

Marshall

JCM 800

SERVICE

MANUAL

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Unicord.

a Division of Gulf + Western Manufacturing Company
89 Frost Street, Westbury, N.Y. 11590

1986 50W BASS AMP

INPUT SENSITIVITY: Controls flat, mid sweep at 1kHz
Top input: 6mV RMS, (overload level 400mV RMS)
Bottom input: 12mV RMS, (overload level 1.5V RMS)
(Input frequency 1kHz)

POWER OUTPUT: In excess of 50W RMS typical power at clipping into
4, 8, 16 ohm load (measured at 1kHz)
Average distortion, 3%

TONE RANGE

Treble: +23dB, -25dB at 10kHz
Middle: -18dB sweepable between 400Hz and 1kHz
Bass: +17dB, -17dB at 50Hz
Slope: -20dB at 50Hz, corner frequency 400Hz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240VAC, 40/60Hz
Max, consumption: 175 Watts
Power fuse: *T3A for 120V; T2A for 220/240V
H.T. fuse: T500MA

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "Slo Blo" fuses of equivalent rating may be substituted for "T" series fuses. (eg., 3AB $\frac{1}{2}$ "Slo Blo" may be substituted for T500MA; MDA3 for T3A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3: ECC83/12AX7
Output power tubes V4, 5: 6550 in USA; ES34 or KT77 elsewhere

1959 100W STANDARD LEAD AMP

INPUT SENSITIVITY: (at 1 kHz) all controls full, top input

Channel I: 1mV (overload level 250mV)
Channel II: 1.5mV (overload level 250mV)

Bottom inputs have a 6dB attenuation in sensitivity.

POWER OUTPUT:

115 Watts RMS typical power at clipping into
4, 8, 16 ohms (at 1kHz)
Distortion: 4%
Typical output power at 10% distortion 170 Watts into
4 ohms

TONE RANGE

Channel I has 10dB/decade rising treble slope with automatic low volume
brightness circuit.

Channel II has flat response

Treble: 35dB at 10kHz
Middle: 9.5dB at 600Hz
Bass: 15dB at 50Hz
Presence: 6dB at 3kHz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 Vac, 50/60Hz
Max. Consumption: 375 Watts
Power fuse: *T4A for 120V; T2A for 220/240V
H.T. fuse: T1A

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "SloBlo" fuses of equivalent rating
may be substituted for "T" series fuses. (eg., 3AB1 "SloBlo" may be
substituted for T1A; MDA4 for T4A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3: ECC83/ 12AX7
Output power tubes V4, 5, 6, 7: 6550 for USA (EL34, KT77 elsewhere)

1987 50W STANDARD LEAD AMP

INPUT SENSITIVITY: (at 1kHz) all controls full top input

Channel I 1mV (overload level 150mV)
Channel II 1.5mV (overload level 150mV)

Bottom inputs have a 6dB attenuation in sensitivity

POWER OUTPUT: In excess of 50 Watts RMS typical power at clipping into 4, 8, or 16 ohms (at 1kHz)
Average distortion: 3%
Typical output power at 10% distortion 90W RMS into 16 ohms

TONE RANGE

Channel I has a 10dB/decade rising treble slope with automatic low volume brightness circuit.

Channel II has flat response

Treble: 26dB at 10kHz
Middle: 9.5dB at 600Hz
Bass: 15dB at 50Hz
Presence: 6dB at 3kHz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 Vac, 40/60Hz
Max. consumption 175 Watts
Power fuse: *T3A for 120V; T2A for 220/240V
H.T. fuse: T500MA

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "SloBlo" fuses of equivalent rating may be substituted for "T" series fuses. (et., 3AB $\frac{1}{2}$ "SloBlo" may be substituted for T500MA; MDA3 for T3A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3, ECC83/12AX7
Output power tubes V4, 5, 6550 for USA (E134, KT77 elsewhere)

2204 50W MASTER VOLUME LEAD AMP

2104 50W MASTER VOLUME LEAD AMP

INPUT SENSITIVITY:

High:

Low:

(at 1kHz) all controls full

0.1mV (overload level max. 150mV, min 1mV)

17mV (overload level infinity)

POWER OUTPUT

In excess of 50W RMS typical power at clipping into
4, 8, or 16 ohms (at 1kHz)

Average distortion: 3%

Typical output power at 10% distortion, 90W RMS into 16 ohms.

TONE RANGE

Treble

Middle:

Bass:

Presence:

32dB at 10kHz

9.5dB at 500Hz

15dB at 50Hz

6dB at 3kHz

POWER SUPPLY REQUIREMENTS

Power input

Max. consumption:

Power fuse:

H.T. fuse:

120/220/240 Vac, 50/60Hz

175 Watts

*T3A for 120V; T2A for 220/240V

T500MA

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "SloBlo" fuses of equivalent rating may be substituted for "T" series fuses. (eg., 3AB $\frac{1}{2}$ "SloBlo" may be substituted for T500MA; MDA3 for T3A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3,: ECC83/12AX7

Output power tubes V4, 5: 6550 for USA (EL34, KT77 elsewhere)

2203 100W MASTER VOLUME LEAD AMP

2103 100W MASTER VOLUME LEAD AMP

INPUT SENSITIVITY: (at 1 kHz) all controls full
High: 0.15mV (overload level: max. 150mV, min. 1mV)
Low: 10mV (overload level infinity)

POWER OUTPUT: 115W RMS typical power at clipping into 4, 8, 16, ohms
Distortion: 4%
Typical output power at 10% distortion, 170W into 4 ohms

TONE RANGE

Treble: 35dB at 10kHz
Middle: 9.5dB at 600Hz
Bass: 15dB at 50Hz
Presence: 6dB at 3kHz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 Vac, 40/60Hz
Max. consumption: 375 Watts
Power fuse: *T4A for 120V; T2A for 220/240V
H.T. fuse T1A

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "SloBlo" fuses of equivalent rating may be substituted for "T" series fuses. (eg., 3AB1 "SloBlo" may be substituted for T1A; MDA4 for T4A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3: ECC83/12AX7
Output power tubes V4, 5, 6, 7: 6550 for USA (EL34, KT77 elsewhere)

1959 100W STANDARD LEAD AMP

INPUT SENSITIVITY: (at 1 kHz) all controls full, top input

Channel I: 1mV (overload level 250mV)

Channel II: 1.5mV (overload level 250mV)

Bottom inputs have a 6dB attenuation in sensitivity.

POWER OUTPUT: 115 Watts RMS typical power at clipping into
4, 8, 16 ohms (at 1kHz)
Distortion: 4%
Typical output power at 10% distortion 170 Watts into
4 ohms

TONE RANGE

Channel I has 10dB/decade rising treble slope with automatic low volume brightness circuit.

Channel II has flat response

Treble: 35dB at 10kHz

Middle: 9.5dB at 600Hz

Bass: 15dB at 50Hz

Presence: 6dB at 3kHz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 Vac, 50/60Hz

Max. Consumption: 375 Watts

Power fuse: *T4A for 120V; T2A for 220/240V

H.T. fuse: T1A

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "SloBlo" fuses of equivalent rating may be substituted for "T" series fuses. (eg., 3AB1 "SloBlo" may be substituted for T1A; MDA4 for T4A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3: ECC83/ 12AX7

Output power tubes V4, 5, 6, 7: 6550 for USA (EL34, KT77 elsewhere)

4140 100W TWIN CHANNEL REVERB 2 x 12" COMBO

4145 100W TWIN CHANNEL REVERB 2 x 12" COMBO

CHANNEL I

INPUT SENSITIVITY: (at 1kHz) all controls full except reverb, boost off
High: 3.5mV (overload level 600mV)
Low: -6dB (referred to high input)

GAIN BOOST: +11dB (footswitch only operates with panel switch off)

TONE RANGE

Treble: 40dB at 10kHz
Middle: 15dB at 400Hz
Bass: 34dB at 40Hz
Bright: +16dB at 10kHz (decreasing with increasing volume control position)

REVERB: 3 sec. decay +17dB insertion gain
Hammond-type 4 spring unit

CHANNEL II

INPUT SENSITIVITY: (at 1kHz) all controls full
High: 30mV
Low: -6dB

TONE RANGE

Treble: 37dB at 10kHz
Middle: 17dB at 450Hz
Bass: 34dB at 50Hz

POWER OUTPUT (at 1kHz) Typical power at clipping 120W RMS into 4, 8, or 16 ohms
Average distortion, 4%
Master volume control is integral with power amp and effectively reduces the clip point of the power stage.

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 vac, 40/60Hz
Max. consumption: 275 Watts
Power fuse: *T4A for 120V; T2A for 220/240V
H.T. fuse: T1A

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "Slo Blo" fuses of equivalent rating may be substituted for "T" series fuses.

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3, V6, 7: ECC83/12AX7
Output power tubes V4, 5, V8, 9: 6550 for USA (KT77 elsewhere)

FOOTSWITCH: Remote switching for gain boost and reverb

LOUDSPEAKERS:

4140: Specially selected Celestion 12" 80Watt
4145: Specially selected Celestion 10" 50Watt

1992 100W BASS AMP

INPUT SENSITIVITY: Controls flat, mid sweep at 1kHz
Top input: 12MV RMS (overload level 400MV)
Bottom input: 24MV RMS (overload level 2V RMS)
(Input frequency 1kHz)

POWER OUTPUT: 135W RMS typical power at clipping (measured at 1kHz)
Average distortion, 3%

TONE RANGE

Treble: +23dB, -25dB at 10kHz
Middle: 18dB sweepable between 400Hz and 1kHz
Bass: +17dB, -17dB at 50Hz
Slope: -20dB at 50Hz, corner frequency 400Hz

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240Vac, 40/60Hz
Max consumption: 375 Watts
Power fuse: *T4A for 120V; T2A for 220/240V
H.T. fuse: T1A

*NOTE: Bussman MDA, MDL or Littelfuse 3AB "Slo Blo" fuses of equivalent rating may be substituted for "T" series fuses. (eg., 3AB1 "Slo Blo" may be substituted for T1A; MDA 4 for T4A; etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3: ECC83, 12AX7
Output power tubes V4-V7: 6550 in USA; EL34 or KT77 elsewhere

2000 200W LEAD AMPCHANNEL I

Sensitivity: 0.7mV RMS at 1kHz (tone controls full)
 Treble: 28dB at 10kHz
 Middle: 12dB at 600Hz
 Bass: 24dB at 100Hz
 Presence: 13dB at 5kHz

Treble and bass swing measured with mid down

CHANNEL II

Sensitivity: 0.4mV RMS at 1kHz (tone controls full)
 Treble: 40dB at 10kHz (Sweep, low)
 Middle: 12dB dependant on sweep control
 Bass: 25dB at 100Hz (Sweep, high)
 Sweep: 400Hz to 1kHz

Treble and bass swing measured with mid down

EFFECTS LOOP LEVEL

Channels I and II: 120mV; Mix: 100mV
 Minimum effects input impedance of 10kilohms
 Effects return input impedance of 10kilohms

PREAMP OUTPUT LEVEL: 100mV

D.I. "DIRECT BOX" OUTPUT

OdBM balanced into 600 ohms with reference to full output. Ground lift switch provided.

POWER OUTPUT: 250W at clipping into 4 or 8 ohms

Channel Indication: Light emitting diode

Remote Switching: Channel switching by remote footswitch controlling high speed relay circuitry. Footswitch is not directly connected to signal source.

POWER SUPPLY REQUIREMENTS

Power input: 120/220/240 Vac, 40/60Hz
 Max. consumption: 525 Watts
 Power fuse: *T6.3A for 120V; T5A for 220/240V
 H.T. fuse: T3A

*NOTE: Bussman MDA, MDL or Littelfuse 3AG "SloBlo" fuses of equivalent rating may be substituted for "T" series fuses. (MDA6½ may be substituted for T6.3A; 3AB3 for T3A, etc.)

TUBE COMPLEMENT

Preamp and phase splitter tubes V1, 2, 3, 4, 5, 6: ECC83, 12AX7
 Output power tubes V7, 8, 9,10, 11, 12: 6550 in USA

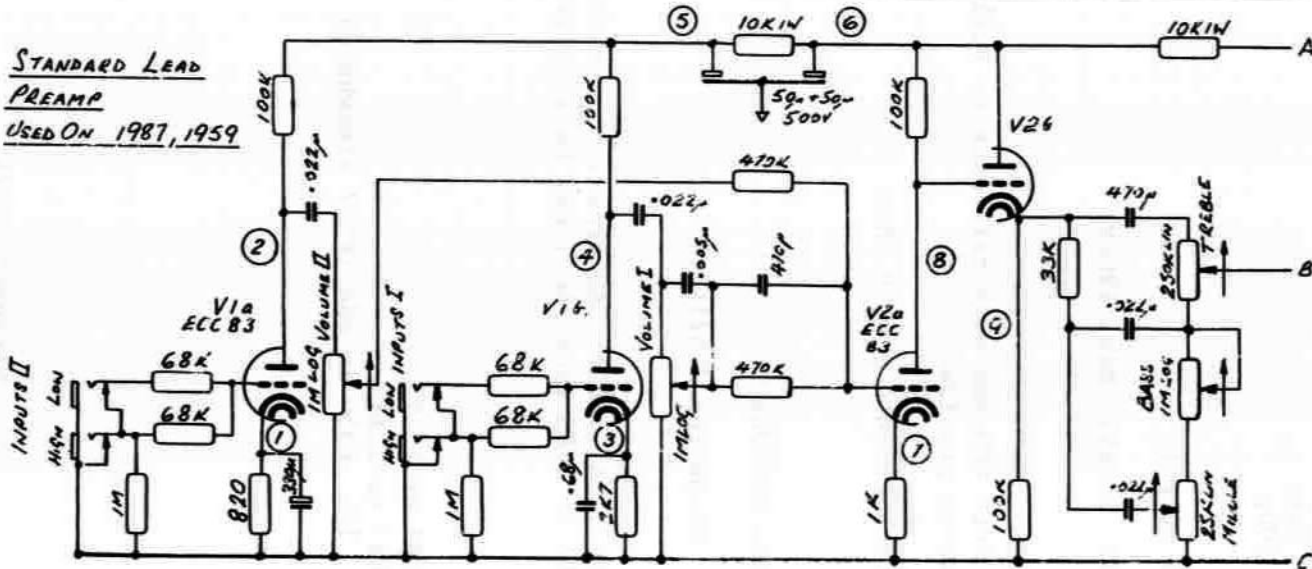
SERVICE BULLETIN

RE: JCM 2000,2001

To change from KT77 to 6550:

1. Change series bias resistor (R303) from 10K to 2700 ohms.
2. Set bias to -75 Volts.

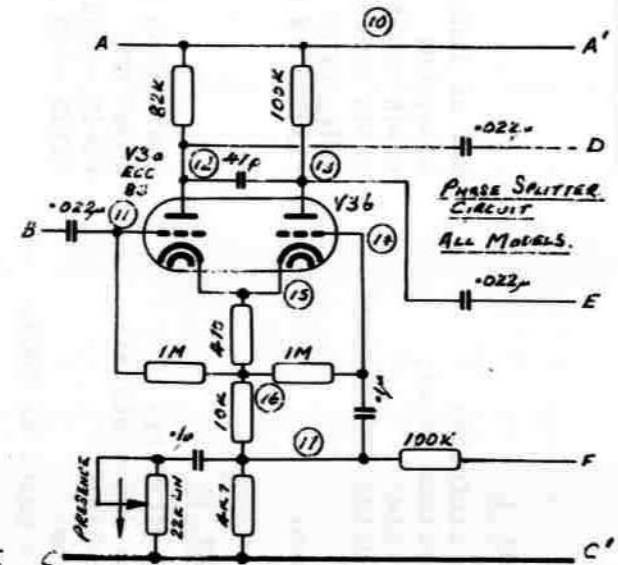
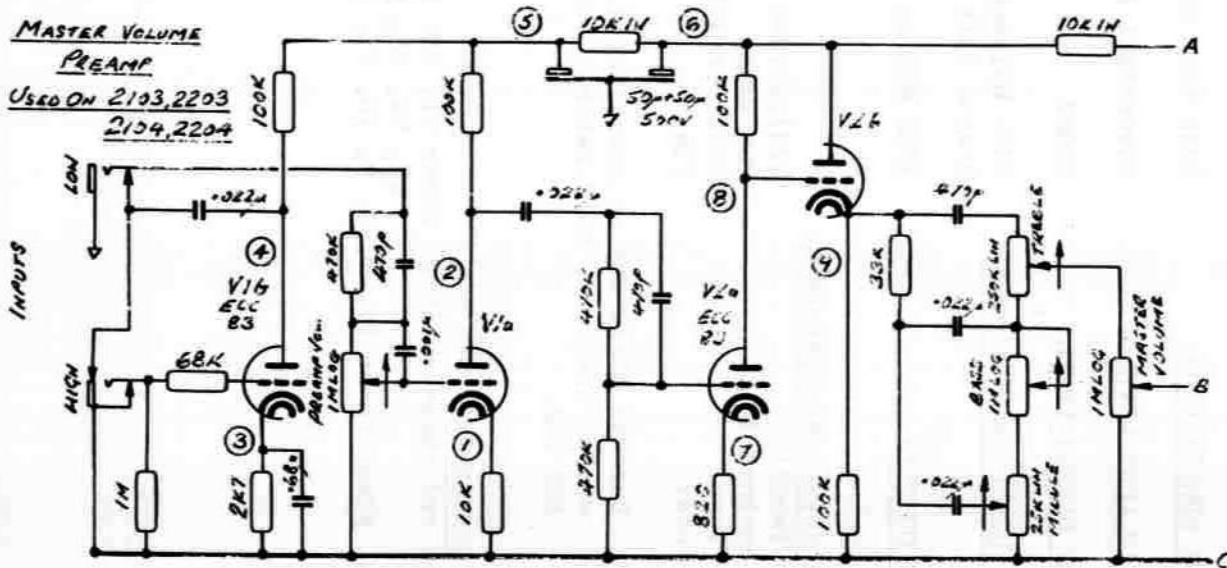
STANDARD LEAD
PREAMP
USED ON 1987, 1959



No.	50W		100W	
	STANDARD	M.V.	STANDARD	M.V.
1	0.8V	2.4V	1V	2.6V
2	135V	230V	150V	250V
3	1.63V	1.6V	1.7V	1.75V
4	192V	192V	200V	210V
5	250V	256V	260V	280V
6	260V	264V	275V	290V
7	1V	0.9V	1.2V	1V
8	145V	150V	160V	165V
9	141V	152V	162V	167V
10	295V	300V	320V	330V
11	23V	23V	24V	24V
12	185V	190V	205V	220V
13	175V	180V	195V	210V
14	24V	24V	25V	25V
15	37.5V	37.5V	37.5V	37.5V
16	36.5V	36.5V	36.5V	36.5V
17	11V	11V	11V	11V

NOTE: ALL VOLTAGES ARE AVERAGE ONLY

MASTER VOLUME
PREAMP
USED ON 2103, 2203
2104, 2204



Marshall JCM 800 LEAD SERIES 50W & 100W PREAMP CIRCUIT DIAGRAM — STANDARD & MASTER VOLUME

1 24-4-81 SQ
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Pg. 11

2001 300W BASS AMPCHANNEL I

Sensitivity: 4mV at 1kHz (tone controls central, mid select at 1kHz)
 Overload level: 400mV RMS
 Treble: +24dB -20dB at 5kHz
 Middle: +13dB -26dB, selectable at 100Hz, 200Hz, 400Hz, 1kHz,
 3kHz, 6kHz
 Bass: +13dB -7dB at 50Hz

CHANNEL II

Sensitivity: 10mV (tone controls central)
 Max input signal: 400mV RMS
 Treble: +24dB -22dB at 5kHz
 Bass: +17dB -7dB at 50Hz
 Mid point at 500Hz

OUTPUT COMPRESSION: 23dB from full output

EFFECTS LOOP LEVELS: Channels I & II, 150mV; Mix, 120mV

PREAMP OUTPUT LEVEL: 120mV

D.I. "DIRECT BOX" OUTPUT: 0dBm balanced into 600ohms with reference to full output
 Ground lift switch provided

POWER OUTPUT: 375W RMS at clipping into 4 or 8 ohms

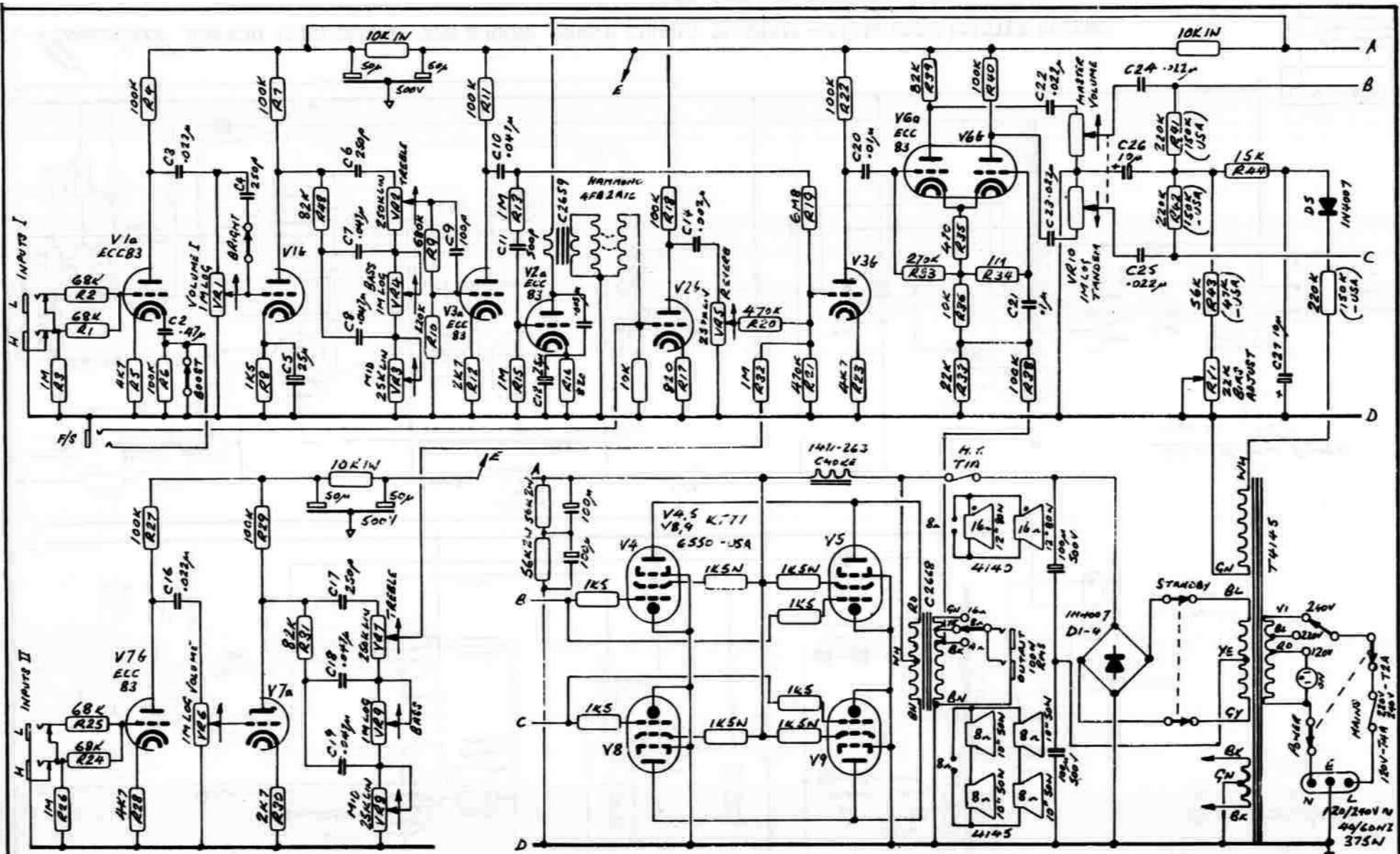
POWER SUPPLY REQUIREMENTS:

Power input: 120/220/240 Vac, 40/60Hz
 Max. consumption: 700 Watts
 Power fuse: *T10A for 120V; T6.3A for 220/240V
 H.T. fuse: T3A

*NOTE: Bussman MDA10 may be substituted for T10A (3AB or 3AG type is not recommended due to 32 Volt rating). MDA3 or 3AB3 (not 3AG3) may be substituted for T3A.

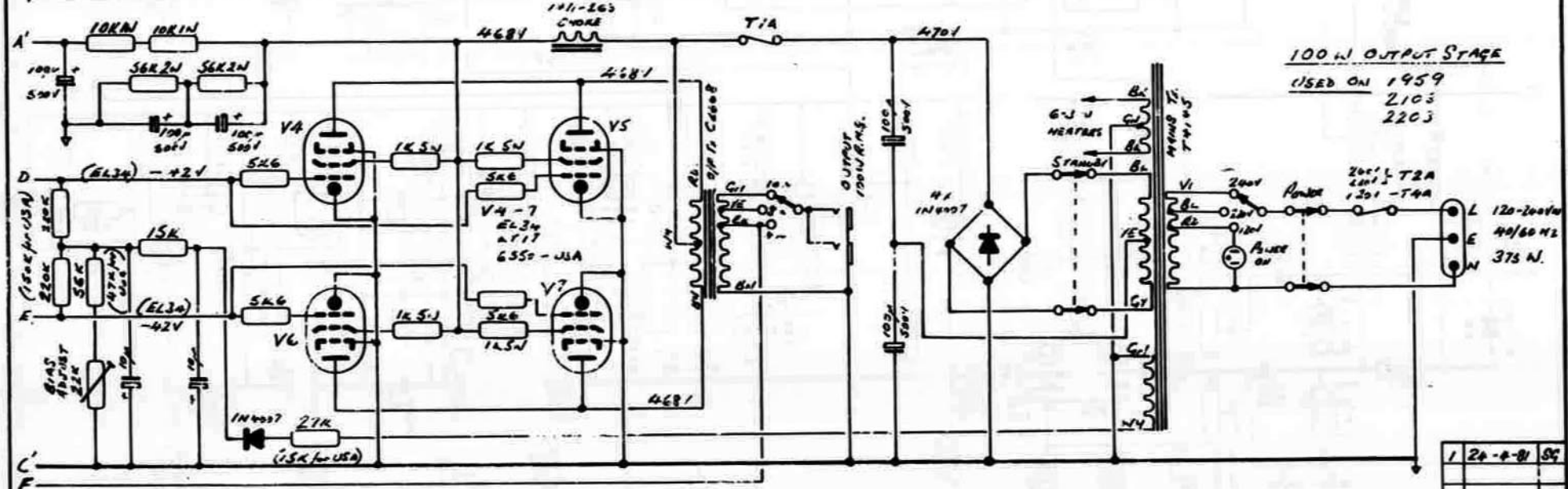
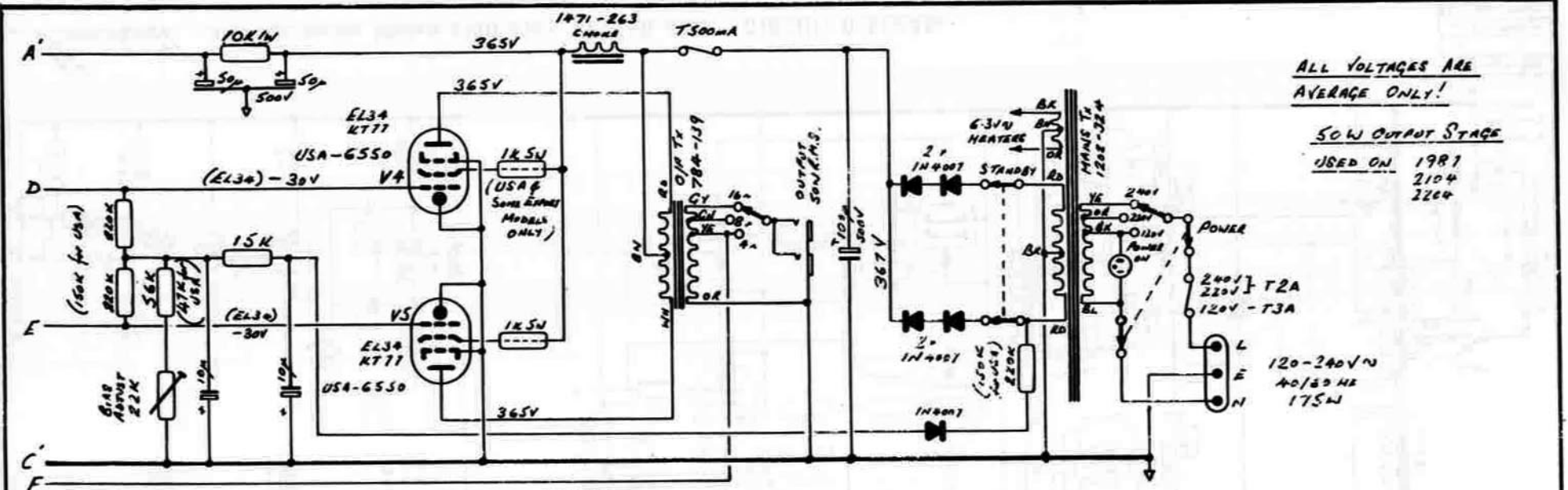
TUBE COMPLEMENT

Preamp and phase splitter tubes V1, V3: ECC81 or 12AT7
 V2, V4, V5: ECC83 or 12AX7
 Output power tubes V6, 7, 8, 9, 10, 11, 12, 13: 6550 in USA (KT77 elsewhere)



Marshall JCM 800 Series Models 4140, 4145 REVERB AMP - CIRCUIT DIAGRAM

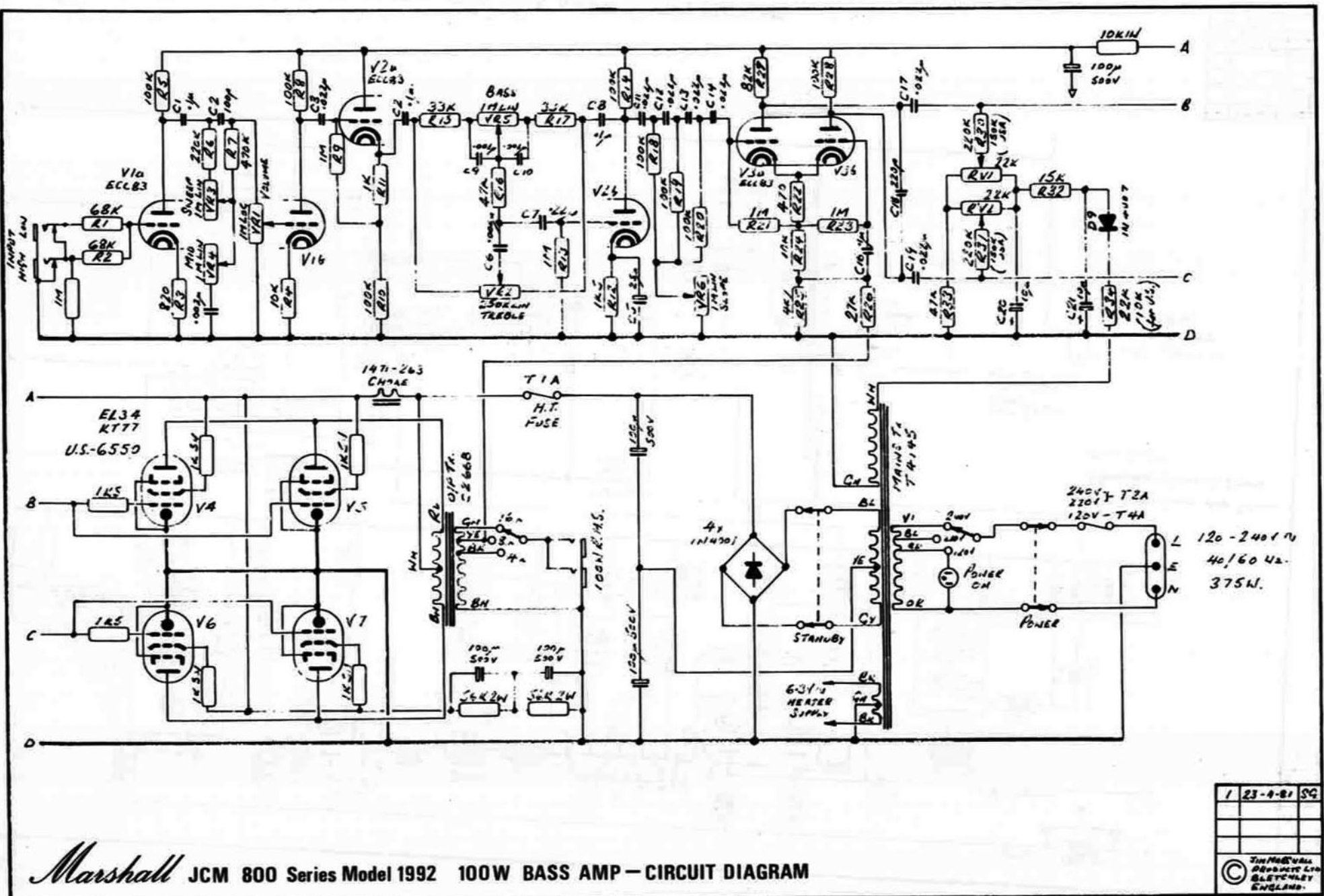
1	30-4-81	52
© 1981 Marshall Amplifiers Ltd. Bletchley, England		



Marshall JCM 800 LEAD SERIES 50W & 100W POWER CIRCUIT DIAGRAM - STANDARD & MASTER VOLUME

1 20-4-81 55

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 Amps & Co
 Bletchley
 ENGLAND.

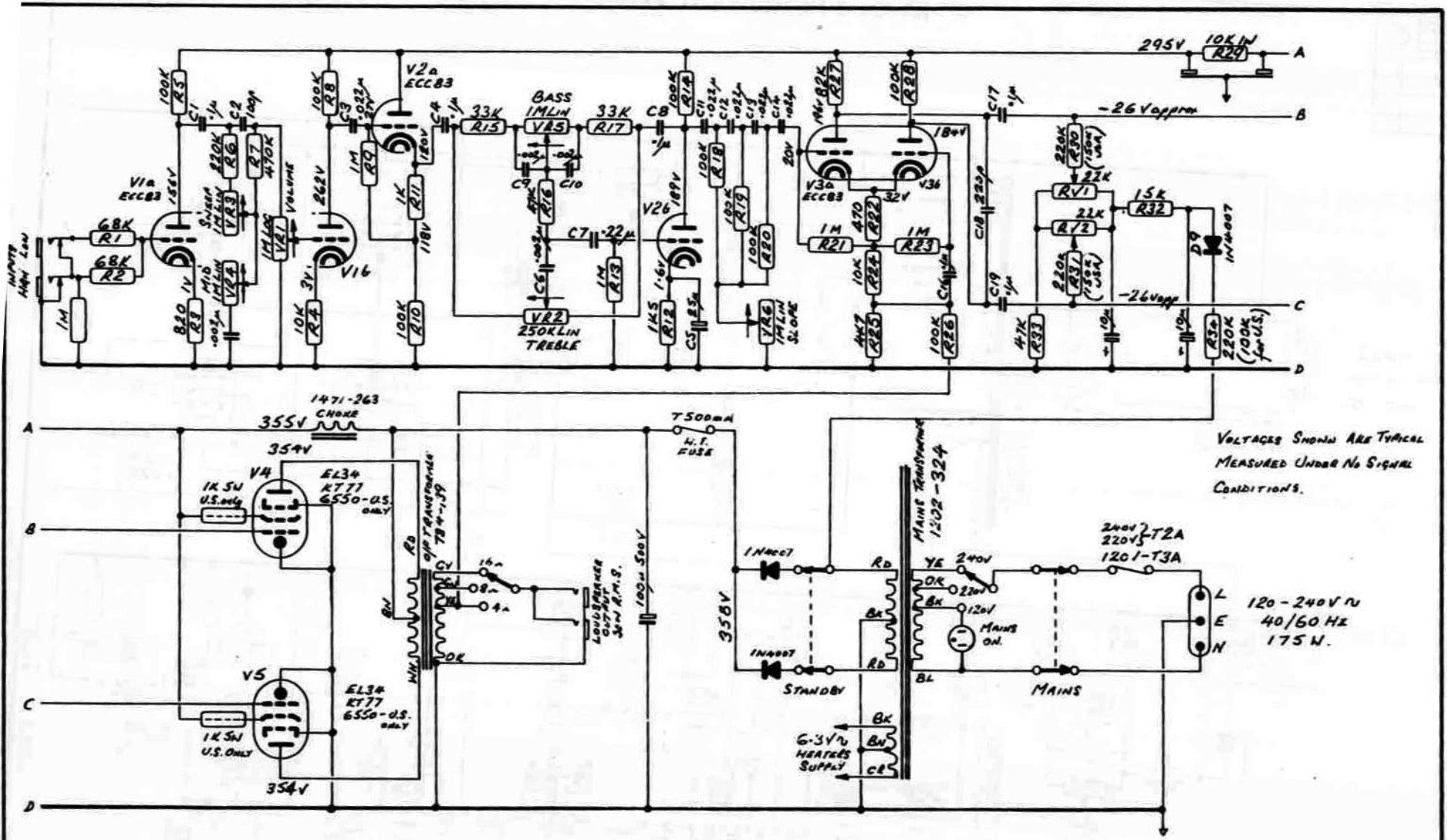


Marshall JCM 800 Series Model 1992 100W BASS AMP - CIRCUIT DIAGRAM

1	23-4-81	SG

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BLETCHLEY
ENGLAND.

PG. 15



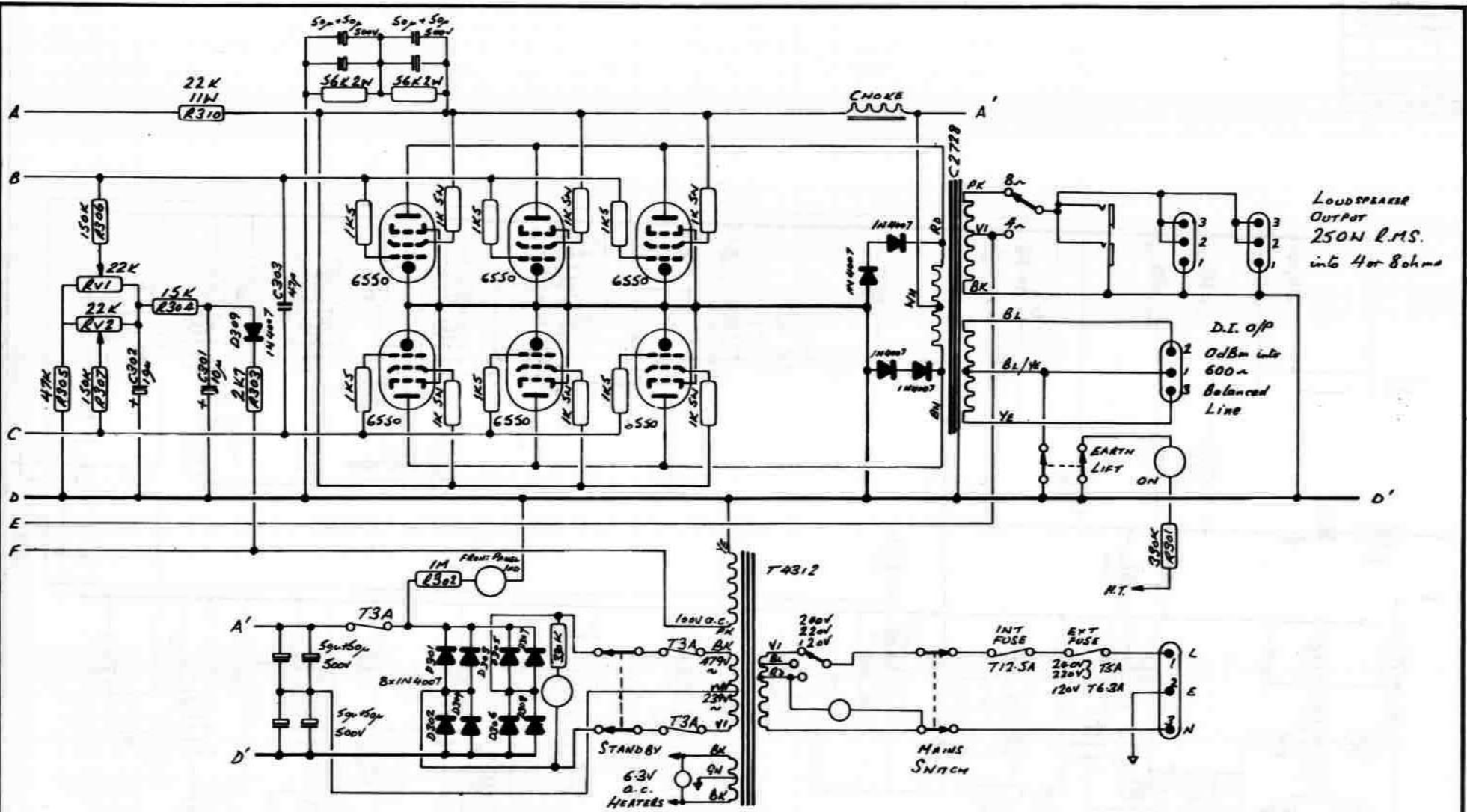
VOLTAGES SHOWN ARE TYPICAL MEASURED UNDER NO SIGNAL CONDITIONS.

120-240V
40/60 HZ
175W.

Marshall JCM 800 Series Model 1986 50W BASS AMP - CIRCUIT DIAGRAM

1	23-4-81	SC

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LOUDSPEAKER
OUTPUT
250W R.M.S.
into 4 or 8ohms

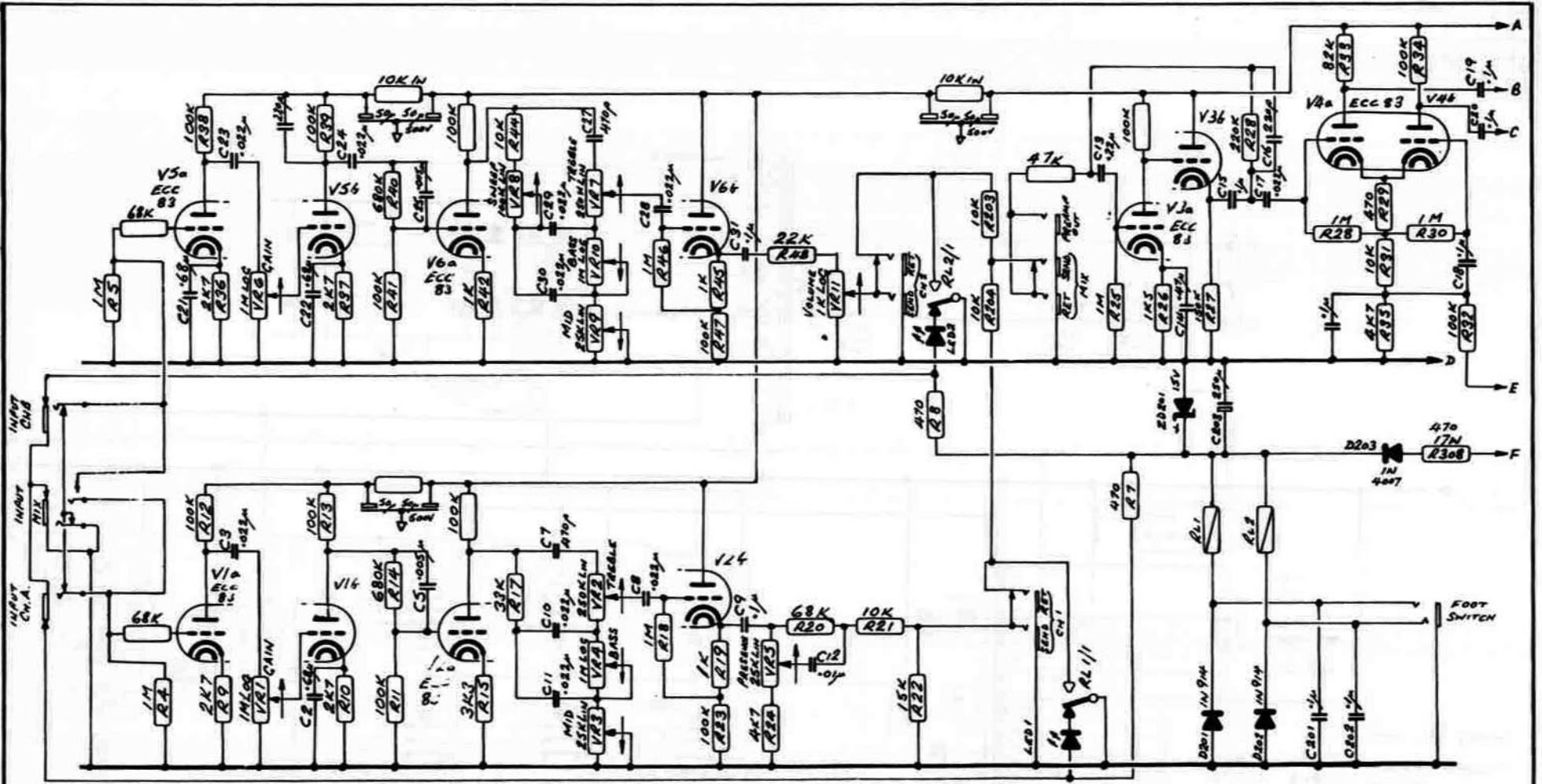
D.I. O/P
0dBm into
600Ω
Balanced
Line

Marshall JCM 800 Model 2000 250W LEAD AMP — POWER CIRCUIT DIAGRAM

1	16-4-81	SG
2	25-9-81	SG

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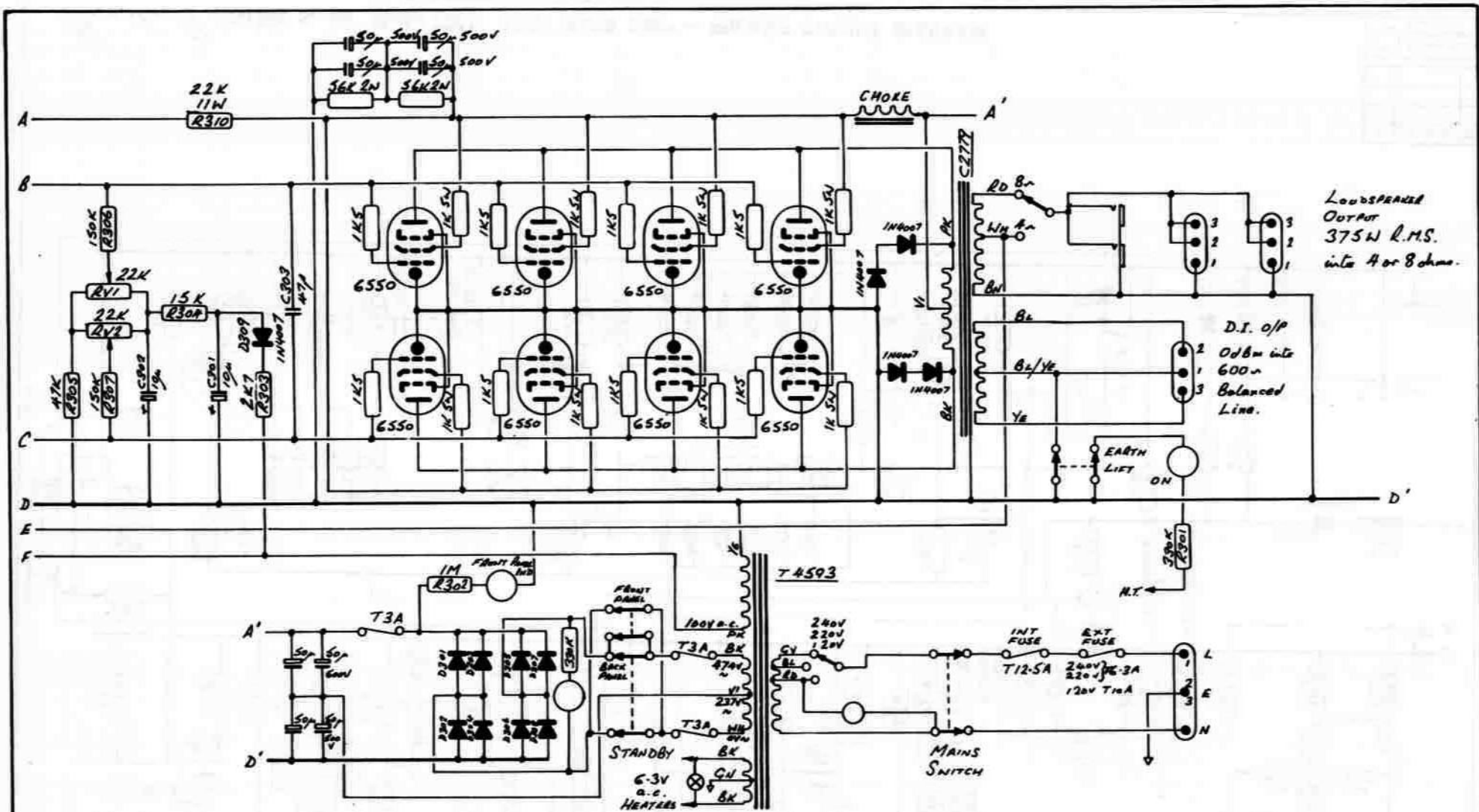
pg.17



Marshall JCM 800 Series Model 2000 250W LEAD AMP — PREAMP CIRCUIT DIAGRAM

1	22-4-81	SG
2	25-9-81	SG

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 ENGLAND



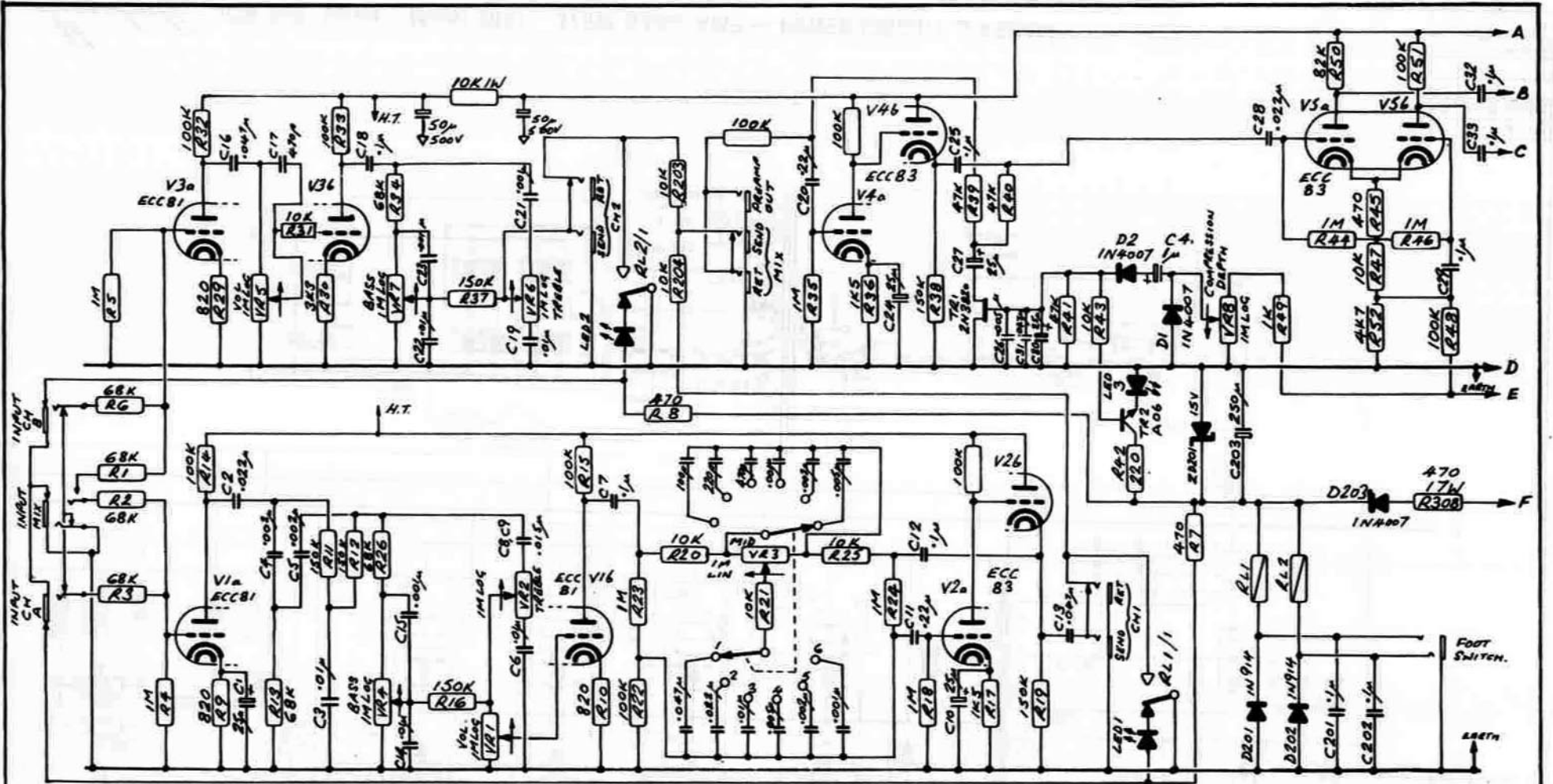
LOUDSPEAKER
OUTPUT
375W R.M.S.
into 4 or 8 ohms.

D.I. o/p
0dB into
600Ω
Balanced
Line.

Marshall JCM 800 Series Model 2001 375W BASS AMP — POWER CIRCUIT DIAGRAM

1	16-4-81	SG
2	25-9-81	SG
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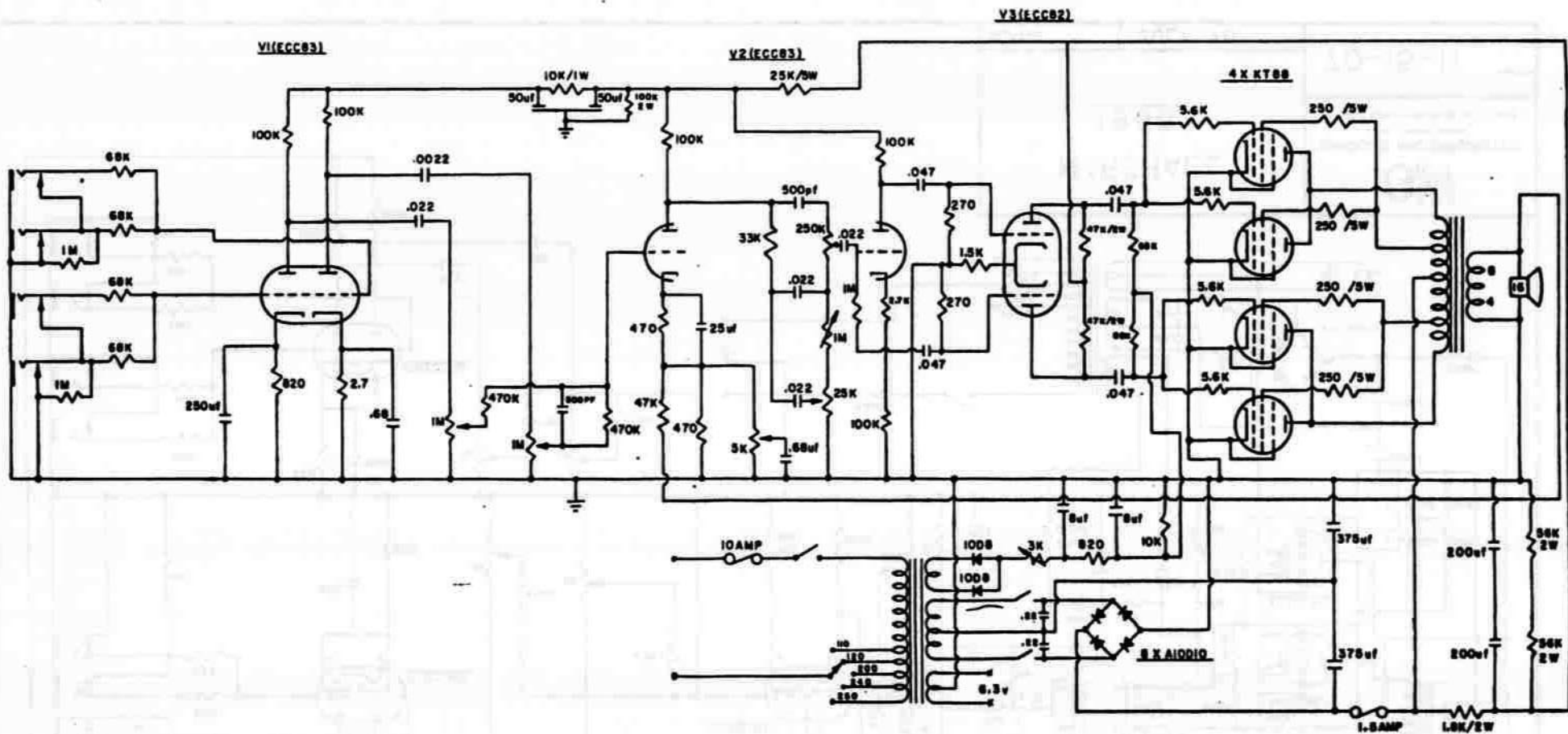
PG. 19



Marshall JCM 800 Series Model 2001 375W BASS AMP — PREAMP CIRCUIT DIAGRAM.

1	16-4-81	59

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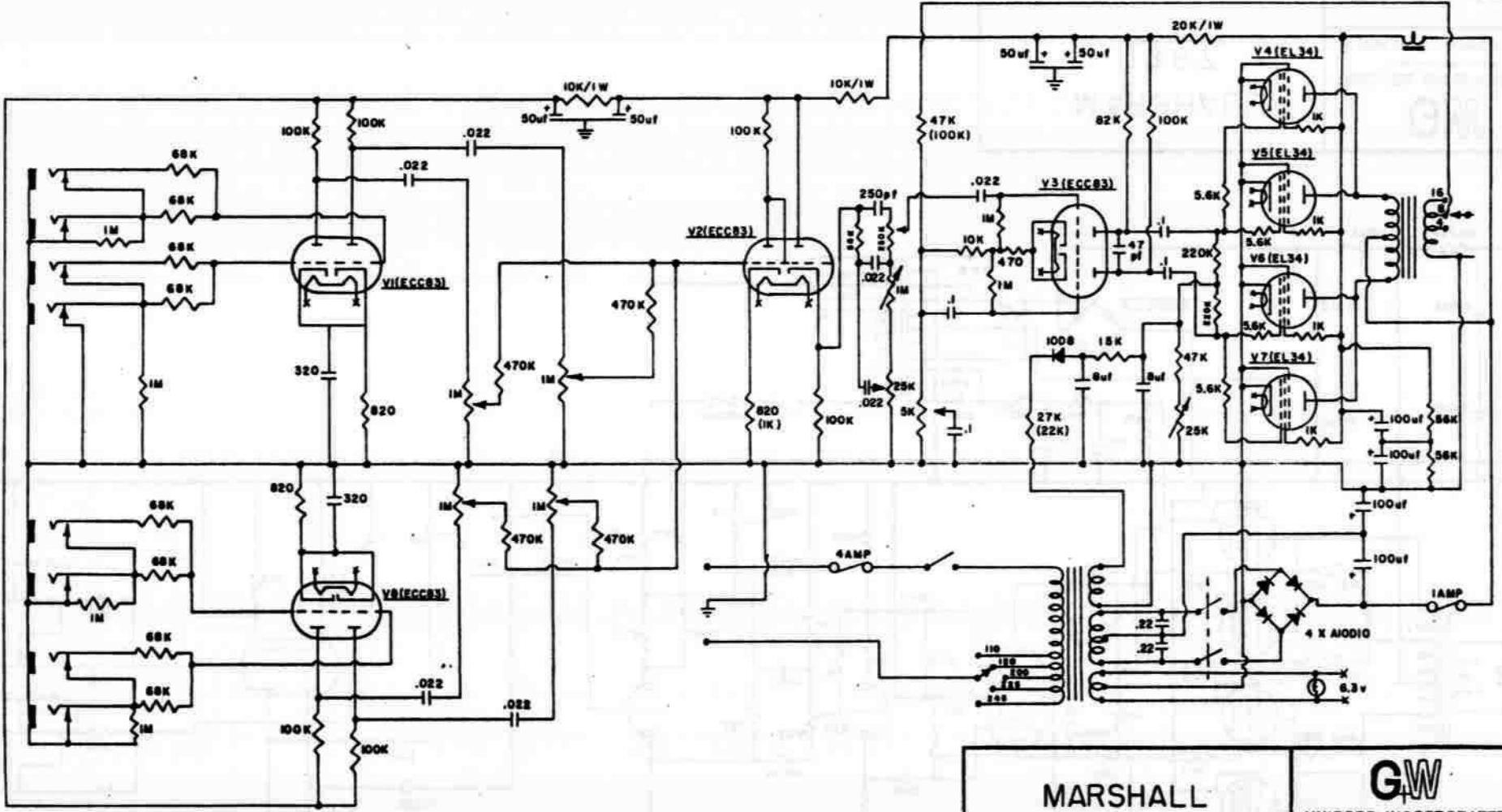
MARSHALL
1967

GW
UNICORD INCORPORATED
A GUY & WATSON COMPANY
75 FRONT STREET, WESTBURY, N. Y. 11590

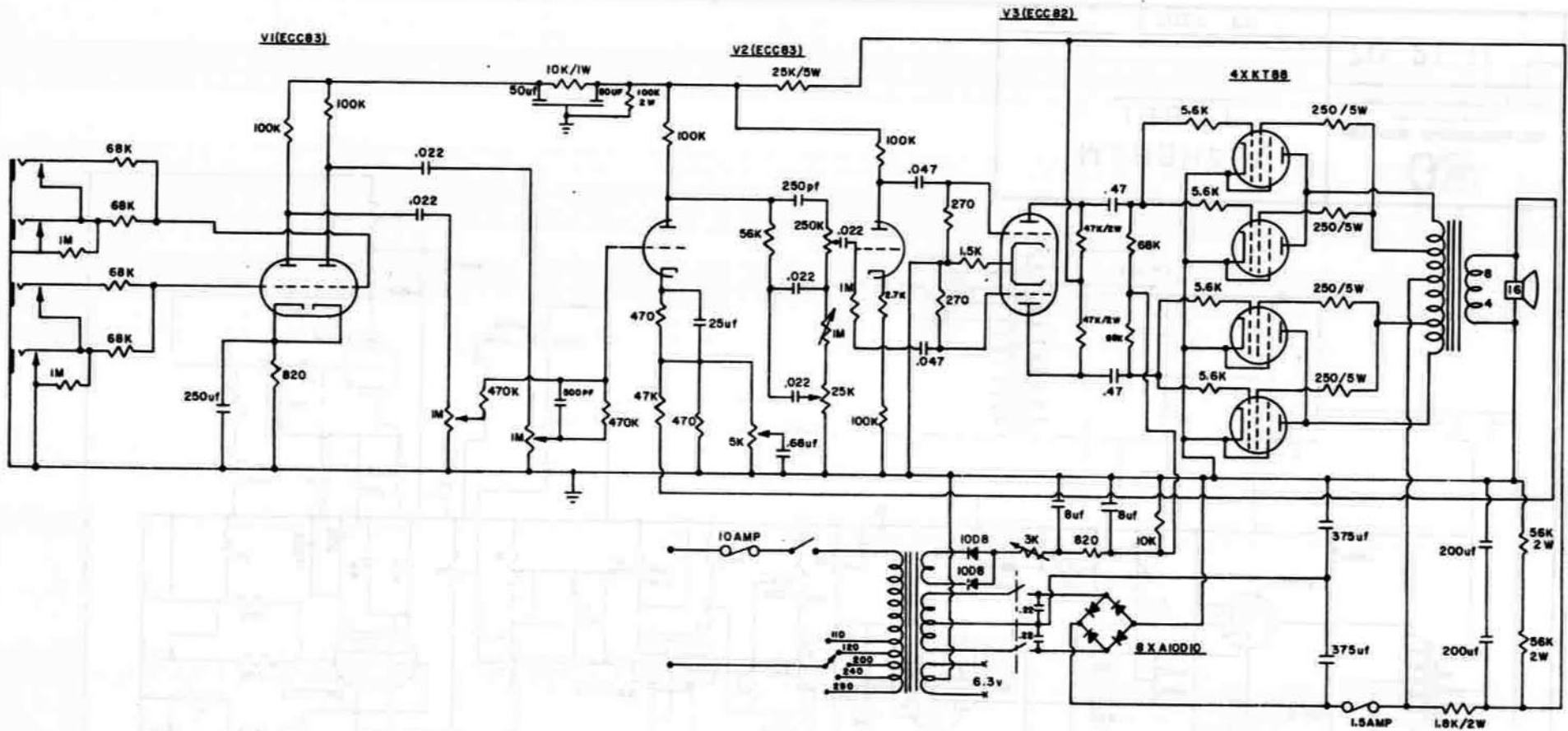
70-02-12

SCALE:

JULY 70



MARSHALL <u>1968</u>		GW UNICOR INCORPORATED <small>A UNIT OF WESTINGHOUSE</small> 75 FROST STREET, WESTBURY, N. Y. 11590
SCALE:	JULY 70	
		70-15-11



MARSHALL
1978

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70-05-12

SCALE:

SEPT 70