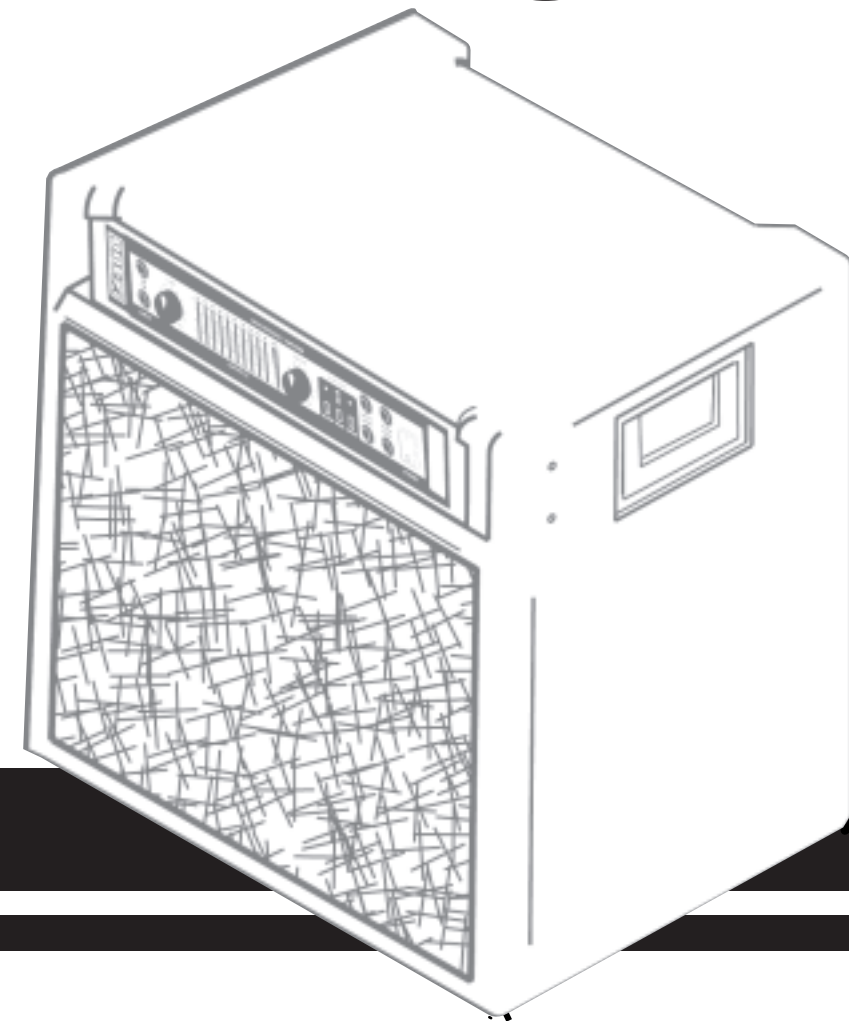




**BASS MASTER**  
**400**

# **SERVICE MANUAL**



**WORLD HEADQUARTERS  
CANADA**

**Yorkville Sound**  
550 Granite Court  
Pickering, Ontario  
L1W-3Y8 CANADA

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**U.S.A.**

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s-bm400-1v1.pdf Sept05/2000

**Quality and Innovation Since 1963**

Printed in Canada

## IMPORTANT SAFETY INSTRUCTIONS



**INSTRUCTIONS PERTAINING TO A  
RISK OF FIRE, ELECTRIC SHOCK, OR  
INJURY TO PERSONS.**

**INSTRUCTIONS RELATIVES AU  
RISQUE DE FEU, CHOC ÉLECTRIQUE,  
OU BLESSURES AUX PERSONNES.**

### CAUTION:

DO NOT REMOVE COVER (OR BACK).  
NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED  
SERVICE PERSONNEL.

AFIN DE RÉDUIRE LES RISQUE DE CHOC  
ÉLECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU  
NE CONTIENT AUCUNE  
PIÈCE RÉPARABLE PAR L'UTILISATEUR.

CONSULTEZ UN TECHNICIEN  
QUALIFIÉ POUR L'ENTRETIEN.

### Read Instructions:

The *Owner's Manual* should be read and understood before operation of your unit. Please, save these instructions for future reference.

### Packaging:

Keep the box and packaging materials, in case the unit needs to be returned for service.

### Warning:

When using electric products, basic precautions should always be followed, including the following:

#### Power Sources:

Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless all three blades can be fully inserted to prevent blade exposure. Precautions should be taken so that the grounding scheme on the unit is not defeated.

#### Power Cord:

The AC supply cord should be routed so that it is unlikely that it will be damaged. If the AC supply cord is damaged **DO NOT OPERATE THE UNIT.**

#### Service:

The unit should be serviced only by qualified service personnel.

### Veillez lire le manuel:

Il contient des informations qui devraient être comprises avant l'opération de votre appareil. Conservez S.V.P. ces instructions pour consultations ultérieures

### Emballage:

Conservez la boîte au cas où l'appareil devait être retourner pour réparation.

### Warning:

Attention: Lors de l'utilisation de produits électrique, assurez-vous d'adhérer à des précautions de bases incluant celle qui suivent:

#### Alimentation:

L'appareil ne doit être branché qu'à une source d'alimentation correspondant au voltage spécifié dans le manuel ou tel qu'indiqué sur l'appareil. Cet appareil est équipé d'une prise d'alimentation polarisée. Ne pas utiliser cet appareil avec un cordon de raccordement à moins qu'il soit possible d'insérer complètement les trois lames. Des précautions doivent étre prises afin d'éviter que le système de mise à la terre de l'appareil ne soit désengagé.

#### Cordon d'alimentation:

Évitez d'endommager le cordon d'alimentation. **N'UTILISEZ PAS L'APPAREIL** si le cordon d'alimentation est endommagé.

#### Service:

Consultez un technicien qualifié pour l'entretien de votre appareil.

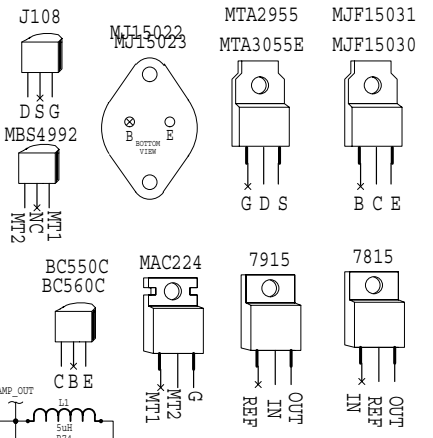
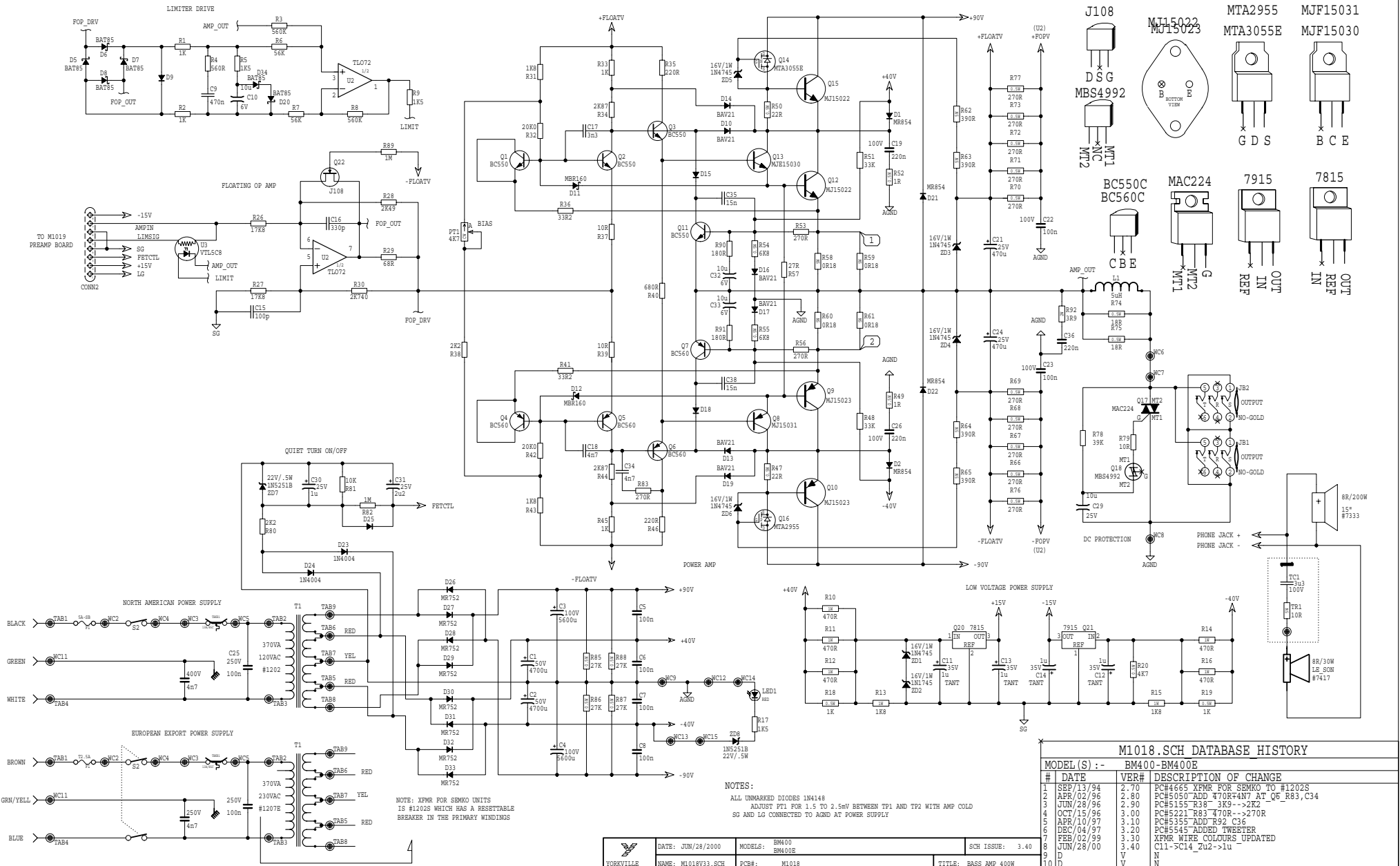
## BM400 Parts List 9/28/98

YS #	Description	Qty.	YS #	Description	Qty.	YS #	Description	Qty.
6405	RED 3MM LED 1V7 5MA BRIGHT PACE	1	3819	5UH COIL 18AWG R000 AIR CORE	1	4827	1/4W 4K7 5% T&R RES	6
6407	YELLOW3MM LED 1V8 5MA EVRLITE204YD	1	8547	PLASTIC FOOT BLACK	4	4628	1/2W 6K8 5% T&R RES	2
6408	GREEN 3MM LED 1V9 5MA FROSTED	1	3463	CLIP 110X020 18-22AWG DISCO/INSL	4	4828	1/4W 6K8 5% T&R RES	11
6421	MR752 200V 6A0 DIODE	8	3489	CLIP 250X032 18-22AWG DISCO/INSL	5	4800	1/4W 10K0 1% T&R RES	4
6425	BAV21 200V 0A25 DIODE T&R	6	3491	CLIP 205/187X020 18-22AWG DISCO/INS	2	4829	1/4W 10K 5% T&R RES	3
6438	1N4004 400V 1A0 DIODE T&R	6	3494	CLIP 205/187X020 14-16AWG DISCO/INS	1	4856	1/4W 12K 5% T&R RES	1
6825	1N4148 75V 0A45 DIODE T&R	18	3682	250 MALE PCB TAB BULK ON CATRIGE	10	4901	1/4W 13K 5% T&R RES	1
6934	MR854 400V 3A0 DIODE FAST RECOV	4	3498	M203-02 PLAIN PC MNT JK SKT	5	4876	1/4W 16K 5% T&R RES	3
6471	MBR160 60V 1A0 DIODE SCHTKY	2	3523	M203-02A GOLD TIP PC MNT JK SKT	3	4771	1/4W 17K8 1% T&R RES	2
6733	BAT85/11330V 0A2 DIODE SCHTKY T&R	6	3528	M203-02C GOLD TIP/RING PC MNT JK	2	4885	1/4W 20K 5% T&R RES	2
6439	1N5225B 3V0 0W5 ZENER 5% T&R	2	3912	1/4" RIGHT ANGLE PHONEPLUG 228	1	6123	1/4W 20K0 1%MINI MF T&R RES	2
6822	1N4745A 16V0 1W0 ZENER 5% T&R	6	3451	0.089 OD SMALL EYELET ELECTROPLATED	51	4902	1/4W 24K 5% T&R RES	4
6463	1N5251BRL 22V0 0W5 ZENER 5% T&R	2	3414	INTERNATIONAL PC MOUNT FUSEHOLDER	2	4633	1/2W 27K 5% T&R RES	4
6871	MC7915CT TO220 NEG 15V0 REG	1	2427	5.0 AMP SLO-BLO .25X1.25 FUSE	1	4840	1/4W 33K 5% T&R RES	2
6872	MC7815CT TO220 POS 15V0 REG	1	8434	AP SERIES PLASTIC HANDLE PAIR	2	4853	1/4W 39K 5% T&R RES	1
5101	BC550C TO92 NPN TRANS. T&R	4	8542	HANDLE, RECESSED, PULL, BLACK PLASTIC	2	4834	1/4W 47K 5% T&R RES	13
5102	BC560C TO92 PNP TRANS. T&R	16	8604	10-32 T NUT	4	4835	1/4W 56K 5% T&R RES	2
5103	MPSA06 TO92 NPN TRANS. T&R	2	7417	8R 30W TWEETER PIEZO TLC 1	1	4838	1/4W 100K 5% T&R RES	4
5119	2N5638 TO92 N CHAN J FETT&R	1	3692	HEATSINK THERMALLOY 6079-PB	1	4849	1/4W 180K 5% T&R RES	2
5122	J102-J109 TO92 N CHAN J FETT&R	1	3894	AAVID 5972-B H/S W/TAB B.O.	2	4874	1/4W 560K 5% T&R RES	2
6810	MJF15030 221D NPN TRANS	1	3501	B52200F006 COMP WASH #4 SMALL	4	4844	1/4W 1M 5% T&R RES	5
6811	MJF15031 221D-PNP TRANS	1	8609	VINYL CAP 0.025" X 1/2" BLK.	2	4888	1/4W 4M7 5% T&R RES	2
6777	MTA2955 TO220 P CHAN MOSFET	1	8682	#4 TEFLON WASHER .125ID .281OD .031	4	3681	13" 8C-28AWG RIBBON CABLE .100"	1
6778	MTA3055E TO220 N CHAN MOSFET	1	8493	6-32 X 1 1/4 PEM STUD	1	9896	CABINET COVER, MIDNIGHT BLUE, 54" W	18.017
6900	YS6900 (22) TO3 NPN TRANS.	2	3449	REAN JACK NUT RED	2	9005	20GA COLD ROLLED STEEL 4X8? SHEET	2.26
6927	YS6927 (23) TO3 PNP TRANS.	2	3795	#8 GROUND LUG ZIERICK 505-169	1	9012	12GA COLD ROLLED STEEL 4? X 8?	1.28
6878	TL071CP IC FET OP AMP	2	3803	NYLON SECUR-A-TACH MINI PLASTIC TIE	1	9020	18GA COLD ROLLED STEEL 4X8 SHEET	5.37
6882	TL072CP IC FET DUAL OP AMP	3	3810	4" NYLON CABLE TIE	11	9048	.187 HOLE @ .250 STAG 18GA PYRAMID	2.532
	TL072CP IC DUAL O/A TEXASI ONLY	1	3827	SQUARE BUMPER BUTTON BLACK	5	9060	14GA COLD ROLLED STEEL 4X8 SHEET	1.5
6936	4007 IC COMPLIMENTARY PAIRS	1	8433	AP SERIES PLASTIC KNOB	2	9065	14GA SATINCOAT STEEL 4X8 SHEET	0.08
5190	MBS4992 TO92 8V5 DIAC T&R	1	8655	BUTTON KNOB BLACK REAN P120-05	3	9548	.187" 48X96 UTILITY ALUM W/PLASTIC	0.384
6444	MAC224-4 TO220 40A TRIAC 200V	1	3481	8? 3/18 SJT AC LINE CORD 250 CLIPS	1	9561	SP8/BETA150/BLOC250 HEATSINK	1.08
6860	VTL5C8 OPTO-COUPLER	1	3834	HEYCO #1214 STRAIN RELIEF	1	9811	3/4"X4?X8? SPRUCE STAN. SHEATING	15.89
5410	100P 100V 10%CAP T&R BEAD NPO	5	8261	GE VELVET LEXAN .007" X 12" X 24"	0.272	9815	1/2" POPLAR SELECT 1 4X4 ONLY	0.5
5412	220P 100V 10%CAP T&R BEAD NPO	1		"Y" LOGO PULSE SERIES LARGE DOMED	1	8741	4-40 X 1/2 PAN PH MS JS500	6
5417	330P 50V 10%CAP T&R BEAD NPO	1	8910	YORKVILLE PRODUCT MANUAL	1	8808	4-40 X 3/4 FL AT PH MS SJ500	1
5420	680P 50V 10%CAP T&R BEAD NPO	2	8900	YORKVILLE WARRANTY CARD 2-YR UNLTD.	1	8832	6-32 X 1/4 PAN PH TAPTITE SJ500	6
5274	.2N2 200V 5%CAP T&R RAD CER.2"NPO	1	3600	8 CIR RIGHT ANGLE SQUARE PIN HEADER	1	8801	6-32 X 3/8 PAN PH TAPTITE SJ500	3
5426	.2N2 50V 10%CAP T&R TUBULAR Y5R	2	3676	8 CIR CABLE HOLDER .098	1	8829	6-32 X 3/8 FLAT PH TAPTITE BO#4 HEA	28
5275	.3N3 100V 5%CAP T&R RADIAL.2"FILM	2	8701	4-40 KEPS NUT ZINC	7	8747	6-32 X 1/2 HEX ND MS ZINC	9
5428	.3N3 50V 10%CAP T&R TUBULAR Y5R	3	8800	6-32 KEPS NUT ZINC	23	8835	6-32 X 1/2 PAN QUAD MS TIN PLATED	8
5432	.4N7 50V 10%CAP T&R TUBULAR Y5R	4	8845	10-32 PEMNUT SS-032-2-21	16	8823	6-32 X 1 PAN PH TAPTITE SJ500	3
6451	.4N7 250V 20%CAP AC Y ONLY RAD10MM	1	8797	5/16-18 KEPS NUT SJ500	1	8878	#6 X 2" PAN PHIL TYPE A JS500 BLACK	4
5204	.10N 100V 10%CAP T&R RADIAL.2"FILM	1	3815	TO3 PREGREASED MICA 56-03-2AP	4	8869	8-18 X 1/2 THRD CUTTING FOR PLASTIC	4
5301	.12N 50V 10%CAP T&R BEAD X7R	3	4597	22AWG STRAN TC WIR	23	8767	#8 X 3/4 PAN PHIL TYPE A JS500 BLK	6
5205	.15N 100V 10%CAP T&R RADIAL.2"FILM	1	4599	22AWG SOLID SC WIR T&R	84	8809	10-32 X 1/4 PAN PH TAPTITE SJ500	2
5302	.15N 50V 10%CAP T&R BEAD X7R	2	4719	5.0W 0R18 5% BLK RES	4	8756	#10 X 3/4 PAN PH TYPE A JS500 BLACK	8
5210	.22N 100V 10%CAP T&R RADIAL.2"FILM	2	4677	1/2W 1R 5% T&R RES	2	8727	#10 X 1" PAN PH MS TYPE AB JS500	4
5304	.22N 50V 10%CAP T&R BEAD X7R	1	4748	2.0W 3R9 5% BLK RES	1	8843	10-32 X 1 1/8 FLAT PH MS SJ500	4
5306	.33N 50V 10%CAP T&R BEAD X7R	2	4750	5.0W 10R 5% BLK RES	1	8786	10-32 X 1 1/4 PAN OD MS JS500 BLACK	8
5223	.39N 100V 10%CAP T&R RADIAL.2"FILM	1	4875	1/4W 10R 5% T&R RES	4	8736	5/16-18X2-3/4 GRD 5 HEX BOLT JS500	1
5224	.47N 100V 10%CAP T&R RADIAL.2"FILM	2	4612	1/2W 18R 5% T&R RES	2	8905	YORKVILLE PRODUCT SCHEMATIC	1
5312	.82N 50V 10%CAP T&R BEAD X7R	1	4618	1/2W 22R 5% T&R RES	2	8663	11/64 NYLON SPACER (MICRO PLASTIC)	8
5228	100N 100V 5%CAP T&R RADIAL.2"FILM	9	4818	1/4W 22R 5% T&R RES	1	3739	CUSTOM .4 LED SPACER	3
5242	100N 250V 20%CAP AC X2 SEMKO 15MM	1	4882	1/4W 27R 5% T&R RES	1	3865	1/2 PLASTIC HEX SPACER #6	4
5314	100N 50V 10%CAP T&R BEAD X7R	10	4995	1/4W 33R2 1%FLAME PROOF T&R RES	2	8665	6X1/2 METAL SPACER FOR GUITABEC PLT	1
5229	150N 63V 10%CAP T&R RADIAL.2"FILM	1	4817	1/4W 47R 5% T&R RES	1	8668	#6 X 5/8 PLASTIC SPACER #SP65	3
5317	180N 50V 10%CAP T&R BEAD X7R	1	4811	1/4W 68R 5% T&R RES	1	7333	15" 8R 200W SPEAKER BASS	1
5318	220N 50V 10%CAP T&R BEAD X7R	3	4852	1/4W 100R 5% T&R RES	12	8818	3/4 OD X 5/16 ID X .08 THICK WASHER	2
5600	220N 100V 10%CAP RAD POLYFILM BULK	2	4819	1/4W 180R 5% T&R RES	2	8473	#10 FLAT CUPWASHER SWF-10BK	4
5233	330N 63V 5%CAP T&R RADIAL.2"FILM	1	4857	1/4W 220R 5% T&R RES	2	8817	#10 BLK WASHER BLACK OXIDE	4
5320	330N 50V 10%CAP T&R BEAD X7R	3	4667	1/2W 270R 5% T&R RES	10	8850	#10 INT TOOTH LOCKWASHER BO	4
5234	470N 63V 10%CAP T&R RADIAL.2"FILM	1	4867	1/4W 270R 5% T&R RES	3	3421	DPDT PUSH SW PCMT MAKE B4 BREAK	3
5322	470N 50V 10%CAP T&R BEAD Z5U	1	4736	5.0W 390R 5% BLK RES	4	3587	DPDT ROKR SW QUIK 250" AC/PWR SEMKO	1
5255	.1U 63V 20%CAP T&R RADIAL ELE.2"	2	4713	1.0W 470R 5% T&R RES	5	3399	THERMO/BRKR:N/CLOSED OPEN@96C	1
5256	.1U 63V 5%CAP T&R RADIAL.2"FILM	3	4821	1/4W 470R 5% T&R RES	9	3900	2/18 RUBBER SPEAKER WIRE	2.5
5518	.1U 35V 10%CAP TANTALUM RADIAL.2	4	4871	1/4W 560R 5% T&R RES	4	3937	YELLOW 18 AWG TR-64 PREFUSED	1
5257	.2U2 63V 20%CAP T&R RADIAL ELE.2"	1	4873	1/4W 680R 5% T&R RES	2	3939	BLUE 18 AWG TR-64 PREFUSED	3.417
5942	.3U3 100V 20%CAP RAD POLYFILM BULK	1	4823	1/4W 820R 5% T&R RES	5	3940	RED 18 AWG TR-64 PREFUSED	4.25
5259	.4U7 63V 20%CAP T&R RADIAL ELE.2"	1	4892	1/4W 910R 5% T&R RES	1	3941	BLACK 18 AWG TR-64 PREFUSED	6.083
5281	.10U 16V 20%CAP NONPOLAR T&R .2"	4	4623	1/2W 1K 5% T&R RES	2	3948	ORANGE 18 AWG TR-64 PREFUSED	2.083
5267	100U 25V 20%CAP T&R RADIAL ELE.2"	2	4823	1/4W 1K 5% T&R RES	9	3950	GREEN 18 AWG TR-64 PREFUSED	7.833
5621	470U 63V 20%CAP RADIAL ELECT BULK	2	4824	1/4W 1K5 5% T&R RES	6	1207	BM400/H T?RD	1
5859	4700U 50V 20%CAP RADIAL ELECT BULK	2	4683	1.0W 1K8 5% T&R RES	2			
5890	5600U 100V 20%CAP RAD ELECT 35X50MM	2	4825	1/4W 1K8 5% T&R RES	4			
4522	4K7 TRIM POT	1	4847	1/4W 2K2 5% T&R RES	2			
4395	.2K 5C-REV/AUDIO STYLE"P22"16MM	1	4883	1/4W 2K49 1% T&R RES	1			
4390	.10K AUDIO DETENT STYLE"P22"16MM	1	4764	1/4W 2K740 0.1% *** T&R RES	1			
3996	20K SLD MON WHT KB V 30M DT	11	4805	1/4W 2K87 1% T&R RES	2			
713	25 X 20 X 50 2 MIL PLASTIC BAG	1	4627	1/2W 4K7 5% T&R RES	1			

WARNING: 180VDC IS BETWEEN POWER SUPPLIES.

THIS PRESENTS A SIGNIFICANT SHOCK HAZARD.

PLEASE, USE EXTREME CAUTION WHEN SERVICING!



NOTE: XPMR FOR SEMKO UNITS IS #1202S WHICH HAS A RESETTABLE BREAKER IN THE PRIMARY WINDINGS

NOTES:  
ALL UNMARKED DIODES 1N4148  
ADJUST P21 FOR 1.5 TO 2.5mV BETWEEN TP1 AND TP2 WITH AMP COLD  
SG AND LG CONNECTED TO AGND AT POWER SUPPLY

M1018_SCH DATABASE HISTORY			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	SEP/13/94	2.70	PCH4665 XPMR FOR SEMKO TO #1202S
2	APR/02/96	2.80	PCH5050 ADD #70R4N7 AT_Q8_R83,C34
3	JUN/28/96	2.90	PCH5155 R38 3K9->2K2
4	OCT/15/96	3.00	PCH5221 R83 470R->270R
5	APR/10/97	3.10	PCH5355 ADD R92 C36
6	DEC/04/97	3.20	PCH5545 ADDED TWISTEER
7	FEB/02/99	3.30	XPMR WIRE COLOURS UPDATED
8	JUN/28/00	3.40	C11->C14_u2->1u
9	D	N	
10	D	N	

YORAVILLE	DATE: JUN/28/2000	MODEL#: BM400	SCH ISSU#: 3.40
	NAME: M1018V33.SCH	PCB#: M1018	TITLE: BASS_AMP_400W

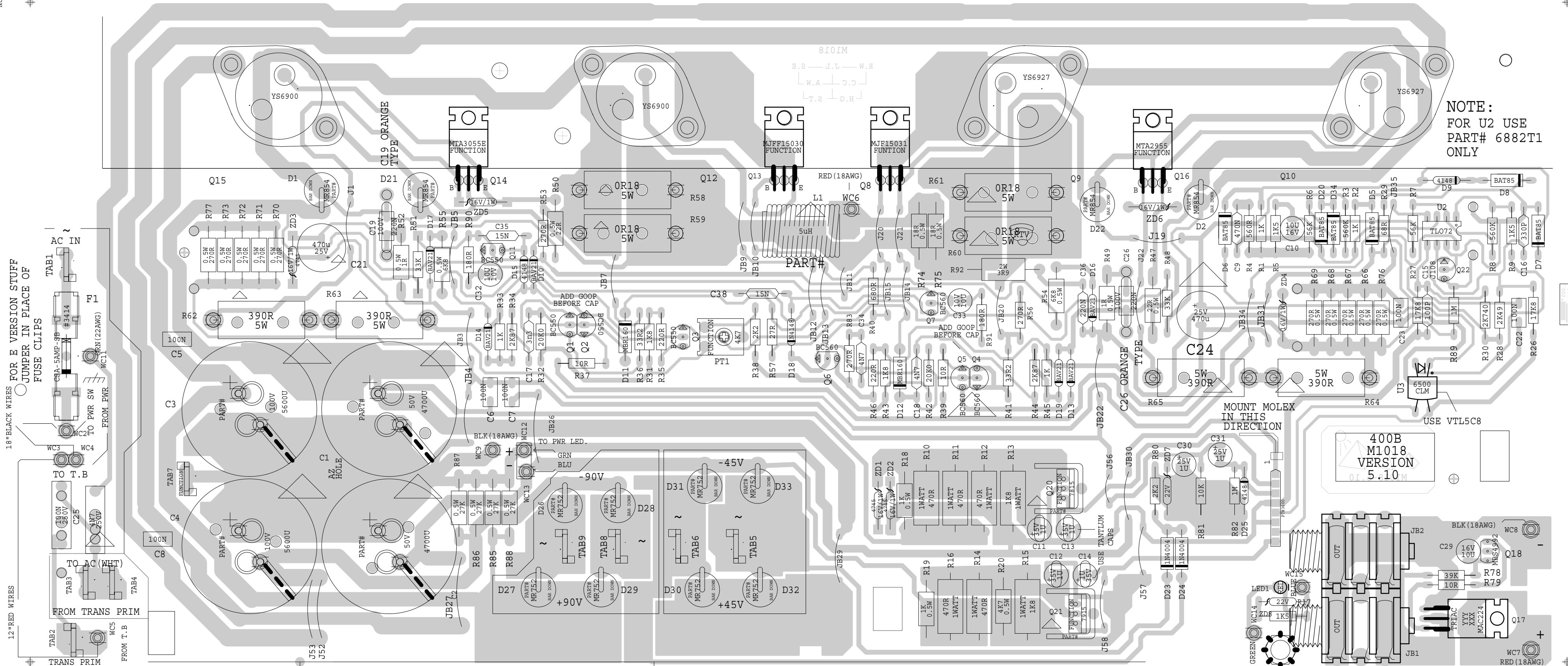
ASSEMBLY M1018-5.10  
PCB MECH M1018-5.10

SOLERSIDE M1018-2.10

BLANK SIZE=16.650"X7.950"  
BLANK SIZE=16.650"X7.950"

ETCH GUIDE

NOTE:  
FOR U2 USE  
PART# 6882T1  
ONLY



18"BLACK WIRES FOR E VERSION STUFF JUMPER IN PLACE OF FUSE CLIPS

12"RED WIRES

400B M1018 VERSION 5.10

ETCH GUIDE

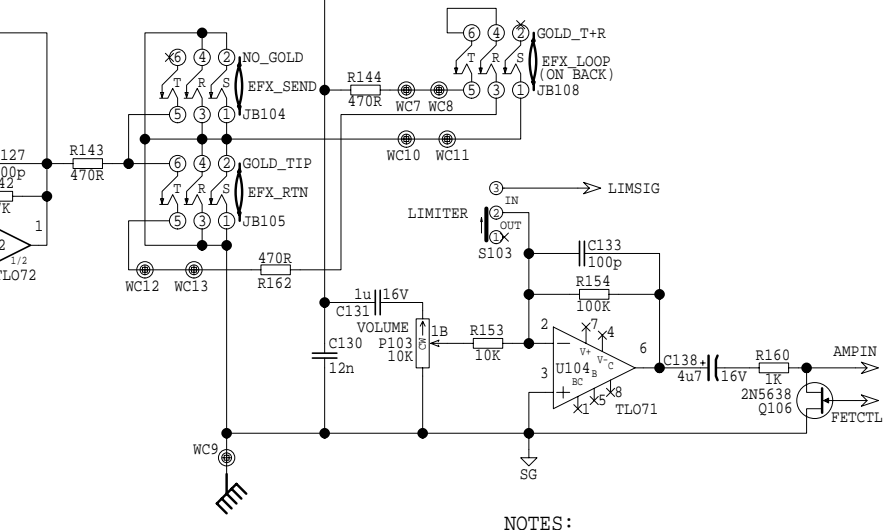
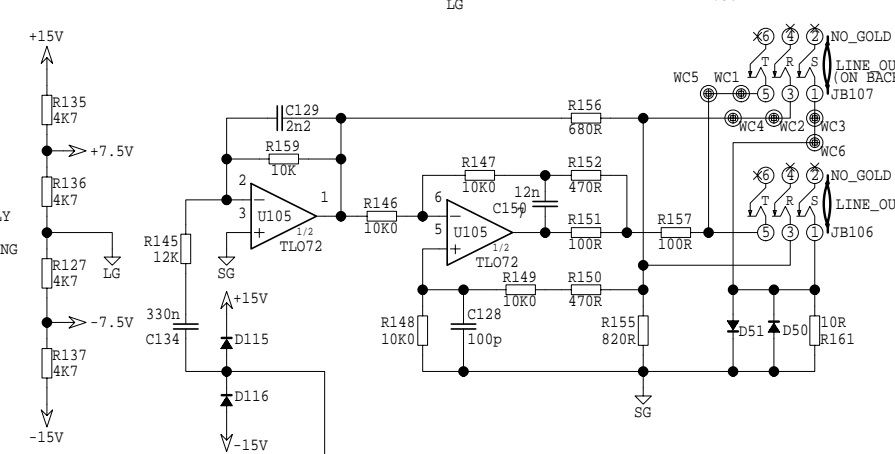
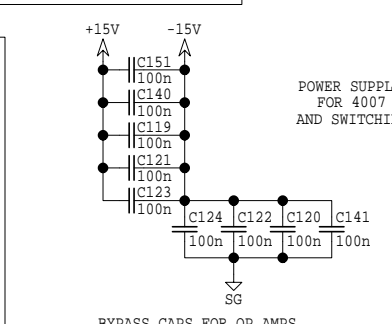
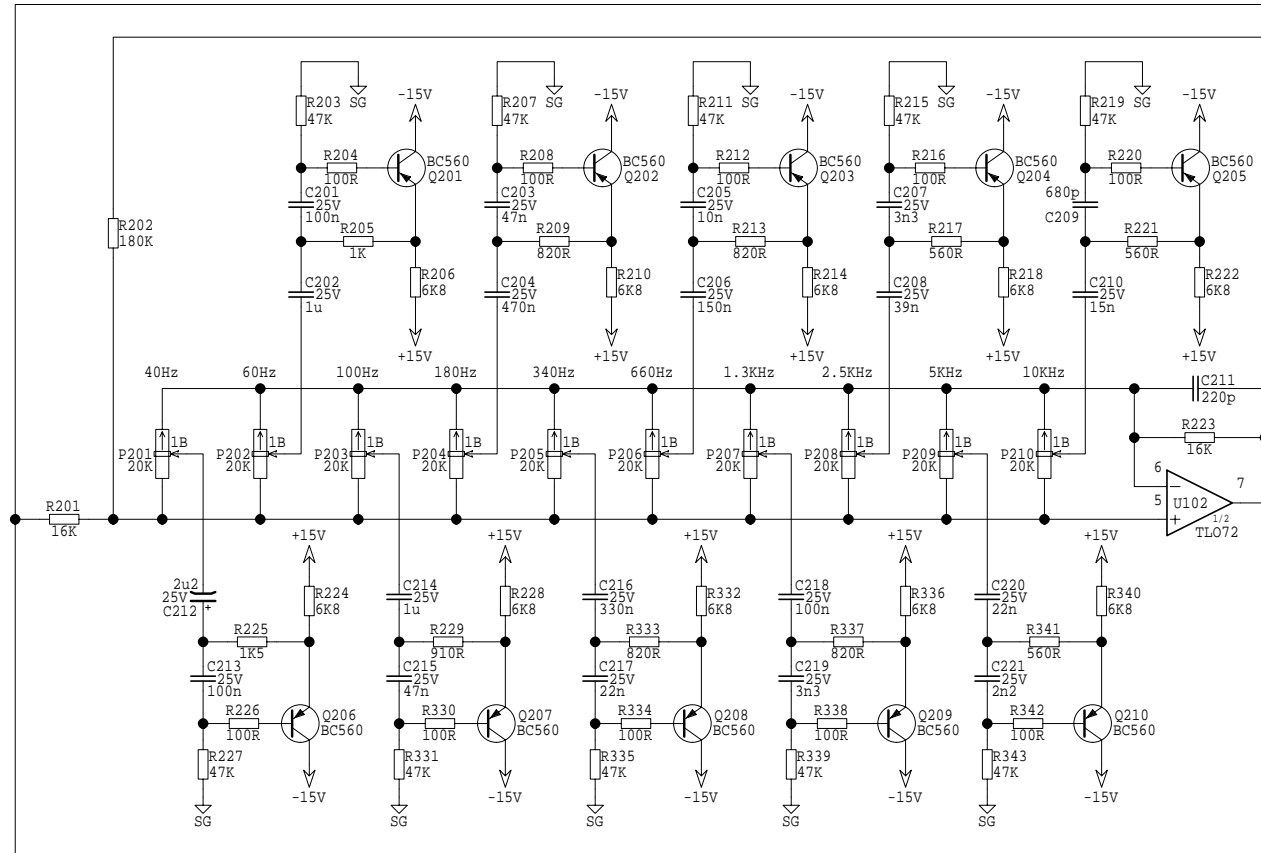
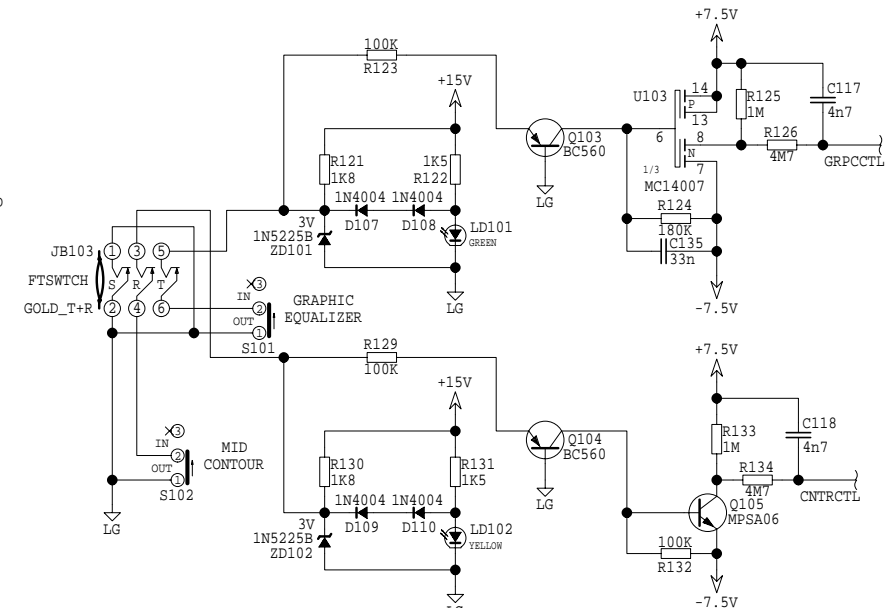
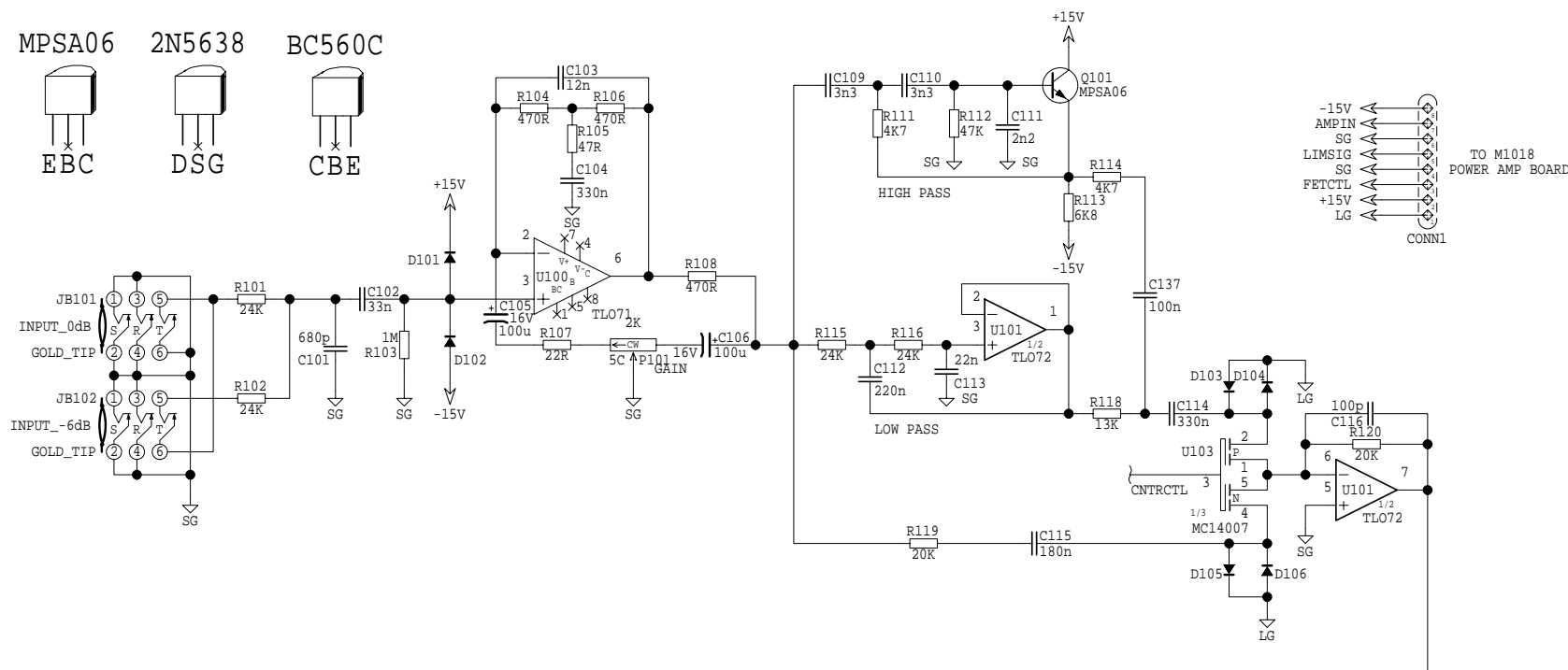
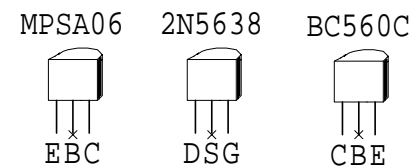
M1018.PCB DATABASE HISTORY

#	DATE	VER#	DESCRIPTION OF CHANGE
1	NOV/30/93	3.40	C25 TO 100N
2	APR/02/96	3.50	PC#5050_ADD_470R_(R83)_4N7 (C34)
3	.	.	BASE TO COLLECTOR Q6
4	JUN/28/96	3.60	PC#5155-R38 3K9-->2K2
5	OCT/15/96	4.00	PC#5221-R83-470K->270R
6	APR/09/97	4.00	PC#5355-ADD-3R9 R92 220N C36
7	JUN/02/98	5.00	PC#5727 C25-SPACING-.9" ADD RTV HOLES MOVE WC15
8	AUG/30/00	5.10	PC#5186 DELETE_HEATSINK FROM_Q17
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

PRODUCTION NOTES

- 1 U2 USE PART# 6882T1 TEXAS INSTRUMENTS ONLY.
- 2 FOR E VERSION REPLACE FUSE CLIPS WITH A JUMPER WIRE.





NOTES:  
ALL UNMARKED DIODES 1N4148



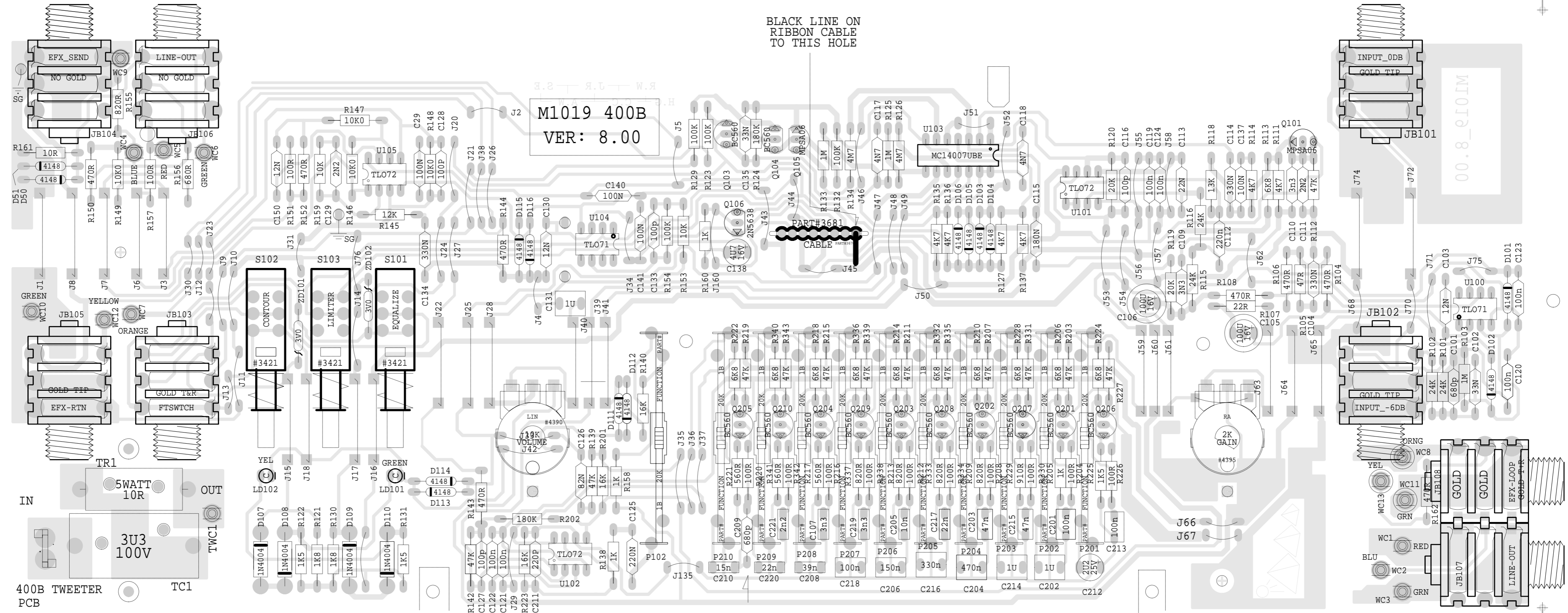
ASSEMBLY M1019-8.00  
PCB MECH M1019-8.00

SOLDERSIDE M1019-8.00

ETCH GUIDE

GUIDE ETCH

BLACK LINE ON RIBBON CABLE TO THIS HOLE



BLANK SIZE=15.100" X 6.600"

UP

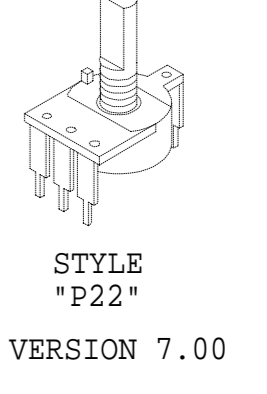
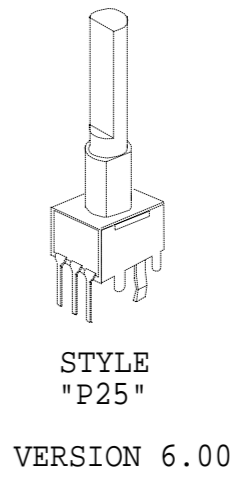
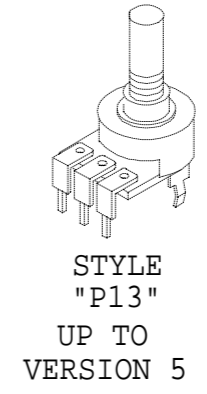
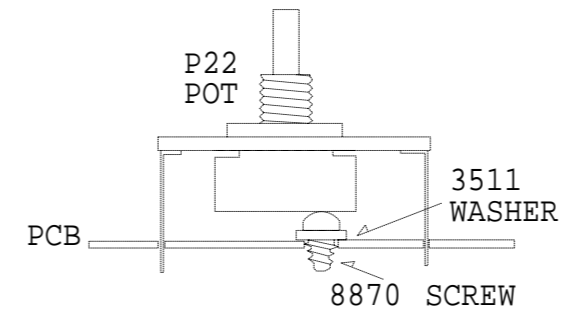
ETCH GUIDE

BREAK THIS BOARD AWAY BEFORE SHEARING

M1019.PCB_DATABASE_HISTORY			
MODEL(S):- 400B			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	JUN/06/97	4.00	PC#4740 MODIFIED SWITCHES
2			AMP-INS TO EYELETS
3	DEC/04/97	5.00	BREAKAWAY PCB FOR TWEETER_ADDED
4	DEC/12/97	6.00	ROTARY POTS CHANGED
5	JUN/10/98	7.00	POTS_CHANGED_TO_DETENT_STYLE
6	DEC/10/98	8.00	POT_SUPPORT_SCREW_ADDED
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N

PRODUCTION NOTES

- 1 MAKE SURE THAT THE TRANSISTORS BETWEEN THE SLIDERS DO NOT INTERFERE WITH THE SLIDERS
- 2 C209 MUST NOT TOUCH LEG OF SLIDE POT
- 3 BREAKAWAY TWEETER BOARD IS FOR 400B AND IS DELIVERED TO FINISHING



POT STYLES USED