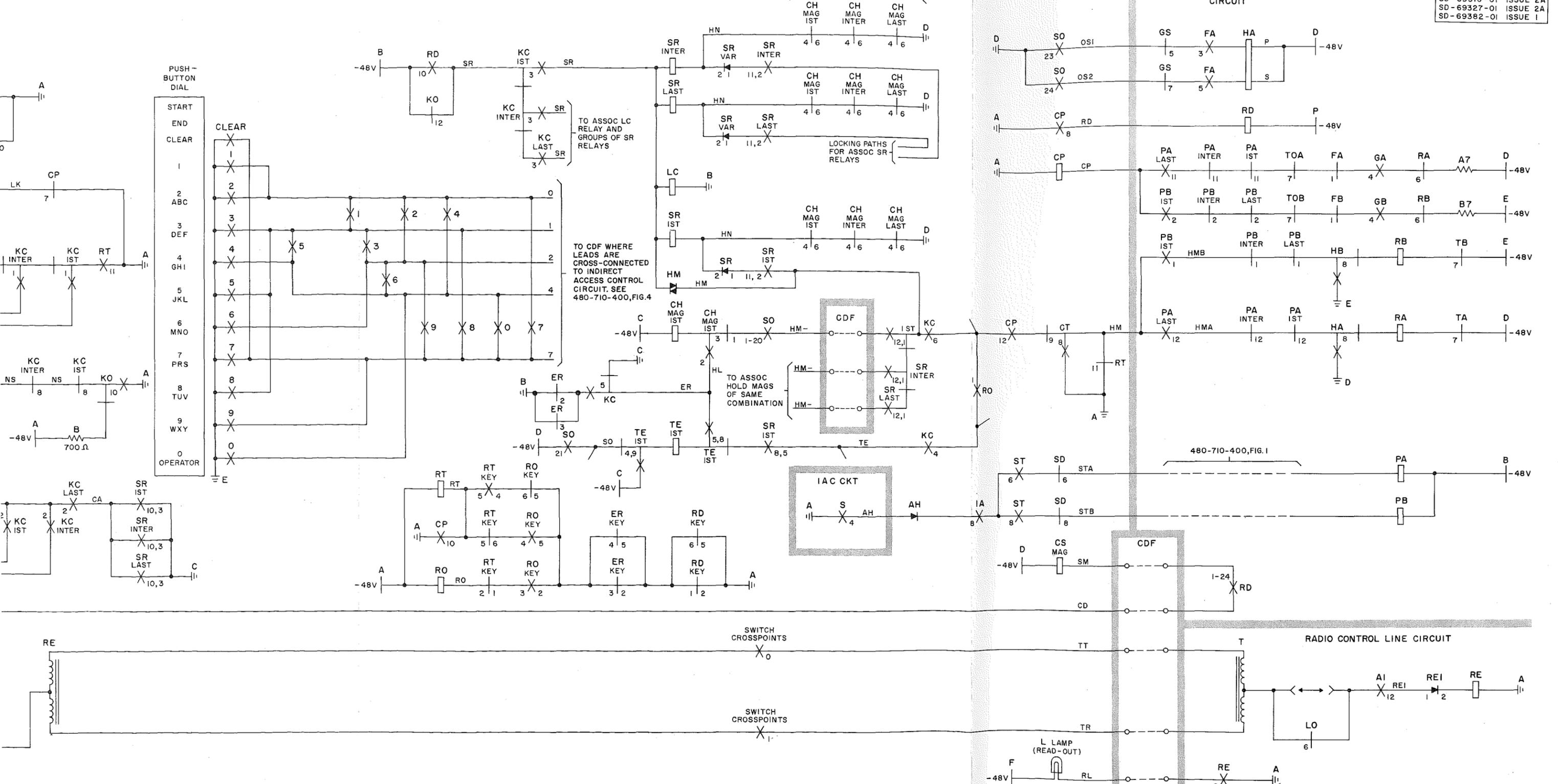
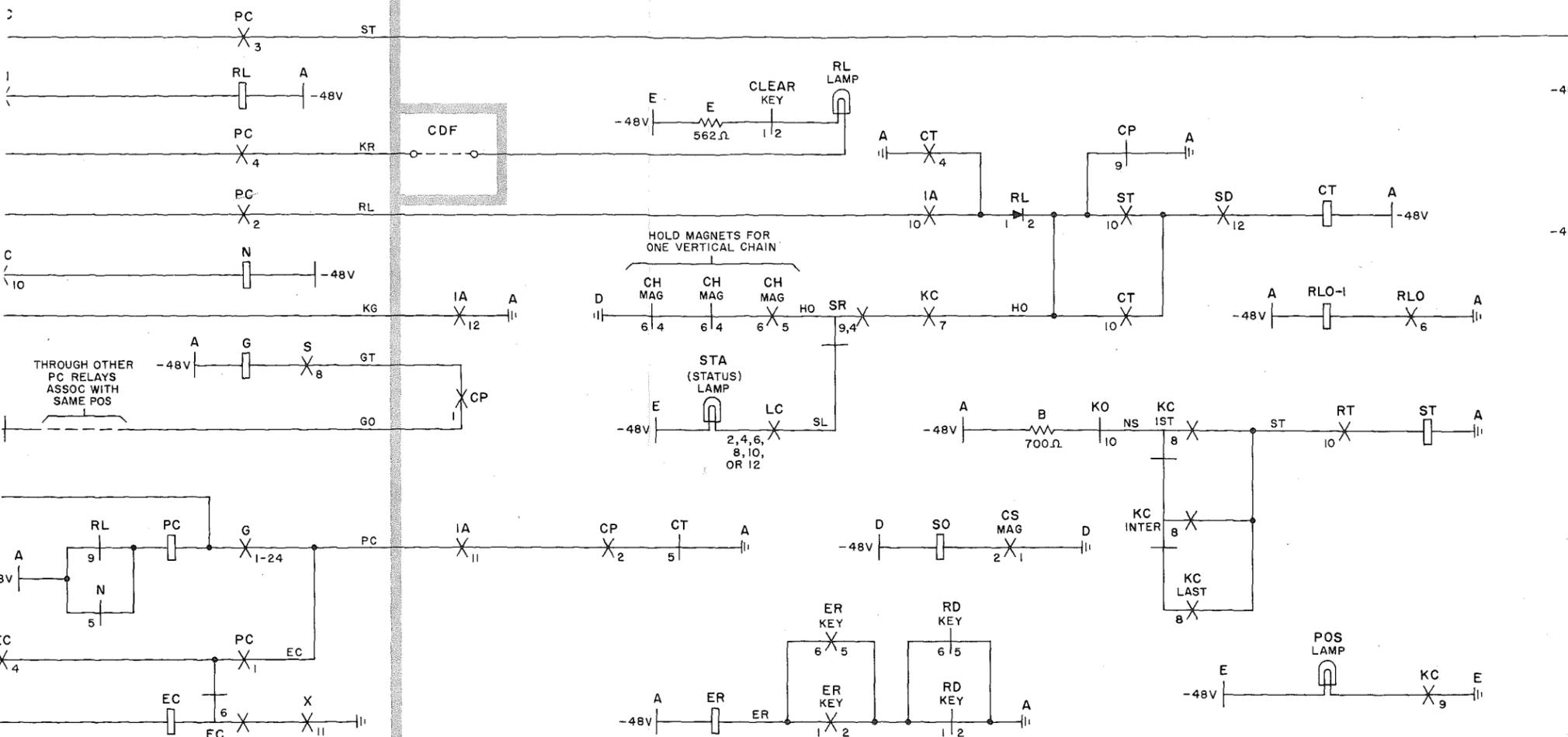


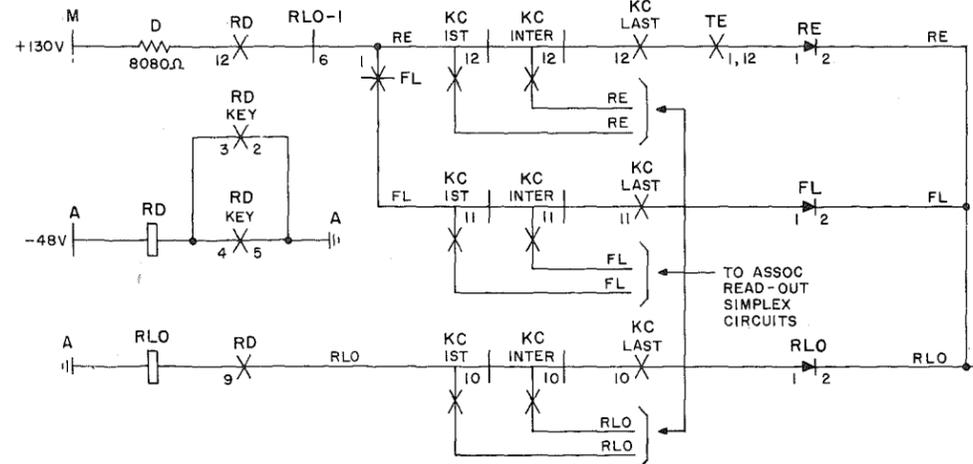
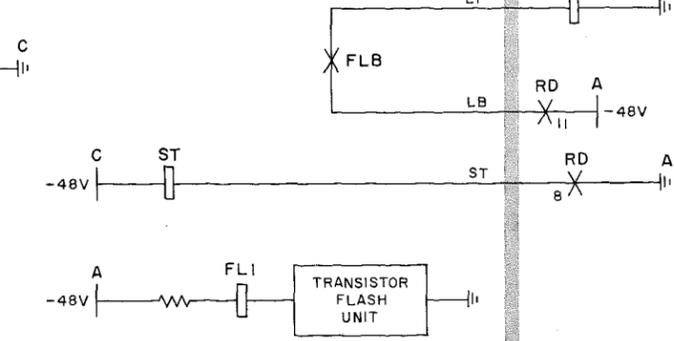
Fig. 3 - Central Combiner - Radio Line Combiner Circuit (Cont)

TRIAL COMBINER  
LINE COMBINER CIRCUIT

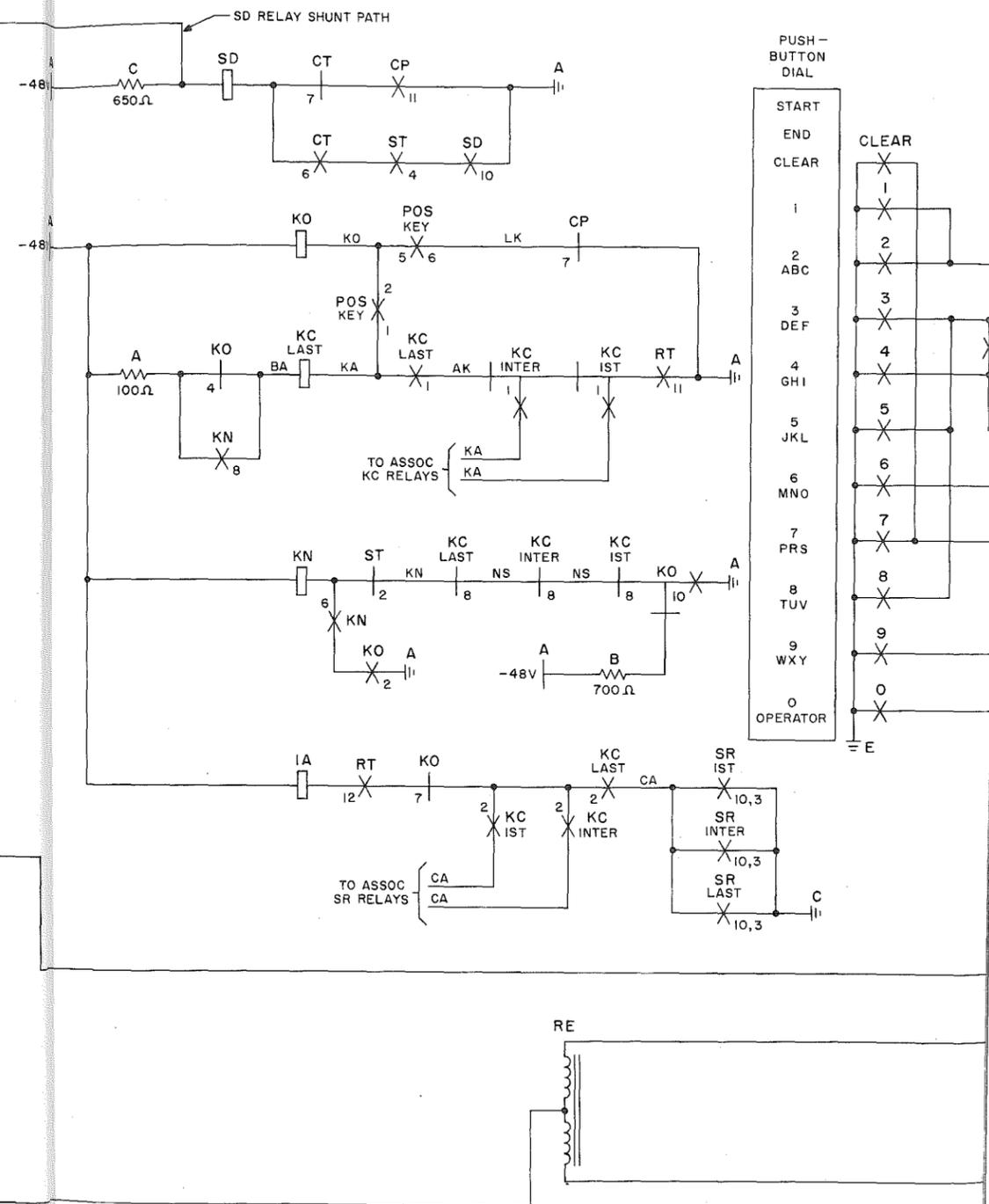
INDIRECT ACCESS  
CONTROL CIRCUIT



CIRCUIT



CENTRAL COMBINER





**DRAWINGS USED**

- SD-69308-01 ISSUE 3A
- SD-69309-01 ISSUE 3A
- SD-69310-01 ISSUE 3A
- SD-69311-01 ISSUE 3A
- SD-69322-01 ISSUE 3A
- SD-69327-01 ISSUE 2A
- SD-69382-01 ISSUE 1

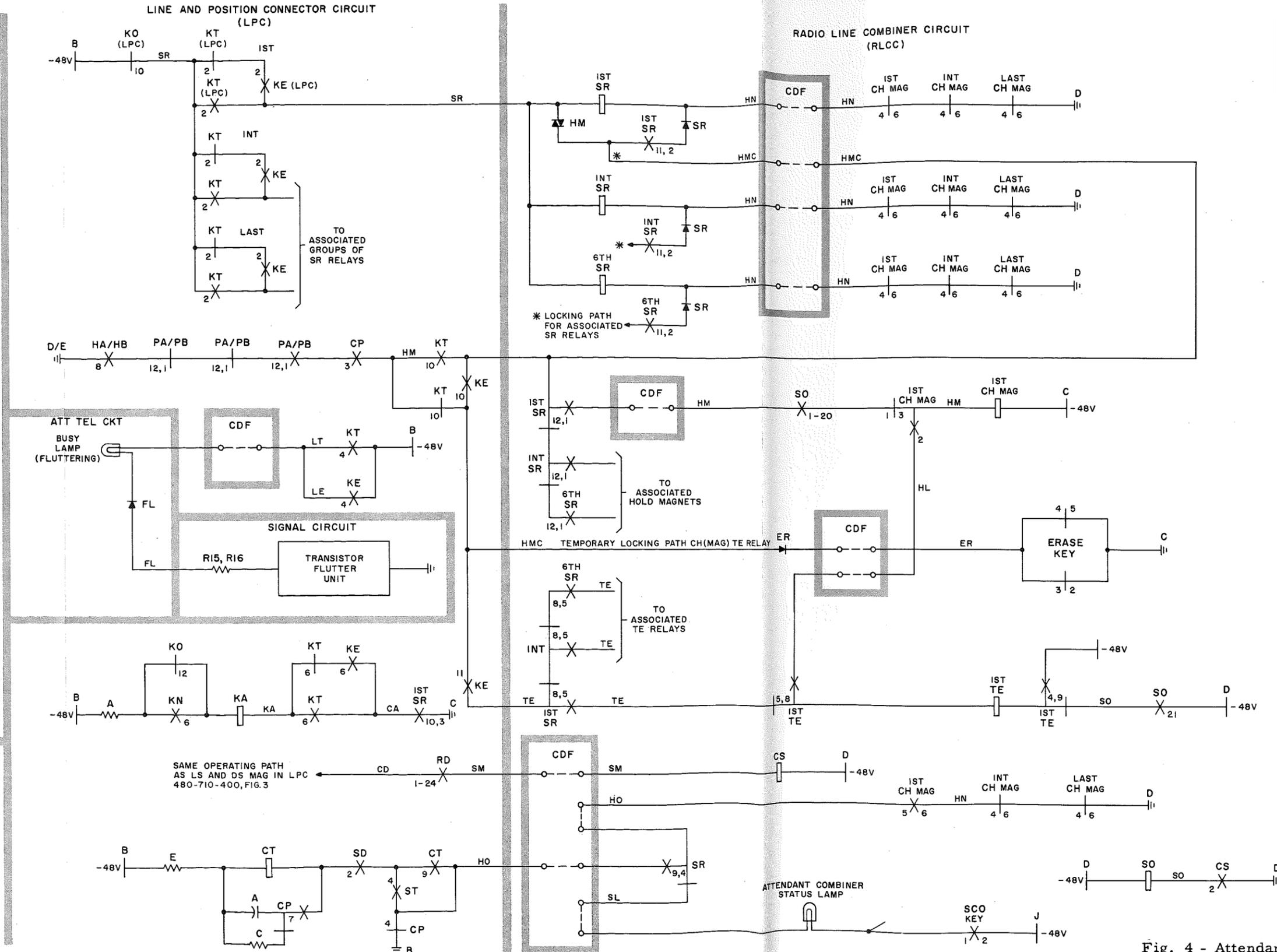
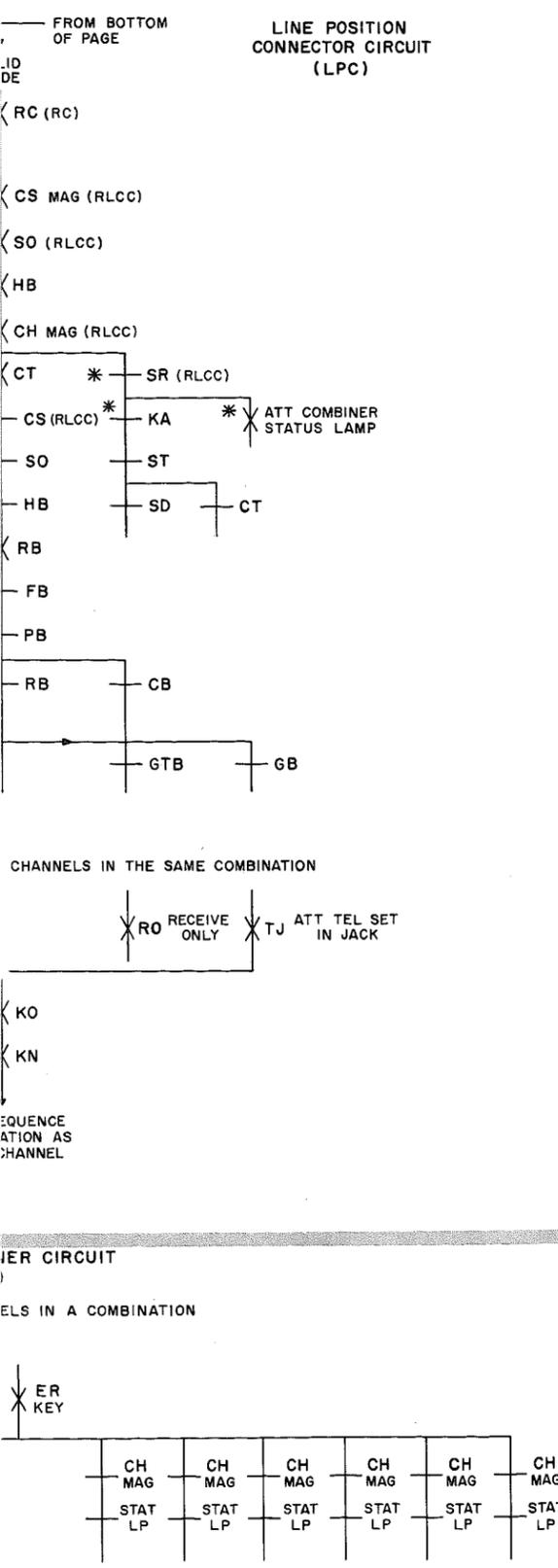


Fig. 4 - Attendant Dial Controlled Combining

ATT TEL SET IN JACKS

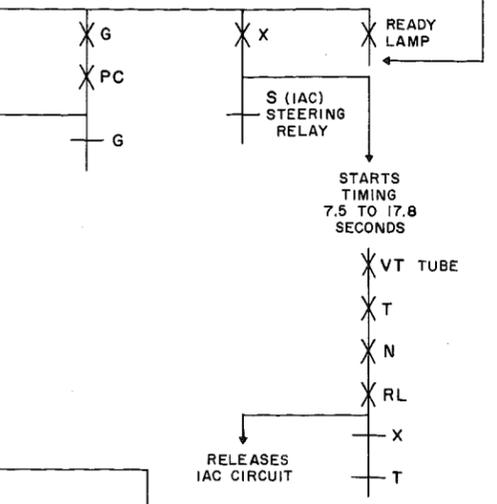
RECEIVE ONLY KE  
LAMP FLUTTERS

KEY (IG)

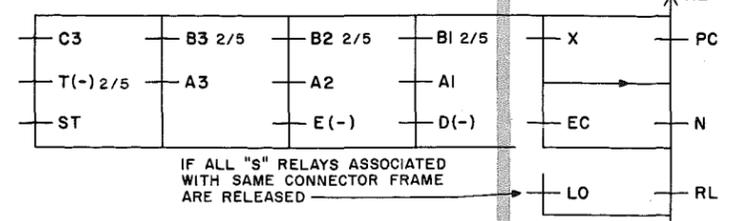
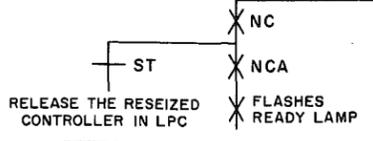
PREVIOUS CALL HANDLED BY "A" CONTROLLER

### INDIRECT ACCESS CONTROL CIRCUIT (IAC)

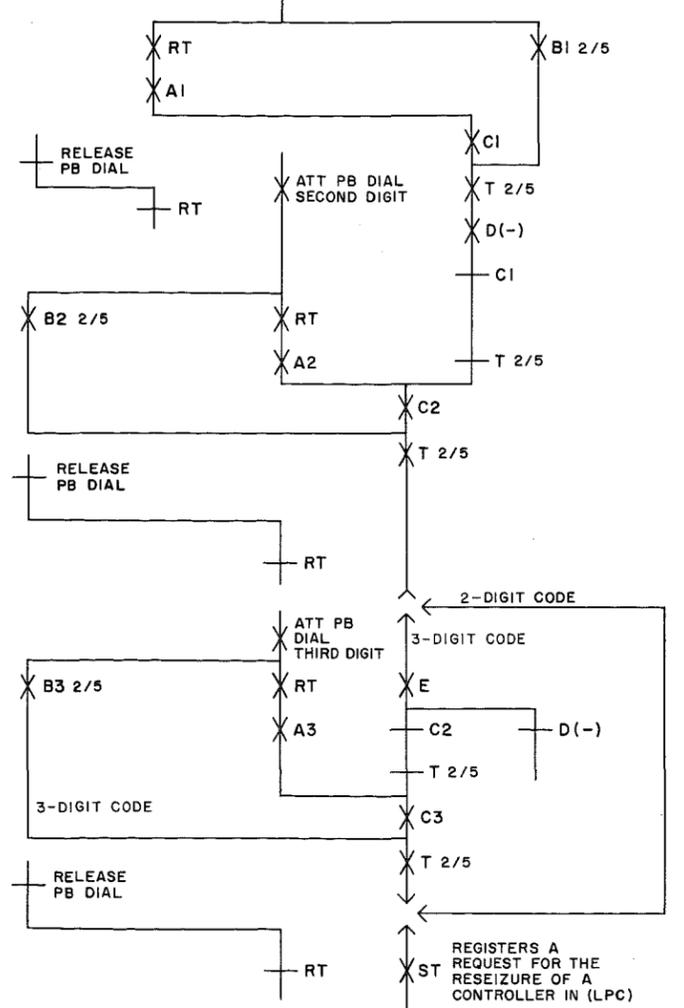
Note 1: Operating and release paths of relays that have not been previously shown in 480-710-400 will be marked \* and shown on this operational sketch.



### REGISTER CONNECTOR CIRCUIT (RC)



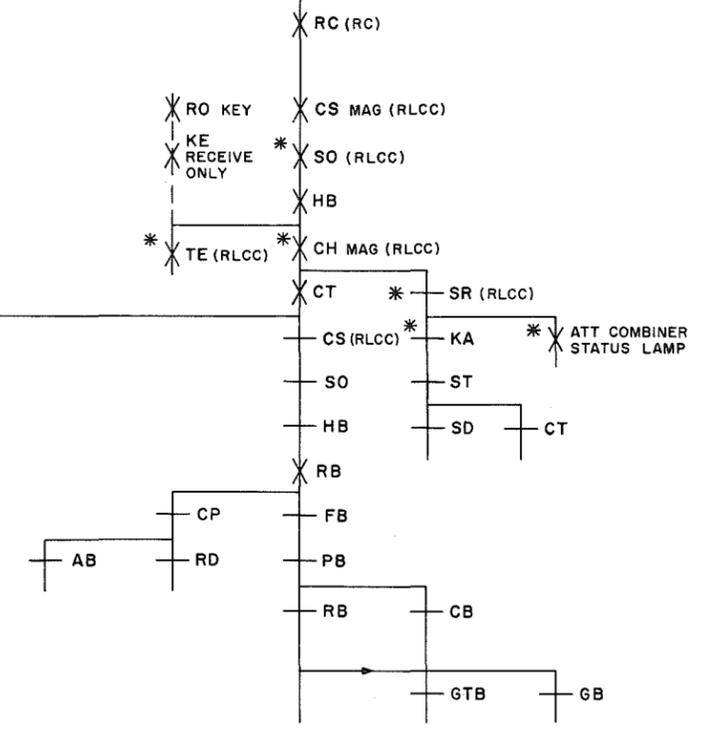
ATTENDANT CAN NOW DIAL CODE NO. ATT PB DIAL FIRST DIGIT



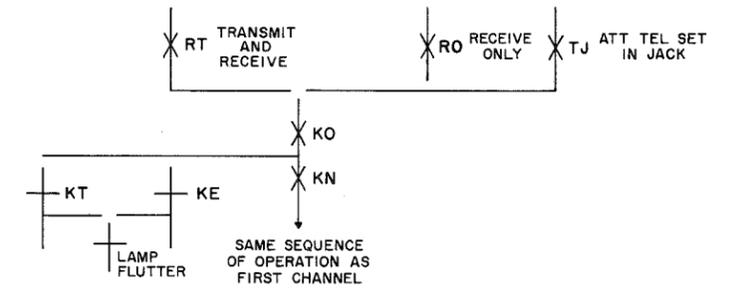
NONVALID CODE

FROM BOTTOM OF PAGE

### LINE POSITION CONNECTOR CIRCUIT (LPC)

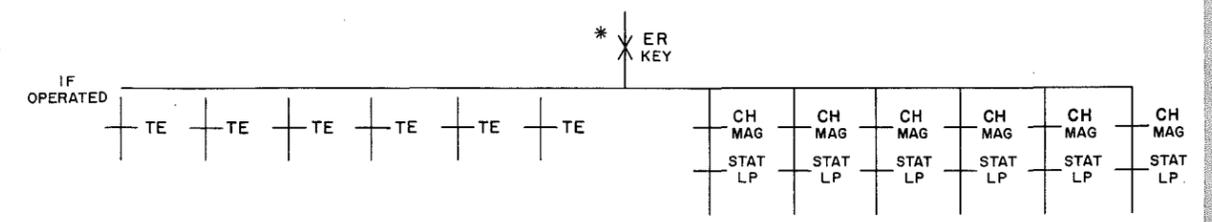


TO SET UP OTHER RADIO CHANNELS IN THE SAME COMBINATION



### RADIO LINE COMBINER CIRCUIT (RLCC)

TO RELEASE ALL RADIO CHANNELS IN A COMBINATION

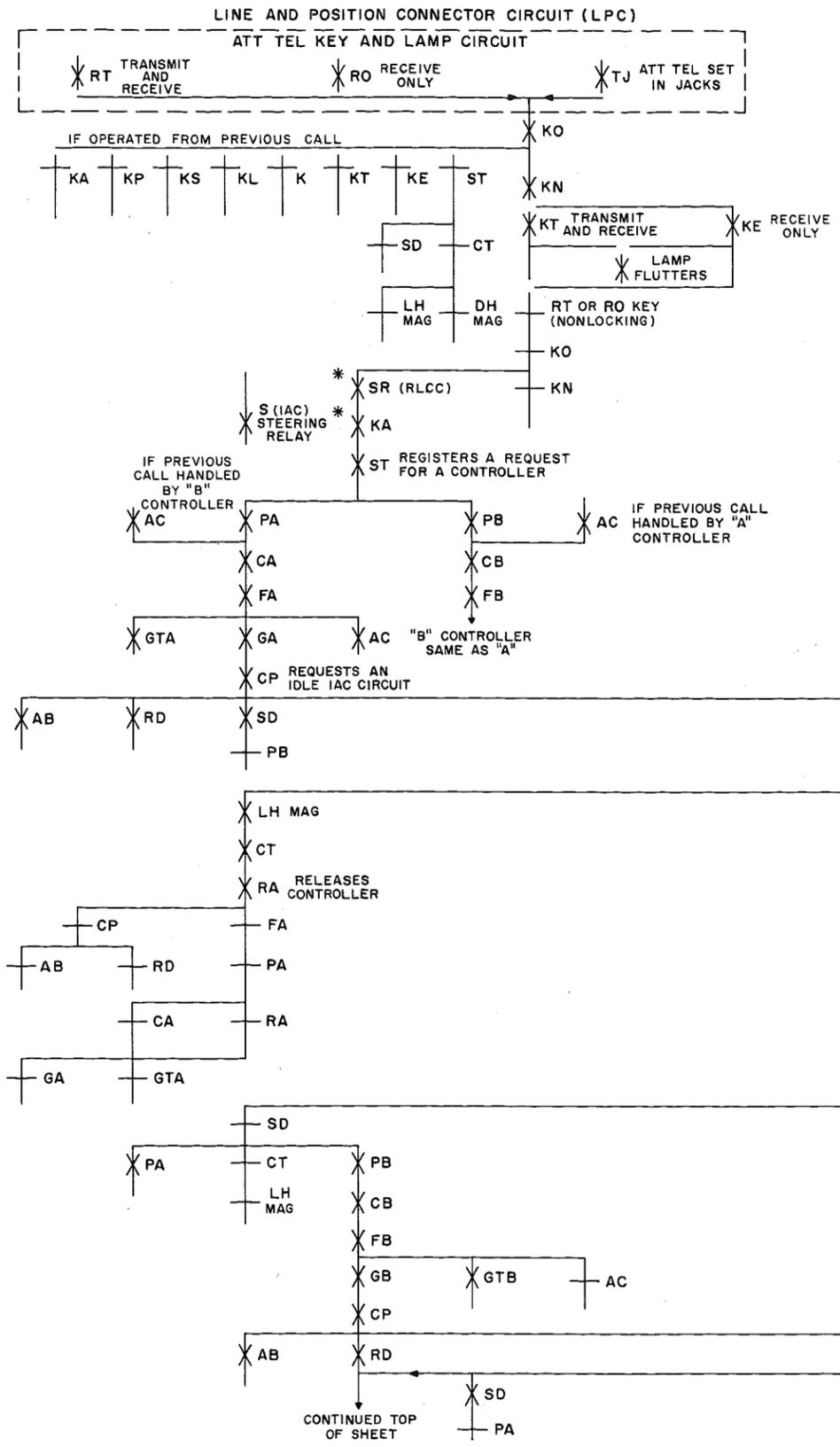


-48V

D/E

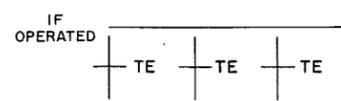
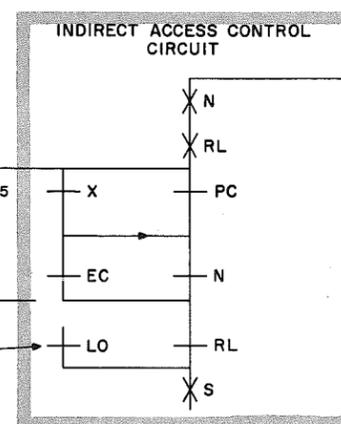
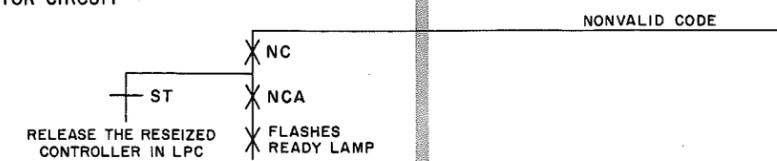
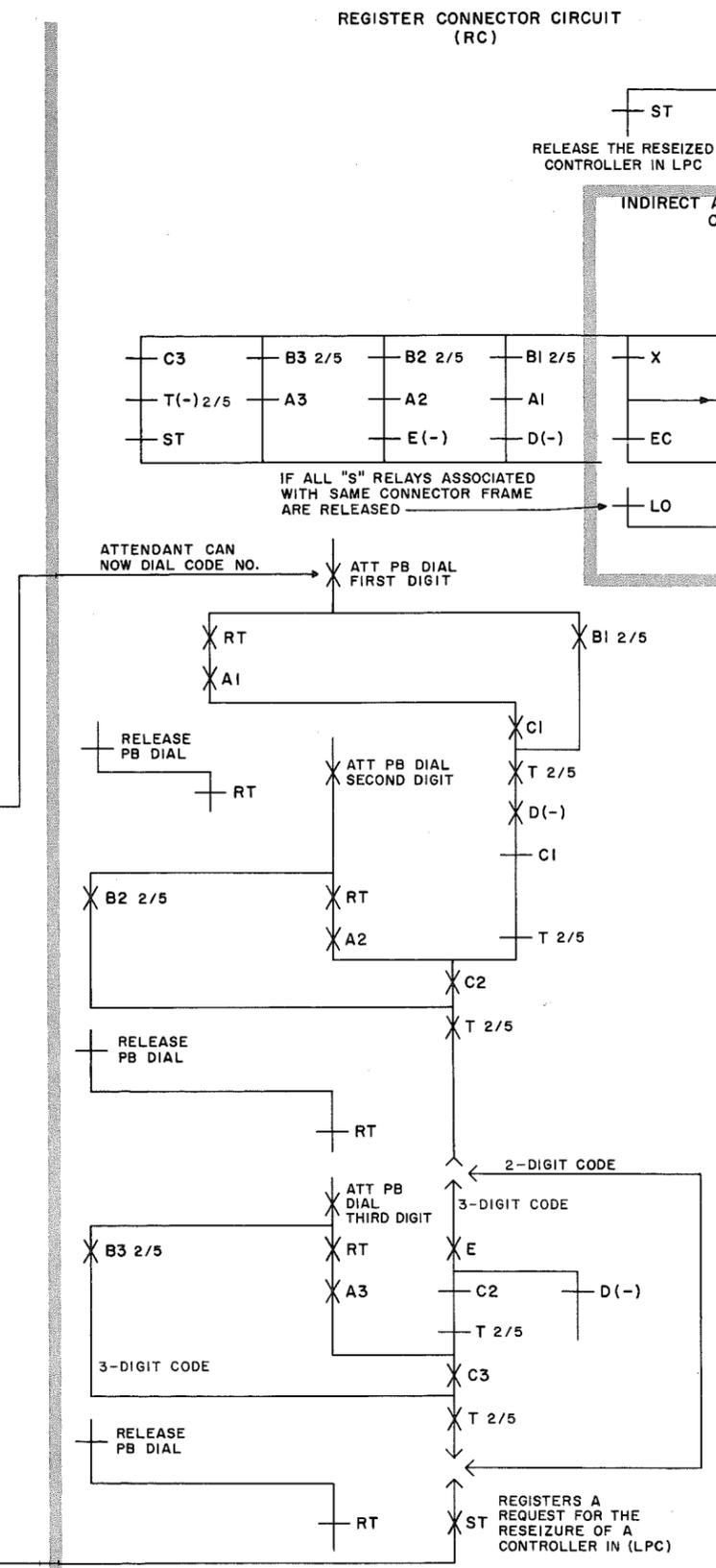
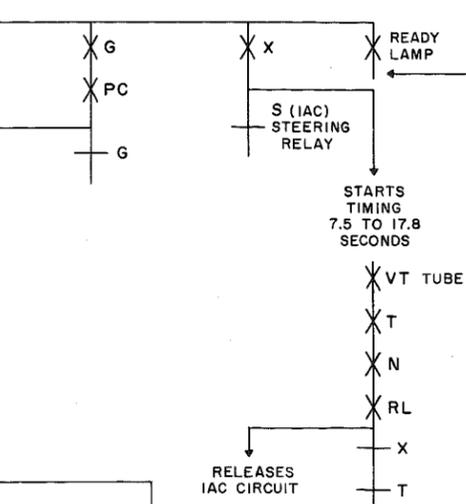
ATT BUSY LAMP (FLUTTER)

-48V

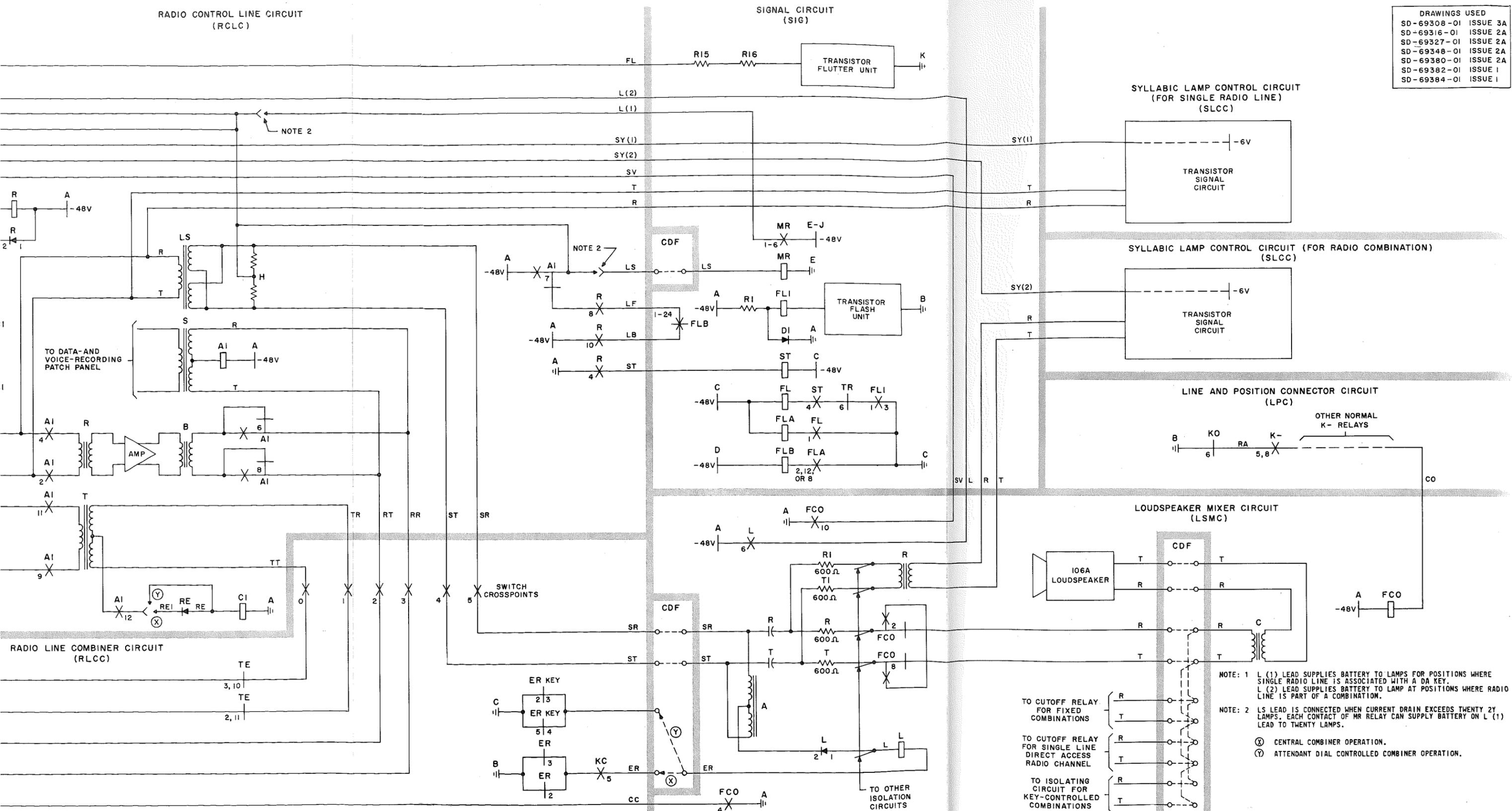


### INDIRECT ACCESS CONTROL CIRCUIT (IAC)

*Note 1:* Operating and release paths of relays that have not been previously shown in 480-710-400 will be marked \* and shown on this operational sketch.



DRAWINGS USED	
SD-69308-01	ISSUE 3A
SD-69316-01	ISSUE 2A
SD-69327-01	ISSUE 2A
SD-69348-01	ISSUE 2A
SD-69380-01	ISSUE 2A
SD-69382-01	ISSUE 1
SD-69384-01	ISSUE 1



NOTE 1 L (1) LEAD SUPPLIES BATTERY TO LAMPS FOR POSITIONS WHERE SINGLE RADIO LINE IS ASSOCIATED WITH A DA KEY.  
 L (2) LEAD SUPPLIES BATTERY TO LAMP AT POSITIONS WHERE RADIO LINE IS PART OF A COMBINATION.

NOTE 2 LS LEAD IS CONNECTED WHEN CURRENT DRAIN EXCEEDS TWENTY 2Y LAMPS. EACH CONTACT OF MR RELAY CAN SUPPLY BATTERY ON L (1) LEAD TO TWENTY LAMPS.

⊗ CENTRAL COMBINER OPERATION.  
 ⊙ ATTENDANT DIAL CONTROLLED COMBINER OPERATION.

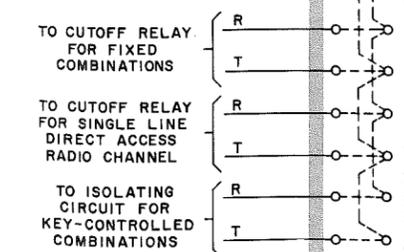
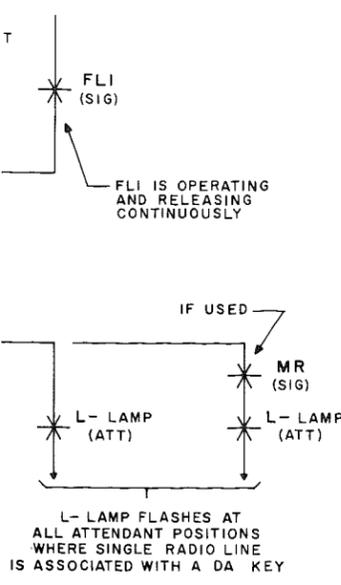


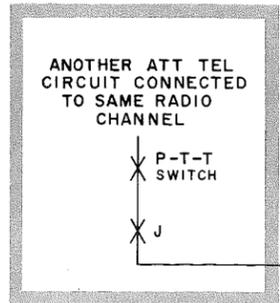
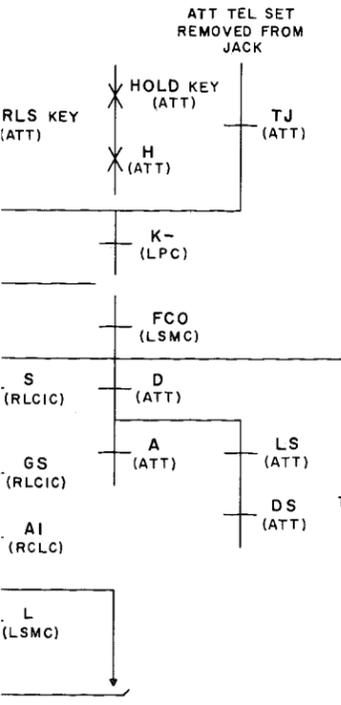
Fig. 5 - Seizure of Combination Set by Central Combiner or Attendant Dial Controlled Combiner

INCOMING CALL

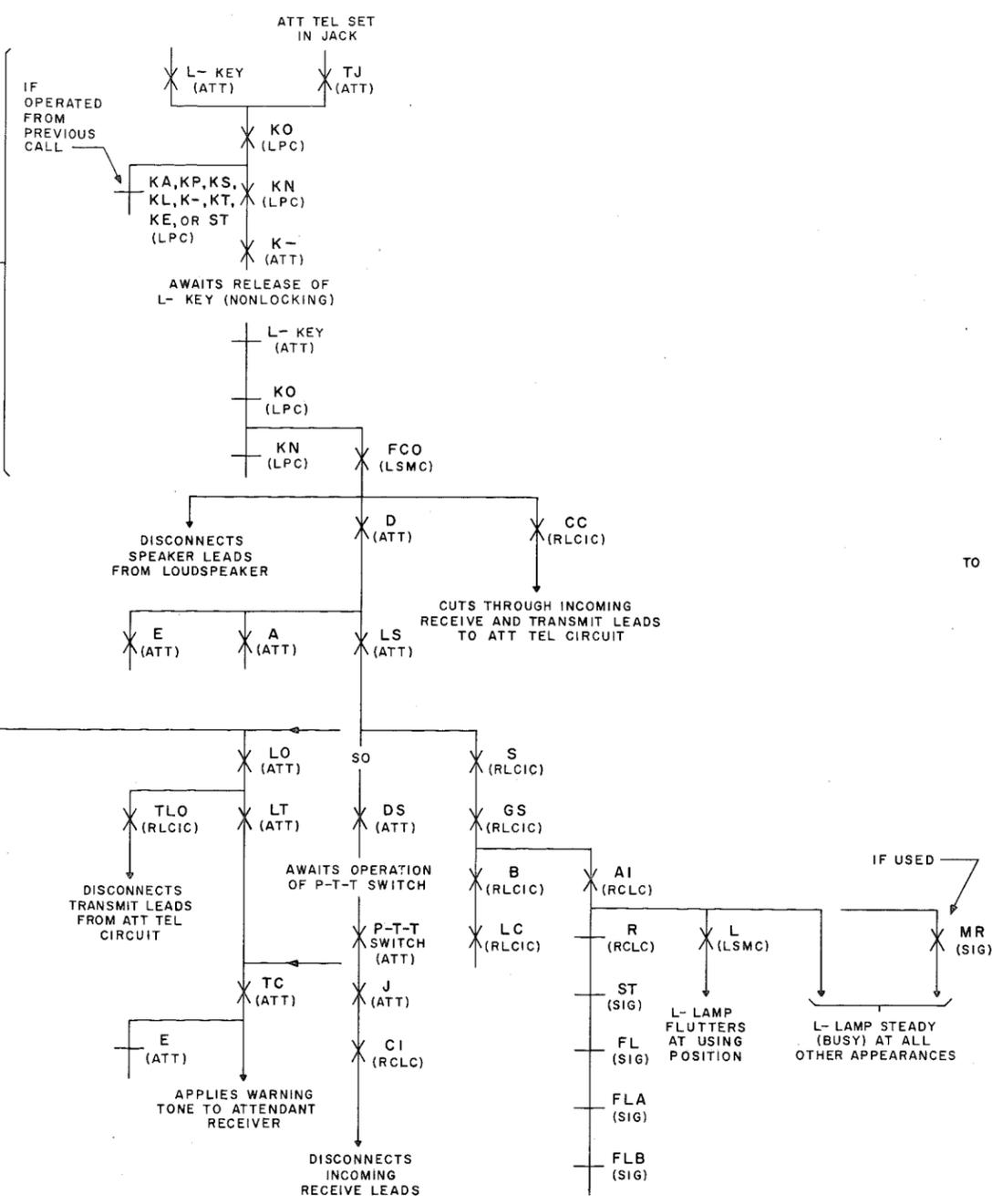


SEQUENCE CHART

RELEASE



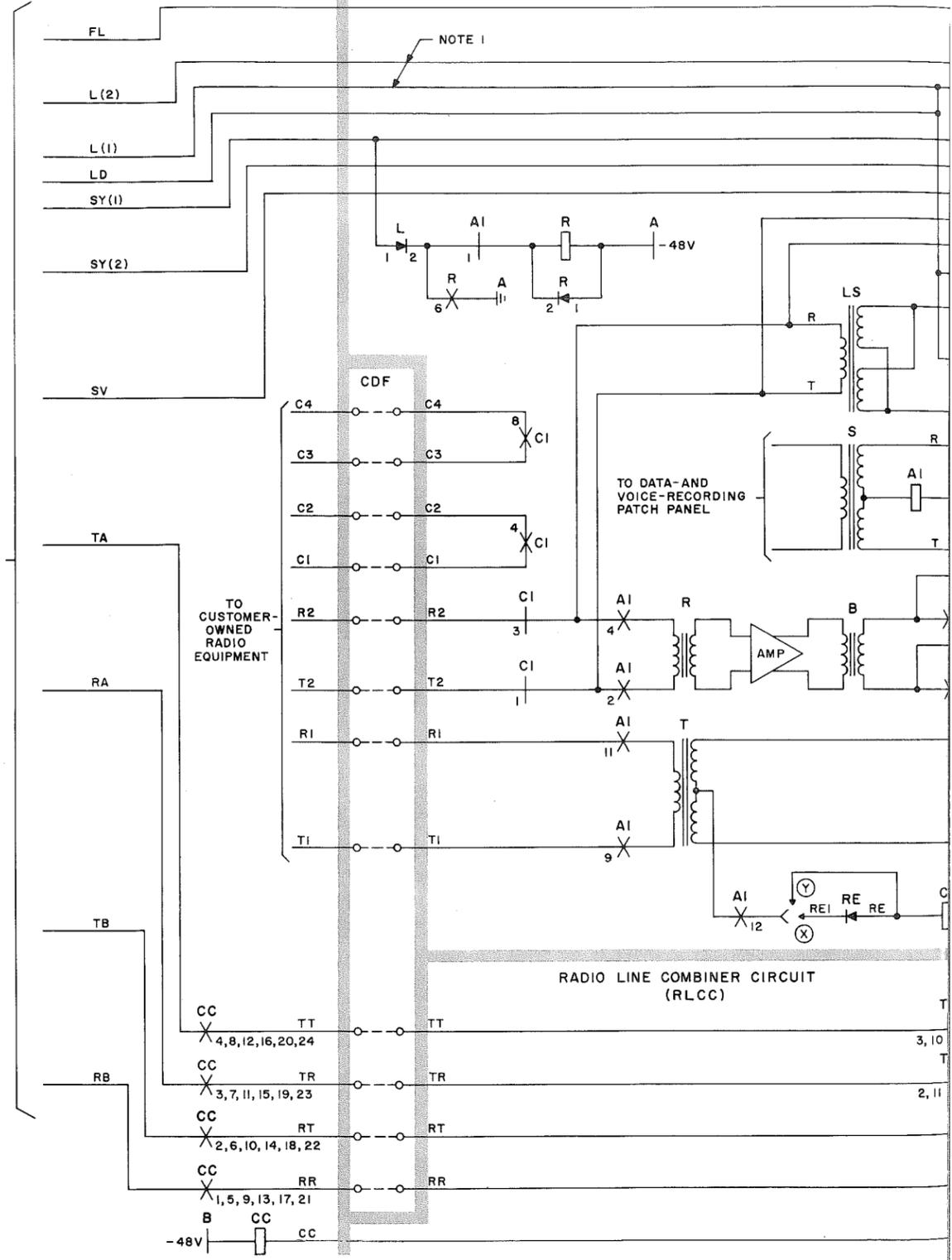
ATTENDANT ANSWERS INCOMING CALL OR ATTENDANT ORIGINATES CALL



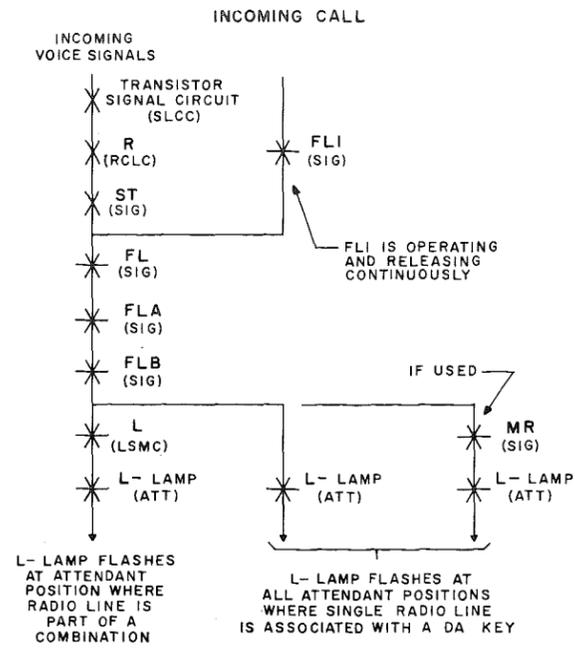
OPERATING PATHS OF RELAYS ARE SHOWN ON FIG. 1 OF 480-710-400

RADIO LINE CONNECTING AND ISOLATING CIRCUIT (RLCIC)

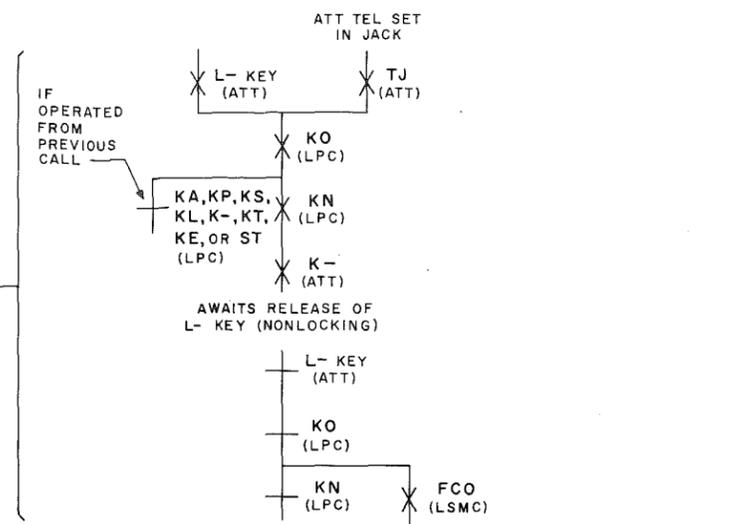
RADIO CONTROL (RCLC)



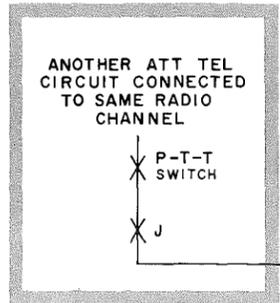
SEQUENCE CHART



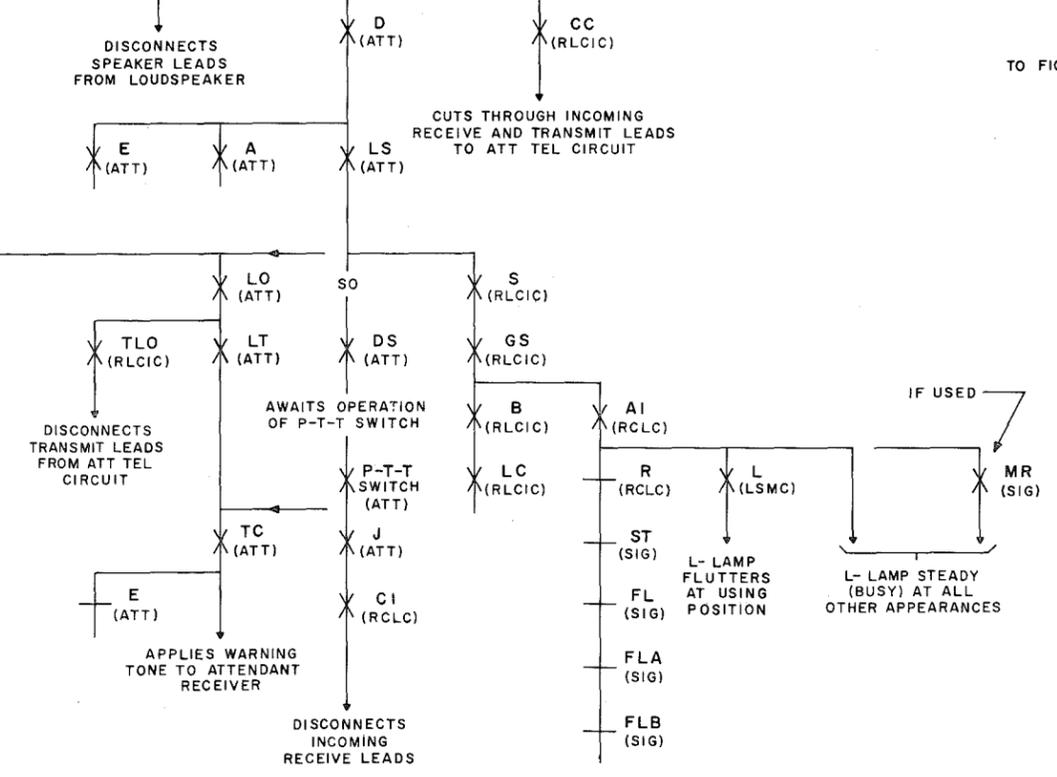
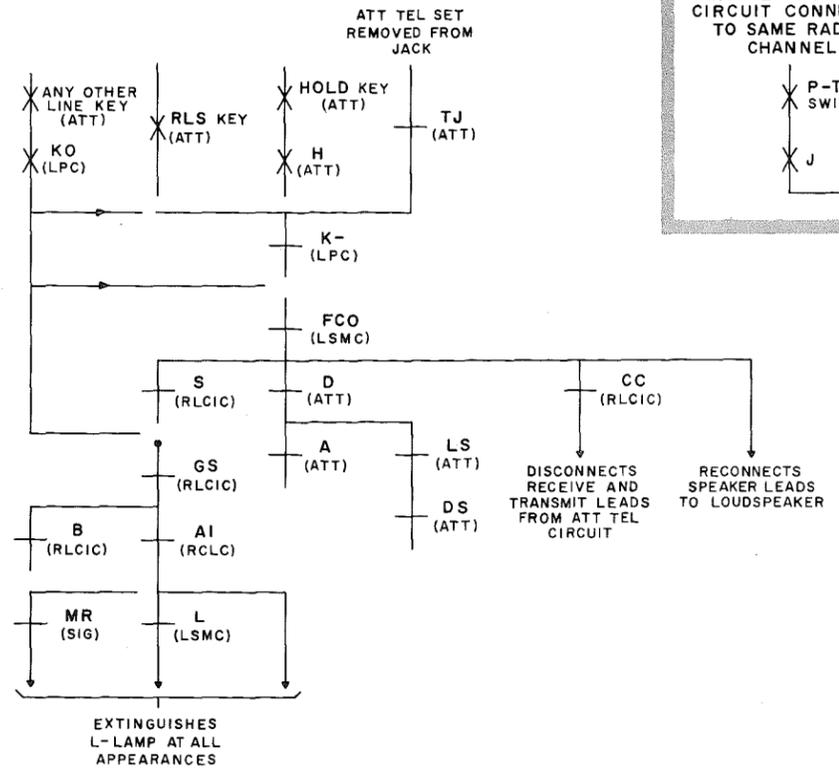
**ATTENDANT ANSWERS INCOMING CALL OR ATTENDANT ORIGINATES CALL**



OPERATING PATHS OF RELAYS ARE SHOWN ON FIG. 1 OF 480-710-400

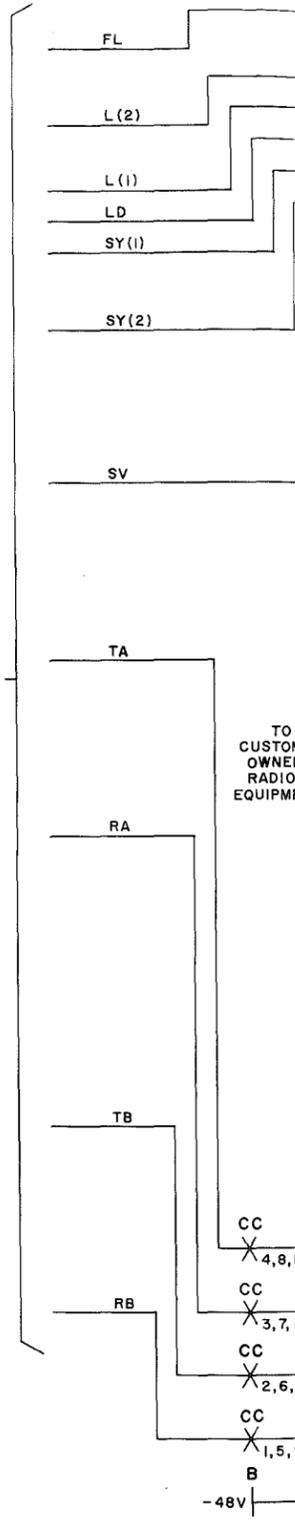


**RELEASE**



TO FIG. 1

**RADIO LINE CONNECTING AN ISOLATING CIRCUIT (RLCIC)**



SEQUENCE CHART

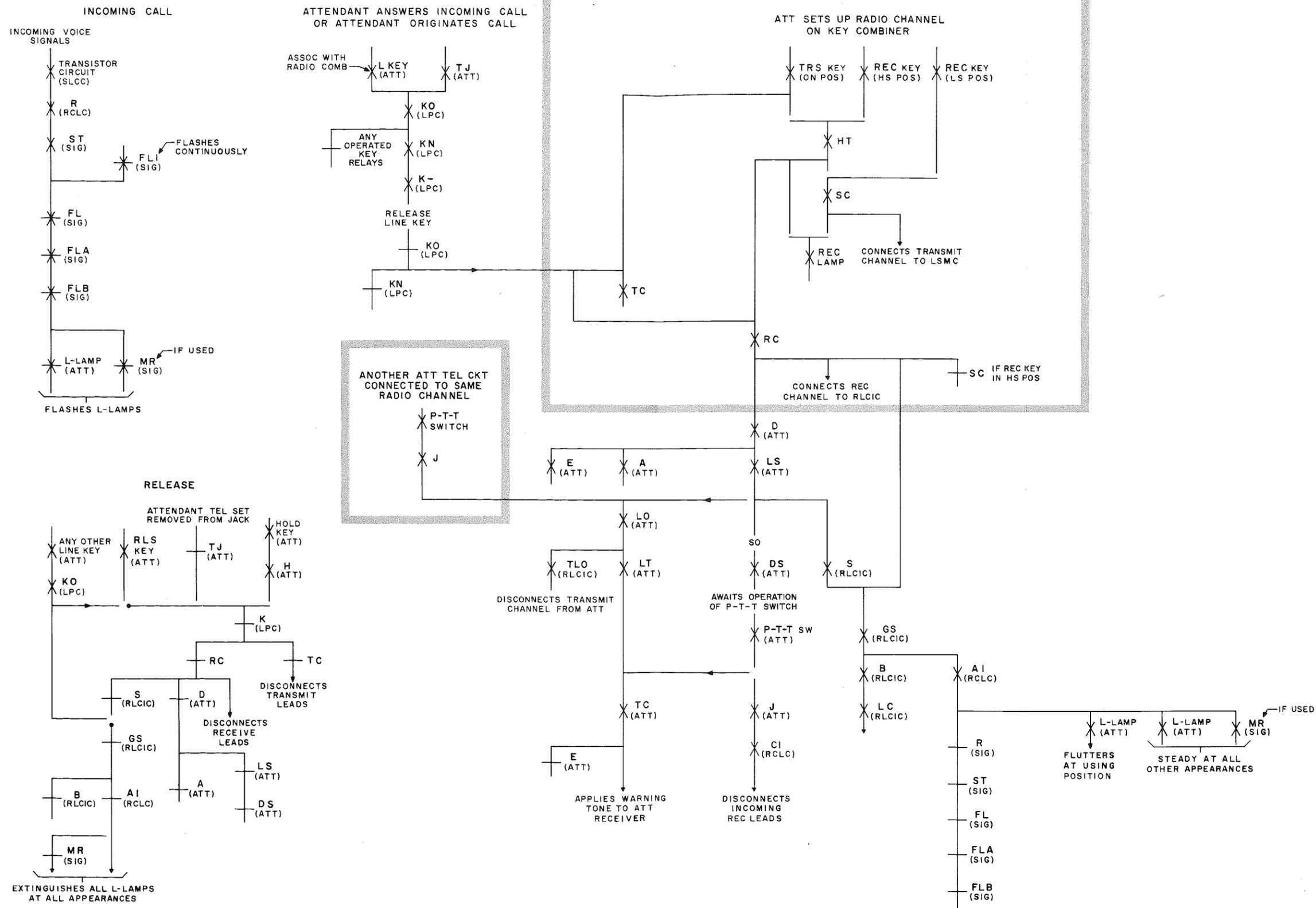
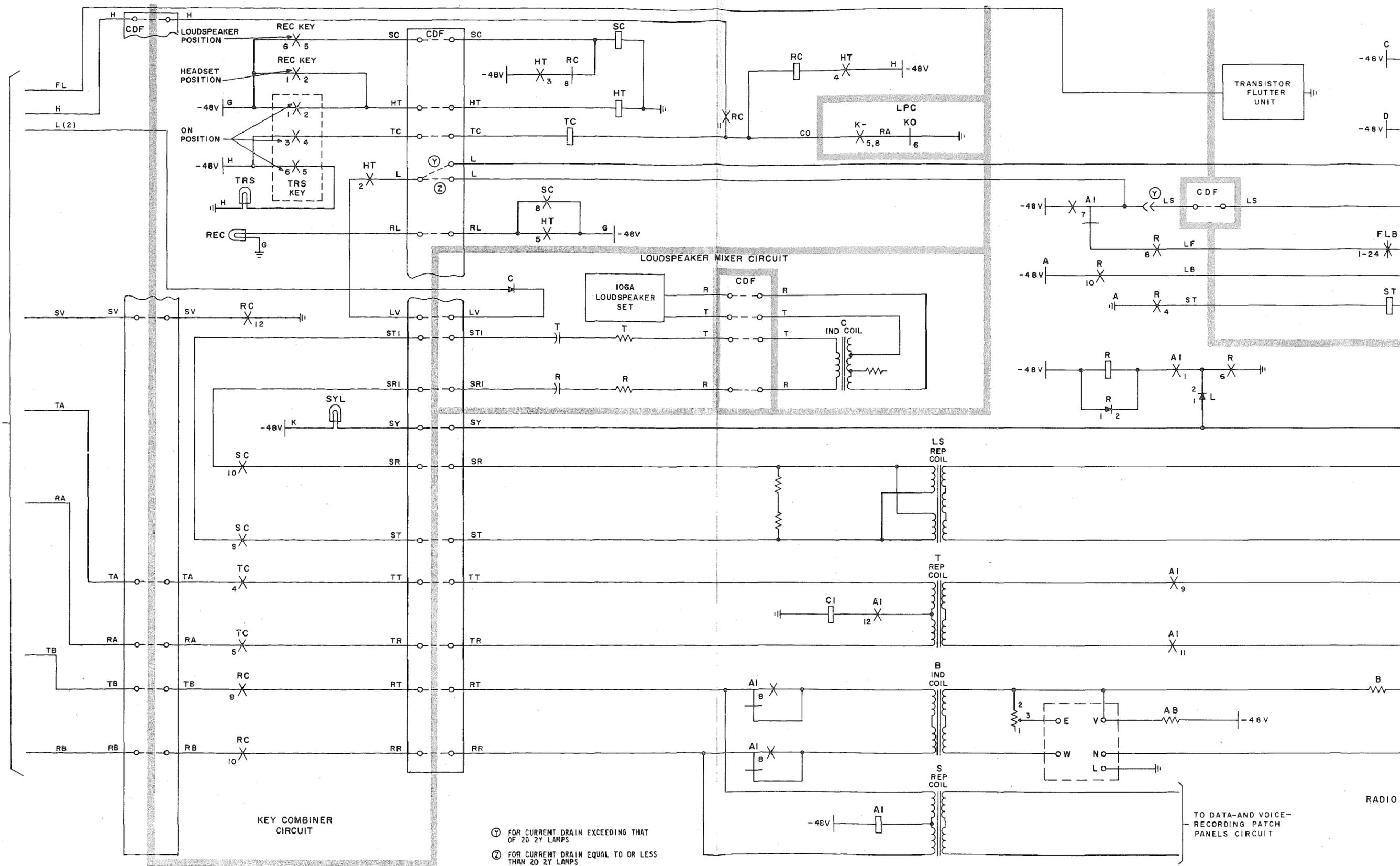


Fig. 6 - Selection and Seizure of Radio Channels by Key Controlled Combiner



TO FIG. 1



KEY COMBINER  
CIRCUIT

LOUSPEAKER MIXER  
CIRCUIT

- Ⓢ FOR CURRENT DRAIN EXCEEDING THAT OF 20 2Y LAMPS
- Ⓣ FOR CURRENT DRAIN EQUAL TO OR LESS THAN 20 2Y LAMPS

TO DATA-AND VOICE-  
RECORDING PATCH  
PANELS CIRCUIT

RADIO C

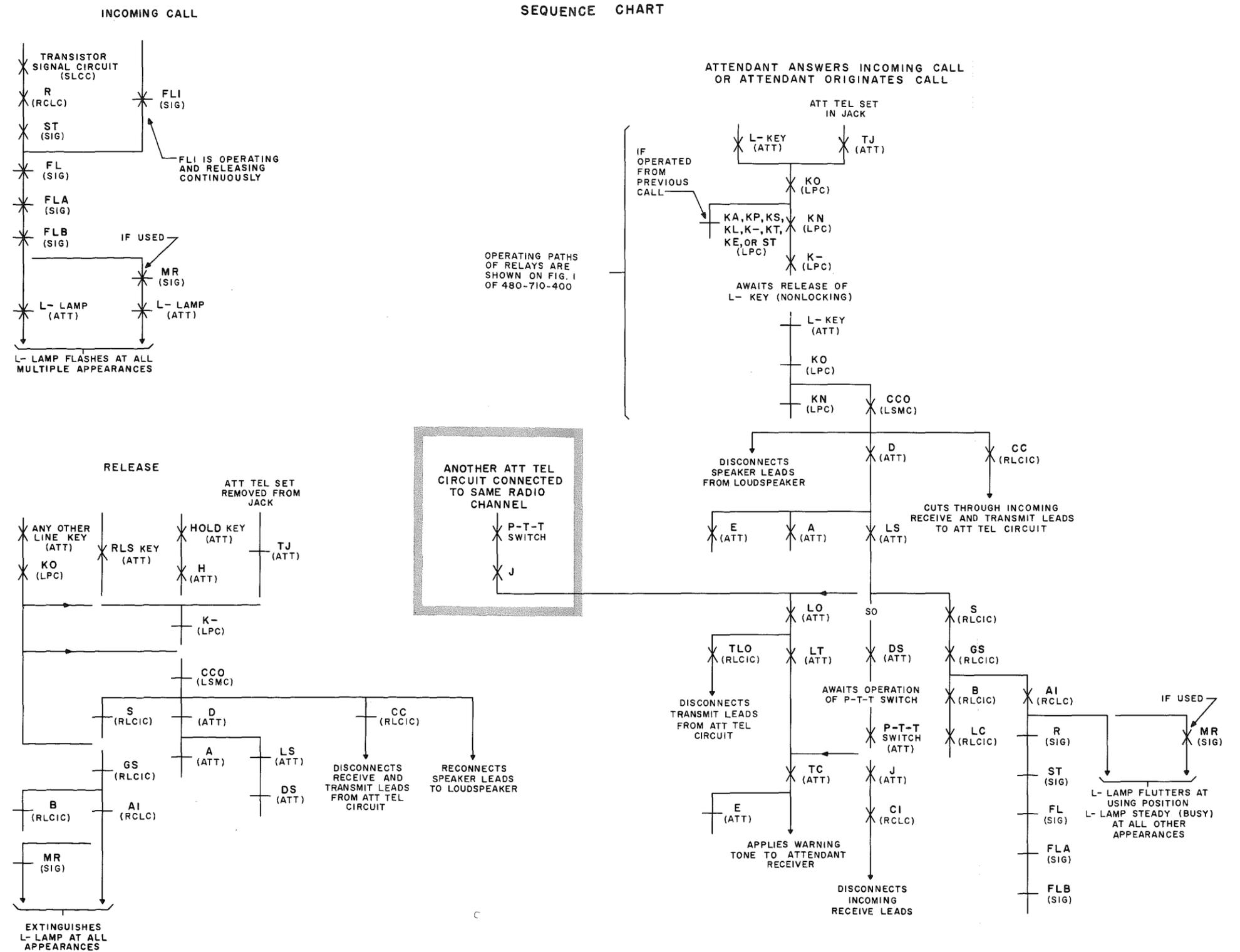


Fig. 7 - Seizure of Fixed Radio Combination

DRAWINGS USED	
SD-69308-01	ISSUE 3A
SD-69316-01	ISSUE 2A
SD-69327-01	ISSUE 2A
SD-69348-01	ISSUE 2A
SD-69380-01	ISSUE 2A
SD-69384-01	ISSUE 1

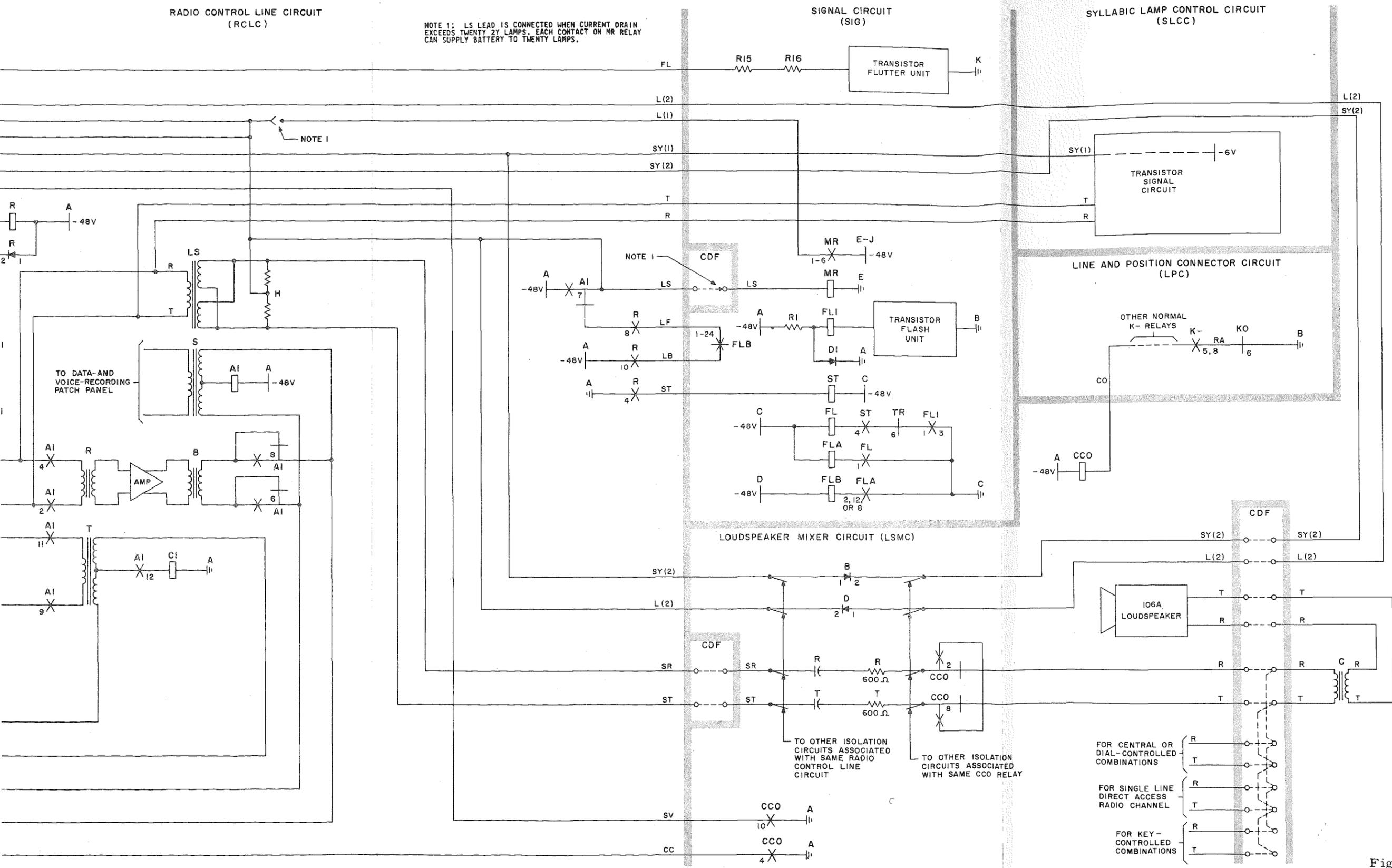


Fig. 7 - Seizure of Fixed Radio Combination (Cont)

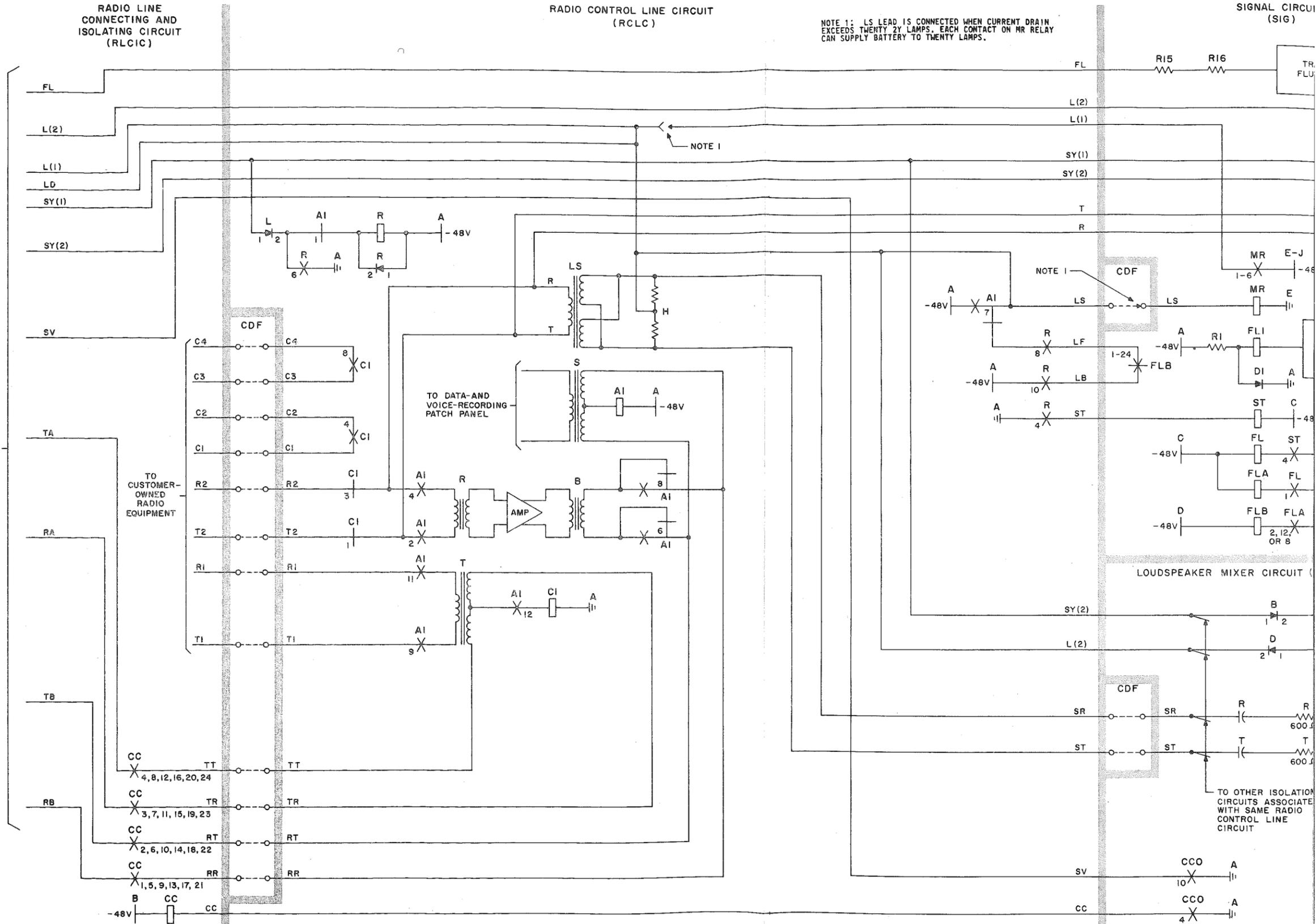
RADIO LINE  
CONNECTING AND  
ISOLATING CIRCUIT  
(RLCIC)

RADIO CONTROL LINE CIRCUIT  
(RCLC)

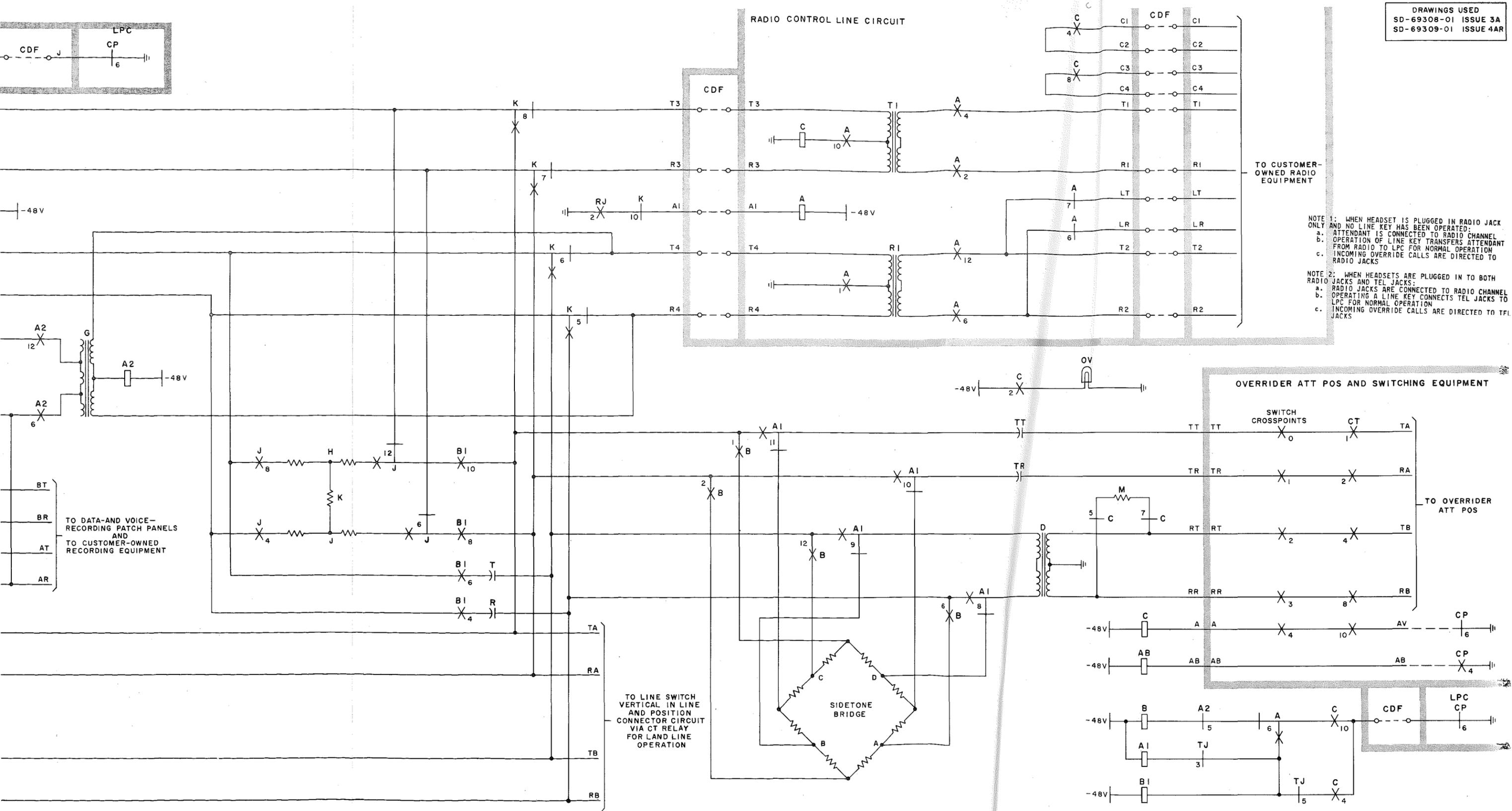
NOTE 1: LS LEAD IS CONNECTED WHEN CURRENT DRAIN  
EXCEEDS TWENTY 2Y LAMPS. EACH CONTACT ON MR RELAY  
CAN SUPPLY BATTERY TO TWENTY LAMPS.

SIGNAL CIRCUIT  
(SIG)

TO FIG. 1



DRAWINGS USED  
SD-69308-01 ISSUE 3A  
SD-69309-01 ISSUE 4AR

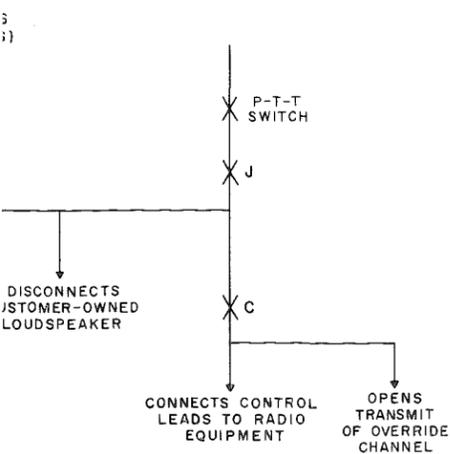


NOTE 1: WHEN HEADSET IS PLUGGED IN RADIO JACK ONLY AND NO LINE KEY HAS BEEN OPERATED:  
a. ATTENDANT IS CONNECTED TO RADIO CHANNEL  
b. OPERATION OF LINE KEY TRANSFERS ATTENDANT FROM RADIO TO LPC FOR NORMAL OPERATION  
c. INCOMING OVERRIDE CALLS ARE DIRECTED TO RADIO JACKS

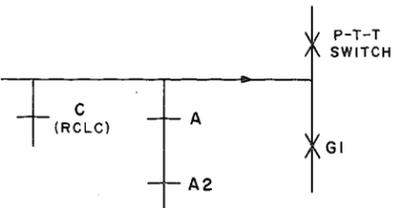
NOTE 2: WHEN HEADSETS ARE PLUGGED IN TO BOTH RADIO JACKS AND TEL JACKS:  
a. RADIO JACKS ARE CONNECTED TO RADIO CHANNEL  
b. OPERATING A LINE KEY CONNECTS TEL JACKS TO LPC FOR NORMAL OPERATION  
c. INCOMING OVERRIDE CALLS ARE DIRECTED TO TEL JACKS

Fig. 8 - Automatic Radio Transfer

TRANSFER



SECTION 480-710-400



IDE CALL

