

ROC PRO 700

SERVICE MANUAL



CONTENTS:

- Notices
- Specifications
- Parts lists:
 - PCB assembly
 - Chassis assembly
 - Cabinet assembly
 - Footswitch assembly
 - Miscellaneous
- Schematics/diagrams

ROC PRO 700

(This is the model name for warranty claims)

SERVICE MANUAL

MAY 1996

IMPORTANT NOTICE:

The information contained herein is CONFIDENTIAL and PROPRIETARY to Fender Musical Instruments Corp. It is disclosed solely for use by qualified technicians for purposes of equipment maintenance and service. It is not to be disclosed to others without the expressed permission of Fender Musical Instruments Co. All specifications subject to change without notice.

For warranty repair service, only Fender specified part numbers are to be used. It is recommended they also be used for post-warranty maintenance and repair.

Parts marked with an asterisk (*) indicate the required use of that specific part. This is necessary for RELIABILITY and SAFETY requirements. **DO NOT USE A SUBSTITUTE!**

A coded naming convention is used in the description of certain parts. The codes and what they mean are as follows:

CAPACITOR CODES

CAP AE = Aluminum Electrolytic
CAP CA = Ceramic Axial
CAP CD = Ceramic Disk
CAP MPF = Metalized Polyester Film
CAP MY = Mylar
CAP PFF = Polyester Film/Foil

RESISTOR CODES

RES CC = Carbon Comp
RES CF = Carbon Film
RES FP = Flame Proof
RES MF = Metal Film
RES WW = Wire Wound

HARDWARE CODES

BLX = Black Oxide
CR = Chrome Plated
HWH = Hex Washer Head
M = Machine Screw
NI = Nickel Plated
OHP = Oval Head Phillips
PB = Particle Board
PHP = Pan Head Phillips
PHPS = Pan Head Phillips Sems
SMA = Sheet Metal "A" Point
SMB = Sheet Metal "B" Point
SS = Stainless Steel
TF = Thread Forming
ZI = Zinc Plated

ROC PRO 700

SPECIFICATIONS

Product Release No.:	PR 242 <i>(This is not a model number)</i>
Input impedance:	> 1M Ω
Nominal level:	100mV
Power output:	65 Watts RMS into 8 Ω @ 5% THD
Effects loop	Nominal level; Selectable +4, -7, -16 dBV Output Impedance: 1.2k Ω Input Impedance: 100k Ω
Dimensions:	Height: 16.5" (41.9 cm) Width: 20.5" (52.0 cm) Depth: 9.75" (24.7 cm)
Weight:	30 lbs. (13.6 kg)

Product specifications are subject to change without notice

PARTS LIST

PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	041481001	PCB ASSY PERFORMER 650 ALL V'S	(STUFFED)
1	028104	BUTTON PUSH SWITCH BLACK	(@S2)
1	028577	CABLE ASSY REVERB 30"	(@P1-4)
2	029719	CABLE FLAT 5CKT 10"	(@P5,6)
4	038689	CAP AE AX .47uF 100V 20%	C16,17,33,37
4	026517	CAP AE AX 2.2uF 50V 20%	C9,41,42,44
1	038691	CAP AE AX 4.7uF 50V 20%	C43
1	038692	CAP AE AX 10uF 50V 20%	C61
7	025960	CAP AE AX 22uF 16V 20%	C4,10,32,34,47,48,60
2	028471	CAP AE RDL 47uF 50V 20%	C45,46
2	028492	CAP AE RDL 1000uF 16V 20%	C53,54
2	028042	CAP AE RDL 2200uF 50V	C51,52
1	038873	CAP CA 22PF 100V 5%	C40
1	039256	CAP CA 68PF 100V 5%	C31
3	038699	CAP CA 100PF 100V 5%	C8,18,36
1	039260	CAP CA 270PF 100V 5%	C7
3	038701	CAP CA 470PF 50V 5%	C15,26,28
1	038874	CAP CA 560PF 50V 5%	C22

ROC PRO 700

PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	039263	CAP CA 1000PF 50V 5%	C21
1	039265	CAP CA 2200PF 100V 5%	C35
1	039266	CAP CA 3300PF 100V 5%	C11
2	039268	CAP CA .4700PF 50V 5%	C2,3
3	027278	CAP MPF .1uF 63V 10%	C27,49,50
2	027281	CAP MPF .22uF 63V 10%	C6,30
3	027286	CAP MPF .47uF 63V 10%	C5,29,55
1	036234	CAP PFF RDL .015uF 100V 10%	C38
7	033591	CAP PFF RDL .033uF 100V 10%	C12,13,14,25,39,56,58
8	033592	CAP PFF RDL .047uF 100V 10%	C1,19,20,23,24,57,59,62
1	027937	CONTROL SNAPIN 2K 15A TAPER	R12 (MID/CH1)
3	027940	CONTROL SNAPIN 50K 15A TAPER	R10,11,53(TREBLE/CH1,BASS/CH1 BASS/CH2)
4	027941	CONTROL SNAPIN 50K B TAPER	R19,44,52,75(VOLUME/CH1,MID /CH2 TREBLE/CH2REVERB
1	027943	CONTROL SNAPIN 50K 30C TAPER	R28 (GAIN)
1	027945	CONTROL SNAPIN 100K B TAPER	R47 (VOLUME/CH2)
25	006260	DIODE 1N4448 75PRV	CR1-3,6-14,19,21,31,35-37,39-42
4	020534	DIODE 1N5402 RECTIFIER 200PRV 3AMP C&F	CR25-28
2	064089	DIODE 1N4003 200PRV 1 AMP	CR23,24
4	028776	DIODE BIAS BYV26D LEAD FORMED	CR15-18
2	027329	DIODE ZEN 1N5228B 3.9V .5W5%	CR20,22
2	028119	DIODE ZEN 1N5353B 16V 5W 5%	CR29,30
2	041320	DIODE ZEN 1N5341B 6.2V 5W 5%	CR4,5
10	025802	FSTN TAB MALE .250X.032 PCB MT	CP1-5,7-11
2	026000	FSTN TAB MALE PCT MT .187X.032	CP6,12
2	025996	FUSE CLIP PCB .250 & 5MM FUSE	XF1
1	048827	FUSE QA 1-1/4X1/4 250V 2AMP	F1 (100V/120V ONLY)
1	020789	FUSE QA 20mmX5mm 250V 1AMP	F1 (EXPORT 230V ONLY)
1	028497	HEATSINK PLATE	(TRANSISTOR MOUNT)
7	016795	IC DUAL OP AMP TL072	U1-6,8
1	028047	IC OP AMP MC1436/SG1436Y	U7
2	040903	INSULATOR MICA TO-218	(@Q5,6)
3	031570	JACK PHONE PCB STEREO PREMIUM	J1,3,5
2	037036	JACK PHONE PCB MONO CA PREMIUM	J2,4
25	020888	JUMPER WIRE 22GA .5X.175	W1-25
1	025926	LED RED PC MOUNT 3MM	LD1
1	040270	LED RED 5MM ROUND PC MT	LD2
1	041480	PCB FAB PERFORMER 650	(RAW PCB)
1	025818	RES CF 1/4W 5% 4.7Ω	R133
1	024947	RES CF 1/4W 5% 47Ω	R71
2	024956	RES CF 1/4W 5% 220Ω	R36,37
1	029604	RES CF 1/4W 5% 300Ω	R13
2	029451	RES CF 1/4W 5% 430Ω	R54,59
1	029609	RES CF 1/4W 5% 910Ω	R127
5	024965	RES CF 1/4W 5% 1K	R22,42,46,63,112
1	028842	RES CF 1/4W 5% 1.1K	R60
1	024967	RES CF 1/4W 5% 1.2K	R58
3	024969	RES CF 1/4W 5% 1.5K	R35,38,74
4	024971	RES CF 1/4W 5% 2.2K	R18,48,94,95
1	024972	RES CF 1/4W 5% 2.7K	R61
2	024937	RES CF 1/4W 5% 3.3K	R26,29
1	026504	RES CF 1/4W 5% 3.6K	R41
2	024975	RES CF 1/4W 5% 3.9K	R83,99
1	024977	RES CF 1/4W 5% 4.7K	R70
2	028034	RES CF 1/4W 5% 5.1K	R6,65
1	024979	RES CF 1/4W 5% 6.8K	R8
1	025942	RES CF 1/4W 5% 7.5K	R17
1	024980	RES CF 1/4W 5% 8.2K	R25
8	024981	RES CF 1/4W 5% 10K	R68,72,111,114,115,121,122,125
1	029539	RES CF 1/4W 5% 13K	R67

ROC PRO 700

PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	024985	RES CF 1/4W 5% 15K	R3,5
6	024987	RES CF 1/4W 5% 22K	R9,14,23,24,40,49
2	024988	RES CF 1/4W 5% 27K	R84,86
7	024993	RES CF 1/4W 5% 47K	R27,43,45,51,80,81,82
1	028990	RES CF 1/4W 5% 51K	R66
1	026507	RES CF 1/4W 5% 62K	R50
2	029613	RES CF 1/4W 5% 91K	R20,21
5	024997	RES CF 1/4W 5% 100K	R31,57,64,69,128
2	025058	RES CF 1/4W 5% 180K	R15,30
4	025059	RES CF 1/4W 5% 220K	R16,55,73,78
3	025065	RES CF 1/4W 5% 470K	R56,79,130
2	028018	RES CF 1/4W 5% 510K	R4,7
2	025067	RES CF 1/4W 5% 680K	R85,132
1	029617	RES CF 1/4W 5% 750K	R1
14	025069	RES CF 1/4W 5% 1M	R2,39,76,77,113,116-119,123,124,131,134,135
1	025084	RES CF 1/4W 5% 10M	R129
3	031767	RES CF 1/2W 5% 15Ω	R62,103,104
1	026493	RES CF 1/2W 5% 2.7K	R126
1	026549	RES CF 1/2W 5% 1.5K	R109
1	028045	RES FILM 1W 5% 220Ω	R87
2	028030	RES FILM 1W 5% 680Ω	R88,89
1	029722	RES FILM 1W 5% 1K	R110
3	027346	FES FILM 1W 5% 1.2K	R100,101,102
2	028029	RES FILM 1W 5% 1.5K	R90,91
2	037354	RES CF 1W 5% 4.7K	R92,93
1	027478	RES WW BT 5W 10% .22Ω	R98
2	028028	RES WW BT 5W 10% .47Ω	R96,97
7	041256	RES WW 5W 10% 470Ω	R32-34, 105-108
2	027638	SCRW TF 4-40X3/8 HWHS ZI	(Q5,6)
2	032908	SCRW TF 6-32X3/8 PHP ZI	(HEATSINK TO PCB MOUNT)
1	029167	SOCKET TUBE 9 PIN PCB MOUNT	XV1
1	028091	SWITCH PUSH SLFLK SHORT STROKE DPDT	S2 (CHANNEL SELECT)
1	038652	SWITCH SLIDE 4P3T	S1 (LEVEL)
1	028503	THERMISTOR 10Ω 5AMP C60-11	TH1
1	013341	TUBE VACUUM 7025-12AX7	V1
2	028169	WSHR SHLDR NYL 5/32X1/4	(@Q5,6)
1	041465	XSTR N-CHNL J-FET J113 TO-92	Q3
3	014689	XSTR N-CHNL J-FET J111 TO-92	Q1,2,4
1	016739	XSTR NPN 2N4401 TO-92	Q7
1	028114	XSTR NPN TIP142 TO-218AC	Q5
1	028115	XSTR PNP TIP147 TO-218AC	Q6

CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	050318	CHS ASSY ROC PRO 700 120V	(COMPLETE CHASSIS)
1	021709	BUSHING SR .437X.602X13/32 BLK	(@ SPEAKER CABLE)
1	026038	BUSHING SR .625X.062X37/64 BLK	(@ POWER CABLE 100V/120V)
1	010401	BUSHING SR .625X.125X37/64 WHT 230V	(@ POWER CABLE 230V)
1	026116	BUSHING SR .500X.063X7/16 BLK	(@ REVERB CABLE)
1	026527	CABLE ASSY POWER W/.187 TABS	(100V/120 ONLY)
1	026528	CABLE ASSY POWER 230V W/.187 TABS	(POWER CABLE 230V EXPORT)
1	036479	CABLE ASSY POWER AUST. W/.187 TABS	(240V AUSTRALIA ONLY)
1	028560	END BELL XFMR 85W	
1	028499	HEATSINK BAR	(COUPLER TO CHASSIS)
10	019798	KNOB ROTARY SS	
4	028591	NUT ACORN 8-32	(TRANSFORMER MOUNT)
1	050315	PANEL FRONT ROC PRO 700	
1	050316	PANEL REAR ROC PRO 700	
3	028500	SCRW TF 8-32X3/4 HWH SLTD ZI	(CHASSIS TO HEATSINK MOUNT)
4	028937	SCRW TF 6—32X5/8 PHPZI ROLOK	(PCB TO CHASSIS MOUNT)

**ROC PRO 700
CHASSIS ASSEMBLY (CONT)**

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	025935	SWITCH POWER DPST	120V DOMESTIC ONLY
1	039287	SWITCH POWER DPST .187 TAB GLOBAL	(EXPORT ONLY)
REF	016420	TUBING SHRINK 1-1/2 BLK	(VACUUM TUBE MOUNT)
4	030007	WSHR LCK INTL 8X.330X.02 ZI	(TRANSFORMER MOUNT)
1	027668	XFMR PWR 120V 85A	(120 DOMESTIC ONLY)
1	039357	XFMR PWR EXP 230V	(100V/230V EXPORT ONLY)

CABINET ASSEMBLY

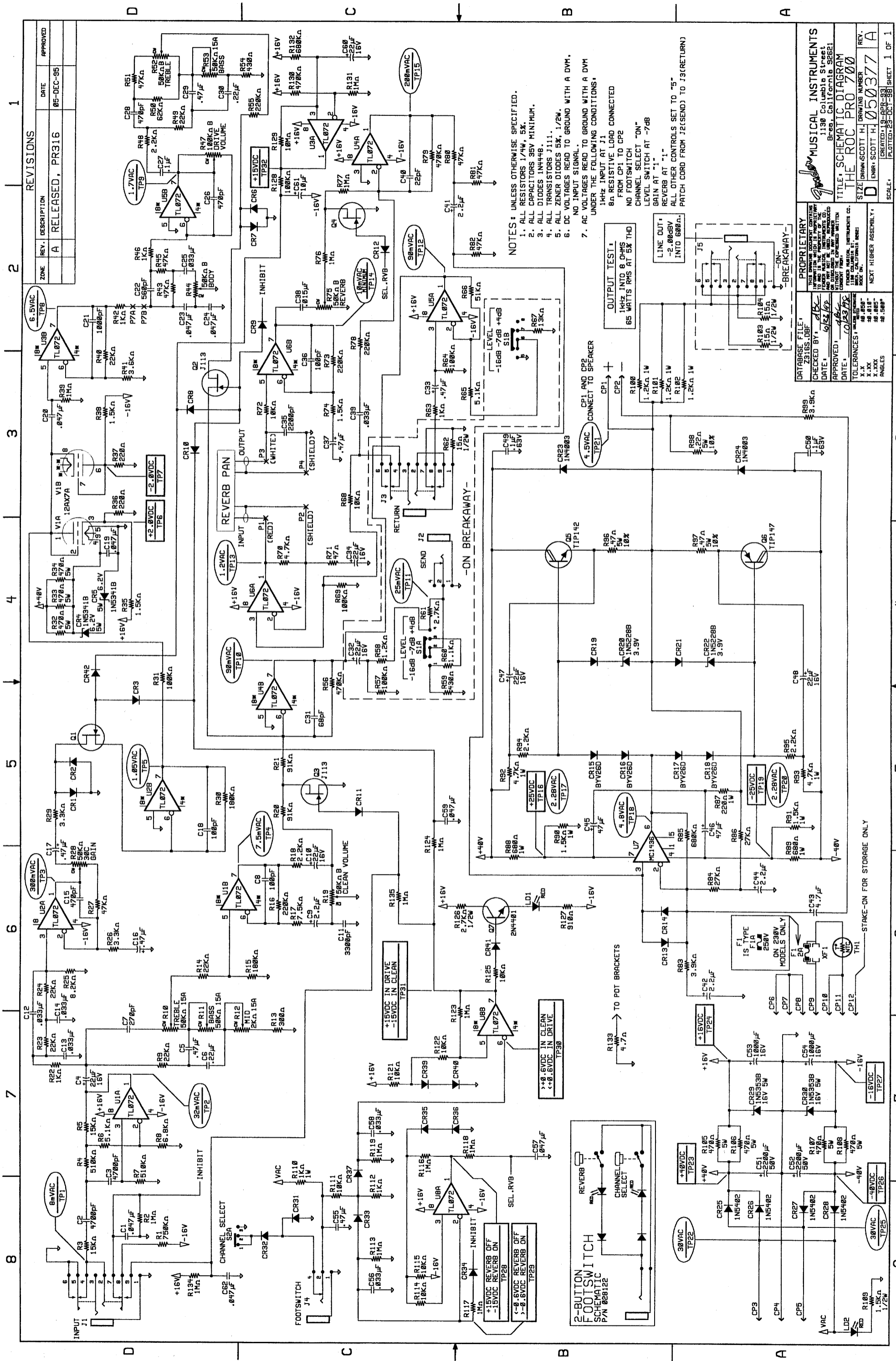
QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	050254	CAB ASSY ROC PRO 700/DLX 112+	(COMPLETE CABINET)
1	022491	CLAMP CABLE NYL SCRW MNT 5/16	(@REVERB CABLE)
4	026566	CORNER 2 HOLE W/ TAB NI	
2	026568	CORNER 3 HOLE NI	
4	029821	EYELET RFLNGD .215 OD X.315L	(@REVERB PAN)
4	019276	GLIDE CAB 1.24X.335NI	(STEEL ONLY, NO INSERT)
4	019275	GLIDE CUSHION INSERT	(RUBBER ONLY)
1	050335	GRILLE ROC PRO 700	(COMPLETE GRILLE)
1	027846	HANDLE 9.25" NO LOGO	(RUBBER ONLY, NO INSERT)
2	019279	HANDLE CAP 2-3/16 NI	(HANDLE MOUNT)
1	032524	INSERT HANDLE	(SPRING STEEL)
1	047600	NAMEPLATE LOGO BLACK	
4	050311	NUT 2-56 NYLON INSERT 2CNME-2	(LOGO MOUNT)
8	021972	NUT T 10-32X3/4 STR 3 PRNG BLX	(HANDLE/SPEAKER MOUNT)
1	028055	REVERB UNIT 800 Ω 8EB2C1B DN	
10	026571	SCRW CORNER MOUNTING	
4	022244	SCRW M 10-32X1-1/8 OHP NI	(HANDLE MOUNT)
4	026577	SCRW M 10-32X1 PHP BLX	(SPEAKER MOUNT)
6	036199	SCRW M 8-32X1-3/16 OHP BLX WX	(CHASSIS MOUNT)
5	029828	SCRW PB 8X3/4 PHP ZI	(REVERB PAN MOUNT)
8	011678	SCRW SMA 8X1-1/2 OPH BLX	(GRILLE MOUNT)
4	050312	SCRW M 2-56X3/8 FHP NI	(LOGO MOUNT)
4	026652	SCRW WOOD 8X1 FH	(GLIDE MOUNT)
8	050317	STANDOFF RUBBER .75 DIA X.77	(GRILLE MOUNT)
1	025923	SPEAKER 12" 8 Ω 75 WATT	
12	029527	WSHR FNSH 8-5/8 FLNGD BLX WX	(CHASSIS/GRILLE MOUNT)

FOOTSWITCH ASSEMBLY

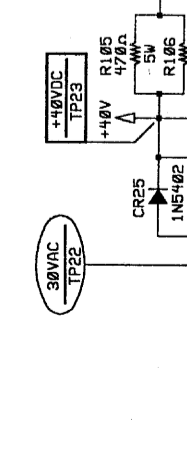
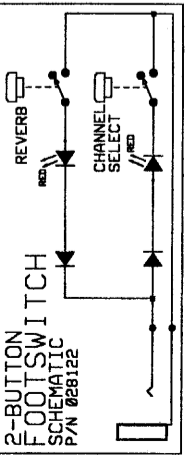
QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	028122	FTSW ASSY 2 BTTN REVERB F/LOGO	(COMPLETE FOOTSWITCH)
1	028895	CABLE ASSY FTSW RT ANG 12'	
2	006260	DIODE 1N4448 SIGNAL BENT	CR1,2
1	037036	JACK PHONE PCB MONO CA PREMIUM	J1
2	028039	LED RED 5X5XMM SLB-55VR3	LD1,2
1	028448	PCB ASSY FTSW 2 BUTTON	
8	028889	SCRW SMB 6X1/4 PHP	(END CAP MOUNT)
2	03492	1SPACER RND NYL .147X.250X.780	
2	028714	SWITCH PUSH SPDT	
2	031899	WSHR NYL .485X.775X.150 TK	

MISCELLANEOUS

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	050367	MANUAL OWNERS ROC PRO 700	
1	050377	SCHEM REDU W/SVC ROC PRO 700	



- NOTES: UNLESS OTHERWISE SPECIFIED.
1. ALL RESISTORS 1/4W, 5%.
 2. ALL CAPACITORS 35V MINIMUM.
 3. ALL DIODES 1N4148.
 4. ALL TRANSISTORS J111.
 5. ALL ZENER DIODES 5%, 1/2W.
 6. DC VOLTAGES READ TO GROUND WITH A DVM. NO INPUT SIGNAL.
 7. AC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 - 1KHz INPUT AT J1
 - 8Ω RESISTIVE LOAD CONNECTED FROM CP1 TO CP2
 - NO FOOTSWITCH
 - CHANNEL SELECT "ON"
 - LEVEL SWITCH AT -7dB
 - GAIN AT "1"
 - REVERB AT "1"
 - ALL OTHER CONTROLS SET TO "5"
 - PATCH CORD FROM J2(SENDS) TO J3(RETURN)



REV.	DATE	APPROVED
A	05-DEC-95	

REVISIONS

ZONE

DESCRIPTION

RELEASED, PR316

DATE	1995	SCALE	1 OF 1
CHECKED BY	gls/ldp	PLOTTED	23-OCT-98
APPROVED	gls/ldp	DRAWING NUMBER	050377 A
DATE	1995	ENGINEER	SCOTT H.
TOLERANCES	UNLESS OTHERWISE SPECIFIED	SIZE	D
V.X.	XXX	NEXT HIGHER ASSEMBLY	
X.XXX	XXX		
ANGLES	30, 60, 90, 120, 150, 180		

MUSICAL INSTRUMENTS
1130 Columbia Street
Brea, California 92621

TITLE: SCHEMATIC DIAGRAM
THE ROC PRO 700

PROPRIETARY
THIS INFORMATION IS THE PROPERTY OF MUSICAL INSTRUMENTS CO. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF MUSICAL INSTRUMENTS CO.

STAKE-ON FOR STORAGE ONLY

