REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR186	08-MAR-91	
	B	ECO L02271	08-JUL-91	
	C	EC 784	11-SEP-91	
	D	EC 1388 / ECO L02897	28-OCT-94	MDW
	E	EC 1786	16-OCT-96	MDW

NORMAL

VIBRATO

Gitter V6A

Gitter V6B

PI Bias

Rs/R40 100R

250k

Rk 28k/1W

KT

Wima MKS 220pF

Wima MKS 150pF

Wima MKS 220pF

Wima MKS 150pF

2,2nF

47nF

22nF

10nF

100k

56k

220k

3.3M 2,2M

10µF

1µF

100p

~12mv TP24 FOR OUTPUT TEST ONLY.

37mv TP1 1kHz SINE

1.6v TP3

3.1v TP6

47mv TP4

126mv TP14

4.2v TP15

2.8Vpk-pk TP16

2.8Vpk-pk TP17

+99 TP18

19v TP20

28v TP19

+2.8 TP5

+1.9 TP2

+2.8 TP12

+7.8 TP8

2.0v TP7

67v TP9

1.1v TP10

1.9mv TP11

110mv TP13

300Vpk-pk TP34

SEE WAVEFORM TP35

-.35V ON -8.5V OFF TP31

1.9V ON ~0.0V OFF TP32

13V ON ~0.0V OFF TP33

-50 TP26

-65 TP25

+442 TP27

+440 TP28

+428 TP29

+393 TP30

+440 TP21

100v TP21

100v TP22

9.0v TP23

3000V

3000V

-45V

V1 12AX7A

V2 12AX7A

V3 12AT7

V4 12AX7A

V5 12AT7

V6 12AT7

V7 6L6GC

V8 6L6GC

V9 6L6GC

V10 6L6GC

T1 037099

T2 037612

T3 037610

OP1 037836

J1 J2 J3 J4 J5 J6 J7 J8

S1 POWER

S2 GROUND

S3 STANDBY

S4 BRIGHT

S5 BRIGHT

S6 REVERB

S7 VIBRATO

FOOTSWITCH ASSEMBLY P/N 037211

REVERB PAN P/N 064063

FOOT PEDAL

EXT. SPEAKER

SPEAKER

(2) 037617 8Ω EACH.

TIP SLEEVE

OUTPUT TEST:

85 WATTS MINIMUM RMS INTO A 4Ω RESISTIVE LOAD AT 5% THD WITH 1kHz INPUT INTO THE NORMAL CHANNEL AT TP24. ALL NORMAL CHANNEL CONTROLS FULL CW. ALL VIBRATO CHANNEL CONTROLS FULL CCW. REVERB AND VIBRATO OFF.

VIBRATO TEST:

ALL VOLTAGES MEASURED WITH SPEED CONTROL AT MAX. (CW), AND NO SIGNAL PRESENT.

APPROXIMATE WAVEFORM AT TP35:

420V 340V 20ms 60ms

INTENSITY R64 50KΩ 30C

SPEED R56 3MΩ 10C

BIAS ADJ. R70 3.3KΩ ½W

HUM ADJ. R69 100Ω LIN

4 x IXYS FRED DSEI12-12A

(4) 800V 1A

C1 150nF X2 300V

TH1 NTC C68-11 5A

HUM ADJUSTMENT: ADJUST FOR MINIMUM HUM FROM SPEAKERS WITH AN OPEN PLUG IN J3, VIBRATO CH. VOLUME, MID, AND BASS CONTROLS FULL CW, NORMAL CH. CONTROLS FULL CCW, REVERB AND VIBRATO OFF.

TO FILAMENTS

TO FILAMENTS

TO CONTROL PCB GROUND

B+GND

Z_GND

Y_GND

X_GND

EXPORT TRANSFORMER WIRING DIAGRAM.

ALTERNATE EXPORT POWER TRANSFORMER P/N #49181

100V 50/60Hz	230V 50/60Hz	240V 50/60Hz
CP3	CP3	CP3
CP33	CP7	CP7
CP7	CP33	CP33
CP34	CP34	CP34
CP4	CP36	CP36
CP36	CP4	TIE UP
CP8	TIE UP	CP4

NOTES:

1.) V1,2,4,5 ARE 12AX7A.

2.) RESISTORS ¼W CARBON FILM UNLESS OTHERWISE SPECIFIED.

3.) 6-DIGIT NUMBERS ARE FENDER PART NUMBERS.

4 FUSE 4A SLO-BLO IN 100V AND 120V MODELS, T2A IN 230V AND 240V MODELS.

5 S2 INSTALLED IN 120V UNITS ONLY.

6.) ALL VOLTAGES MEASURED WITH RESPECT TO GROUND USING A DVM OF AT LEAST 1MΩ AC INPUT IMPEDANCE AND 10MΩ DC IMPEDANCE. VOLTAGES MAY VARY ±20%. TEST CONDITIONS:
LINE VOLTAGE AT 120VAC 60Hz.
BRIGHT SWITCHES, REVERB, AND VIBRATO OFF.
ALL NORMAL CHANNEL CONTROLS AT FULL CCW.
ALL VIBRATO CHANNEL CONTROLS AT 50% ROTATION.
DC VOLTAGES MEASURED WITH NO SIGNAL PRESENT.

7 AC VOLTAGES AT TP16,17 MEASURED WITH AN OSCILLOSCOPE USING A X10 PROBE.

8 8200pF CAP INSTALLED IN 230V UNITS ONLY.

9.) INSTANCES NOT USED: C29 CP5 CP6 CP32 CP35

DATABASE FILE:	Z1868.DBF
CHECKED BY:	REPLOT
DATE:	05-MAY-01
APPROVED:	MDW
DATE:	05-MAY-01
TOLERANCES:	UNLESS NOTED OTHERWISE
X.X	±0.050"
X.XX	±0.010"
X.XXX	±0.005"
ANGLES	±0.500°

PROPRIETARY

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NEXT HIGHER ASSEMBLY: 65 TWIN REVERB GUITAR AMPLIFIER

Fender MUSICAL INSTRUMENTS
2821 Research Drive
Corona, CA 91720 USA

TITLE: SCHEMATIC
65 TWIN REVERB AMPLIFIER

SIZE	DRAWN: WILKENS	DRAWING NUMBER	REV.
D	ENGR: WILKENS	037627	E
SCALE: NONE	CREATED: 16-OCT-96	SHEET 1 OF 1	
	PLOTTED: 02-MAY-01		

PART NO. 037633000 SHEET 1 OF 1