

# AMPEG SERVICE MANUAL

## B15S AMPLIFIER

### B-15S AMPLIFIER SPECIFICATIONS

#### Power Output:

60 watts RMS minimum continuous @ less than 3% total harmonic distortion (T.H.D.) into 2, 4, or 8 ohm load over 20 to 20,000 Hertz band

#### Front Panel:

Four inputs  
Volume, bass and treble controls  
Three position response switch  
Power switch  
Standby switch  
Red pilot light  
Amber standby light

#### Rear Panel:

Two speaker output jacks  
Impedance selector switch (2, 4 or 8 ohms)  
Extension amplifier jack  
Hum-balance control

#### Tone Control Range:

Treble  $\pm 12$  dB @ 4,000 Hertz  
Bass  $\pm 12$  dB @ 40 Hertz

#### Response Switch:

Bass position: + 12 dB @ 160 Hertz  
Guitar position: + 15 dB @ 5,000 Hertz

#### Signal to noise ratio (S/N):

-76 dB below full power

#### Frequency Response (1 watt):

$\pm 1$  dB 20 to 20,000 Hz.

#### Sensitivity/Input Impedance:

Channel 1 and 2 input sensitivity is 25 millivolts for full power.

Bright jacks are -9 dB @ 100 Hertz.

#### Extension Amplifier:

Jack is high impedance 25 volts for full output

#### Power Supply Requirements:

Power consumption 170 watts at rated output

#### Dimensions:

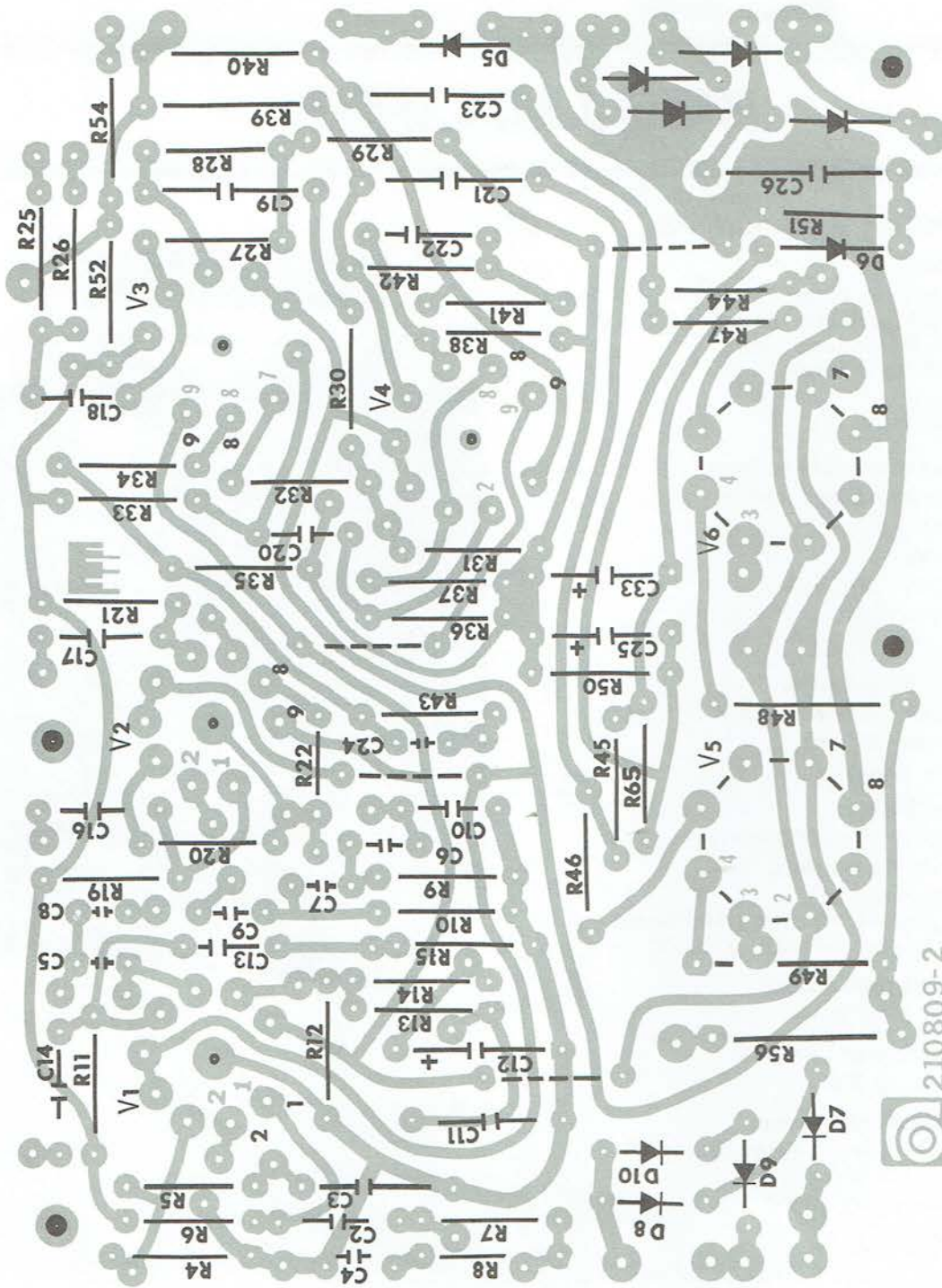
23.8" W x 26" H x 15.6" D  
60.6 cm. x 66 cm. x 39.7 cm.

#### Weight:

110 pounds (50 Kg.)



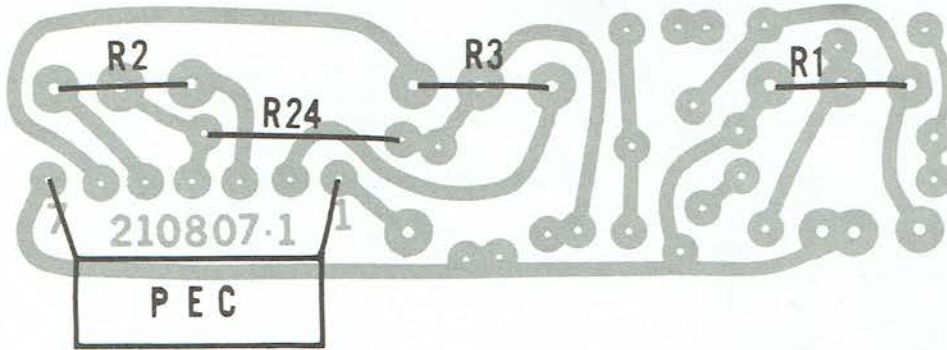
B15S POWER PC BOARD  
(VIEWED FROM COPPER SIDE)



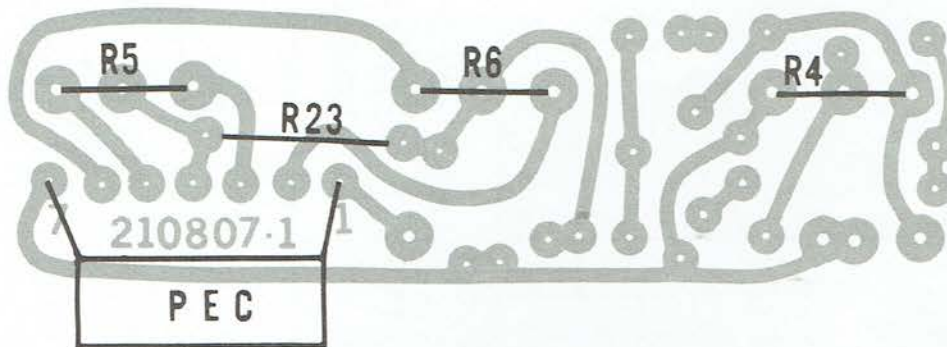
210809-2



B15S TONE PC BOARD — CHANNEL 1  
(VIEWED FROM COPPER SIDE)



B15S TONE PC BOARD — CHANNEL 2  
(VIEWED FROM COPPER SIDE)



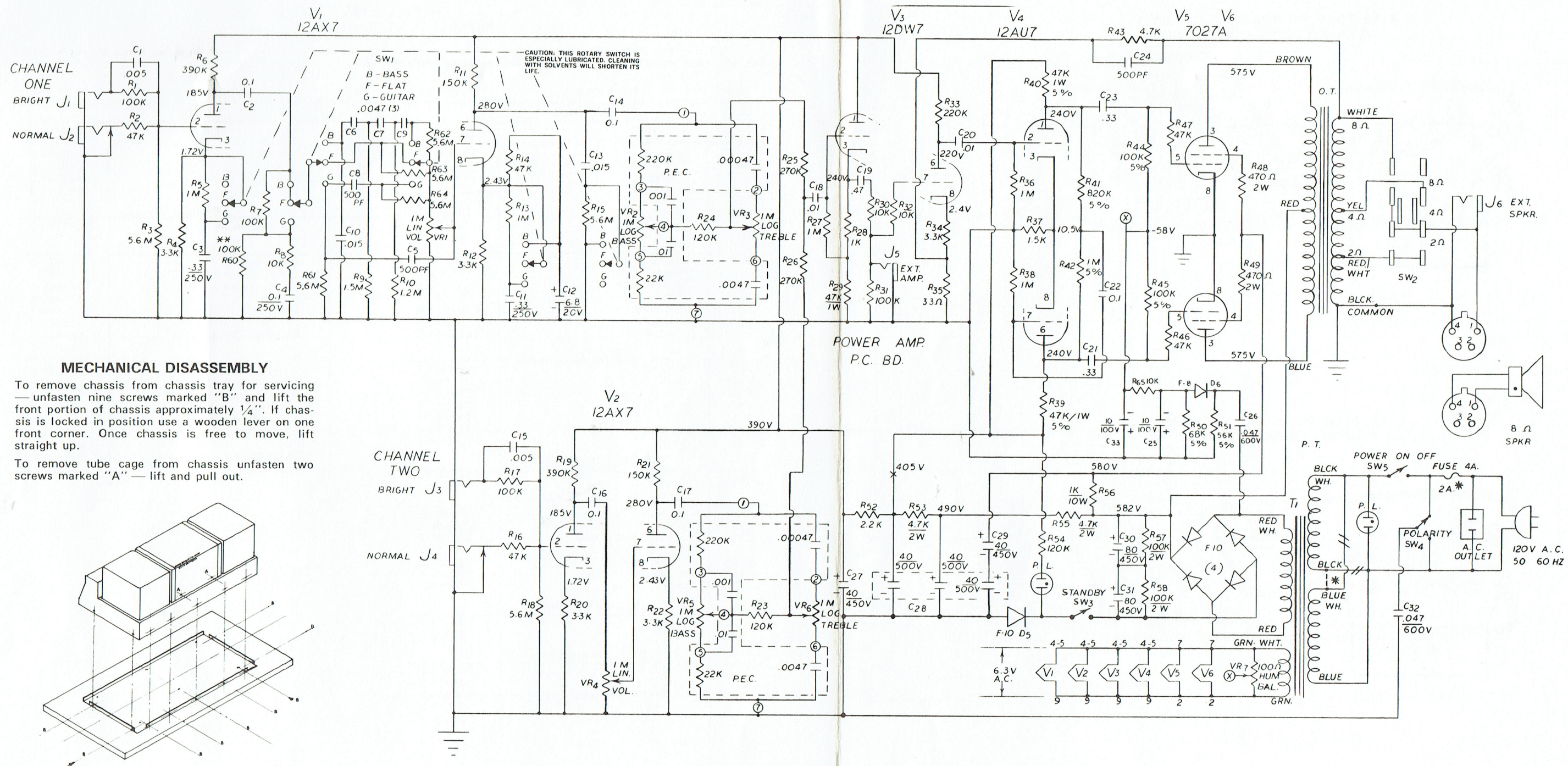
**MODEL B15S  
REPLACEMENT PARTS LIST**

Note: Replacement parts may differ in part number or value from the factory installed part. In either event the replacement part has been chosen to provide equal or improved performance.

REF.	DESCRIPTION	PART NO.	REF.	DESCRIPTION	PART NO.
<b>SWITCHES</b>			<b>TUBES</b>		
SW1	Response	160808-1	V1	12AX7	610256-2
SW2	Impedance	160807-1	V2	12AX7	610256-2
SW3	Standby	160804-10	V3	12DW7	610256-3
SW4	SPST Rocker Polarity	160804-9	V4	12AU7	610256-9
SW5	Power	160804-10	V5	7027A	610257-3
<b>FUSES</b>			V6	7027A	610257-3
F1	4A	181021-1400	<b>SPEAKER</b>		
F2	6A	181574-7		15" 8 Ohm 54 oz.	580154-1
	Fuse Holder	181576-2	<b>MISC.</b>		
<b>JACKS</b>				Grill Fastener	103471-3
J1	Bright Input	181573-4		2 Tab Corner	121462-1
J2	Normal Input	181573-2		3 Tab Corner	121463-1
J3	Bright Input	181573-4		Glide	121465-1
J4	Normal Input	181573-2		Foot Cup	121466-1
J5	Ext. Amp	181573-6		Handle	121467-2
J6	Ext. Speaker Cabinet	181573-3		Portaflex Clamp	121470-1
<b>CONTROLS</b>				Knob	142902-1
VR1	Volume	220663-3		Logo	142911-2
VR2	Bass	220663-4		9 Pin Tube Socket	181570-1
VR3	Treble	220663-4		8 Pin Tube Socket	181570-2
VR4	Volume	220663-3		9 Pin Shielded Socket	181570-3
VR5	Bass	220663-4		Red Pilot Light	181572-5
VR6	Treble	220663-4		Amber Pilot Light	181572-6
VR7	Hum	220664-1		AC Outlet	181581-2
<b>WIREWOUND RESISTORS</b>				PEC	250762-1
R56	1K 5W	240080-73		Shock Mount	643404-2
<b>ELECTROLYTIC CAPACITORS</b>				Tube Cage	732320-1
C12	6.8MFD 20V	270563-3			
C25	10MFD 100V	270560-2			
C28	40x40x40MFD 500V	270561-2			
C29	40MFD 450V	270562-7			
C30	100x40MFD 450V	270561-8			
C31	100x40MFD 450V	270561-8			
C33	10MFD 100V	270560-2			
<b>TRANSFORMERS</b>					
	Power	300713-1			
	Output	320824-1			
<b>SEMICONDUCTORS</b>					
D1	1A 1000 PIV Diode	530555-2			
D2	1A 1000 PIV Diode	530555-2			
D3	1A 1000 PIV Diode	530555-2			
D4	1A 1000 PIV Diode	530555-2			
D5	1A 1000 PIV Diode	530555-2			
D6	1A 800 PIV Diode	530555-1			
D7	1A 1400 PIV Diode	530148-1003			
D8	1A 1400 PIV Diode	530148-1003			
D9	1A 1400 PIV Diode	530148-1003			
D10	1A 1400 PIV Diode	530148-1003			



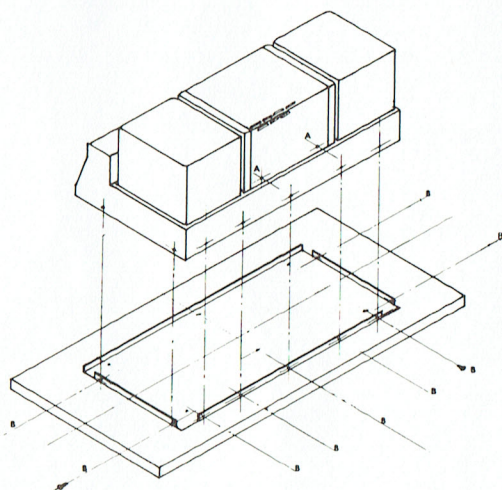
MODEL B15S SCHEMATIC DIAGRAM (REV. C)



**MECHANICAL DISASSEMBLY**

To remove chassis from chassis tray for servicing — unfasten nine screws marked "B" and lift the front portion of chassis approximately 1/4". If chassis is locked in position use a wooden lever on one front corner. Once chassis is free to move, lift straight up.

To remove tube cage from chassis unfasten two screws marked "A" — lift and pull out.



**A.C. VOLTAGE READINGS**

Note: Readings taken using 10 Meg. input impedance VTVM with Treble and Bass controls set at mid-position.

INPUT: 0.3V A.C. at 400 Hz

OUTPUT: 6.325V at 2 Ohms 3/4 Output Power  
8.95 V at 4 Ohms 3/4 Output Power  
12.65 V at 8 Ohms 3/4 Output Power

REF.	TUBE	PIN NO.								
		1	2	3	4	5	6	7	8	9
V1	12AX7	10V	.3		Fil	Fil	5.8	.5		Fil
V2	12AX7	10V	.3		Fil	Fil	5.8	.5		Fil
V3	12DW7		.32	.3	Fil	Fil	3.5	.28		Fil
V4	12AU7	3.8V	3.4		Fil	Fil	38	3.4		Fil
V5	7027A				Fil		250			Fil
V6	7027A				Fil		250			Fil

**NOTES: UNLESS OTHERWISE SPECIFIED**

1. Capacitance values are in microfarads, 10%, 400V.
2. Resistors are 1/2W, 10%, composition.
3. D.C. voltages with no signal applied using a 20,000 ohm/volt voltmeter.
4. D.C. voltages are positive with respect to chassis ground.
5. Resistors R60, 61, 62, 63, & 64 are on SW1.
6. \* Indicates export version only.
7. Actual circuit may vary due to normal production changes.

**WARNING**

For maximum safety, reliability and performance, all parts must be replaced by those having identical specifications. Under no circumstances may the original design be modified or altered without permission from the Ampeg Company.