

## FENDER "THE TWIN" AMPLIFIER (21-6200)

PARTS LIST

This parts list outlines most parts needed to service the Twin. Certain parts, commonly available and stocked by most service centers (such as non-precision fixed value resistors) have been omitted from the list to keep it from becoming unnecessarily long.

## PRE AMP BOARD P.C. ASSEMBLY, [026066]:

REFERENCE #	PART #	DESCRIPTION	QTY
J1,2,3,4	025931	Phone jack, (ch1,2, stereo inputs)	4
D2,3,5,6	006260	Diode, 1N4448	4
D1,4	025926	Diode, LED PC mount red	2
LDR1,2,3	016282	Diode, LDR	3
R10,27,28	025946	Contr, 250K aud w/sw (treb1,2 bass2)	3
R13	024663	Contr, 1Meg aud (vol1)	1
R11	024662	Contr, 250K aud (bass1)	1
R12	026050	Contr, 10K aud w/sw (mid1)	1
R30/38	026046	Contr, 1Meg aud dual (gain)	1
R29	026049	Contr, 25K aud w/sw (mid2)	1
R47	026048	Contr, 1Meg "S" w/sw (presence)	1
R49	025946 <del>026044</del>	Contr, 250K lin w/sw (vol2)	1
R57	023508	Contr, 100K lin (reverb)	1
W1-9	020888	Jumper, 0 ohm resistor	9
C9,26,29	026202	Capacitor, mylar 0.0022uf 600V	3
C18	026204	Capacitor, mylar 0.0068uf 600V	1
C7,27	024835	Capacitor, mylar 0.022uf 630V	2
C5,14,24	024846	Capacitor, mylar 0.047uf 630V	3
C4,13	024855	Capacitor, mylar 0.1uf 630V	2
C16,21,23	024876	Capacitor, mylar 0.68uf 250V	3
L1	026127	Inductor, 8Hy	1
S12A,12B	026473	Switch, slide DPTT (reverb select)	1

## POWER AMP BOARD P.C. ASSEMBLY, [026068]:

R129	026486	Resistor, WW 30K 10W 10%	1
R128	026483	Resistor, WW 2.7K 10W 10%	1
C101,103,104	026202	Capacitor, mylar 0.0022uf 630V	3
C106,108,109, 113-115,120	024835	Capacitor, mylar 0.022uf 630V	7
C107	024855	Capacitor, mylar 0.1uf 630V	1
C110-112	024819	Capacitor, electro 22uf 500V	3
TERM1-5	026001	Terminal, eyelet w/lug	5
D101-107	006260	Diode, 1N4448	7
LDR101	016282	Diode, LED/LDR optoisolator	1
IC101	026547	I.C., quad comparator LM339N/CA339E	1

**POWER SUPPLY BOARD P.C. ASSEMBLY, [026067]:**

REFERENCE #	PART #	DESCRIPTION	QTY
FH301	022546	Fuse holder	1
FCR301	022547	Fuse carrier 3AG	1
F301	013737	Fuse, 4A Slo Blo	1
FC302	025996	Fuse clips	2
F302	014202	Fuse, 5A Slo Blo	1
D307	006260	Diode, 1N4448 signal	1
D301-306	026730	Diode, 1N5062 1A 800V	6
R306	026485	Resistor, WW 1.2K 3W	1
C303,304,305	026502	Capacitor, electro 100uf 100V	3
C301,302	013638	Capacitor, electro 220uf 285V	2
C306,307	024820	Capacitor, electro 47uf 350V	2
TERM1-13	026001	Terminal, eyelet w/lug	13
FA1,2	025802	Faston tab .250	2
W1,2	020888	Jumper, 0 ohm resistor	2

**BIAS BOARD P.C. ASSEMBLY, [026370]:**

J201-204	025929	Jack, phone (effects, thru, ftsw)	4
TP201-203	026481	Jack, test (bias/balance set up)	3
R209,212	026133	Contr, trim 25K lin (bias/balance)	2
S201	026473	Switch, slide DPTT (loop level)	1
C201	024876	Capacitor, mylar 0.68uf 250V	1
C202	026502	Capacitor, electro 100uf 100V	1
W201	020888	Jumper, 0 ohm resistor	1
D201	006260	Diode, 1N4448	1

**CHASSIS MOUNTED COMPONENTS:**

T1	026478	Output transformer	1
T2	026477	Power transformer	1
T3	022921	Reverb driver transformer	1
L2	022707	Choke, filter	1
S9,10	026479	Switch, DPST (on/off, standby)	2
S11	→026480	Switch, DPDT (output hi/lo	1
S8	026472	Switch, DPTT (impedance selector)	1
----	023606	Tube socket 9-pin min	7
----	023580	Tube socket 8-pin octal	4
----	023598	Tube shield w/spring	7
----	020424	Tube retainer ring	4
V5,6,10,11	013341	12AX7/7025 electron tube	5
V4,8	023531	12AT7 electron tube	2
V1,2,3,7,9	023556	6L6GC electron tube	4
D308	027287	Panel mount red LED	1
----	027288	LED red lens	1
----	020772	Jack, stereo phono dual reverb	1
----	021626	Jack, 3/8 N.O. (ext spkr par'l)	1
----	068270	Jack, 3/8 N.C. (ext spkr ser's, out)	2
----	026471	Jack, XLR (bal line out)	1

**MISCELLANEOUS:**

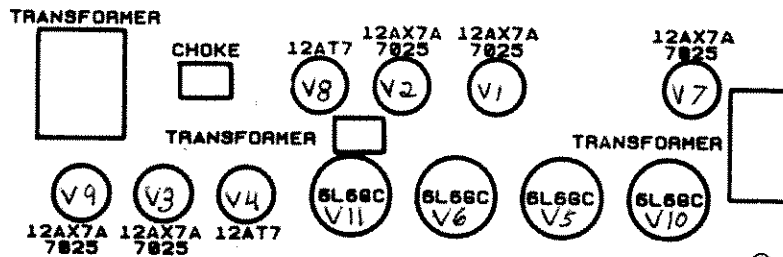
REFERENCE #	PART #	DESCRIPTION	QTY
----	064063	Reverb pan	1
----	025722	Cable reverb dual	1
----	026541	Line cord 100/120V	1
----	026042	Front panel	1
----	026157	Rear panel	1
----	026200	Nameplate, "the twin"	1
----	028122 026646	Footswitch dual	1
----	025952	Red pointer knob (certain models)	11
----	026402	Black pointer knob (certain models)	11
----	019170	Handle assembly	1
----	019279	Handle caps	2
----	022244	Handle screws	4
----	026564	Washer, bias/balance control shim	2
----	026566	2 hole corners	4
----	026568	3 hole corners	2
----	019276	Floor glides	4
----	019275	Glide inserts	4
----	026571	Corner/glide screws	10
----	023505	Mtg. plate swivel caster	4
----	023513	Caster swivel	4
----	024752	Strap long chassis nickel	2
----	026488	Speaker 12" 16 ohm	2

**EXPORT MODEL ONLY:**

T2	026554	Power transformer	1
----	026767	Line cord assembly	1
----	026446	Line volt select switch	1
F301,303,304	013115	Fuse 2AT SEMKO	3
F302	013678	Fuse 2.5A SEMKO	1
F305	013106	Fuse 125ma 5mm	1
F306	013688	Fuse 10A 5mm	1
----	022548	Fuse carrier	1
----	020775	Fuse clip 5mm	8

FENDER MUSICAL INSTRUMENTS  
BREA, CA. U.S.A.

FENDER SPECIAL DESIGN ELECTRONIC TUBES  
PROVIDE OPTIMUM PERFORMANCE IN THIS  
AMPLIFIER. FOR BEST RESULTS, REPLACE WITH  
FENDER ORIGINAL EQUIPMENT TUBES ONLY.



THE TWIN

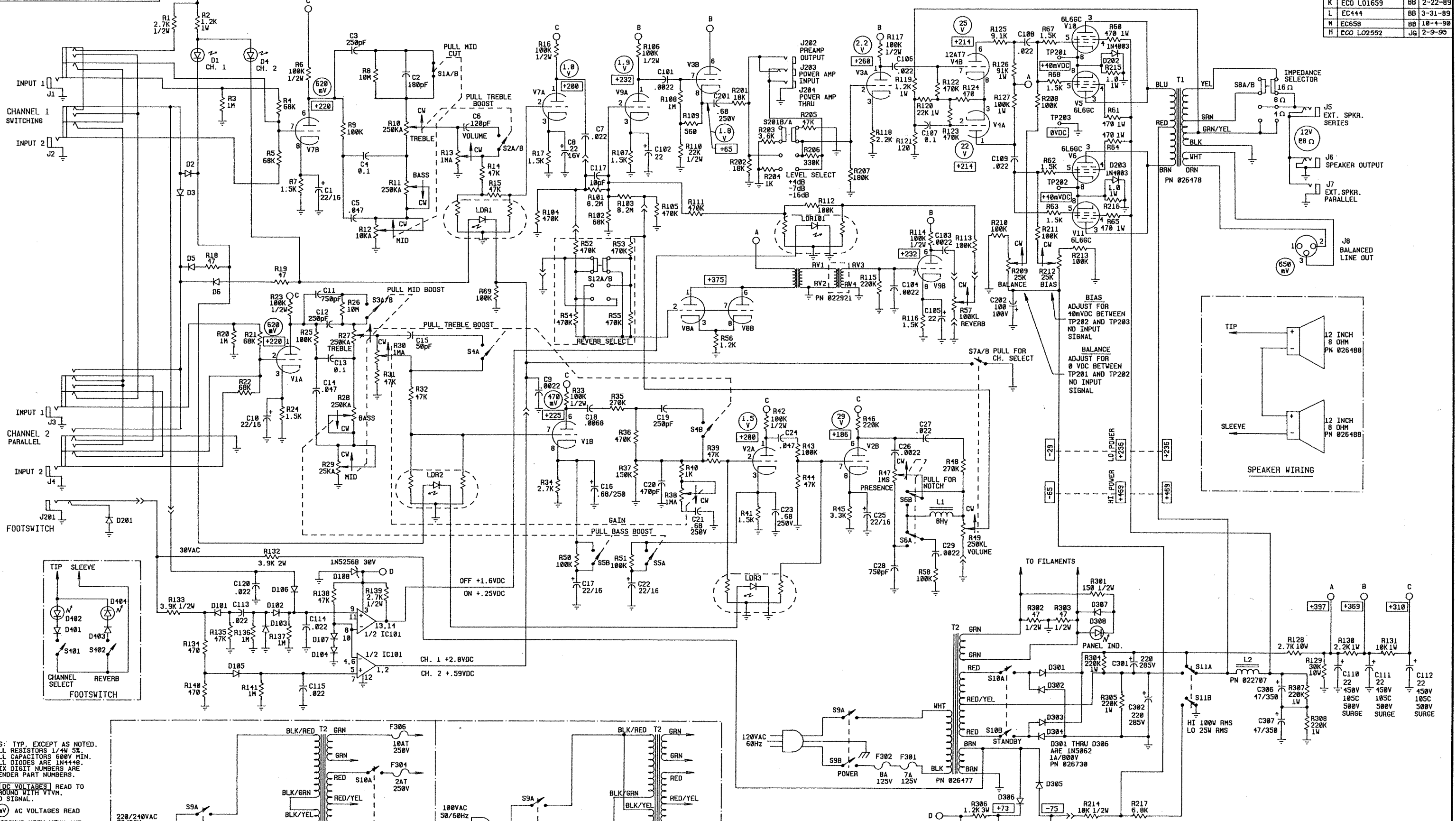
**CAUTION:**  
DISCONNECT POWER SUPPLY  
BEFORE CHANGING TUBES

*Fender*<sup>®</sup>  
MUSICAL  
INSTRUMENTS

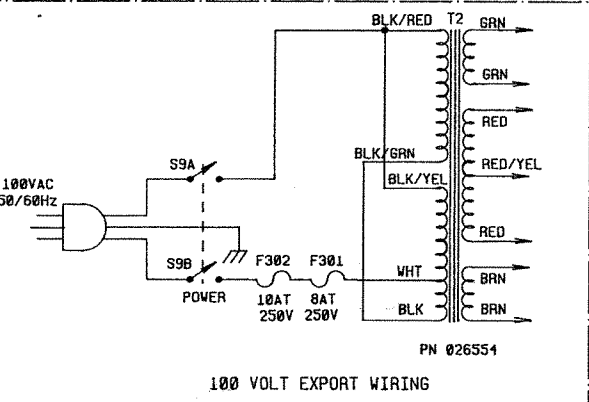
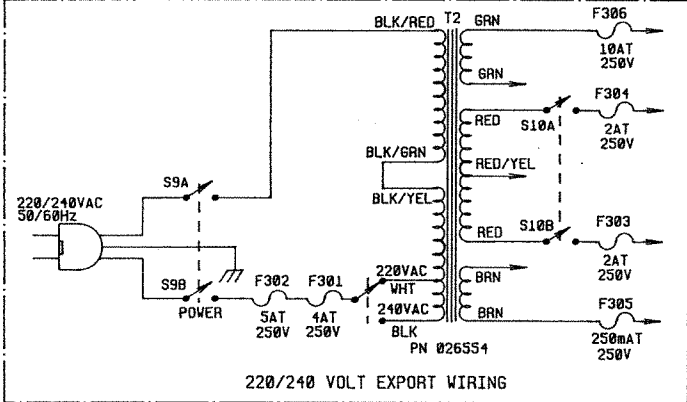
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REV	BY	DATE
J	REDRAWN EC# 325	BB 8-5-88
K	ECO L01659	BB 2-22-89
L	EC444	BB 3-31-89
M	EC658	BB 10-1-90
N	ECO L02552	JG 2-9-90

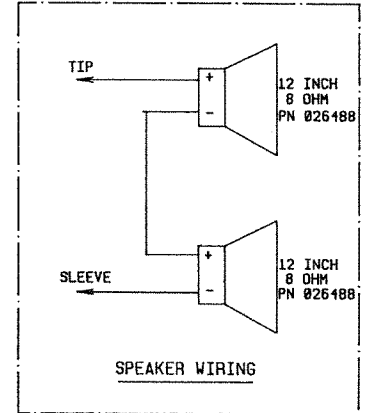


- NOTES: TYP. EXCEPT AS NOTED.
1. ALL RESISTORS 1/4W 5%.
  2. ALL CAPACITORS 600V MIN.
  3. ALL DIODES ARE 1N4448.
  4. SIX DIGIT NUMBERS ARE FENDER PART NUMBERS.
  5. [DC VOLTAGES] READ TO GROUND WITH VTVM. NO SIGNAL.
  6. [mV] AC VOLTAGES READ TO GROUND WITH VTVM AND DENOTE TYP. 1KHZ SIGNAL WITH AMP SET IN HIGH POWER MODE. ALL CONTROLS SET TO 12 O'CLOCK. ALL PULL FUNCTIONS OFF. REVERB SET TO 0. LOOP LEVEL SET 7.5BV. IMPEDANCE SELECTOR SET TO 8 OHMS. SIGNAL INTO CH. 2. INPUT 1.
  7. RESISTORS R215 AND R216 ARE FLAME PROOF.



( ' D ' VOLTAGE READINGS )

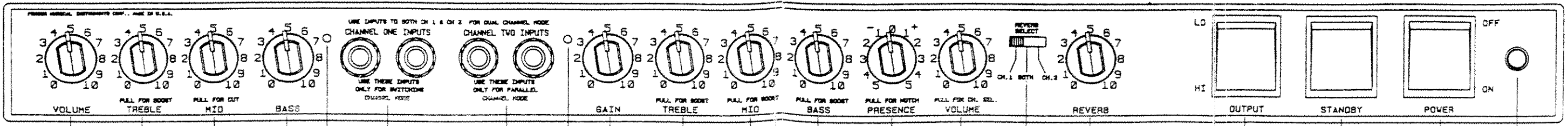
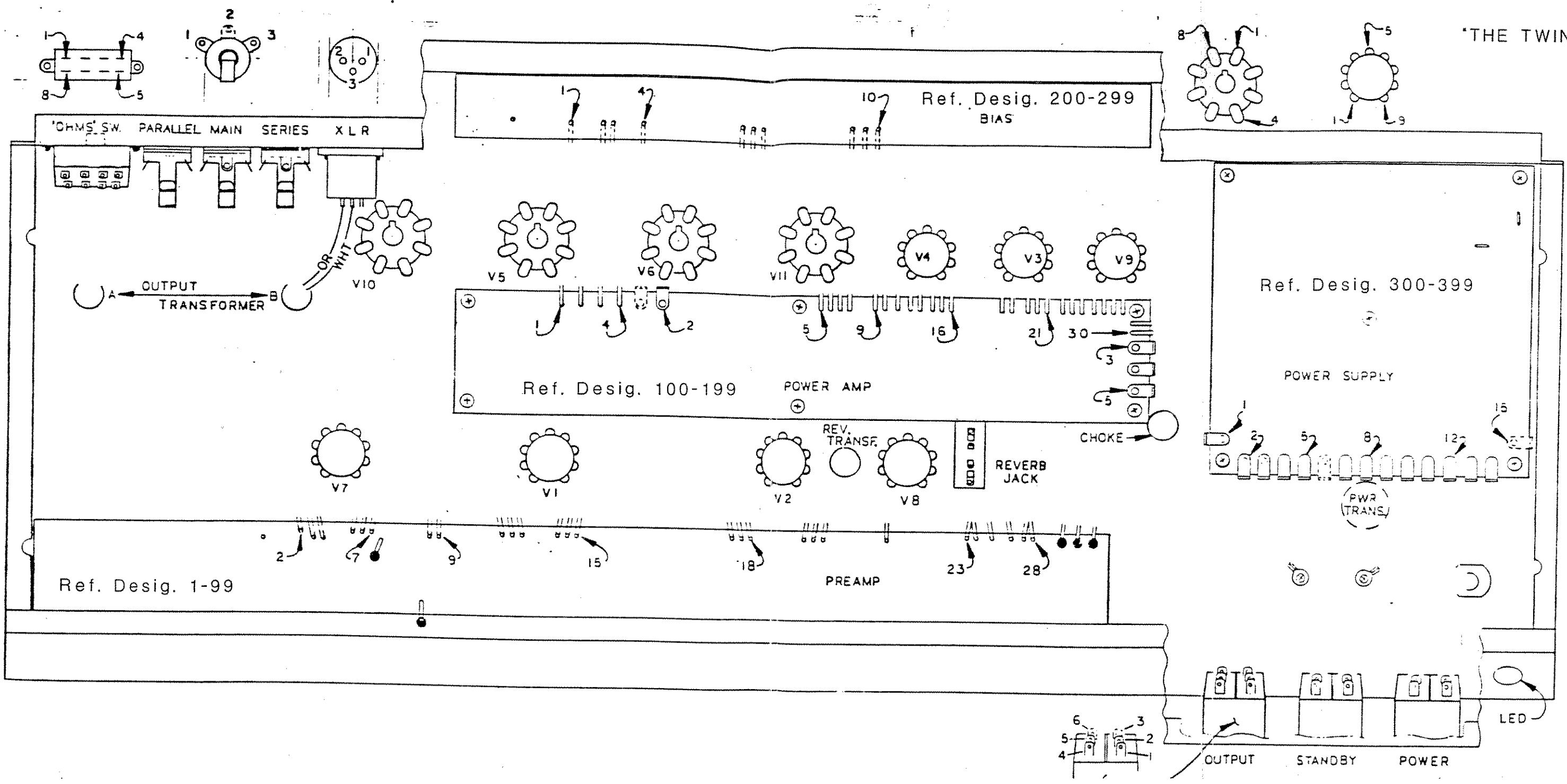
NO INPUTS +27.2VDC  
 CH. 1 INPUT +30.0VDC  
 CH. 2 INPUT +25.7VDC  
 CH. 1 AND CH. 2. INPUT +30.0VDC  
 PULL FOR SELECT AND CH. 1 INPUT +30.0VDC  
 PULL FOR SELECT AND NO INPUTS +26.2VDC



DRAWN BENTON	DATE 8-5-88	CHECK MH	DATE 2-19-93	APPROVED [Signature]	DATE 2-19-93
FENDER MUSICAL INSTRUMENTS CORP. BREA, CALIFORNIA 92621			TITLE SCHEMATIC DIAGRAM 'THE TWIN'		
DISK A432	SIZE D	PART/DRAWING NUMBER 026059	REV. N	RECORD NUMBER 0026657000	

REVISIONS			
LTR	DESCRIPTION	DATE	APPN

'THE TWIN'



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