Infinity

Compositions Series
Overture 3
Powered Loudspeakers
Service Manual

Infinity Systems, Inc

250 Crossways Park Dr.

Woodbury, New York 11797

Rev1 5/2004

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Infinity continually strives to update and improve existing products, as well as create new ones. The specifications and construction details in this and related Infinity publications are therefore subject to change without notice.

Specifications

Overture 3 Frequency Response:	25Hz - 20,000Hz (±3dB)
Recommended Amplifier Power Range	10-200 watts*
Amplifier Peak Output:	500VA
Maximum Output:	115 dB SPL
Sensitivity:	94 dB 2.83V @ 1 meter
Nominal Impedance:	8Ω
Crossover Frequencies:	350 and 3,000Hz
Low-Frequency Driver:	(4) 6-1/2” (165mm) high efficiency, dynamically balanced, magnetically shielded woofers.
Midrange Driver:	(2) 5-1/4” (125mm) high-efficiency, magnetically shielded midrange drivers.
High-Frequency Driver:	**(**1**)** 1” (25mm) soft dome, high-efficiency, neodymium magnet, magnetically shielded tweeter.
Dimensions (H x W x D):	46" x 6-7/8" x 15-3/4" (1,168mm x 175mm x 400mm)
Weight:	59 lb/(26.8 kg)
Power Consumption:	300 watts (Maximum)

* The maximum recommended amplifier power rating will ensure proper system headroom to allow for occasional peaks. We do not recommend sustained operation at these maximum power levels.

Detailed Specifications

Overture - 3 - 120 VAC Version

Item	Input conditions	Output conditions	Reference value	Results
Output Power	Speaker Input @ 50 Hz, 120 VAC	1 % THD 12 Ohms	>100W	110 Watts Graph No.1
THD	Speaker Input @ 50 Hz, 120 VAC	90 W Output	0.2 % Nom.	0.15 % Graph No.1
THD @ 1 Watt	Speaker Input @ 50 Hz, 120 VAC	1 Watt @ 12 Ohms	1.0 % Nom.	0.4 % Graph No.1
Low Pass filter Subsonic filter	50 Hz ref. Frequency 0 dB,			Graph No.2
S/N	Input short	REF. 90 W Output	> 80 dBr	83 dBr Graph No.3
Residual Noise	Nothing VR Minimum	IHF-A	< 1.5 mV	
Input Sensitivity	35 Hz,	REF 32.80 V, 35 Hz	2.00 V Nom.	1.96 V
Input Impedance			> 10 K	>20 K
HUM	No Signal In, Bandpass 10Hz-2Khz		< 3.0 mV	1.0 mV Graph No.4
Auto power ON Level	35 Hz			15 mV
Auto Power OFF Time	Time in minutes		3-6	6 MIN.
Stand-by Input Wattage	Nothing VR Minimum		< 10 W	4.6 W
AC Input Power	REF. 50 Hz	90 Watts 12 Ohms	<200 Watts	190.0 W

Wiring The System

Wiring The System

Turn Off All Power...

After placing the speakers, you are ready to connect your system. First turn off all audio system power. Use high-quality speaker wire to make your connections. For speaker connections, use #18 gauge speaker wire (or #16 for runs over 25 feet) with polarity coding. The side of the wire with a ridge or other coding is usually considered negative polarity (i.e., -). Also , consult the owner's manuals that were included with your amplifier, receiver, or television to confirm connection procedures.

Important!

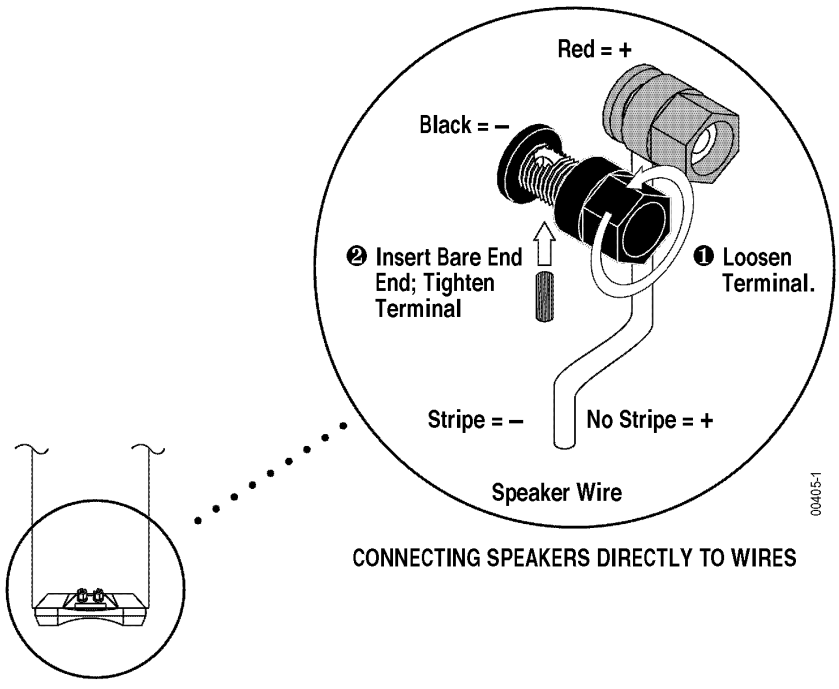
If your system includes a Dolby® Surround Pro Logic preamplifier or A/V receiver, set the center-channel mode to NORMAL. This will route the low frequencies (below 100 Hz) away from the center-channel speaker to the front left and right speakers.

Compositions Overture OVTR 2 and OVTR 3 speakers have integrated powered subwoofers and only require one set of output leads for the left and right channels. Observe polarities when making speaker connections, as shown in Figures 1 (below) and 2 (on next page). Connect each + terminal on the back of the amplifier, receiver, or television to the respective + (red) terminal on each Compositions Overture speaker. Similarly, connect the (black) terminals in the same way.

Important!

Do not reverse polarities (i.e., + to - or - to +) when making connections. Doing so will cause poor imaging and diminished bass response.

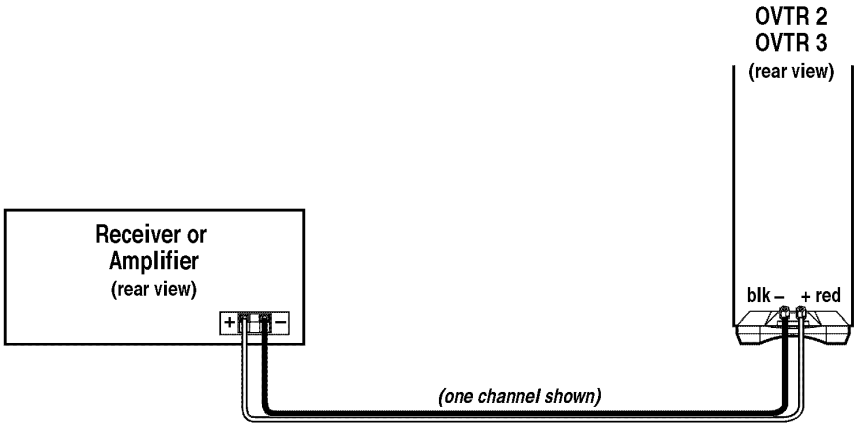
Figure 1. Compositions Overture OVTR 2 (not shown) and OVTR 3 speakers feature gold-plated terminals that can be connected in several different ways; e.g., banana plugs, spade terminals, and direct wiring (as shown here).



CONNECTING SPEAKERS DIRECTLY TO WIRES

Operating The System

Figure 2. Wiring diagram shows polarity connections for one channel of a stereo or home theater system.

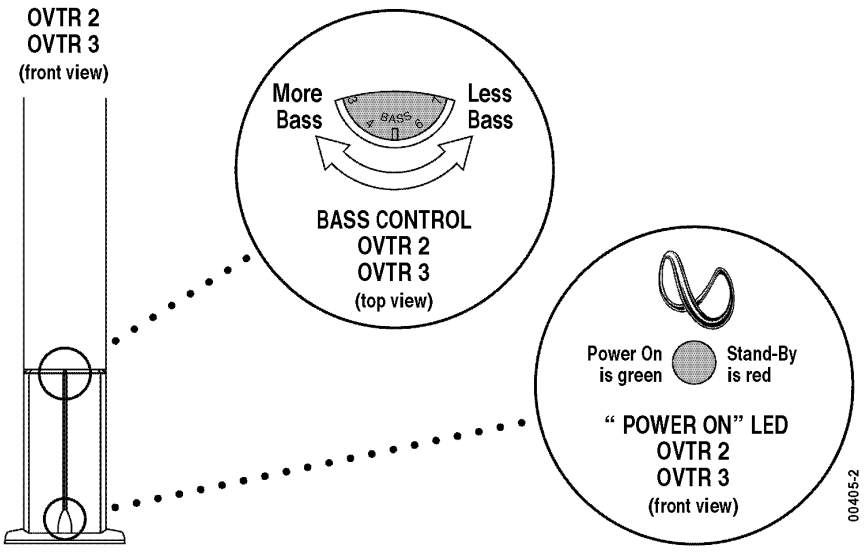


Operating The System

Each Compositions Overture OVTR 2 or OVTR 3 speaker system contains a built-in power amplifier that drives the subwoofers and only requires connection of the ac power cord. For your convenience, the system is not fitted with a power on/off switch. Instead, an auto-sense circuit will instantly switch the system on when an audio signal is present, and will automatically revert to standby (drawing only 7 watts) when audio is absent for a minimum of 10 minutes. A dual-color "Power On" LED (see Figure 3 below) glows red when the amplifier is the stand-by mode and green when the amplifier is on.

If on/off switching is desired, connect the OVTR 2' s (or OVTR 3) ac power cord to an ac switched outlet. If you plan to leave for an extended period of time (e.g., vacation), switch the system off (or unplug the ac power cord).

Figure 3. Located on the OVTR 2 and OVTR 3 front is a BASS level control and a dual-color "Power On" LED.



Operating The System/Replacing The Fuse

Operating The System (cont'd)

Power On...

1. After speaker wiring has been completed, connect each speaker's ac power cord to the nearest ac receptacle. You should see an LED illuminate, indicating the amplifier is on (see Figure 3 on previous page). If not, verify the ac outlet is delivering power or refer to *Troubleshooting* on page 8.

Checking Playback...

2. Check the speakers for playback by first setting the audio system volume control for a minimum level, and then applying power to your system. Play a favorite music or video segment and increase the volume control to a comfortable level.

   NOTE: You should hear balanced audio reproduction across the entire frequency spectrum. If not, check all wiring connections and refer to the "Troubleshooting" section on the next page for more help.

Judging Bass Level...

3. Listen to a variety of music selections and note the bass level. If you feel there is too much bass, you can reduce it by adjusting the BASS control from the "normal" center-detent position towards the minimum "1" setting (see Figure 2 on previous page). Conversely, if you want more bass output, rotate the level control towards the maximum "9" setting.

   NOTE: The amount of bass you hear will be affected by a number of different factors, including the room's size and shape, the construction materials used to build the room, the listener's position relative to the speakers, and the position of the speakers in the room. If there is too much bass, move the speakers away from nearby walls. Conversely, if you want more bass, place the speakers closer to the walls.

Replacing The Fuse

Compositions Overture OVTR 2 and OVTR 3 speakers each use a built-in fuse to protect the subwoofer amplifier. To replace a fuse with a new one (see enclosed spare), perform the following procedure:

1. Unplug the speaker's ac power cord. Then lay the speaker on its side and locate the fuse holder on the bottom (refer to Figure 4 on page 8).
2. Using a small flat-blade screwdriver, place the tip in the indent and turn the fuse cap counter-clockwise.
3. Remove the old fuse and replace it with new one having the same value and rating. For the OVTR3 (120v), use a 5A 2AG SB fuse.

IMPORTANT!

Do not substitute the blown fuse with another fuse value or rating. Doing so will void the warranty.

4. Insert the cap holding the new fuse into the holder and turn clockwise to lock it.
5. Carefully flip the speaker upright to sit on its feet. Then plug the speaker's ac power cord back into the nearest ac outlet.

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Replacing the Fuse (Cont.)

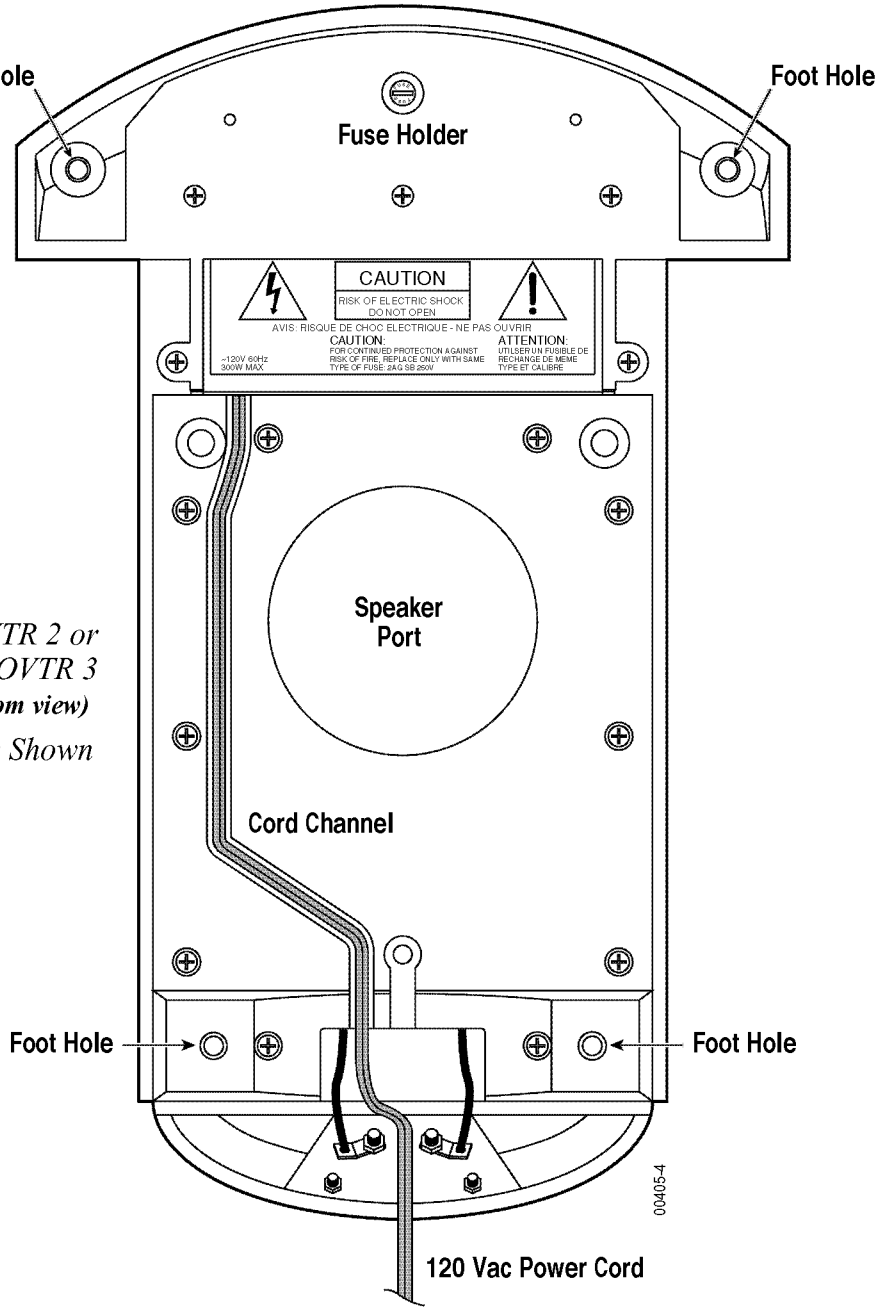

Figure 5. OVTR 2 or OVTR 3
(bottom view)
120V AC Only Shown

Replacing The Fuse (Cont.)

REPLACING THE FUSE (230V Only)

Compositions Overture OVTR 2 and OVTR 3 speakers each use a built-in fuse to protect the subwoofer amplifier. To replace a fuse with a new one (see enclosed spare), perform the following procedure:

1. Unplug the speaker's AC power cord.
2. Using a small flat-blade screwdriver, place the tip in the indent and turn the fuse cap counter-clockwise.
3. Remove the old fuse and replace it with a new one having the same value and rating, a T3, 1.6A 250V fuse.

IMPORTANT!

Do not substitute the blown fuse with another fuse value or rating. Doing so will void the warranty.

4. Insert the cap holding the new fuse into the holder and turn clockwise to lock it.
5. Then plug the speaker's AC power cord back into the nearest AC outlet.

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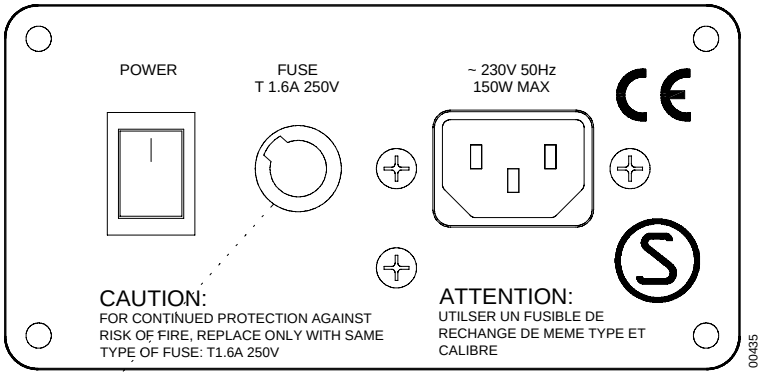
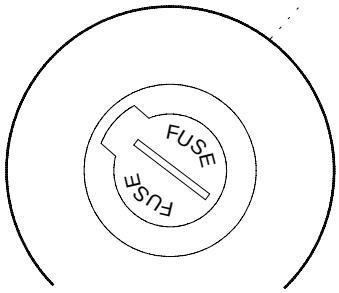
Figure 4. The OVTR 2 and OVTR3's fuse is located on the rear panel next to the AC power cord.





FUSE T3, 1.6A
250V
OVTR 2 & 3 FUSE

Troubleshooting

Care Of Your Speaker System

The black-ash or cherry wood finish does not require any routine maintenance. When needed, use a soft cloth, dampened with water only, to remove any fingerprints or to wipe off dust. Clean the grille by gentle vacuuming or with a damp cloth.

NOTE: Do not use any cleaning products or polishes on the cabinet or grille.

For maximum acoustic transparency, the grille uses a lightweight structure that needs to be handled with care for removal. To remove the grille, gently pull on the corners to unfasten the frame from the cabinet. To replace it, make sure to align the frame pins first and then gently snap the frame into place. Never force the grille frame onto the cabinet.

Troubleshooting*

Symptom	Cause	Solution
Bass is too loud	Bass reinforcement in room	Move speakers away from walls
	Bass level is too high	Rotate BASS control towards "1" (see page 6)
Bass sounds distorted	Subwoofer amplifier has reached maximum output	Turn down volume control on receiver or preamplifier
	Bass level on preamp/ receiver is set too high	Set bass and treble flat; use controls sparingly
Distortion with volume control near minimum	Defective receiver or preamplifier; shorted speaker wires	Repair defective receiver or preamplifier
Distortion on music or effects peaks (e.g., pops or noise)	Dynamic soundtrack causes subwoofer to "bottom" out	Turn down master volume control to lower overall range
	Tone controls are set too high	Set bass and treble flat; use controls sparingly
Buzz, hum, or crackle when connecting wires	Connecting wires with power on causes transient signal spikes	Connect wires only when audio system power is off
No sound from speaker system; power LED not on	Power cord not connected; no ac power	Connect ac power cord; check ac outlet
	Blown fuse	Check or replace fuse (see page 7)

If you need further assistance, contact your local Infinity retail dealer.

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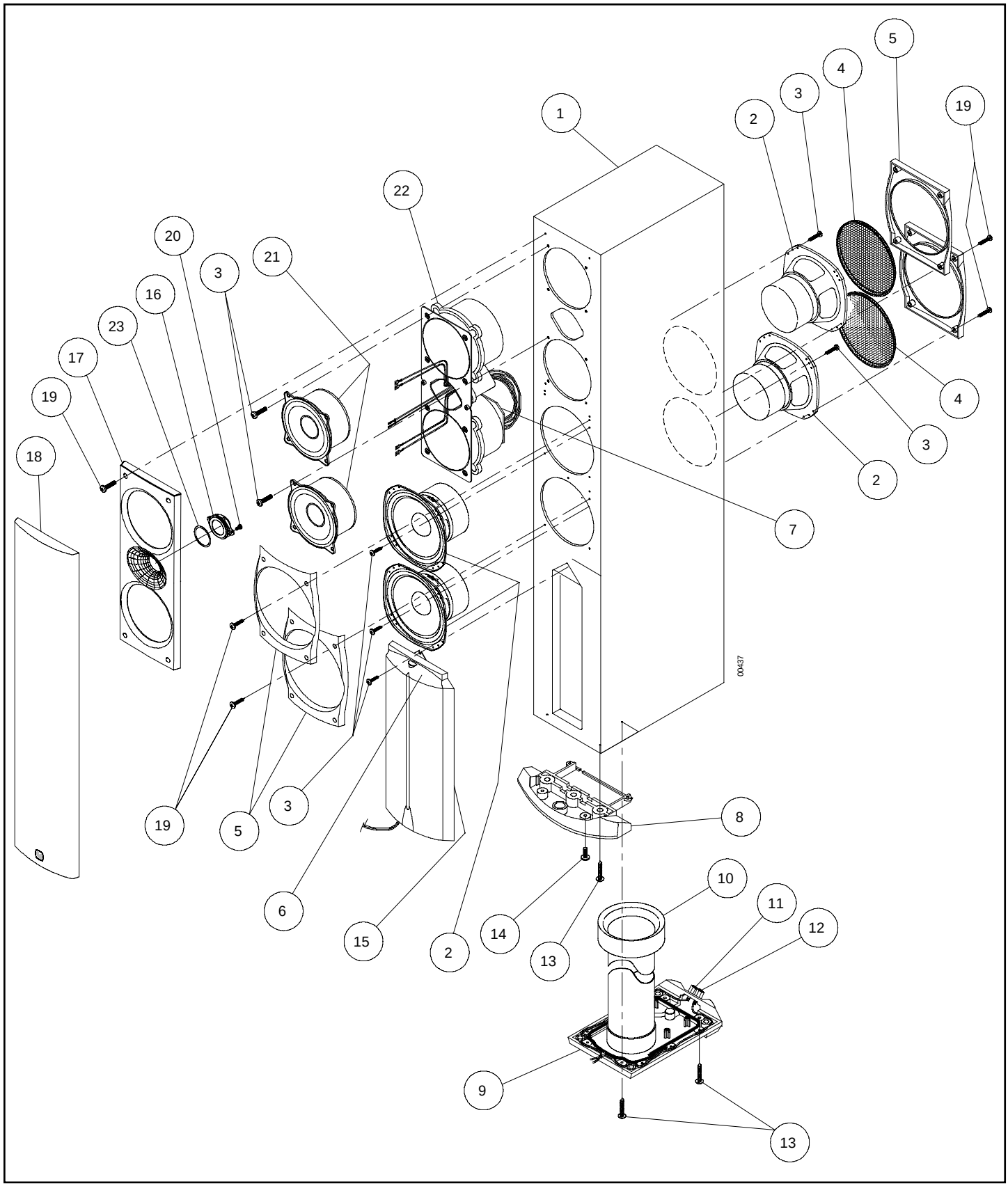
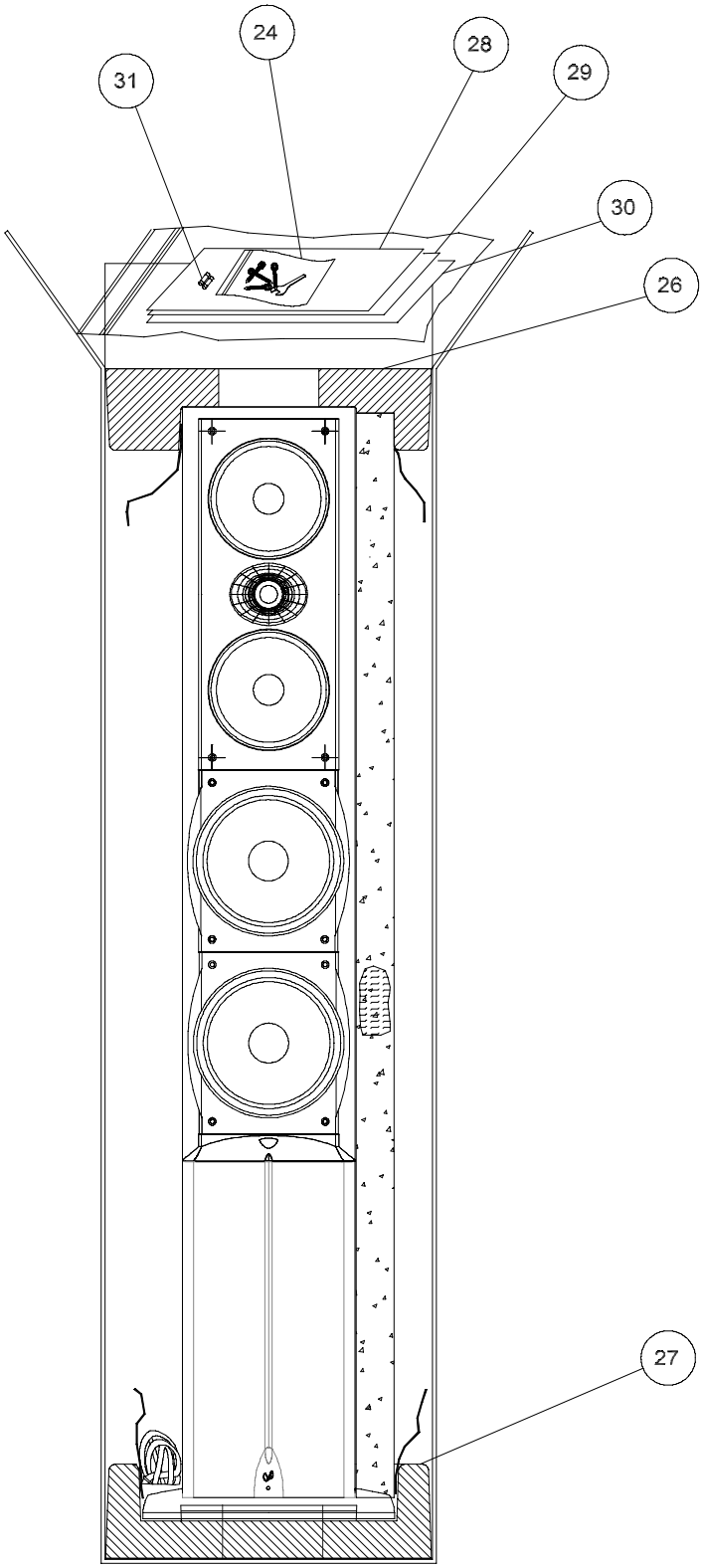
Mechanical Parts List

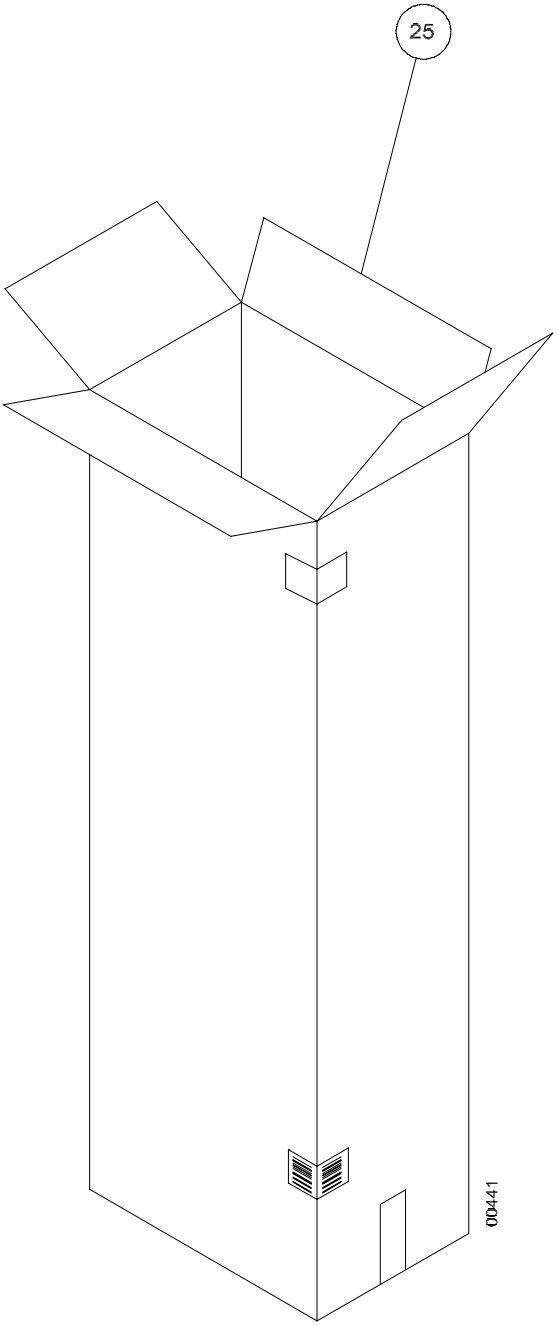
Ref No.	Description	Qty	Part No.
1	CABINET		NOT FOR SALE
2	6.5”, WOOFER, B160-4 (120V) DCR = 14.2Ω±10%	4	330618-001
	6.5”, WOOFER, LM-B160-8 (230V) DCR = 40Ω±10%	4	333773-001
3	SCREW, #8 x .75”, PPH, ZINC	25	900102-012
4	REAR WOOFER GRILLE	2	330955-001
5	FRONT/REAR WOOFER BAFFLE	4	332334-001
6	AMPLIFIER CAP	1	331399-001
7	CROSSOVER NETWORK (120V)	1	334416-001
8	BASE, FRONT FOOT	1	331184-001
9	REAR BASE	1	331075-002
10	REAR BASE w/PORT	1	331236-001
11	BINDING POST (RED)	1	331723-001
12	BINDING POST (BLACK)	1	331724-001
13	SCREW, #8 x 1” PPH, ZINC	15	900102-016
14	SCREW, #6-32 x 3/8” PPHMS CADCAD PLATED	2	10811
15	AMPLIFIER	1	NOT FOR SALE
16	1” (25MM) NEODYMIUM TWEETER DCR = 3.6Ω±10%	1	333232-001
17	UPPER FRONT BAFFLE (120V)	1	331182-001
	UPPER FRONT BAFFLE (230V)	1	332335-002
18	FRONT GRILLE	1	333584-001
19	SCREW, #6 x 3/4” PPHD, BLK	20	63563
20	SCREW, 4-40 x .25” PPH, ZINC	2	905502-004
21	5.25”,MIDRANGE TRANSDUCER, B125-6 DCR = 7.7Ω±10%	2	330650-001
22	MIDRANGE CUP (120V)	1	330833-001
23	HI-FREQ. TWEETER GASKET	1	331725-001
PACKAGING			
24	SPIKE FOOT SET, 1.5”	1	331360-001
25	OUTER CARTON (120V)	1	331246-001
26	FOAM PAD, TOP	1	331254-001
27	FOAM PAD, BOTTOM	1	331255-001
28	SURVEY CARD	1	330033-001
29	OWNER’S MANUAL (120V)	1	332293-001
30	SAFETY SHEET	1	330100-001
31	LINE FUSE 5A 2AG SLO-BLO (120V)	2	FS1068 or 331925-001

Exploded View



Packaging





Service Bulletin

Service bulletin INF9704 - Nov. 1997 — This is considered a Major repair

To: All Infinity Service Centers

Models: Overture 1; Overture 2; Overture 3

Subject: Premature muting

At the moment the bass information at the audio input terminals exceeds 30 mV, the amplifier in the Overture series switches from the STANDBY mode to the ON mode. Approximately 10 minutes after the bass information drops below the sensing threshold, the subwoofer amplifier returns to STANDBY.

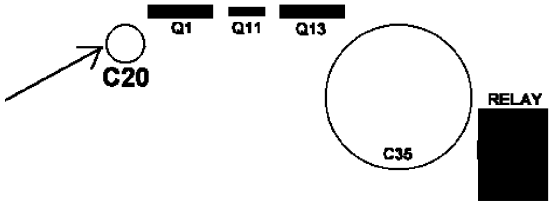
Some customers may experience a tendency for the Overture 1, 2 or 3 to "mute" or shut down when played at a low level and negligible bass information is present. Actually, this is normal behavior for the loudspeaker. *If* the unit was designed to be extremely sensitive, the bass amplifier could sense small amounts of 60 Hz hum or noise picked up by the customer's input cables, random RF noise, etc. and *the unit would never turn off.*

In the event you receive a Overture 1, 2 or 3 with the complaint "unit is shutting off (muting) when low levels of music are being played", this complaint can be resolved by the replacing C20 (220uf/25v) on the PCB with a 2200uf/25v capacitor.
This change will lengthen the delay time for muting to 50-60 minutes.

Procedure, Overture 1:

1) With a sharp instrument, carefully pry out and remove the metal grille covering the woofer, taking note of the (4) rubber corners on the grille.
2) Pull back the circular rubber flap and remove the (6) woofer mounting screws and their clamps.
3) Remove the woofer from the cabinet by pulling on the rubber flap, then unplug the yellow connecting wires.
4) Remove the dacron section from the cabinet.
5) Outside the cabinet, remove the (2) Phillips screws on the cabinet end, amplifier side.
6) Inside the cabinet, remove the (2) amplifier mounting nuts. These may be covered with a sealant and will have to be cleaned off before removal.
7) Unplug the (2) white wires w/spade terminals connected to the crossover assembly.
8) Remove the amplifier assembly from the cabinet.
9) Unplug the AC input wires; remove the transistor clamp and the two mounting nuts from the PCB.
10) Locate C20 (See Figure 1). Remove and replace with 2200uf/25v capacitor (Infinity part # 201-8120).
11) Replace the PCB in the heatsink, taking care to replace the insulating fishpaper under the PCB and the output transistors.
12) Re-assemble and replace the amp assembly into the cabinet in reverse order, taking special precautions:
    a) There are <u>two</u> gaskets under the woofer basket, assure they are both in place upon re-assembly.
    b) The (6) clamps under the woofer mounting screws are not symmetrical; make sure the shorter side of the clamps are pointing towards the center of the woofer cone.
    c) Tighten the (6) final woofer mounting screws sequentially; <u>do not over tighten.</u>
    d) Before replacing the metal grille, place the rubber corner(s) on each corner of the grille.

FIGURE 1



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Procedure, Overture 2, 3:

1) Place loudspeaker upside down on a padded surface.
2) Remove the (7) phillips mounting screws for the front base/cover (See Figure 2).
3) Remove the front base.
4) Remove the (4) phillips screws from the woofer faceplate closest to the amplifier; remove faceplate.
5) Loosen or remove the single exposed phillips screw holding the amplifier end to the cabinet.
6) Unplug the exposed black & red speaker wires from the amplifier.
7) Unplug the yellow and white wire pairs from their terminals on the amplifier.
8) Pull the power cord wire out of its recess and disengage amplifier from cabinet.
9) Unplug the AC input wires; remove the (2) transistor clamps and the (2) mounting nuts from the PCB.
10) Locate C20 (See Figure 3). Remove and replace with 2200uf/25v capacitor (Infinity part # 201-8120).
11) Replace the PCB in the heatsink, taking care to replace the insulating fishpaper under the PCB and the output transistors.
12) Re-assemble and replace amp assembly onto the cabinet in reverse order, taking special precautions:
    a) Assure the yellow wire pairs & white wire pairs are connected to the correct places on the amplifier terminals - the white wire pair is attached to the terminals marked “HF OUT”.
    b) Before attaching the base cover - take care to thread the power cord and speaker wires through the molded notches in the cover to avoid crushing the wires.

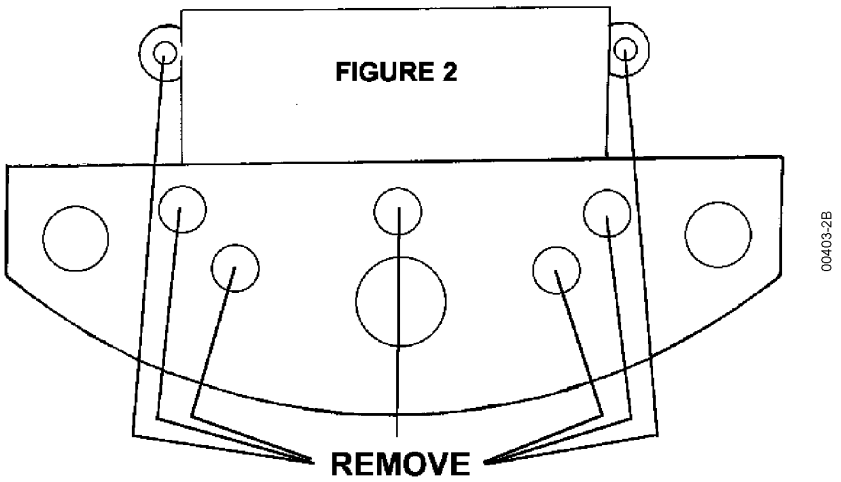
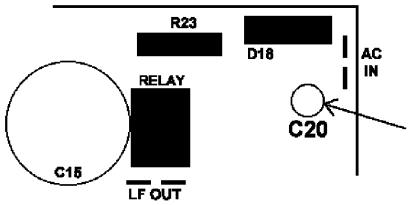


FIGURE 3



Service Bulletin

Service bulletin INF9705 - Nov. 1997

This is considered a Minor repair

To: All Infinity Service Centers

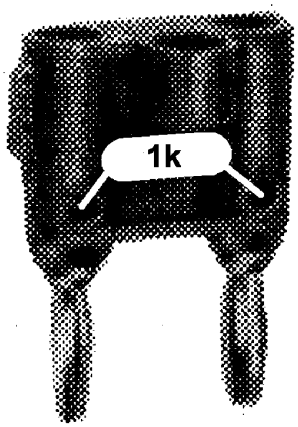
Models: Overture 1; Overture 2; Overture 3

Subject: Unit cycles on & off with no music signal

Operation principle of Auto ON/OFF circuit: in Overture 1, Overture 2, Overture 3:
The Mid and High frequency transducers of Overture 1 or 2 or 3 are powered by the receiver or power amplifier connected to the input terminals of Overture 1 or 2 or 3. The Subwoofer transducer in Overture 1 and 2 and 3 is powered by a subwoofer amplifier inside the Overture speaker enclosure. At the moment audio signals at the Overture input terminals exceeds a level of 30 mV, the Overture Auto detect circuit will switch the subwoofer amplifier from the STANDBY to the ON mode. Approximately 10 minutes after the audio information drops below the sensing threshold, the Auto detect circuit will switch the subwoofer amplifier from the ON mode to the STANDBY mode.

AUTO ON due to noise:
Most amplifiers or receivers, while in the Power OFF mode, have an output impedance at their speaker terminals in the order of several kilo Ohms. However, certain types or receivers and power amplifiers disconnect the power amplifier section from the speaker terminals by means of a relay. As result, the speaker cables connected to the Overture input terminals may pick up RF or 50/60 Hz noise. This noise can activate the Auto detect circuit in Overture and switch the subwoofer amplifier to the ON mode. Approximately 10 minutes after the noise disappears, the Auto detect circuit will switch the subwoofer amplifier back to the STANDBY mode. As result, the customer may hear continual ON-OFF cycling of the subwoofer amplifier.

In the event you receive a Overture 1, 2 or 3 with the complaint "unit is turning on & off (audible relay clicking) even though the receiver is turned off", insert a banana plug w/ 1000Ω terminating resistor (Infinity part# 518-0425) into the Overture banana speaker jacks.



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Service Bulletin

Service bulletin INF9802 - June 1998

This is considered a Minor repair

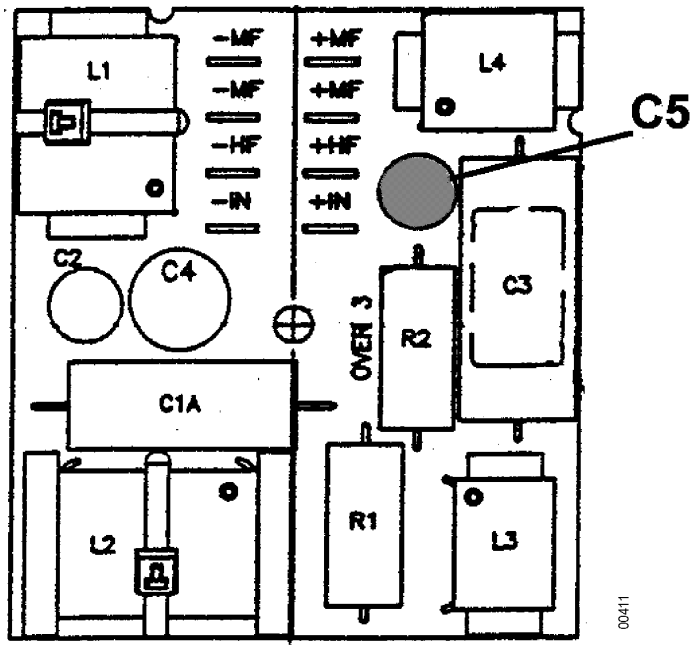
To: All Infinity Service Centers

Models: Composition Overture 3

Subject: Failure of Capacitor C5

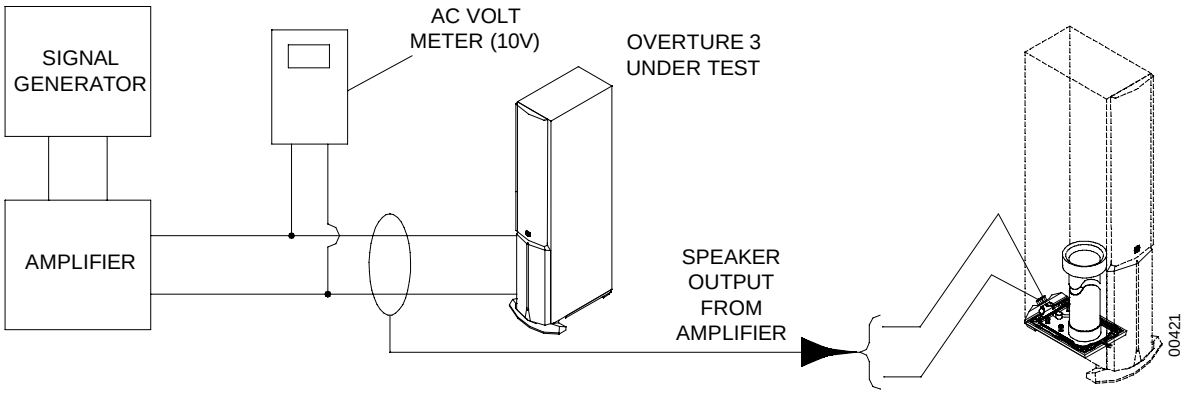
In the event you receive a Composition Overture 3 with capacitor C5 (5.6uf 50v) damaged in the passive crossover section of the loudspeaker, replace with the following part:

Infinity part# 5.6MF100V



Model	Serial number	Status	Action
Overture 3	All serial numbers affected	Failure of C5	Replace with Part # 5.6MF100V

Test Set Up and Procedure



SYSTEM AURAL SWEEP TEST

Equipment needed:

- Function/signal generator/sweep generator
- High Gain Integrated Amplifier
- Multimeter
- Speaker cables

General Unit Function (UUT = Unit Under Test)

1. From the signal generator, connect a mono cable to the Integrated amplifier; with speaker cables connect the amplifier's output to the UUT Speaker binding posts.
2. On the UUT, turn the BASS (level) control full counterclockwise (1).
3. Turn on generator, adjust so that the output at the Integrated amplifier is **2.0V, 40 Hz.**
4. Plug in UUT; LED should be Red. Turn BASS (level) control full clockwise (9).
5. LED should now be Green and immediate bass response should be heard (and observed if the grille is removed).

Sweep Function

6. Follow steps 1-5 above.
7. Sweep generator from 20Hz to 300Hz. Listen to the cabinet and drivers for any rattles, clicks, buzzes or any other noises. If any unusual noises are heard, remove woofers and test.

Driver Function

8. Remove woofer from cabinet; detach + and - wire clips.
9. Check DC resistance of woofer; it should be:
   (120v) - **14.2 Ohms ±10%**
   (230v) - **40.0 Ohms ±10%**
10. Connect a pair of speaker cables to driver terminals. Cables should be connected to a high-gain integrated amplifier fed by a signal generator. Turn on generator and adjust so that speaker level output is **20.0V.** *
11. Sweep generator from 20Hz to 1kHz. Listen to driver for any rubbing, buzzing, or other unusual noises.

* Only the 120v version will be driven to near maximum excursion at this voltage; because of the unusually high DCR of the voice coil, driving the 230v version at twice this voltage is not practical with simple test equipment and 20v should suffice for test purposes.

Amplifier bias adjustment

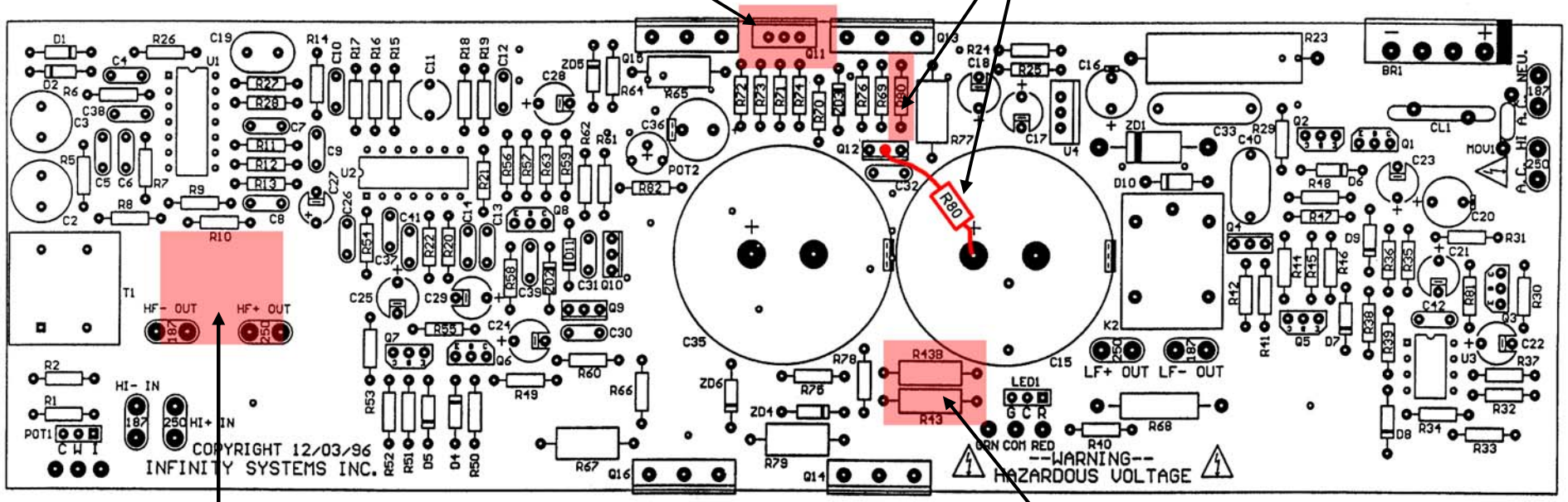
1) Power up loudspeaker and drive at low levels for 3 minutes for warm-up.
2) Remove amplifier assembly (disassembly procedure in bulletin INF9704 Page 15).
3) Power up on the bench; attach DMM (on low DC voltage range) across TP1 and TP2 on schematic – R77 - (120v) .22 Ω 5W fuse resistor. (230v) .47 Ω 5W fuse resistor. Mini-grabbers can be used on the resistor leads without PCB removal.
4) Adjust POT2 (bias pot on PCB) to read **5.9 mV** for both 120v and 230v units.

IMPORTANT NOTE ON OVTR 2/3 AMPLIFIER REVISION

There was an early version of the Overture 2 and 3 Amplifier that is represented slightly inaccurately in the schematic, PCB drawings, and parts list in this service manual. This page is a guide to the identification and differences to this earlier version. **The drawing below is a later version of the PCB**, complete with this information. **NLA = No Longer Available**

Q11 ORIGINAL VERSION = MPSU06
Q11 LATER VERSION = 2SD2012
(DO NOT SUBSTITUTE - PIN LAYOUT DIFFERENT !)
MPSU06 part# NLA

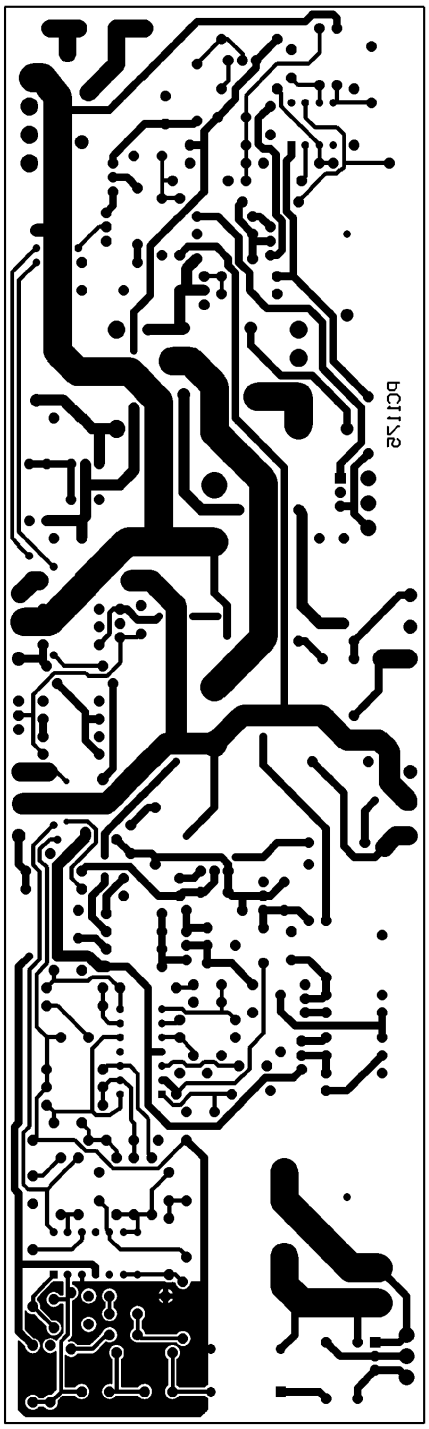
ORIGINAL VERSION = R80 IS NOT IN SILKSCREENED AREA, BUT INSTEAD ON OPPOSITE SIDE OF PCB, CONNECTED FROM MAIN "+" ON C15, TO COLLECTOR (CENTER LEAD) ON Q12 (BF469).



ORIGINAL VERSION = TWO RELAYS
LATER VERSION = ONE RELAY
Do not mistake T1 for a relay.
(Later version has speaker output terminals in footprint of former relay)
There was also a version with two relays that had the output terminals on the indicted relay bypassed with buss wire, rendering it inoperative.
ORIGINAL RELAY part# NLA

R43,43b ORIGINAL VERSION = 13K Ω 1/2W
R43,43b LATER VERSION = 33K Ω 1/2W
13K Ω 1/2W part# NLA

Amplifier PCB Solder Side



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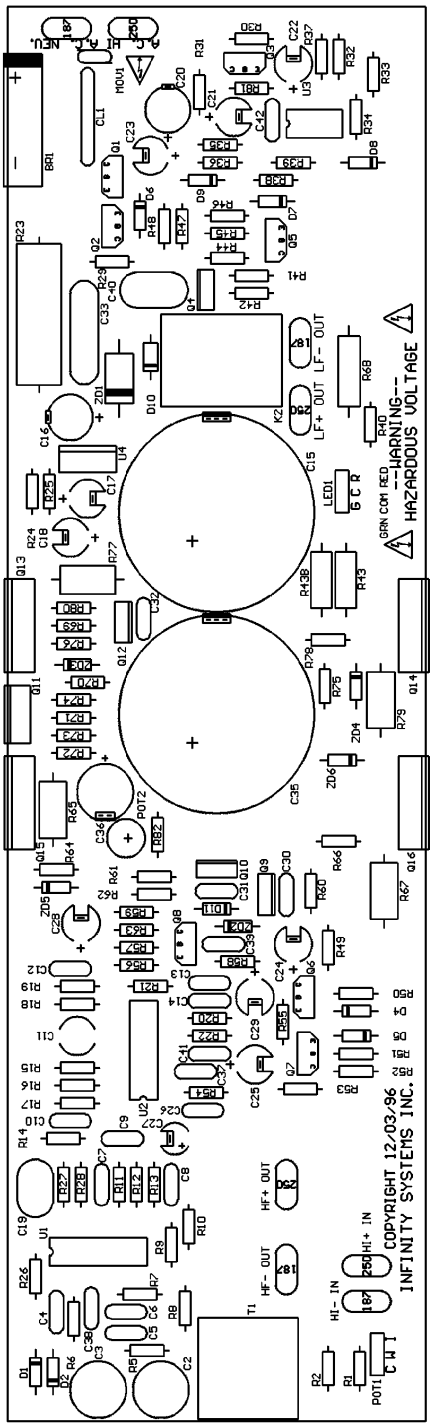
OVERTURE 2 & 3 BASS AMPLIFIER PCB, P\N: PC1175
PADMASTER & SOLDER SIDE
SHEET 2 OF 6

FIG.

Bass Amplifier PCB Component Side Silkscreen



Electrical Parts List (120V)

Part#	Description	Ref Designation	Qty
Capacitors			
CP1126	Cap Poly Film 1uF 10% 50V	C19	1
CP1630	Cap Alum EL 220uF 20% 25v	C20	1
CP1656	Cap Alum EL 100uF 20% NPE	C2	1
CP1657	Cap Alum EL 220uF 20% NPE	C3	1
CP1658	Cap Disc 100pF 10% 500V	C4,12,14,30	4
CP1659	Cap NPE 10uF 20% 25V T/R	C11	1
CP1660	Cap Alum EL 1000uF 20% 200V	C15,35	2
CP1661	Cap Alum EL 100uF 20% 5	C16	1
CP1662	Cap Alum EL 10uF 20% 35	C17,18,22,23,25	5
CP1663	Cap Alum EL 47uF 20% 25	C21	1
CP1664	Cap Alum EL 4.70uF 20%	C24,29	2
CP1665	Cap Alum EL 10uF 20% 63	C28	1
CP1666	Cap Cer Disc 68pF 20% 500	C31,32	2
CP1667	Cap Poly Film 0.47uF 10%	C33	1
CP1668	Cap Alum EL 47uF 20% 10	C36	1
CP1669	Cap Poly Film .10uF 10% 4	C40	1
CP1672	Cap Poly Film 0.22uF 5% 63V T/	C5,6,7,13	4
CP1673	Cap Poly Film 1nF 10% 50V	C26	1
CP1674	Cap Alum EL 1uF 20% 50V	C27	1
CP1675	Cap Poly Film 0.1uF 5% 50V	C37,38,39,42	4
CP1676	Cap Poly Film .022uF 5%	C41	1
Semiconductors			
DI1004	Diode Zener 6.2V 1/2W T/R	ZD2	1
DI1060	Diode Switching 500mW 75V	D1,2,4,5,6,7,9,11	8
DI1089	Diode 1N4003 1A 200 PIV	D10	1
DI1101	Diode Zener 10V 1/2W T/R	ZD3,4,5,6	4
DI1186	Diode Zener 36V 5% 5W T/R	ZD1	1
DI1187	Diode Bridge Powr 400V/8A	D18	1
IC1215	IC TL064CN Quad OP AMP	U1,2	2
IC1216	IC TL062CP Dual OP Amp.	U3	1
IC1045	Three-Term. Adj. Pos. V R LM317T	U4	1
604-L469EGW	LED Green/Red Common Cath		1
TR1002	Transistor NPN TO-92 2N3904	Q1,5,7	3
TR1017	Transistor PNP T/R 2N3906	Q2,3,6,8	4
TR1257	MOSFET Power IRFS250	Q13,14,15,16	4
TR1259	Transistor NPN BF469	Q4,9,12	3
TR1260	Transistor PNP BF470	Q10	1
TR1304	Transistor NPN 60V/3A 25W 2SD2012	Q11	1
Resistors			
RS1036	RES M/F 36 ohm 5% 1/4W	R74	1
RS1058	RES M/F 51.1Kohm 1% 1/4W	R63	1
RS1063	RES M/F 1 Mohm 1% 1/4W	R39	1
RS1150	RES M/F 43.2Kohm 1% 1/4W	R56	1
RS1153	RES M/F 47.5Kohm 1% 1/4W	R29	1
RS1268	RES M/F 2.21Kohm 1% 1/4W	R80	1
RS1342	RES M/F 9.09Kohm 1% 1/4W	R52	1

Electrical Parts List (120V)

Part#	Description	Ref Designation	Qty
RS1351	RES M/F 13Kohm 1% 1/4W	R9,10,20,48	4
RS1353	RES M/F 3.01Kohm 1% 1/4W	R50,51,57	3
RS1355	RES M/F 4.75Kohm 1% 1/4W	R6	1
RS1357	RES M/F 100 ohm 1% 1/4W	R54	1
RS1370	RES M/F 3.57Kohm 1% 1/4W	R24	1
RS1455	RES M/F 150Kohm 1% 1/4W	R35,36,49	3
RS1492	RES M/F 221Kohm 1% 1/4W	R30	1
RS1505	RES M/F 475Kohm 1% 1/4W	R37	1
RS1562	RES M/F 82.5Kohm 1% 1/4W	R47	1
RS1585	RES M/F 475 ohm 1% 1/4W	R5	1
RS2018	RES M/F 10Kohm 1% 1/4W	R13,18,26	3
RS2019	RES M/F 20Kohm 1% 1/4W	R2,41,58,69,70,71	6
RS2025	RES M/F 9.31Kohm 1% 1/4W	R1	1
RS2099	RES M/F 6.98Kohm 1% 1/4W	R21,22	2
RS2126	RES M/F 69.8Kohm 1% 1/4W	R7	1
RS2128	RES M/F 6.65Kohm 1% 1/4W	R8	1
RS2130	RES M/F 432 ohm 1% 1/4W	R11	1
RS2131	RES M/F 536Kohm 1% 1/4W	R15	1
RS2133	RES M/F 69.8Kohm 1% 1/4W	R17	1
RS2136	RES M/F 53.6Kohm 1% 1/4W	R19	1
RS2139	RES M/F 200 ohm 1% 1/4W	R25	1
RS2140	RES M/F 619Kohm 1% 1/4W	R32	1
RS2141	RES M/F 110Kohm 1% 1/4W	R33	1
RS2142	RES M/F 100Kohm 1% 1/4W	R34,38,53	3
RS2143	RES M/F 3.32Kohm 1% 1/4W	R27,40,46,55	4
RS2144	RES M/F 1.3Kohm 1% 1/4W	R42,60	2
RS2146	RES M/F 1.5Mohm 1% 1/4W	R44	1
RS2147	RES M/F 249Kohm 1% 1/4W	R45	1
RS2148	RES M/F 130Kohm 1% 1/4W	R59	1
RS2149	RES Fuse 1Kohm 5% 1/4W T	R61,62,64,66,72,73,76,78	8
RS2150	RES Fuse 0.22ohm 5% 1/2W	R65,67,77,79	4
RS2151	RES M/O F/P 1Kohm 5% 2W	R68	1
RS2152	RES M/F 75Kohm 1% 1/4W	R81	1
RS2153 or 146-6461	Potentiometer 20Kohm 20% BASS GAIN		1
RS2154	Potentiometer 2Kohm BIAS ADJ	P2	1
RS2155	RES C/F 33Kohm 5% 1/2W	R43,43B	2
RS2158	RES M/F 3.3Kohm 5% 1/4W	R75	1
RS2181	RES M/F 2.21Mohm 1% 1/4W	R28,31	2
RS2283	RES M/O F/P 5.1Kohm 5% 5W	R23	1
Miscellaneous			
SC1082	SC 6-32x 3/4 Mach-Thr, Pa		2
SC1099	SC 6-32x 1/4 Mach-Thr Pan		6
SC1240	SC 6-32x 1/2 Mach-Thr Pan		4
SC1277	SC 5-20x1/2 Hi-Lo Pan Phi		2
SP1086	Clamp Insulator		2
ST1022	Standoff #6 x 5/16 Nylon		2
TH1017	Inrush Current Lititer	CL1	1
VA1009	Varistor 200V	MOV1	1

Electrical Parts List (120V)

Part#	Description	Ref Designation	Qty
XX1278	Cntrl Pnl Plstc		1
XX1279 or 331944-001	KNOB FOR GAIN POTENTIOMETER		1
XX1280	Power Cord 12Ft 16AWG		1
XX1284	Strain Relief Black		1
XX1302	Logo-Led Plate		1
BR1415	Plate Top		1
FH1004	Fuseholder 2AG Chassis Mo		1
FS1068 or 331925-001	LINE FUSE 5A 2AG SLO-BLO (120V)	F1	1
HS1145	Heatsink		1
MI1155	Transformer, Coupling	T1	1
NU1050	Nut 6-32x 1/4 Hexagonal K		2
RE1019	Relay,12A,48VDC	K2	1

Electrical Parts List (230V)

Part#	Description	Qty
SEMICONDUCTORS		
DI1186	Diode Zener 36V 5% 5W T/R	1
DI1224	DIODE PWR RECT 800V/3A	1
IC1045	Three-Term. Adj. Pos. V R LM317T	1
IC1215	IC TL064CN Quad OP AMP	2
IC1216	IC TL062CP Dual OP Amp	1
TR1304	Transistor NPN 60V/3A 25W 2SD2012	1
TR1002	Transistor NPN TO-92 2N3904	3
TR1017	Transistor PNP T/R 2N3906	4
TR1316	Xsistor ZTX658 NPN	3
TR1317	Xsistor ZTX758 PNP	1
TR1318	Pwr Mosfet STH16NA40FI	2
DI1060	Diode Switching 500mW 75V	8
DI1003	Diode Rectifier 1N4004	2
DI1004	DIODE ZENER 6.2V 1/2W T/R	1
604-L469EGW	Led Green/Red Common Cathode	1
RESISTORS		
RS1058	RES M/F 51.1Kohm 1% 1/4W	1
RS1063	RES M/F 1 Mohm 1% 1/4W	1
RS1150	RES M/F 43.2Kohm 1% 1/4W	1
RS1153	RES M/F 47.5Kohm 1% 1/4W	1
RS1342	RES M/F 9.09Kohm 1% 1/4W	2
RS1351	RES M/F 13Kohm 1% 1/4W	2
RS1353	RES M/F 3.01Kohm 1% 1/4W	2
RS1357	RES M/F 100 ohm 1% 1/4W	1
RS1366	RES M/F 2.00Kohm 1% 1/4W	1
RS1455	RES M/F 150Kohm 1% 1/4W	2
RS1479	RES M/F 2.43Kohm 1% 1/4W	1
RS1492	RES M/F 221Kohm 1% 1/4W	1
RS1505	RES M/F 475Kohm 1% 1/4W	1
RS2018	RES M/F 10Kohm 1% 1/4W	5
RS2019	RES M/F 20Kohm 1% 1/4W	2
RS2025	RES M/F 9.31Kohm 1% 1/4W	1
RS2099	RES M/F 6.98Kohm 1% 1/4W	2
RS2128	RES M/F 6.65Kohm 1% 1/4W	1
RS2131	RES M/F 536Kohm 1% 1/4W	1
RS2139	RES M/F 200 ohm 1% 1/4W	1
RS2141	RES M/F 110Kohm 1% 1/4W	1
RS2142	RES M/F 100Kohm 1% 1/4W	3
RS2143	RES M/F 3.32Kohm 1% 1/4W	2
RS2144	RES M/F 1.3Kohm 1% 1/4W	2
RS2146	RES M/F 1.5Mohm 1% 1/4W	1
RS2149	Res. Fuse 1Kohm 5% 1/4W T	2
RS2152	RES M/F 75Kohm 1% 1/4W	1
RS2181	RES M/F 2.21Mohm 1% 1/4W	2
RS2295	RES M/F 511 ohm 1% 1/4W	1
RS2297	RES M/F 3.3Mohm 1% 1/4W	1
RS2147	RES M/F 249Kohm 1% 1/4W	1
RS2298	RES M/F 301Kohm 1% 1/4W	1
RS2299	RES M/F 1.4Kohm 1% 1/4W	1

Electrical Parts List (230V)

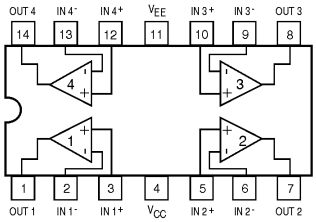
Part#	Description	Qty
RS2300	RES M/F 374Kohm 1% 1/4W	1
RS2302	RES M/F 4.42Kohm 1% 1/4W	1
RS2303	RES M/F 39.2Kohm 1% 1/4W	3
RS2304	Res Fuse 2Kohm 5% 1/3W T/	2
RS2305	Res Fuse 75 ohm 5% 1/3W T	1
RS2306	Res Fuse 6.8Kohm 5% 1/3W	3
RS2307	RES M/F 182Kohm 1% 1/4W	1
RS2396	RES M/F 1.58Kohm 1% 1/4W	1
RS1154	RES M/F 31.6Kohm 1% 1/4W	1
RS2133	RES M/F 69.8Kohm 1% 1/4W	2
RS2151	RES M/O F/P 1Kohm 5% 2W	1
RS2296	RES M/O F/P 62Kohm 5% 2W	2
RS2301	Res Fuse 0.47 ohm 5% T/R	2
RS2464	RES W/W 20Kohm 5% 6W T/R	1
RS2153 or 146-6461	Potentiometer 20Kohm 20% BASS GAIN	1
RS2369	POTENTIOMETER 1Kohm BIAS ADJ	1
CAPACITORS		
CP1126	CAP POLY FILM 1uF 10% 50V	1
CP1656	Cap. Al El 100uF 20% NPE	1
CP1659	Cap. NPE 10uF 20% 25V T/R	1
CP1661	Cap. Alum El. 100uF 20% 5	1
CP1662	Cap. Alum El. 10uF 20% 35	5
CP1663	Cap. Alum El. 47uF 20% 25	1
CP1664	Cap. Alum EL. 4.70uF 20%	1
CP1666	Cap Cer Disc 68pF 20% 500	2
CP1669	Cap. Poly Fil 10uF 10% 4	1
CP1672	Cap Poly 0.22uF 5% 63V T/	4
CP1673	Cap. Pol Fil 1nF 10% 50V	1
CP1674	Cap. Alum El. 1uF 20% 50V	1
CP1675	Cap. Pol Fil 1uF 5% 50V	4
CP1676	Cap. Pol Fil .022 uF 5%	1
CP1804	Cap Alum El 270uF 400V	1
CP1805	Cap Alum El 22uF 20% 100V	1
CP1806	Cap Poly Fil 0.22uF 10% 4	1
CP1807	Cap Al El 22uF 20% 250V	1
CP1828	Cap Alum El 390uF 20% 200	1
CP1829	Cap Al El 4.7uF 20% 100V	1
CP1904	CAP POLY 0.022uF 20% 250V	1
CP1658	Cap. Disc 100pF 10% 500V	3
CP1897	CAP Alum El 2200uF 20% 25V	1
MISCELLANEOUS		
RE1023	Relay PC Mount	1
MI1175	Transformer Coupling Mode	1
TE1175	TERMINAL MALE TAB 0.250	3
TE1187	TERM MALE TAB 0.187	3
TH1017	Inrush Current Limiter	1
VA1010	Varistor 400V	1
SC1057	SC 4-40x5/16 MACH-THR PAN	1
SC1082	SC 6-32x 3/4 Mach-Thr, Pa	2

Electrical Parts List (230V)

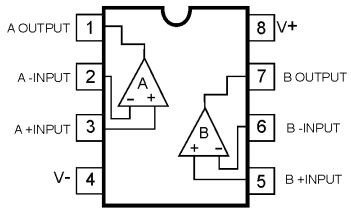
Part#	Description	Qty
SP1092	NYLON STANDOFF	2
ST1022	Standoff #6 x 5/16 Nylon	2
WA1085	WASHER #6 INTERNAL STAR	2
XX1278	Cntrl Pnl Plstc 97	1
XX1279 or 331944-001	Knob for Gain Potentiometer	1
XX1284	Strain Relief Black	1
XX1302	Logo-Led Plate	1
XX1340	HOLE PLUG	1
TE1214	TERMINAL FEMALE FASTON	1
WA1091	WASHER SPLIT #6 ZINK FSH	1
SC1000	SC 6-32x5/16 MACH-THR PAN	6
SC1277	Sc 5-20x1/2 Hi-Lo Pan Phi	2
SC1219	Hex.Screw 6-32x3/8,Zinc S	4
BR1413	PCB Mntg Plate	2
BR1414	Plate Bottom 97	1
BR1415	Plate Top 97-2/3	1
BR1517	Transistor Clamp	1
NU1050	Nut 6-32x 1/4 Hexagonal K	2
604-L469EGW	Led Green/Red Cath	1
TE1050	Terminal Ultra Fast Ins.	1
TE1125	Terminal Ultra Fast Ins.	1
FS1077	Line Fuse 1.6A 2AG SLO-BLO (230V)	1
TE1199	FEMALE POWER CORD RECEPTACLE	1

Integrated Circuit Diagrams

QUAD OP AMP
TL064, U1,2

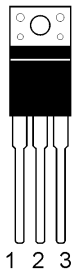


OPAMP, DUAL 8PIN DIL TL062
U3

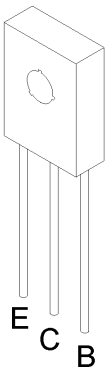


POS V R LM317T
U4

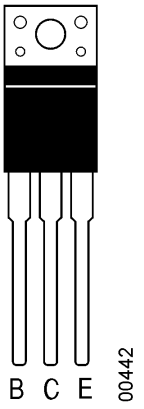
1. INPUT
2. ADJ
3. OUTPUT



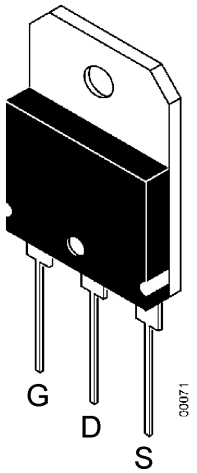
NPN,PNP,
BF469, BF470
Q4,9,10,12



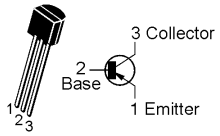
NPN XSTR
TO-220 2SD2012
Q11



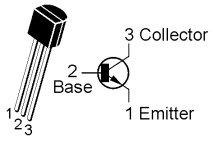
MOSFET, IRFS250
STH16NA40FI
Q13,14,15,16



TRANS, PNP 2N3906
ZTX658
Q2,3,6,8,10

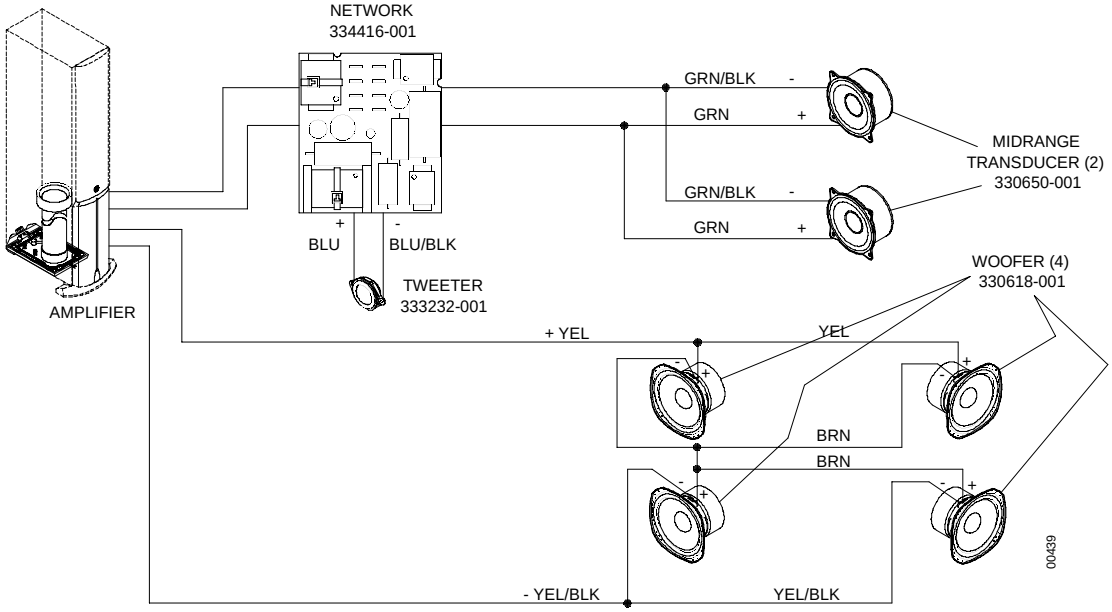


TRANS, NPN 2N3904
ZTX758, TO-92,
Q1,4,5,7,9,12

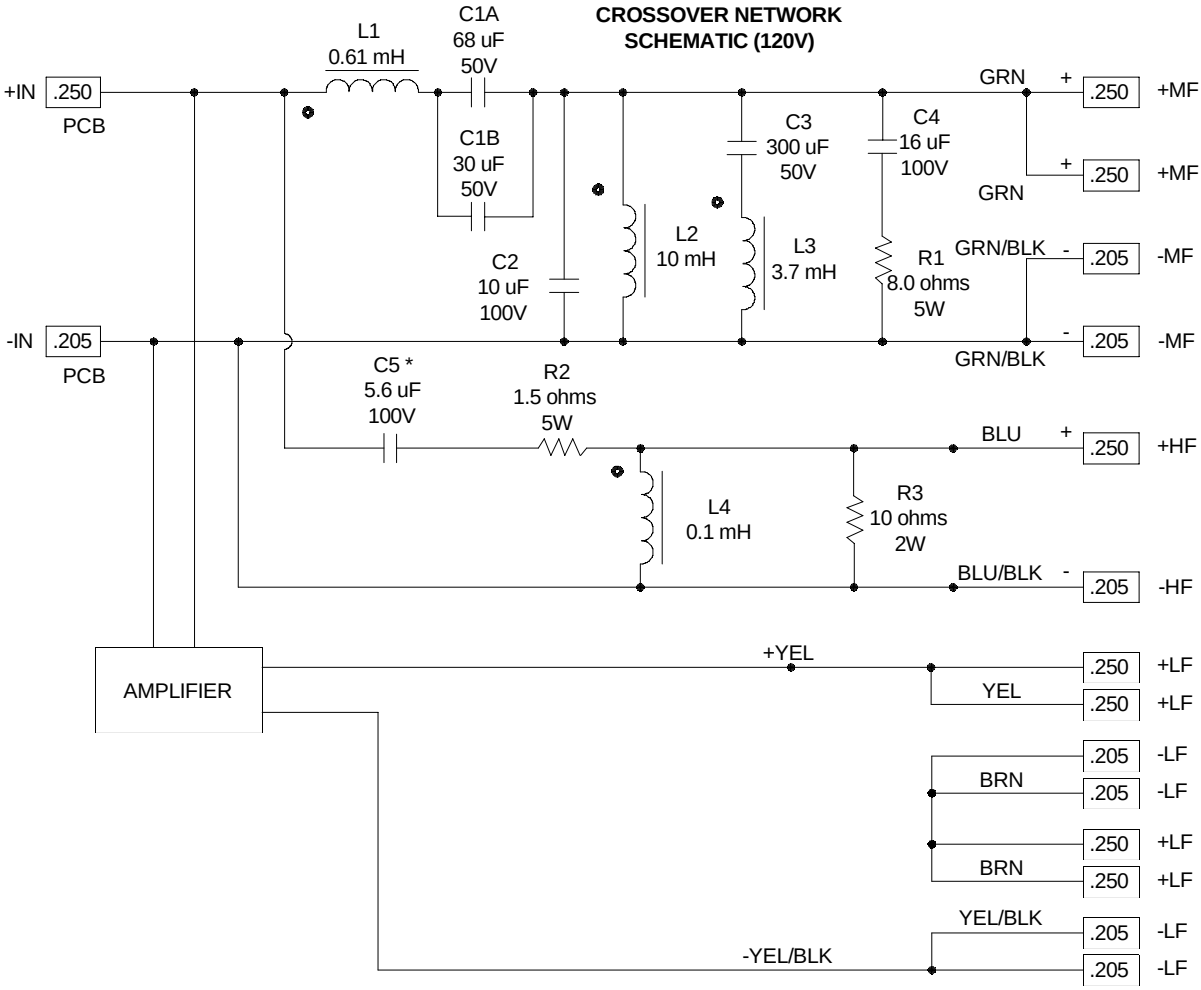


Wiring Diagram/Crossover Network Schematic (120V)

WIRING DIAGRAM (120V)

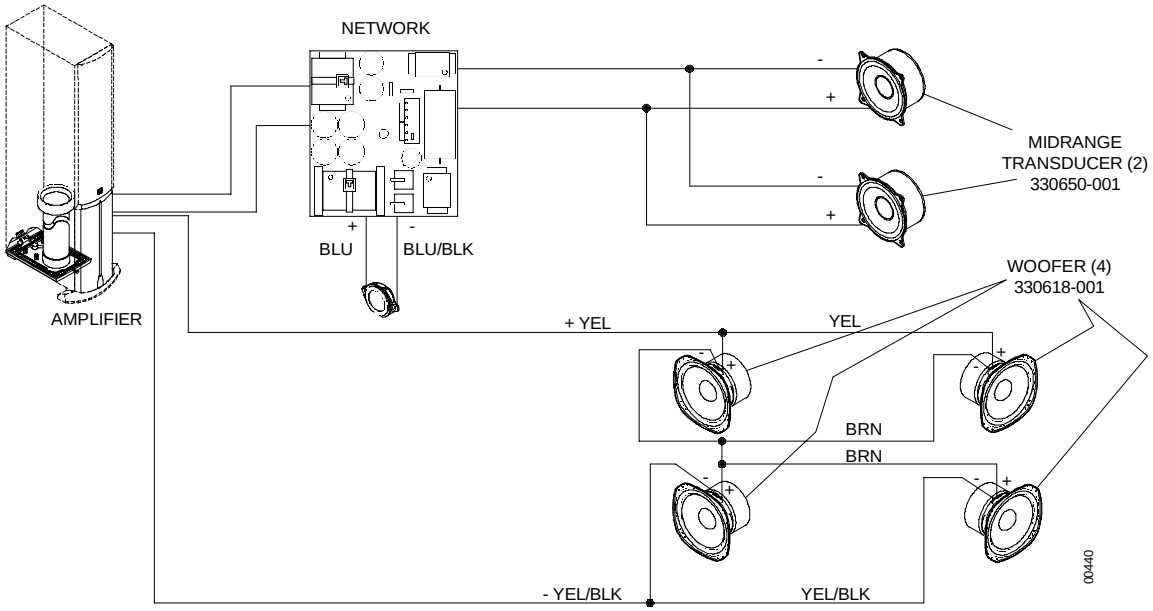


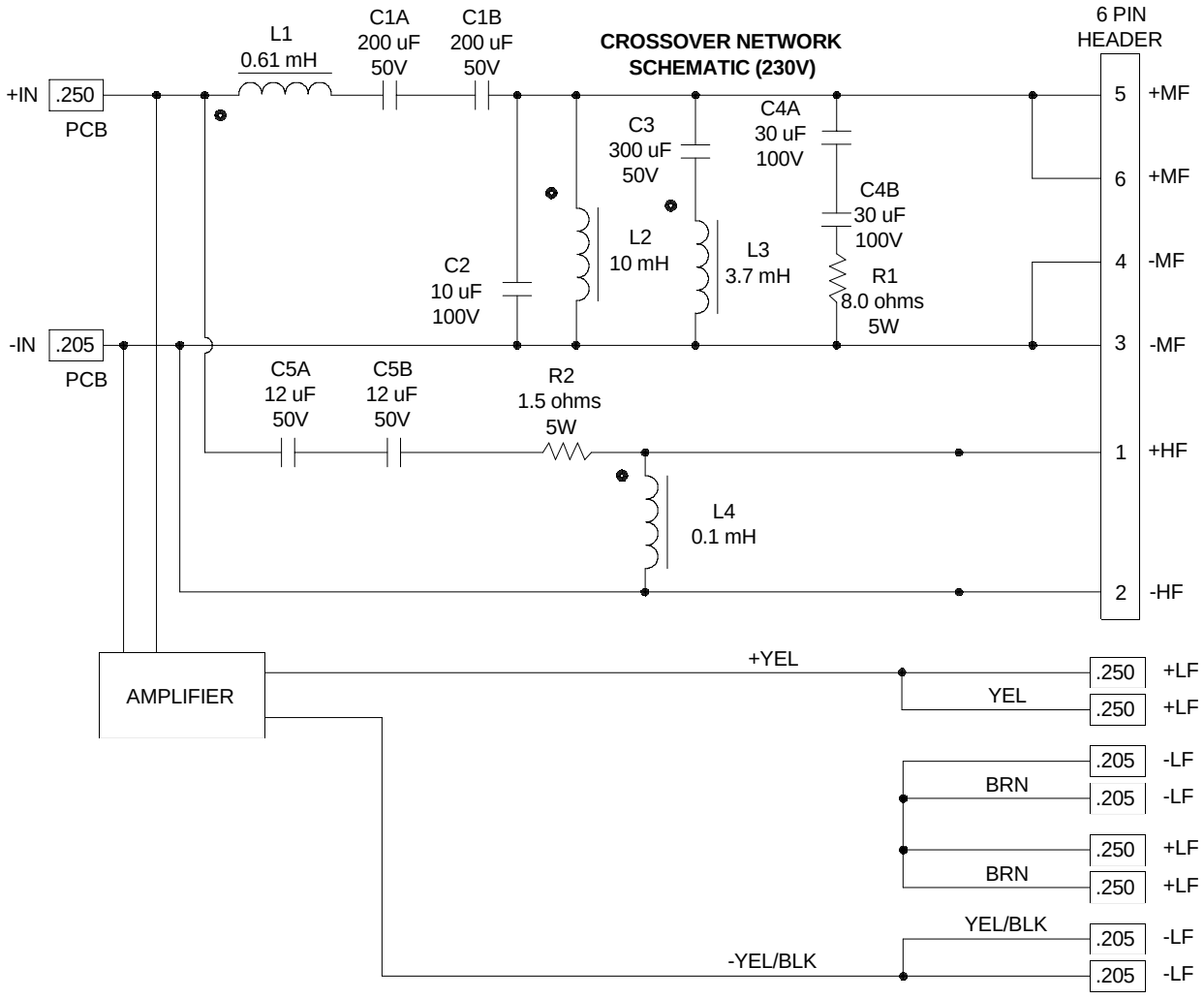
CROSSOVER NETWORK SCHEMATIC (120V)



* Early rev. part had 50V rating, see service bulletin Page 17

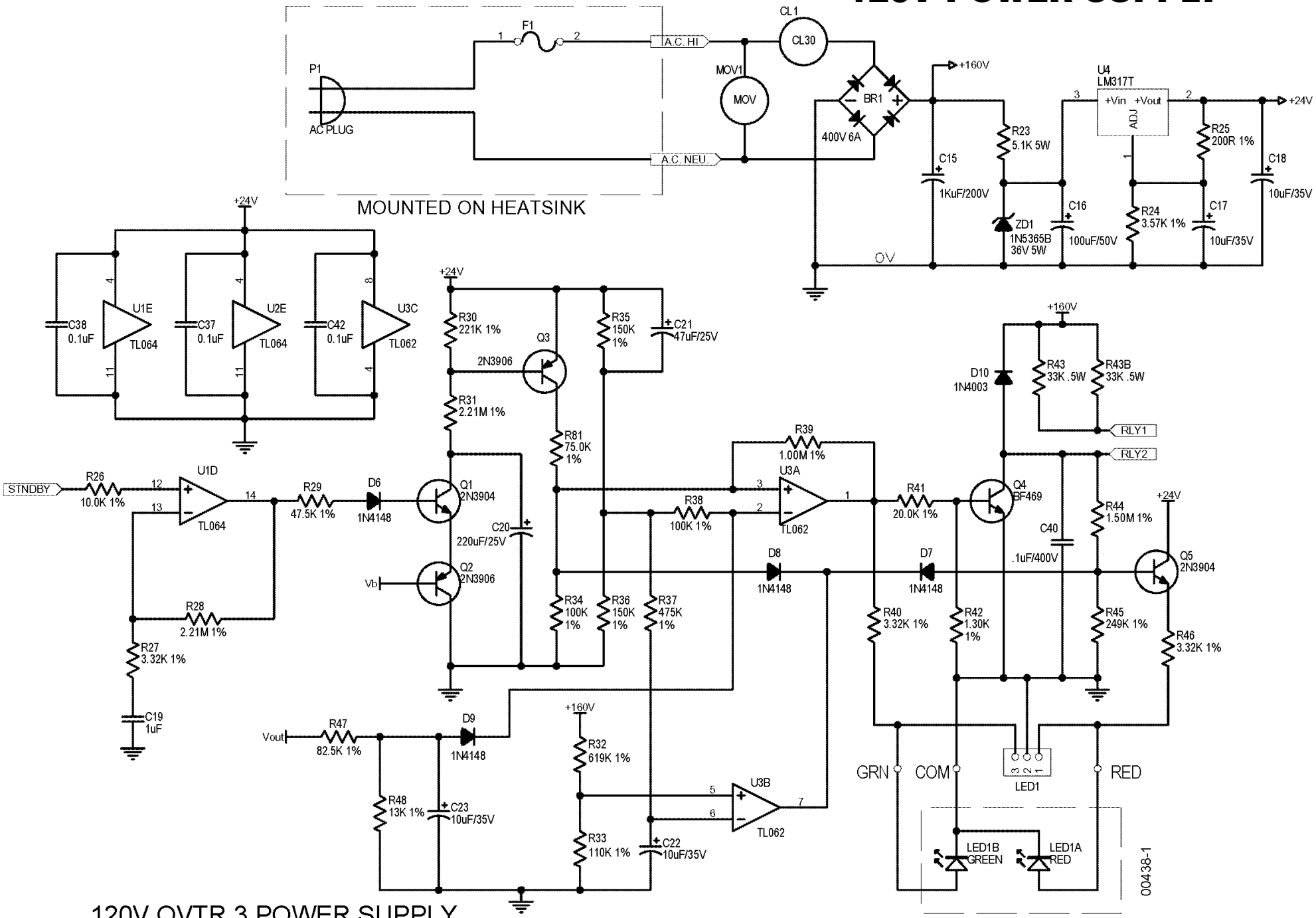
Wiring Diagram/Crossover Network Schematic (230V)





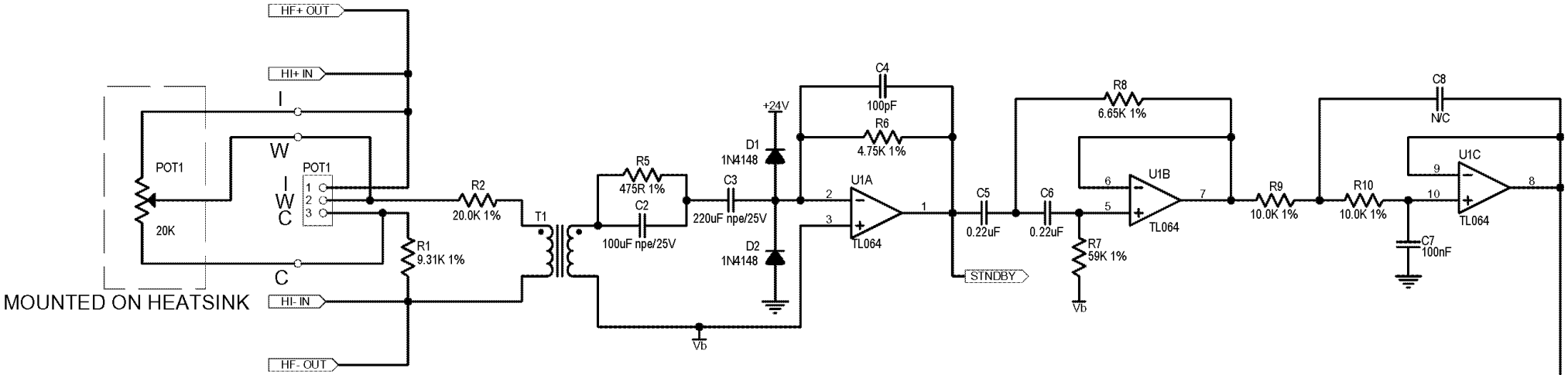
Infinity

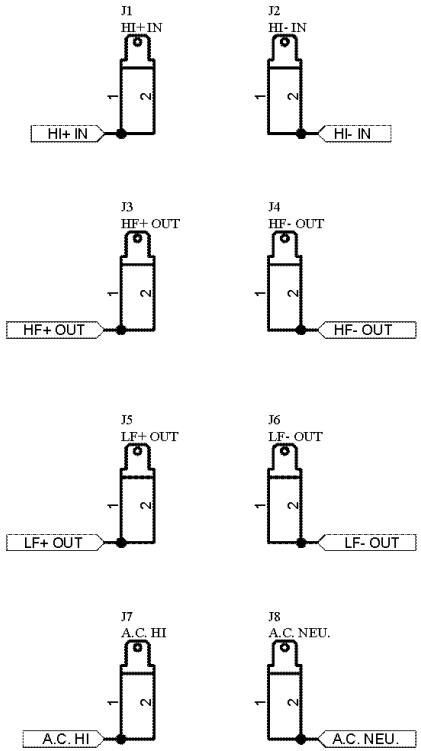
120V POWER SUPPLY



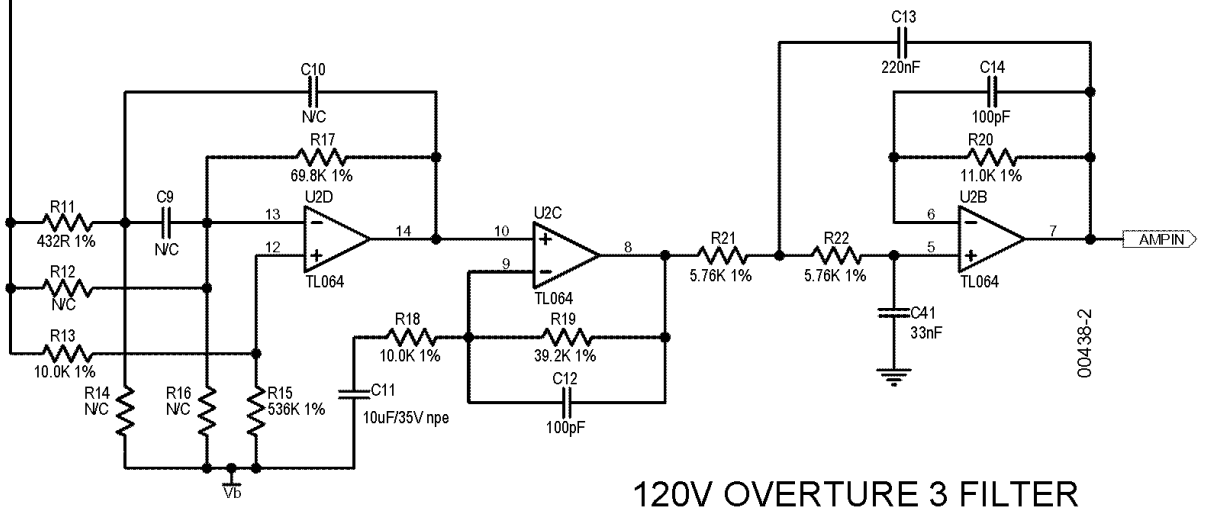
120V OVTR 3 POWER SUPPLY

120V FILTER/CONNECTORS



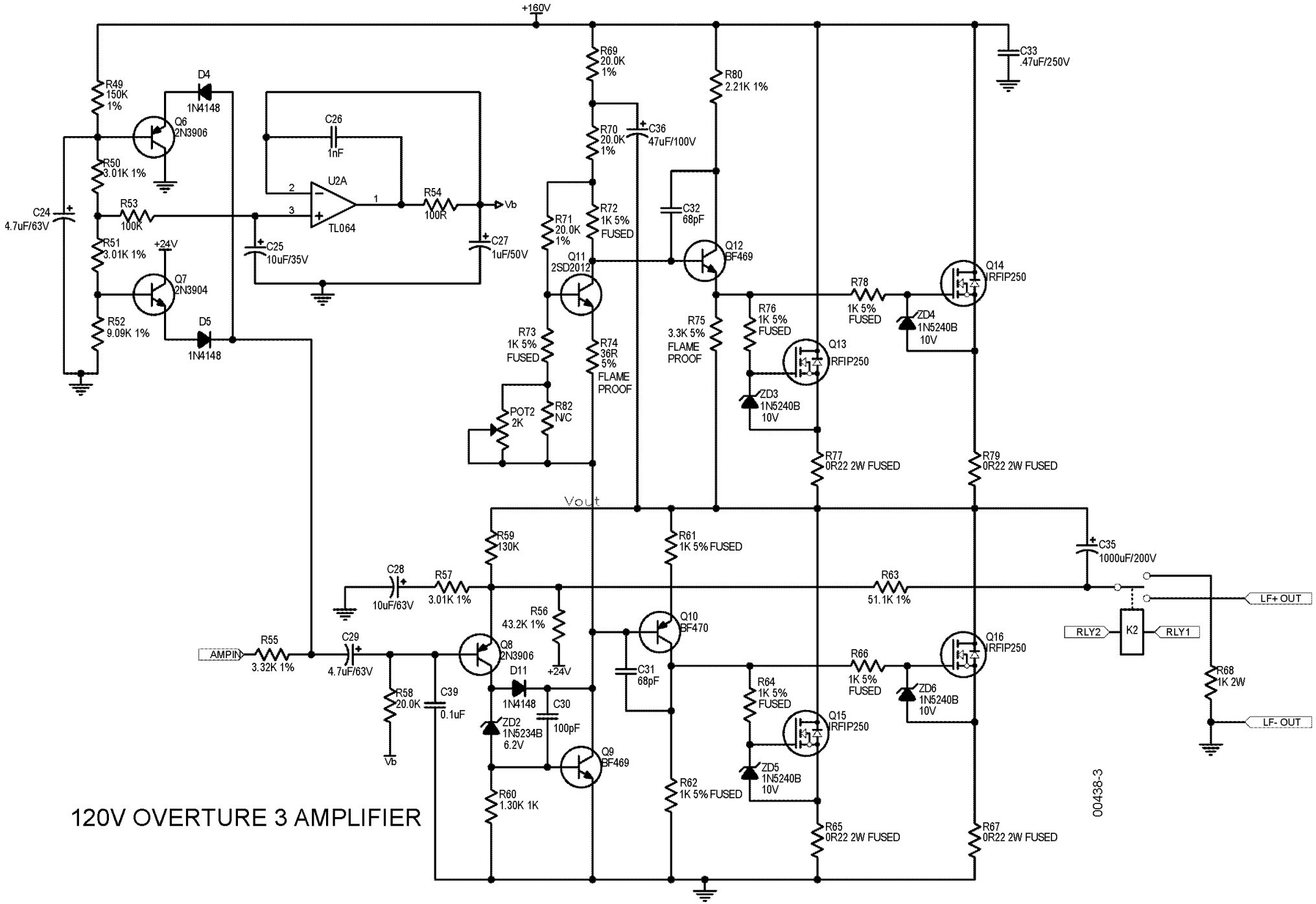


120V OVTR 3 CONNECTORS



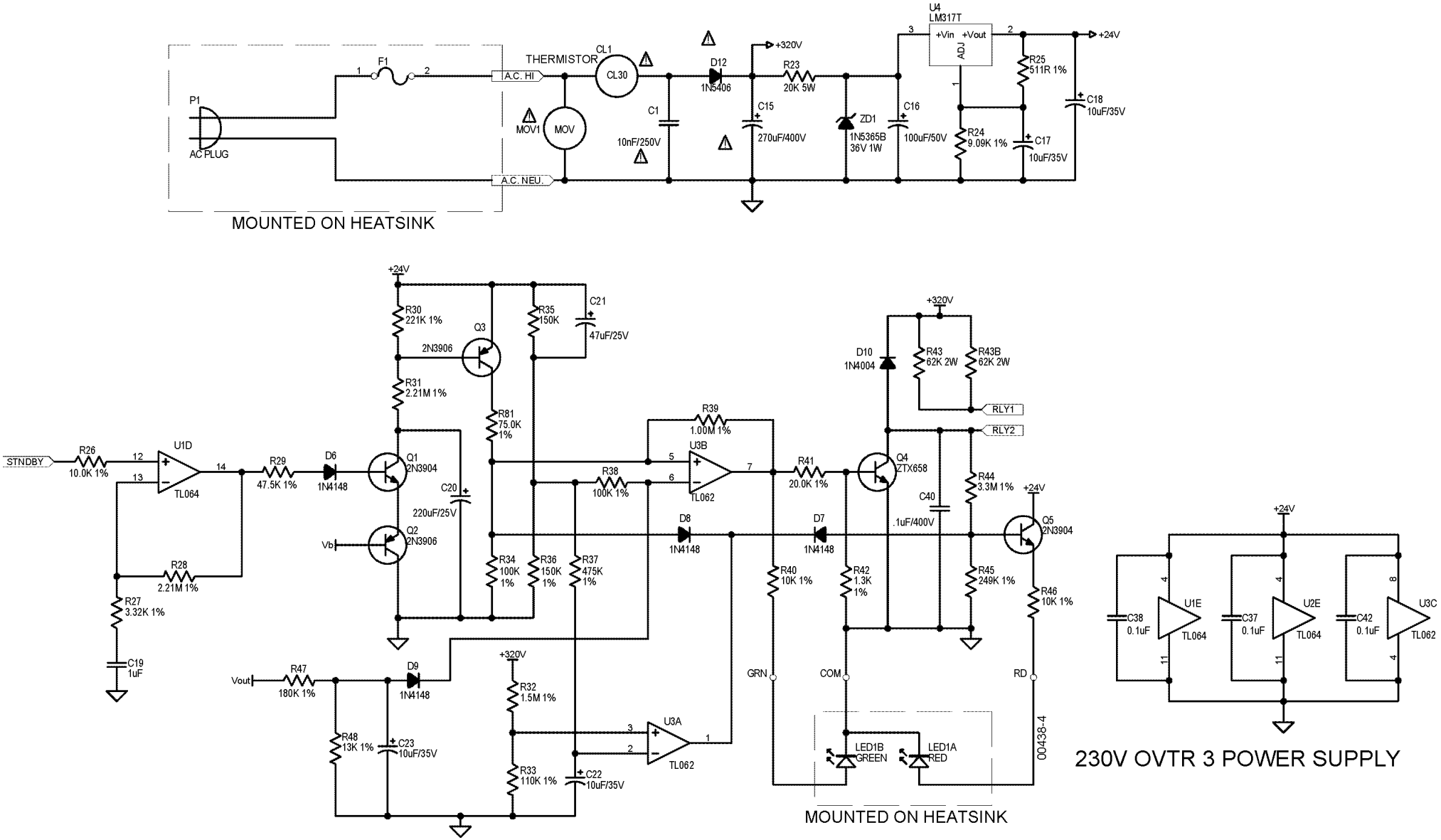
120V OVERTURE 3 FILTER

120V AMPLIFIER

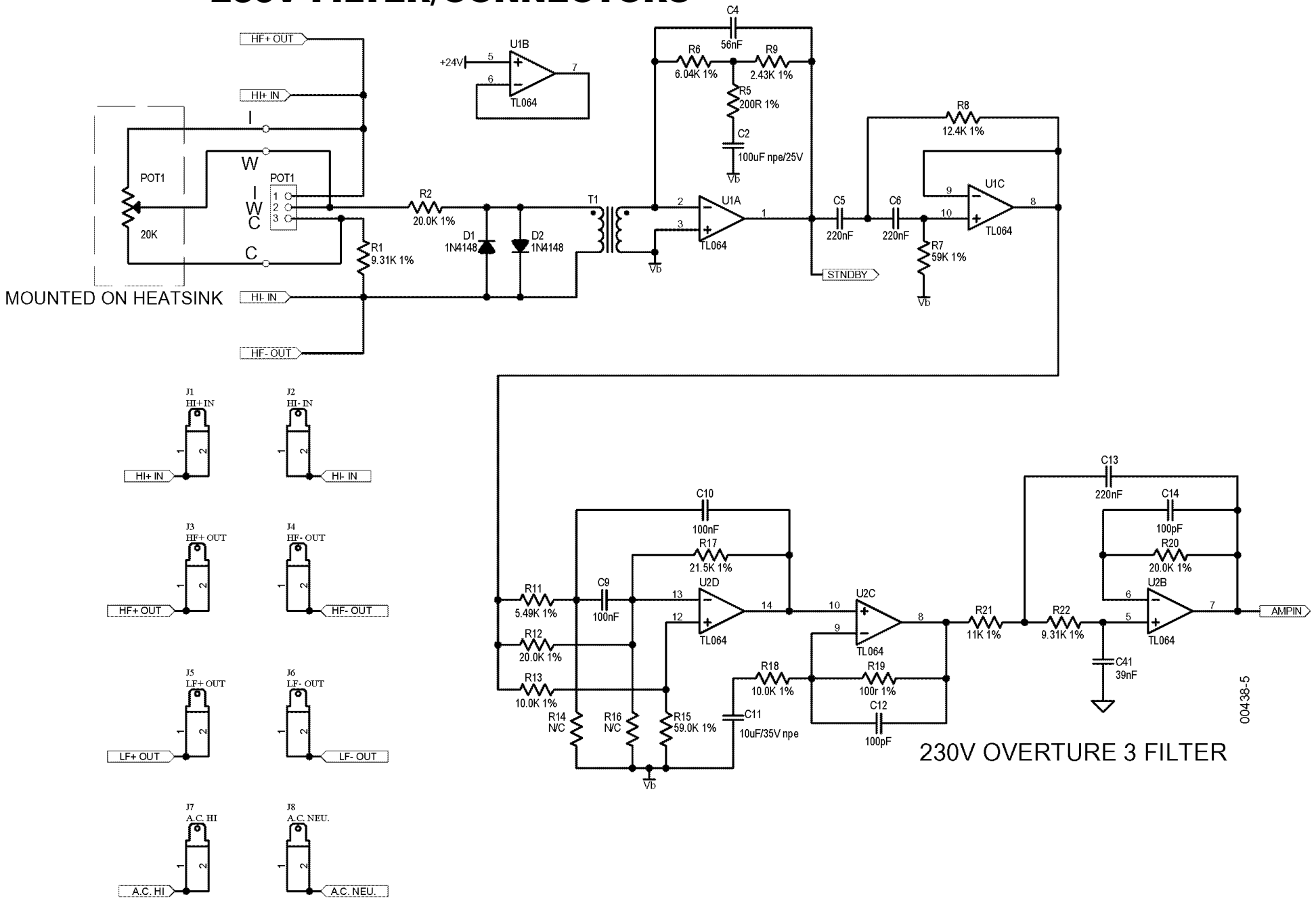


120V OVERTURE 3 AMPLIFIER

230V POWER SUPPLY



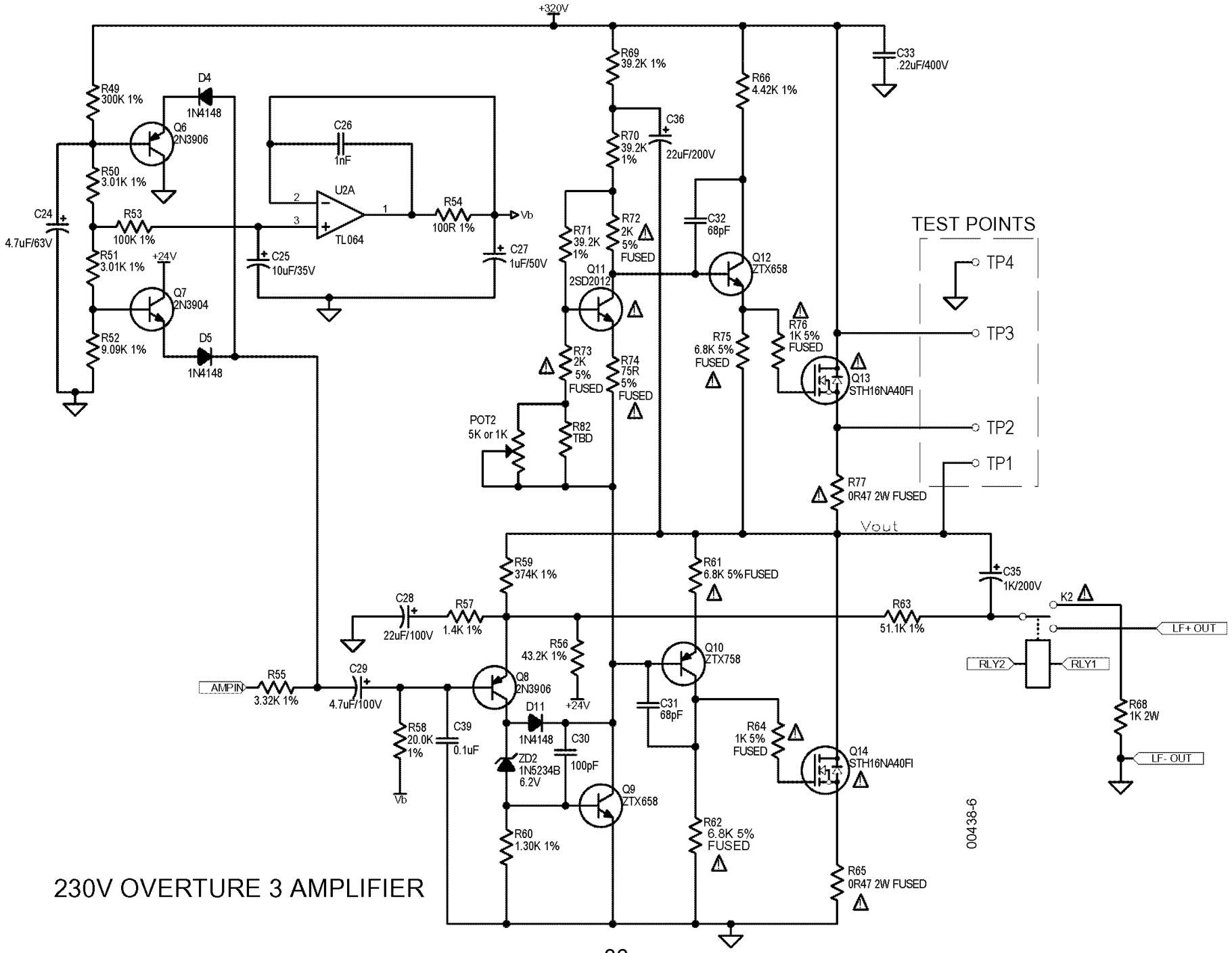
230V FILTER/CONNECTORS



230V OVERTURE 3 FILTER

230V OVTR 3 CONNECTORS

230V AMPLIFIER



230V OVERTURE 3 AMPLIFIER