

# Ampeg

**B-12-XT**  
**B-18-X**

TRADE NAME	Model B-12-XT, B-18-X
MANUFACTURER	The Ampeg Co., Industrial Park, Linden, NJ
TYPE SET	Audio amplifier / two channels /
TUBES	7027A, 7027A, 7199, 12AX7, 12AX7, 12AX7, 12AX7 6CG7, 5AR4
POWER SUPPLY	117v A.C. 50/60 cycles Rating 2 Amp. USA
POWER SUPPLY	240v A.C. 50/60 cycles Rating 1 Amp. EXPORT
POWER OUTPUT	50 watts

TRANSFORMER

/Audio output/

Part No.	Impedance		D.C. Resistance	
	Pri.	Sec.	Pri.	Sec.
A-470 or A-471	4.3K	8 ohms 16 ohms	200 ohms 300 ohms	.4 ohms .7 ohms

TRANSFORMER

/Power/

USA

Part No.	Rating			
	Pri.	Sec. 1	Sec. 2	Sec. 3
PT-12-XA	117v A.C. 50/60 cyc.	800v AC C.T. 200ma DC	5v A.C. 3 Amp.	6.3v AC 5 Amp.

TRANSFORMER

/Power/

EXPORT

Part No.	Rating			
	Pri.	Sec. 1	Sec. 2	Sec. 3
PT-12-XA-240	240v A.C. 50/60 cyc.	800v AC C.T. 200ma DC	5v A.C. 3 Amp.	6.3v AC 5 Amp.

SPEAKER

Model	Part No.	Rating		
		Size	Field	V.C. Impedance
B-12-XT	EM-1202 or C-12-N	12"	P.M.	8 ohms
B-18-X	RP-103B Fane No. 183	7- <sup>5</sup> / <sub>16</sub> " x 3" 18"	P.M. P.M.	16 ohms 16 ohms

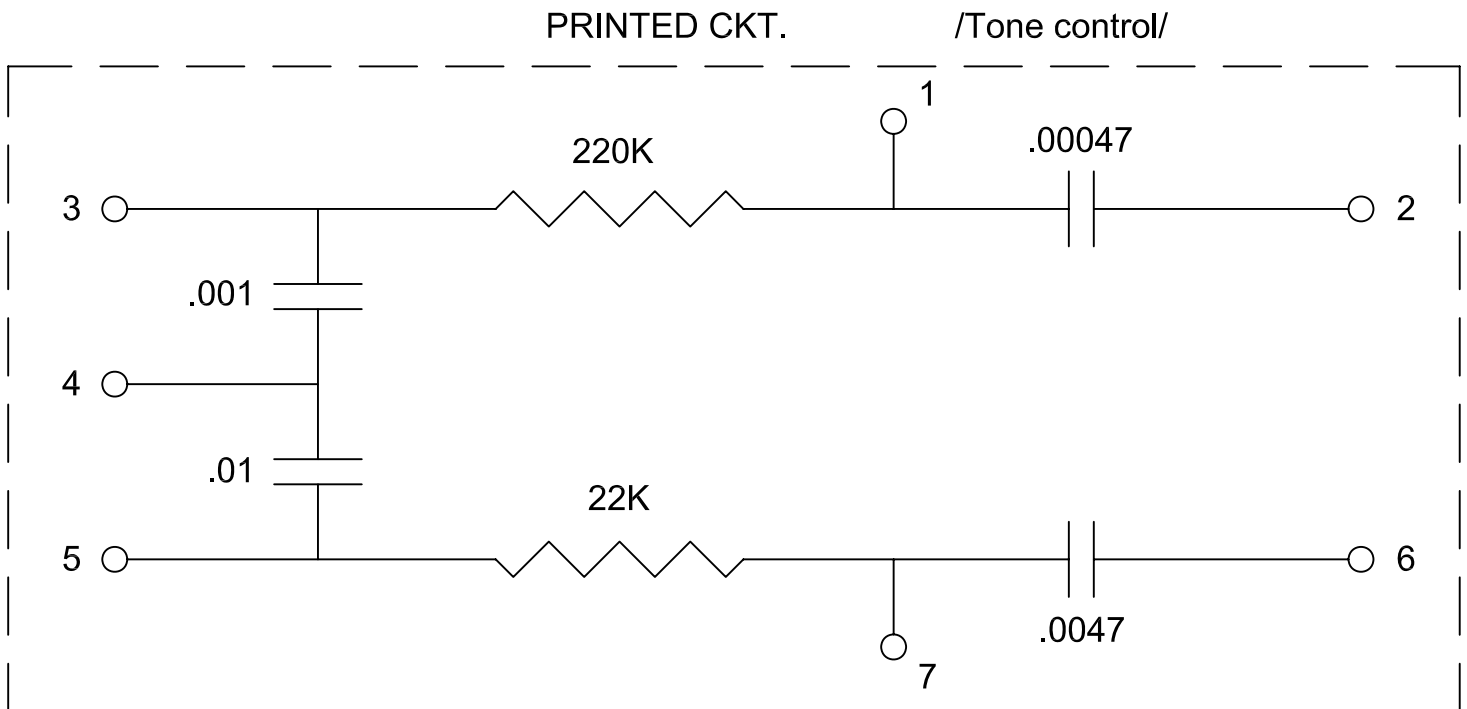
D.C. VOLTAGE READINGS /no signal inserted/

Item	Tube	Pin number								
		1	2	3	4	5	6	7	8	9
V1	7027A	470v	Fil.	490v	470v	-44v	NC	Fil.	0v	
V2	7027A	470v	Fil.	490v	470v	-44v	NC	Fil.	0v	
V3	7199	330v	108v	46v	Fil.	Fil.	*	0v	104v	52v
V4	12AX7	180v	0v	2v	Fil.	Fil.	140v	0v	1.4v	Fil.
V5	12AX7	180v	0v	2v	Fil.	Fil.	180v	0v	2v	Fil.
V6	12AX7	220v	0v	60v	Fil.	Fil.	180v	0v	2v	Fil.
V7	12AX7	185v	0v	1.6v	Fil.	Fil.	152v	0v	1v	Fil.
V8	6CG7	355v	0v	11.3v	Fil.	Fil.	210v	0v	63v	
V9	5AR4		500v					500v		

\* 1.4v with speaker plug connected to the cabinet  
4v with speaker plug disconnected from cabinet

Nominal tolerance on component values makes possible a variation of  $\pm 5\%$  in voltage readings.

Voltage reading with  $20,000\Omega$  / volt meter.



## RESISTANCE READINGS

Item	Tube	Pin number									
		1	2	3	4	5	6	7	8	9	
V1	7027A	x 1K	Fil.	x 80 $\Omega$	x 1K	130K	130K	Fil.	0 $\Omega$		
V2	7027A	x 1K	Fil.	x 80 $\Omega$	x 1K	130K	130K	Fil.	0 $\Omega$		
V3	7199	x 50K	x 310K	150K	Fil.	Fil.	*	500K	47K	3.3M	
V4	12AX7	x 185K	**	3.3K	Fil.	Fil.	x 310K	***	3.3K	Fil.	
V5	12AX7	x 310K	590K	5.6K	Fil.	Fil.	x 185K	#	3.3K	Fil.	
V6	12AX7	x 70K	1.5M	47K	Fil.	Fil.	x 310K	590K	5.6K	Fil.	
V7	12AX7	x 550K	##	3.3K	Fil.	Fil.	x 150K	###	1K	Fil.	
V8	6CG7	x 11K	220K	1K	Fil.	Fil.	x 70K	1.5M	47K	n.c.	
V9	5AR4		0 $\Omega$		####		####		0 $\Omega$		

\* Infin. with speaker plug disconnected from cabinet  
2.3K with speaker plug connected to cabinet

\*\* 0 $\Omega$  to 1M depending on the position of Volume control /channel one/

\*\*\* 22K with echo output lead disconnected from Echo Unit  
1.8K with echo output lead connected to Echo Unit

# 0 $\Omega$  to 1M depending on the position of Volume control /channel two/

## 0 $\Omega$  with vibrato foot switch closed  
270K with vibrato foot switch open

### 600K with Echo Switch on the position "Both"  
400K with Echo Switch on channel one position.  
350K with Echo Switch on channel two position.

#### 156K with Standby switch open  
50 $\Omega$  with Standby switch closed

Nominal tolerance on component values makes possible a variation of  $\pm 10\%$  in resistance readings.

Measured values are from socket pin to common negative, except those marked x are measured from pin 8 of V9 - 5AR4

\*\*\*\*\*

RESISTORS ARE  $\pm 10\%$  1/2 watt unless specified.

\*\*\*\*\*

CAPACITORS - paper and ceramic in  $\mu\text{fd}$  400v unless specified.

## TUBES

Item	Tube	Use
V1	7027A	Audio output
V2	7027A	Audio Output
V3	7199	1/2 Voltage amplifier, 1/2 Phase inverter
V4	12AX7	a/ pre-amplifier (channel one) b/ echo amplifier
V5	12AX7	a/ pre-amplifier (channel one) b/ pre-amplifier (channel two)
V6	12AX7	a/ vibrato modulator b/ pre-amplifier (channel two)
V7	12AX7	a/ vibrato oscillator b/ voltage amplifier (echo channel)
V8	6CG7	a/ echo driver b/ vibrato modulator
V9	5AR4	Rectifier

## CONTROLS

Item	Resistance	Type	Watts	Notes
Volume	1M	Log.	1/2	
Treble	1M	Lin.	1/2	
Bass	1M	Lin.	1/2	
Dimension	500K	Lin.	1/2	
Speed	500K	Lin.	1/2	
Intensity	500K	Lin.	1/2	
Hum	100 $\Omega$	Lin.	2	

All controls  $\pm$  10%

## MISCELLANEOUS

Item	Notes
Guitar jack	Input jack, open ckt. /channels one & two/
Accordion jack	Input jack, closed ckt. /channels one & two/
Foot switch jack	Stereo jack, open ckt.
Ext. amp. jack	Open ckt.
Ext. speaker jack	Single ckt., make-break
Fuse	AGC 4 Amp. 250v
On-Off	Power switch SPST 250v 3 Amp. 117v 6 Amp.
Standby	Standby switch SPST 250v 3 Amp. 117v 6 Amp.
Ground switch	Polarity switch SPST 250v 3 Amp. 117v 6 Amp.
P.L.	Pilot light 6.3v AC #1847
10D6	Silicon diode 600 P.I.V. 1 Amp.
Echo, vibrato sw.	Foot switch SPST
Echo Unit	Reverberation unit. Type 4-C
Echo selector sw.	SPDT Center off switch #222-17199-1

NOTE: OT-470 transformer color code:

Primary:

Blue (to V2 plate)

Blue/white (to V1 plate)

Red C.T.

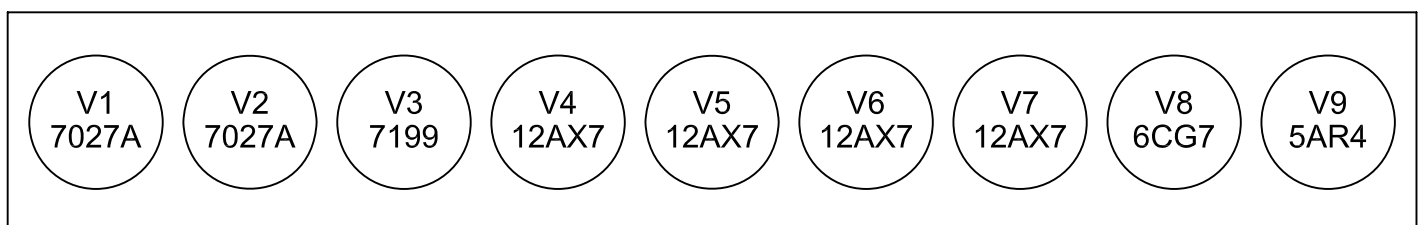
Secondary:

Yellow - 16 ohms

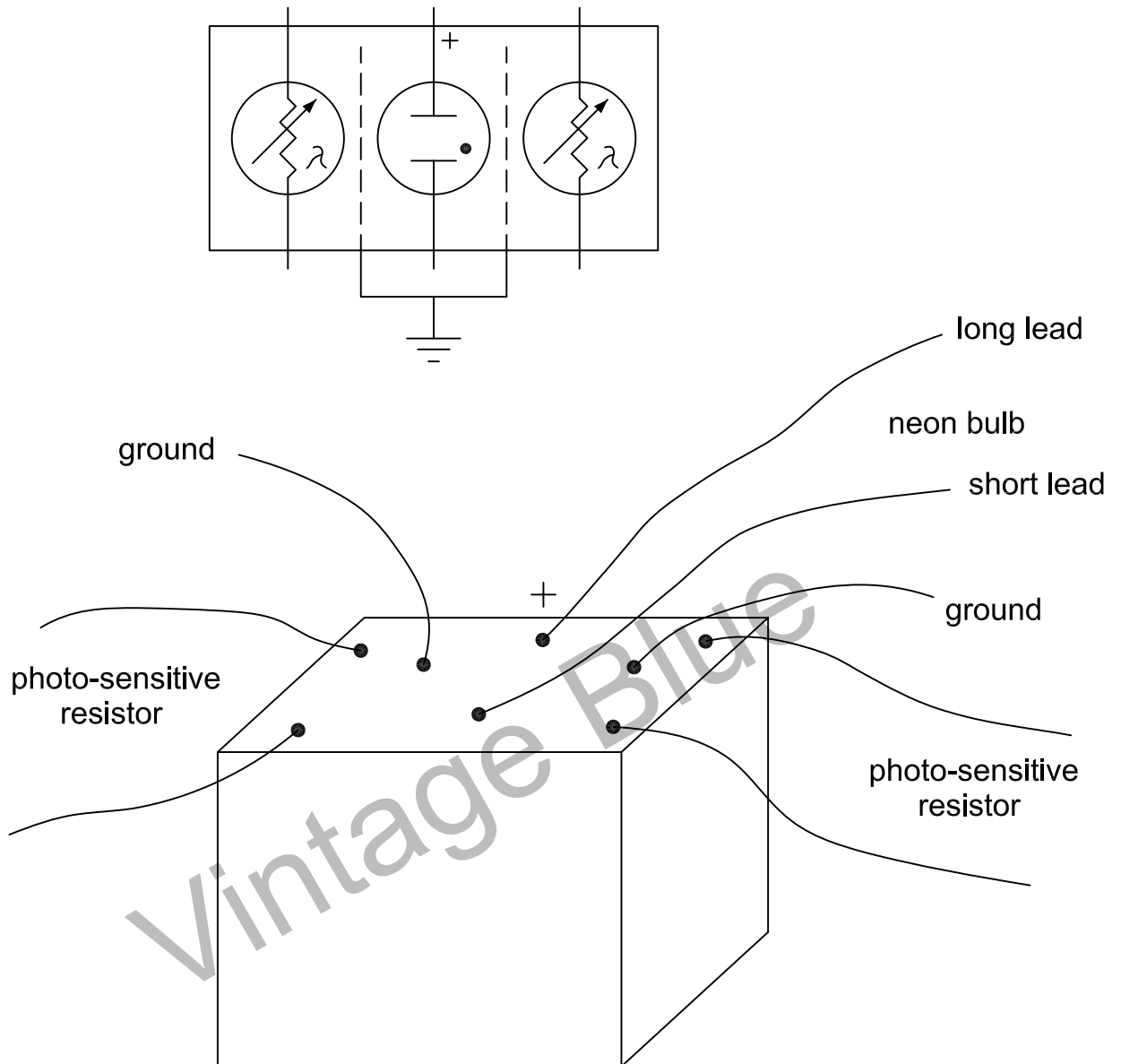
Green - 8 ohms

Black - ground

## TUBE LOCATION



## TROUBLE SHOOTING VM-1 MODULE



Voltage across neon bulb with Intensity control at minimum setting should measure 50 to 60 volts D.C.

Excessive voltage indicates open or weak bulb. Low voltage usually indicates a defect in oscillator circuit.

Resistance of photo-sensitive resistor with Intensity control at minimum setting should be 100K to 300K. Make this measurement with set turned on and both leads of photo-sensitive resistor disconnected from terminal board.

A much higher or infinite resistance on either photo-sensitive resistor indicates either that the photo-sensitive resistor is defective or the bulb is not lit.

A replacement may be obtained from the Ampeg co. for the VM-1 module if these tests prove it defective.

