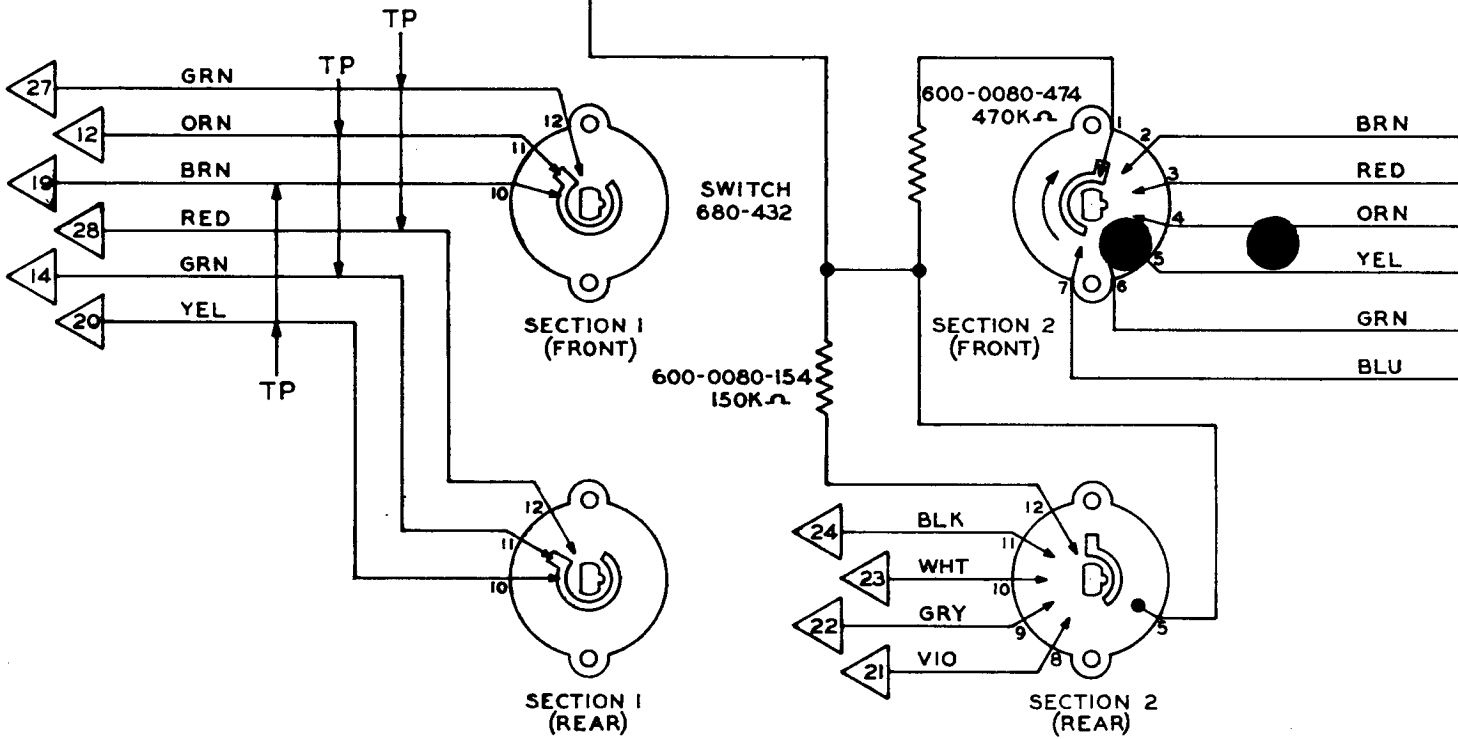


VOLUME
5KΩ
601-156

BASE
50KΩ

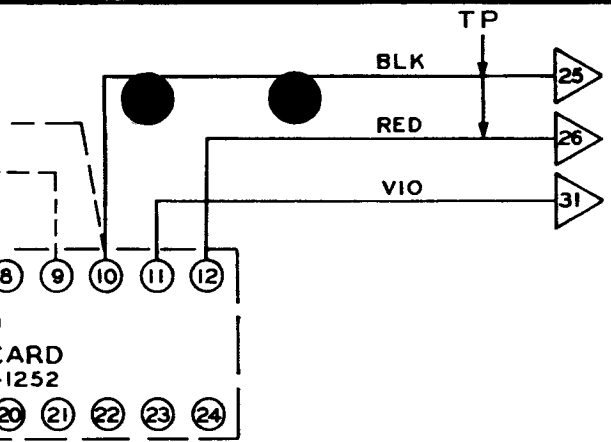
TREBLE
50KΩ

BLK
RED
VIO



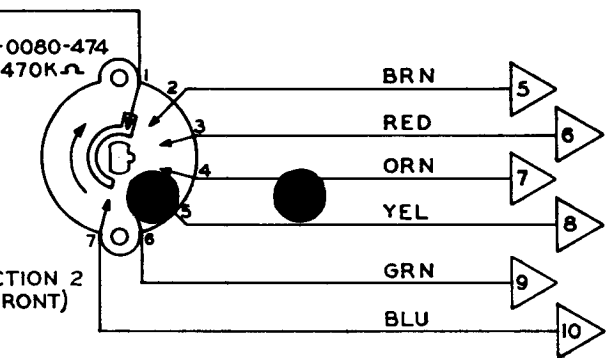
19A105

190-1256	
NO. REV'D.	USED ON

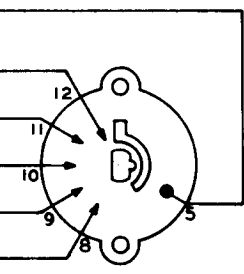


CARD
1252

BASE
100K Ω



SECTION 2
(FRONT)



SECTION 2
(REAR)

NOTES:

- — ~~X~~ — • DENOTES: CUT WHEN OPTIONAL TONE CONTROLS (DOTTED LINES) ARE USED.
- ▶ CONNECT TO LIKE POINTS ON IA760 CIRCUITRY.
- ROTARY SWITCH SHOWN IN "OFF" POSITION AND VIEWED FROM KNOB END.
- TP DENOTES TWISTED PAIRS.

UNLESS OTHERWISE SPECIFIED DECIMAL DIMENSIONS TO BE ± .		FRACTIONAL DIMENSIONS TO BE ±		ANGLES TO BE ±		02	125" FLAG WAS CONNECTED TO TERM. 15	4-18-67	WAS	DATE	APPR.
DRAWN <i>AW</i>		APP'D. <i>WAS</i>		SCALE		01	125" FLAG WAS CONNECTED TO TERM. 15	5-1-66	DATE	APPR.	02
CHECKED		ENGR. <i>WAS</i>		SCHEMATIC DIAGRAM MODEL 19A105 I.C. PROGRAM ADAPTER KIT		NO. 190-1256		DATE 5-21-64		ISSUE	
<p>DUKANE Corporation ESTABLISHED 1922 ST. CHARLES, ILLINOIS U.S.A.</p>		<p>SCALE _____ DATE 5-21-64</p> <p>NO. 190-1256</p>									

EXTERNAL CONNECTIONS

*TO INSTALL MODEL 19A105 I.C. PROGRAM ADAPTER

To avoid scratching enamel, use a cloth covered screw driver to take off card holder on righthand side of Master Control Panel next to speaker grille.

2. Install I.C. Program Adapter to permit control shafts to extend through holes in front panel ; selector switch shaft extends through hole above hole for volume control shaft . If necessary, temporarily loosen either switch or volume control to align shafts with holes in Master Control Panel.
3. Put on front plate to show markings for "AUX - MI C" and "VOL" and fasten I .C. Program Adapter in place on panel, using control nuts furnished.
4. With both control shafts set to full counterclockwise position (viewed from knob end of shaft), put on control knobs to indicate OFF and 0, respectively.

*TO MAKE ELECTRICAL CONNECTIONS

1. See illustration inside for making electrical connections. Except in the case of the orange and green wires between the tie strip next to monitor speaker transformer and the terminal strip (see step No. 5 below), DO NOT remove any existing wiring; make 19A105 wiring connections in addition to existing wiring.

IMPORTANT NOTE - Use only ROSIN core solder for making electrical connections.

2. To avoid wiring mistakes, maintain the following twisted pairs:
 - a. The green wire connected to terminal 12 on front of section 1 of switch with the red wire connected to terminal 12 on rear of section 1.
 - b. The orange wire connected to terminal 11 on front of section 1 of switch with the green wire connected to terminal 11 on rear of section 1.
 - c. The brown wire connected to terminal 10 on front of section 1 of switch with the yellow wire connected to terminal 10 on rear of section 1.
3. Connect green and red twisted pair of wires to terminal 6 on TB5 and terminal 6 on TB6, marked "IC PROG" on Master Control Panel.
4. Where Model 19A100 Dual Channel Adapter is used with Master Control Panel, connect orange and green twisted pair to red and brown twisted pair in 19A100, and connect black and orange twisted pair from 19A100 to terminal 1 on TB5 and terminal 1 on TB6, marked "A AMP" on Master Control Panel, or
 - 4a. Where Dual Channel Adapter is not used, connect green and red twisted pair of wires to "A AMP" terminals, as shown in diagram inside.
5. Connect brown and yellow twisted pair to terminals on tie strip next to monitor speaker transformer TI (DuKane Part No. 710-3047); take out orange and green wires between these terminals and the "A AMP" terminals on TB5 and TB 6.
6. On front of section 2 of switch, find brown wire at terminal 2 ; connect end of this wire to No. 1 auxiliary input receptacle at strip J8.
7. On front of section 2 of switch, find red wire at terminal 3; connect end of this wire to No. 2 auxiliary input receptacle at strip J8.
8. On front of section 2 of switch, find orange wire at terminal 4; connect end of this wire to No. 3 auxiliary input receptacle at strip J8.
9. On front of section 2 of switch, find yellow wire at terminal 5; connect end of this wire to No. 4 auxiliary input receptacle at strip J9.

COMMUNICATIONS SYSTEMS INSTALLATION DATA

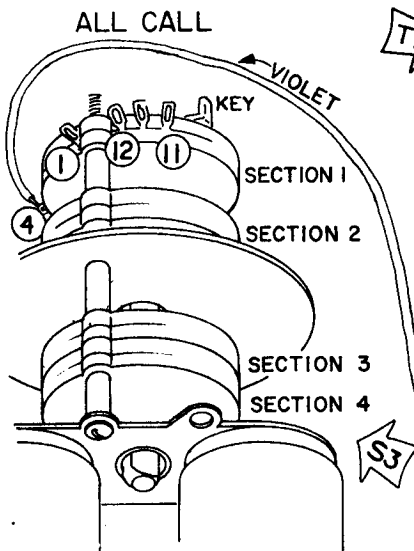
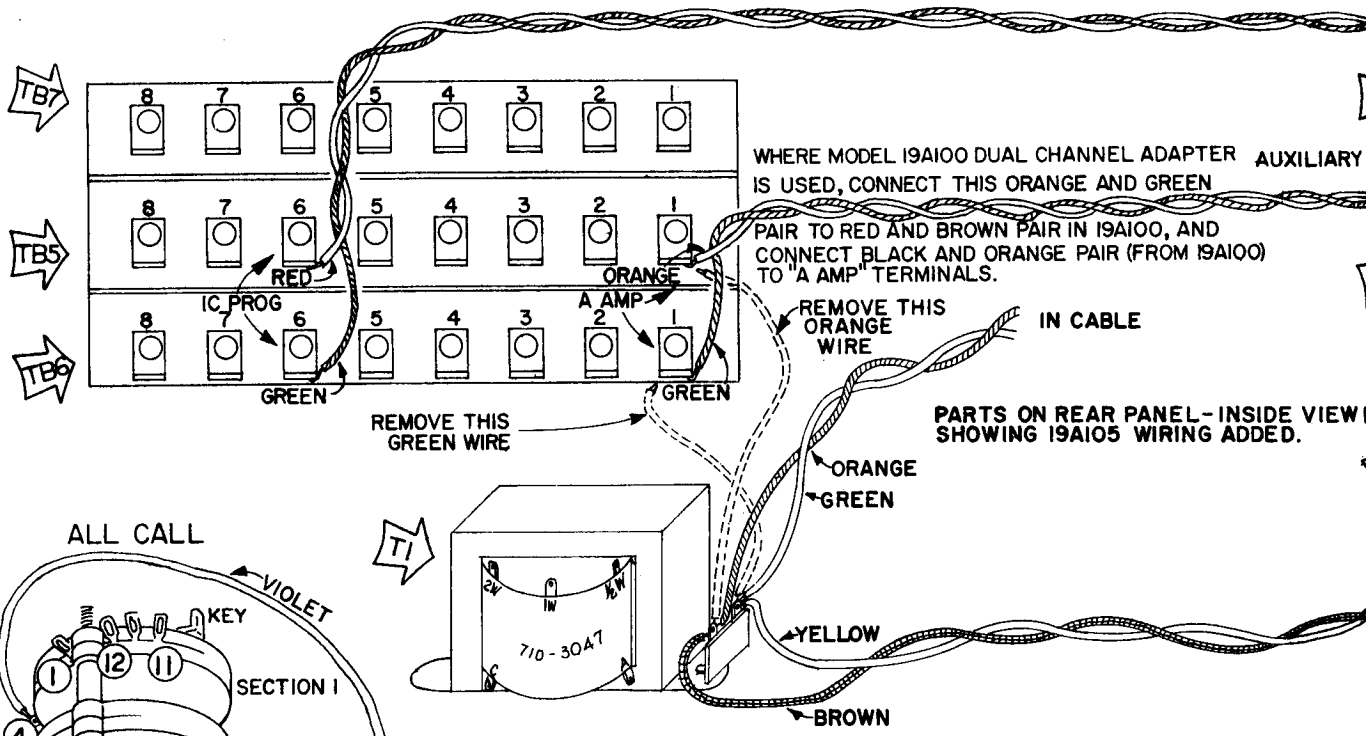
10. On front of section 2 of switch, find green wire at terminal 6; connect end of this wire to No. 5 auxiliary input receptacle at strip J9.
11. On front of section 2 of switch, find blue wire at terminal 7; connect end of this wire to No. 6 auxiliary input receptacle at strip J9.
12. On rear of section 2 of switch, find violet wire at terminal 8; connect end of this wire to terminal 4 or 11-1/2 on section 1 of ALL CALL switch; see NOTE 3 on diagram in this manual.
13. On rear of section 2 of switch, find gray wire at terminal 9; connect end of this wire to terminal C on No. 2 MICROPHONE volume control.
14. On rear of section 2 of switch, find white wire at terminal 10; connect end of this wire to terminal C on No. 3 MICROPHONE volume control.
15. On rear of section 2 of switch, find black wire at terminal 11; connect end of this wire to terminal C on No. 4 MICROPHONE volume control.
16. On amplifier board, find red wire connected to terminal 12 and add 4 to 6 inches if needed; connect end of this wire, to terminal C10, large capacitor at top of back panel, with heavy red B-minus wire connected, or
- 16a. Connect red wire to terminal 12 on amplifier mounted at bottom of inside of front panel.
17. On amplifier board, find black wire connected to terminal 13; connect end of this wire to terminal A (+common) on INTERCOM volume control.

* TO ADD TONE CONTROLS TO 19A105

1. To avoid scratching enamel, use a cloth-covered screw driver to take off card holder on lefthand side of Master Control Panel next to output meter.
2. Install two 50,000 ohm potentiometers (DuKane Part No. 6OI-54), permitting control shaft of each to extend through holes in front panel.
3. Put on a front plate marked for "TREBLE" and "BASS" and fasten potentiometers in place on control panel, using control nuts furnished.
4. Connect a wire to extend between terminal A (see MICR PHONE 1 volume control for typical terminal references) on TREBLE tone control and terminal 9 on amplifier board.
5. Connect a jumper between terminal C and terminal B on TREBLE tone control and connect a wire to extend between terminal C on tone control to terminal 10 on amplifier board.
6. Connect a wire to extend between terminal A on BASS tone control and terminal 11 on amplifier board.
7. Connect a jumper between terminal C and terminal B on BASS tone control and connect a wire to extend between terminal C on tone control to terminal 16 on amplifier board.

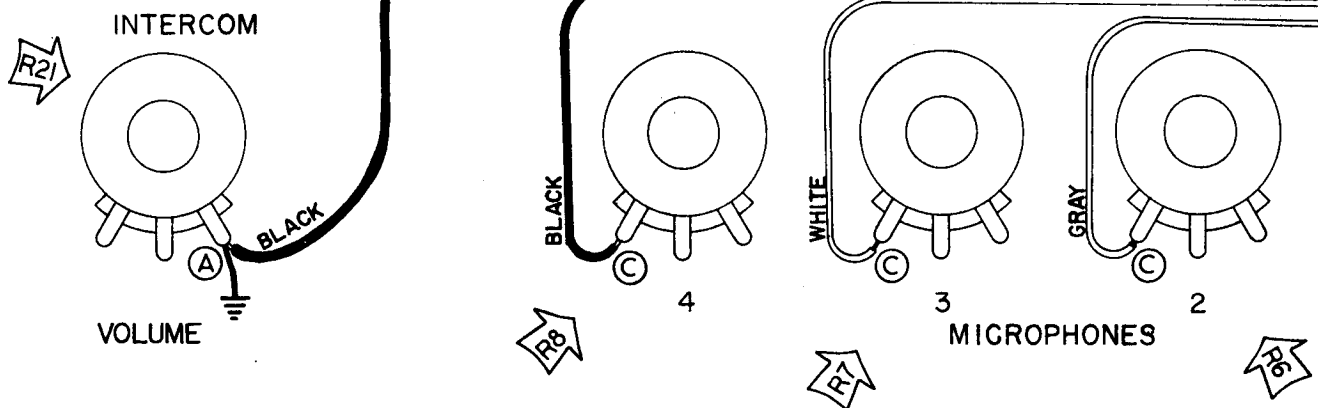


TECHNICAL SERVICES

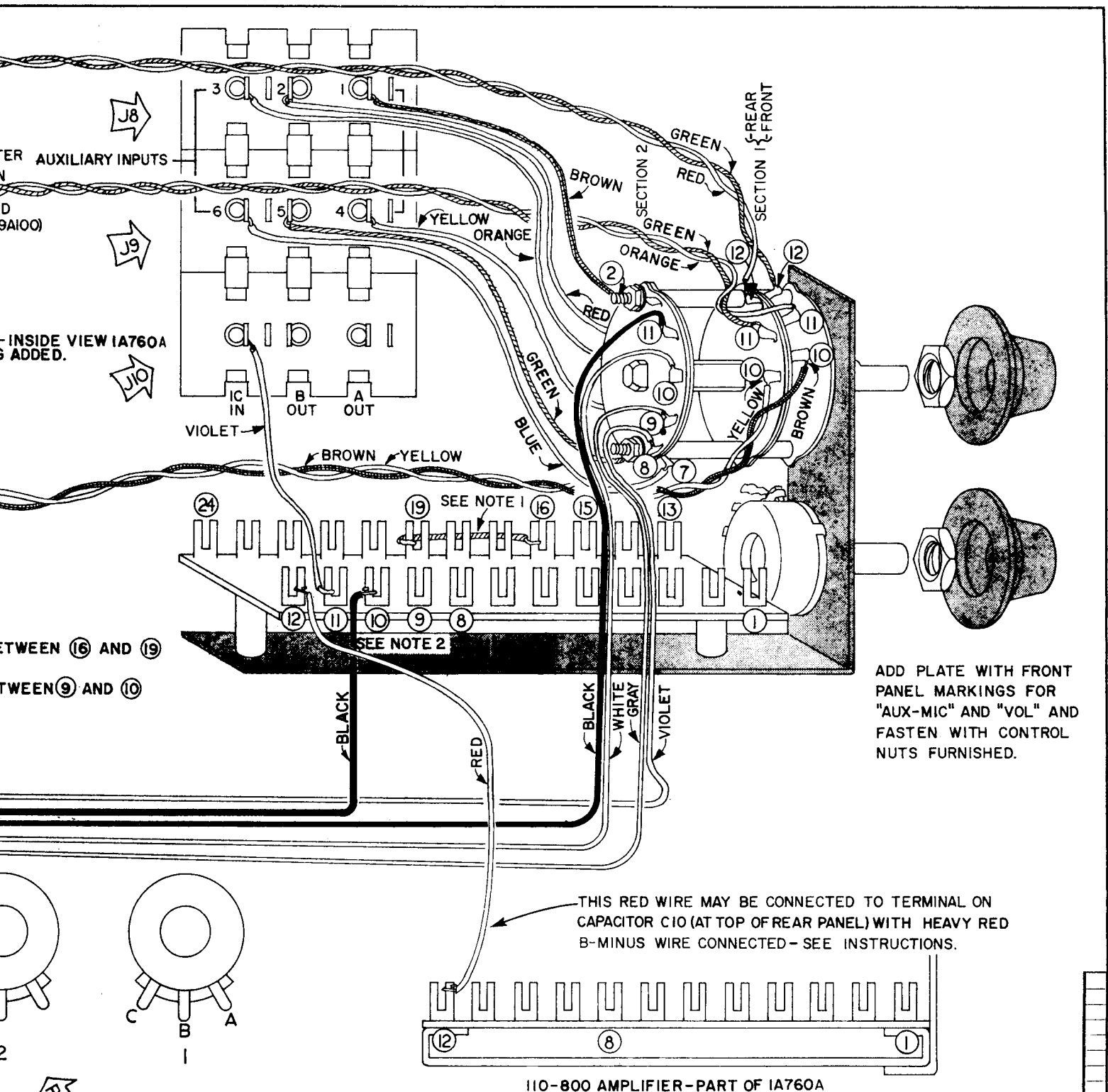


NOTES -

1. TO ADD BASS TONE CONTROL, REMOVE GREEN WIRE BETWEEN (16) AND (17) AND CONNECT 50K POT. - SEE INSTRUCTIONS.
2. TO ADD TREBLE TONE CONTROL, CONNECT 50K POT. BETWEEN (9) AND (10) - SEE INSTRUCTIONS.



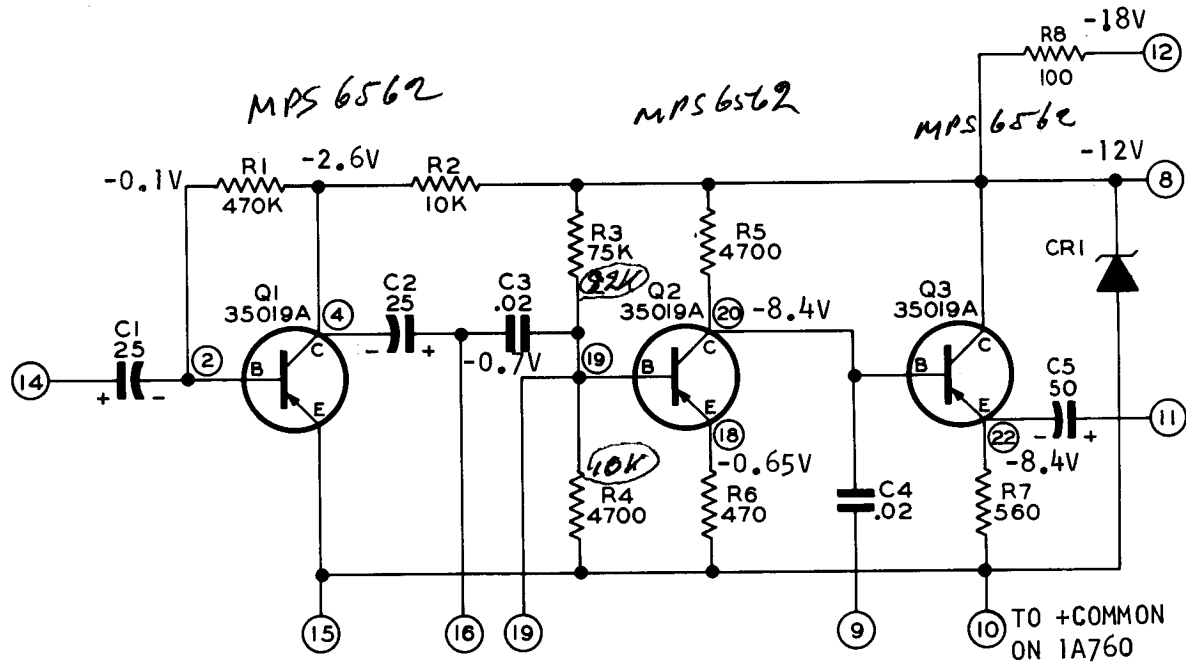
CHASSIS VIEW OF CONTROLS ON FRONT PANEL OF 1A760A SHOWING 19A105 WIRING ADDED



WIRING ADDED.

FOR TYPICAL CONNECTIONS BETWEEN MODEL 19A105 INSTALLED IN A MODEL IA760 MASTER CONTROL PANEL SEE DWG. 400-1424.

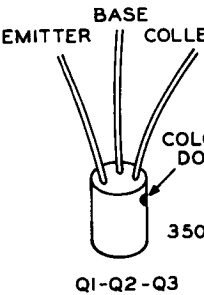
UNLESS OTHERWISE SPECIFIED DECIMAL DIMENSIONS TO BE 1/16"		FRACTIONAL DIMENSIONS TO BE 1/32"		ISSUE	W.A.S.	DATE	APP.
NO. 400-1482		Dukane Corporation		TYPICAL CONNECTIONS 19A105 INSTALLED IN IA760A MAST. CONT. PNL.		SCALE	DATE 5-8-67
ESTABLISHED 1908		ST. CHARLES, ILLINOIS U.S.A.		DRAWN	APP.	CHECKED	ENGR.
USED ON				NO. 400-1482		ISSUE	



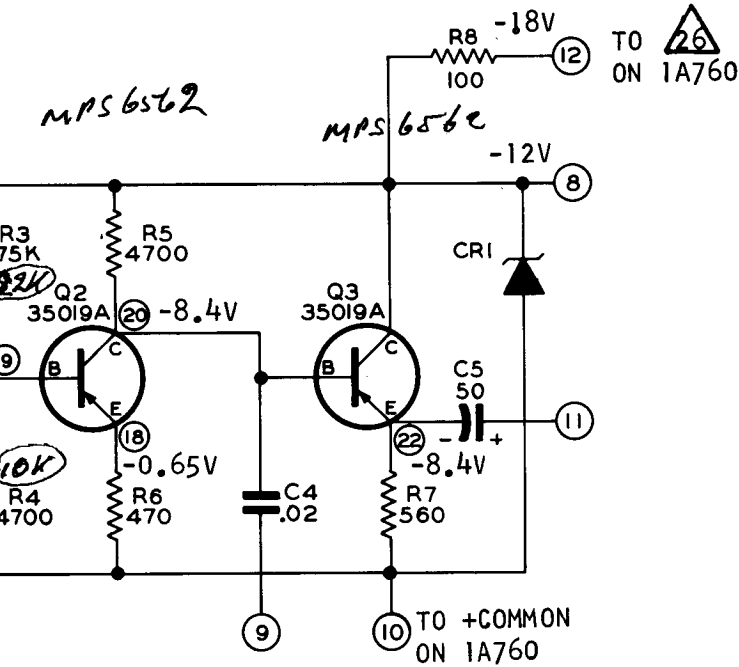
TO USE SILICON TRANSISTORS
 CHANGE R3 - R4
 42K - 10K

NOTES:

- UNLESS OTHERWISE SPECIFIED:
1. ALL FIXED RESISTORS ARE 1/2 WATT.
 2. TOLERANCES ON FIXED RESISTORS $\pm 10\%$.
 3. RESISTANCE VALUES IN OHMS.
K=1000 OHMS
 4. CAPACITANCE VALUES IN MICROFARADS.
 5. ○ - INDICATES TYPICAL TERMINAL BOARD LUG DESIGNATIONS.

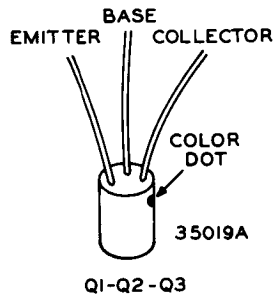


NO. REQ'D.	USED ON
	1A760
	19A100
	19A105



LIST OF ELECTRICAL PARTS			
LEG.	DESCRIPTION	QTY	PART NO.
C1,2	CAPACITOR 25 6V.	2	199-2013-256
C3,4	" .02 200V.	2	199-4013-203
C5	" 50 25V	1	199-2017-506
Q1	CRI DIODE - ZENER 12V 1ZF12T10	1	230-10
R1	RESISTOR 470K	1	600-0080-474
R2	" 10K	1	600-0080-103
R3	" 75K ± 5%	1	600-0073-753
R4,5	" 4700	2	600-0080-472
R6	" 470	1	600-0080-471
R7	" 560	1	600-0080-561
R8	" 100	1	600-0080-101
Q1,2,3	TRANSISTOR 35019A	3	720-35019A

FOR S



FOR APPLICATION, SEE SCH. DIAG. NO.
 190-1244 FOR MODEL 1A760
 190-1231 FOR MODEL 19A100, OR
 190-1256 FOR MODEL 19A105

MATERIAL	FINISH	01	ADDED R8 & CRI	2-26-66	<i>Dr</i>
UNLESS OTHERWISE SPECIFIED DECIMAL DIMENSIONS TO BE ±.		FRACTIONAL DIMENSIONS TO BE ±		ISSUE	W A S
DUKANE Corporation ESTABLISHED 1922 ST. CHARLES, ILLINOIS U.S.A.		SCHEMATIC DIAGRAM MODEL 110-800		SCALE	DATE 2-27-64
DRAWN <i>AW</i>	APP'D. <i>ec</i>	CHECKED	ENGR. <i>ec</i>	NO. 190-1252	