

# 12A655 TO 128670 SERIES

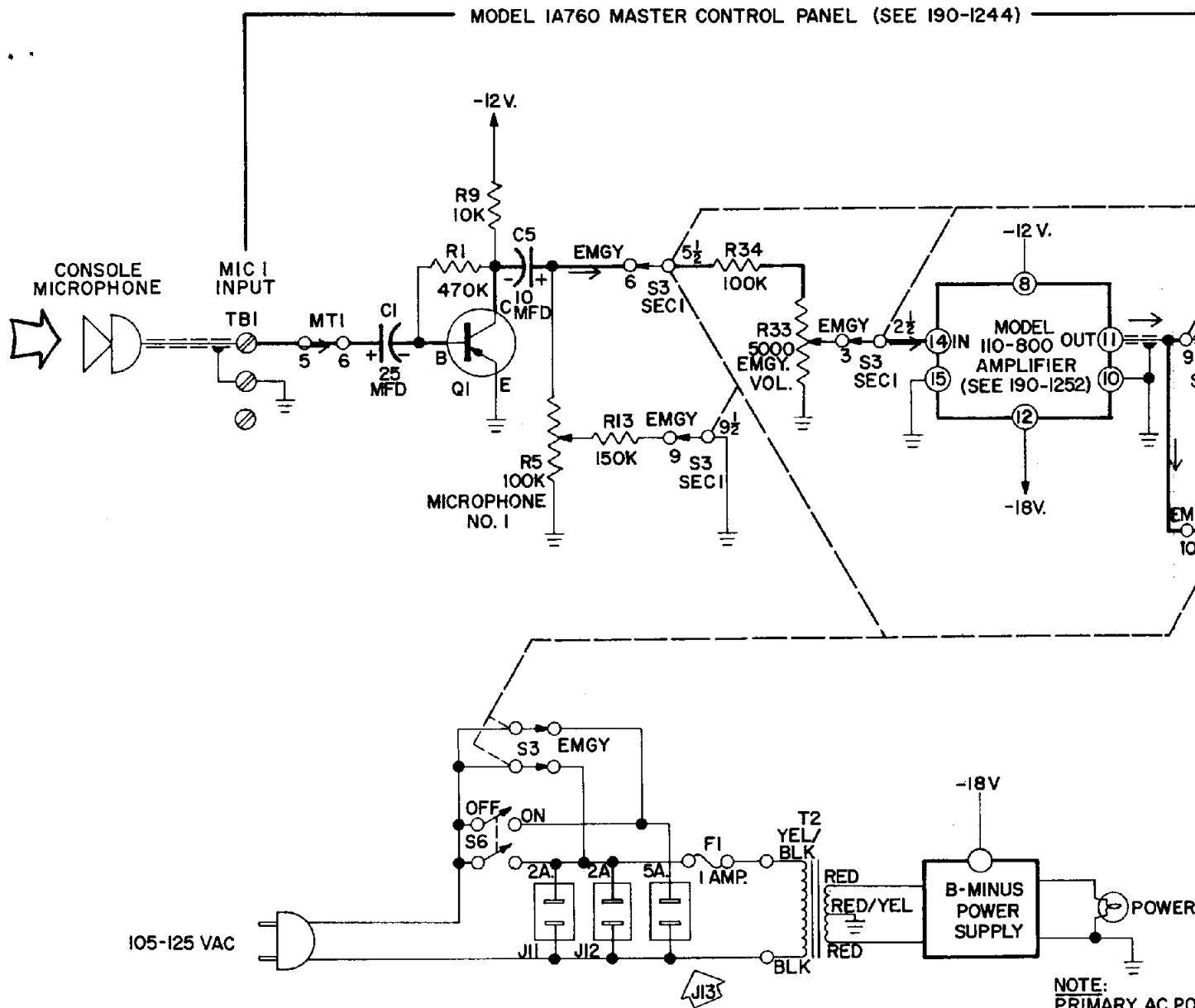
## LIST OF SERVICE DIAGRAMS

Selector Switches - - - - -	404-274 (1B)
EMERGENCY function - using console microphone - - - - -	404-274.01 (2)
ALL SPEAKER function - - - - -	404-274.01(3)
PROGRAM MONITORING - - - - -	404-274.01(4)
PROGRAM RECORDING - using an external tape recorder - - - - -	404-274.01(5)
TAPE PLAYBACK PROGRAM - using an external tape recorder - - - - -	404-274.01(6)
ROOM PICK-UP function - - - - -	404-274.01(7)
INTERCOM - TALK - LISTEN - - - - -	404-274.01(8)
VOICE CALL-IN - - - - -	404-274.01(9)
ROOM-TO-ROOM INTERCOM - - - - -	404-274.01(9)
I C PROGRAM ADAPTER - added to master control panel - - - - -	404-274.01(10)
DUAL CHANNEL ADAPTER - added to master control panel - - - - -	404-274.01(11)
TELEPHONEINTERCOM . . . . .	404-274( 12)
PRIVACY - at room station - - - - -	404-274( 13)
"BEEP" TONE - added to master control panel - - - - -	404-274( 13)
12A655-128655 Series console wiring diagram - - - - -	400-1428-01
12A660-12B660 Series console wiring diagram - - - - -	400- 1430-01
12A665-12B665 Series console wiring diagram - - - - -	400-1432-01
12A670-12B670 Series console wiring diagram - - - - -	400-1434-01
12-665 Series console wiring diagram - - - - -	400-1461-01

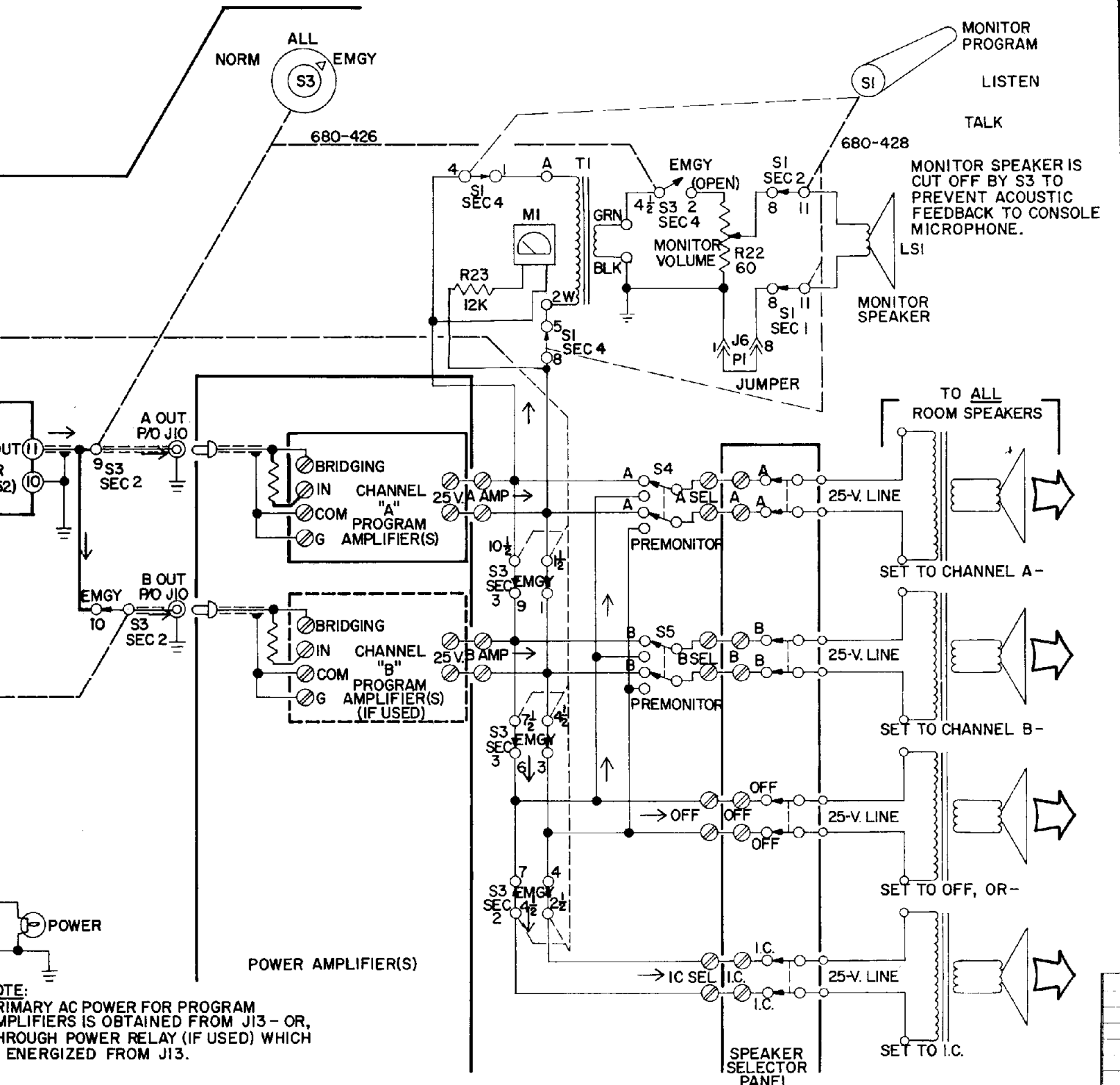


## TECHNICAL SERVICES

EMERGENCY FUNCTION- USING  
CONSOLE MICROPHONE-



NOTE:  
PRIMARY AC PO  
AMPLIFIERS IS C  
THROUGH POWE  
IS ENERGIZED



MONITOR SPEAKER IS CUT OFF BY S3 TO PREVENT ACOUSTIC FEEDBACK TO CONSOLE MICROPHONE.

MONITOR PROGRAM  
LISTEN  
TALK

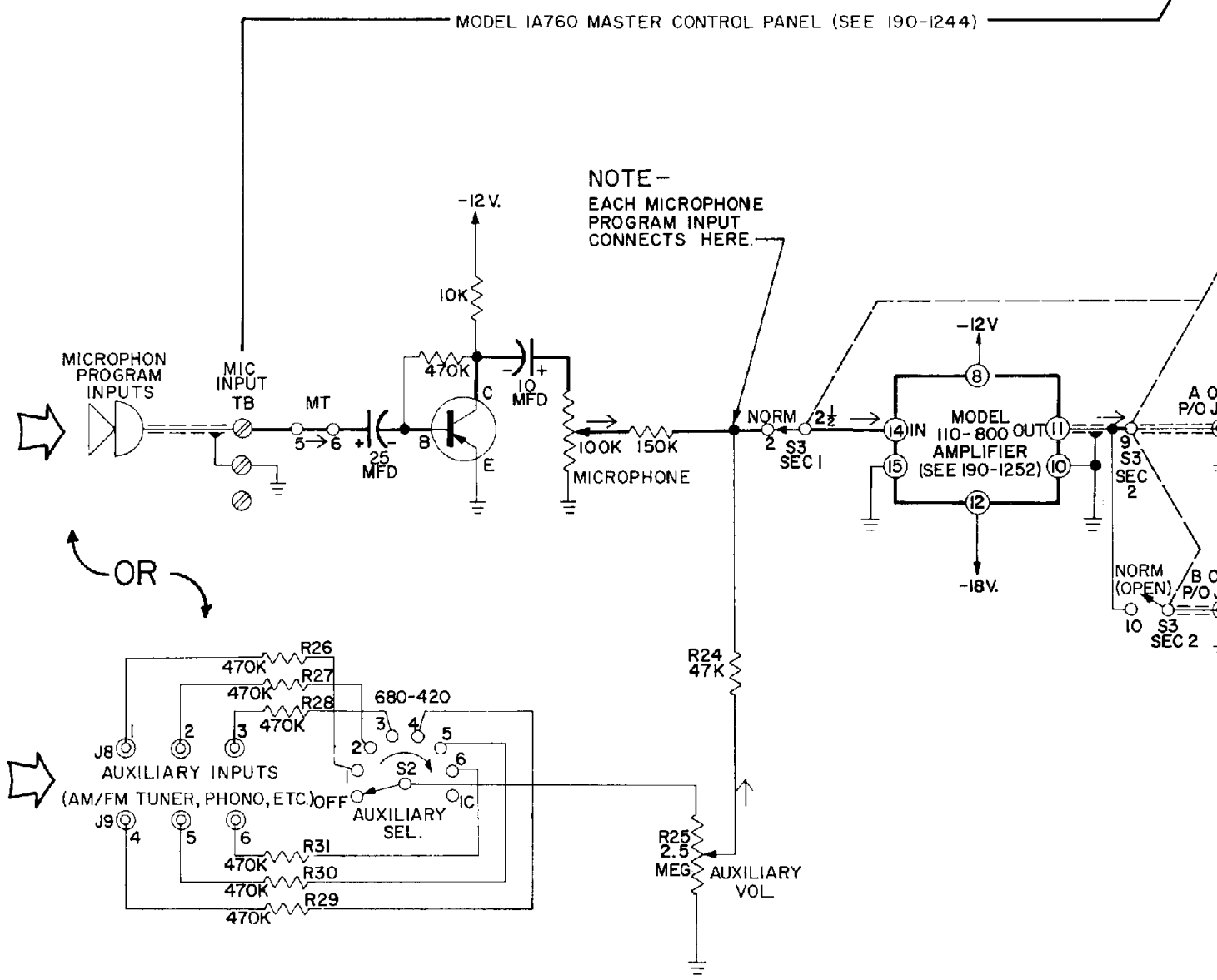
TO ALL ROOM SPEAKERS  
SET TO CHANNEL A -  
SET TO CHANNEL B -  
SET TO OFF, OR -  
SET TO I.C.

NOTE: PRIMARY AC POWER FOR PROGRAM AMPLIFIERS IS OBTAINED FROM J13 - OR, THROUGH POWER RELAY (IF USED) WHICH ENERGIZED FROM J13.

MATERIAL		FINISH		ANGLES TO BE ±		ISSUE		W A S		DATE		APPR.	
UNLESS OTHERWISE SPECIFIED DECIMAL DIMENSIONS TO BE ± .1				FRACTIONAL DIMENSIONS TO BE ± .01									
<b>DUKANE Corporation</b> ESTABLISHED 1923 11 CHALLIS, ILLINOIS U.S.A.				SCALE		DATE		DRAWN		APP'D		NO.	
				CHECKED		ENGR							
NO. REQ'D.	USED ON	4	3	2	1								

# I2A665 TO I2B670 SERIES

## PROGRAM MONITORING



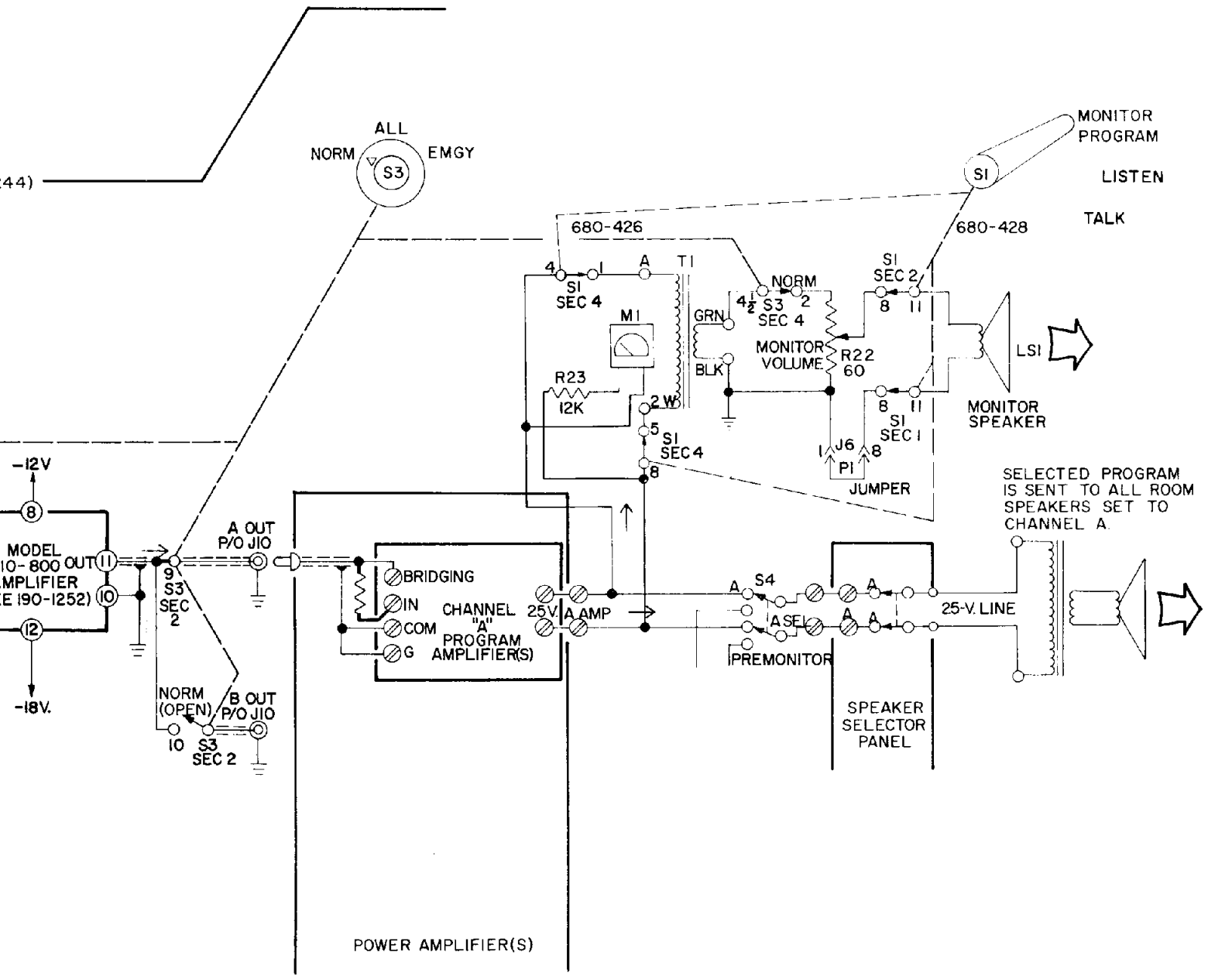
NOTE -  
EACH MICROPHONE  
PROGRAM INPUT  
CONNECTS HERE.

NOTE - SET POWER SWITCH TO "ON"

G  
F  
E  
D  
C  
B  
A

8 7

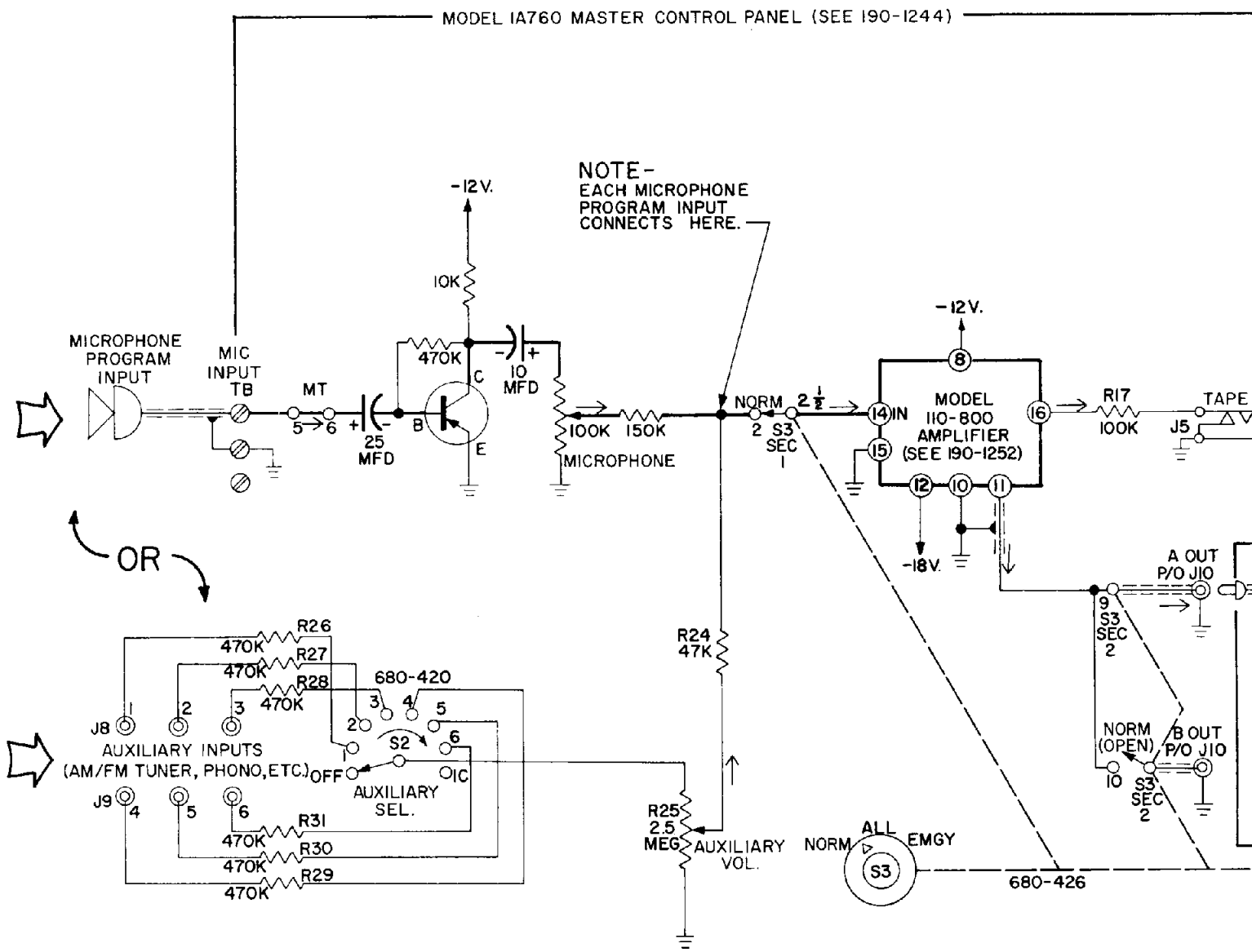
8 7 6 5



SWITCH TO "ON"

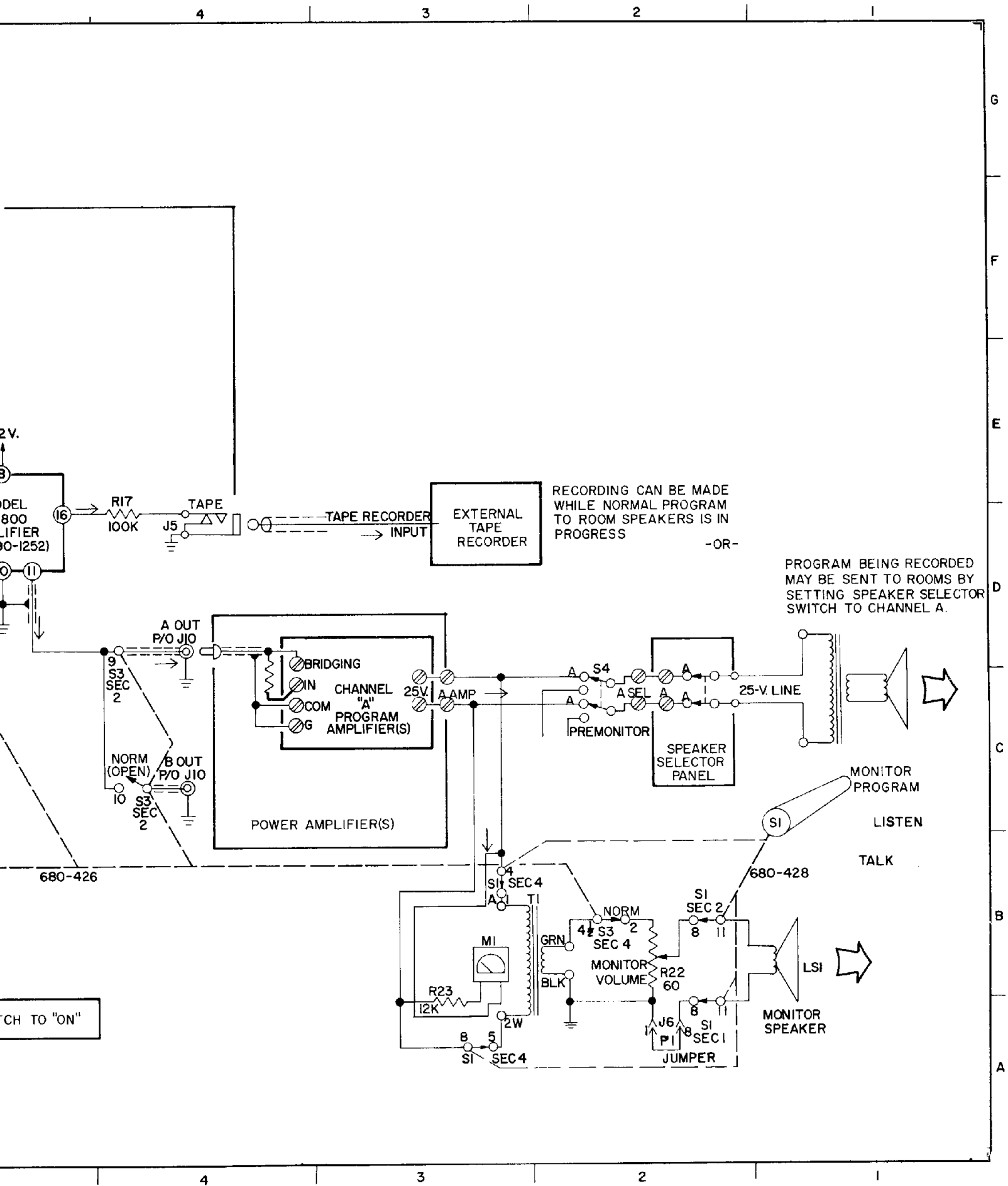
# I2A665 TO I2B670 SERIES

## PROGRAM RECORDING - USING AN EXTERNAL TAPE RECORDER



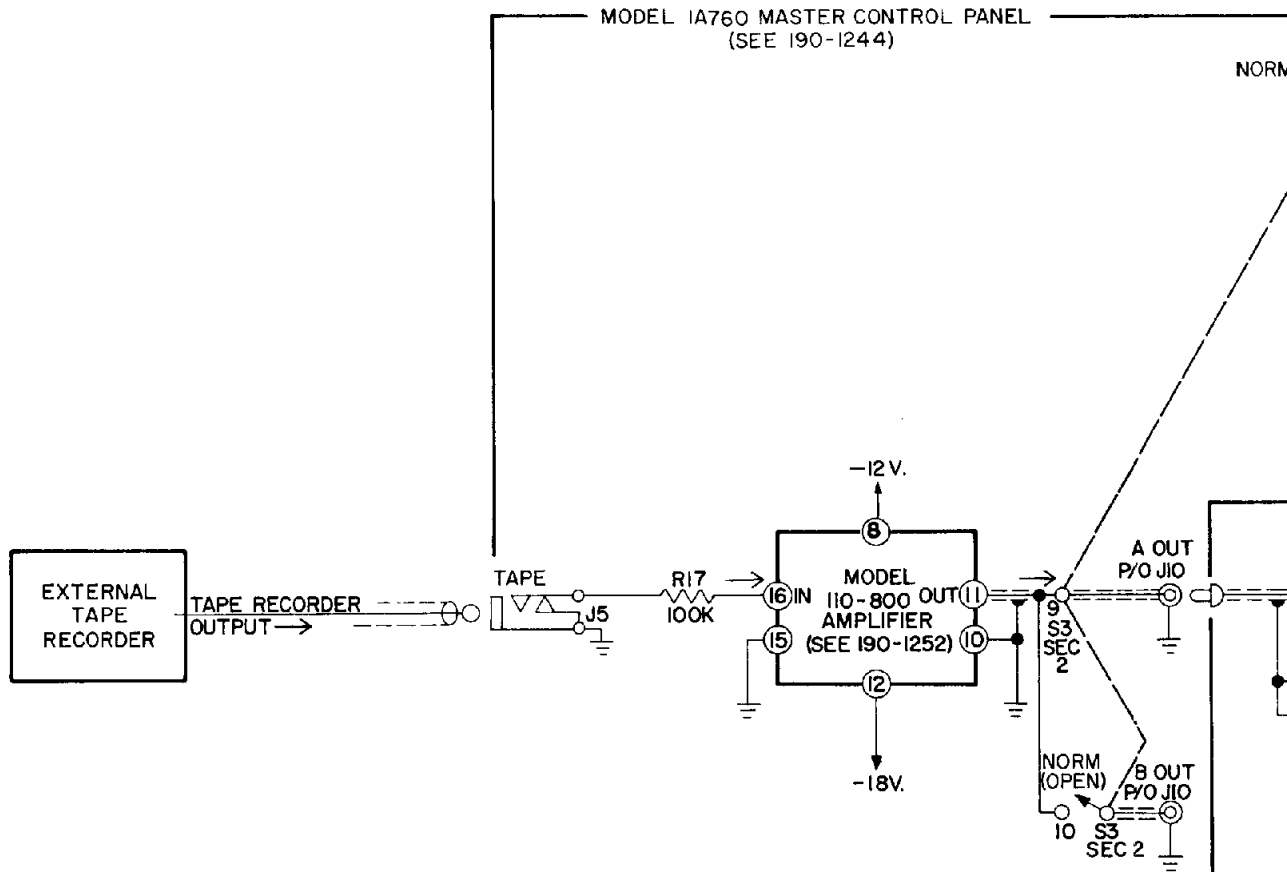
NOTE -  
EACH MICROPHONE  
PROGRAM INPUT  
CONNECTS HERE.

NOTE - SET POWER SWITCH TO "ON"



# I2A665 TO I2B670 SERIES

## TAPE PLAYBACK PROGRAMMING - USING AN EXTERNAL TAPE RECORDER



NOTE - SET POWER SWITCH TO "ON"



PANEL

4

3

2

1

NORM ALL EMGY  
S3

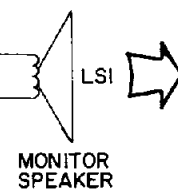
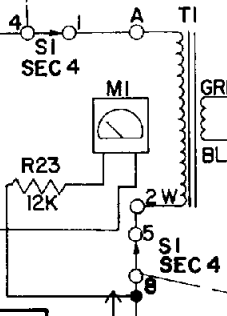
680-426

680-428

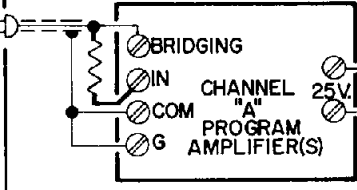
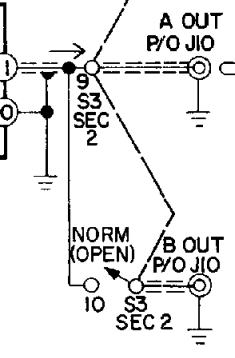
MONITOR PROGRAM

LISTEN

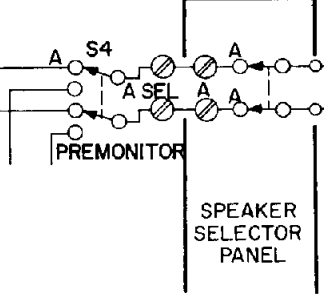
TALK



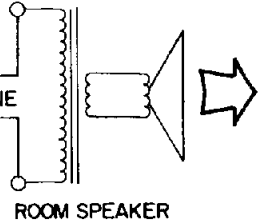
MONITOR SPEAKER



POWER AMPLIFIER(S)



SPEAKER SELECTOR PANEL



ROOM SPEAKER

ON"

4

3

2

1

G

F

E

D

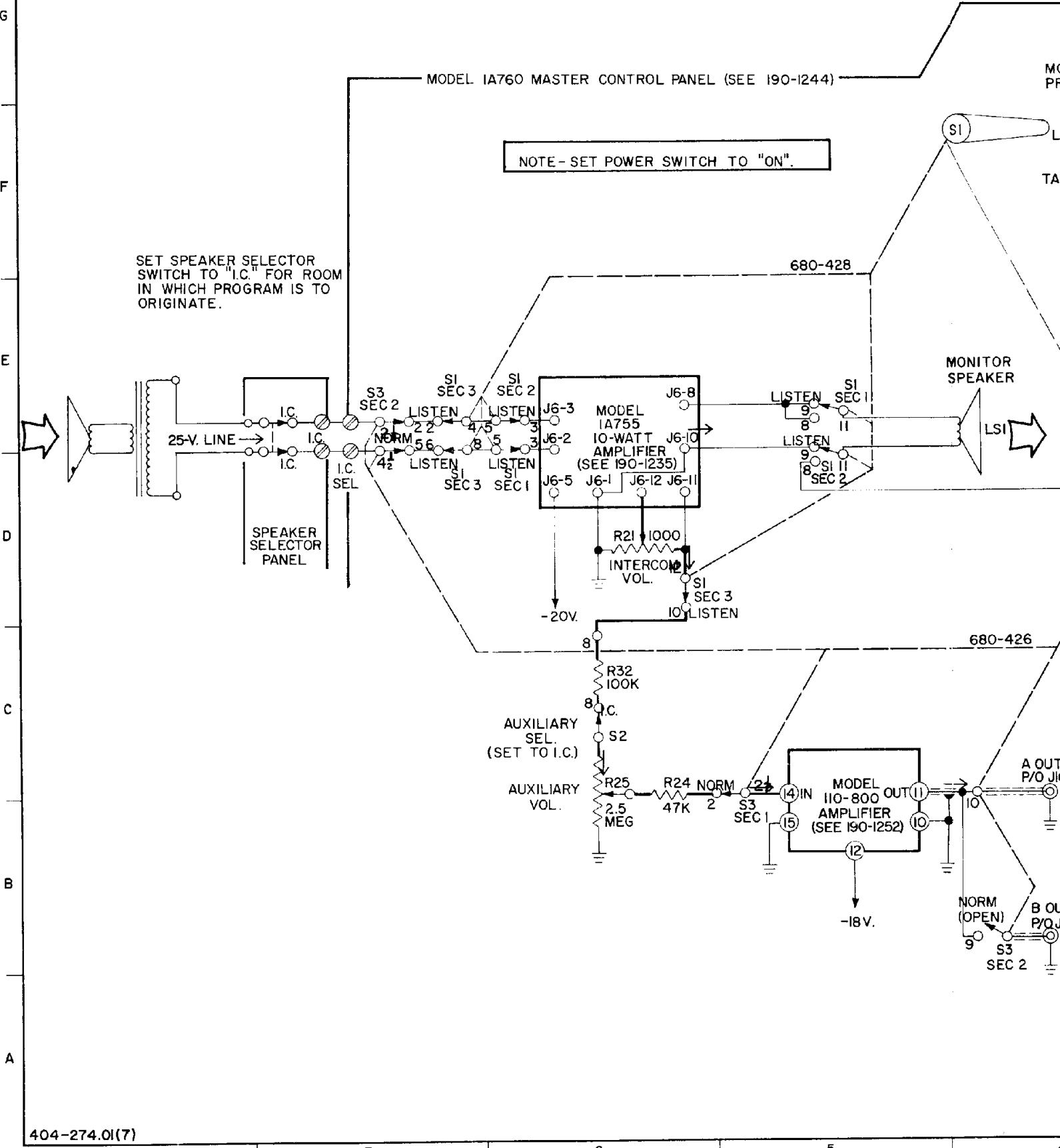
C

B

A

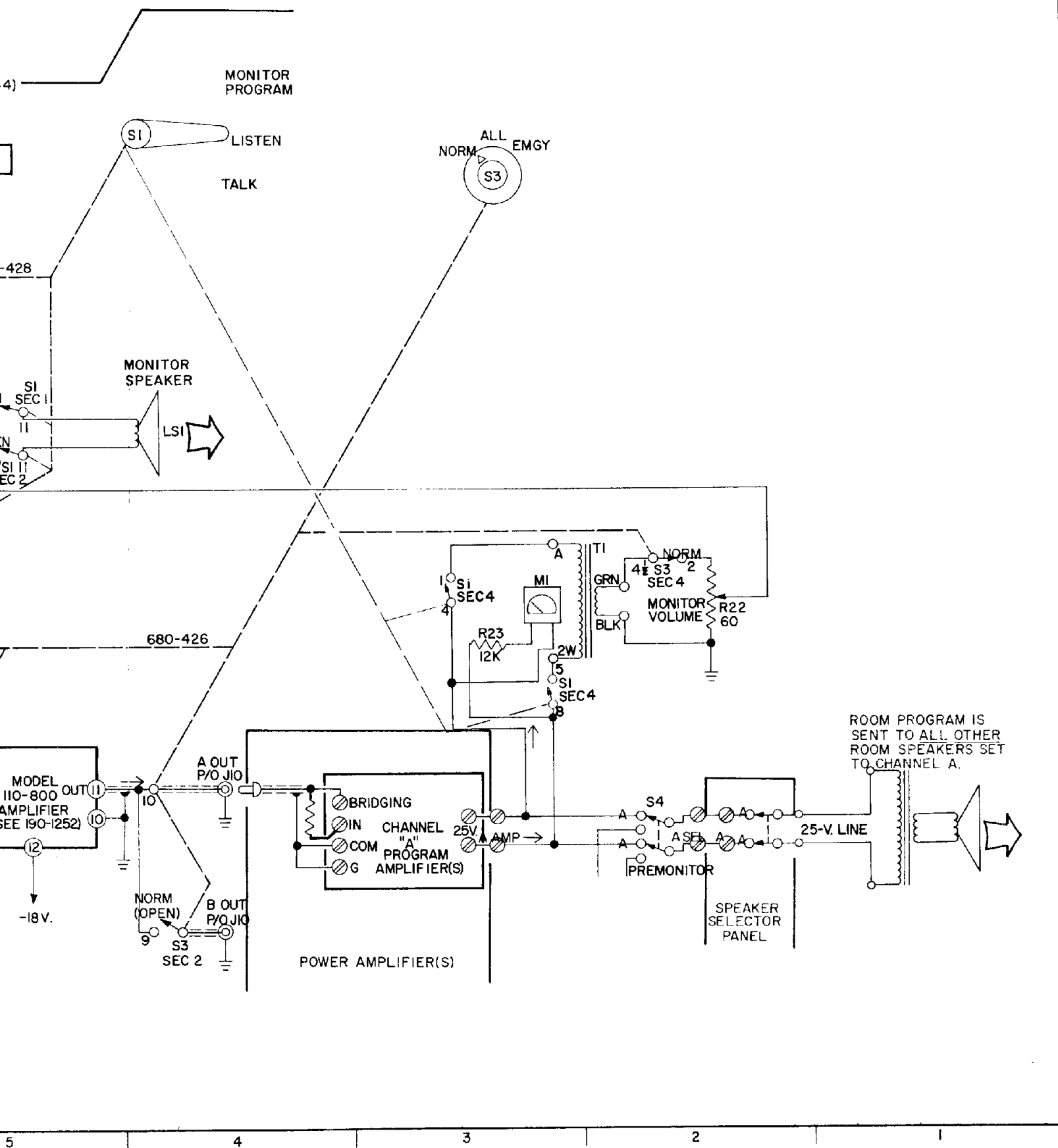
# 12A665 TO 12B670 SERIES

## ROOM PICK-UP FUNCTION



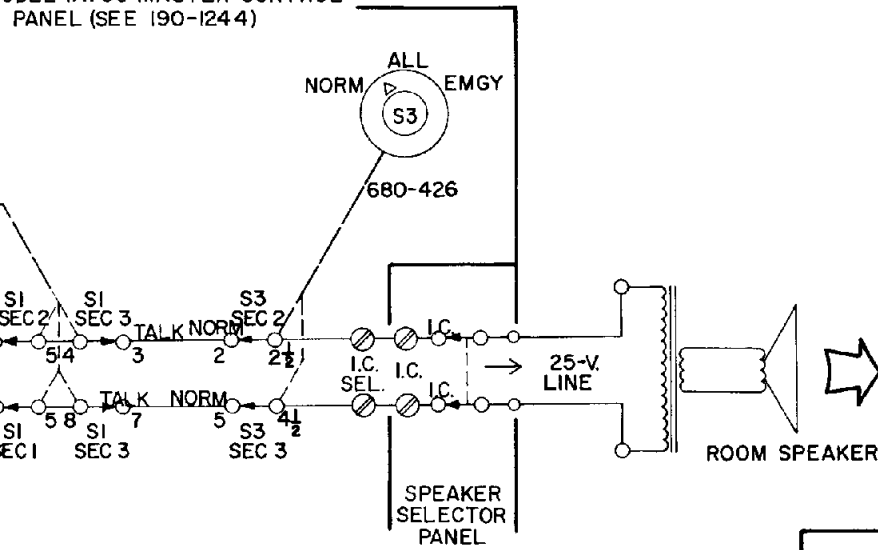
NOTE - SET POWER SWITCH TO "ON".

SET SPEAKER SELECTOR SWITCH TO "I.C." FOR ROOM IN WHICH PROGRAM IS TO ORIGINATE.



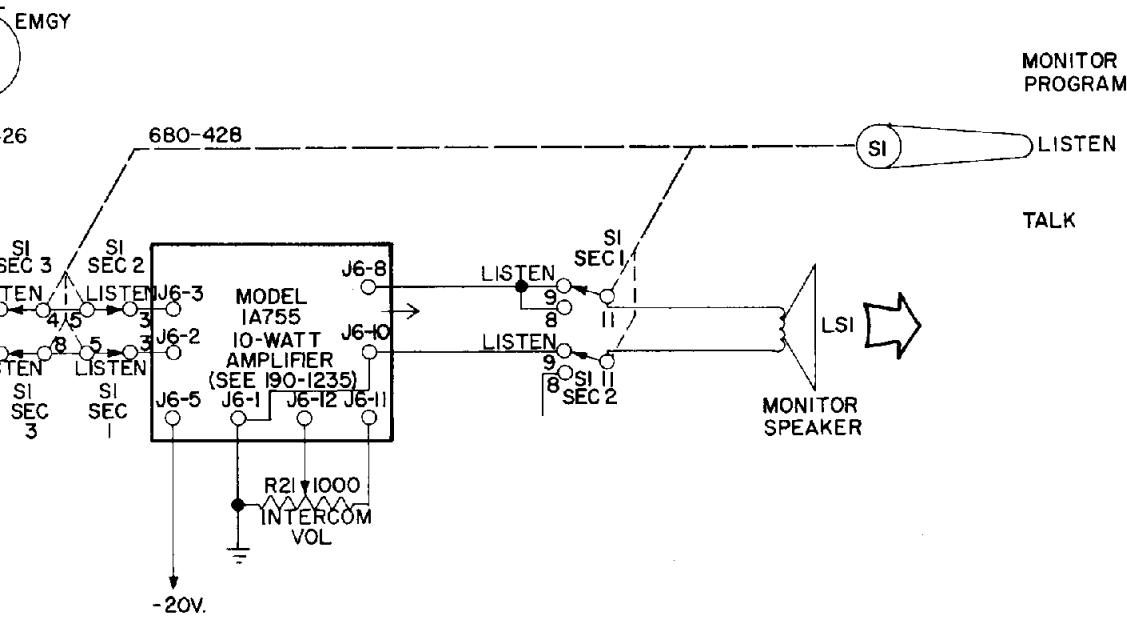


MODEL IA760 MASTER CONTROL PANEL (SEE 190-1244)

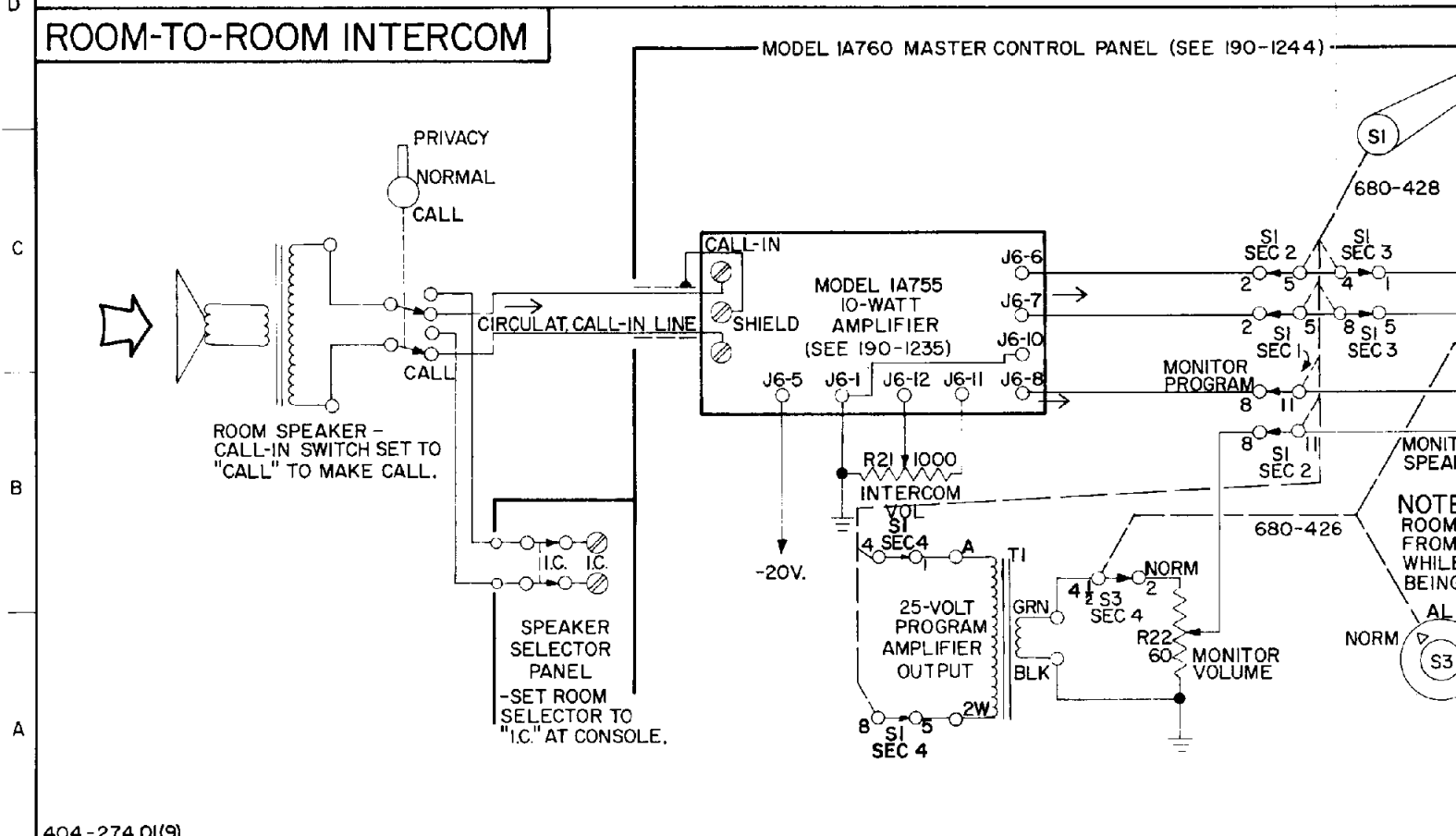
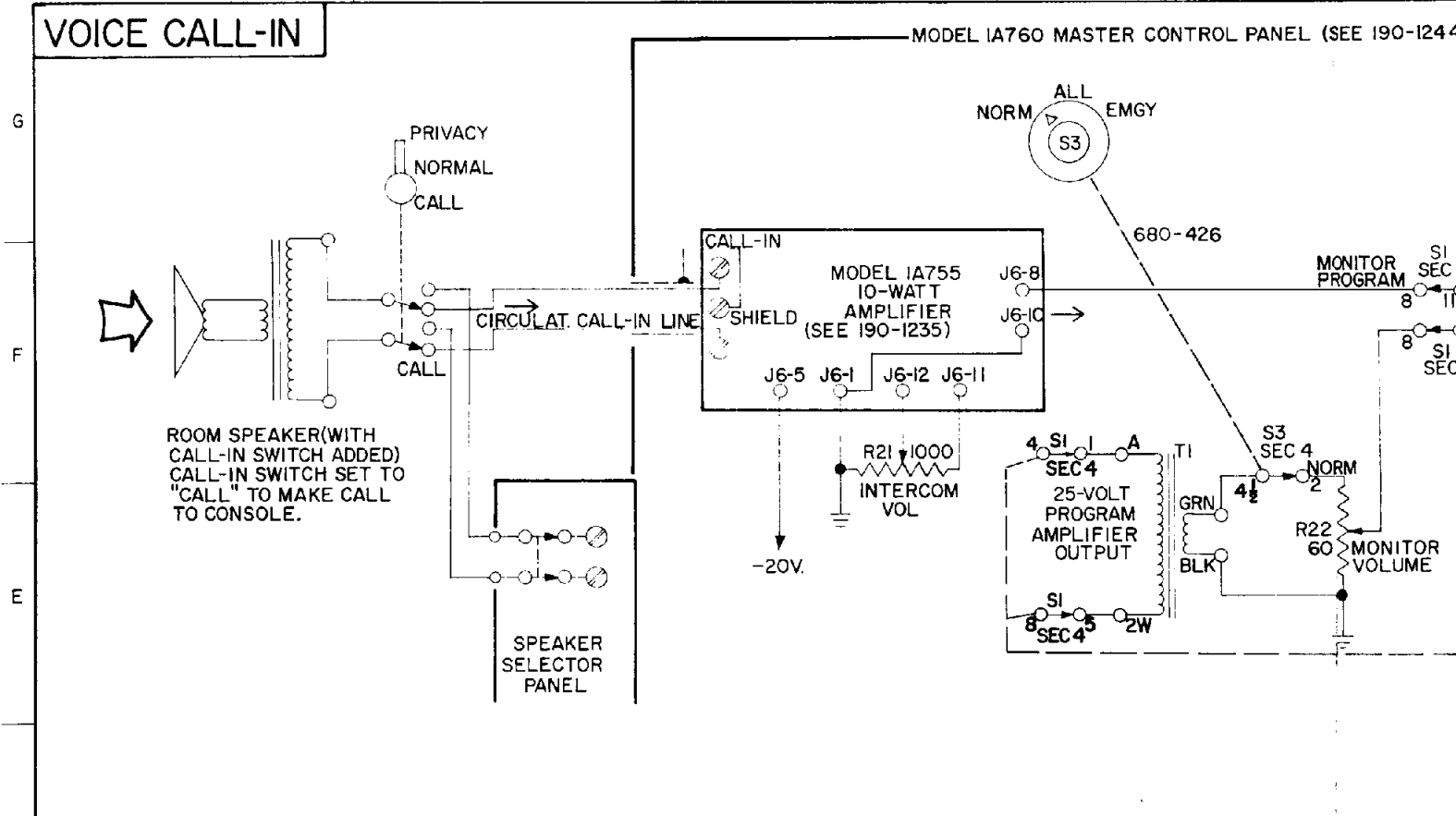


NOTE - FOR INTERCOM SERVICE - TALK OR LISTEN -  
 1. SET POWER SWITCH TO "ON", &  
 2. AUXILIARY SELECTOR SWITCH SET TO ANY POSITION EXCEPT "I.C."

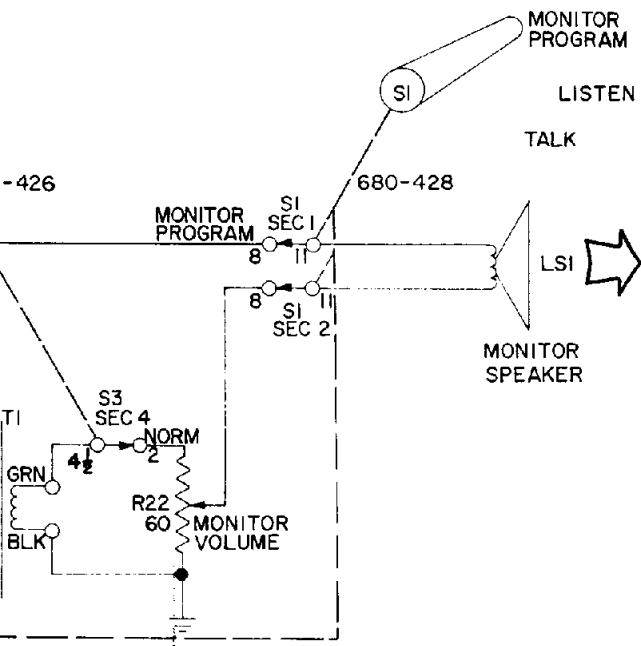
MODEL IA760 MASTER CONTROL PANEL (SEE 190-1244)



# 12A665 to 12B670 SERIES



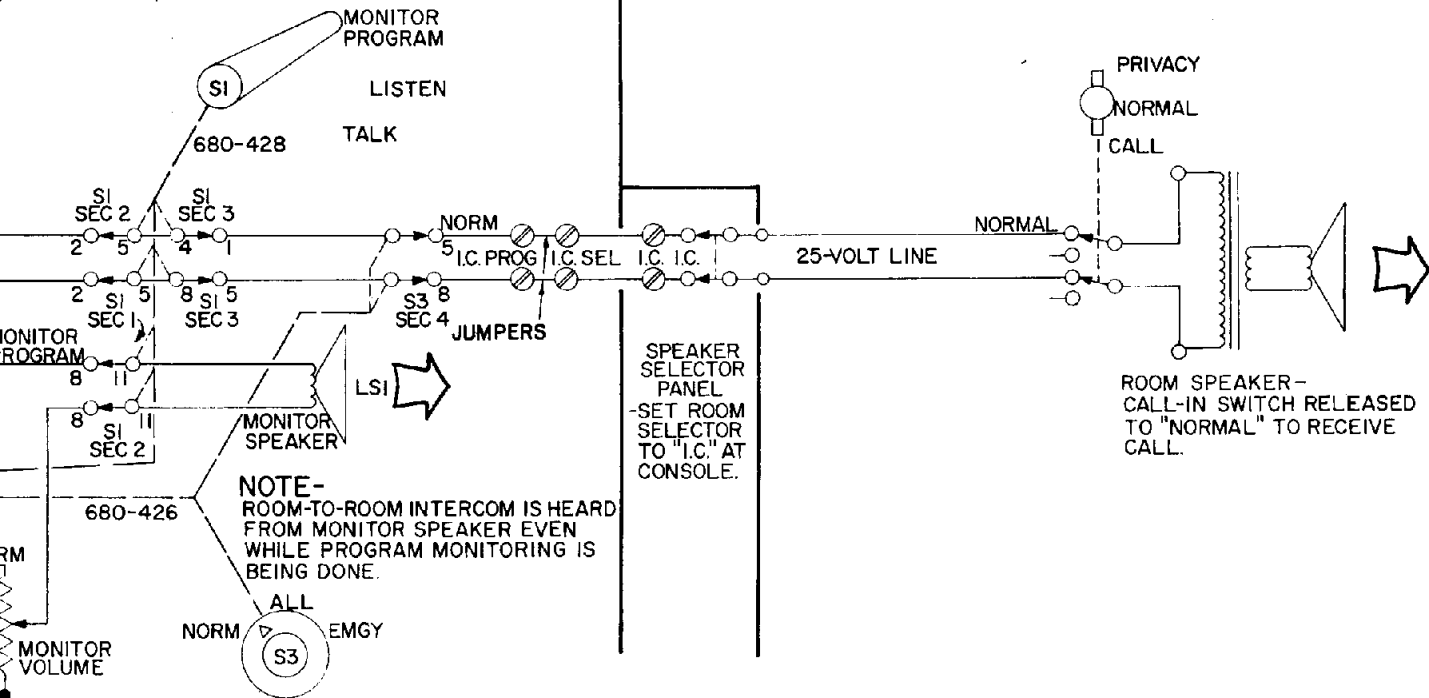
CONTROL PANEL (SEE 190-1244)



**NOTE -**  
 VOICE CALL-IN IS HEARD FROM MONITOR SPEAKER EVEN WHILE PROGRAM MONITORING IS BEING DONE.

**NOTE - FOR CALL-IN SERVICE OR ROOM-TO-ROOM INTERCOM -**  
 1. SET CONSOLE POWER SWITCH TO "ON" &  
 2. SET AUXILIARY SELECTOR SWITCH TO ANY POSITION EXCEPT "I.C."

(SEE 190-1244)



**NOTE -**  
 ROOM-TO-ROOM INTERCOM IS HEARD FROM MONITOR SPEAKER EVEN WHILE PROGRAM MONITORING IS BEING DONE.

**SPEAKER SELECTOR PANEL**  
 - SET ROOM SELECTOR TO "I.C." AT CONSOLE.

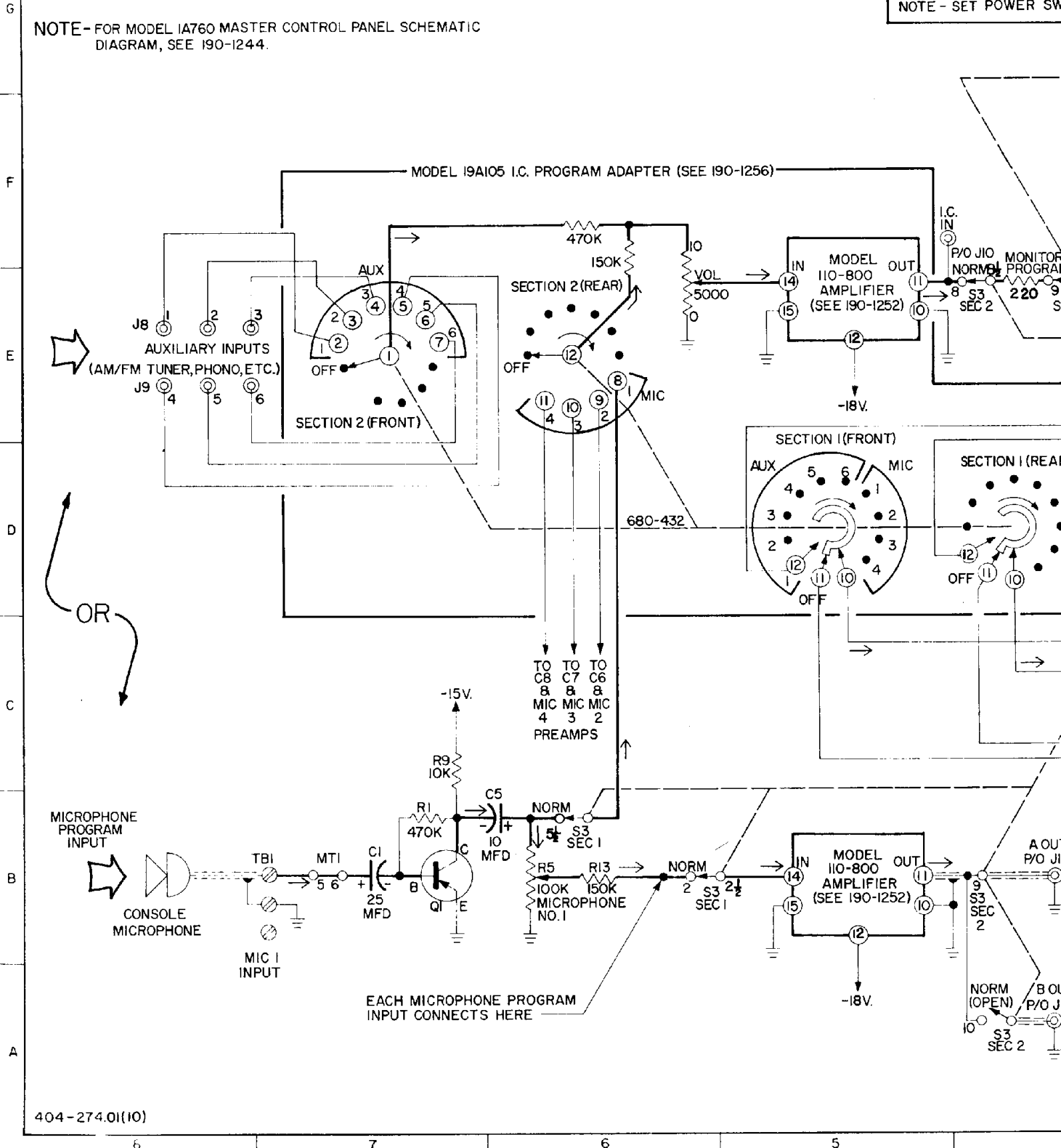
**ROOM SPEAKER -**  
 CALL-IN SWITCH RELEASED TO "NORMAL" TO RECEIVE CALL.

# 12A665 to 12B670 SERIES

## I.C. PROGRAM ADAPTER-ADDED TO MASTER CONTROL PANEL

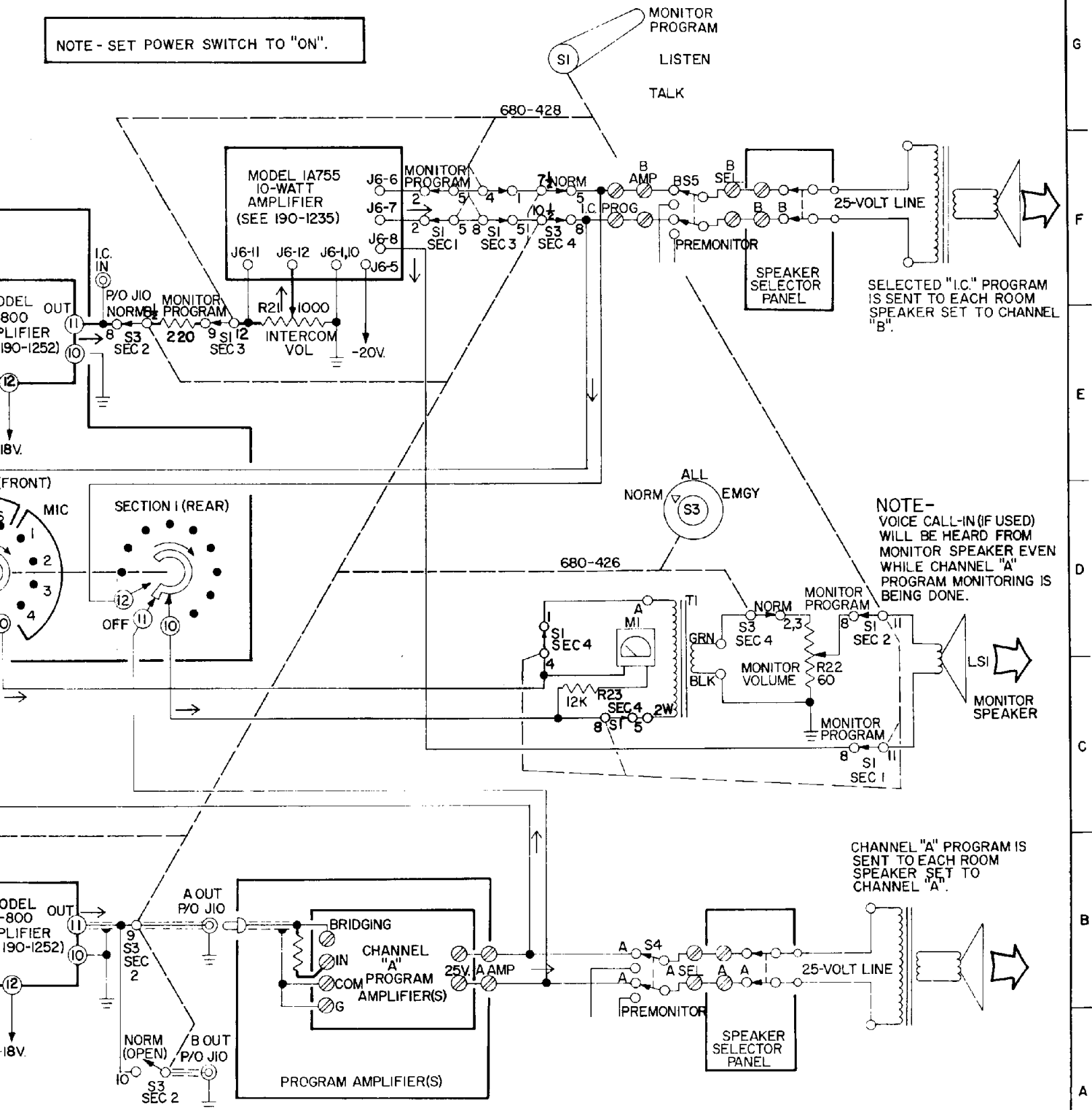
NOTE - FOR MODEL 1A760 MASTER CONTROL PANEL SCHEMATIC DIAGRAM, SEE 190-1244.

NOTE - SET POWER SW





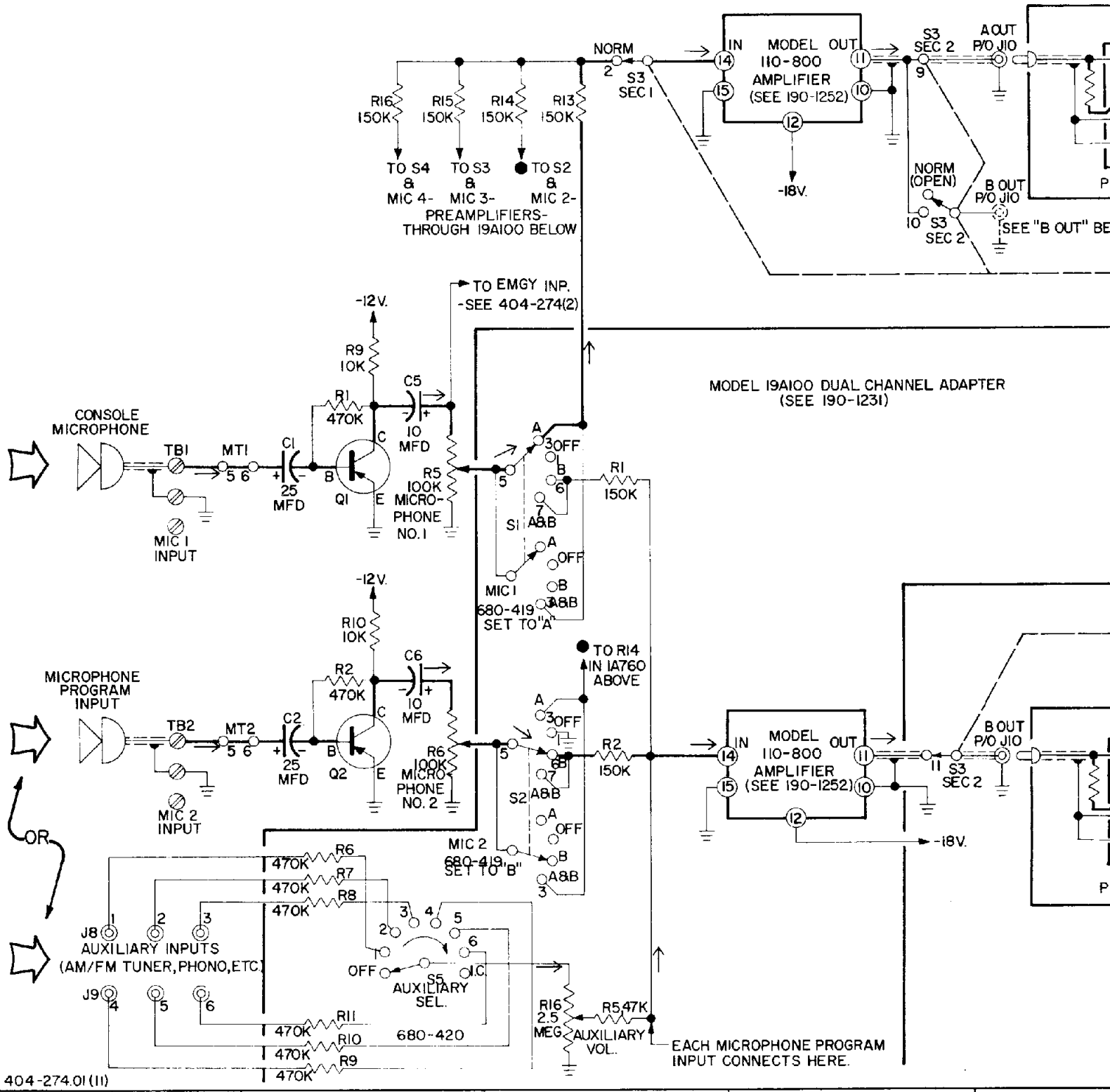
NOTE - SET POWER SWITCH TO "ON".



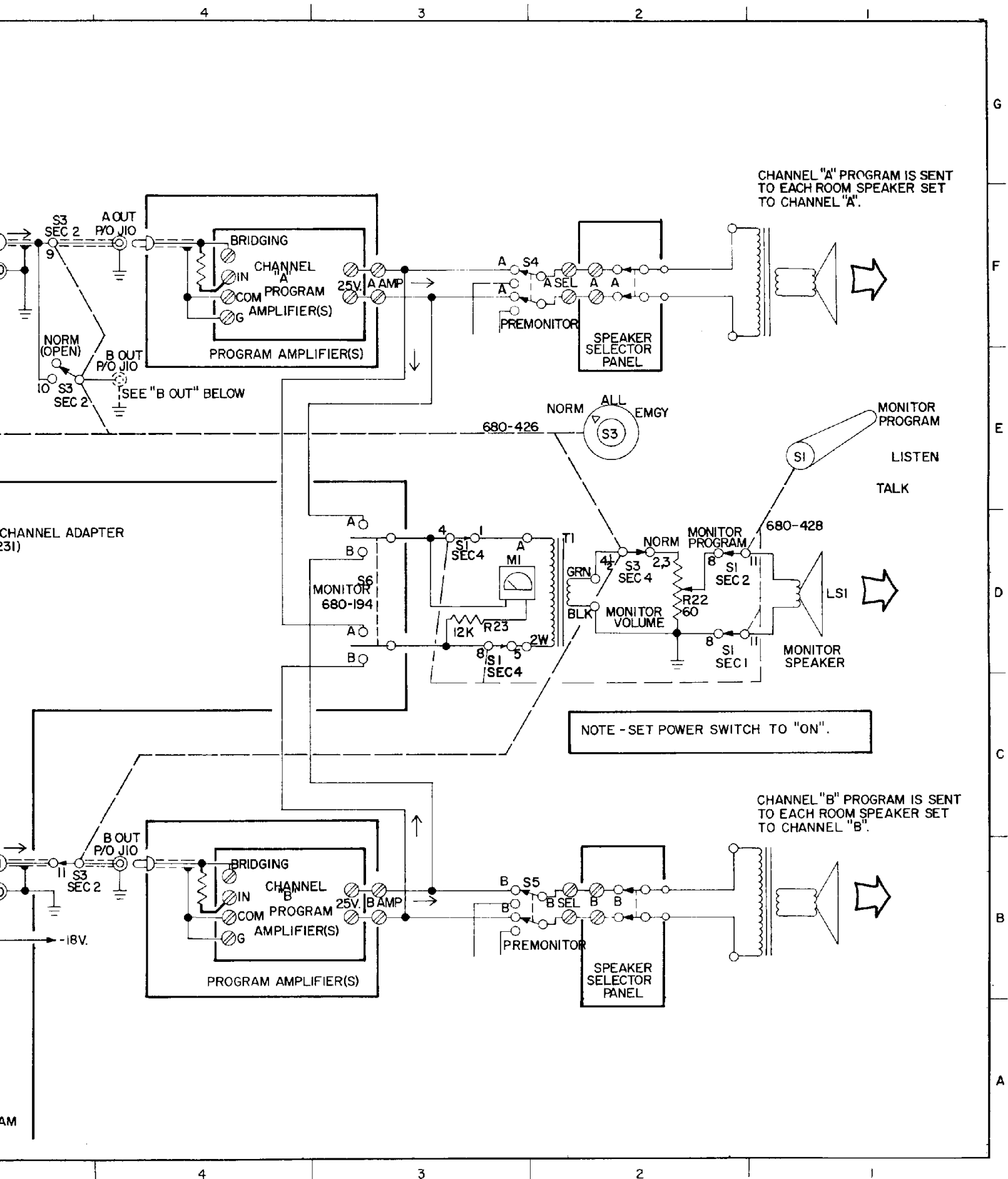
# 12A665 TO 12B670 SERIES

## DUAL CHANNEL ADAPTER - ADDED TO MASTER CONTROL PANEL

NOTE - FOR MODEL 1A760 MASTER CONTROL PANEL SCHEMATIC DIAGRAM, SEE 190-1244.



MODEL 19A100 DUAL CHANNEL ADAPTER (SEE 190-1231)



CHANNEL "A" PROGRAM IS SENT TO EACH ROOM SPEAKER SET TO CHANNEL "A".

CHANNEL "B" PROGRAM IS SENT TO EACH ROOM SPEAKER SET TO CHANNEL "B".

NOTE - SET POWER SWITCH TO "ON".

CHANNEL ADAPTER (231)

NORM (OPEN)  
S3 SEC 2  
A OUT P/O J10  
B OUT P/O J10  
SEE "B OUT" BELOW

BRIDGING  
CHANNEL A  
COM PROGRAM  
AMPLIFIER(S)  
25V A AMP  
PROGRAM AMPLIFIER(S)

A S4  
A SEL  
A A  
PREMONITOR  
SPEAKER SELECTOR PANEL

NORM ALL EMGY  
S3

680-426  
MONITOR PROGRAM  
S1  
LISTEN TALK

A  
B  
MONITOR 680-194  
S6  
A  
B  
S1 SEC 4  
MI  
12K R23  
S1 SEC 4  
2W

GRN  
BLK  
S3 SEC 4  
NORM  
MONITOR PROGRAM  
R22 60  
S1 SEC 2  
S1 SEC 1  
LS1  
MONITOR SPEAKER

-18V.

B OUT P/O J10  
S3 SEC 2  
BRIDGING  
CHANNEL B  
COM PROGRAM  
AMPLIFIER(S)  
25V B AMP  
PROGRAM AMPLIFIER(S)

B S5  
B SEL  
B B  
PREMONITOR  
SPEAKER SELECTOR PANEL

# 12A655 TO 12B670 SERIES

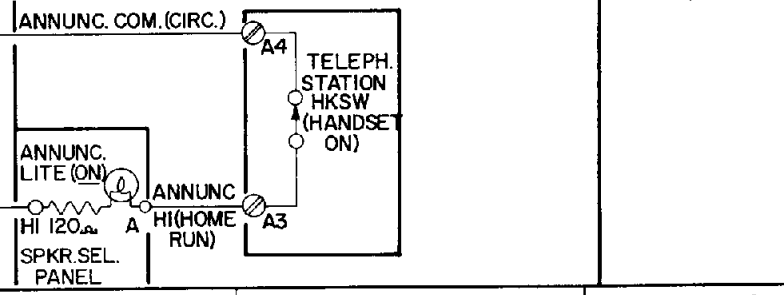
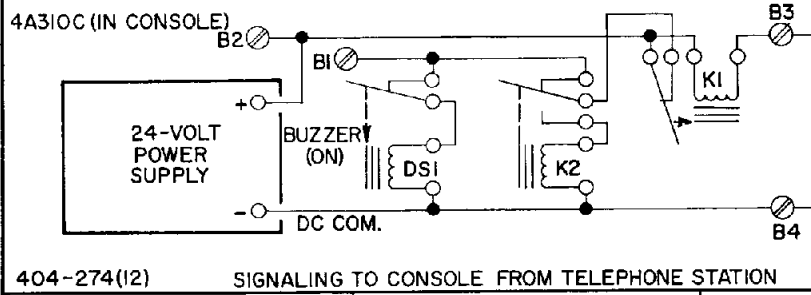
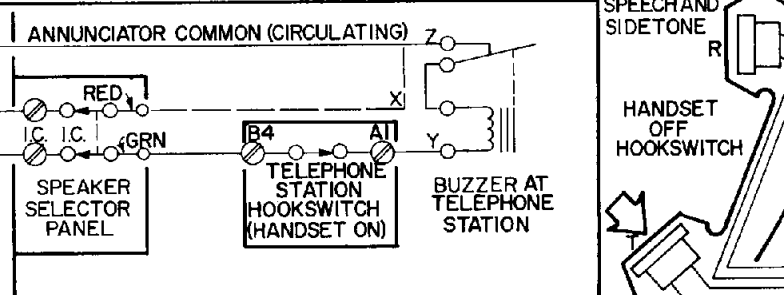
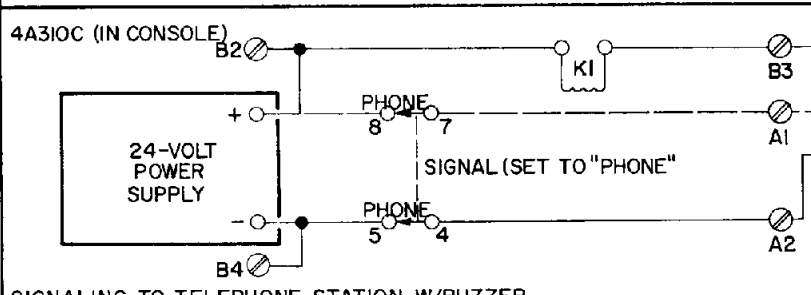
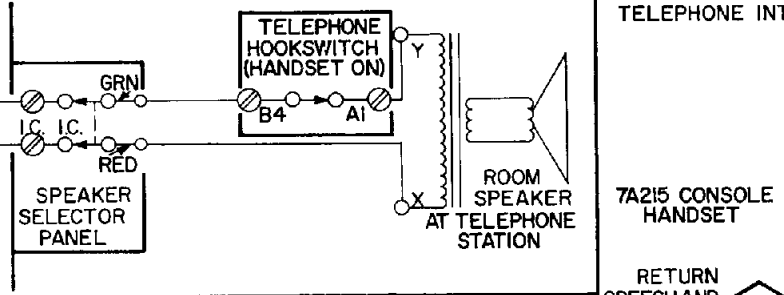
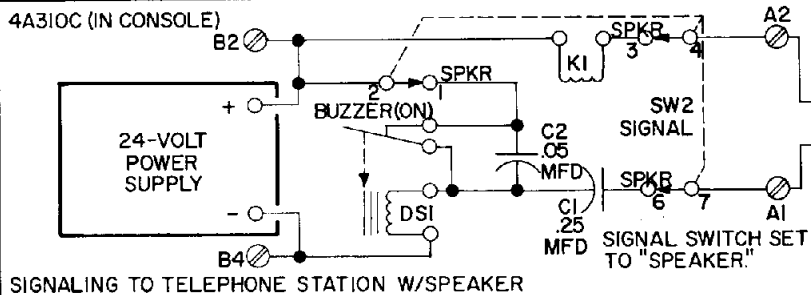
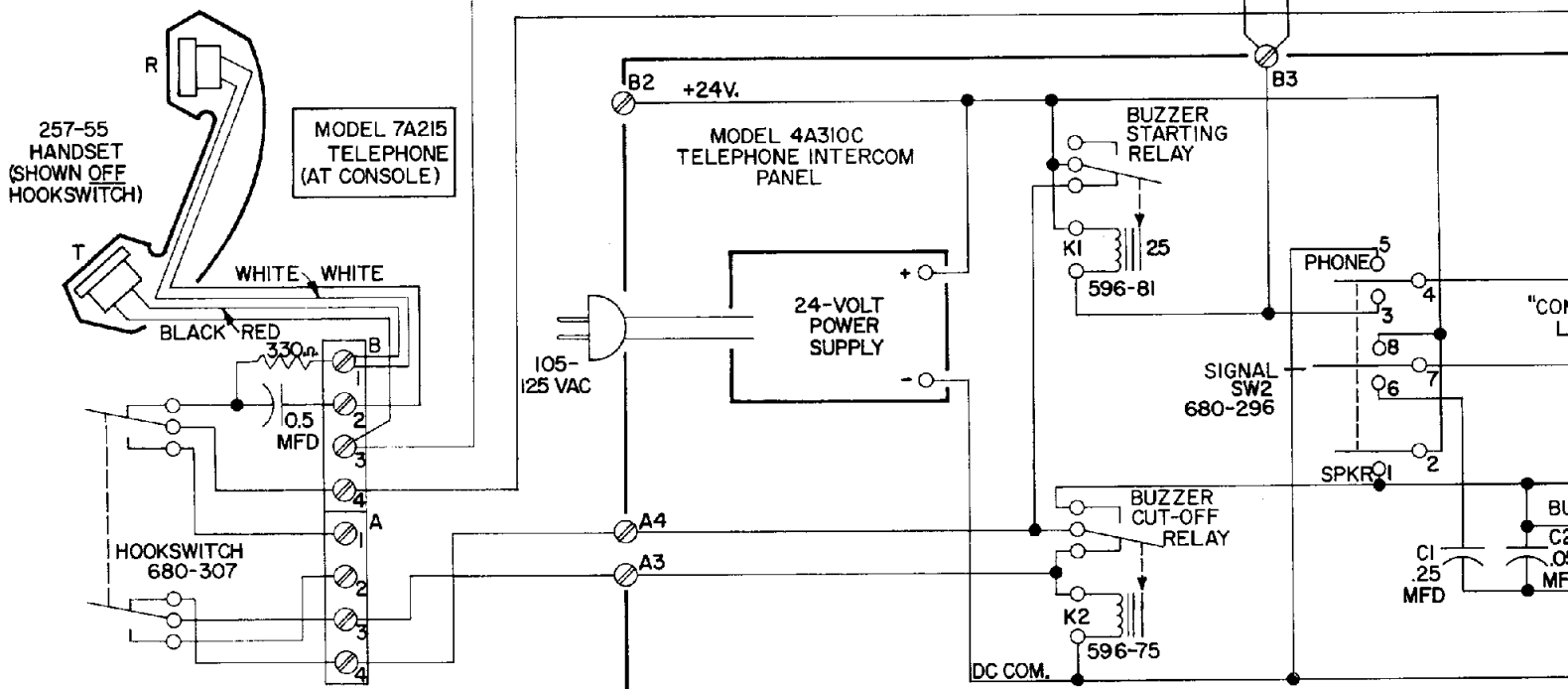
8

7

4

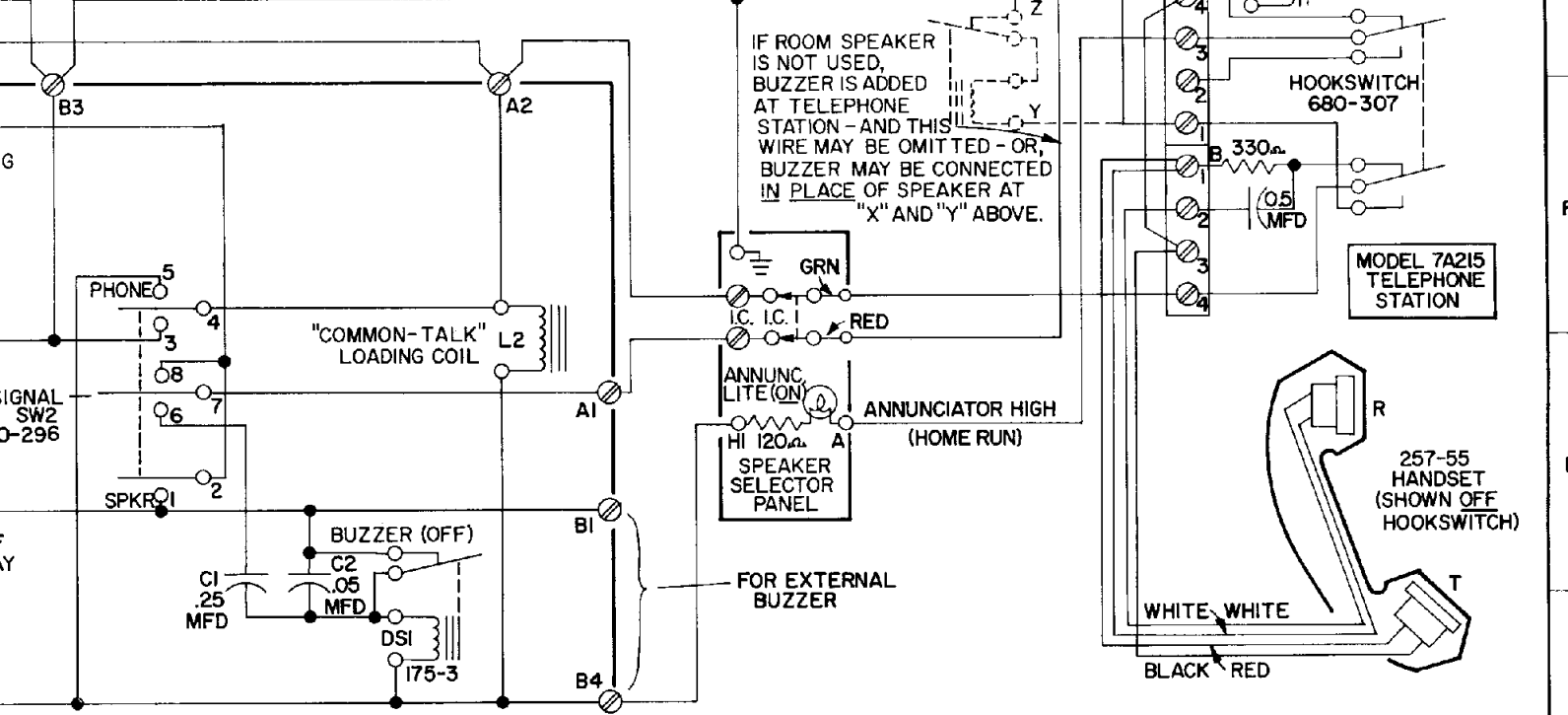
## TELEPHONE INTERCOM

NOTE-SET POWER SWITCH ON MASTER CONTROL PANEL TO "ON"(IF USED).

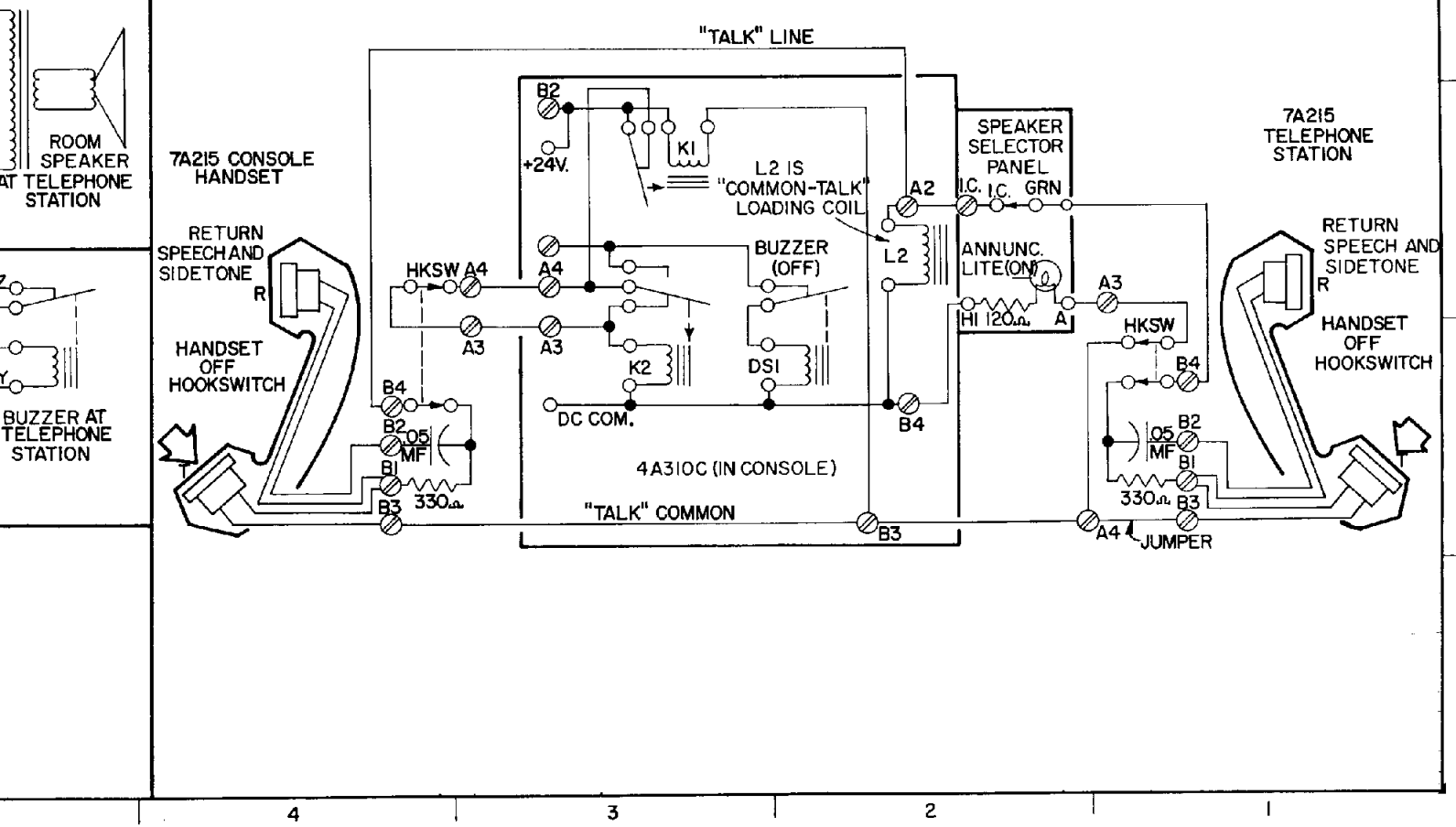


PANEL TO "ON" (IF USED).

ANNUNCIATOR COMMON (CIRCULATING) - MAY BE SHIELD



TELEPHONE INTERCOM BETWEEN CONSOLE AND TELEPHONE STATION



# 12A655 TO 12B670 SERIES

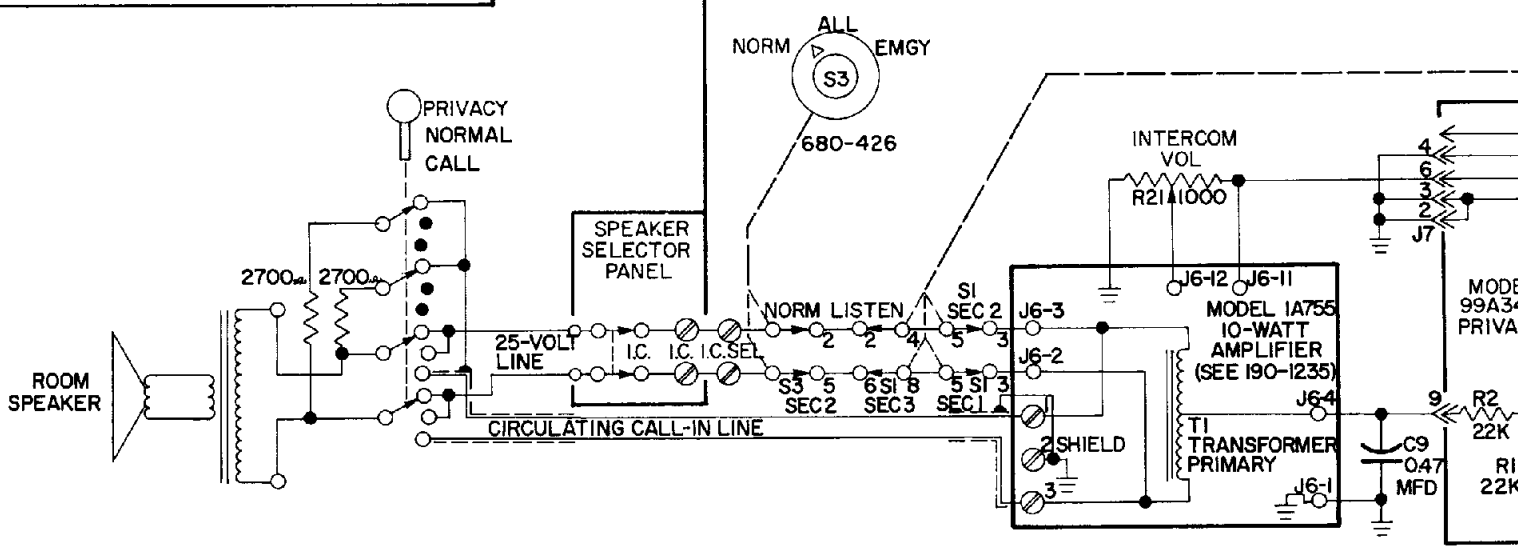
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7

4

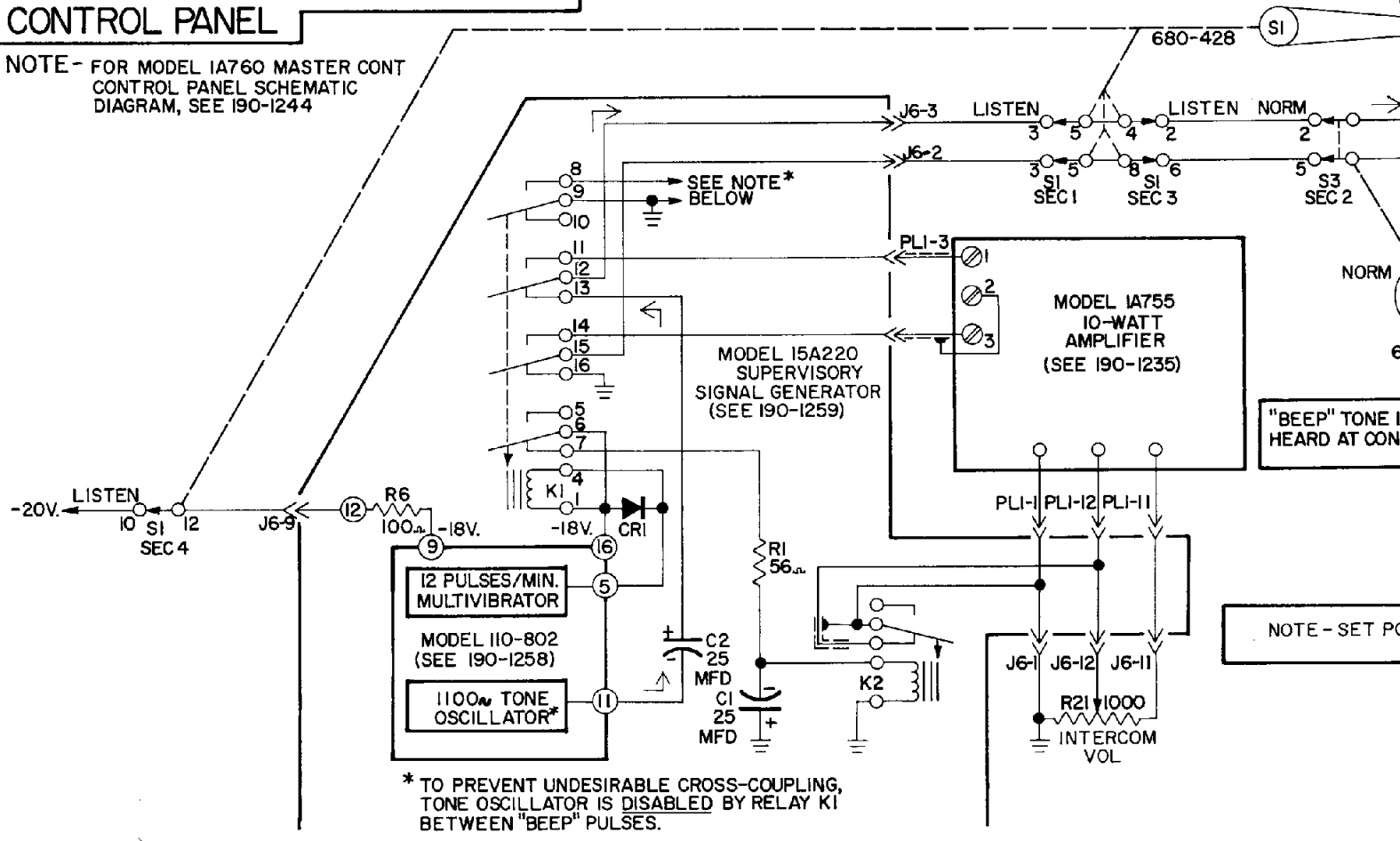
## PRIVACY - AT ROOM STATION

MODEL IA760 MASTER CONTROL PANEL (SEE 190-1244)



## "BEEP" TONE - ADDED TO MASTER CONTROL PANEL

NOTE - FOR MODEL IA760 MASTER CONT CONTROL PANEL SCHEMATIC DIAGRAM, SEE 190-1244



\* TO PREVENT UNDESIRABLE CROSS-COUPLING, TONE OSCILLATOR IS DISABLED BY RELAY K1 BETWEEN "BEEP" PULSES.

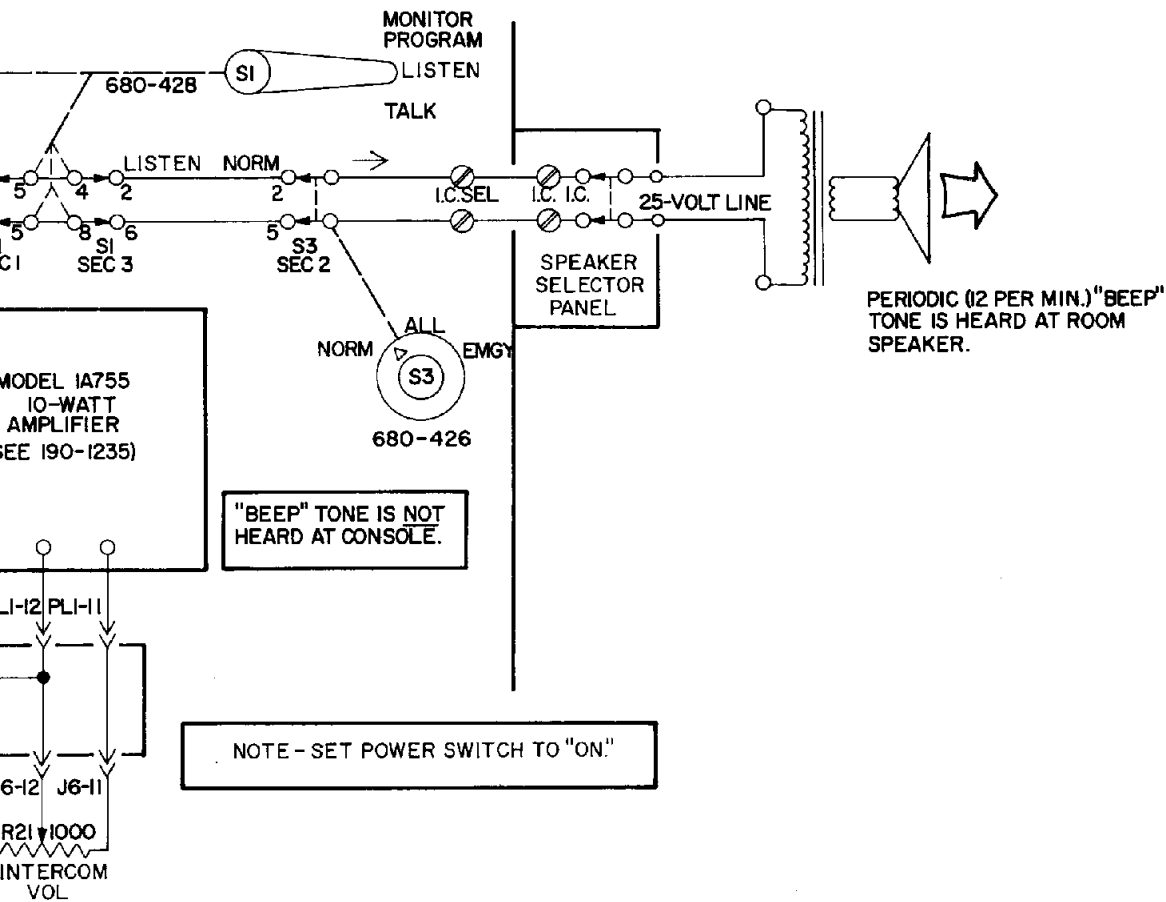
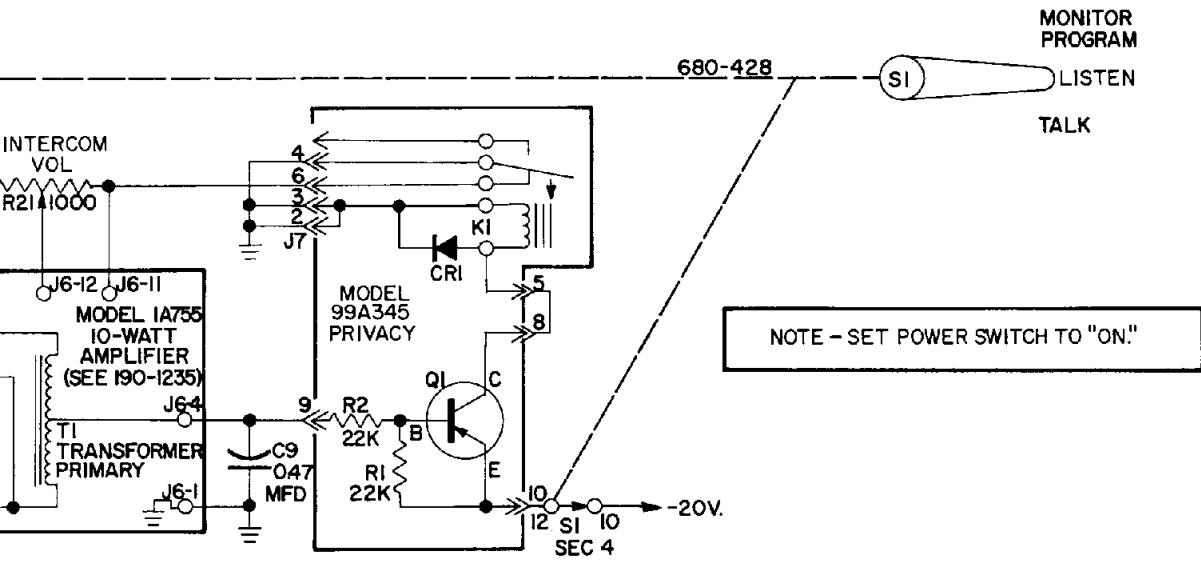
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7

6

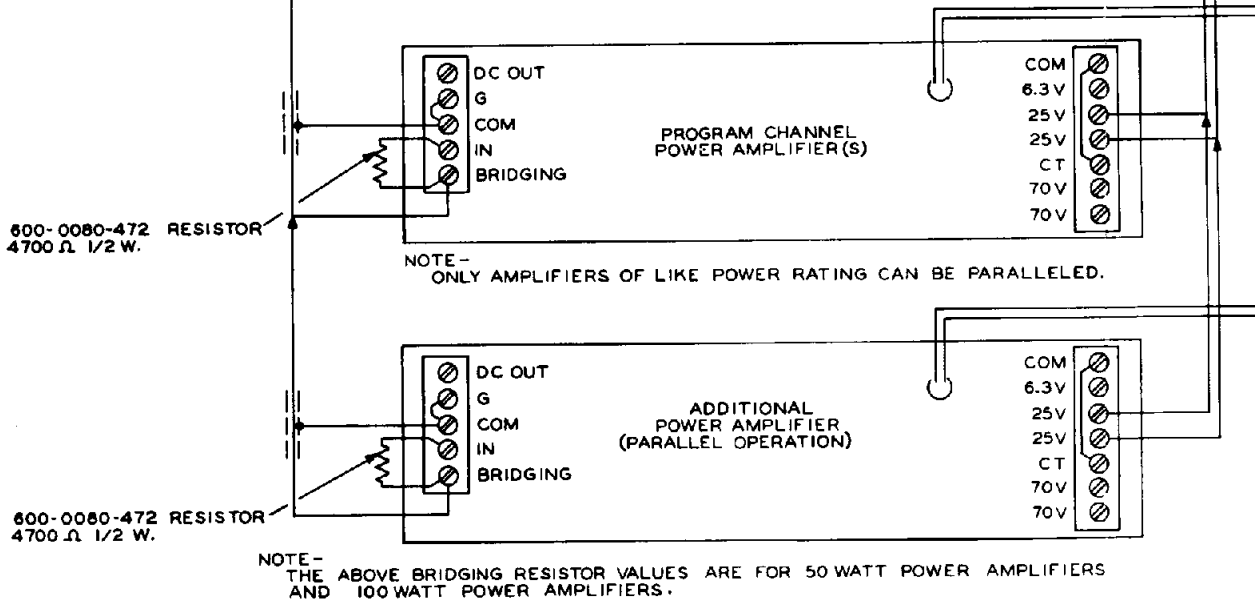
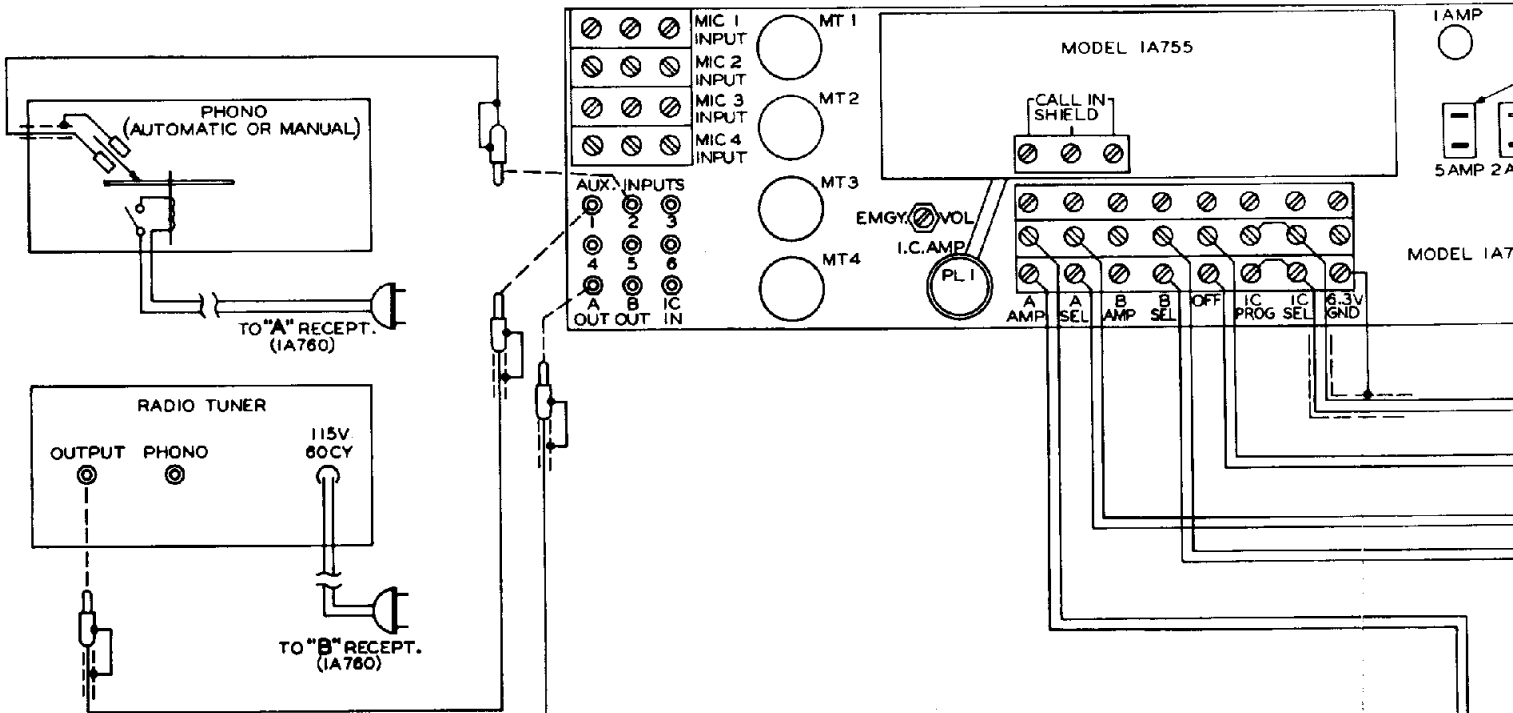
5

4



# 12A655-12B655 SERIES

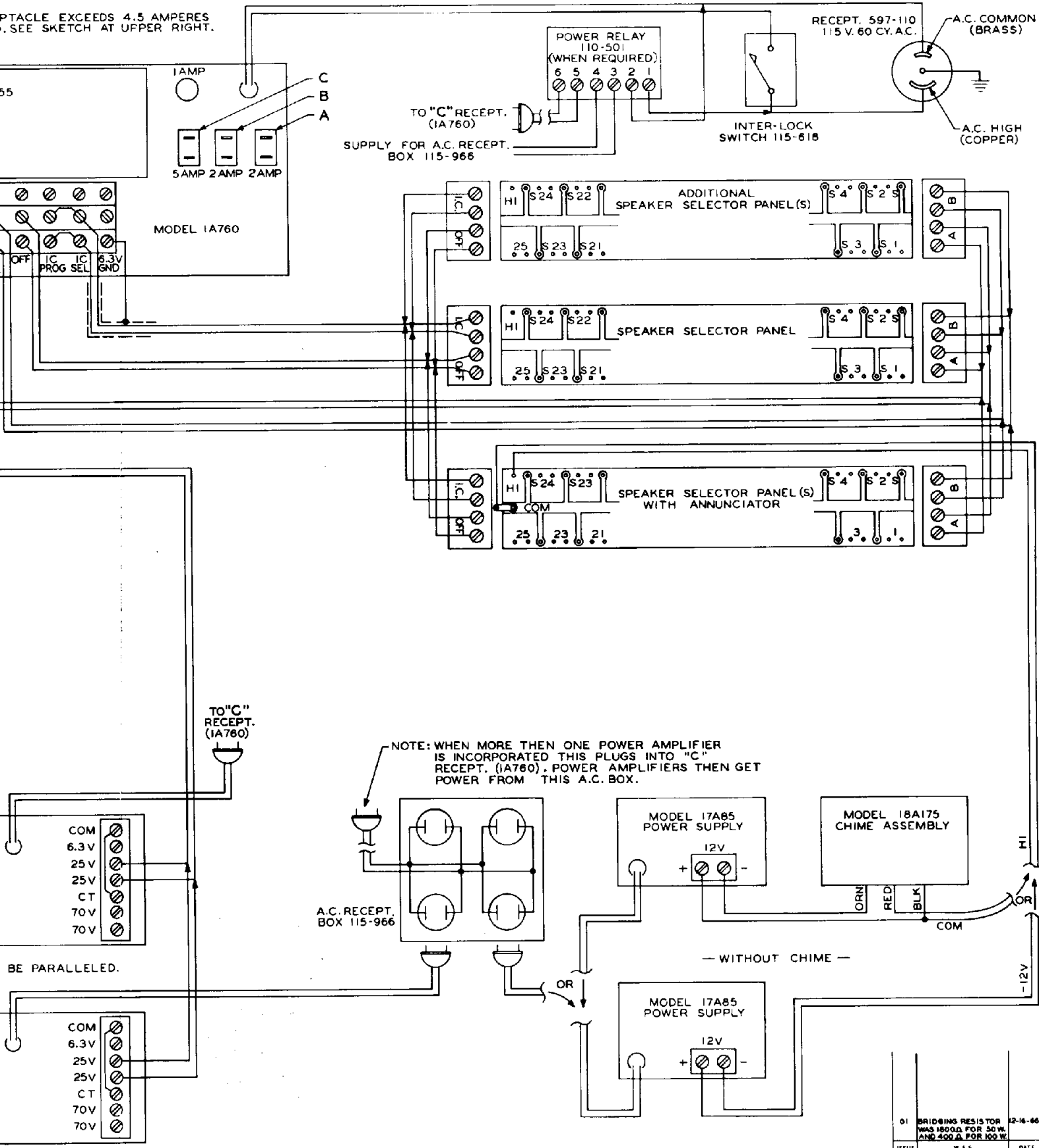
NOTE: WHENEVER THE POWER REQUIREMENTS FROM "C" RECEPTACLE EXCEEDS 4.5 AMPERES DUKANE MODEL 110-501 POWER RELAY MUST BE USED. SEE SKETCH AT UPPER RIGHT.





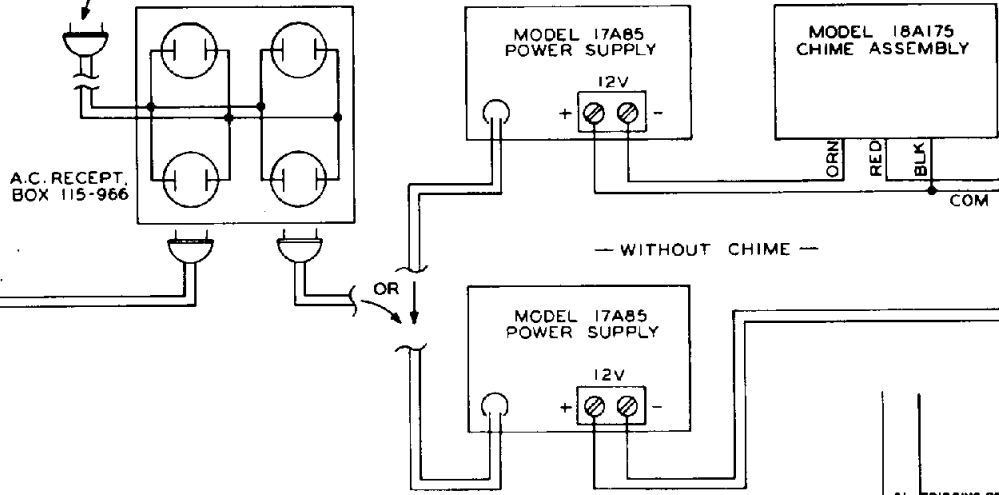
# SERIES

CONTACT EXCEEDS 4.5 AMPERES  
SEE SKETCH AT UPPER RIGHT.



TO "C" RECEPT. (IA760)

NOTE: WHEN MORE THEN ONE POWER AMPLIFIER IS INCORPORATED THIS PLUGS INTO "C" RECEPT. (IA760). POWER AMPLIFIERS THEN GET POWER FROM THIS A.C. BOX.



- WITHOUT CHIME -

01 BRIDGING RESISTOR WAS 180Ω FOR 30 W AND 400 Ω FOR 100 W  
12-16-64  
ISSUE W A S DATE APPR

POWER AMPLIFIERS

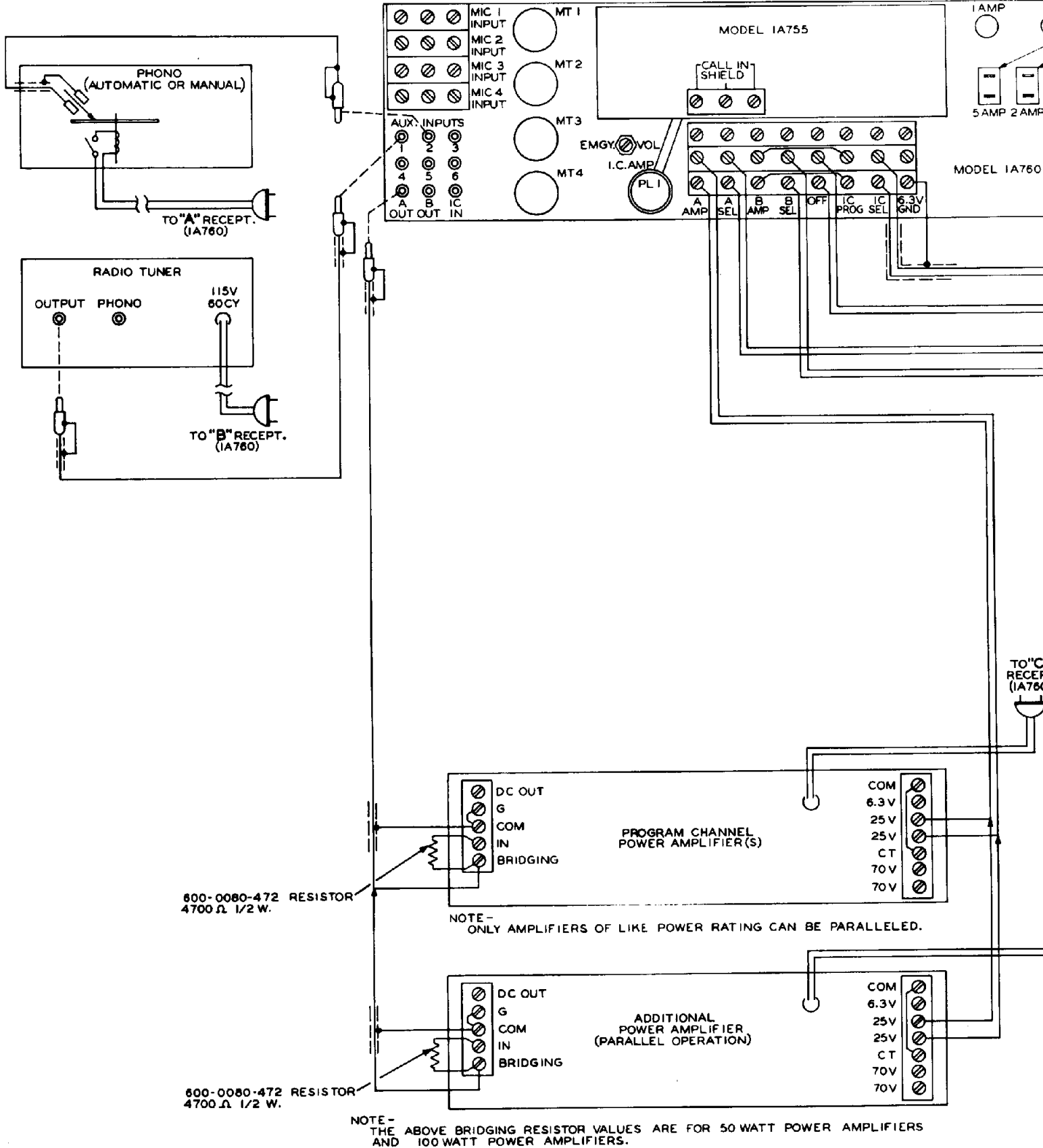
**DuKANE**  
Corporation  
ESTABLISHED 1971  
31 CHARLES HUNTER LIA

INTERNAL CONNECTIONS  
12A655-12B655 SERIES  
WITH OPTIONAL VARIATIONS

SCALE \_\_\_\_\_ DATE 12-15-64  
DRAWN *LWB* APP'D \_\_\_\_\_  
CHECKED \_\_\_\_\_ ENGR \_\_\_\_\_  
**NO. 400-1428**

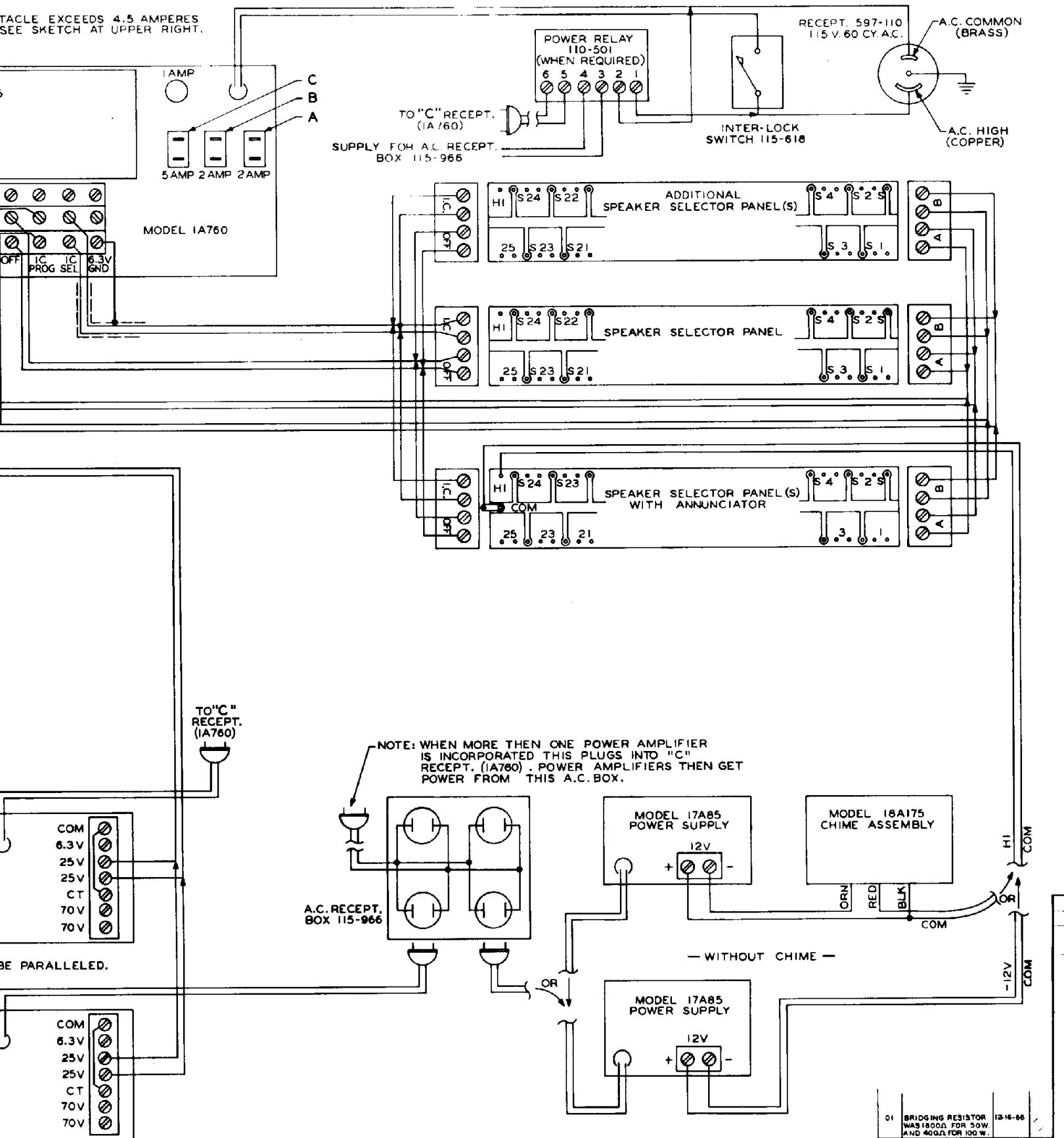
# 12A660-12B660 SERIES

NOTE: WHENEVER THE POWER REQUIREMENTS FROM "C" RECEPTACLE EXCEEDS 4.5 AMPERES, DUKANE MODEL 110-501 POWER RELAY MUST BE USED. SEE SKETCH AT UPPER RIGHT.



# SERIES

TACTILE EXCEEDS 4.5 AMPERES  
SEE SKETCH AT UPPER RIGHT.

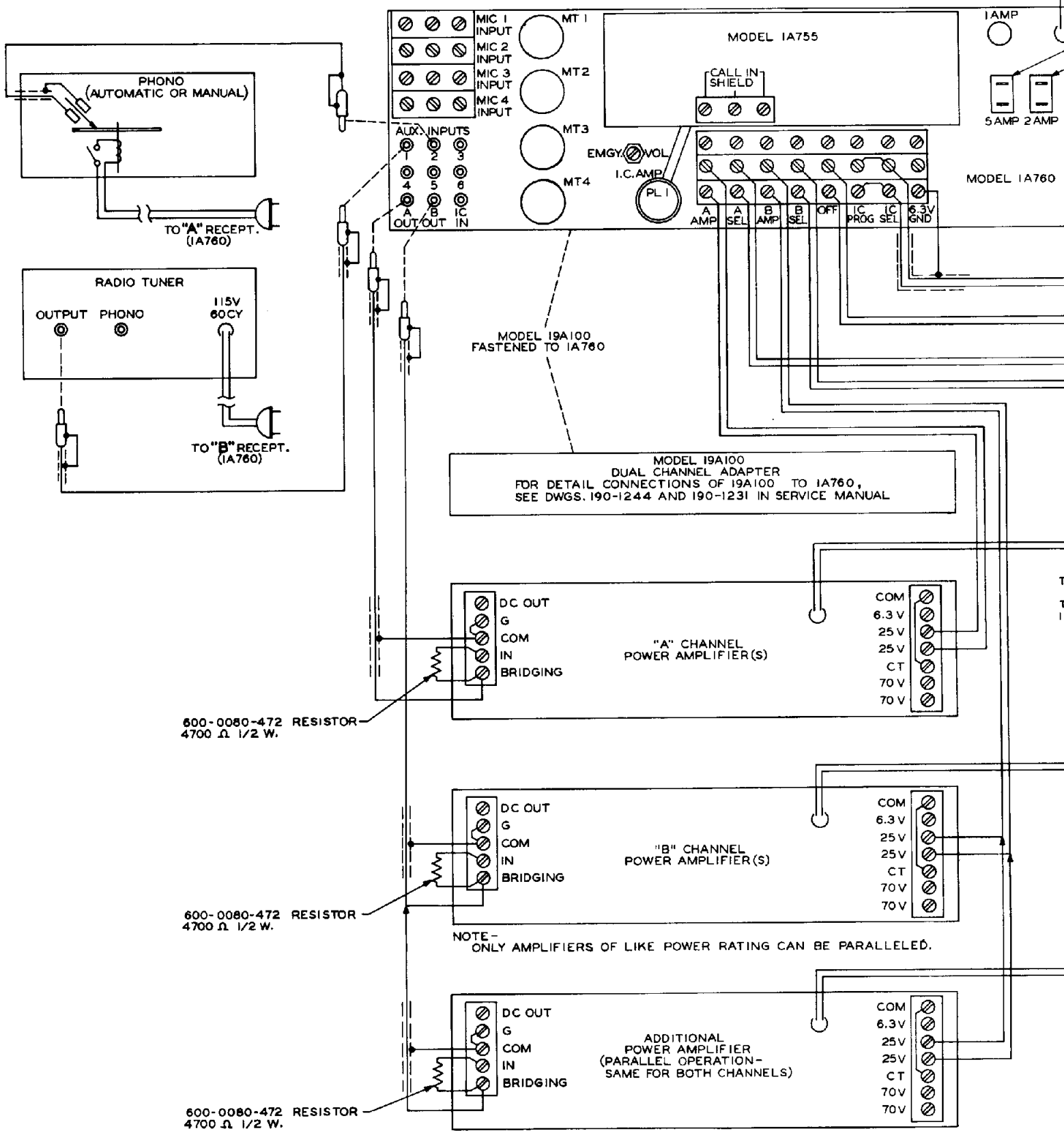


POWER AMPLIFIERS

<b>DUKANE</b> Corporation <small>ESTABLISHED 1922</small> <small>31 CHARLES, GLENDON, U.S.A.</small>	<b>INTERNAL CONNECTIONS</b> <b>12A660-12B660 SERIES</b> WITH OPTIONAL VARIATIONS	SCALE _____ DATE <b>12-15-64</b> DRAWN <i>Lib</i> APP'D _____ CHECKED _____ ENGR. _____	ISSUE _____ W. A. S. _____ DATE _____ APPR _____ <b>NO. 400-1430</b>
	<small>BRIDGING RESISTOR          WAS 180Ω FOR 50W          AND 400Ω FOR 100 W.</small>	<small>12-16-66</small>	<small>ISSUE</small>

# 12A665-12B665 SERIES

NOTE: WHENEVER THE POWER REQUIREMENTS FROM "G" RECEPTACLE EXCEEDS 4.5 AMPERES DUKANE MODEL 110-501 POWER RELAY MUST BE USED. SEE SKETCH AT UPPER RIGHT.



MODEL 19A100 FASTENED TO 1A760

MODEL 19A100 DUAL CHANNEL ADAPTER FOR DETAIL CONNECTIONS OF 19A100 TO 1A760, SEE DWGS. 190-1244 AND 190-1231 IN SERVICE MANUAL

600-0080-472 RESISTOR  
4700 Ω 1/2 W.

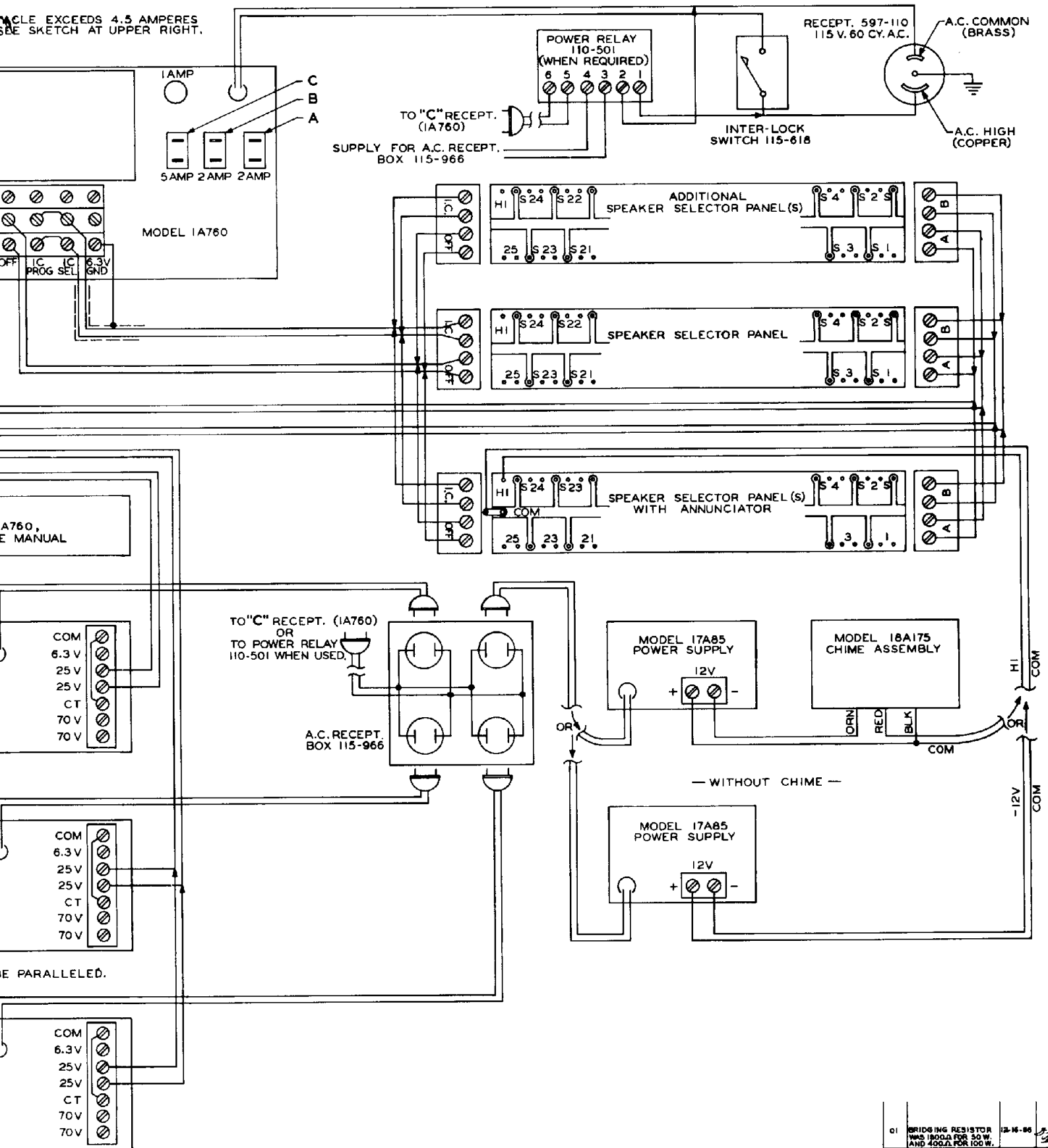
600-0080-472 RESISTOR  
4700 Ω 1/2 W.

600-0080-472 RESISTOR  
4700 Ω 1/2 W.

NOTE - ONLY AMPLIFIERS OF LIKE POWER RATING CAN BE PARALLELED.

NOTE - THE ABOVE BRIDGING RESISTOR VALUES ARE FOR 50 WATT POWER AMPLIFIERS AND 100 WATT POWER AMPLIFIERS.

IF CURRENT EXCEEDS 4.5 AMPERES  
SEE SKETCH AT UPPER RIGHT.



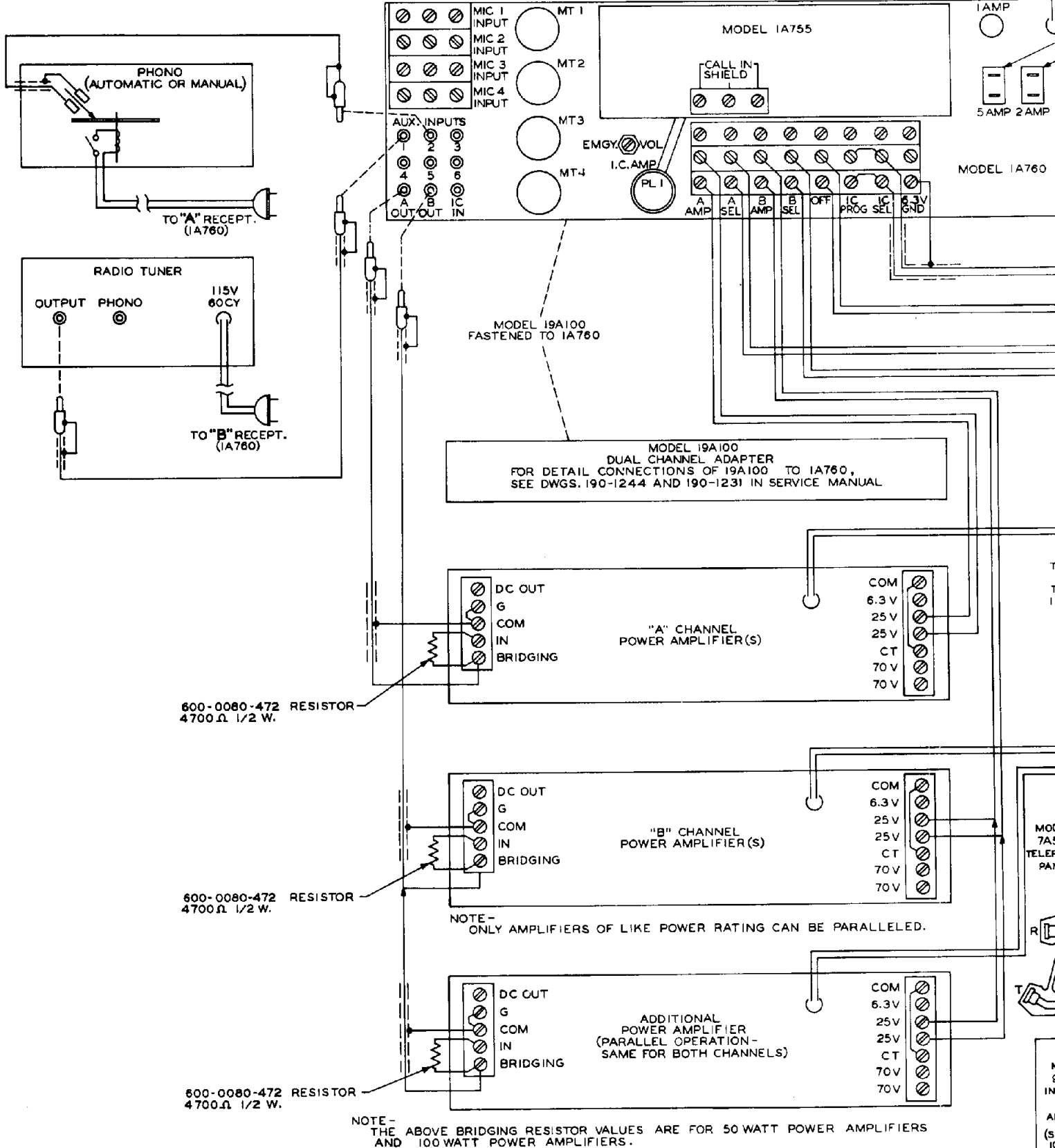
Q1	BRIDGING RESISTOR WAS 180Ω FOR 50 W. AND 400Ω FOR 100 W.	12-16-66	22
ISSUE	W A S	DATE	APPR.

<b>DUKANE</b> Corporation ESTABLISHED 1922 ST. CHARLES, ILLINOIS U.S.A.	<b>INTERNAL CONNECTIONS</b> <b>12A665-12B665 SERIES</b> WITH OPTIONAL VARIATIONS	SCALE _____ DRAWN <i>For</i> CHECKED _____	DATE <b>10-29-64</b> APP'D <i>W.S.</i> ENGR. <i>J.C.</i>	NO. <b>400-1432</b>
--	--	--	--	---------------------

ER AMPLIFIERS

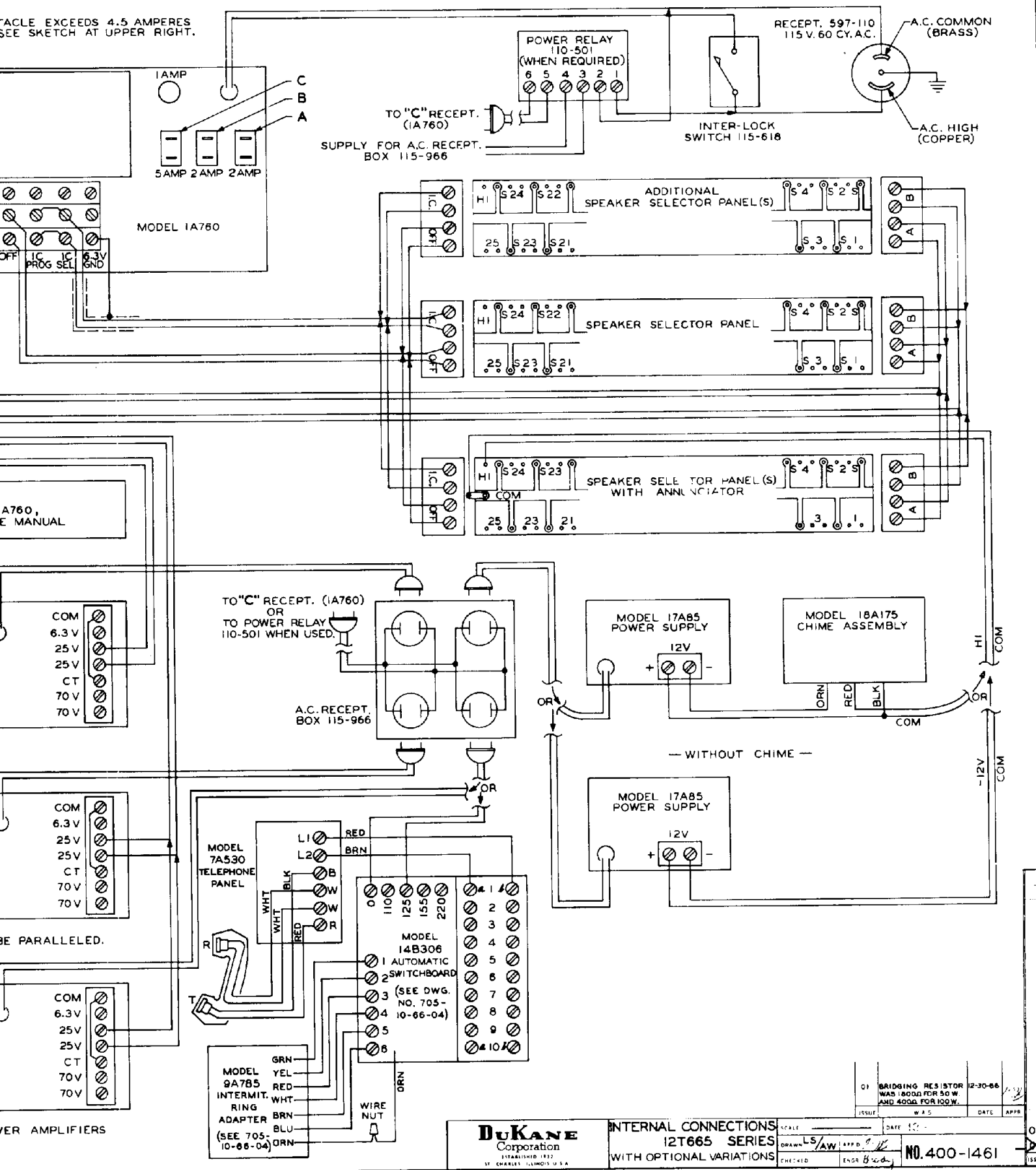
# 12A655 TO 12B670 SERIES

NOTE: WHENEVER THE POWER REQUIREMENTS FROM "C" RECEPTACLE EXCEEDS 4.5 AMPERES DUKANE MODEL 110-501 POWER RELAY MUST BE USED. SEE SKETCH AT UPPER RIGHT.



IES

TABLE EXCEEDS 4.5 AMPERES  
SEE SKETCH AT UPPER RIGHT.



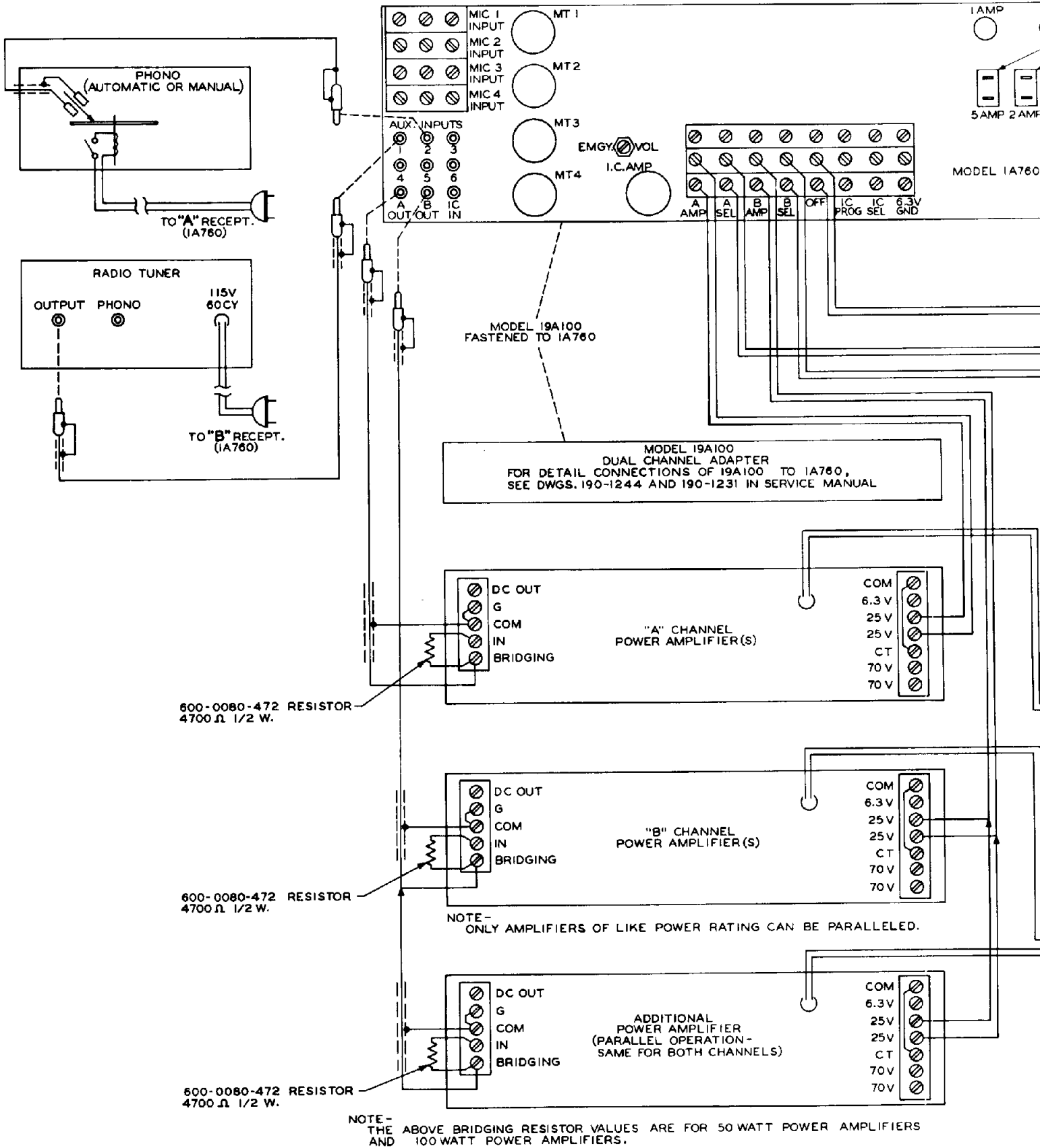
**DUKANE**  
Corporation  
ESTABLISHED 1932  
ST. CHARLES, ILLINOIS U.S.A.

INTERNAL CONNECTIONS  
12T665 SERIES  
WITH OPTIONAL VARIATIONS

SCALE: \_\_\_\_\_ DATE: 10-1-66  
DRAWN: LS/AW APP'D: \_\_\_\_\_  
CHECKED: \_\_\_\_\_ ENGR: B. G. \_\_\_\_\_  
NO. 400-1461

# 12A670-12B670 SERIES

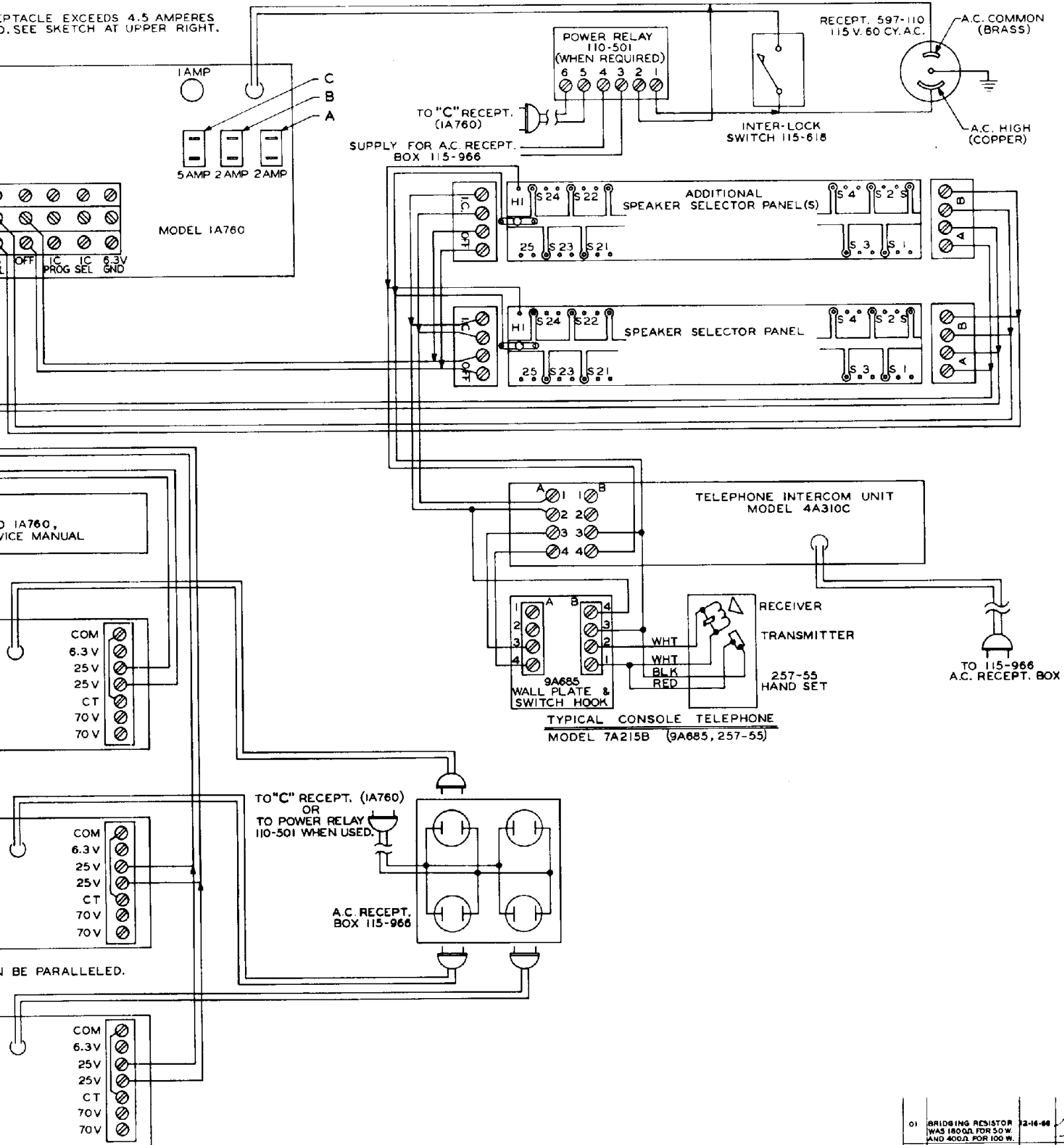
NOTE: WHENEVER THE POWER REQUIREMENTS FROM "C" RECEPTACLE EXCEEDS 4.5 AMPERES DUKANE MODEL 110-501 POWER RELAY MUST BE USED. SEE SKETCH AT UPPER RIGHT.





# SERIES

CONTACT EXCEEDS 4.5 AMPERES  
SEE SKETCH AT UPPER RIGHT.



POWER AMPLIFIERS

**DUKANE**  
Corporation  
ESTABLISHED 1932  
ST. CHARLES, ILLINOIS U.S.A.

INTERNAL CONNECTIONS  
12A670-12B670 SERIES  
WITH OPTIONAL VARIATIONS

SCALE	DATE	12-16-64
DRAWN <i>Hand</i>	APP'D	
CHECKED	ENGR	
NO. 400-1434		

01 BRIDGING RESISTOR  
WAS 180Ω FOR 50 W.  
AND 400Ω FOR 100 W.