

UNCLASSIFIED

TECHNICAL MANUAL
for
DUAL DIVERSITY RECEIVER
MODEL DDR-7C

APPENDIX

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y.

OTTAWA, ONTARIO

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TABLE A, PARTS LIST, DDR-7C DUAL DIVERSITY RECEIVER

QTY/ UNIT	TMC P/N	TITLE	DESCRIPTION
1	RAK-47C	Rack	Consists of rack structure* and components listed in RAK-47C Parts List (Table E).
2	GPR-92	Communications Receiver	Consists of parts as described in GPR-92 Manual. Includes special TMC #PL-218 plug on power cable.
1	TRX-1	Stabilized Crystal Oscillator	Consists of unit and parts as described in TRX-1 Manual. Includes special TMC #PL-218 plug on power cable.
	**		
2	SBS-I-1	Sideband Selector	Consists of unit and parts as described in SBS-1 Manual. Includes special TMC #PL-218 plug on power cable. A TMC #FX-170 6-kc USB filter and a TMC #FX-171 6-kc LSB filter substituted in place of the 7.5-kc sideband filters shown in SBS-1 Manual.
	**		
2	AFC-2A	Automatic Frequency Control	Consists of unit and parts as described in AFC-2A Manual.
1	HSP-3	Audio Switch Panel	Consists of unit as shown in figure D and parts as listed in table B.
1	LSP-6	Speaker Panel	Consists of unit as shown in figure C and parts as listed in table D.
1	DCP-2	Power Control Panel	Consists of unit as shown in figure B and parts listed in table C.
1	----	Blower	Bud Radio "Trans-Aire" Blower, Model B-25. Consists of unit as described in data sheet A and figure F.

* Par-Metal Type PX-8424B, Base PB-2223 and Mounting Angles PA-77.

** Part of SBC-I-1A Sideband Converter.

TABLE B: PARTS LIST, HSP-3 AUDIO SWITCH PANEL

SYM	DESCRIPTION	FUNCTION	TMC P/N
C9201	CAPACITOR, fixed: 510 μ f, 500 WVDC, mica dielectric.	RF Bypass	CM15C511J
C9202 thru C9213	Same as C9201		
L9201	COIL, RF, fixed: 10 μ h \pm 10%, molded	Choke	CL270-10
L9202 thru L9214	Same as L9201		
R9201	ATTENUATOR, variable: "T" pad, 4 Ω impedance, 4 watts max continuous, 15 watts peak audio, 36 db max attenuation.	RECEIVER 1 VOLUME	RV107T4
R9202	Same as R9201	RECEIVER 2 VOLUME	
R9203	RESISTOR, fixed: 4 Ω , 5W, WW	Dummy Load CHANNEL B, RECEIVER 1	RW107-5
R9204	Same as R9203	Dummy Load CHANNEL A, RECEIVER 1	
R9205	Same as R9203	Dummy Load CHANNEL B, RECEIVER 2	
R9206	Same as R9203	Dummy Load CHANNEL A, RECEIVER 2	
S9201	SWITCH, toggle: SPST, with lug-end terminals, 11/32-inch long lever	AGC	ST103-1-62
S9202	SWITCH, rotary: 3-position, single wafer, 3 sectors.	RECEIVER 1 CHANNEL selector	SW148
S9203	Same as S9202	RECEIVER 2 CHANNEL selector	

TABLE B. PARTS LIST, HSP-3 AUDIO SWITCH PANEL (Cont)

SYM	DESCRIPTION	FUNCTION	TMC P/N
T9201	TRANSFORMER, audio: impedance matching, primary 500 Ω , secondary, red-to-brown 6-8 Ω , brown-to-black 3.2 Ω .	Impedance Match, RECEIVER 1, CHANNEL B	TF261
T9202	Same as T9201	Impedance Match, RECEIVER 1, CHANNEL A	
T9203	Same as T9201	Impedance Match, RECEIVER 2, CHANNEL B	
T9204	Same as T9201	Impedance Match, RECEIVER 2, CHANNEL A	
TB9201	TERMINAL BLOCK: Barrier type, 16-terminal, #6-32 binder head screws, bakelite body	RECEIVER 1 input	TM100-16
TB9202	Same as TB9201	RECEIVER 2 input	
TB9203	Same as TB9201	Output	

TABLE C. PARTS LIST, LSP-6 SPEAKER PANEL

SYM	DESCRIPTION	FUNCTION	TMC P/N
LS1	LOUDSPEAKER; 4-ohms impedance; voice coil, 3.2 ohms, 4.5 watts	Sound Output, RECEIVER 1	LS101
LS2	Same as LS1	Sound Output RECEIVER 2	
TB1	TERMINAL BLOCK: Barrier type, 4-terminal, #6-32 binder head screws, bakelite body.	Input Connections	TM102-4

TABLE D. PARTS LIST, DCP-2 POWER CONTROL PANEL

SYM	DESCRIPTION	FUNCTION	TMC PART NO.
CBI	CIRCUIT BREAKER: dual, toggle switch type, 10 amps, 110/230 VAC	A-c input line protection	SW-251
DS1	LAMP, incandescent: 120 volts, 3 watts, S-6 clear bulb, bayonet base.	MAIN POWER indicator	BI-102-3
F1	FUSE, cartridge: 15-amp slo-blow	J1 receptacle output fuse	FU-102-15
F2	Same as F1	UTILITY OUTLET fuse	
F3	Same as F1	UTILITY OUTLET fuse	
J1	CONNECTOR, receptacle: A-c, female, 2-prong, polarized, 115/230V.	Output connector (for VOX-5)	JJ-130
J2	CONNECTOR, receptacle: A-c, female, grounding type.	UTILITY OUTLET	JJ-173
J3	Same as J2		
R1	RESISTOR, fixed: wire wound, 2.5k, 25 watts	115- to 230-v conversion	RW-111-25
TB1	TERMINAL BLOCK: Barrier type, 4-terminal, #10-32 binder head screws, bake- lite body.	Input connections	TM-118-4
TB2	Same as TB1	Output connections	
XDS1	SOCKET, lamp: for bayonet contact bulb, w/screw terminals, red lens	MAIN POWER lamp holder	TS-124-1
XF1	HOLDER, fuse: for 1/4 in. dia. x 1-1/4 in. long car- tridge fuse, flat-sided clear knob with neon bulb and 220 k resistor.	F1 fuse socket	FH-104-3
XF2	Same as XF1	F2 fuse socket	
XF3	Same as XF1	F3 fus socket	

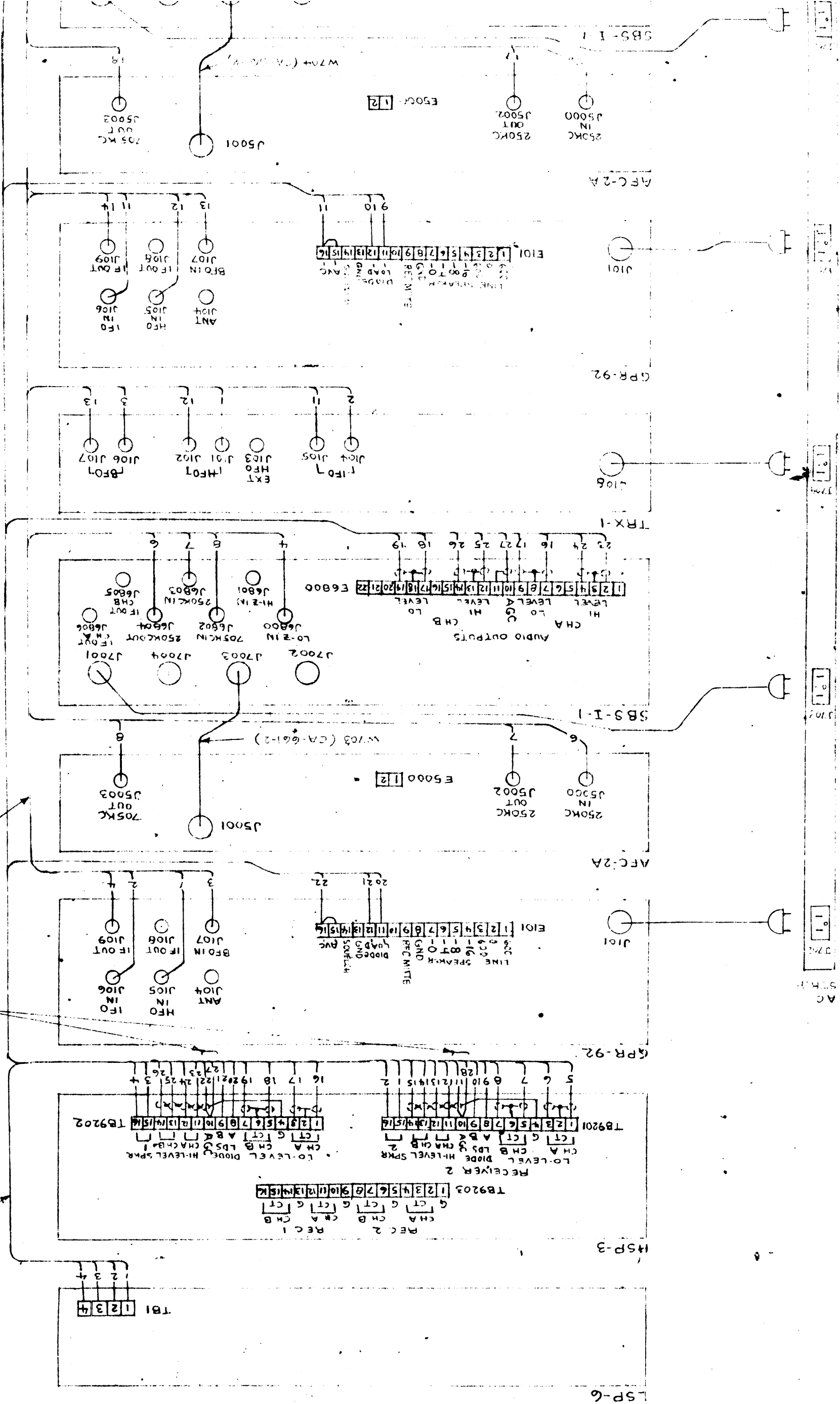
TABLE E. PARTS LIST, RAK-47C RACK

SYM	DESCRIPTION	FUNCTION	TMC P/N
J701	CONNECTOR, receptacle: a-c, male, 3-prong	Line Voltage Input	PL-133-NG
J702	CONNECTOR, receptacle: a-c, power, 3 contact, grounding type	Rack a-c strip outlet	JJ-294
J703	Same as J702		
J704	" "		
J705	" "		
J706	" "		
J707	" "		
P701	CONNECTOR, plug: a-c, 3-prong, female	Mates with J701	PL-134-NG
* T701	TRANSFORMER: 115 VAC to 230 VAC, auto- transformer	230 VAC Line Conversion	TF-275
W701	CABLE ASSEMBLY: Consists of wiring as shown in figure A.	LSP-6, HSP-3, GPR-92 and SBS-I-1 inter- connections	
W702	CABLE ASSEMBLY: Consists of wiring as shown in figure A.	GPR-92, AFC-2A, SBS-I-1 and TRX-1 inter- connections	
W703	CABLE ASSEMBLY: Consists of wiring as shown in figure E.	SBS-I-1 and AFC-2A interconnection	CA-661-2
W704	Same as W703.		

* Included when specified on order.

TABLE F. SHIPPING LIST, DDR-7C

<u>CRATE NO.</u>	<u>CONTENTS</u>	
	<u>QTY</u>	<u>ITEM</u>
1	1	RAK-47C Rack and Cables
	1	LSP-6 Speaker Panel
	1	DCP-2 Power Control Panel
	2	DDR-7C Technical Manual
	1	Test Data
2	1	AFC-2A Automatic Frequency Control
	1	SBS-I-1 Sideband Selector
3	1	AFC-2A Automatic Frequency Control
	1	SBS-I-1 Sideband Selector
4	2	GPR-92 Communications Receiver
5	1	HSP-3 Audio Switch Panel
	1	TRX-1 Stabilized Crystal Oscillator
6	1	Bud Model B-25 Trans-Aire Blower



SEE PAR. 3-2 IN SYSTEMS MANUAL

W702

W701

AC

STBY

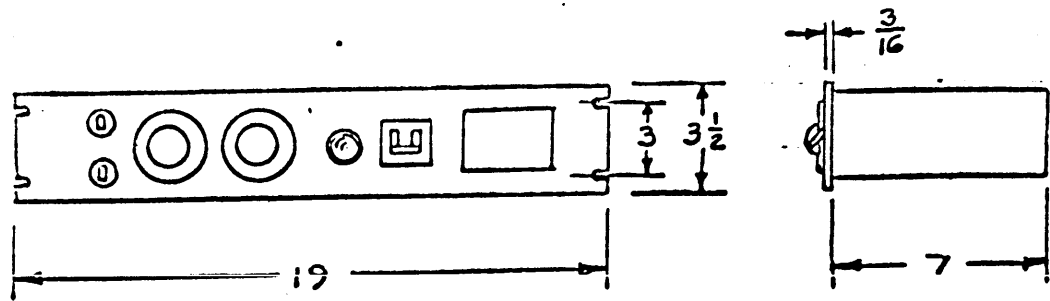
J701

J702

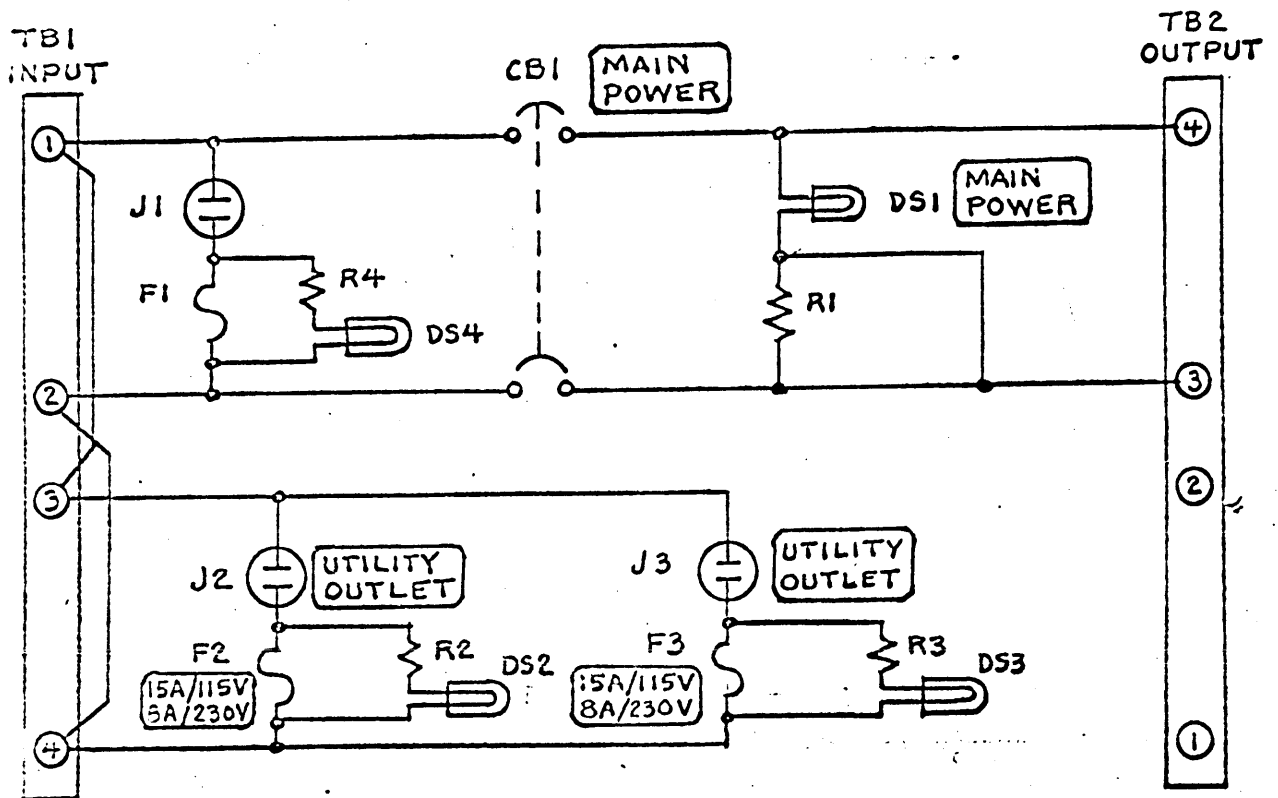
J703

J704

J705

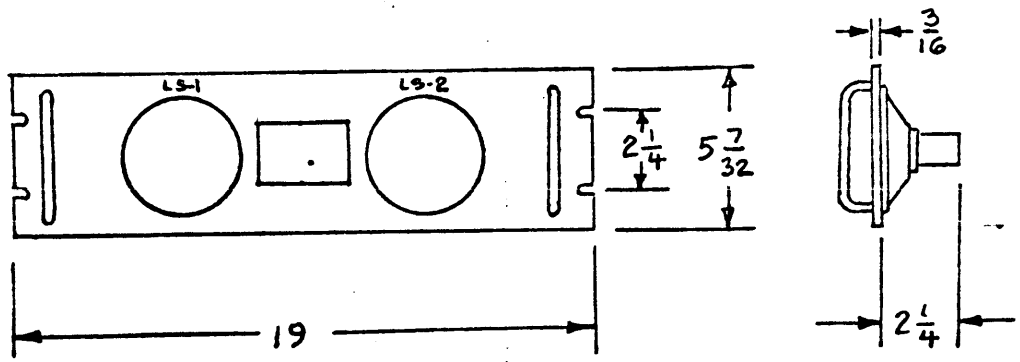


DIMENSIONAL OUTLINE

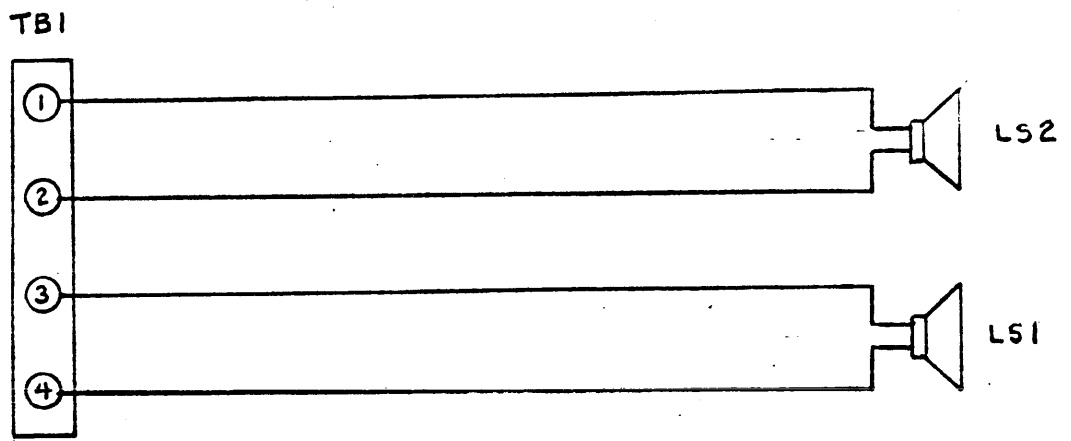


SCHEMATIC WIRING DIAGRAM

FIGURE B. MODEL DCP-2 POWER CONTROL PANEL

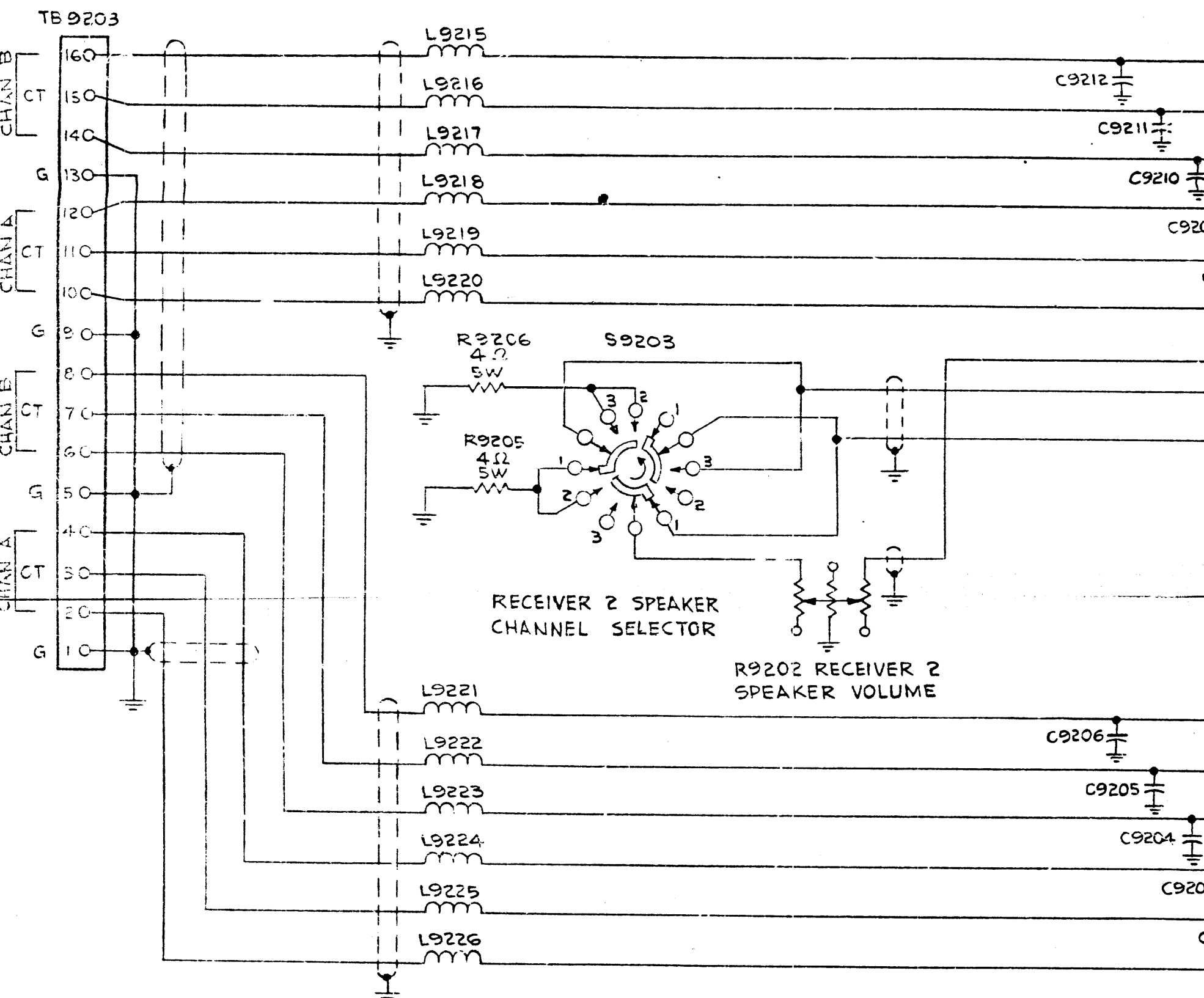
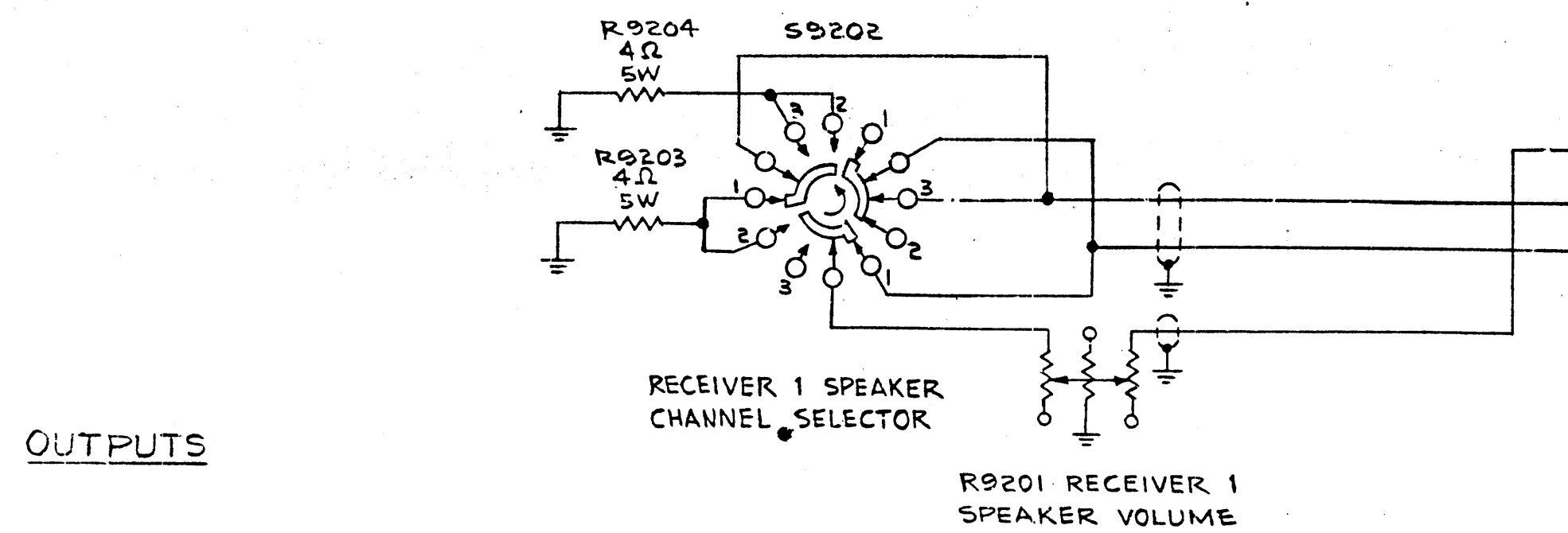


DIMENSIONAL OUTLINE



SCHEMATIC WIRING DIAGRAM

FIGURE C. MODEL LSP-6 SPEAKER PANEL



S9202
S9203

SWITCH POSITION	SPEAKER CHANNEL
1	A
2	OFF
3	B

LAST SYMBOLS

C9213
L9226
R9206
S9203
T9204
TB9203

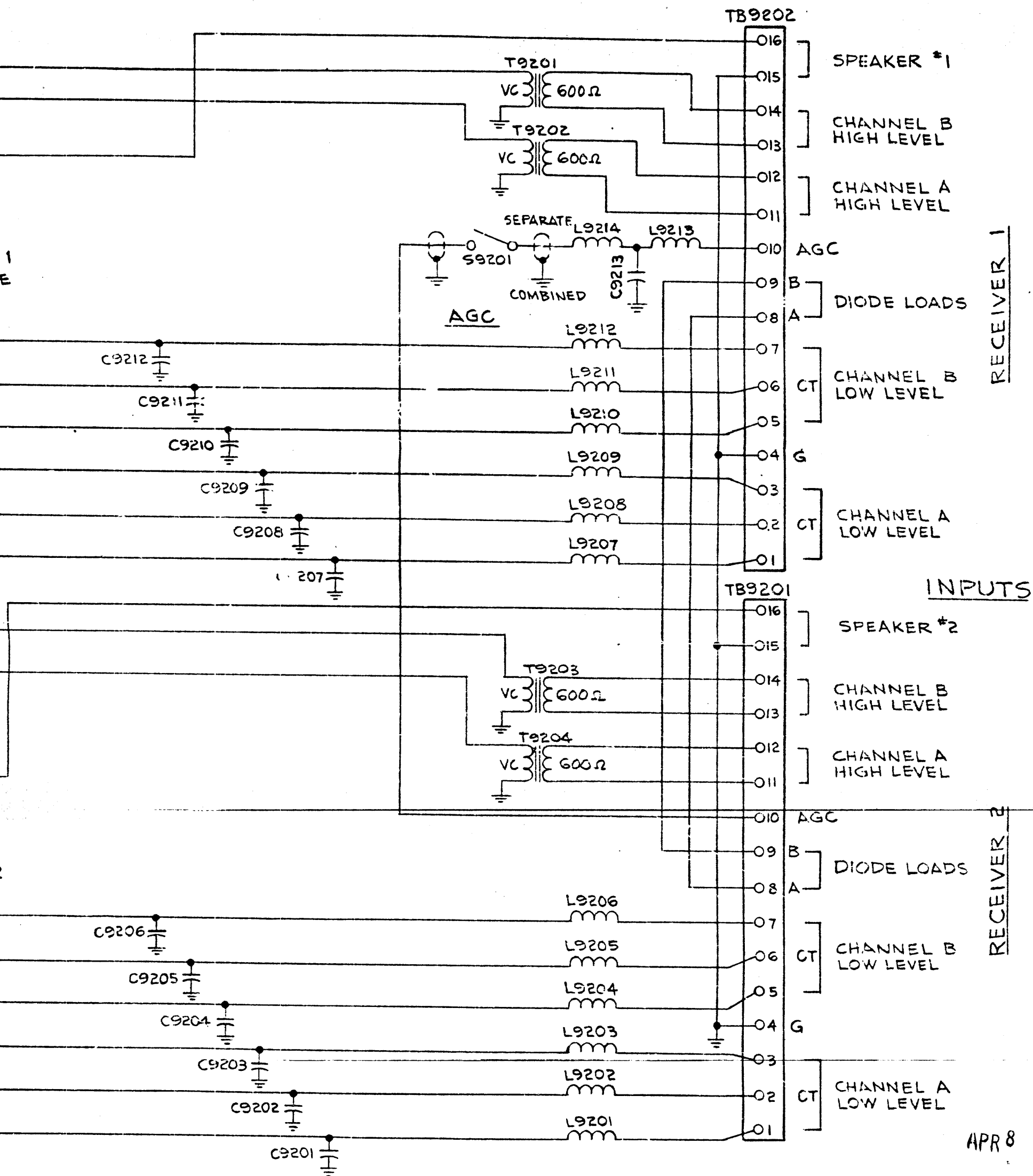
1. ALL SWITCHES SHOWN IN POSITION 1 CHANNEL A.
2. ALL SWITCHES SHOWN FROM WIRED SIDE.
3. ALL CHOKES ARE 10μH.
4. ALL CAPACITORS ARE 510μF.

1	HSP-3
QTY/UNIT	MODEL USED
SCALE	CODE
	A

NOTES

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REVISIONS						
ZONE	SYM	DESCRIPTION	DATE	E.M.N. NO.	DRAFT	CHKD
	0	ORIGINAL RELEASE FOR PRODUCTION	3/19/64			



CK-699

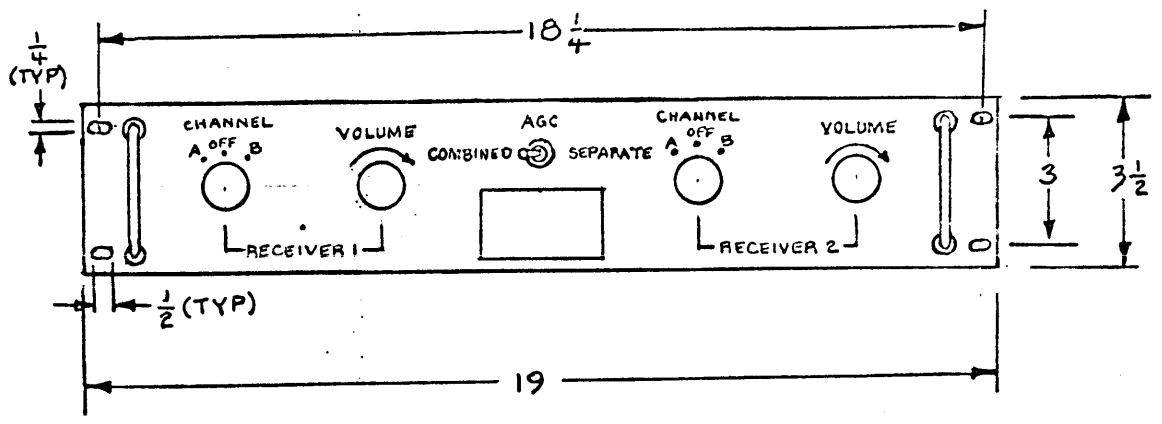
APR 8 1964

CHANNEL A, DE.

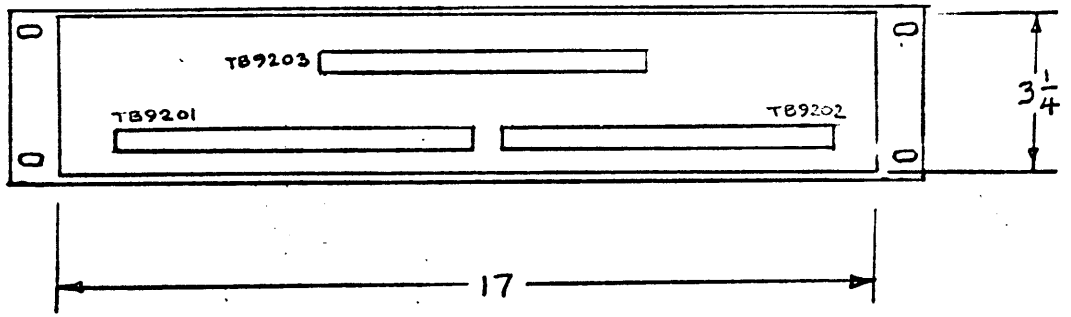
REQ'D.	ITEM	PART NUMBER	DESCRIPTION	SYMBOL
1. JOHNSON LIST OF MATERIAL				
MATERIAL		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK		
FINISH		TITLE DIAGRAM, SCHEMATIC, ELECTRICAL HSP-3		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		DRAWN: <i>[Signature]</i> CHECKED: <i>[Signature]</i> ELECT. DES: <i>[Signature]</i> MECH. DES: <i>[Signature]</i>	DATE: 10-28-63 DATE: 11-1-63 DATE: 2-1-64 DATE: 3-1-64	FINAL APPROVAL: <i>[Signature]</i> DATE: 3-1-64 CK-699 SHEET: <i>[Signature]</i>
DECIMALS X ± .05 XX ± .01 XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	DATE: 3-1-64 SHEET: <i>[Signature]</i> REV. LTR.	

QTY/UNIT	MODEL USED ON	ASSY. NO.
1	HSP-3	
SCALE	CODE	
	A	

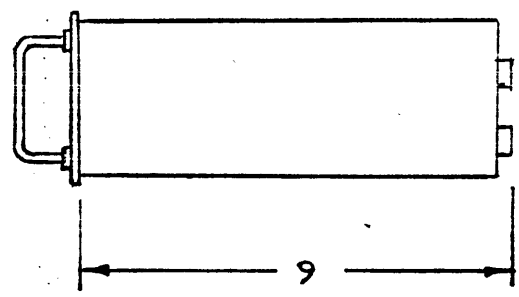
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FRONT VIEW



REAR VIEW



SIDE VIEW

DIMENSIONAL OUTLINE DRAWING

FIGURE D. MODEL HSP-3 AUDIO SWITCH PANEL (SHEET 2 OF 2)

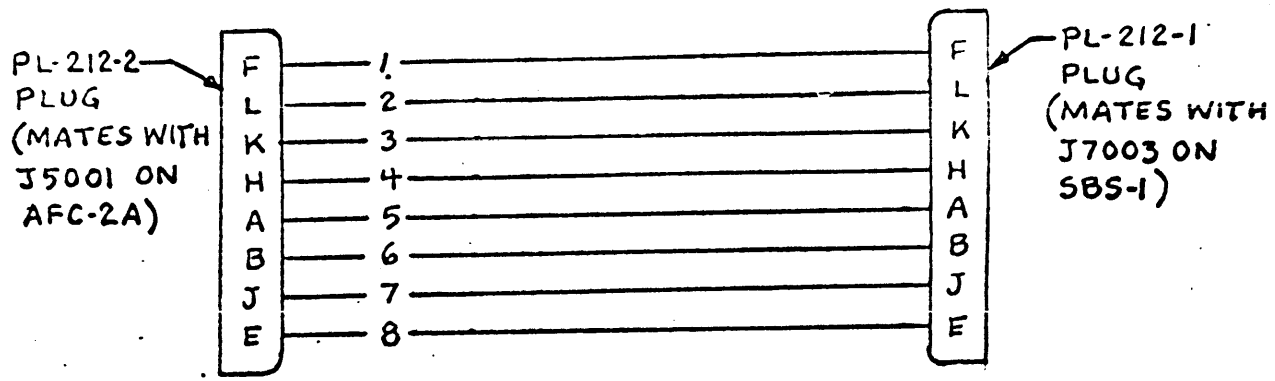


FIGURE E. CA-661 CABLE WIRING DIAGRAM, SBS-I-1 TO AFC-2A

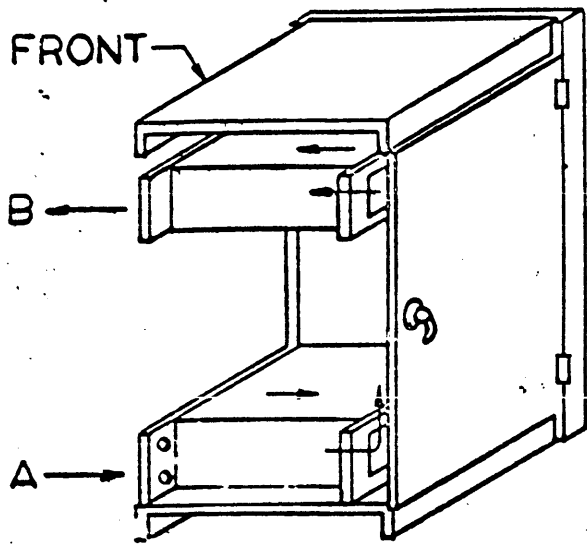


FIG. 1

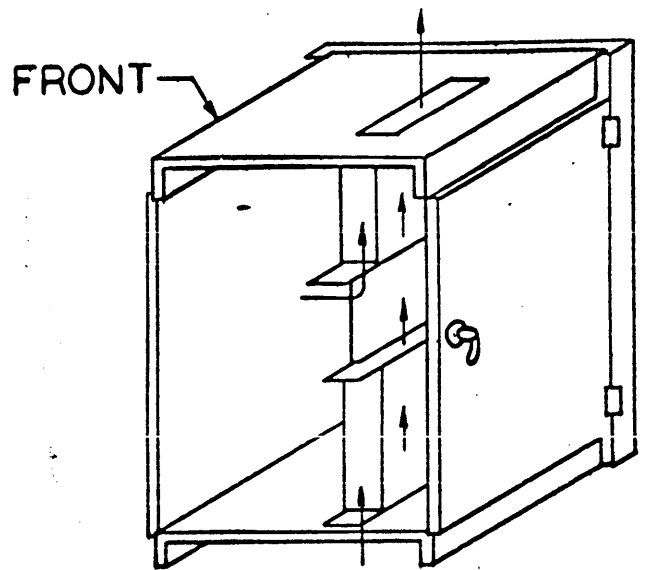


FIG. 2

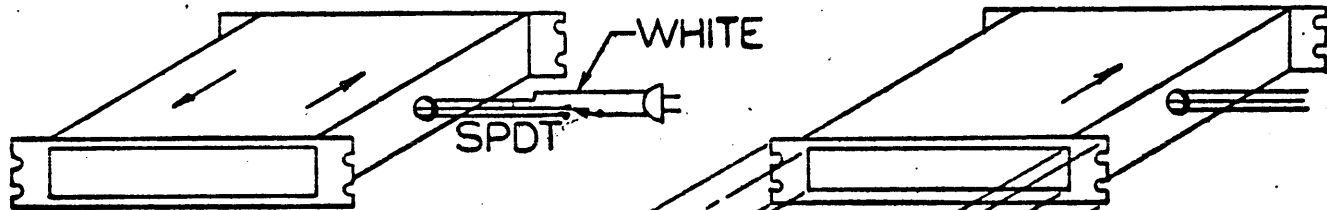


FIG. 3

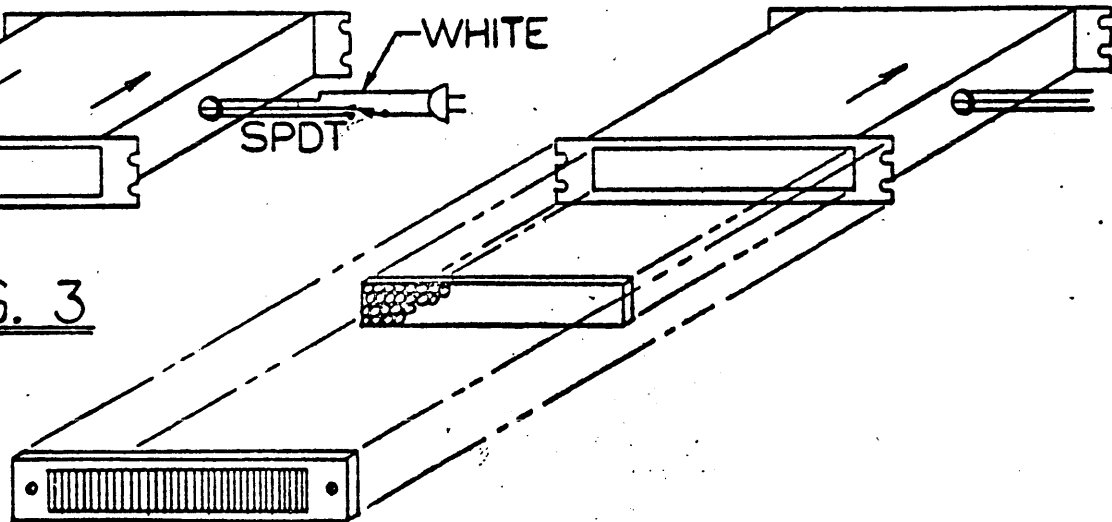


FIG. 4

BUD RADIO INC
CLEVELAND, OHIO

FIGURE F. INSTALLATION DIAGRAMS, BUD RADIO MODEL B-25 BLOWER

DATA SHEET A. BUD "TRANS-AIRE" BLOWER

Instructions for Installation, Operation, and Maintenance of Model B-25 Blower.

The model B-25 Trans-Aire Blower is engineered and designed to reduce the temperature in electronic equipment housings by circulating filtered air. Requiring only 5 1/4" of panel space, this unit will deliver 500 or 250 CFM at 0° static pressure, and will pressurize or exhaust the air in a cabinet.

A 10" dynamically balanced squirrel cage type wheel is directly coupled to a 1/6 H.P. shaded pole two speed motor. The motor and wheel assembly is rubber mounted on heavy duty mounting brackets to minimize vibration and noise.

A removable oil impregnated fibreglass filter is mounted in the blower and is easily replaceable. (Fig.F4) When replacement is required, for best results use Bud BF-26 replacement filter.

The heavy chrome plated grille is mounted over the front of the unit, completely concealing the mounting screws.

1. Installation: To pressurize cabinet, mount unit as shown in "A" of figure F1, with arrow on top of unit pointing to rear of cabinet. Use panel mounting screws included in bag of hardware.
2. To exhaust air from cabinet, mount unit as shown in "B" of figure F1, with arrow on top of unit pointing toward front of cabinet.
3. Vertical Mounting: If it is desirable to mount the unit to the top or bottom of a cabinet, as shown in figure F2, a hole 16 x 4 1/2" is cut in the top or bottom, and the unit is then bolted in place.
4. Electrical Connections: This unit is equipped with a 115 V. 50/60 cycle, 1/6 H.P. shaded pole motor with built-in thermal overload protection. The leads are as follows: white is common, red is low, and black is high. If it is necessary to control the speed of the motor, it can be connected as shown in figure F3.
5. Oil Instructions: Unscrew top plate on blower (Fig.F4) and place a few drops of SAE 20 oil into the oil tube extending up front of motor. This should be done yearly. If this unit is used in continuous operation, oiling should be done bi-yearly.

CAUTION: DO NOT OVER OIL!

6. Specification: Motor, 50/60 cycle, 115 V. - 360 W.
Filter: Disposable fibreglass Part #BF-26
OA Dim: 19" W x 3 1/4" H x 14 1/2" D.
Mounting Notches: WE standard.