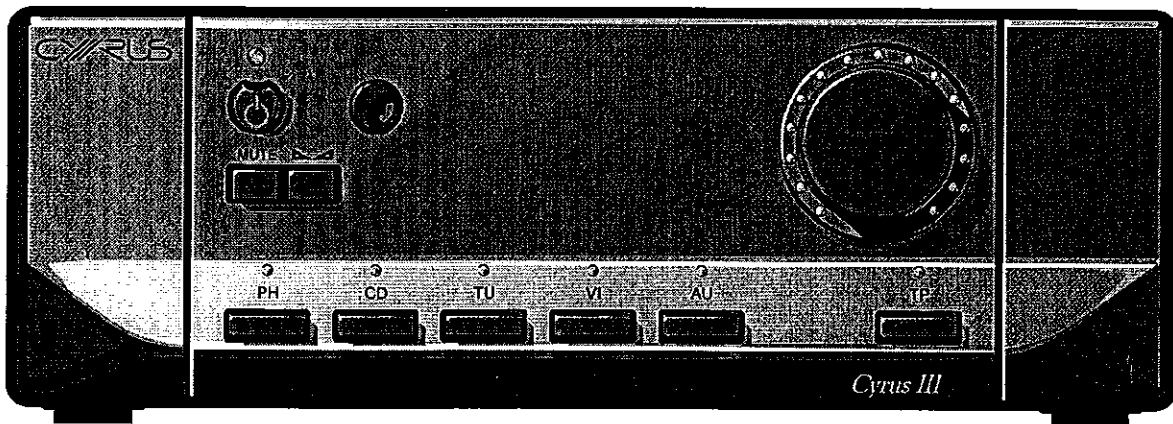


# CYRUS III INTEGRATED AMPLIFIER

## SERVICE MANUAL

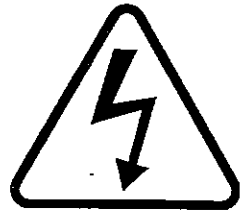


### SPECIFICATIONS

Continuous Power	50W/CH (both driven into 8 Ohms) 70W/CH (both driven into 4 Ohms)
With <i>PSX-R</i>	57W/CH (both driven into 8 Ohms) 90W/CH (both driven into 4 Ohms)
Current	30 Amps peak to peak
Distortion	0.01%, 1KHz (into 8 Ohms) 0.02%, 1KHz (into 4 Ohms)
Frequency Response	-3 dB, 2Hz and 80KHz
Damping Factor	100
Sensitivity (50W)	MM: 2.75mV Line: 200mV
Output voltage	200mV (Tape out), 380mV (Pre out)
S/N Ratio	MM: 80dBA (ref 5mV) Line: 98dBA (ref 500mV)
Dimensions (H x W x D)	73 x 215 x 360 (mm), 2.8 x 8.4 x 14.1 (inches)
Weight	4.6kg

# CYRUS

## CYRUS III SERVICE CAUTIONS



These two symbols shown are displayed prominently on the Cyrus III base cover label. They indicate that the following cautions must be observed by all personnel-

***CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER OR BACK.  
THERE ARE NO USER SERVICEABLE PARTS INSIDE THE PRODUCT.  
ALWAYS REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.***

# CYRUS III SERVICE MANUAL INDEX

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**NOTE: It is important to identify the Cyrus III PCB revision number before using this manual (see page 18)**

## CYRUS III TYPE IDENTIFICATION

### Rating label

The Cyrus III is manufactured to meet the power requirements of different world markets. Each Cyrus III carries a rating label on the rear panel, which includes details of the following:

### Nominal power voltage

This will be either   230V   For use on nominal 220V - 240V AC mains supply.  
                          115V   For use on nominal 110V - 120V AC mains supply

If it becomes necessary to adjust the nominal voltage for use in another zone, the power transformer and the power fuse must *both* be replaced with original parts from Cyrus to be the correct type for the new zone

### AC fuse rating

The AC fuse rating is also shown on the label. If replacing the AC fuse it is essential that the replacement fuse is exactly the same specification as the original fuse, supplied by Cyrus. All mains fuses have a 'Timelag' blow characteristic.

### Power consumption

The power consumption figure is indicated under conditions of full power drive into the rated speaker load.

### Serial number

Each Cyrus III carries a serial number code which identifies the following-

- Type of product
- Market destination
- Build number

The serial number is visible through a window in the baseplate caution label. It is therefore important to ensure that a baseplate removed from a product is re-fitted to the same product. In any communications with Cyrus Service or Quality departments it is essential that the full serial number is quoted so that original specification parts and service information may be supplied.

# CYRUS III SMD COMPONENT REPLACEMENT

## Handling

SMD resistors and capacitors are widely used in the Cyrus range of products. When handling SMD components, certain precautions should be observed-

### Handling SMD resistors and capacitors

- Always store SMD components in their original packaging or in a cool dry environment.
- Always handle SMD resistors and capacitors with tweezers or a vacuum pencil.
- Never handle SMD resistors and capacitors with fingers.
- Hold the SMD component by the body, not by the ends.
- Do not use SMD resistors or capacitors if the ends are dirty or discoloured.
- Do not use SMD resistors or capacitors if they have been dropped on the floor- they may be internally damaged.
- Always use replacement components of the correct size and shape. SMD components are available in many different packages. Where possible, order original parts from Cyrus.

### Handling SMD ICs

- Always store these components in their original packaging or in a cool dry environment.
- Always handle SMD transistors and ICs with tweezers or a vacuum pencil.
- Never handle SMD transistors and ICs with fingers.
- Ensure that the connection pins of larger multi-pin ICs are not deformed or damaged before fitting.

### Measuring circuits with SMD capacitors and resistors

- Avoid using sharp, pointed probes directly on the component end caps.
- Measure voltages from the PCB pad next to the component.

### Static precautions

SMD components, particularly ICs, may be damaged by the static levels present in the workshop. Damage caused by static may not immediately cause component failure but could cause partial damage and a possible failure in the future. Observing these simple SMD precautions will avoid product failures related to static damage-

- Always wear a grounded wrist band when replacing *any* electronic components.
- Always store components in their original packaging or conductive plastic bags.
- Never store components in plastic trays or bags without protection.

### Soldering/desoldering SMD components

- Never re-use old SMD components after de-soldering!
- Always apply solder heat directly to the contact area. Avoid over-heating adjacent components.
- Always repair SMD PCBs with the correct tools. SMD components can only be replaced with a hot air pencil or soldering iron designed for SMD components, preferably with temperature control.

## CYRUS III SMD COMPONENT REPLACEMENT

- Keep the soldering temperature as low as possible. 260°C is recommended for SMD rework. Most SMD components will withstand 260°C for 5 to 10 seconds
- Use tin/lead/silver solder which has a lower melting point (about 179°C). Tin/lead/silver solder paste or small gauge solder (26SWG) is recommended.
- When using solder paste a pressure dispenser should be used to ensure the correct amount of solder is applied to each pad.
- Solder paste should not be used with direct heating methods as the solder between component pins may not be melted.
- If necessary, remove excess solder paste with solder braid.

### Removing SMD resistors and capacitors from the PCB with a soldering iron

1. Fit the soldering iron with a tip large enough to bridge both ends of the component.
2. Place the soldering iron so that its flat tip will heat both ends of the component at once.
3. When the solder melts, remove the component with tweezers.
4. Allow the PCB to cool for a few minutes, removing any excess solder with desoldering braid.

### Fitting replacement SMD resistors and capacitors to the PCB with a soldering iron

1. Apply a little flux to the connections.
2. Place the component in position.
3. Tin the soldering iron, bring the tip into contact with the PCB pad and flow solder to the joint. Avoid bringing the soldering iron tip directly into contact with the component.

### Removing SMD ICs from the PCB

1. Using fine tipped side cutters or tweezer cutters, snip all the leads of the device and remove the IC body.
2. Desolder the leads from the PCB pads.
3. Clean up the PCB with solder braid.

### Removing SMD ICs with a hot air SMD tool

1. Fit a suitable size tip for the IC being removed.
2. Heat the IC evenly until the solder melts.
3. Remove the IC with tweezers.

### Fitting replacement ICs to the PCB with a soldering iron

1. Check that the pins of the IC are not distorted.
2. Using tweezers, position the IC over the footprint.
3. Check that all the IC pins are correctly aligned with the pads.
4. With a very fine tip soldering iron, solder in the pins at the corners of the IC.
5. Re-check the alignment and correct if necessary.
6. When the alignment is OK, solder the remaining pins of the IC to the PCB.

## CYRUS III SMD COMPONENT REPLACEMENT

### Recommended tools

- positioning tool (soldering aid) Intertronics part no. ITS 800
- hand vacuum pick up and place Intertronics part no. V8901-LMS-ESD
- tweezers RS part no. 238-6132
- solder paste hand dispenser ESP part no. HPD10 or HPD30
- soldering iron RS part no. 307-9598
- magnifier RS part no. 614-312
- desoldering braid RS part no. 229-3866

### Contacts

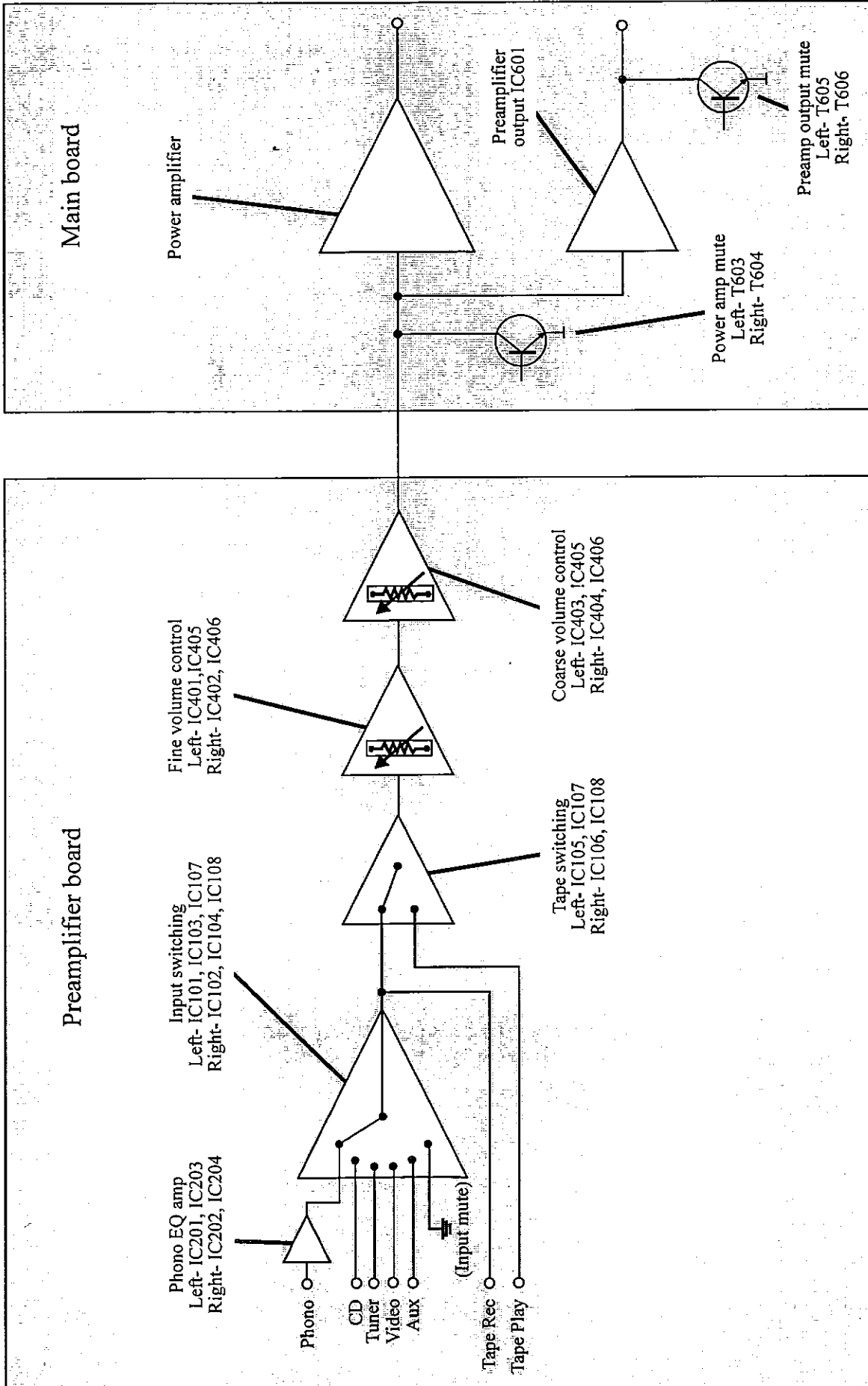
#### Electronic Tools Supplies

Intertronics Ltd  
Unit 9  
Station Field Industrial Estate  
Banbury Road  
Kidlington  
Oxfordshire  
OX5 1JD  
+44 (0) 1865 842842 ☎  
+44 (0) 1865 842172 (fax)  
email: [inter@cygnetuk.demon.co.uk](mailto:inter@cygnetuk.demon.co.uk)  
<http://www.cygnetuk.demon.co.uk>

#### Electronic Component Supplies

RS Components International  
PO Box 99  
Corby  
Northants  
NN17 9RS  
+44 (0) 1536 201234 ☎  
+44 (0) 1536 204237 (fax)  
<http://rswww.com>

# CYRUS III BLOCK DIAGRAM



*Note- The block diagram shows one channel only as the signal routing is identical for both channels.*



## CYRUS III TECHNICAL DESCRIPTION

### MM phono/line input

The input to the moving magnet (MM) stage is coupled to operational amplifier IC201/202. R203/204 provides the standard moving magnet input impedance of 47k. One half of IC203/204 provides the RIAA equalisation and the other half of IC203/204 buffers the output. The output from the second half of IC203/204 is routed to the input selector, IC101/102.

### Input selection and tape monitor

The input and tape monitor are via analogue switches IC101/102/104. The selected output is fed to IC107/108 and thence to analogue switches IC105/106. TAPE OUT is via the output of IC107/108 and resistors R113/114. TAPE IN is selected by IC105/106. IC107/108 then buffers the output from the analogue switches which is then routed to the volume control circuit IC401/402.

### Volume control

The volume level can be adjusted either by the front panel shaft encoder or by remote control. The volume is set by the ladder resistor network connected to the 8 channel multiplexer IC401/402. The multiplexers are controlled by the 8 bit shift registers IC407/408/409 via the control lines VL0-5 (left channel) and VR0-5 (right channel). IC407/408/409 are in turn controlled by the microprocessor, IC301 via the DATA, STROBE, and CLOCK lines. The rotary encoder output is connected to the microprocessor via REN-a and REN-b. The software then interprets this and sends data to IC407/408/409.

### Microprocessor

IC301 controls the amplifier via a 3 wire serial communication system, the 'Silent Bus'. Data is sent via the bus to a series of six memory latches- IC302, IC303, IC304, IC407, IC408, IC409 which each have 8 outputs. The microprocessor is therefore able to set 48 (6 x 8) different 'switches' throughout the product. The data input to these ICs is only active briefly when a status change is requested (for example, increase volume by 1dB). A short burst of data (48 bits) is first sent, then the Strobe line (pin 40 from IC301) pulses briefly to update all of the latches together.

### Power amplifier design and protection

The power amplifier is a direct coupled design with quasi-complementary output configuration. A protection circuit is used to sense the presence of excess current passing through the 0.22R resistors in line with the output transistors. The protection circuit comprises of T541/542 and T539/540. If excess current flows through R557/558 this is detected by T541/542 which switches on. This then switches T539/540 on which then latches both T541/542 and T539/540 on. T539/540 then disables the constant current source, T535/536, via T537/538, and this disables the power amplifier.

R501/C503, R502/C504 set the high frequency response and C501/R503, C502/R504 set the low frequency response of the input filter to the amplifier. The front end of the amplifier T501/502, T503/504, T505/506, T507/508 form a long tail pair differential amplifier. The long tail pair are biased by T533/534 and T535/536 which are arranged as a constant current source (CCS). C519/520 set the low frequency response of the amplifiers feedback. T509/510 and T511/512 form the second gain stage. The load for the gain stage is a current mirror T515/516 and T517/518. T521/522 and T525/526 are configured as an emitter follower output stage and T523/524, T527/528 are configured as a complement to the emitter follower. D501/502 improve the matching of the output halves. C511/512 and C513/514 provide dominate pole compensation to ensure there are no high frequency parasitic oscillations at the output of the amplifier.

## CYRUS III – USE WITH A PSX-R

### Adjustments for use with a Cyrus PSX-R

The Cyrus III can be used with an optional PSX-R regulated power supply. The PSX-R supplies regulated DC power directly to the main reservoir capacitors of the Cyrus III and therefore powers the main amplifier stages. The power transformer of the Cyrus III remains active at this time to provide power for the control circuits only. This improves both the technical and sonic performance of the Cyrus III.

### Multiway connector pin assignments

The connections between the Cyrus III and PSX-R function as follows-

#### Pin 1 (Standby)

This is an output from the Cyrus III to send a standby control message (logic 1, +5V) to the PSX-R, enabling the regulated power supplies of the PSX-R. Note that this pin will not change state if the Cyrus III detects a fault (See pin 5).

#### Pin 2 (Positive supply)

For the Cyrus III application this pin delivers +35V from the PSX-R to the Cyrus III, switched by the Standby control system.

#### Pin 3 (Gnd)

This pin is the system ground return between the Cyrus III and PSX-R.

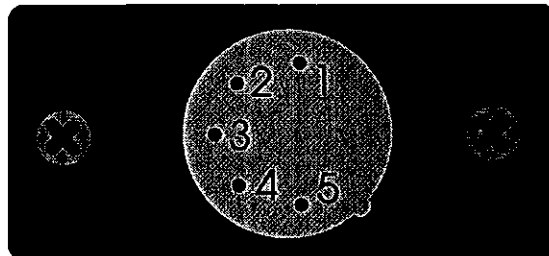
#### Pin 4 (Negative supply)

For the Cyrus III application this pin delivers -35V from the PSX-R to the Cyrus III, switched by the Standby control system.

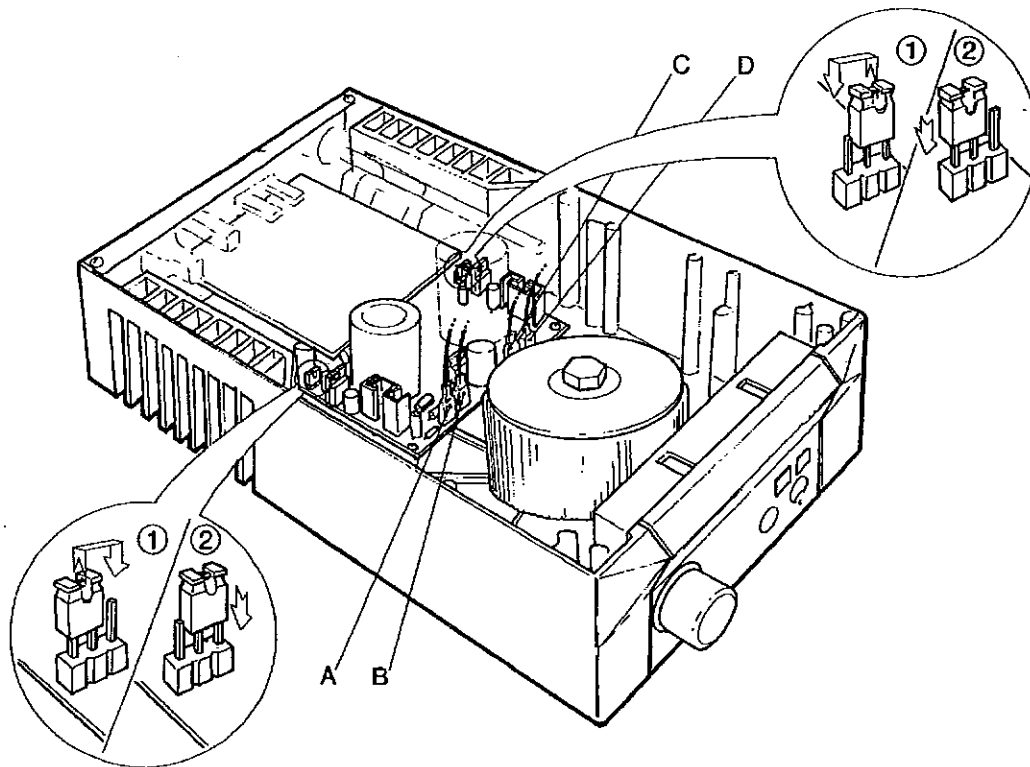
#### Pin 5 (PSX-R detect)

This pin is an input to the Cyrus III to detect the presence of a working PSX-R. The line condition is Logic 1 (+5V) at all times when a PSX-R is connected and power is applied. (The PSX-R will change the state of this pin to logic 0 if an internal fault occurs in the PSX-R).

This diagram shows the pin numbers of the Cyrus III power supply input connector. View is of the connector pins from the rear of the amplifier



## CYRUS III PSX-R CONVERSION



1. Switch off the amplifier and remove the power lead.
2. Remove the four base screws, loosen the rear 2 screws, and lift off the cover.
3. Referring to the drawing, & the terminals A, B, C & D, which are located near to the mains transformer, change the power supply wiring as follows:
  - Remove the BLUE wire from A, the YELLOW wire from B, the GREY wire from C, & the RED wire from D
  - Fit the YELLOW wire to terminal A.
  - Fit the BLUE wire to terminal B.
  - Fit the RED wire to terminal C.
  - Fit the GREY wire to terminal D.
4. Check if the links shown on the drawing are present on the circuit board. *These are not fitted to all Cyrus III products.* If the links are not present on the PCB, no action is necessary. If the links are present, change the two jumper links to the PSX-R positions, i.e. Position one is for normal operation, Position two is for PSX-R operation (the jumpers should be in the positions *furthest* from the edge of the board).
5. Refit the base cover & screws. Tighten the rear two screws.
6. To check the correct operation of both units:
  - Connect the PSX-R to the CYRUS III
  - Connect the CYRUS III to a pair of recommended loudspeakers, & an input signal.
  - Connect the power leads to the PSX-R & the CYRUS III & switch on.
  - After initialisation, both standby LED's should be showing RED.
  - Press the CYRUS III standby button and LED's on both the PSX-R & the CYRUS III should be showing GREEN.
  - Pass a signal through the system to check for satisfactory operation.

## CYRUS III FAULT FINDING

### Control system problems

If a fault exists with the control system it is best to switch on the amplifier, select an input and increase the volume slightly (so that the volume display changes from red to green). Now check each pin of IC301 against the chart.

If a fault is identified on an input of IC301 this suggests that there could possibly be a circuit fault elsewhere which is confusing the controller. This should be traced with help of the schematic diagrams from the pin in question. If a fault is identified on an IC301 output then the IC itself may be faulty and should be checked by substitution.

In the event of a power amplifier fault the following procedure is recommended....

Without applying power, check the major output semiconductors with a DVM set to 'diode test'. First check the output transistors (T529-T532), the driver transistors (T525-T528), pre-driver transistors (T521-T524) and the quiescent setting transistors (T519, T520, T543, T544). Check also the condition of the output stage fusible resistors, R545-R554.

Following these tests and if necessary the replacement of any components which are damaged.....

Refit the PCB, apply power to the product without a load connected. Switch on and check that the DC offset voltage at the loudspeaker output terminals is within  $\pm 50\text{mV}$  of 0VDC. Check also that the quiescent current will set correctly (refer to the alignment instructions). Failure of these tests indicates that there may be a problem in the earlier stages of the power amplifier and careful checks of the other semiconductors is then advised.

## CYRUS III FAULT FINDING

### IC301 pin assignments

Pin	I/O	Function	Test condition
1		Power supply	+5V
2	O	System clock	8MHz oscillator
3	O	System clock	8MHz oscillator
4	O	MCBus out	Serial data when a command is sent, amplitude 3.5V
5	I	MCBus in	Serial data when a command is received or returned
6	I	System reset	Normally +5V. Rises slowly when power is first connected.
7		Not used	
8		Not used	
9		Not used	
10	O	Silent bus data	Data will be seen at input, volume status changes etc.
11		Ground	0V
12	I	Remote control data	Data will be seen when a remote command is received
13	I	Standby key	+5V (0V when key is pressed)
14	I	Mute key	+5V (0V when key is pressed)
15	I	Balance key	+5V (0V when key is pressed)
16	I	PSX connected	0V (+5V when a PSX-R is connected)
17		Not used	
18	I	Phono key	+5V (0V when key is pressed)
19	I	CD key	+5V (0V when key is pressed)
20	I	Video key	+5V (0V when key is pressed)
21	I	Tuner key	+5V (0V when key is pressed)
22	I	Aux key	+5V (0V when key is pressed)
23		Not used	
24		Not used	
25	I	Tape key	+5V (0V when key is pressed)
26	I	Overcurrent	+5V (0V when the power amplifier senses an overload)
27	I	Positive fuse detect	+5V (0V if the positive DC fuse blows)
28	I	PSX modified	0V (+5V when the Cyrus III is modified for PSX-R operation)
29	O	Silent bus clock	Clock will be seen at input, volume status changes etc.
30	I	Level control A	Level control movement detect pulses
31	I	Level control B	Level control movement detect pulses
32		Not used	
33	O	Power amplifier kill	0V (+5V when at minimum volume or in standby)
34		Not used	
35		Not used	
36		Not used	
37	I	Negative fuse detect	0V (+5V if the negative DC fuse blows)
38		Not used	
39		Not used	
40	O	Silent bus strobe	+5V (Very short 0V pulse sent briefly after silent bus data is sent)

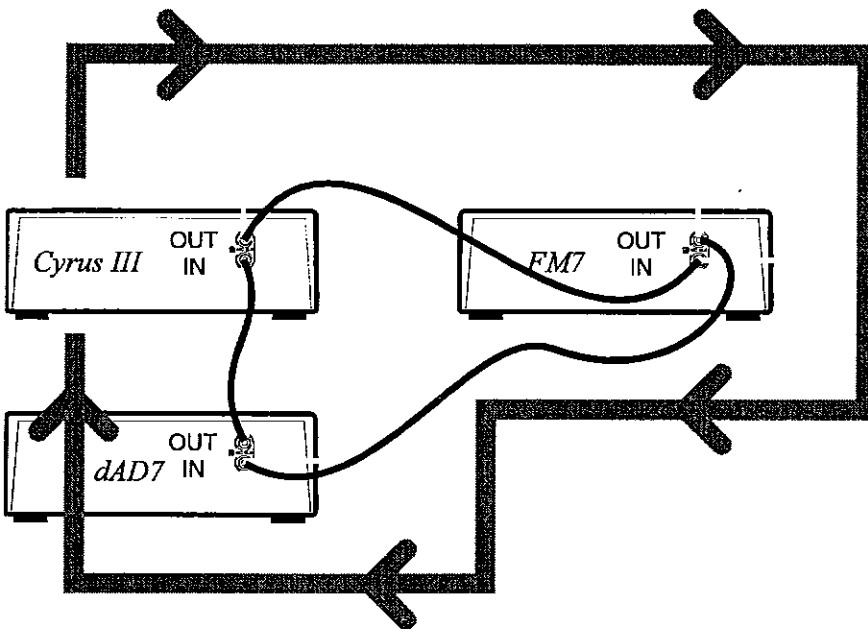
## CYRUS III FAULT FINDING

### MCBus

MCBus is a system which provides communication between the control systems of a number of Cyrus products. The communication takes the form of a serial data stream which is sent from a 'master' product and received and repeated by 'slave' products. The data is thus passed from one product to another around a loop. The master product should then receive the message back which confirms that loop connections have been correctly made. The Cyrus III is a 'master' product and sends commands following certain key sequences. Products such as CD players and tuners are 'slaves' and only listen to MCBus for commands which may be appropriate.

### MCBus system test

The MCBus system can be tested by substituting the amplifier into a known working Cyrus system with a CD player or tuner. Note that MCBus must be connected as a closed loop as shown in the diagram. It is also important to connect the audio-signal cables between components to provide an adequate ground return path for the MCBus signals. Switch on the power to the system and set all components to Standby. Selecting an input on the amplifier will now activate both the Cyrus III and the selected device (tuner or CD as connected). When the Cyrus III is set to Standby, all other components connected to the MCBus loop will also set to Standby.

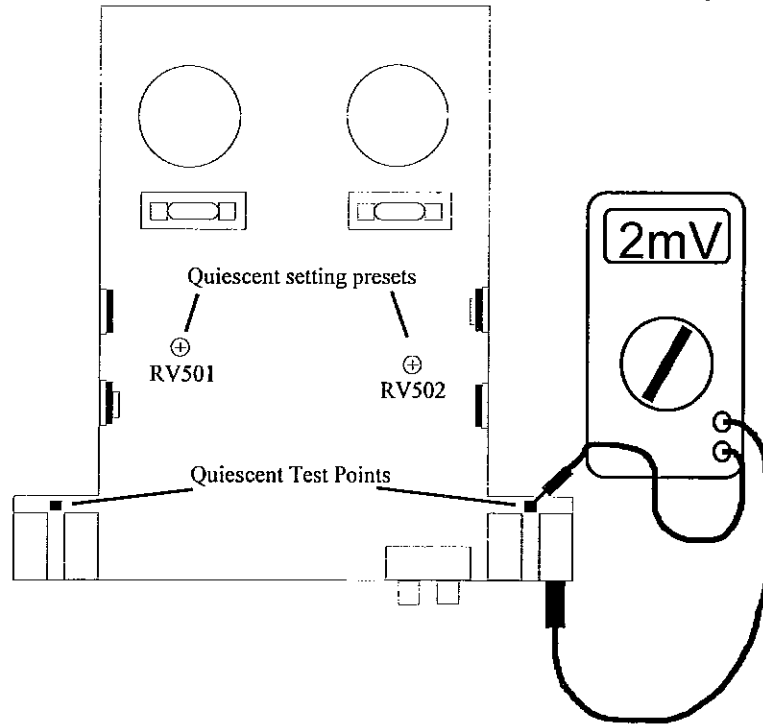


# CYRUS III ALIGNMENT

## Quiescent current setting

- Quiescent test points are located on the main amplifier PCB as shown in the diagram, next to the red and black speaker terminals.

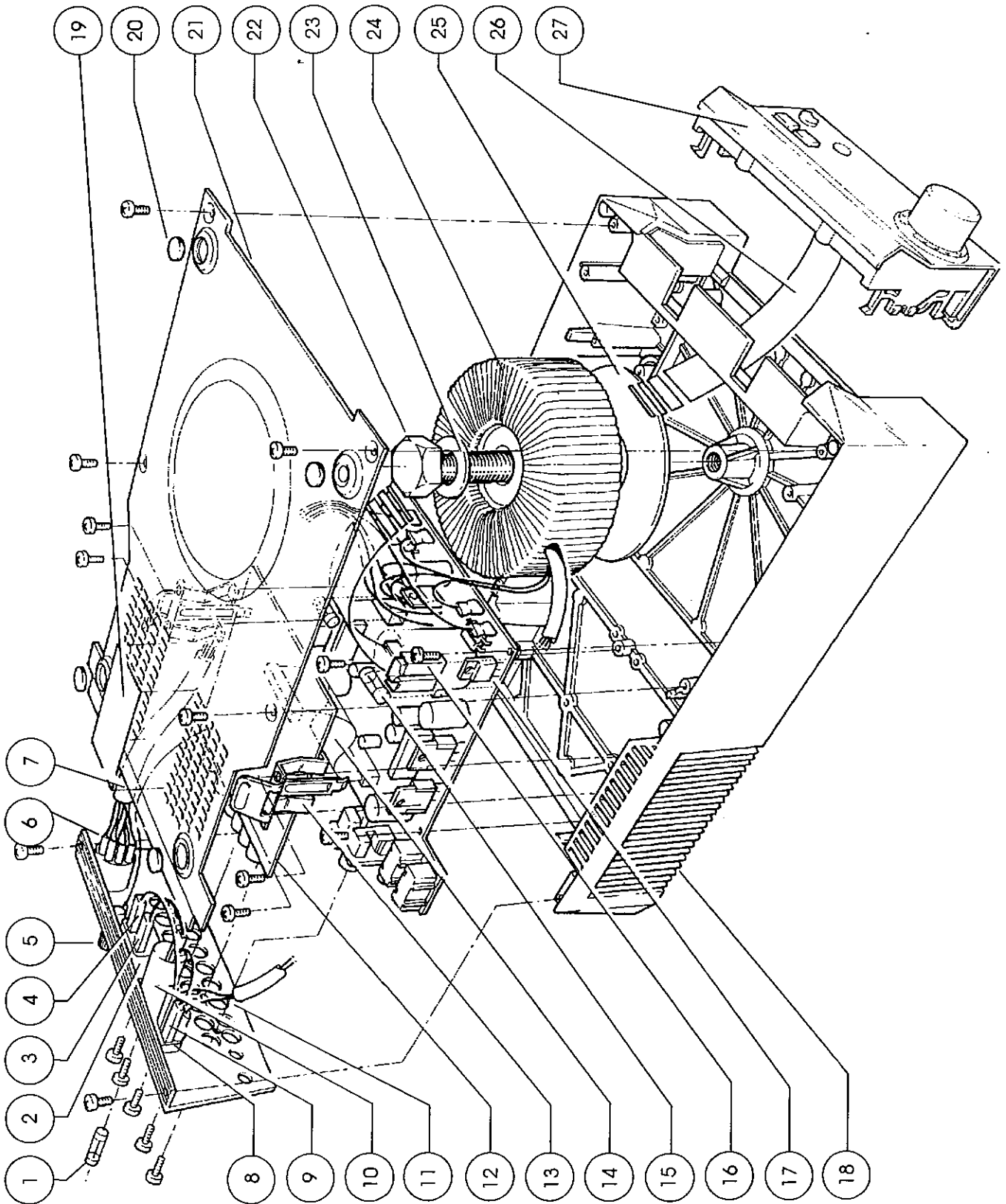
- Switch off the power to the amplifier.
- Check that the amplifier is not set for PSX-R use (refer to page 17). Take particular care with earlier models which have the two links fitted for PSX-R changeover.
- Connect a digital test meter reading millivolts to the red speaker terminal for the left channel and test point CLP.



- Switch on the amplifier at the rear and select an input. Set the volume to minimum (Do not connect a signal source to the amplifier whilst adjusting quiescent current).
- Note that access to the adjustment presets when the amplifier is assembled is through two holes in the input PCB which are located above the presets.
- Adjust the quiescent setting preset RV501 so that the meter reads the correct value shown in the table below.
- Proceed to connect the test meter to the red speaker terminal for the right channel and test point CRN. Adjust the quiescent setting preset RV502 so that the meter reads the correct value shown in the table below.
- Leave the amplifier to stabilise for ten minutes and repeat the adjustments for both channels.

PCB number	Issue	PCB marking	Quiescent setting
Main PCB Issue 3		HA7A3123	6mV
Main PCB Issue 4		HA7A3124	2mV
Main PCB Issue 5		HA7A3145	2mV
Main PCB Issue 7		HA7A5157	2mV

# CYRUS III CHASSIS PARTS DRAWING



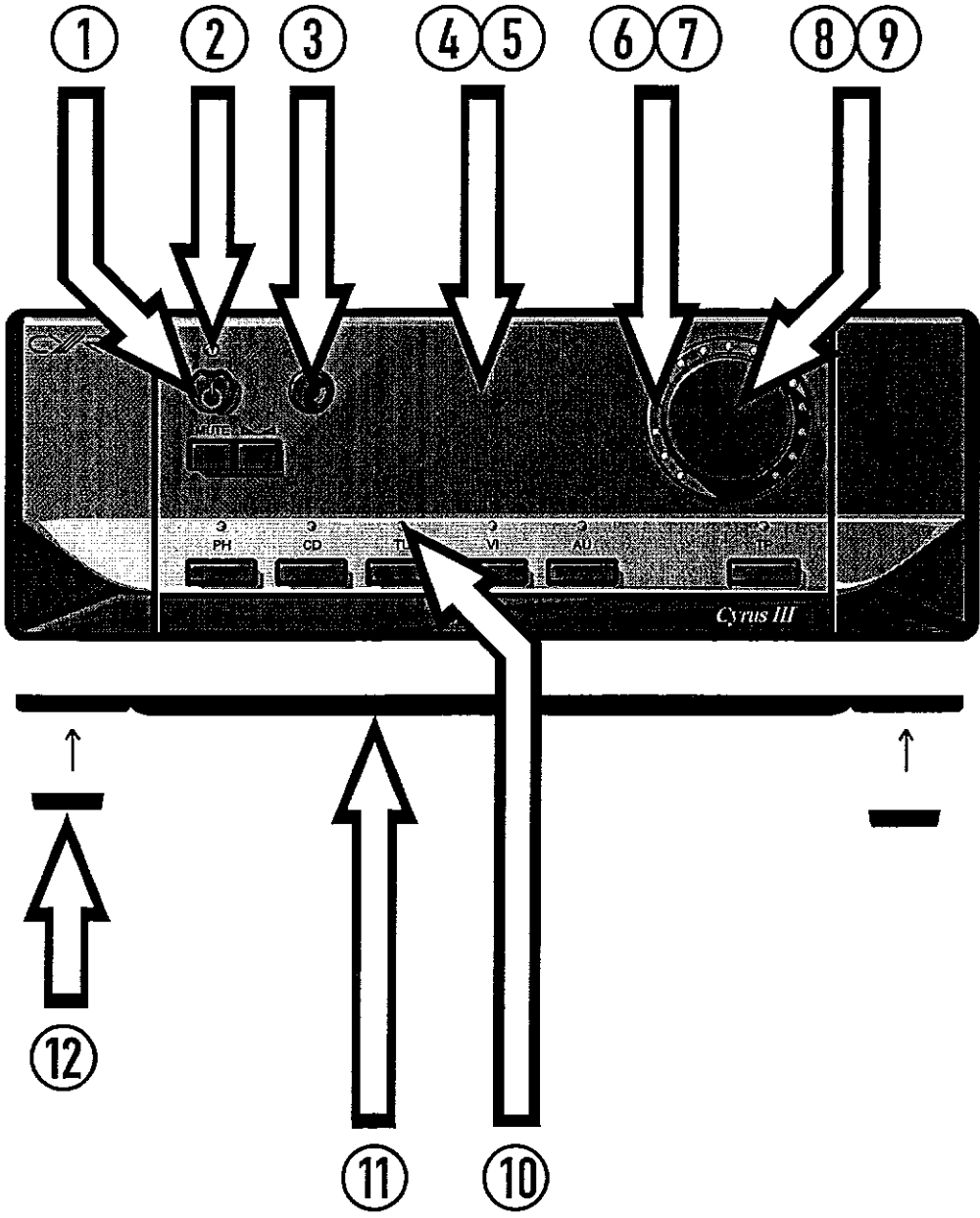


## CYRUS III CHASSIS PARTS LIST

Ref	Description
1	T1A Power fuse (230V products) #
	T2A Power fuse (100V,115V products) #
2	AC power inlet #
3	Power cable (brown) #
4	Power cable (blue) #
5	Ground terminal
6	PSX-R socket
7	PSX-R cable ass'y (except North America) #
	PSX-R cable ass'y (North America) #
8	Power switch #
9	Power cable (brown) #
10	Fuseholder insulation sleeve #
11	Rear panel
12	Input board
13	Heatsink clamp
14	21 way flexible cable
15	DC fuse (except North America) #
	DC fuse (North America) #
16	Regulator heatsink
17	Amplifier main board
18	Chassis
19	Warning label 230V #
	Warning label 115V #
	Warning label 100V #
20	Foot
21	Base cover
22	Power transformer fixing bolt
23	Power transformer washer
24	Power transformer 230V #
	Power transformer 115V #
	Power transformer 100V #
25	Power transformer neoprene #
26	15 way flexible cable
27	Front panel assembly complete

*NOTE- Parts marked # are safety critical and must be replaced only with identical types supplied by Cyrus Electronics.*

CYRUS III FRONT PANEL DRAWING



## CYRUS III FRONT PANEL PARTS LIST

### Front panel

Ref	Part number	Description
1	AM-POWCP	Standby knob trim
2	AM-PLENS02	Standby lens
3	AM-LENSM02	Remote lens
4	AM-FACIAZ	Front fascia
5	AM-FRONT02	Technical moulding
6	AM-VLENS	Volume lens
7	AM-VOLRGB	Volume ring
8	AM-CKNOB	Volume knob
9	AM-RKNOBB	Volume knob core
10	AM-SLENS	Source lens
11	AM-CHPLT/02	Base plate
12	AM-BFOOT	Rubber foot

### Packing list

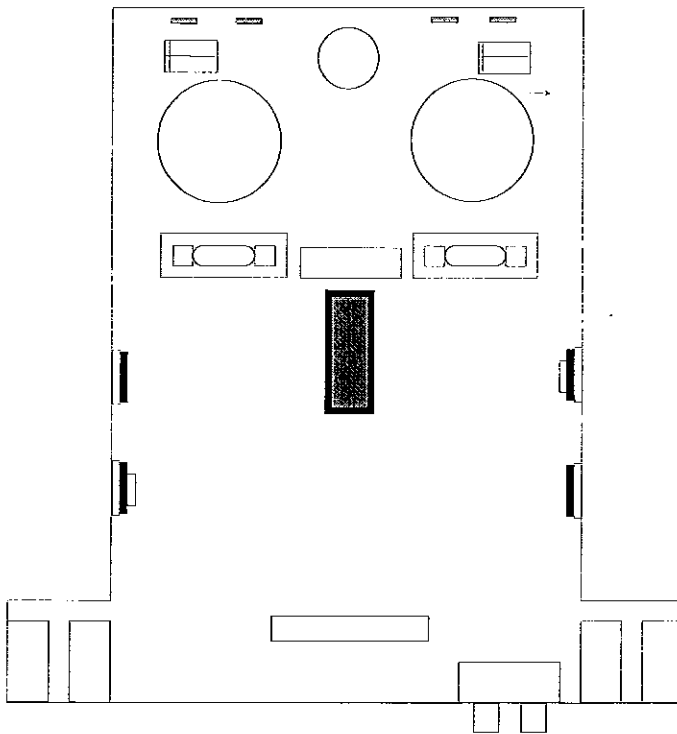
Part number	Description
D3-PLEADY	Phono lead
AM-MLUSA	115 volt mains lead
AM-MLEUR	230 volt mains lead
AM-REMCLBAT	Remote control battery
AM-REMCLSYS	Remote control
AM-MANUL/	Instruction manual

## CYRUS III PCB IDENTIFICATION

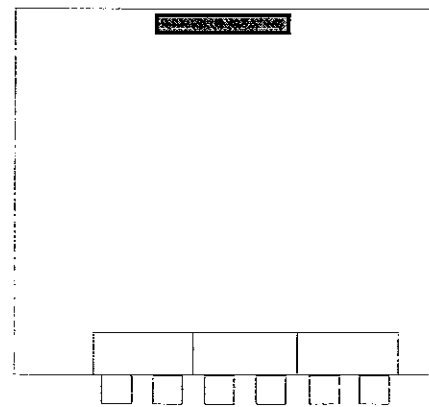
In the course of production the PCB artwork of the Cyrus III has changed slightly. It is essential to identify the revision number when repairing a PCB and to use the correct components. Each PCB is marked with a design revision number and this number should be quoted in all correspondence to the service department when requesting technical advice or requesting spare parts. The table below shows the markings, which are found on each PCB in the set for the known revision levels. Note that revision 6 PCBs were not issued for production.

Revision number	Input PCB marking	Control PCB marking	Main PCB marking
3	HA7A1123	HA7A2123	HA7A3123
4	HA7A1125	HA7A2124	HA7A3124
5	HA7A1145	HA7A2145	HA7A3145
7	HA7A1157	HA7A2157	HA7A3157

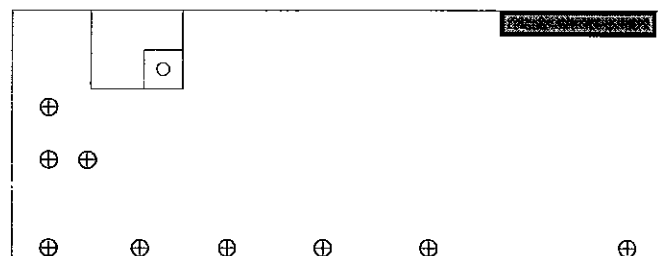
The diagrams below show the location of the revision number marking for each board in the set as a grey coloured area.



Main board



Input board



Control board

## CYRUS III PCB PARTS LIST

### Location of parts in the amplifier

The parts list that follows includes details of the components of all three circuit boards used in the Cyrus III. The component number can be used to identify which part of the circuit board each component relates to. The locations of the main circuit sections are listed to follow with component references-

Circuit section	Location	Component number
Input switch	Input board	100 e.g. R101
Phono preamp	Input board	200 e.g. R201
Control circuit	Control board	300 e.g. R301
Volume control	Input board	400 e.g. R401
Power amplifier	Main board	500 e.g. R501
Preamp output	Main board	600 e.g. R601
Protection	Main board	600 e.g. R601

### Ordering parts from the parts list

When ordering PCB parts from the parts list, always quote the following information to ensure that the correct parts are supplied-

- Model number
- Serial number
- Component PCB reference
- Value
- Full description

For example-

- Cyrus III
- HAE00001
- R153
- 4.7R
- Resistor, 5% fusible

### Understanding the parts list

The parts list which follows covers all Cyrus III PCB assemblies - issue 3,4, 5 and 7.

- Column 1 of the parts list shows the reference number that will be found on the PCB and the schematic diagram.
- Column 2 of the parts list shows brief details of the component package.
- Column 3 of the parts list shows the component value or type number.
- Column 4 of the parts list shows the tolerance and type of the component.
- Column 5 of the parts list shows PCB issue numbers where more than one value has been fitted in the life of the Cyrus III. When referring to these components, check the legend of the PCB first.

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

### RESISTORS

R101	SMD 1206	22.1K	MF 1/8W 1%	
R102	SMD 1206	22.1K	MF 1/8W 1%	
R103	SMD 1206	22.1K	MF 1/8W 1%	
R104	SMD 1206	22.1K	MF 1/8W 1%	
R105	SMD 1206	22.1K	MF 1/8W 1%	
R106	SMD 1206	22.1K	MF 1/8W 1%	
R107	SMD 1206	22.1K	MF 1/8W 1%	
R108	SMD 1206	22.1K	MF 1/8W 1%	
R109	SMD 1206	22.1K	MF 1/8W 1%	
R110	SMD 1206	22.1K	MF 1/8W 1%	
R111	SMD 1206	22.1K	MF 1/8W 1%	
R112	SMD 1206	22.1K	MF 1/8W 1%	
R113	SMD 1206	560R	MF 1/8W 1%	
R114	SMD 1206	560R	MF 1/8W 1%	
R115	SMD 1206	30.1K	MF 1/8W 1%	
R116	SMD 1206	30.1K	MF 1/8W 1%	
R117	SMD 1206	30.1K	MF 1/8W 1%	
R118	SMD 1206	30.1K	MF 1/8W 1%	
R119	SMD 1206	30.1K	MF 1/8W 1%	
R120	SMD 1206	30.1K	MF 1/8W 1%	
R121	SMD 1206	30.1K	MF 1/8W 1%	
R122	SMD 1206	30.1K	MF 1/8W 1%	
R123	SMD 1206	30.1K	MF 1/8W 1%	
R124	SMD 1206	30.1K	MF 1/8W 1%	
R125	SMD 1206	22.1K	MF 1/8W 1%	
R126	SMD 1206	22.1K	MF 1/8W 1%	
R127	SMD 1206	84.5K	MF 1/8W 1%	
R128	SMD 1206	84.5K	MF 1/8W 1%	
R129	SMD 1206	2.2K	MF 1/8W 1%	
R130	SMD 1206	2.2K	MF 1/8W 1%	
R131	SMD 1206	22.1K	MF 1/8W 1%	
R132	SMD 1206	22.1K	MF 1/8W 1%	
R133	SMD 1206	80.6R	MF 1/8W 1%	
R134	NO LOCATION			HA7A1123
	SMD 1206	6.2K	MF 1/8W 1%	HA7A1125, HA7A1145
R135	SMD 1206	100K	MF 1/8W 1%	
R136	SMD 1206	100K	MF 1/8W 1%	
R137	SMD 1206	2.2K	MF 1/8W 1%	
R138	SMD 1206	2.2K	MF 1/8W 1%	
R139	SMD 1206	75K	MF 1/8W 1%	
R140	SMD 1206	75K	MF 1/8W 1%	
R141	SMD 1206	75K	MF 1/8W 1%	
R142	SMD 1206	75K	MF 1/8W 1%	
R143	SMD 1206	10K	MF 1/8W 1%	
R144	SMD 1206	10K	MF 1/8W 1%	
R145	SMD 1206	22.1K	MF 1/8W 1%	
R146	SMD 1206	22.1K	MF 1/8W 1%	
R147	SMD 1206	30.1K	MF 1/8W 1%	
R148	SMD 1206	30.1K	MF 1/8W 1%	
R149	SMD 1206	270R	MF 1/8W 1%	
R150	SMD 1206	270R	MF 1/8W 1%	
R151	SMD 1206	75K	MF 1/8W 1%	
R152	SMD 1206	75K	MF 1/8W 1%	
R153	NFR 25	4.7R	MF 1/8W 5% FUSIBLE #	
R154	NFR 25	4.7R	MF 1/8W 5% FUSIBLE #	
R155	NO LOCATION			HA7A1123
	SMD 1206	10K	MF 1/8W 1%	HA7A1125, HA7A1145
R156	NO LOCATION			HA7A1123
	SMD 1206	10K	MF 1/8W 1%	HA7A1125, HA7A1145
R157	NO LOCATION			HA7A1123

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

	SMD 1206	6.2K	MF 1/8W 1%	HA7A1125, HA7A1145
R201	SMD 1206	475R	MF 1/8W 1%	
R202	SMD 1206	475R	MF 1/8W 1%	
R203	SMD 1206	47K	MF 1/8W 1%	
R204	SMD 1206	47K	MF 1/8W 1%	
R205	SMD 1206	2.2K	MF 1/8W 1%	
R206	SMD 1206	2.2K	MF 1/8W 1%	
R207	SMD 1206	15K	MF 1/8W 1%	
R208	SMD 1206	15K	MF 1/8W 1%	
R209	SMD 1206	2.2K	MF 1/8W 1%	
R210	SMD 1206	2.2K	MF 1/8W 1%	
R211	SMD 1206	10K	MF 1/8W 1%	
R212	SMD 1206	10K	MF 1/8W 1%	
R213	NO LOCATION			
R214	NO LOCATION			
R215	SMD 1206	2.2K	MF 1/8W 1%	
R216	SMD 1206	2.2K	MF 1/8W 1%	
R217	SMD 1206	73.2K	MF 1/8W 1%	
R218	SMD 1206	73.2K	MF 1/8W 1%	
R219	SMD 1206	953K	MF 1/8W 1%	
R220	SMD 1206	953K	MF 1/8W 1%	
R221	SMD 1206	13K	MF 1/8W 1%	
R222	SMD 1206	13K	MF 1/8W 1%	
R223	NO LOCATION			
R224	NO LOCATION			
R225	SMD 1206	10K	MF 1/8W 1%	
R226	SMD 1206	10K	MF 1/8W 1%	
R227	SMD 1206	2.7K	MF 1/8W 1%	
R228	SMD 1206	2.7K	MF 1/8W 1%	
R229	SMD 1206	15K	MF 1/8W 1%	
R230	SMD 1206	15K	MF 1/8W 1%	
R231	NFR 25	4.7R	MF 1/4W 5% FUSIBLE #	
R232	NFR 25	4.7R	MF 1/4W 5% FUSIBLE #	
R301	SMD 1206	100K	MF 1/8W 1%	
R302	SMD 1206	22.1K	MF 1/8W 1%	
R303	SMD 1206	976R	MF 1/8W 1%	HA7A2123
	SMD 1206	100K	MF 1/8W 1%	HA7A2124, HA7A3145
R304	NOT FITTED			
R305	SMD 1206	100K	MF 1/8W 1%	
R306	SMD 1206	560R	MF 1/8W 1%	
R307	SMD 1206	47K	MF 1/8W 1%	
R308	SMD 1206	47K	MF 1/8W 1%	
R309	SMD 1206	47K	MF 1/8W 1%	
R310	SMD 1206	100K	MF 1/8W 1%	
R311	SMD 1206	100K	MF 1/8W 1%	
R312	SMD 1206	100K	MF 1/8W 1%	
R313	SMD 1206	100K	MF 1/8W 1%	
R314	SMD 1206	100K	MF 1/8W 1%	
R315	SMD 1206	100K	MF 1/8W 1%	
R316	SMD 1206	100K	MF 1/8W 1%	
R317	SMD 1206	100K	MF 1/8W 1%	
R318	SMD 1206	100K	MF 1/8W 1%	
R319	SMD 1206	330R	MF 1/8W 1%	
R320	SMD 1206	330R	MF 1/8W 1%	
R321	SMD 1206	330R	MF 1/8W 1%	
R322	SMD 1206	330R	MF 1/8W 1%	
R323	SMD 1206	330R	MF 1/8W 1%	
R324	SMD 1206	330R	MF 1/8W 1%	
R325	SMD 1206	330R	MF 1/8W 1%	
R326	SMD 1206	330R	MF 1/8W 1%	
R327	SMD 1206	330R	MF 1/8W 1%	
R328	SMD 1206	330R	MF 1/8W 1%	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

R329	SMD 1206	330R	MF 1/8W	1%	
R340	SMD 1206	330R	MF 1/8W	1%	
R341	SMD 1206	330R	MF 1/8W	1%	
R342	NOT FITTED				
R343	SMD 1206	100K	MF 1/8W	1%	
R344	SMD 1206	100K	MF 1/8W	1%	
R345	SMD 1206	100K	MF 1/8W	1%	
R346	SMD 1206	330R	MF 1/8W	1%	
R347	NOT FITTED				
R348	SMD 1206	47K	MF 1/8W	1%	
R349	SMD 1206	15K	MF 1/8W	1%	
R350	SMD 1206	100K	MF 1/8W	1%	
R351	SMD 1206	100K	MF 1/8W	1%	
R352	NO LOCATION				HA7A2123, HA7A2124
	SMD 1206	10K	MF 1/8W	1%	HA7A2145
R353	NO LOCATION				HA7A2123, HA7A2124
	SMD 1206	13K	MF 1/8W	1%	HA7A2145
R354	NO LOCATION				HA7A2123, HA7A2124
	SMD 1206	2.2K	MF 1/8W	1%	HA7A2145
R355	SMD 1206	10K	MF 1/8W	1%	
R356	SMD 1206	1.2K	MF 1/8W	1%	
R401	SMD 1206	1.78K	MF 1/8W	1%	
R402	SMD 1206	1.78K	MF 1/8W	1%	
R403	SMD 1206	137R	MF 1/8W	1%	
R404	SMD 1206	137R	MF 1/8W	1%	
R405	SMD 1206	137R	MF 1/8W	1%	
R406	SMD 1206	137R	MF 1/8W	1%	
R407	SMD 1206	137R	MF 1/8W	1%	
R408	SMD 1206	137R	MF 1/8W	1%	
R409	SMD 1206	137R	MF 1/8W	1%	
R410	SMD 1206	137R	MF 1/8W	1%	
R411	SMD 1206	133R	MF 1/8W	1%	
R412	SMD 1206	133R	MF 1/8W	1%	
R413	SMD 1206	124R	MF 1/8W	1%	
R414	SMD 1206	124R	MF 1/8W	1%	
R415	SMD 1206	127R	MF 1/8W	1%	
R416	SMD 1206	127R	MF 1/8W	1%	
R417	SMD 1206	1.47K	MF 1/8W	1%	
R418	SMD 1206	1.47K	MF 1/8W	1%	
R419	SMD 1206	6.98K	MF 1/8W	1%	
R420	SMD 1206	6.98K	MF 1/8W	1%	
R421	SMD 1206	680R	MF 1/8W	1%	
R422	SMD 1206	680R	MF 1/8W	1%	
R423	SMD 1206	10K	MF 1/8W	1%	
R424	SMD 1206	10K	MF 1/8W	1%	
R425	SMD 1206	2.15K	MF 1/8W	1%	
R426	SMD 1206	2.15K	MF 1/8W	1%	
R427	SMD 1206	1.4K	MF 1/8W	1%	
R428	SMD 1206	1.4K	MF 1/8W	1%	
R429	SMD 1206	976R	MF 1/8W	1%	
R430	SMD 1206	976R	MF 1/8W	1%	
R431	SMD 1206	475R	MF 1/8W	1%	
R432	SMD 1206	475R	MF 1/8W	1%	
R433	SMD 1206	196R	MF 1/8W	1%	
R434	SMD 1206	196R	MF 1/8W	1%	
R435	SMD 1206	80.6R	MF 1/8W	1%	
R436	SMD 1206	80.6R	MF 1/8W	1%	
R437	SMD 1206	32R	MF 1/8W	1%	
R438	SMD 1206	32R	MF 1/8W	1%	
R439	SMD 1206	12.7R	MF 1/8W	1%	
R440	SMD 1206	12.7R	MF 1/8W	1%	
R441	SMD 1206	8.45R	MF 1/8W	1%	



## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

R442	SMD 1206	8.45R	MF 1/8W	1%	
R443	SMD 1206	6.65K	MF 1/8W	1%	
R444	SMD 1206	6.65K	MF 1/8W	1%	
R445	SMD 1206	680R	MF 1/8W	1%	
R446	SMD 1206	680R	MF 1/8W	1%	
R447	NFR25	4.7R	MF 1/4W	5% FUSIBLE #	
R448	NFR25	4.7R	MF 1/4W	5% FUSIBLE #	
R449	SMD 1206	2.2K	MF 1/8W	1%	
R450	SMD 1206	2.2K	MF 1/8W	1%	
R451	NO LOCATION				HA7A1123
	SMD 1206	953K	MF 1/8W	1%	HA7A1125, HA7A1145
R452	NO LOCATION				HA7A1123
	SMD 1206	100K	MF 1/8W	1%	HA7A1125, HA7A1145
R501	SMD 1206	2.2K	MF 1/8W	1%	
R502	SMD 1206	2.2K	MF 1/8W	1%	
R503	SMD 1206	63.4K	MF 1/8W	1%	
R504	SMD 1206	63.4K	MF 1/8W	1%	
R505	SMD 1206	1.2K	MF 1/8W	1%	
R506	SMD 1206	1.2K	MF 1/8W	1%	
R507	SMD 1206	10K	MF 1/8W	1%	
R508	SMD 1206	10K	MF 1/8W	1%	
R509	SMD 1206	10K	MF 1/8W	1%	
R510	SMD 1206	10K	MF 1/8W	1%	
R511	SMD 1206	976R	MF 1/8W	1%	
R512	SMD 1206	976R	MF 1/8W	1%	
R513	SMD 1206	976R	MF 1/8W	1%	
R514	SMD 1206	976R	MF 1/8W	1%	
R515	SMD 1206	63.4K	MF 1/8W	1%	
R516	SMD 1206	63.4K	MF 1/8W	1%	
R517	SMD 1206	1.2K	MF 1/8W	1%	
R518	SMD 1206	1.2K	MF 1/8W	1%	
R519	SMD 1206	2K2	MF 1/8W	1%	HA7A3123
	SMD 1206	680R	MF 1/8W	1%	HA7A3124
	SMD 1206	680R	MF 1/8W	1%	early HA7A3145
	SMD 1206	1K4	MF 1/8W	1%	later HA7A3145
R520	SMD 1206	2K2	MF 1/8W	1%	HA7A3123
	SMD 1206	680R	MF 1/8W	1%	HA7A3124
	SMD 1206	680R	MF 1/8W	1%	early HA7A3145
	SMD 1206	1K4	MF 1/8W	1%	later HA7A3145
R521	SMD 1206	620R	MF 1/8W	1%	HA7A3123, HA7A3124
	SMD 1206	620R	MF 1/8W	1%	early HA7A3145
	SMD 1206	1K47	MF 1/8W	1%	later HA7A3145
R522	SMD 1206	620R	MF 1/8W	1%	HA7A3123, HA7A3124
	SMD 1206	620R	MF 1/8W	1%	early HA7A3145
	SMD 1206	1K47	MF 1/8W	1%	later HA7A3145
R523	SMD 1206	270R	MF 1/8W	1%	
R524	SMD 1206	270R	MF 1/8W	1%	
R525	SMD 1206	1.2K	MF 1/8W	1%	
R526	SMD 1206	1.2K	MF 1/8W	1%	
R527	SMD 1206	10K	MF 1/8W	1%	
R528	SMD 1206	10K	MF 1/8W	1%	
R529	SMD 1206	10K	MF 1/8W	1%	
R530	SMD 1206	10K	MF 1/8W	1%	
R531	SMD 1206	270R	MF 1/8W	1%	
R532	SMD 1206	270R	MF 1/8W	1%	
R533	SMD 1206	47K	MF 1/8W	1%	
R534	SMD 1206	47K	MF 1/8W	1%	
R535	SMD 1206	10K	MF 1/8W	1%	
R536	SMD 1206	10K	MF 1/8W	1%	
R537	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R538	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R539	NFR 25	100R	MF 1/4W	5% FUSIBLE #	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

R540	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R541	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R542	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R543	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R544	NFR 25	100R	MF 1/4W	5% FUSIBLE #	
R545	NFR 25	270R	MF 1/4W	5% FUSIBLE #	
R546	NFR 25	270R	MF 1/4W	5% FUSIBLE #	
R547	NFR 25	270R	MF 1/4W	5% FUSIBLE #	
R548	NFR 25	270R	MF 1/4W	5% FUSIBLE #	
R549	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R550	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R551	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R552	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R553	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R554	NFR 25	120R	MF 1/4W	5% FUSIBLE #	
R555	MRS 50	3.9R	MF 1/2W	5%	
R556	MRS 50	3.9R	MF 1/2W	5%	
R557	RG 3	0.22R	WW 3W	5%	
R558	RG 3	0.22R	WW 3W	5%	
R559	SMD 1206	12.7R	MF 1/8W	1%	
R560	SMD 1206	12.7R	MF 1/8W	1%	
R561	SMD 1206	12.7R	MF 1/8W	1%	
R562	SMD 1206	12.7R	MF 1/8W	1%	
R563	NOT FITTED				
R564	NOT FITTED				
R565	NOT FITTED				
R566	NOT FITTED				
R567	SMD 1206	73.2K	MF 1/8W	1%	
R568	SMD 1206	73.2K	MF 1/8W	1%	
R569	MRS25	100R	MF 1/4W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R570	MRS25	100R	MF 1/4W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R571	MRS25	100R	MF 1/4W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R572	MRS25	100R	MF 1/4W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R573	NFR 25	4.7R	MF 1/4W	5% FUSIBLE #	
R574	NFR 25	4.7R	MF 1/4W	5% FUSIBLE #	
R575	NFR 25	4.7R	MF 1/4W	5% FUSIBLE #	
R576	NFR 25	4.7R	MF 1/4W	5% FUSIBLE #	
R577	SMD 1206	102K	MF 1/8W	5%	HA7A3123
	SMD 1206	620R	MF 1/8W	5%	HA7A3124, HA7A3145
R578	SMD 1206	102K	MF 1/8W	5%	HA7A3123
	SMD 1206	620R	MF 1/8W	5%	HA7A3124, HA7A3145
R579	SMD 1206	470pF	Ceramic capacitor!		HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R580	SMD 1206	470pF	Ceramic capacitor!		HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R581	SMD 1206	470pF	Ceramic capacitor!		HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R582	SMD 1206	470pF	Ceramic capacitor!		HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R583	NO LOCATION				HA7A3123
	SMD 1206	1.8K	MF 1/8W	5%	HA7A3124
	SMD 1206	1.78K	MF 1/8W	5%	HA7A3145
R584	NO LOCATION				HA7A3123
	SMD 1206	1.8K	MF 1/8W	5%	HA7A3124
	SMD 1206	1.78K	MF 1/8W	5%	HA7A3145
R585	NO LOCATION				HA7A3123
	SMD 1206	51K	MF 1/8W	5%	HA7A3124
	SMD 1206	39K	MF 1/8W	5%	HA7A3145

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

R586	NO LOCATION				HA7A3123
R586	SMD 1206	51K	MF 1/8W	5%	HA7A3124
	SMD 1206	39K	MF 1/8W	5%	HA7A3145
R587	NO LOCATION				HA7A3123
	SMD 1206	270R	MF 1/8W	5%	HA7A3124
	SMD 1206	8.45R	MF 1/8W	5%	HA7A3145
R588	NO LOCATION				HA7A3123
	SMD 1206	270R	MF 1/8W	5%	HA7A3124
	SMD 1206	8.45R	MF 1/8W	5%	HA7A3145
R589	NO LOCATION				HA7A3123
	SMD 1206	270R	MF 1/8W	5%	HA7A3124
	SMD 1206	8.45R	MF 1/8W	5%	HA7A3145
R590	NO LOCATION				HA7A3123
	SMD 1206	270R	MF 1/8W	5%	HA7A3124
	SMD 1206	8.45R	MF 1/8W	5%	HA7A3145
R601	MRS 25	12K	MF 1/4W	1%	
R602	MRS 25	12K	MF 1/4W	1%	
R603	SMD 1206	100K	MF 1/8W	1%	
R604	SMD 1206	100K	MF 1/8W	1%	
R605	SMD1206	10K	MF 1/8W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R606	SMD 1206	100K	MF 1/8W	1%	
R607	SMD 1206	100K	MF 1/8W	1%	
R608	SMD 1206	47K	MF 1/8W	1%	
R609	SMD 1206	976R	MF 1/8W	1%	
R610	SMD 1206	100K	MF 1/8W	1%	
R611	SMD 1206	100K	MF 1/8W	1%	
R612	SMD 1206	10K	MF 1/8W	1%	
R613	SMD 1206	100K	MF 1/8W	1%	
R614	SMD 1206	100K	MF 1/8W	1%	
R615	SMD 1206	976R	MF 1/8W	1%	
R616	SMD 1206	976R	MF 1/8W	1%	
R617	SMD 1206	2.2K	MF 1/8W	1%	
R618	NOT FITTED				
R619	SMD 1206	100K	MF 1/8W	1%	
R620	SMD 1206	100K	MF 1/8W	1%	
R621	SMD 1206	100K	MF 1/8W	1%	
R622	SMD 1206	560R	MF 1/8W	1%	
R623	SMD 1206	560R	MF 1/8W	1%	
R624	SMD 1206	1.2K	MF 1/8W	1%	
R625	SMD 1206	1.2K	MF 1/8W	1%	
R626	SMD 1206	100K	MF 1/8W	1%	
R627	SMD 1206	100K	MF 1/8W	1%	
R628	SMD 1206	560R	MF 1/8W	1%	
R629	SMD 1206	560R	MF 1/8W	1%	
R630	SMD 1206	1.2K	MF 1/8W	1%	
R631	SMD 1206	1.2K	MF 1/8W	1%	
R632	NOT FITTED				
R633	NOT FITTED				
R634	SMD 1206	100K	MF 1/8W	1%	
R635	SMD 1206	100K	MF 1/8W	1%	
R636	SMD 1206	47K	MF 1/8W	1%	HA7A3123
	NO LOCATION				HA7A3124, HA7A3145
R637	MRS 25	22K	MF 1/4W	1%	HA7A3124, HA7A3145
R638	SMD 1206	22.1K	MF 1/8W	1%	
R639	NO LOCATION				HA7A3123
	SMD 1206	4.7K	MF 1/8W	1%	HA7A3124
	SMD 1206	6.65K	MF 1/8W	1%	HA7A3145
R640	NO LOCATION				HA7A3123
	SMD 1206	47K	MF 1/8W	1%	HA7A3124, HA7A3145
R641	NO LOCATION				HA7A3123
	SMD 1206	820R	MF 1/8W	1%	HA7A3124

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

	SMD 1206	680R	MF 1/8W 1%	HA7A3145
R642	NO LOCATION			HA7A3123
	SMD 1206	820R	MF 1/8W 1%	HA7A3124
	SMD 1206	680R	MF 1/8W 1%	HA7A3145

Key:

MF = metal film. NFR = non flammable resistor.

### PRESETS

RV501	HORIZONTAL	100R	416M 0.2W CERAMIC	
RV502	HORIZONTAL	100R	416M 0.2W CERAMIC	

### CAPACITORS

*NOTE- For later production of HA7A3145 assemblies, some small electrolytic capacitors have been changed to 22uF. In case these capacitors should need replacement, always use the original values fitted to the PCB assembly.*

C101	SMD 1206	18pf	CP 63V 10%	
C102	SMD 1206	18pf	CP 63V 10%	
C103	SMD 1206	18pf	CP 63V 10%	
C104	SMD 1206	18pf	CP 63V 10%	
C105	RB P2	47uf	BP 10V 20%	
C106	RB P2	47uf	BP 10V 20%	
C107	SMD 1206	100nf	CP 63V 10%	
C108	SMD 1206	100nf	CP 63V 10%	
C109	SMD 1206	100nf	CP 63V 10%	
C110	SMD 1206	100nf	CP 63V 10%	
C111	SMD 1206	100nf	CP 63V 10%	
C112	SMD 1206	100nf	CP 63V 10%	
C113	SMD 1206	100nf	CP 63V 10%	
C114	SMD 1206	100nf	CP 63V 10%	
C115	SMD 1206	100nf	CP 63V 10%	
C116	SMD 1206	100nf	CP 63V 10%	
C117	SMD 1206	100nf	CP 63V 10%	
C118	SMD 1206	100nf	CP 63V 10%	
C119	TAP	1uf	TB 35V 20%	
C120	TAP	1uf	TB 35V 20%	
C121	TAP	1uf	TB 35V 20%	
C122	TAP	1uf	TB 35V 20%	
C123	SMD 1206	100nf	CP 63V 10%	HA7A1123
	RE2	47uf	EL 25V 10%	HA7A1125, HA7A1145
C124	SMD 1206	100nf	CP 63V 10%	HA7A1123
	RE2	47uf	EL 25V 10%	HA7A1125, HA7A1145
C125	RE2	100uf	EL 16V 10%	
C126	RE2	100uf	EL 16V 10%	
C127	SMD 1206	100nf	CP 63V 10%	
C128	NOT FITTED			
C201	SMD 1206	22pf	CP 63V 10%	
C202	SMD 1206	22pf	CP 63V 10%	
C203	SMD 1206	22pf	CP 63V 10%	
C204	SMD 1206	22pf	CP 63V 10%	
C205	SMD 1206	100pf	CP 63V 10%	
C206	SMD 1206	100pf	CP 63V 10%	
C207	FK P2	1nf	PP 63V 2.5%	
C208	FK P2	1nf	PP 63V 2.5%	
C209	FK P2	3.6nf	PP 63V 2.5%	
C210	FK P2	3.6nf	PP 63V 2.5%	
C211	SMD 1206	22pf	CP 63V 10%	
C212	SMD 1206	22nf	CP 63V 10%	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

C213	TAP	1uf	TB 35V 20%	
C214	TAP	1uf	TB 35V 20%	
C215	TAP	1uf	TB 35V 20%	
C216	TAP	1uf	TB 35V 20%	
C217	TAP	1uf	TB 35V 20%	
C218	TAP	1uf	TB 35V 20%	
C219	TAP	1uf	TB 35V 20%	
C220	TAP	1uf	TB 35V 20%	
C221	TAP	1uf	TB 35V 20%	
C222	TAP	1uf	TB 35V 20%	
C223	RE2	47uf	EL 25V 10%	HA7A1123
	RE2	100uf	EL 16V 10%	HA7A1125, HA7A1145
C224	RE2	47uf	EL 25V 10%	HA7A1123
	RE2	100uf	EL 16V 10%	HA7A1125, HA7A1145
C225	TAP	2.2uf	TB 10V 10%	
C226	TAP	2.2uf	TB 10V 10%	
C301	SMD 1206	100nf	CP 63V 10%	
C302	SMD 1206	100nf	CP 63V 10%	
C303	SMD 1206	27pf	CP 63V 10%	
C304	SMD 1206	27pf	CP 63V 10%	
C305	SMD 1206	100nf	CP 63V 10%	
C306	RE2	2.2uf	EL 25V 10%	
C307	RE2	47uf	EL 25V 10%	
C308	SMD 1206	100nf	CP 63V 10%	
C309	SMD 1206	100nf	CP 63V 10%	
C310	SMD 1206	100nf	CP 63V 10%	
C311	SMD 1206	100nf	CP 63V 10%	
C312	SMD 1206	100nf	CP 63V 10%	
C313	SMD 1206	100nf	CP 63V 10%	
C401	SMD 1206	22pf	CP 63V 10%	
C402	SMD 1206	22pf	CP 63V 10%	
C403	SMD 1206	22pf	CP 63V 10%	
C404	SMD 1206	22pf	CP 63V 10%	
C405	RB P2	47uf	BP 10V 20%	
C406	RB P2	47uf	BP 10V 20%	
C407	SMD 1206	100nf	CP 63V 10%	
C408	SMD 1206	100nf	CP 63V 10%	
C409	SMD 1206	100nf	CP 63V 10%	
C410	SMD 1206	100nf	CP 63V 10%	
C411	SMD 1206	100nf	CP 63V 10%	
C412	SMD 1206	100nf	CP 63V 10%	
C413	SMD 1206	100nf	CP 63V 10%	
C414	SMD 1206	100nf	CP 63V 10%	
C415	TAP	1uf	TB 35V 20%	
C416	TAP	1uf	TB 35V 20%	
C417	TAP	1uf	TB 35V 20%	
C418	TAP	1uf	TB 35V 20%	
C419	RE2	47uf	EL 25V 10%	HA7A1123
	RE2	100uf	EL 16V 10%	HA7A1125, HA7A1145
C420	RE2	47uf	EL 25V 10%	HA7A1123
	RE2	100uf	EL 16V 10%	HA7A1125, HA7A1145
C421	SMD 1206	100nf	CP 63V 10%	
C422	SMD 1206	100nf	CP 63V 10%	
C423	SMD 1206	100nf	CP 63V 10%	
C424	RE2	10uf	EL 63V 20%	
C501	TAP	2.2uf	TB 16V 10%	
C502	TAP	2.2uf	TB 16V 10%	
C503	FK P2	470pf	PP 50V 5%	
C504	FK P2	470pf	PP 50V 5%	
C505	NOT FITTED			
C506	NOT FITTED			
C507	NOT FITTED			

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

C508	NOT FITTED			
C509	SMD 1206	1.8pf	CP 63V 20%	
C510	SMD 1206	1.8pf	CP 63V 20%	
C511	FK P2	220pf	PP 100V 5%	HA7A3123
	FK P2	120pf	PP 100V 5%	HA7A3124, HA7A3145
C512	FK P2	220pf	PP 100V 5%	HA7A3123
	FK P2	120pf	PP 100V 5%	HA7A3124, HA7A3145
C513	FK P2	220pf	PP 100V 5%	HA7A3123
	FK P2	120pf	PP 100V 5%	HA7A3124, HA7A3145
C514	FK P2	220pf	PP 100V 5%	HA7A3123
	FK P2	120pf	PP 100V 5%	HA7A3124, HA7A3145
C515	SMD 1206	100nf	CP 63V 10%	
C516	SMD 1206	100nf	CP 63V 10%	
C517	MK S2	100nf	CP 63V 10%	
C518	MK S2	100nf	CP 63V 10%	
C519	TAP	100uf	TB 6.3V 10%	
C520	TAP	100uf	TB 6.3V 10%	
C521	TAP	1uf	TB 35V 20%	
C522	TAP	1uf	TB 35V 20%	
C523	RE	470uf	EL 50V 10%	
C524	RE	470uf	EL 50V 10%	
C525	RE	470uf	EL 50V 10%	
C526	RE	470uf	EL 50V 10%	
C527	RE2	47uf	EL 25V 20%	HA7A3123
	RE2	1uf	EL 16V 20%	HA7A3124, HA7A3145
C528	RE2	47uf	EL 25V 20%	HA7A3123
	RE2	1uf	EL 16V 20%	HA7A3124, HA7A3145
C529	NOT FITTED			
C530	NOT FITTED			
C531	YK	47uf	EL 63V 20%	
C532	YK	47uf	EL 63V 20%	
C533	YK	47uf	EL 63V 20%	
C534	YK	47uf	EL 63V 20%	
C535	SMD 1206	100nf	CP 63V 10%	HA7A3123
	NOT FITTED			HA7A3124, HA7A3145
C536	SMD 1206	100nf	CP 63V 10%	HA7A3123
	NOT FITTED			HA7A3124, HA7A3145
C537	NOT FITTED			
C538	NOT FITTED			
C539	NOT FITTED			
C540	NOT FITTED			
C541	NOT FITTED			HA7A3123, HA7A3145
	SMD 1206	270pf	CP 63V 10%	HA7A3124
C542	NOT FITTED			HA7A3123, HA7A3145
	SMD 1206	270pf	CP 63V 10%	HA7A3124
C543	NOT FITTED			HA7A3123, HA7A3145
	SMD 1206	270pf	CP 63V 10%	HA7A3124
C544	NOT FITTED			HA7A3123, HA7A3145
	SMD 1206	270pf	CP 63V 10%	HA7A3124
C601	SMD 1206	100nf	CP 100V 10%	HA7A3123, HA7A3124
	MK S2	100nf	PE 100V 10%	HA7A3145
C602	SMD 1206	100nf	CP 100V 10%	HA7A3123, HA7A3124
	MK S2	100nf	PE 100V 10%	HA7A3145
C603	SMD 1206	100nf	CP 100V 10%	HA7A3123, HA7A3124
	MK S2	100nf	PE 100V 10%	HA7A3145
C604	SMD 1206	100nf	CP 100V 10%	HA7A3123, HA7A3124
	MK S2	100nf	PE 100V 10%	HA7A3145
C605	SMD 1206	100nf	CP 63V 10%	
C606	SMD 1206	100nf	CP 63V 10%	
C607	SMD 1206	100nf	CP 63V 10%	
C608	SMD 1206	100nf	CP 63V 10%	
C609	SMD 1206	100nf	CP 63V 10%	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

C610	SMD 1206	100nf	CP 63V 10%	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
C611	RE2	1uf	EL 63V 20%	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
C612	RE2	47uf	EL 25V 20%	HA7A3123
	SMD 1206	220nf	CP 63V 10%	HA7A3124
	RE2	1uf	EL 63V 20%	HA7A3145 (under PCB)
C613	RE2	47uf	EL 25V 20%	HA7A3123
	SMD 1206	220nf	CP 63V 10%	HA7A3124
	RE2	1uf	EL 63V 20%	HA7A3145 (under PCB)
C614	RE2	47uf	EL 25V 20%	HA7A3123
	SMD 1206	220nf	CP 63V 10%	HA7A3124
	RE2	1uf	EL 63V 20%	HA7A3145 (under PCB)
C615	RE2	47uf	EL 25V 20%	HA7A3123
	SMD 1206	220nf	CP 63V 10%	HA7A3124
	RE2	1uf	EL 63V 20%	HA7A3145 (under PCB)
C616	TAP	2.2uf	TB 10V 10%	
C617	TAP	2.2uf	TB 10V 10%	
C618	TAP	1uf	TB 35V 20%	
C619	TAP	1uf	TB 35V 20%	
C620	TAP	2.2uf	TB 10V 10%	
C621	TAP	2.2uf	TB 10V 10%	
C622	RC	2200uf	EL 16V 20%	
C623	EL-R35	6800uf	EL 50V 20%	
C624	EL-R35	6800uf	EL 50V 20%	
C625	TAP	2.2uf	TB 10V 10%	
C626	TAP	2.2uf	TB 10V 10%	
C627	RE2	10uf	EL 63V 20%	
C628	FK P2	470pf	PP 50V 5%	Fitted to back of HA7A1123
	SMD 1206	1nf	CP 63V 10%	HA7A3124, HA7A3145

Key:

EL = electrolytic. PE = polyester. PP = polypropylene. TB = tantalum bead. CP = ceramic plate.

### DIODES

D301	SOT-23	907PK	15mA SMD RED LED	
D302	SOT-23	907LK	15mA SMD GREEN LED	
D303	SOT-23	907LK	15mA SMD GREEN LED	
D304	SOT-23	907LK	15mA SMD GREEN LED	
D305	SOT-23	907LK	15mA SMD GREEN LED	
D306	SOT-23	907LK	15mA SMD GREEN LED	
D307	SOT-23	907LK	15mA SMD GREEN LED	
D308	SOT-23	907LK	15mA SMD GREEN LED	
D309	SOT-23	907LK	15mA SMD GREEN LED	
D310	SOT-23	907LK	15mA SMD GREEN LED	
D311	SOT-23	907LK	15mA SMD GREEN LED	
D312	SOT-23	907LK	15mA SMD GREEN LED	
D313	SOT-23	907LK	15mA SMD GREEN LED	
D314	SOT-23	907LK	15mA SMD GREEN LED	
D315	SOT-23	907LK	15mA SMD GREEN LED	
D316	SOT-23	907PK	15mA SMD RED LED	
D317	SOT-23	907PK	15mA SMD RED LED	
D318	SOT-23	907PK	15mA SMD RED LED	
D319	SOT-23	907PK	15mA SMD RED LED	
D320	SOT-23	907PK	15mA SMD RED LED	
D321	NOT FITTED			
D322	SOT-23	907PK	15mA SMD RED LED	
D323	RADIAL	LTL-52RG	25mA BICOLOUR LED 3PIN	
D324	AXIAL	IN4148	300mA SIGNAL DIODE	Wired to back of HA7A2123
	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A2124, HA7A2145
D401	SOT-23	BAS16	300mA SIGNAL DIODE	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

D501	AXIAL	1N4002	1AMP SIGNAL DIODE	
D502	AXIAL	1N4002	1AMP SIGNAL DIODE	
D503	AXIAL	1N4002	1AMP SIGNAL DIODE	
D504	AXIAL	1N4002	1AMP SIGNAL DIODE	
D505	AXIAL	1N4002	1AMP SIGNAL DIODE	
D506	AXIAL	1N4002	1AMP SIGNAL DIODE	
D507	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D508	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D509	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D510	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D601	AXIAL	1N5402	3 AMP RECTIFIER DIODE	
D602	AXIAL	1N5402	3 AMP RECTIFIER DIODE	
D603	AXIAL	1N5402	3 AMP RECTIFIER DIODE	
D604	AXIAL	1N5402	3 AMP RECTIFIER DIODE	
D605	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D606	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D607	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D608	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D609	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D610	AXIAL	1N4002	3 AMP RECTIFIER DIODE	
D611	AXIAL	1N4002	3 AMP RECTIFIER DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D612	AXIAL	1N4002	3 AMP RECTIFIER DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D613	SOT-23	BAS16	300mA SIGNAL DIODE	
D614	SOT-23	BAS16	300mA SIGNAL DIODE	
D615	SOT-23	BAS16	300mA SIGNAL DIODE	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
D616	SOT-23	BAS16	300mA SIGNAL DIODE	
D617	SOT-23	BAS16	300mA SIGNAL DIODE	
D618	SOT-23	BAS16	300mA SIGNAL DIODE	
D619	SOT-23	BAS16	300mA SIGNAL DIODE	
D620	SOT-23	BAS16	300mA SIGNAL DIODE	
D621	SOT-23	BZX84-5V1	300mA 5.1V ZENER DIODE	
D622	AXIAL	1N4002	1AMP SIGNAL DIODE	
D623	SOT-23	BZX84-5V1	300mA 5.1V ZENER DIODE	
D624	NO LOCATION			HA7A3123
	SOT-23	BZX84-15V	300mA 15V ZENER DIODE	HA7A3124, HA7A3145
D625	NO LOCATION			HA7A3123
	SOT-23	BZX84-15V	300mA 15V ZENER DIODE	HA7A3124, HA7A3145

### TRANSISTORS

T101	NO LOCATION			HA7A3123
	TO92	BC182L	NPN SIGNAL	HA7A3124, HA7A3145
T102	NO LOCATION			HA7A3123
	TO92	BC212L	PNP SIGNAL	HA7A3124, HA7A3145
T301	SOT-23	BC846BLT1	NPN SIGNAL	
T302	SOT-23	BC846BLT1	NPN SIGNAL	HA7A3123
	NO LOCATION			HA7A3124
	SOT-23	BC856BLT1	PNP SIGNAL	HA7A3145
T303	SOT-23	BC846BLT1	NPN SIGNAL	
T501	SOT-23	BC846BLT1	NPN SIGNAL	
T502	SOT-23	BC846BLT1	NPN SIGNAL	
T503	SOT-23	BC846BLT1	NPN SIGNAL	
T504	SOT-23	BC846BLT1	NPN SIGNAL	
T505	SOT-23	BC856BLT1	PNP SIGNAL	



**CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5**

T506	SOT-23	BC856BLT1	PNP SIGNAL	
T507	SOT-23	BC856BLT1	PNP SIGNAL	
T508	SOT-23	BC856BLT1	PNP SIGNAL	
T509	TO92	A872	PNP SIGNAL	
T510	TO92	A872	PNP SIGNAL	
T511	TO92	A872	PNP SIGNAL	
T512	TO92	A872	PNP SIGNAL	
T513	SOT-23	BC856BLT1	PNP SIGNAL	
T514	SOT-23	BC856BLT1	PNP SIGNAL	
T515	TO92	C1775	NPN SIGNAL	
T516	TO92	C1775	NPN SIGNAL	
T517	TO92	C1775	NPN SIGNAL	
T518	TO92	C1775	NPN SIGNAL	
T519	TO-126	BD135/BD235	NPN SIGNAL	
T520	TO-126	BD135/BD235	NPN SIGNAL	
T521	TO92	C1775	NPN SIGNAL	
T522	TO92	C1775	NPN SIGNAL	
T523	TO92	A872	PNP SIGNAL	
T524	TO92	A872	PNP SIGNAL	
T525	TO202	MJE243	NPN POWER	
T526	TO202	MJE243	NPN POWER	
T527	TO202	MJE253	PNP POWER	
T528	TO202	MJE253	PNP POWER	
T529	TOP3	PT77	NPN POWER	
T530	TOP3	PT77	NPN POWER	
T531	TOP3	PT77	NPN POWER	
T532	TOP3	PT77	NPN POWER	
T533	SOT-23	BC846BLT1	NPN SIGNAL	
T534	SOT-23	BC846BLT1	NPN SIGNAL	
T535	SOT-23	BC846BLT1	NPN SIGNAL	
T536	SOT-23	BC846BLT1	NPN SIGNAL	
T537	SOT-23	BC846BLT1	NPN SIGNAL	
T538	SOT-23	BC846BLT1	NPN SIGNAL	
T539	SOT-23	BC846BLT1	NPN SIGNAL	
T540	SOT-23	BC856BLT1	PNP SIGNAL	
T541	SOT-23	BC856BLT1	PNP SIGNAL	
T542	SOT-23	BC856BLT1	PNP SIGNAL	
T543	NO LOCATION			HA7A3123
	SOT-23	BC856BLT1	PNP SIGNAL	HA7A3124, HA7A3145
T544	NO LOCATION			HA7A3123
	SOT-23	BC856BLT1	PNP SIGNAL	HA7A3124, HA7A3145
T601	SOT-23	BC856BLT1	PNP SIGNAL	
T602	SOT-23	BC846BLT1	NPN SIGNAL	
T603	SOT-23	BC818-25	NPN SIGNAL	
T604	SOT-23	BC818-25	NPN SIGNAL	
T605	SOT-23	BC818-25	NPN SIGNAL	
T606	SOT-23	BC818-25	NPN SIGNAL	
T607	SOT-23	BC856BLT1	PNP SIGNAL	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
T608	SOT-23	BC856BLT1	PNP SIGNAL	
T609	NO LOCATION			HA7A3123
	SOT-23	BC856BLT1	PNP SIGNAL	HA7A3124, HA7A3145

**VOLTAGE REGULATORS**

VR101	TO220	LM7818T	+18 VOLT REGULATOR 1AMP	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
VR102	TO220	LM7918T	- 18 VOLT REGULATOR 1AMP	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
VR301	TO220	LM7805T	+ 5 VOLT REGULATOR 1AMP	
VR601	TO220	LM7805T	+ 5 VOLT REGULATOR 1AMP	

## CYRUS III PCB PARTS LIST – PCB REVISIONS 3, 4 & 5

VR602	TO220	LM7905T	-5 VOLT REGULATOR 1AMP	HA7A3123
	TO220	LM7915T	-15 VOLT REGULATOR 1AMP	HA7A3124, HA7A3145
VR603	TO220	LM7805T	+5 VOLT REGULATOR 1AMP	HA7A3123
	TO220	LM7815T	+15 VOLT REGULATOR 1AMP	HA7A3124, HA7A3145
VR604	TO220	LM7918T	- 18 VOLT REGULATOR 1AMP	HA7A3123
	TO220	LM7915T	-15 VOLT REGULATOR 1AMP	HA7A3124, HA7A3145
VR605	TO220	LM7818T	+18 VOLT REGULATOR 1AMP	HA7A3123
	TO220	LM7815T	+15 VOLT REGULATOR 1AMP	HA7A3124, HA7A3145

### INTEGRATED CIRCUITS

IC101	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC102	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC103	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC104	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC105	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC106	SO16	74HC4053T	TRIPLE 2-CH MULTIPLEXER	
IC107	SO 08	BA15532F	SMD DUAL OPAMP	
IC108	SO 08	BA15532F	SMD DUAL OPAMP	
IC201	SO 08	NE5534D	SMD OAMP	
IC202	SO 08	NE5534D	SMD OAMP	
IC203	SO 08	BA15532F	SMD DUAL OPAMP	
IC204	SO 08	BA15532F	SMD DUAL OPAMP	
IC301	DIL 40	Z86C21		
IC302	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC303	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC304	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC305	SO16	74HC04BM	HEX INVERTOR	
IC401	SO16	74HC4051T	8-CHANNEL MULTIPLEXER	
IC402	SO16	74HC4051T	8-CHANNEL MULTIPLEXER	
IC403	SO16	74HC4051T	8-CHANNEL MULTIPLEXER	
IC404	SO16	74HC4051T	8-CHANNEL MULTIPLEXER	
IC405	SO 08	BA15532F	LOW NOISE DUAL OPAMP	
IC406	SO 08	BA15532F	LOW NOISE DUAL OPAMP	
IC407	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC408	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC409	SO16	74HCT4094	8-BIT SHIFT REGISTER	
IC501	NO LOCATION			HA7A3123
	DIL-4	SFH610-2	OPTO-ISOLATOR	HA7A3124, HA7A3145
IC502	NO LOCATION			HA7A3123
	DIL-4	SFH610-2	OPTO-ISOLATOR	HA7A3124, HA7A3145
IC601	SO 08	BA15532F	DUAL OPAMP	

### SWITCHES

MS301	TAC SW	SOA-112HS	MICRO-SWITCH 4.3mm	
MS302	TAC SW	SOA-112HS	MICRO-SWITCH 4.3mm	
MS303	TAC SW	SOA-112HS	MICRO-SWITCH 4.3mm	
MS304	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	
MS305	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	
MS306	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	
MS307	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	
MS308	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	
MS309	NOT FITTED			
MS310	TAC SW	SOA-142HS	MICRO-SWITCH 9.5mm	

### CONNECTORS

SK101	RJ-1018-020		2X2 VERTICAL PHONO GOLD	
SK102	RJ-1018-020		2X2 VERTICAL PHONO GOLD	

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SK103	RJ-1018-020		2X2 VERTICAL PHONO GOLD	
CON 101	8370-211-000-800		21-WAY FLEX-FOIL	
CON 301	8370-151-000-800		15-WAY FLEX-FOIL	
SK301	IS50140	DIL-40	40 PIN IC SOCKET	
CON 601	8370-211-000-800		21- WAY FLEX-FOIL	
CON 602	8370-151-000-800		15-WAY FLEX-FOIL	
SK601	RJ-1018-020		2X2 VERTICAL PHONO GOLD	
SK602	NOT FITTED			
SK 603	RJ-1020-020		DUAL RCA SOCKET GOLD	
SK 604	571-0500	BANANA	SOCKET RED	
SK 605	571-0500	BANANA	SOCKET RED	
SK 606	571-0100	BANANA	SOCKET BLACK	
SK 607	571-0100	BANANA	SOCKET BLACK	

### FUSES, FUSE HOLDERS

FS601	FUSE HOLDER		20mm PCB MOUNT	
FS602	FUSE HOLDER		20mm PCB MOUNT	
FC 601	FUSE CAP		FOR F601	
FC602	FUSE CAP		FOR F602	

### TERMINALS AND OTHER PARTS

GLINK 601	WIRE LINK		1mm SOLID CORE COPPER	
GLINK 602	WIRE LINK		1mm SOLID CORE COPPER	
CTTX	TEST POINT		LOUPOTS	
PSXO	TEST POINT		LOUPOTS	
PSX1	TEST POINT		LOUPOTS	
PSX2	TEST POINT		LOUPOTS	
LV1	TEST POINT		LOUPOTS	
LV2	TEST POINT		LOUPOTS	
HV1	CRIMP TAG	6.3mm	PCB MOUNT QC USE	
HV2	CRIMP TAG	6.3mm	PCB MOUNT QC USE	
NC1	CRIMP TAG	6.3mm	PCB MOUNT QC USE	
NC2	CRIMP TAG	6.3mm	PCB MOUNT QC USE	
CLP	TEST POINT		LOUPOTS	
CRN	TEST POINT		LOUPOTS	
PSXLK1	LINK		PSX-R CHANGEOVER	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
PSXLK2	LINK		PSX-R CHANGEOVER	HA7A3123
	NO LOCATION			HA7A3124, HA7A3145
IR301			REMOTE RECEIVER	
RE301			ROTARY ENCODER	
X301	KBR 8.0M		8MHz CERAMIC RESONATOR	

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### RESISTORS

R101	SMD 1206	22.1k	MF 1/8W 1%
R102	SMD 1206	22.1k	MF 1/8W 1%
R103	SMD 1206	22.1k	MF 1/8W 1%
R104	SMD 1206	22.1k	MF 1/8W 1%
R105	SMD 1206	22.1k	MF 1/8W 1%
R106	SMD 1206	22.1k	MF 1/8W 1%
R107	SMD 1206	22.1k	MF 1/8W 1%
R108	SMD 1206	22.1k	MF 1/8W 1%
R109	SMD 1206	22.1k	MF 1/8W 1%
R110	SMD 1206	22.1k	MF 1/8W 1%
R111	SMD 1206	22.1k	MF 1/8W 1%
R112	SMD 1206	22.1k	MF 1/8W 1%
R113	SMD 1206	560R	MF 1/8W 1%
R114	SMD 1206	560R	MF 1/8W 1%
R115	SMD 1206	30.1k	MF 1/8W 1%
R116	SMD 1206	30.1k	MF 1/8W 1%
R117	SMD 1206	30.1k	MF 1/8W 1%
R118	SMD 1206	30.1k	MF 1/8W 1%
R119	SMD 1206	30.1k	MF 1/8W 1%
R120	SMD 1206	30.1k	MF 1/8W 1%
R121	SMD 1206	30.1k	MF 1/8W 1%
R122	SMD 1206	30.1k	MF 1/8W 1%
R123	SMD 1206	30.1k	MF 1/8W 1%
R124	SMD 1206	30.1k	MF 1/8W 1%
R125	SMD 1206	22.1k	MF 1/8W 1%
R126	SMD 1206	22.1k	MF 1/8W 1%
R127	SMD 1206	84.5k	MF 1/8W 1%
R128	SMD 1206	84.5k	MF 1/8W 1%
R129	SMD 1206	2.2k	MF 1/8W 1%
R130	SMD 1206	2.2k	MF 1/8W 1%
R131	SMD 1206	22.1k	MF 1/8W 1%
R132	SMD 1206	22.1k	MF 1/8W 1%
R133	SMD 1206	80.6R	MF 1/8W 1%
R134	SMD 1206	6.2k	MF 1/8W 1%
R135	SMD 1206	100k	MF 1/8W 1%
R136	SMD 1206	100k	MF 1/8W 1%
R137	SMD 1206	2.2k	MF 1/8W 1%
R138	SMD 1206	2.2k	MF 1/8W 1%
R139	SMD 1206	75k	MF 1/8W 1%
R140	SMD 1206	75k	MF 1/8W 1%
R141	SMD 1206	75k	MF 1/8W 1%
R142	SMD 1206	75k	MF 1/8W 1%
R143	SMD 1206	10k	MF 1/8W 1%
R144	SMD 1206	10k	MF 1/8W 1%
R145	SMD 1206	22.1k	MF 1/8W 1%
R146	SMD 1206	22.1k	MF 1/8W 1%
R147	SMD 1206	30.1k	MF 1/8W 1%
R148	SMD 1206	30.1k	MF 1/8W 1%
R149	SMD 1206	270R	MF 1/8W 1%
R150	SMD 1206	270R	MF 1/8W 1%
R151	SMD 1206	75k	MF 1/8W 1%

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R152	SMD 1206	75k	MF 1/8W 1%	
R153	NFR25	4.7R	MF 1/4W 5%	
R154	NFR25	4.7R	MF 1/4W 5%	
R155	SMD 1206	10k	MF 1/8W 1%	
R156	SMD 1206	10k	MF 1/8W 1%	
R157	SMD 1206	6.2k	MF 1/8W 1%	
R201	SMD 1206	475R	MF 1/8W 1%	
R202	SMD 1206	475R	MF 1/8W 1%	
R203	SMD 1206	47k	MF 1/8W 1%	
R204	SMD 1206	47k	MF 1/8W 1%	
R205	SMD 1206	2.2k	MF 1/8W 1%	
R206	SMD 1206	2.2k	MF 1/8W 1%	
R207	SMD 1206	15k	MF 1/8W 1%	
R208	SMD 1206	15k	MF 1/8W 1%	
R209	SMD 1206	2.2k	MF 1/8W 1%	
R210	SMD 1206	2.2k	MF 1/8W 1%	
R211	SMD 1206	10k	MF 1/8W 1%	
R212	SMD 1206	10k	MF 1/8W 1%	
R213			DELETED	
R214			DELETED	
R215	SMD 1206	2.2k	MF 1/8W 1%	
R216	SMD 1206	2.2k	MF 1/8W 1%	
R217	SMD 1206	73.2k	MF 1/8W 1%	
R218	SMD 1206	73.2k	MF 1/8W 1%	
R219	SMD 1206	953k	MF 1/8W 1%	
R220	SMD 1206	953k	MF 1/8W 1%	
R221	SMD 1206	13k	MF 1/8W 1%	
R222	SMD 1206	13k	MF 1/8W 1%	
R223			DELETED	
R224			DELETED	
R225	SMD 1206	10k	MF 1/8W 1%	
R226	SMD 1206	10k	MF 1/8W 1%	
R227	SMD 1206	2.7k	MF 1/8W 1%	
R228	SMD 1206	2.7k	MF 1/8W 1%	
R229	SMD 1206	15k	MF 1/8W 1%	
R230	SMD 1206	15k	MF 1/8W 1%	
R231	NFR25	4.7R	MF 1/4W 5%	
R232	NFR25	4.7R	MF 1/4W 5%	
R301	SMD 1206	100k	MF 1/8W 1%	
R302	SMD 1206	22.1k	MF 1/8W 1%	
R303	SMD 1206	100k	MF 1/8W 1%	
R304			NOT FITTED	
R305	SMD 1206	100k	MF 1/8W 1%	
R306	SMD 1206	560R	MF 1/8W 1%	
R307	SMD 1206	47k	MF 1/8W 1%	
R308	SMD 1206	47k	MF 1/8W 1%	
R309	SMD 1206	47k	MF 1/8W 1%	
R310	SMD 1206	100k	MF 1/8W 1%	
R311	SMD 1206	100k	MF 1/8W 1%	
R312	SMD 1206	100k	MF 1/8W 1%	
R313	SMD 1206	100k	MF 1/8W 1%	
R314	SMD 1206	100k	MF 1/8W 1%	
R315	SMD 1206	100k	MF 1/8W 1%	

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R316	SMD 1206	100k	MF 1/8W 1%	
R317	SMD 1206	100k	MF 1/8W 1%	
R318	SMD 1206	100k	MF 1/8W 1%	
R319	SMD 1206	330R	MF 1/8W 1%	
R320	SMD 1206	330R	MF 1/8W 1%	
R321	SMD 1206	330R	MF 1/8W 1%	
R322	SMD 1206	330R	MF 1/8W 1%	
R323	SMD 1206	330R	MF 1/8W 1%	
R324	SMD 1206	330R	MF 1/8W 1%	
R325	SMD 1206	330R	MF 1/8W 1%	
R326	SMD 1206	330R	MF 1/8W 1%	
R327	SMD 1206	330R	MF 1/8W 1%	
R328	SMD 1206	330R	MF 1/8W 1%	
R329	SMD 1206	330R	MF 1/8W 1%	
R330	SMD 1206	330R	MF 1/8W 1%	
R331	SMD 1206	330R	MF 1/8W 1%	
R332	SMD 1206	330R	MF 1/8W 1%	
R333	SMD 1206	330R	MF 1/8W 1%	
R334	SMD 1206	330R	MF 1/8W 1%	
R335	SMD 1206	330R	MF 1/8W 1%	
R336	SMD 1206	330R	MF 1/8W 1%	
R337	SMD 1206	330R	MF 1/8W 1%	
R338	SMD 1206	330R	MF 1/8W 1%	
R339	SMD 1206	330R	MF 1/8W 1%	
R340	SMD 1206	330R	MF 1/8W 1%	
R341	SMD 1206	330R	MF 1/8W 1%	
R342	SMD 1206		NOT FITTED	
R343	SMD 1206	100k	MF 1/8W 1%	
R344	SMD 1206	100k	MF 1/8W 1%	
R345	SMD 1206	100k	MF 1/8W 1%	
R346	SMD 1206	330R	MF 1/8W 1%	
R347	SMD 1206		NOT FITTED	
R348	SMD 1206	47k	MF 1/8W 1%	
R349	SMD 1206	15k	MF 1/8W 1%	
R350	SMD 1206	100k	MF 1/8W 1%	
R351	SMD 1206	100k	MF 1/8W 1%	
R352	SMD 1206	10k	MF 1/8W 1%	
R353	SMD 1206	13k	MF 1/8W 1%	
R354	SMD 1206	2.2k	MF 1/8W 1%	
R355	SMD 1206	10k	MF 1/8W 1%	
R356	SMD 1206	1.2k	MF 1/8W 1%	
R401	SMD 1206	1.78k	MF 1/8W 1%	
R402	SMD 1206	1.78k	MF 1/8W 1%	
R403	SMD 1206	137R	MF 1/8W 1%	
R404	SMD 1206	137R	MF 1/8W 1%	
R405	SMD 1206	137R	MF 1/8W 1%	
R406	SMD 1206	137R	MF 1/8W 1%	
R407	SMD 1206	137R	MF 1/8W 1%	
R408	SMD 1206	137R	MF 1/8W 1%	
R409	SMD 1206	137R	MF 1/8W 1%	
R410	SMD 1206	137R	MF 1/8W 1%	
R411	SMD 1206	133R	MF 1/8W 1%	
R412	SMD 1206	133R	MF 1/8W 1%	

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R413	SMD 1206	124R	MF 1/8W 1%	
R414	SMD 1206	124R	MF 1/8W 1%	
R415	SMD 1206	127R	MF 1/8W 1%	
R416	SMD 1206	127R	MF 1/8W 1%	
R417	SMD 1206	1.47k	MF 1/8W 1%	
R418	SMD 1206	1.47k	MF 1/8W 1%	
R419	SMD 1206	6.98k	MF 1/8W 1%	
R420	SMD 1206	6.98k	MF 1/8W 1%	
R421	SMD 1206	680R	MF 1/8W 1%	
R422	SMD 1206	680R	MF 1/8W 1%	
R423	SMD 1206	10k	MF 1/8W 1%	
R424	SMD 1206	10k	MF 1/8W 1%	
R425	SMD 1206	2.15k	MF 1/8W 1%	
R426	SMD 1206	2.15k	MF 1/8W 1%	
R427	SMD 1206	1.4k	MF 1/8W 1%	
R428	SMD 1206	1.4k	MF 1/8W 1%	
R429	SMD 1206	976R	MF 1/8W 1%	
R430	SMD 1206	976R	MF 1/8W 1%	
R431	SMD 1206	475R	MF 1/8W 1%	
R432	SMD 1206	475R	MF 1/8W 1%	
R433	SMD 1206	196R	MF 1/8W 1%	
R434	SMD 1206	196R	MF 1/8W 1%	
R435	SMD 1206	80.6R	MF 1/8W 1%	
R436	SMD 1206	80.6R	MF 1/8W 1%	
R437	SMD 1206	32R	MF 1/8W 1%	
R438	SMD 1206	32R	MF 1/8W 1%	
R439	SMD 1206	12.7R	MF 1/8W 1%	
R440	SMD 1206	12.7R	MF 1/8W 1%	
R441	M MELF	8.45R	MF 1/8W 1%	
R442	M MELF	8.45R	MF 1/8W 1%	
R443	SMD 1206	6.65k	MF 1/8W 1%	
R444	SMD 1206	6.65k	MF 1/8W 1%	
R445	SMD 1206	680R	MF 1/8W 1%	
R446	SMD 1206	680R	MF 1/8W 1%	
R447	NFR25	4.7R	MF 1/4W 5%	
R448	NFR25	4.7R	MF 1/4W 5%	
R449	SMD 1206	2.2k	MF 1/8W 1%	
R450	SMD 1206	2.2k	MF 1/8W 1%	
R451	SMD 1206	953k	MF 1/8W 1%	
R452	SMD 1206	100k	MF 1/8W 1%	
R501	SMD 1206	2.2k	MF 1/8W 1%	
R502	SMD 1206	2.2k	MF 1/8W 1%	
R503	SMD 1206	63.4k	MF 1/8W 1%	
R504	SMD 1206	63.4k	MF 1/8W 1%	
R505	SMD 1206	1.2k	MF 1/8W 1%	
R506	SMD 1206	1.2k	MF 1/8W 1%	
R507	SMD 1206	10k	MF 1/8W 1%	
R508	SMD 1206	10k	MF 1/8W 1%	
R509	SMD 1206	10k	MF 1/8W 1%	
R510	SMD 1206	10k	MF 1/8W 1%	
R511	SMD 1206	976R	MF 1/8W 1%	
R512	SMD 1206	976R	MF 1/8W 1%	
R513	SMD 1206	976R	MF 1/8W 1%	

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R514	SMD 1206	976R	MF 1/8W 1%	
R515	SMD 1206	63.4k	MF 1/8W 1%	
R516	SMD 1206	63.4k	MF 1/8W 1%	
R517	SMD 1206	1.2k	MF 1/8W 1%	
R518	SMD 1206	1.2k	MF 1/8W 1%	
R519	SMD 1206	1.2k	MF 1/8W 1%	
R520	SMD 1206	1.2k	MF 1/8W 1%	
R521	SMD 1206	1.4k	MF 1/8W 1%	
R522	SMD 1206	1.4k	MF 1/8W 1%	
R523	SMD 1206	13k	MF 1/8W 1%	
R524	SMD 1206	13k	MF 1/8W 1%	
R525	SMD 1206	56k	MF 1/8W 1%	
R526	SMD 1206	56k	MF 1/8W 1%	
R527	SMD 1206	10k	MF 1/8W 1%	
R528	SMD 1206	10k	MF 1/8W 1%	
R529	SMD 1206	10k	MF 1/8W 1%	
R530	SMD 1206	10k	MF 1/8W 1%	
R531	SMD 1206	270R	MF 1/8W 1%	
R532	SMD 1206	270R	MF 1/8W 1%	
R533	SMD 1206	47k	MF 1/8W 1%	
R534	SMD 1206	47k	MF 1/8W 1%	
R535	SMD 1206	10k	MF 1/8W 1%	
R536	SMD 1206	10k	MF 1/8W 1%	
R537	NFR25	100R	MF 1/4W 5%	
R538	NFR25	100R	MF 1/4W 5%	
R539	NFR25	100R	MF 1/4W 5%	
R540	NFR25	100R	MF 1/4W 5%	
R541	NFR25	100R	MF 1/4W 5%	
R542	NFR25	100R	MF 1/4W 5%	
R543	NFR25	100R	MF 1/4W 5%	
R544	NFR25	100R	MF 1/4W 5%	
R545	NFR25	270R	MF 1/4W 5%	
R546	NFR25	270R	MF 1/4W 5%	
R547	NFR25	270R	MF 1/4W 5%	
R548	NFR25	270R	MF 1/4W 5%	
R549	NFR25	120R	MF 1/4W 5%	
R550	NFR25	120R	MF 1/4W 5%	
R551	NFR25	120R	MF 1/4W 5%	
R552	NFR25	120R	MF 1/4W 5%	
R553	NFR25	120R	MF 1/4W 5%	
R554	NFR25	120R	MF 1/4W 5%	
R555	MRS50	3.9R	MF 1/2W 5%	
R556	MRS50	3.9R	MF 1/2W 5%	
R557	RG3	0.22R	WW 3W 5%	
R558	RG3	0.22R	WW 3W 5%	
R559	SMD 1206	12.7R	MF 1/8W 1%	
R560	SMD 1206	12.7R	MF 1/8W 1%	
R561	SMD 1206	12.7R	MF 1/8W 1%	
R562	SMD 1206	12.7R	MF 1/8W 1%	
R563	SMD 1206		DELETED	
R564	SMD 1206		DELETED	
R565	SMD 1206		DELETED	
R566	SMD 1206		DELETED	



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R567	SMD 1206	73.2k	MF 1/8W 1%	
R568	SMD 1206	73.2k	MF 1/8W 1%	
R569	MRS25		DELETED	
R570	MRS25		DELETED	
R571	MRS25		DELETED	
R572	MRS25		DELETED	
R573	NFR25	4.7R	MF 1/4W 5%	
R574	NFR25	4.7R	MF 1/4W 5%	
R575	NFR25	4.7R	MF 1/4W 5%	
R576	NFR25	4.7R	MF 1/4W 5%	
R577	SMD 1206	620R	MF 1/8W 1%	
R578	SMD 1206	620R	MF 1/8W 1%	
R579	SMD 1206		DELETED	
R580	SMD 1206		DELETED	
R581	SMD 1206		DELETED	
R582	SMD 1206		DELETED	
R583	SMD 1206	1.78k	MF 1/8W 1%	
R584	SMD 1206	1.78k	MF 1/8W 1%	
R585	SMD 1206	39k	MF 1/8W 1%	
R586	SMD 1206	39k	MF 1/8W 1%	
R587	SMD 1206	196R	MF 1/8W 1%	
R588	SMD 1206	196R	MF 1/8W 1%	
R589	SMD 1206	196R	MF 1/8W 1%	
R590	SMD 1206	196R	MF 1/8W 1%	
R591	SMD 1206	22k	MF 1/8W 1%	
R592	SMD 1206	22k	MF 1/8W 1%	
R601	MRS25	12k	MF 1/4W 1%	
R602	MRS25	12k	MF 1/4W 1%	
R603	SMD 1206	100k	MF 1/8W 1%	
R604	SMD 1206	100k	MF 1/8W 1%	
R605			DELETED	
R606	SMD 1206	100k	MF 1/8W 1%	
R607	SMD 1206	100k	MF 1/8W 1%	
R608	SMD 1206	47k	MF 1/8W 1%	
R609	SMD 1206	976R	MF 1/8W 1%	
R610	SMD 1206	100k	MF 1/8W 1%	
R611	SMD 1206	100k	MF 1/8W 1%	
R612	SMD 1206	10k	MF 1/8W 1%	
R613	SMD 1206	100k	MF 1/8W 1%	
R614	SMD 1206	100k	MF 1/8W 1%	
R615	SMD 1206	976R	MF 1/8W 1%	
R616	SMD 1206	976R	MF 1/8W 1%	
R617	SMD 1206	2.2k	MF 1/8W 1%	
R618	SMD 1206		NOT FITTED	
R619	SMD 1206	100k	MF 1/8W 1%	
R620	SMD 1206	100k	MF 1/8W 1%	
R621	SMD 1206	100k	MF 1/8W 1%	
R622	SMD 1206	560R	MF 1/8W 1%	
R623	SMD 1206	560R	MF 1/8W 1%	
R624	SMD 1206	1.2k	MF 1/8W 1%	
R625	SMD 1206	1.2k	MF 1/8W 1%	
R626	SMD 1206	100k	MF 1/8W 1%	
R627	SMD 1206	100k	MF 1/8W 1%	

## CYRUS III PCB PARTS LIST – PCB REVISION 7

R628	SMD 1206	560R	MF 1/8W 1%	
R629	SMD 1206	560R	MF 1/8W 1%	
R630	SMD 1206	1.2k	MF 1/8W 1%	
R631	SMD 1206	1.2k	MF 1/8W 1%	
R632	SMD 1206		NOT FITTED	
R633	SMD 1206		NOT FITTED	
R634	SMD 1206	100k	MF 1/8W 1%	
R635	SMD 1206	100k	MF 1/8W 1%	
R636			DELETED	
R637	MRS25	22k	MF 1/4W 1%	
R638	SMD 1206	22.1k	MF 1/8W 1%	
R639	SMD 1206	6.65k	MF 1/8W 1%	
R640	SMD 1206	47k	MF 1/8W 1%	
R641	SMD 1206	680R	MF 1/8W 1%	
R642	SMD 1206	680R	MF 1/8W 1%	
R643	NFR25	1R	MF 1/4W 5%	
R644	NFR25	1R	MF 1/4W 5%	

Key:

MF = metal film. NFR = non flammable resistor.

### CAPACITORS

C101	SMD 1206	18pF	CP 63V 10%	
C102	SMD 1206	18pF	CP 63V 10%	
C103	SMD 1206	18pF	CP 63V 10%	
C104	SMD 1206	18pF	CP 63V 10%	
C105	RBP2	47uF	BP 10V 20%	
C106	RBP2	47uF	BP 10V 20%	
C107	SMD 1206	100nF	CP 63V 10%	
C108	SMD 1206	100nF	CP 63V 10%	
C109	SMD 1206	100nF	CP 63V 10%	
C110	SMD 1206	100nF	CP 63V 10%	
C111	SMD 1206	100nF	CP 63V 10%	
C112	SMD 1206	100nF	CP 63V 10%	
C113	SMD 1206	100nF	CP 63V 10%	
C114	SMD 1206	100nF	CP 63V 10%	
C115	SMD 1206	100nF	CP 63V 10%	
C116	SMD 1206	100nF	CP 63V 10%	
C117	SMD 1206	100nF	CP 63V 10%	
C118	SMD 1206	100nF	CP 63V 10%	
C119	TAP	1uF	TB 35V 20%	
C120	TAP	1uF	TB 35V 20%	
C121	TAP	1uF	TB 35V 20%	
C122	TAP	1uF	TB 35V 20%	
C123	RE2	22uF	EL 63V 10%	
C124	RE2	22uF	EL 63V 10%	
C125	RE2	22uF	EL 63V 10%	
C126	RE2	22uF	EL 63V 10%	
C127	SMD 1206	100nF	CP 63V 10%	
C128			DELETED	
C201	SMD 1206	22pF	CP 63V 10%	
C202	SMD 1206	22pF	CP 63V 10%	
C203	SMD 1206	22pF	CP 63V 10%	

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C204	SMD 1206	22pF	CP 63V 10%
C205	SMD 1206	100pF	CP 63V 10%
C206	SMD 1206	100pF	CP 63V 10%
C207	FKP2	1nF	PP 63V 2.5%
C208	FKP2	1nF	PP 63V 2.5%
C209	FKP2	3.6nF	PP 63V 2.5%
C210	FKP2	3.6nF	PP 63V 2.5%
C211	SMD 1206	22pF	CP 63V 10%
C212	SMD 1206	22pF	CP 63V 10%
C213	TAP	1uF	TB 35V 20%
C214	TAP	1uF	TB 35V 20%
C215	TAP	1uF	TB 35V 20%
C216	TAP	1uF	TB 35V 20%
C217	TAP	1uF	TB 35V 20%
C218	TAP	1uF	TB 35V 20%
C219	TAP	1uF	TB 35V 20%
C220	TAP	1uF	TB 35V 20%
C221	TAP	1uF	TB 35V 20%
C222	TAP	1uF	TB 35V 20%
C223	RE2	22uF	EL 63V 10%
C224	RE2	22uF	EL 63V 10%
C225	TAP	2.2uF	TB 10V 10%
C226	TAP	2.2uF	TB 10V 10%
C301	SMD 1206	100nF	CP 63V 10%
C302	SMD 1206	100nF	CP 63V 10%
C303	SMD 1206	27pF	CP 63V 10%
C304	SMD 1206	27pF	CP 63V 10%
C305	SMD 1206	100nF	CP 63V 10%
C306	RE2	2.2uF	EL 25V 10%
C307	RE2	47uF	EL 25V 10%
C308	SMD 1206	100nF	CP 63V 10%
C309	SMD 1206	100nF	CP 63V 10%
C310	SMD 1206	100nF	CP 63V 10%
C311	SMD 1206	100nF	CP 63V 10%
C312	SMD 1206	100nF	CP 63V 10%
C313	SMD 1206	100nF	CP 63V 10%
C401	SMD 1206	22pF	CP 63V 10%
C402	SMD 1206	22pF	CP 63V 10%
C403	SMD 1206	22pF	CP 63V 10%
C404	SMD 1206	22pF	CP 63V 10%
C405	RBP2	47uF	BP 10V 20%
C406	RBP2	47uF	BP 10V 20%
C407	SMD 1206	100nF	CP 63V 10%
C408	SMD 1206	100nF	CP 63V 10%
C409	SMD 1206	100nF	CP 63V 10%
C410	SMD 1206	100nF	CP 63V 10%
C411	SMD 1206	100nF	CP 63V 10%
C412	SMD 1206	100nF	CP 63V 10%
C413	SMD 1206	100nF	CP 63V 10%
C414	SMD 1206	100nF	CP 63V 10%
C415	TAP	1uF	TB 35V 20%
C416	TAP	1uF	TB 35V 20%
C417	TAP	1uF	TB 35V 20%

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C418	TAP	1uF	TB 35V 20%	
C419	RE2	22uF	EL 63V 10%	
C420	RE2	22uF	EL 63V 10%	
C421	SMD 1206	100nF	CP 63V 10%	
C422	SMD 1206	100nF	CP 63V 10%	
C423	SMD 1206	100nF	CP 63V 10%	
C424	RE2	10uF	EL 63V 20%	
C501	TAP	2.2uF	TB 16V 10%	
C502	TAP	2.2uF	TB 16V 10%	
C503	FKP2	470pF	PP 50V 5%	
C504	FKP2	470pF	PP 50V 5%	
C505	SMD1206		NOT FITTED	
C506	SMD1206		NOT FITTED	
C507	SMD 1206		NOT FITTED	
C508	SMD 1206		NOT FITTED	
C509	SMD 1206	1.8pF	CP 63V 20%	
C510	SMD 1206	1.8pF	CP 63V 20%	
C511	FKP2	120pF	PP 100V 5%	
C512	FKP2	120pF	PP 100V 5%	
C513	FKP2	120pF	PP 100V 5%	
C514	FKP2	120pF	PP 100V 5%	
C515	SMD 1206	100nF	CP 63V 10%	
C516	SMD 1206	100nF	CP 63V 10%	
C517	MKS2	100nF	PE 63V 10%	
C518	MKS2	100nF	PE 63V 10%	
C519	TAP	100uF	TB 6.3V 10%	
C520	TAP	100uF	TB 6.3V 10%	
C521	TAP	1uF	TB 35V 20%	
C522	TAP	1uF	TB 35V 20%	
C523	RE2	22uF	EL 63V 10%	
C524	RE2	22uF	EL 63V 10%	
C525	RE2	22uF	EL 63V 10%	
C526	RE2	22uF	EL 63V 10%	
C527	RE2	1uF	EL 16V 20%	
C528	RE2	1uF	EL 16V 20%	
C529	SMD 1206		DELETED	
C530	SMD 1206		DELETED	
C531	RE2	22uF	EL 63V 10%	
C532	RE2	22uF	EL 63V 10%	
C533	RE2	22uF	EL 63V 10%	
C534	RE2	22uF	EL 63V 10%	
C535	SMD 1206		DELETED	
C536	SMD 1206		DELETED	
C537	SMD 1206		NOT FITTED	
C538	SMD 1206		NOT FITTED	
C539	SMD 1206		NOT FITTED	
C540	SMD 1206		NOT FITTED	
C541	SMD 1206	1nF	CP 63V 10%	
C542	SMD 1206	1nF	CP 63V 10%	
C543	SMD 1206	1nF	CP 63V 10%	
C544	SMD 1206	1nF	CP 63V 10%	
C545	FKP2	1nF	PP 100V 5%	
C546	FKP2	1nF	PP 100V 5%	

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C601	MKS2	100nF	PE 100V 10%	
C602	MKS2	100nF	PE 100V 10%	
C603	MKS2	100nF	PE 100V 10%	
C604	MKS2	100nF	PE 100V 10%	
C605	SMD 1206	100nF	CP 63V 10%	
C606	SMD 1206	100nF	CP 63V 10%	
C607	SMD 1206	100nF	CP 63V 10%	
C608	SMD 1206	100nF	CP 63V 10%	
C609	SMD 1206	100nF	CP 63V 10%	
C610			DELETED	
C611			DELETED	
C612	RE2	22uF	EL 63V 10%	
C613	RE2	22uF	EL 63V 10%	
C614	RE2	22uF	EL 63V 10%	
C615	RE2	22uF	EL 63V 10%	
C616	TAP	2.2uF	TB 10V 10%	
C617	TAP	2.2uF	TB 10V 10%	
C618	TAP	1uF	TB 35V 20%	
C619	TAP	1uF	TB 35V 20%	
C620	TAP	2.2uF	TB 10V 10%	
C621	TAP	2.2uF	TB 10V 10%	
C622	RC	2200uF	EL 16V 20%	
C623	EL-R35	7000uF	EL 50V 20%	
C624	EL-R35	7000uF	EL 50V 20%	
C625	TAP	2.2uF	TB 10V 10%	
C626	TAP	2.2uF	TB 10V 10%	
C627	RE2	10uF	EL 63V 20%	
C628	SMD 1206	1nF	CP 63V 10%	

Key:

EL = electrolytic. PE = polyester. PP = polypropylene. TB = tantalum bead. CP = ceramic plate.

### DIODES

D301	SOT-23	SLM132VRF	15mA red LED	
D302	SOT-23	SLM132MGF	15mA green LED	
D303	SOT-23	SLM132MGF	15mA green LED	
D304	SOT-23	SLM132MGF	15mA green LED	
D305	SOT-23	SLM132MGF	15mA green LED	
D306	SOT-23	SLM132MGF	15mA green LED	
D307	SOT-23	SLM132MGF	15mA green LED	
D308	SOT-23	SLM132MGF	15mA green LED	
D309	SOT-23	SLM132MGF	15mA green LED	
D310	SOT-23	SLM132MGF	15mA green LED	
D311	SOT-23	SLM132MGF	15mA green LED	
D312	SOT-23	SLM132MGF	15mA green LED	
D313	SOT-23	SLM132MGF	15mA green LED	
D314	SOT-23	SLM132MGF	15mA green LED	
D315	SOT-23	SLM132MGF	15mA green LED	
D316	SOT-23	SLM132VRF	15mA red LED	
D317	SOT-23	SLM132VRF	15mA red LED	
D318	SOT-23	SLM132VRF	15mA red LED	
D319	SOT-23	SLM132VRF	15mA red LED	
D320	SOT-23	SLM132VRF	15mA red LED	

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D321	SOT-23		NOT FITTED
D322	SOT-23	SLM132VRF	15mA red LED
D323	Radial	LTL-52RG	25mA BiColour LED (3-Pin)
D324	SOT-23	BAS16	300mA signal diode
D401	SOT-23	BAS16	300mA signal diode
D501	Axial	1N4002	1A signal diode
D502	Axial	1N4002	1A signal diode
D503	Axial	1N4002	1A signal diode
D504	Axial	1N4002	1A signal diode
D505	Axial	1N4002	1A signal diode
D506	Axial	1N4002	1A signal diode
D507	SOT-23		DELETED
D508	SOT-23		DELETED
D509	SOT-23		DELETED
D510	SOT-23		DELETED
D601	Axial	1N5402	3A rectifier diode
D602	Axial	1N5402	3A rectifier diode
D603	Axial	1N5402	3A rectifier diode
D604	Axial	1N5402	3A rectifier diode
D605	Axial	1N4002	1A signal diode
D606	Axial	1N4002	1A signal diode
D607	Axial	1N4002	1A signal diode
D608	Axial	1N4002	1A signal diode
D609	Axial	1N4002	1A signal diode
D610	Axial	1N4002	1A signal diode
D611			DELETED
D612			DELETED
D613	SOT-23	BAS16	300mA signal diode
D614	SOT-23	BAS16	300mA signal diode
D615			DELETED
D616	SOT-23	BAS16	300mA signal diode
D617	SOT-23	BAS16	300mA signal diode
D618	SOT-23	BAS16	300mA signal diode
D619	SOT-23	BAS16	300mA signal diode
D620	SOT-23	BAS16	300mA signal diode
D621	SOT-23	BZX84-5V1	300mA 5.1V zener diode
D622	Axial	1N4002	1A signal diode
D623	SOT-23	BZX84-5V1	300mA 5.1V zener diode
D624	SOT-23	BZX84-15V	300mA 15V zener diode
D625	SOT-23	BZX84-15V	300mA 15V zener diode

### TRANSISTORS

T101	TO92	BC182B	NPN signal transistor
T102	TO92	BC212B	PNP signal transistor
T301	SOT-23	BC846BLT1	NPN signal transistor
T302	SOT-23	BC856BLT1	PNP signal transistor
T303	SOT-23	BC846BLT1	NPN signal transistor
T501	SOT-23	BC846BLT1	NPN signal transistor
T502	SOT-23	BC846BLT1	NPN signal transistor
T503	SOT-23	BC846BLT1	NPN signal transistor
T504	SOT-23	BC846BLT1	NPN signal transistor
T505	SOT-23	BC856BLT1	PNP signal transistor

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T506	SOT-23	BC856BLT1	PNP signal transistor
T507	SOT-23	BC856BLT1	PNP signal transistor
T508	SOT-23	BC856BLT1	PNP signal transistor
T509	TO92	2SA1038	PNP signal transistor
T510	TO92	2SA1038	PNP signal transistor
T511	TO92	2SA1038	PNP signal transistor
T512	TO92	2SA1038	PNP signal transistor
T513	SOT-23	BC856BLT1	PNP signal transistor
T514	SOT-23	BC856BLT1	PNP signal transistor
T515	TO92	2SC2389	NPN signal transistor
T516	TO92	2SC2389	NPN signal transistor
T517	TO92	2SC2389	NPN signal transistor
T518	TO92	2SC2389	NPN signal transistor
T519	TO-126	BD135	NPN signal transistor
T520	TO-126	BD135	NPN signal transistor
T521	TO92	2SC2389	NPN signal transistor
T522	TO92	2SC2389	NPN signal transistor
T523	TO92	2SA1038	PNP signal transistor
T524	TO92	2SA1038	PNP signal transistor
T525	TO202	MJE243	NPN power transistor
T526	TO202	MJE243	NPN power transistor
T527	TO202	MJE253	PNP power transistor
T528	TO202	MJE253	PNP power transistor
T529	TO-3P	2SD1047E	NPN power transistor
T530	TO-3P	2SD1047E	NPN power transistor
T531	TO-3P	2SD1047E	NPN power transistor
T532	TO-3P	2SD1047E	NPN power transistor
T533	SOT-23	BC846BLT1	NPN signal transistor
T534	SOT-23	BC846BLT1	NPN signal transistor
T535	SOT-23	BC846BLT1	NPN signal transistor
T536	SOT-23	BC846BLT1	NPN signal transistor
T537	SOT-23	BC846BLT1	NPN signal transistor
T538	SOT-23	BC846BLT1	NPN signal transistor
T539	SOT-23		DELETED
T540	SOT-23		DELETED
T541	SOT-23	BC856BLT1	PNP signal transistor
T542	SOT-23	BC856BLT1	PNP signal transistor
T543	SOT-23	BC856BLT1	PNP signal transistor
T544	SOT-23	BC856BLT1	PNP signal transistor
T601	SOT-23	BC856BLT1	PNP signal transistor
T602	SOT-23	BC846BLT1	NPN signal transistor
T603	SOT-23	BC818-25	NPN signal transistor
T604	SOT-23	BC818-25	NPN signal transistor
T605	SOT-23	BC818-25	NPN signal transistor
T606	SOT-23	BC818-25	NPN signal transistor
T607			DELETED
T608	SOT-23	BC856BLT1	PNP signal transistor
T609	SOT-23	BC856BLT1	PNP signal transistor

### VOLTAGE REGULATORS

VR301	TO220	LM7805T	1.0A +5V Regulator
VR601	TO220	LM7805T	1.0A +5V Voltage Regulator

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VR602	TO220	LM7915T	1.0A -15V Voltage Regulator	
VR603	TO220	LM7815T	1.0A +15V Voltage Regulator	
VR604	TO220	LM7915T	1.0A -15V Voltage Regulator	
VR605	TO220	LM7815T	1.0A +15V Voltage Regulator	

### INTEGRATED CIRCUITS

IC101	SO16	74HC4053T	Triple 2 channel multiplexer	
IC102	SO16	74HC4053T	Triple 2 channel multiplexer	
IC103	SO16	74HC4053T	Triple 2 channel multiplexer	
IC104	SO16	74HC4053T	Triple 2 channel multiplexer	
IC105	SO16	74HC4053T	Triple 2 channel multiplexer	
IC106	SO16	74HC4053T	Triple 2 channel multiplexer	
IC107	SO08	BA15532F	Dual OPAMP	
IC108	SO08	BA15532F	Dual OPAMP	
IC201	SO08	NE5534D	OPAMP	
IC202	SO08	NE5534D	OPAMP	
IC203	SO08	BA15532F	Dual OPAMP	
IC204	SO08	BA15532F	Dual OPAMP	
IC301	DIL40	Z86C21	Z8 microprocessor	
IC302	SO16	74HCT4094	8-bit shift register	
IC303	SO16	74HCT4094	8-bit shift register	
IC304	SO16	74HCT4094	8-bit shift register	
IC305	SO14	74HC04BM	Hex inverter	
IC401	SO16	74HC4051T	8-channel multiplexer	
IC402	SO16	74HC4051T	8-channel multiplexer	
IC403	SO16	74HC4051T	8-channel multiplexer	
IC404	SO16	74HC4051T	8-channel multiplexer	
IC405	SO08	BA15532F	Low noise dual OPAMP	
IC406	SO08	BA15532F	Low noise dual OPAMP	
IC407	SO16	74HCT4094	8-bit shift register	
IC408	SO16	74HCT4094	8-bit shift register	
IC409	SO16	74HCT4094	8-bit shift register	
IC501	DIL-4	SFH610-2	Opto-isolator	
IC502	DIL-4	SFH610-2	Opto-isolator	
IC601	SO-08	BA15532F	Dual OPAMP	

### SOCKETS AND SWITCHES

SK101	Black RCA	RJ-1018-020	2 x 2 vertical phono GOLD	
SK102	Black RCA	RJ-1018-020	2 x 2 vertical phono GOLD	
SK103	Black RCA	RJ-1018-020	2 x 2 vertical phono GOLD	
CON101	Flex-Foil	8370-211-000-800	21-way LIF	
CON301	Flex-Foil	8370-151-000-800	15-way LIF	
SK301	DIL-40	IS50140	40-pin IC socket	
MS301	TAC SW	SOA-112HS	Micro switch (4.3 mm)	
MS302	TAC SW	SOA-112HS	Micro switch (4.3 mm)	
MS303	TAC SW	SOA-112HS	Micro switch (4.3 mm)	
MS304	TAC SW	SOA-142HS	Micro switch (9.5 mm)	
MS305	TAC SW	SOA-142HS	Micro switch (9.5 mm)	
MS306	TAC SW	SOA-142HS	Micro switch (9.5 mm)	
MS307	TAC SW	SOA-142HS	Micro switch (9.5 mm)	
MS308	TAC SW	SOA-142HS	Micro switch (9.5 mm)	



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MS309			NOT FITTED
MS310	TAC SW	SOA-142HS	Micro switch (9.5 mm)
CON601	FLEX-FOIL	8370-211-000-800	21-way LIF
CON602	FLEX-FOIL	8370-151-000-800	15-way LIF
SK601	Black RCA	RJ-1018-020	2 x 2 vertical phono GOLD
SK602		.	NOT FITTED
SK603	Black RCA	RJ-1020-020	DUAL RCA Socket-GOLD
SK604	Socket	571-0500	Speaker socket (RED)
SK605	Socket	571-0500	Speaker socket (RED)
SK606	Socket	571-0100	Speaker socket (BLACK)
SK607	Socket	571-0100	Speaker socket (BLACK)

### FUSEHOLDERS, TERMINALS AND OTHER PARTS

IR301		SBX1610	Infra red receiver
RE301		RENC01	Rotary encoder
X301		KBR 8.0M	8MHz crystal
FS601	Fuse Holder	20mm PCB Mount	
FS602	Fuse Holder	20mm PCB Mount	
FC601	Fuse Cap	For FS601	
FC602	Fuse Cap	For FS602	
GLINK601	Wire Link	1mm copper wire	
GLINK602	Wire Link	1mm copper wire	
CTTX	Test Point	LOUPOTS	
PSX0	Test Point	LOUPOTS	
PSX1	Test Point	LOUPOTS	
PSX2	Test Point	LOUPOTS	
LV1	Test Point	LOUPOTS	
LV2	Test Point	LOUPOTS	
HV1	Crimp Tag	6.3 mm	
HV2	Crimp Tag	6.3 mm	
NC1	Crimp Tag	6.3 mm	
NC2	Crimp Tag	6.3 mm	
CLP	Test Point	LOUPOTS	
CRN	Test Point	LOUPOTS	

## CYRUS III - SCHEMATIC DIAGRAM INDEX

The Cyrus III schematic diagrams are grouped by revision number as listed below. Before using the schematics, identify the revision number of the amplifier by referring to the PCB identification section to ensure that the correct diagrams are used.

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Revision 6 – not issued for production.

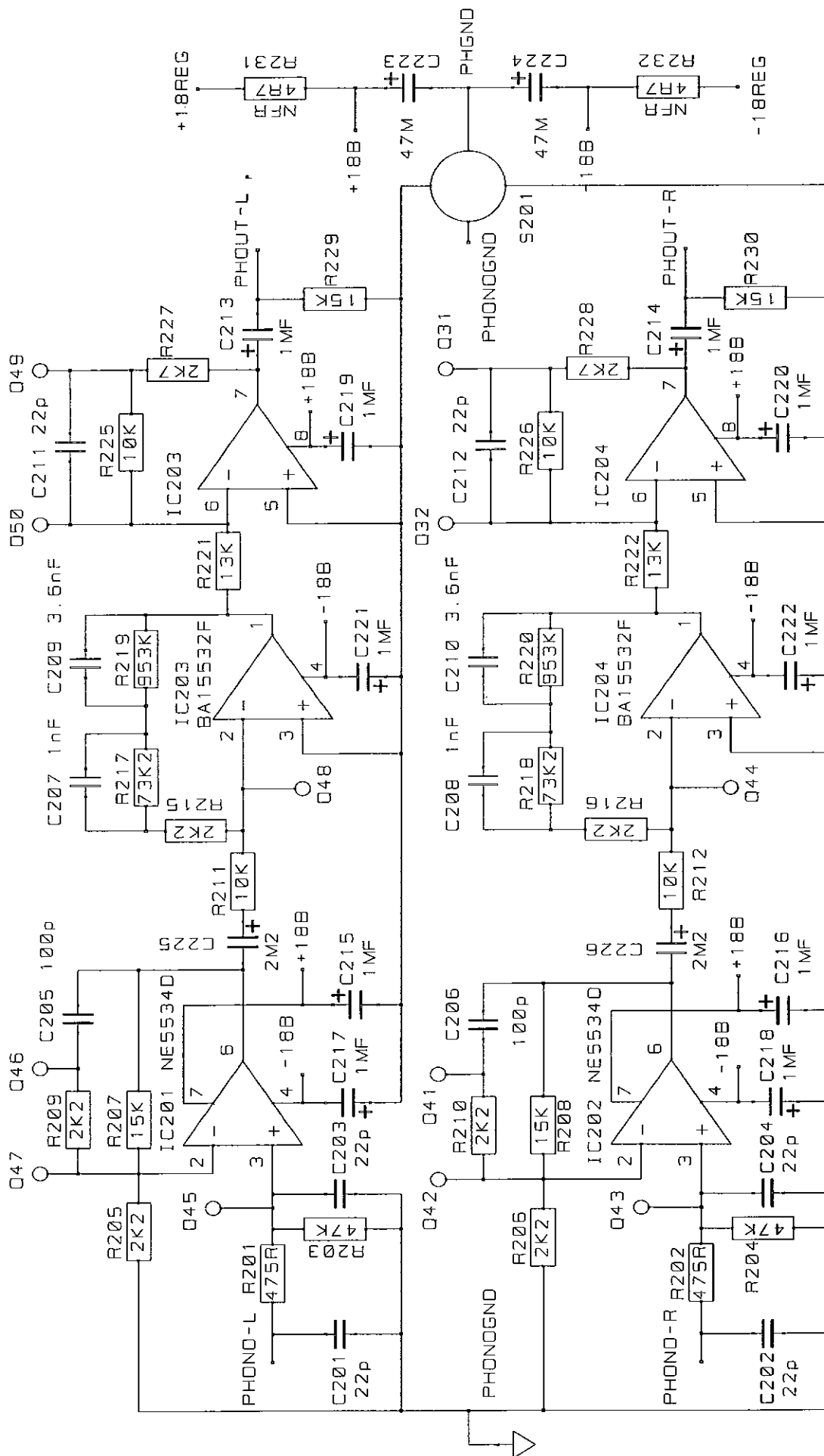
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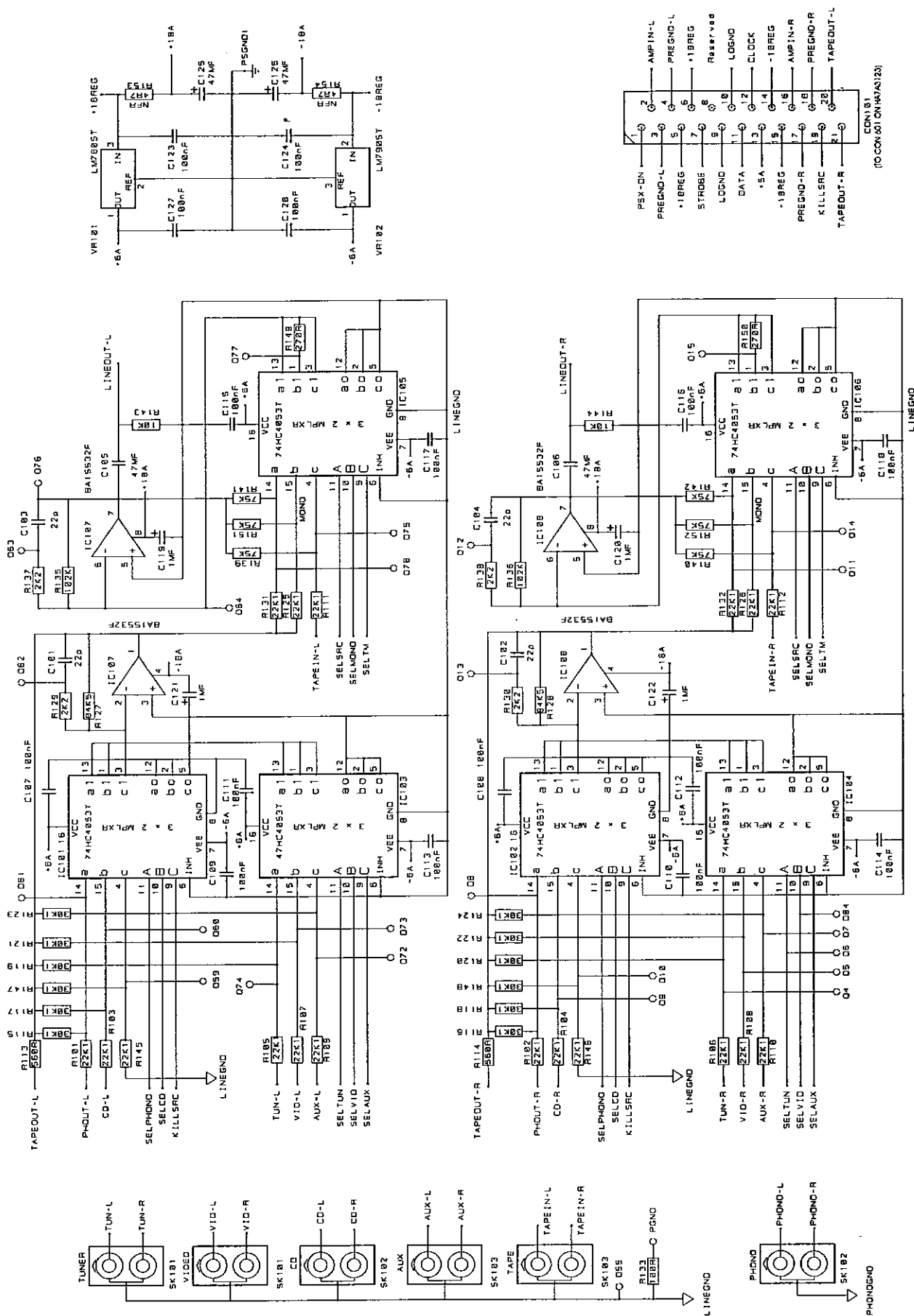
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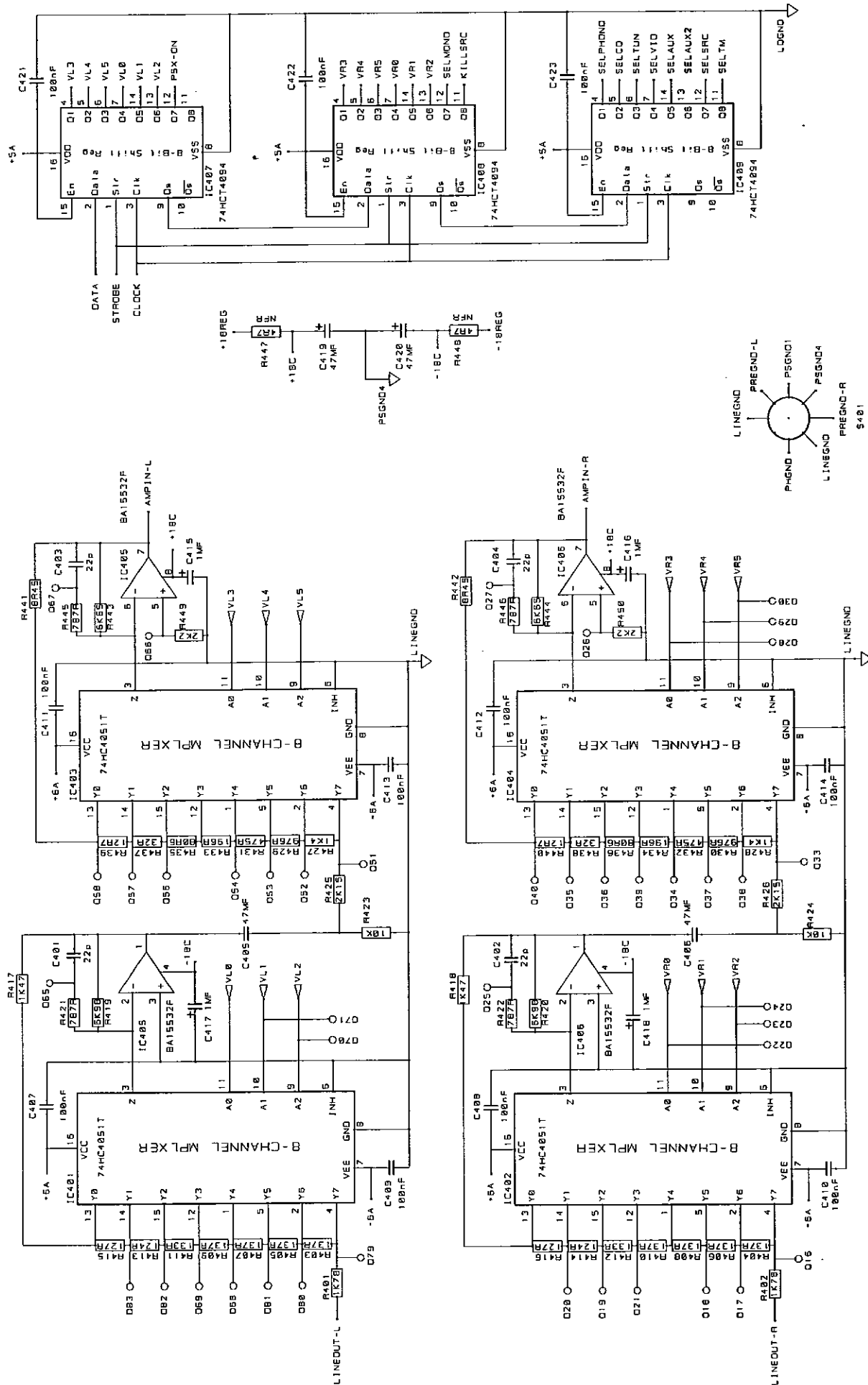
# HA7A1123- PHONO EQ AMP SCHEMATIC



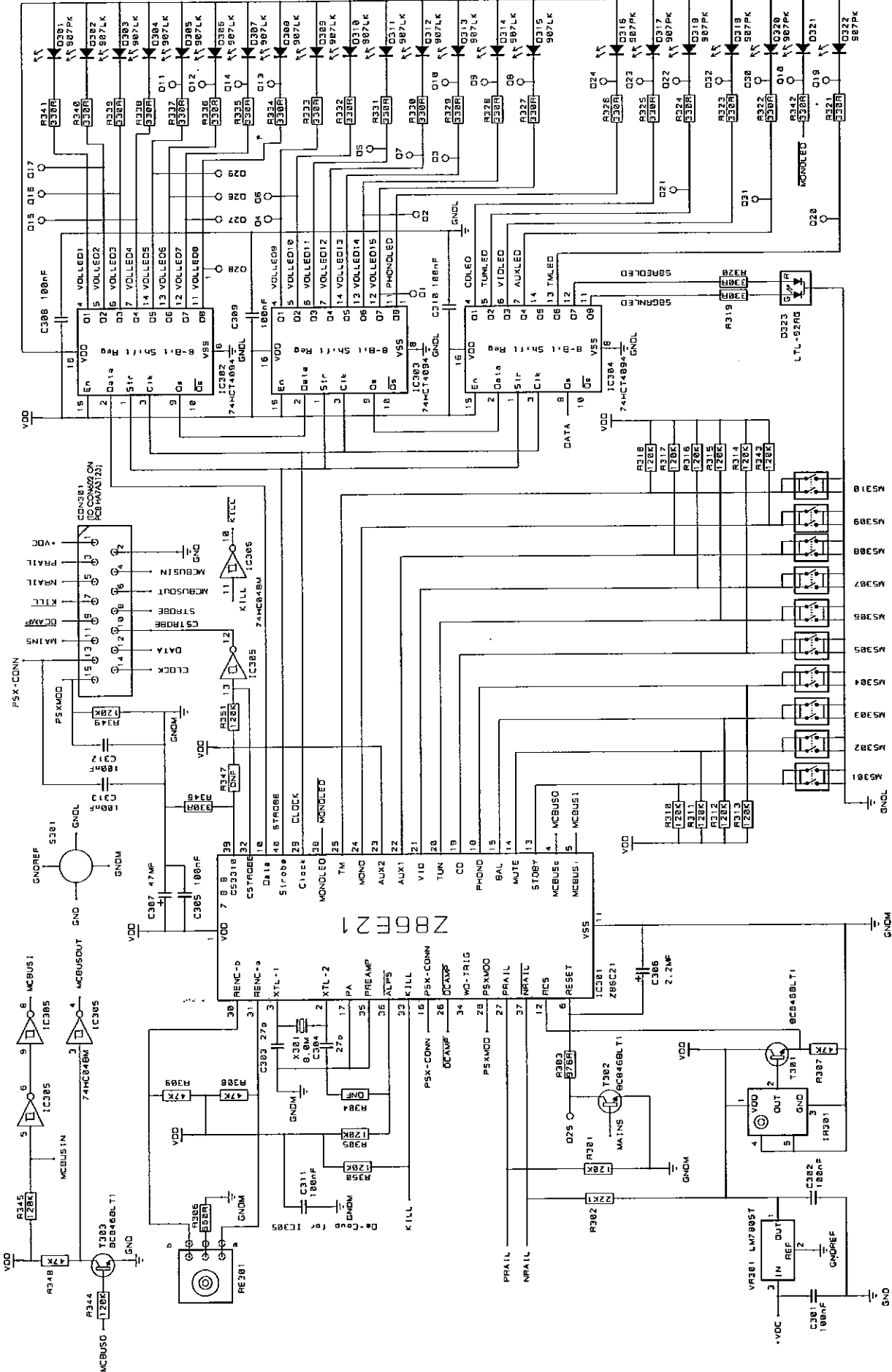
# HA7A1123- INPUT SELECTOR SCHEMATIC



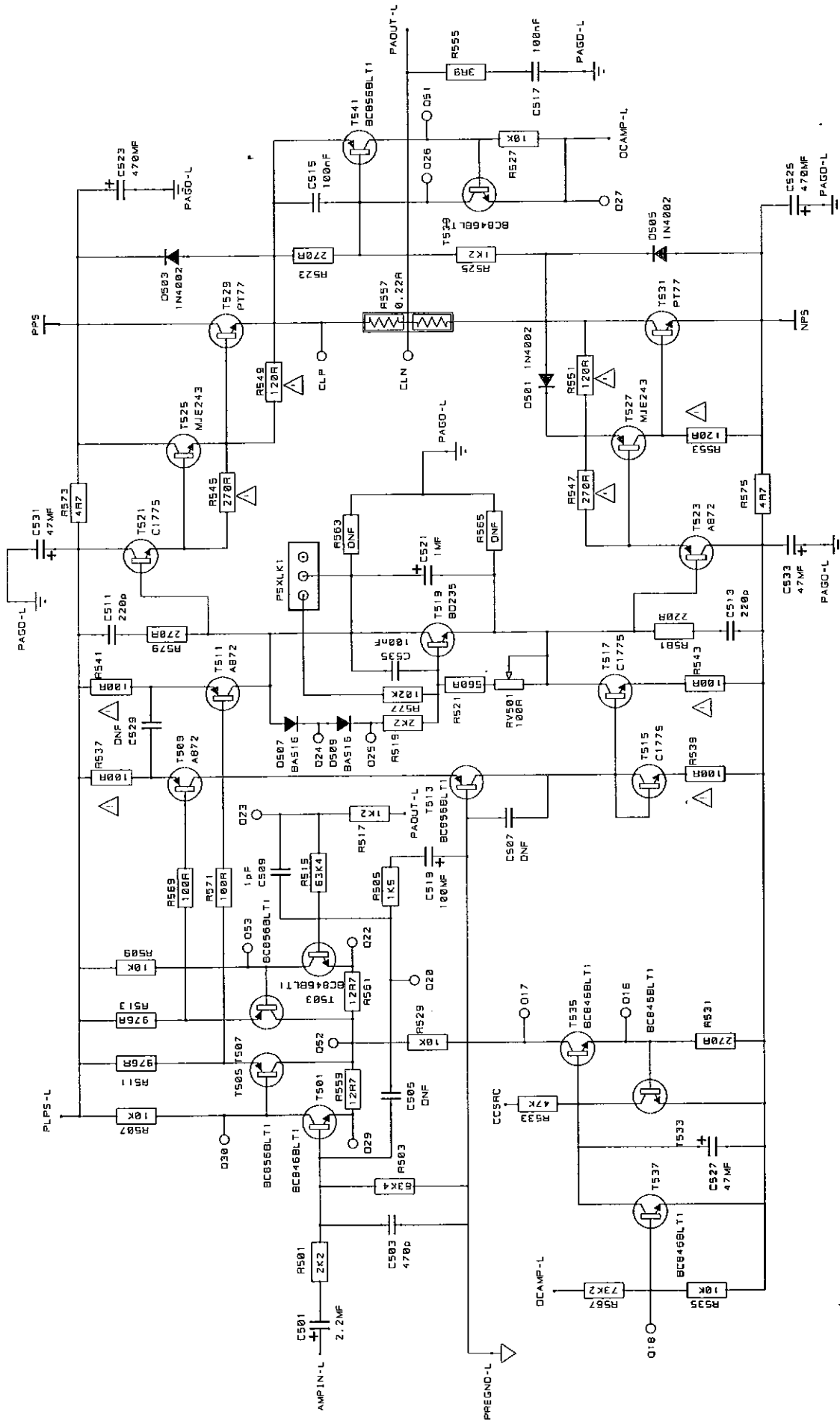
# HA7A1123- VOLUME CONTROL SCHEMATIC



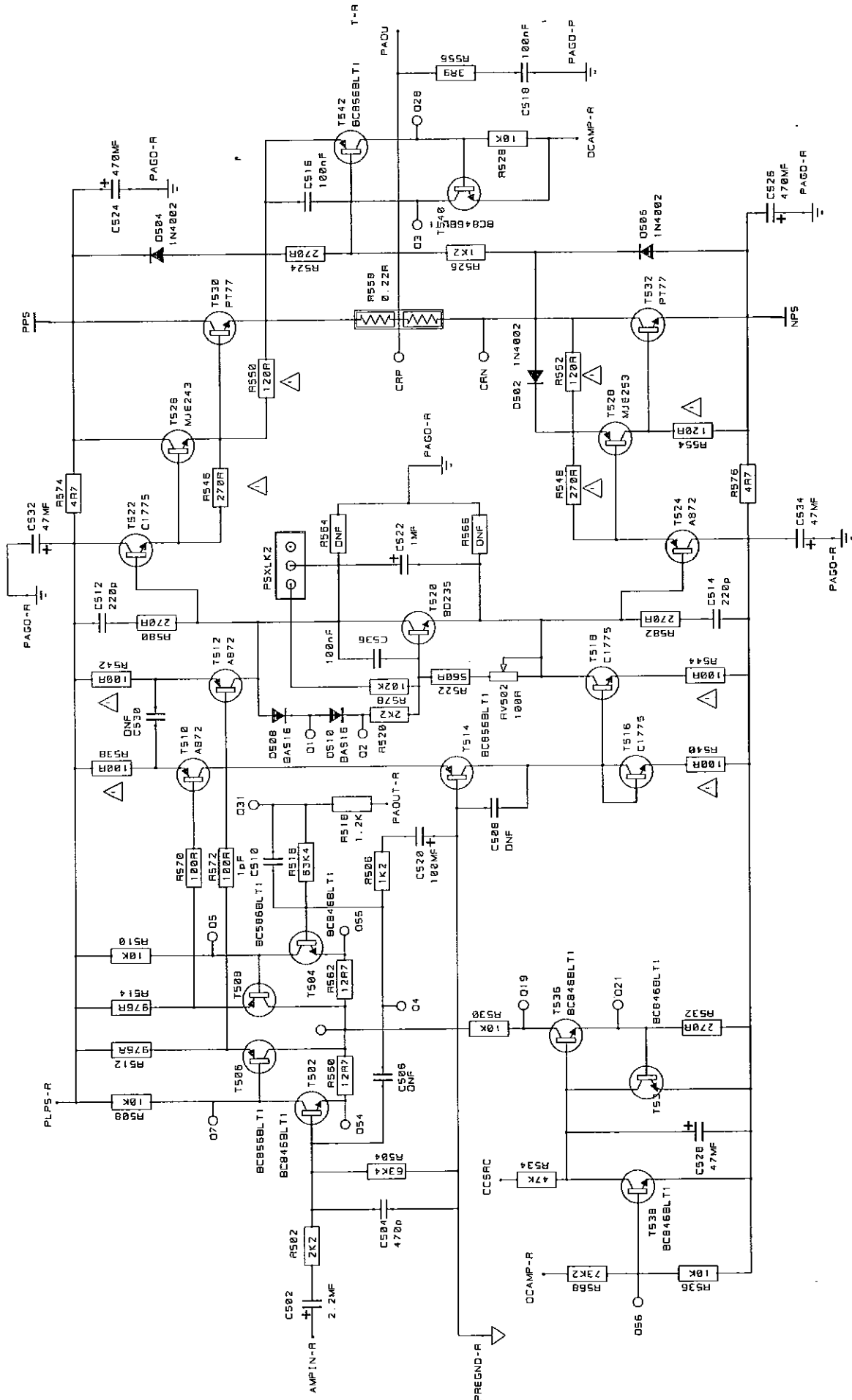
# HA7A2123- CONTROL BOARD SCHEMATIC



# HA7A3123- LEFT POWER AMP SCHEMATIC

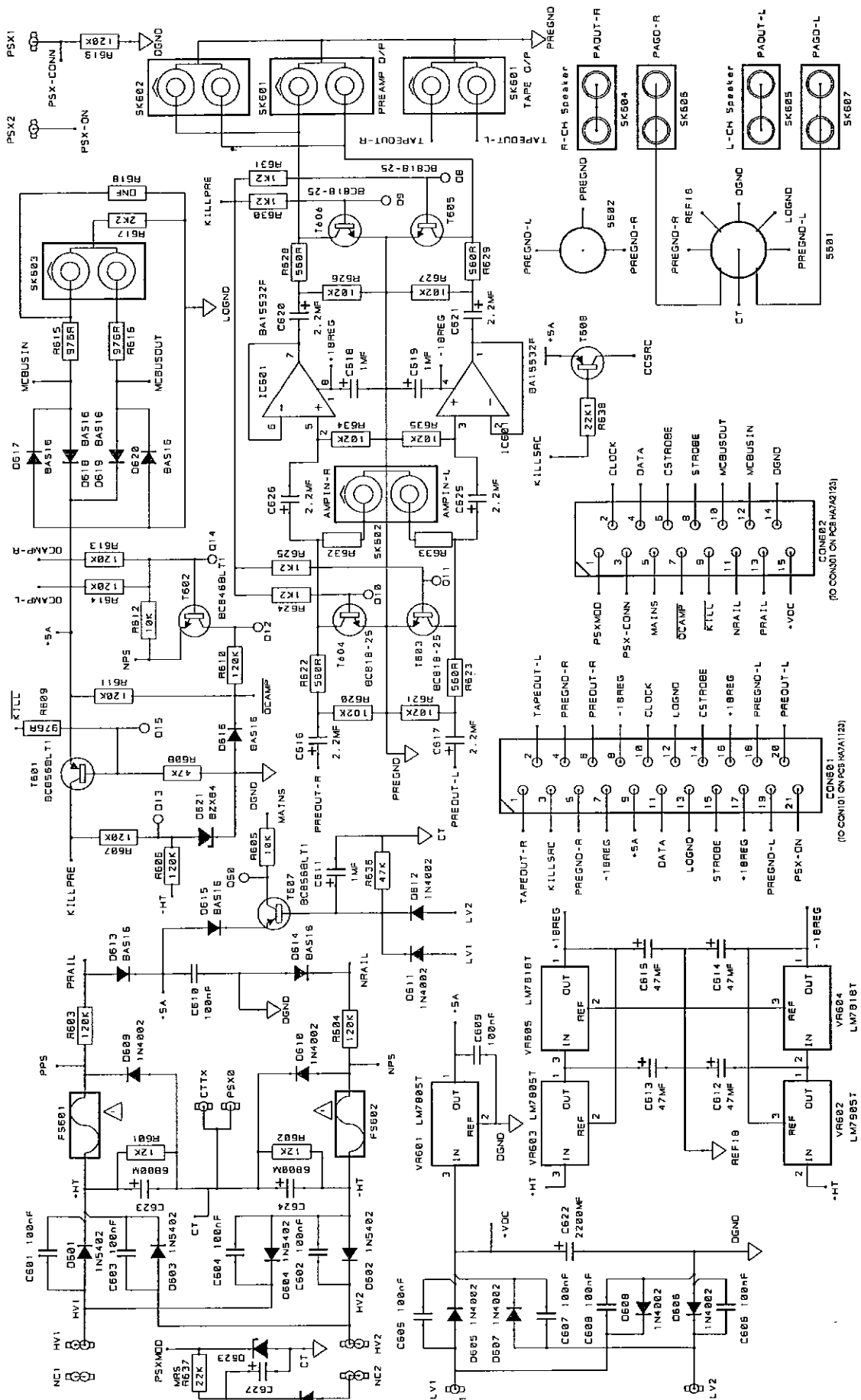


# HA7A3123- RIGHT POWER AMP SCHEMATIC





# HA7A3123- POWER SUPPLY, PROTECTION, PREAMP OUT SCHEMATIC

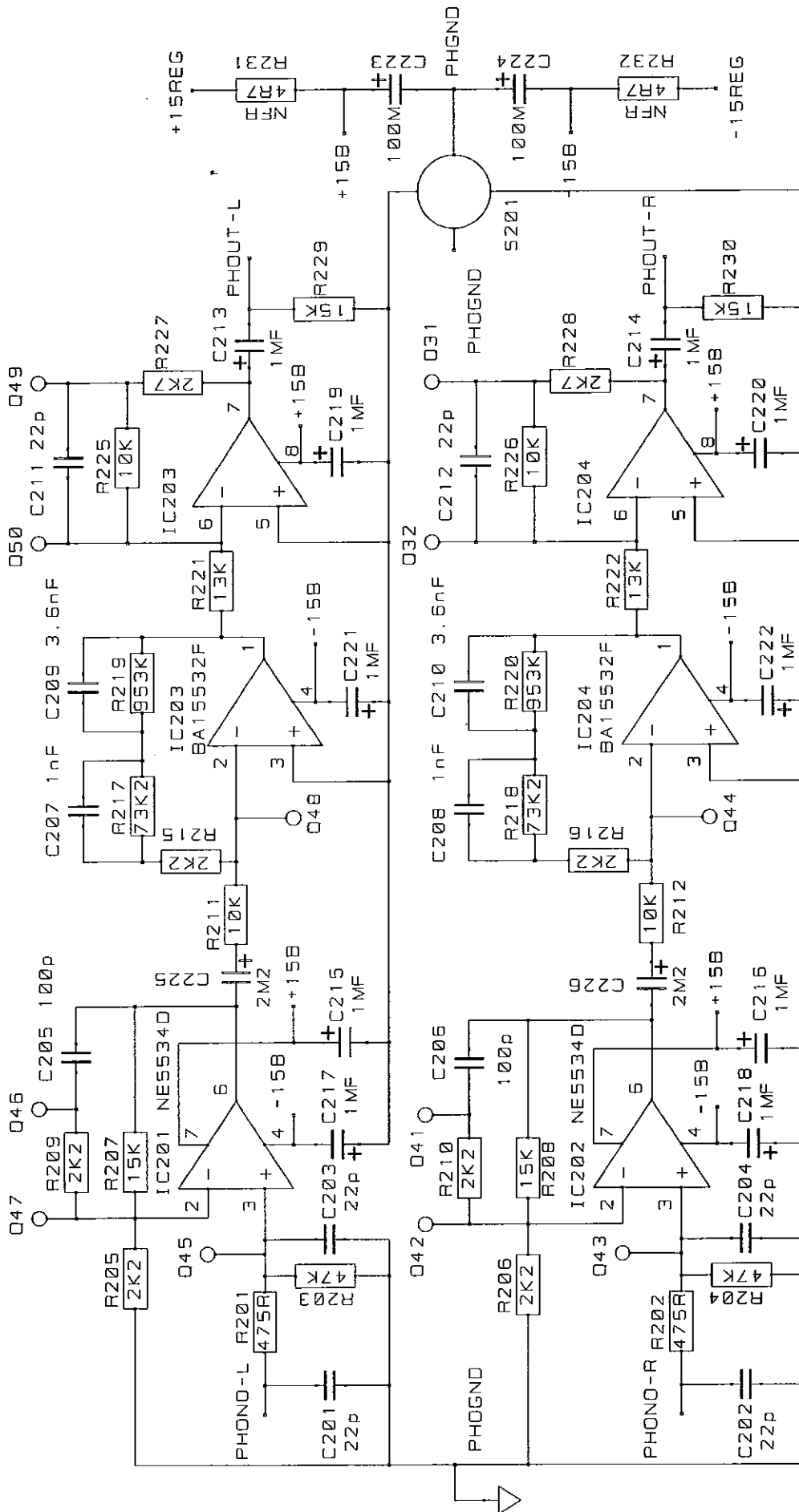


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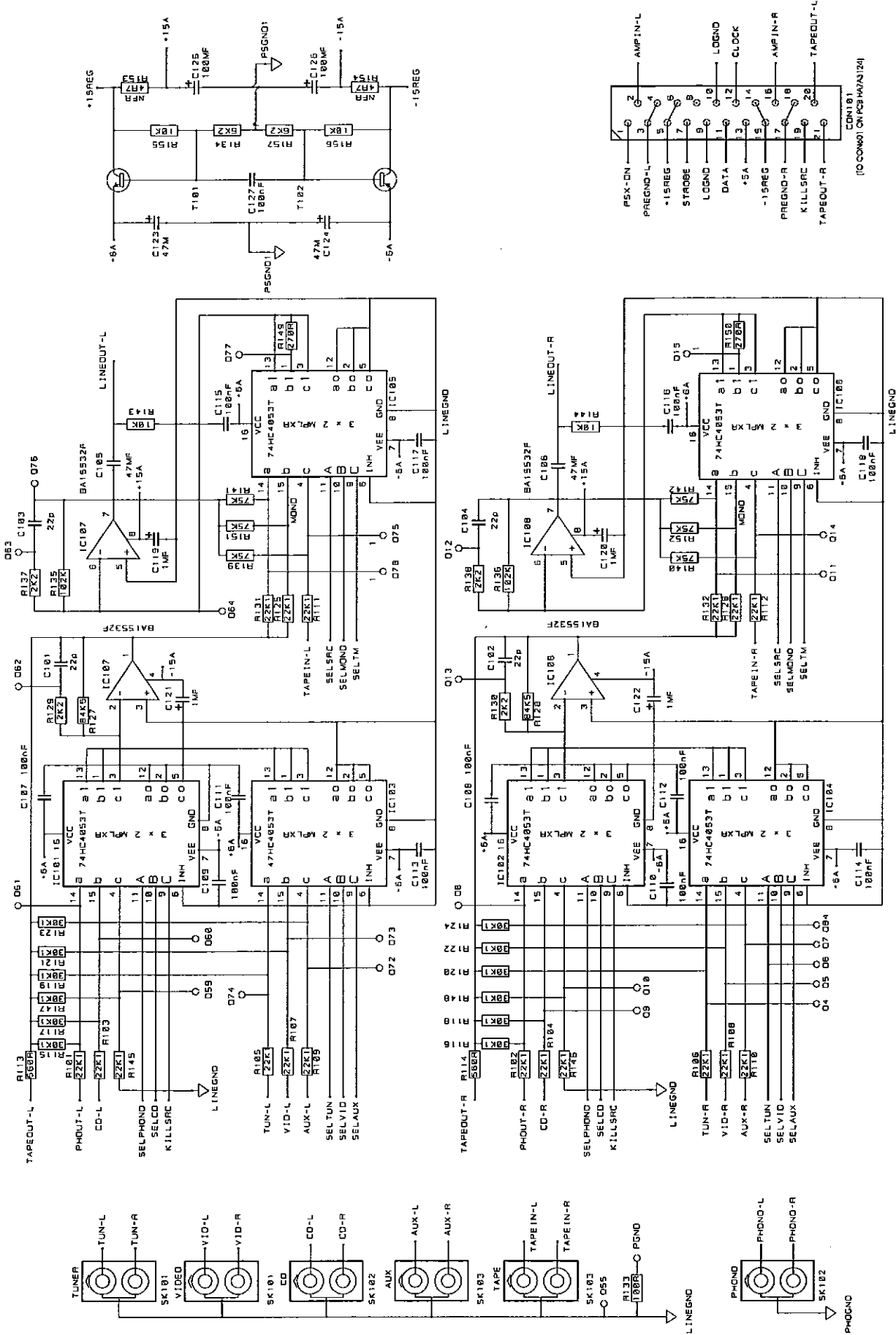
(© CON101 ON PCB HA7A1123)

(© CON101 ON PCB HA7A1123)

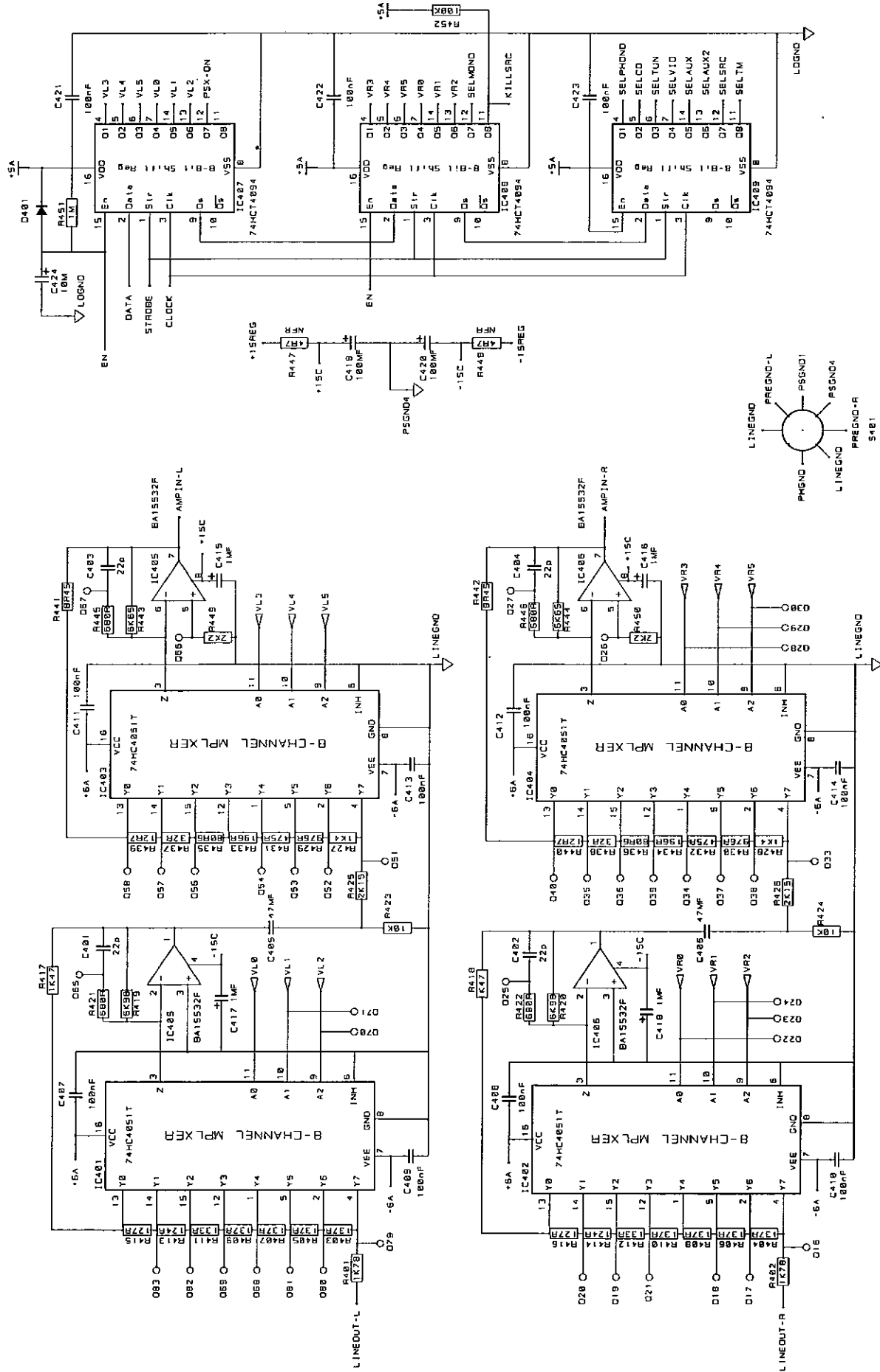
# HA7A1125- PHONO EQ AMP SCHEMATIC



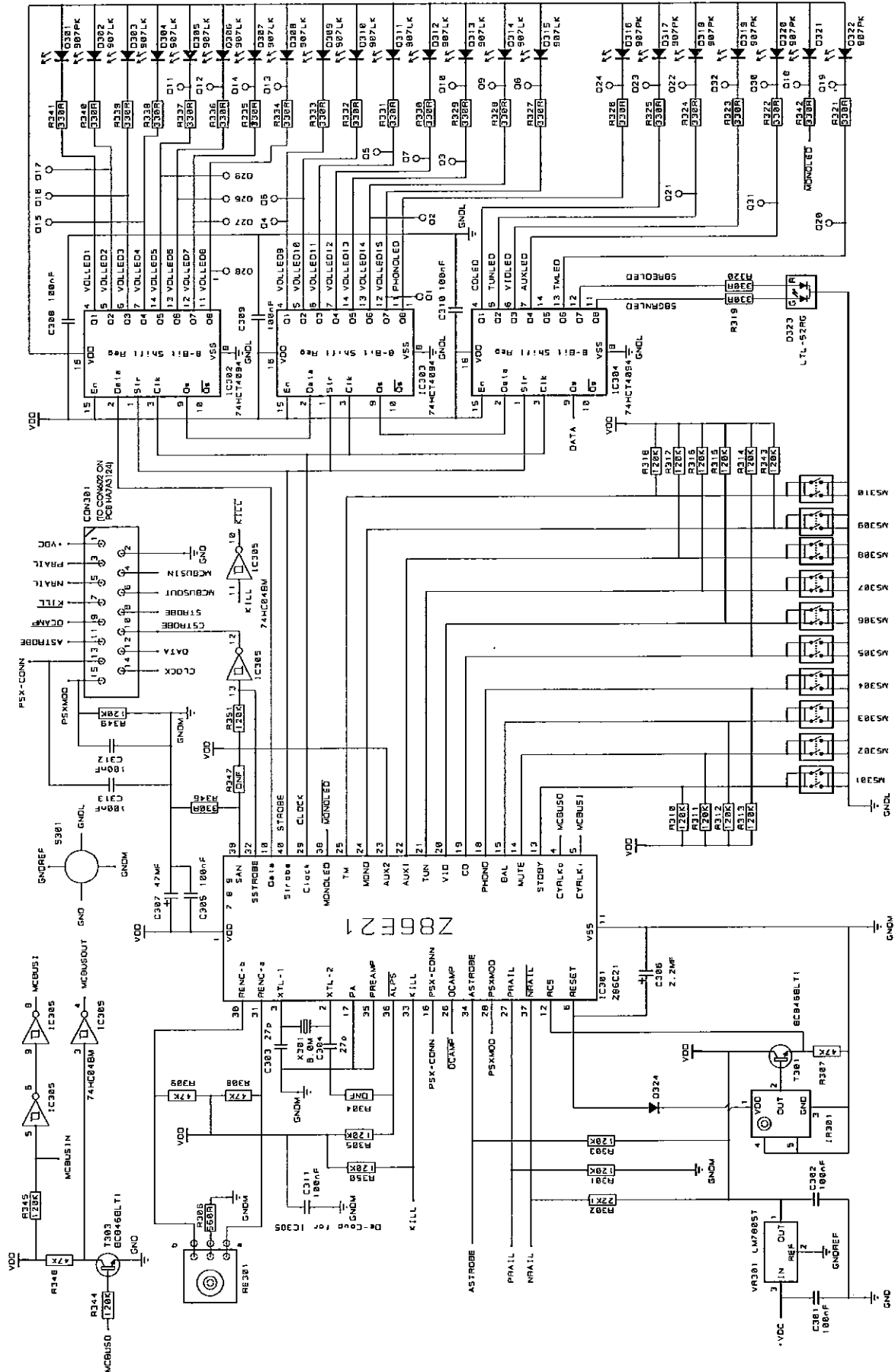
# HA7A1125- INPUT SELECTOR SCHEMATIC



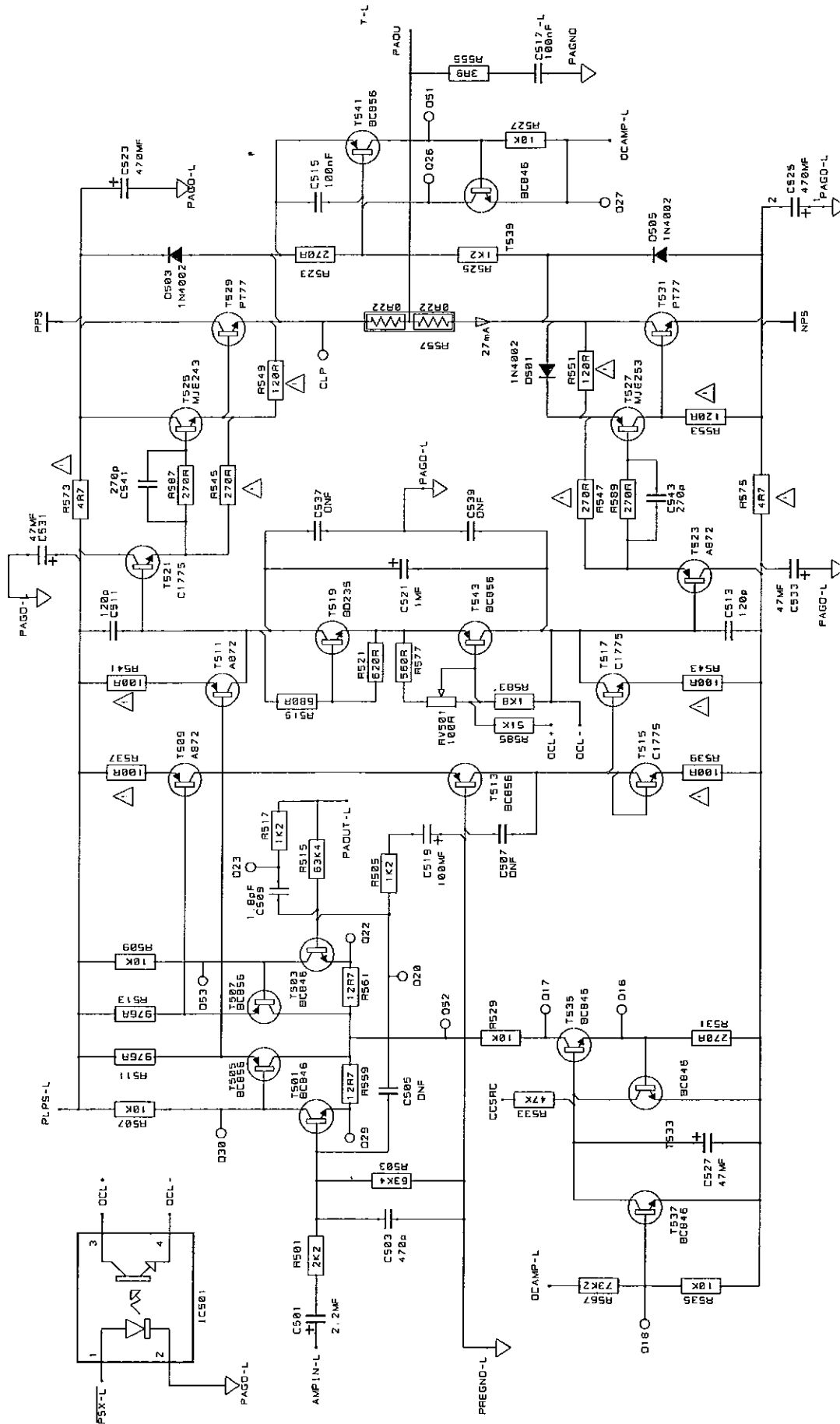
# HA7A1125- VOLUME CONTROL SCHEMATIC



# HA7A2124- CONTROL BOARD SCHEMATIC

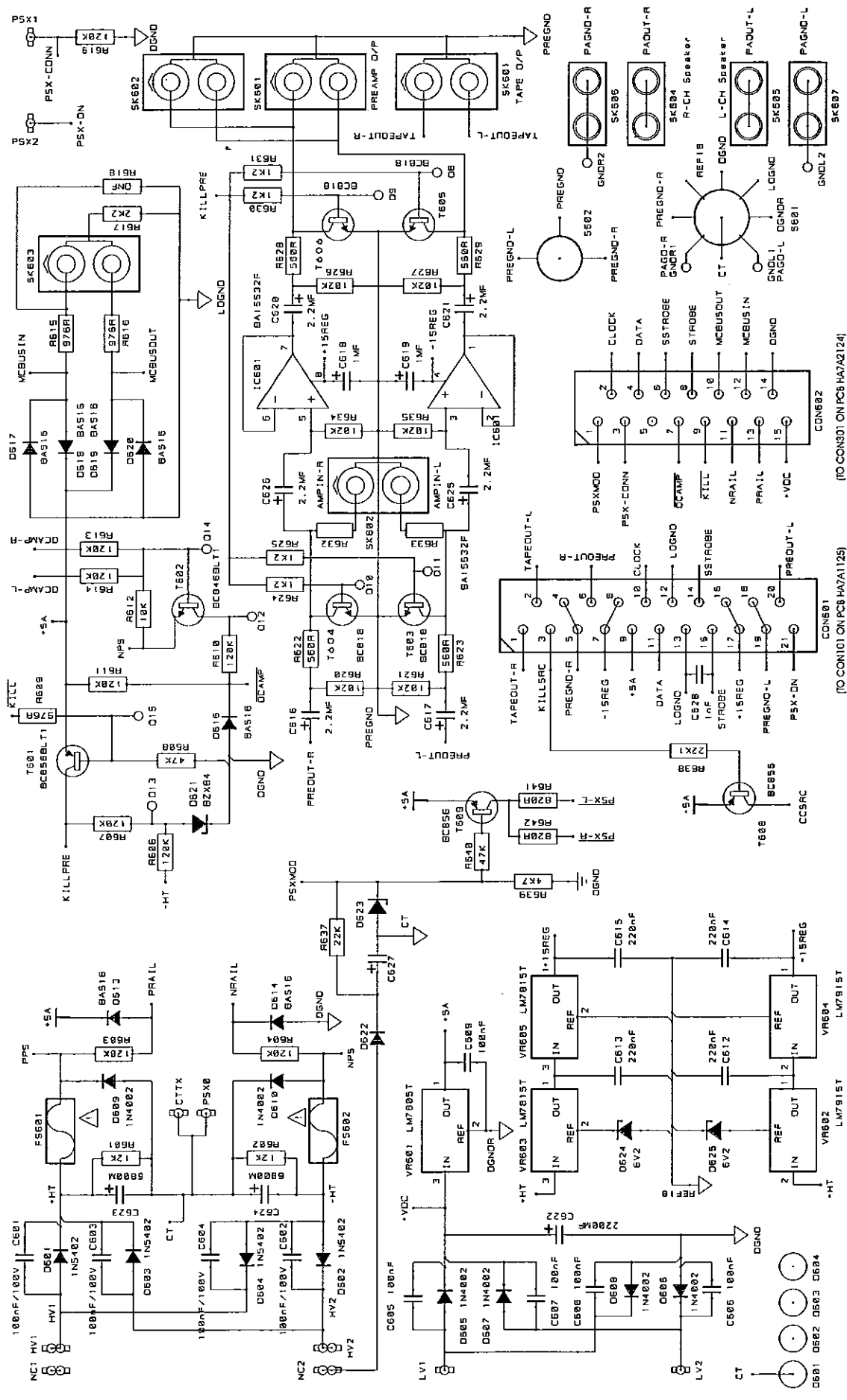


# HA7A3124- LEFT CHANNEL POWER AMPLIFIER





# HA7A3124- POWER SUPPLY, PROTECTION, PREAMP OUT SCHEMATIC

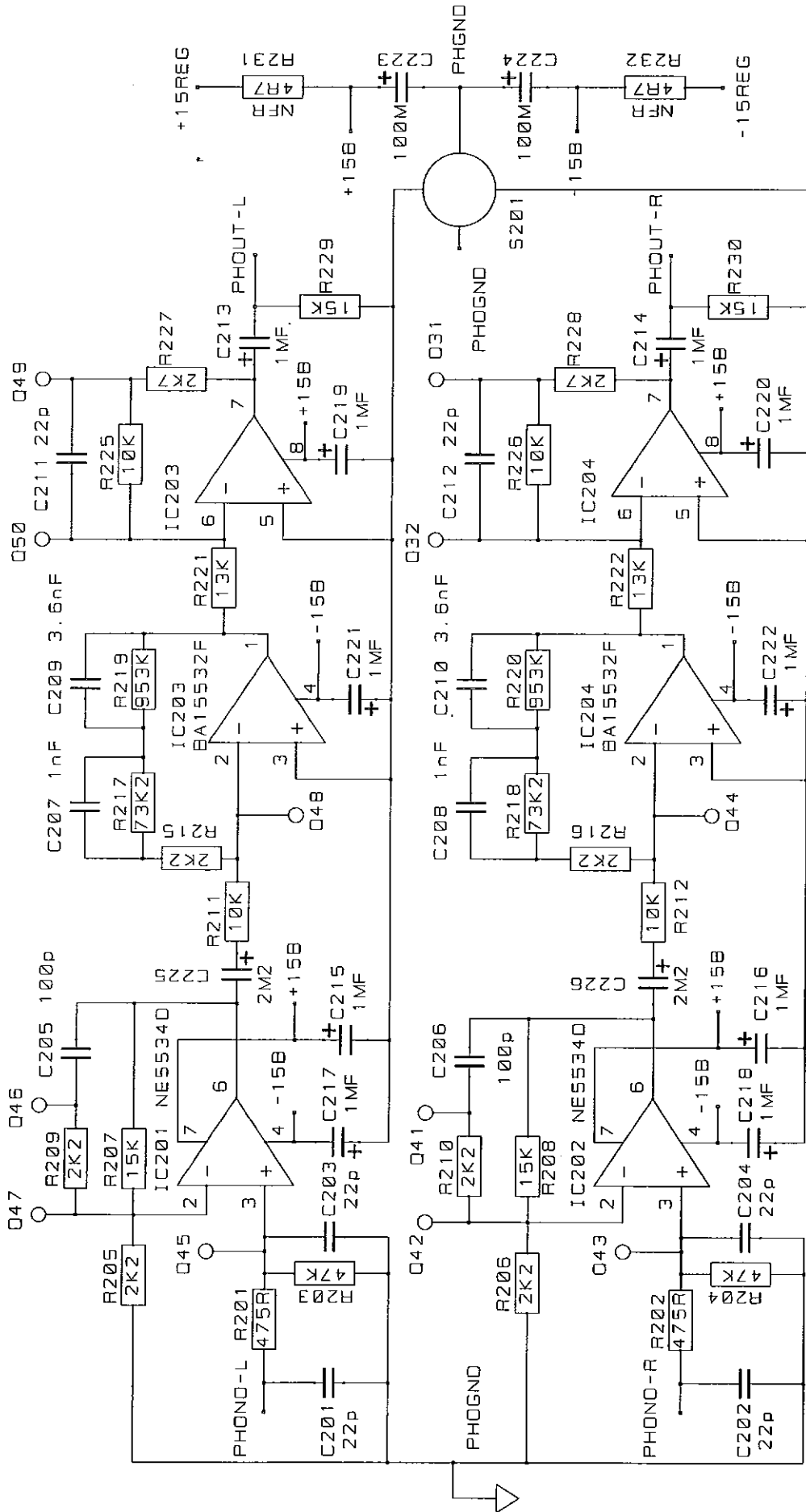


(TO CON30) ON PCB HA7A2124)

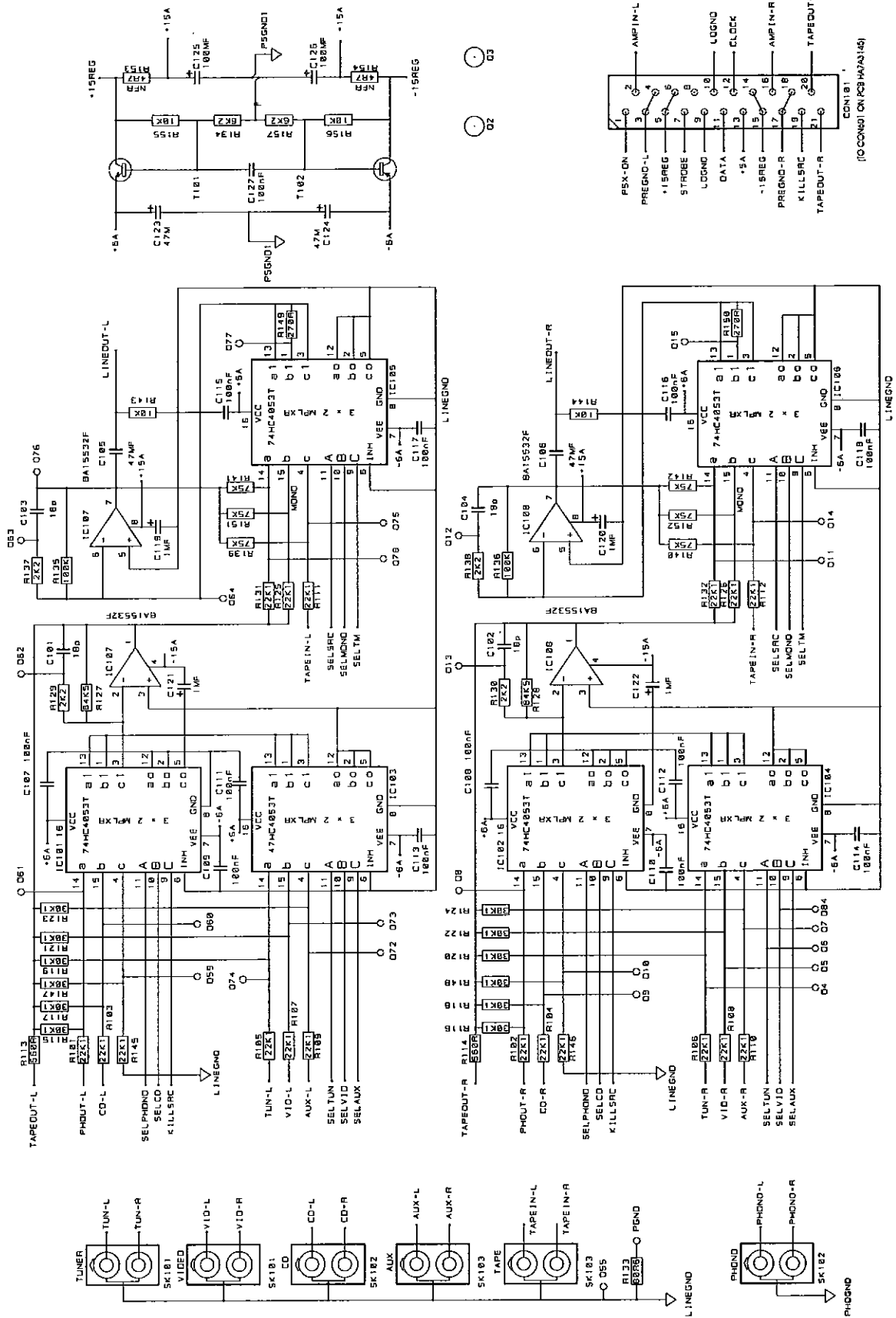
(TO CON10) ON PCB HA7A1125)



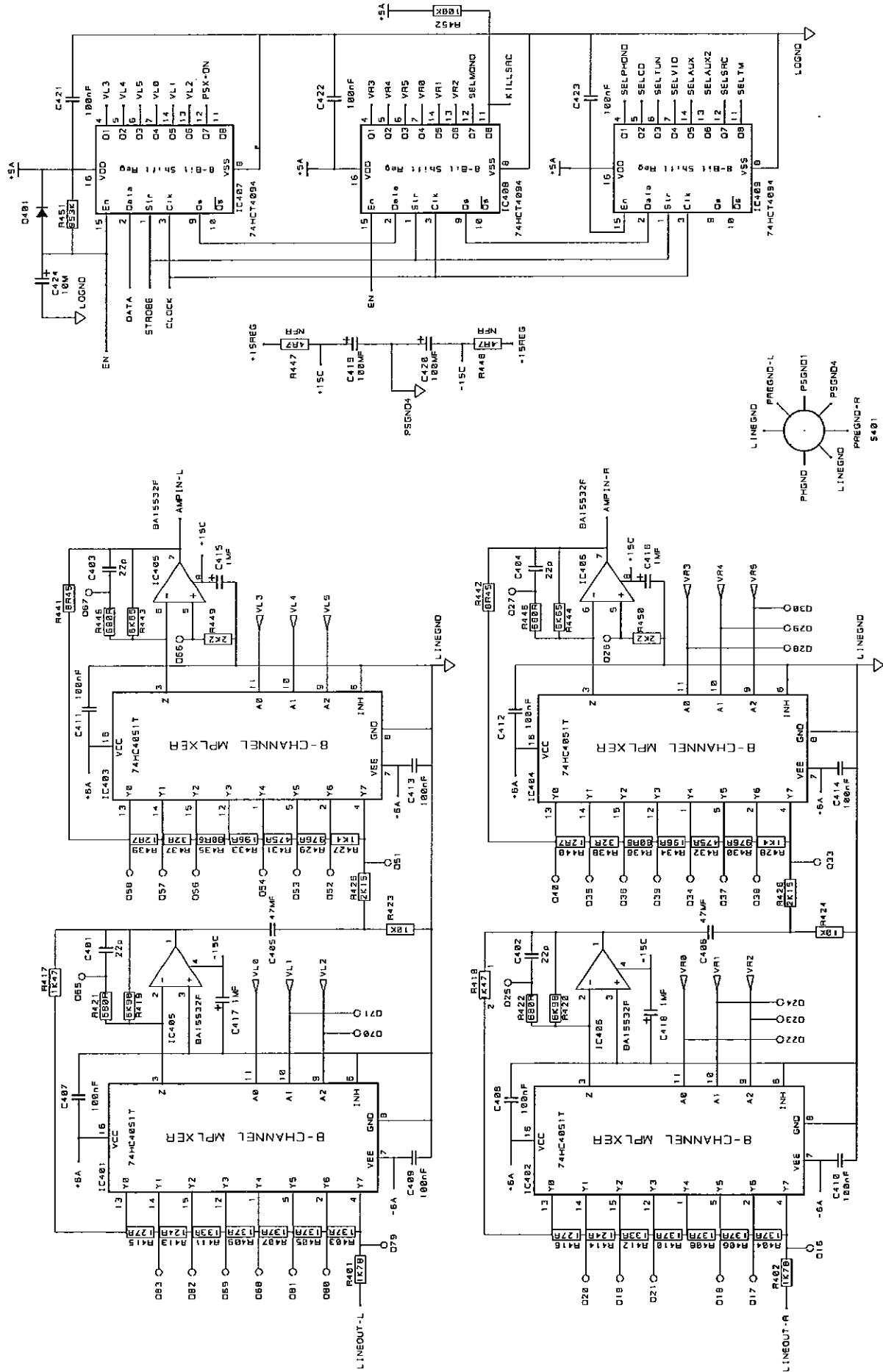
# HA7A1145- PHONO EQ AMP SCHEMATIC



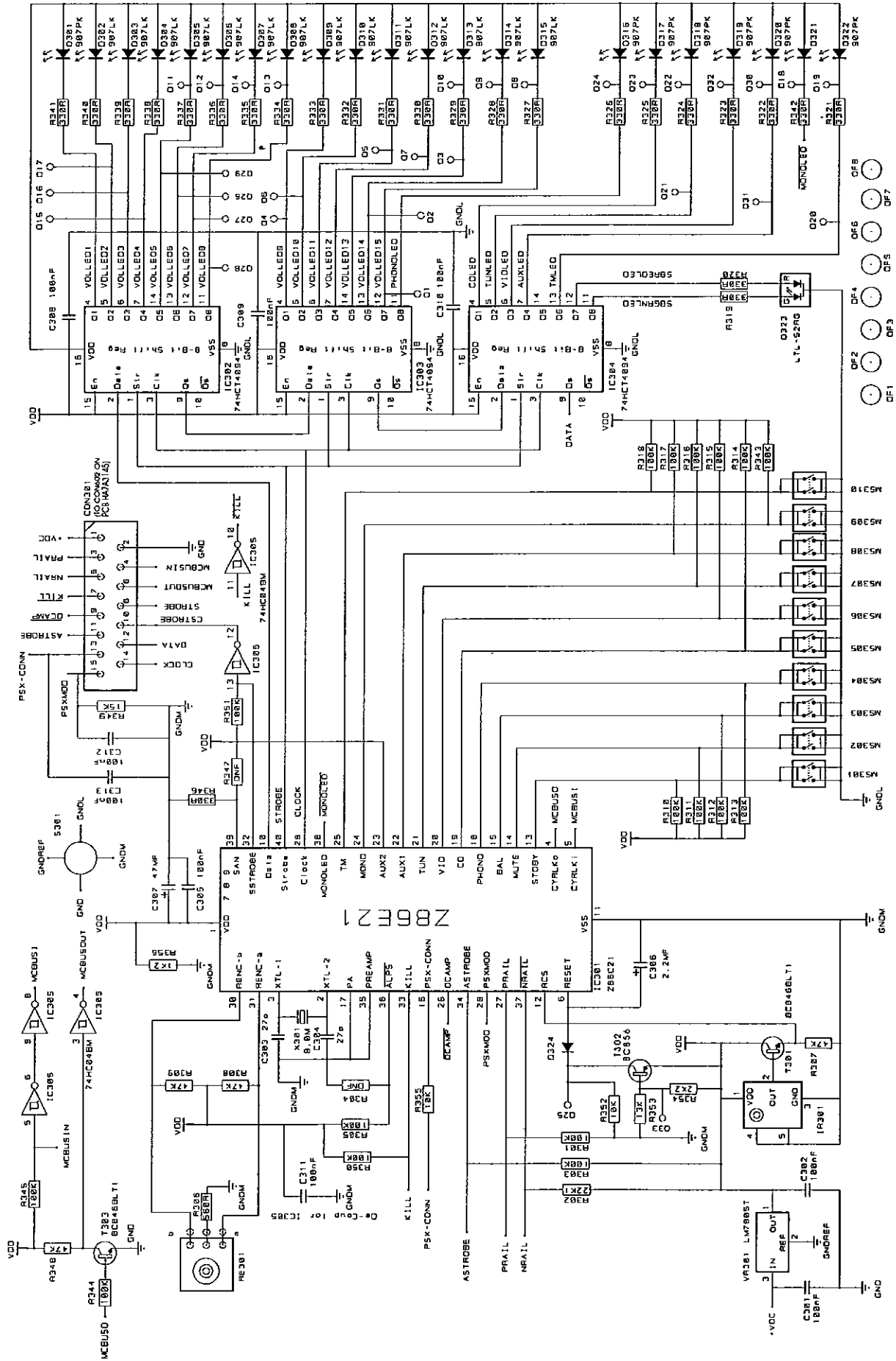
# HA7A1145- INPUT SELECTOR SCHEMATIC



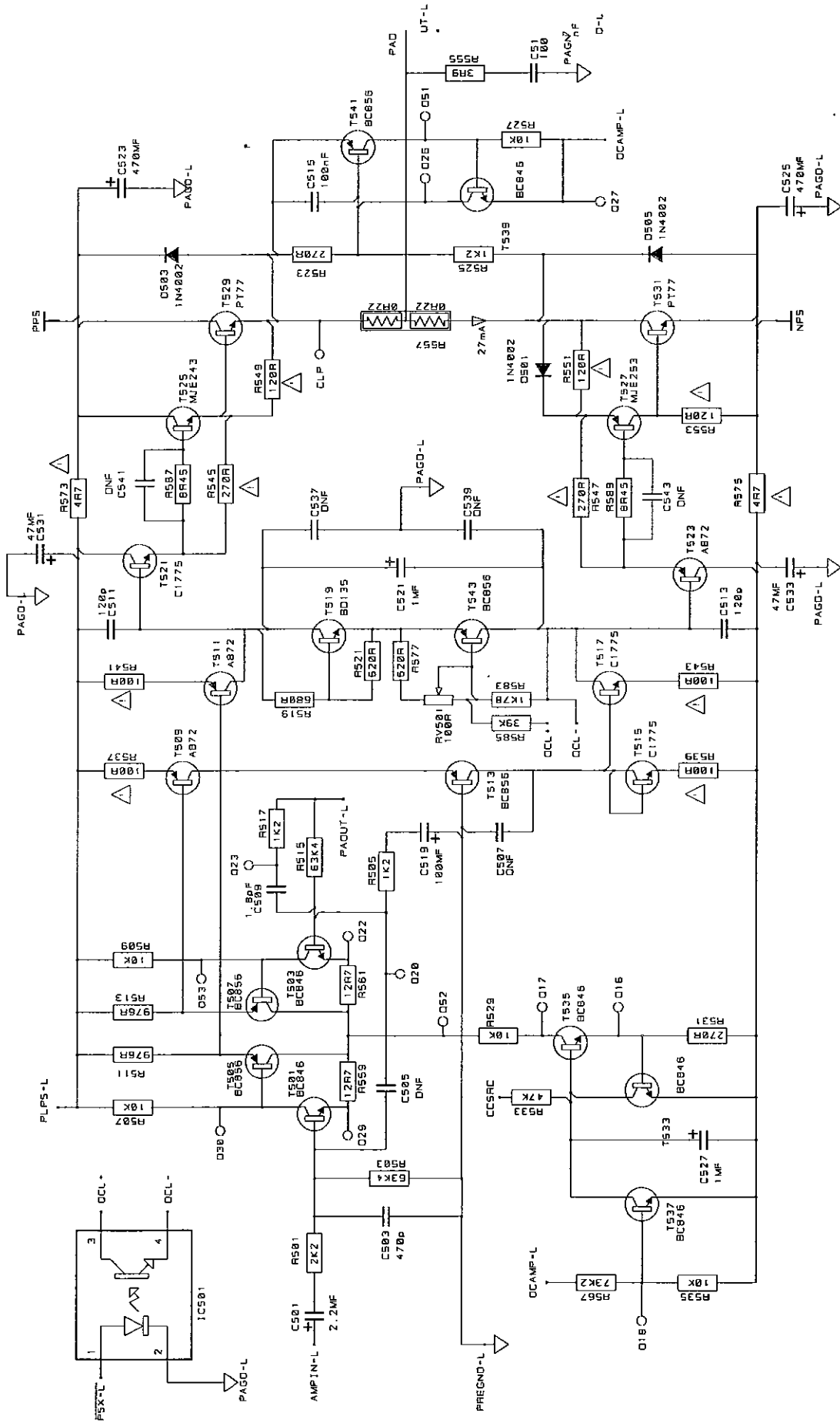
# HA7A1145- VOLUME CONTROL SCHEMATIC



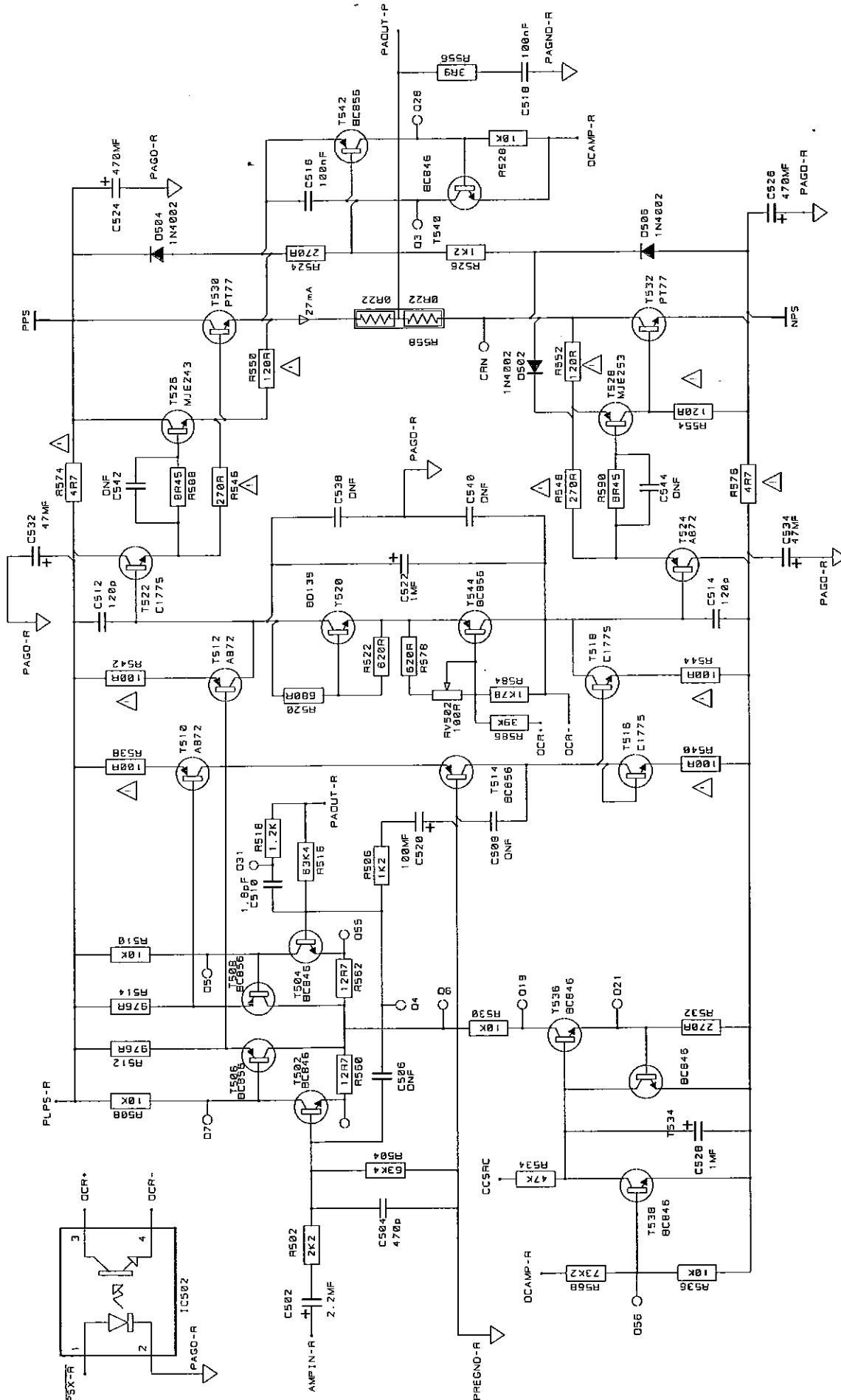
# HA7A2145- CONTROL BOARD SCHEMATIC



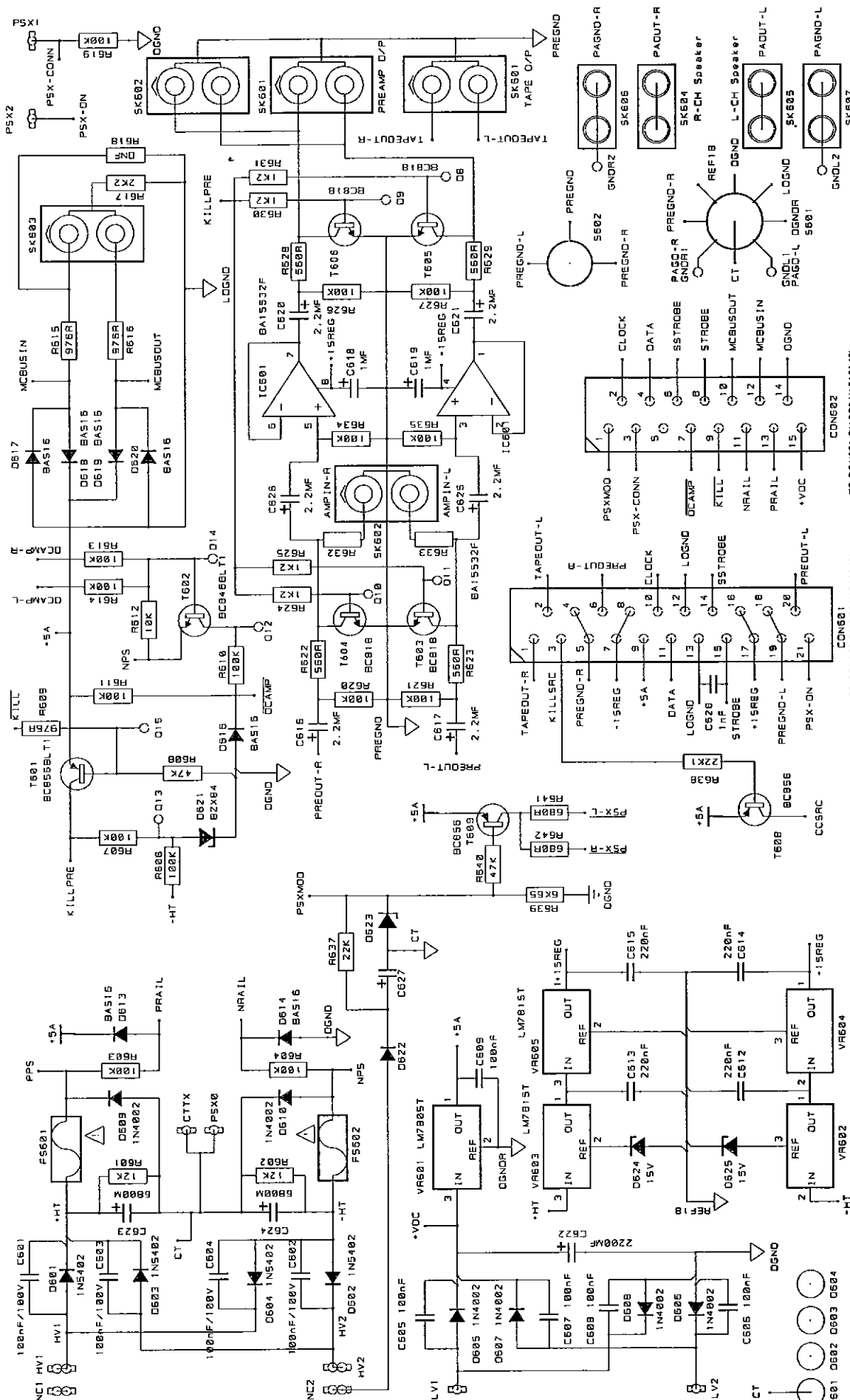
# HA7A3145- LEFT POWER AMP SCHEMATIC



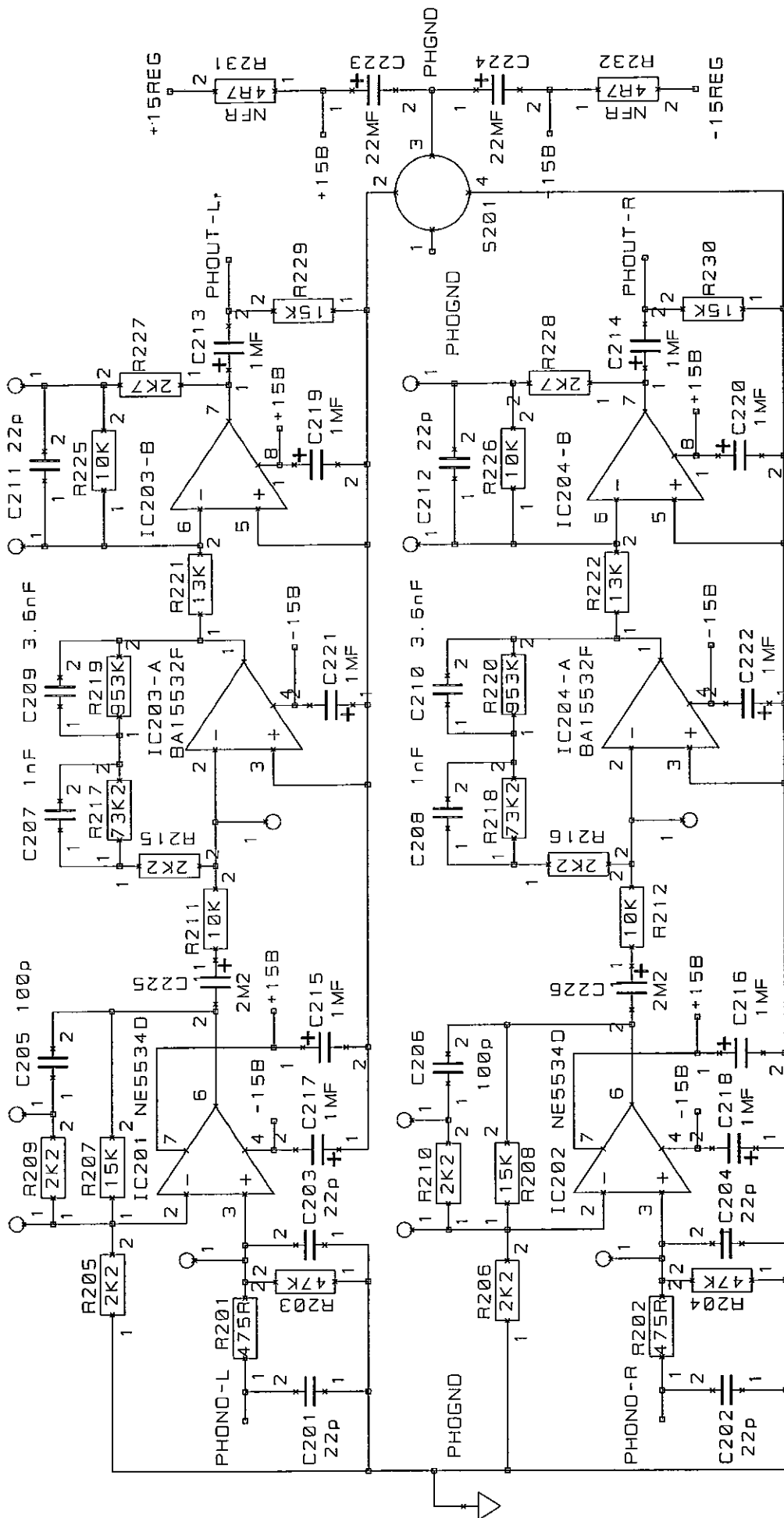
# HA7A3145- RIGHT POWER AMP SCHEMATIC



# HA7A3145- POWER SUPPLY, PROTECTION, PREAMP OUT SCHEMATIC

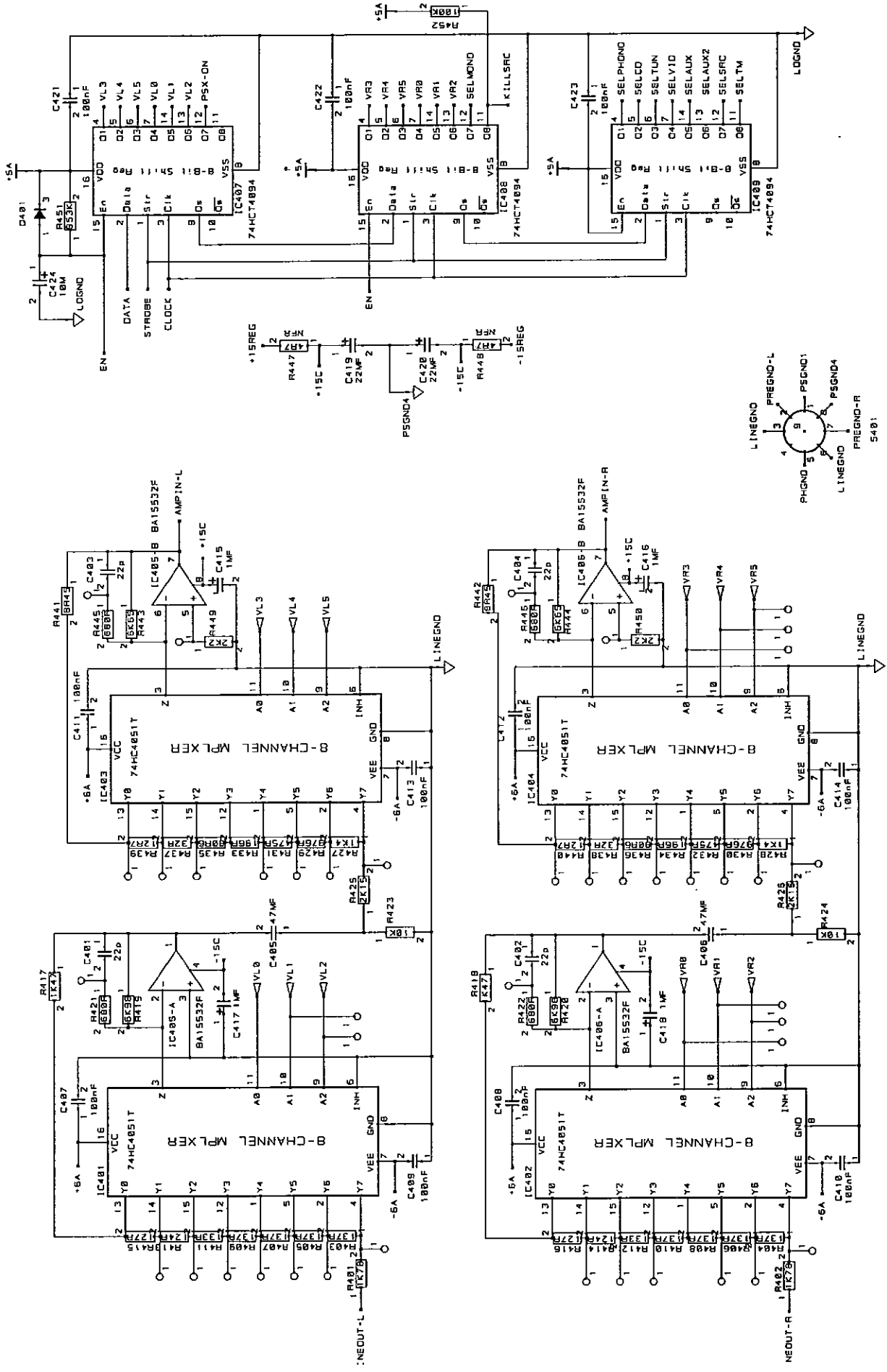


# HA7A1157 PHONO EQ AMPLIFIER SCHEMATIC

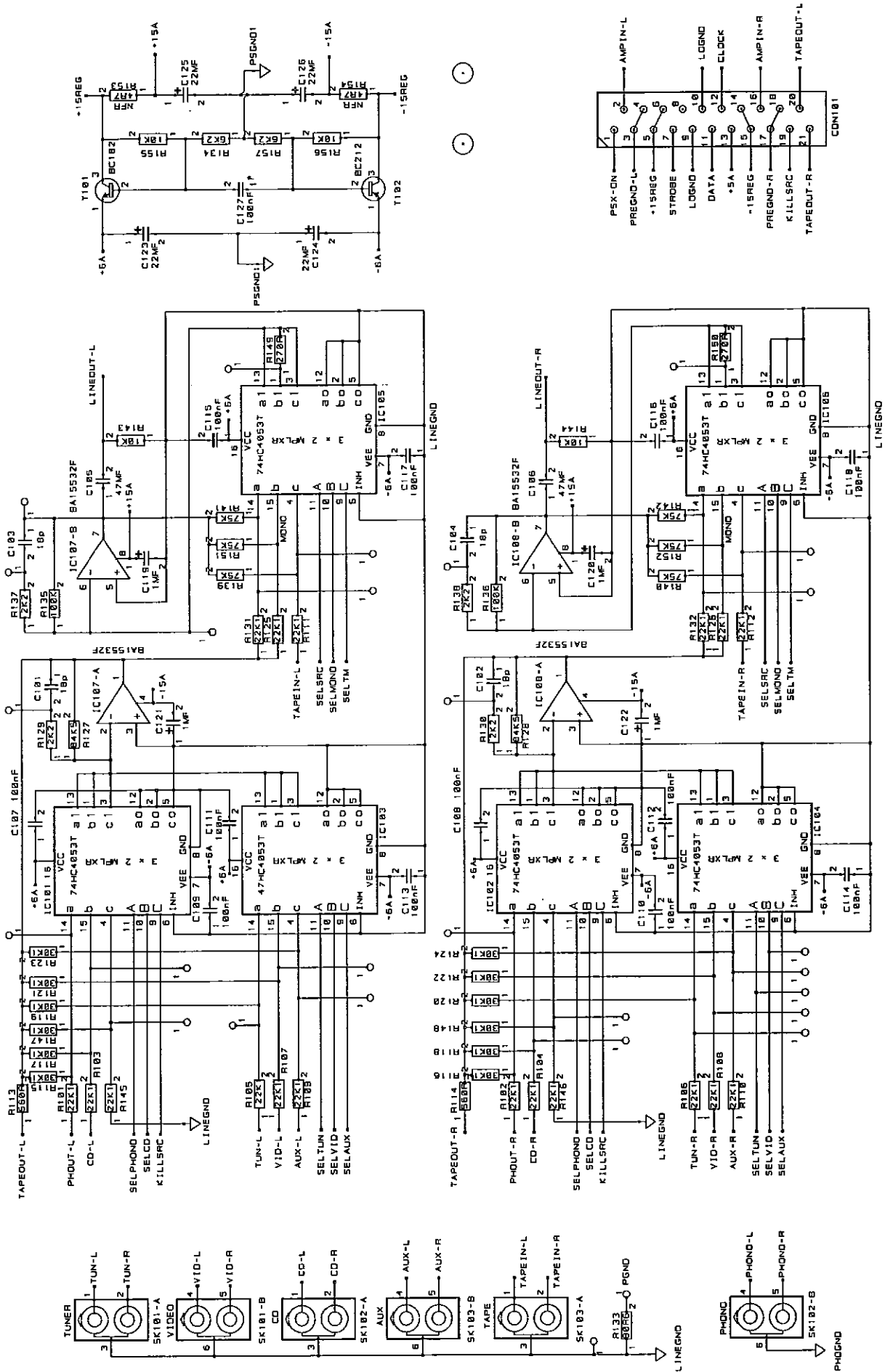




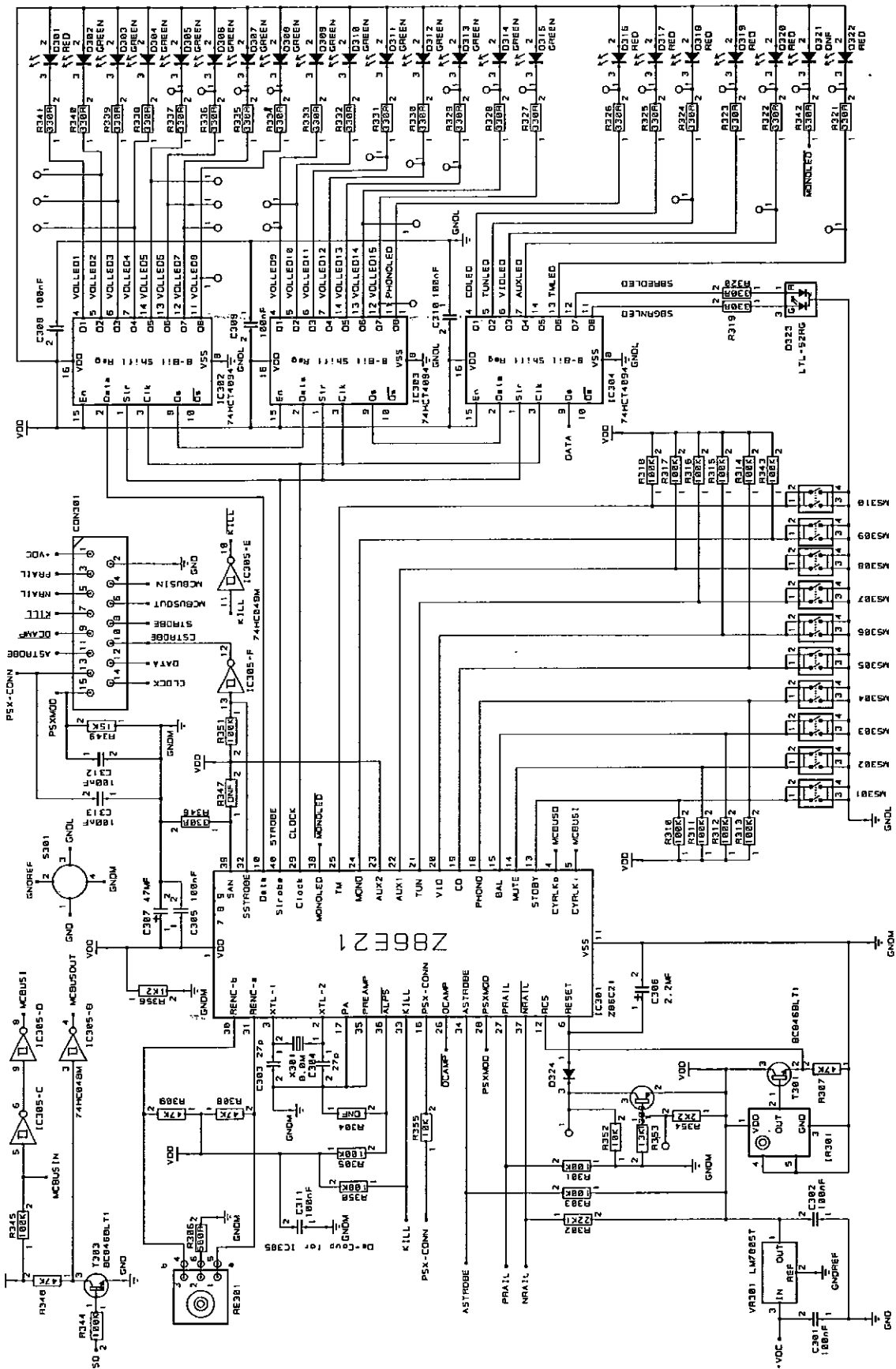
# HA7A1157 INPUT SELECTOR SCHEMATIC



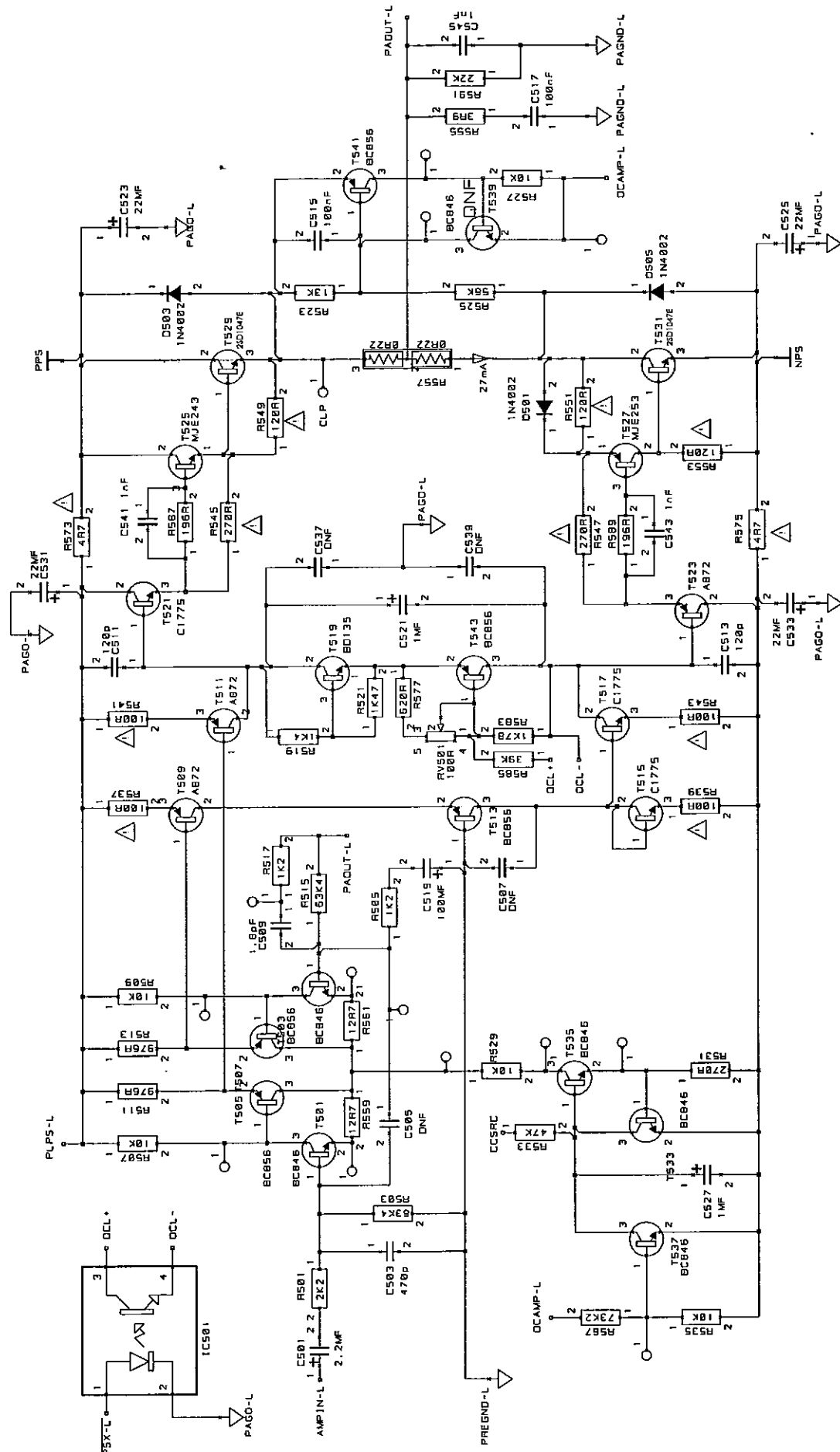
# HA7A1157 VOLUME CONTROL SCHEMATIC



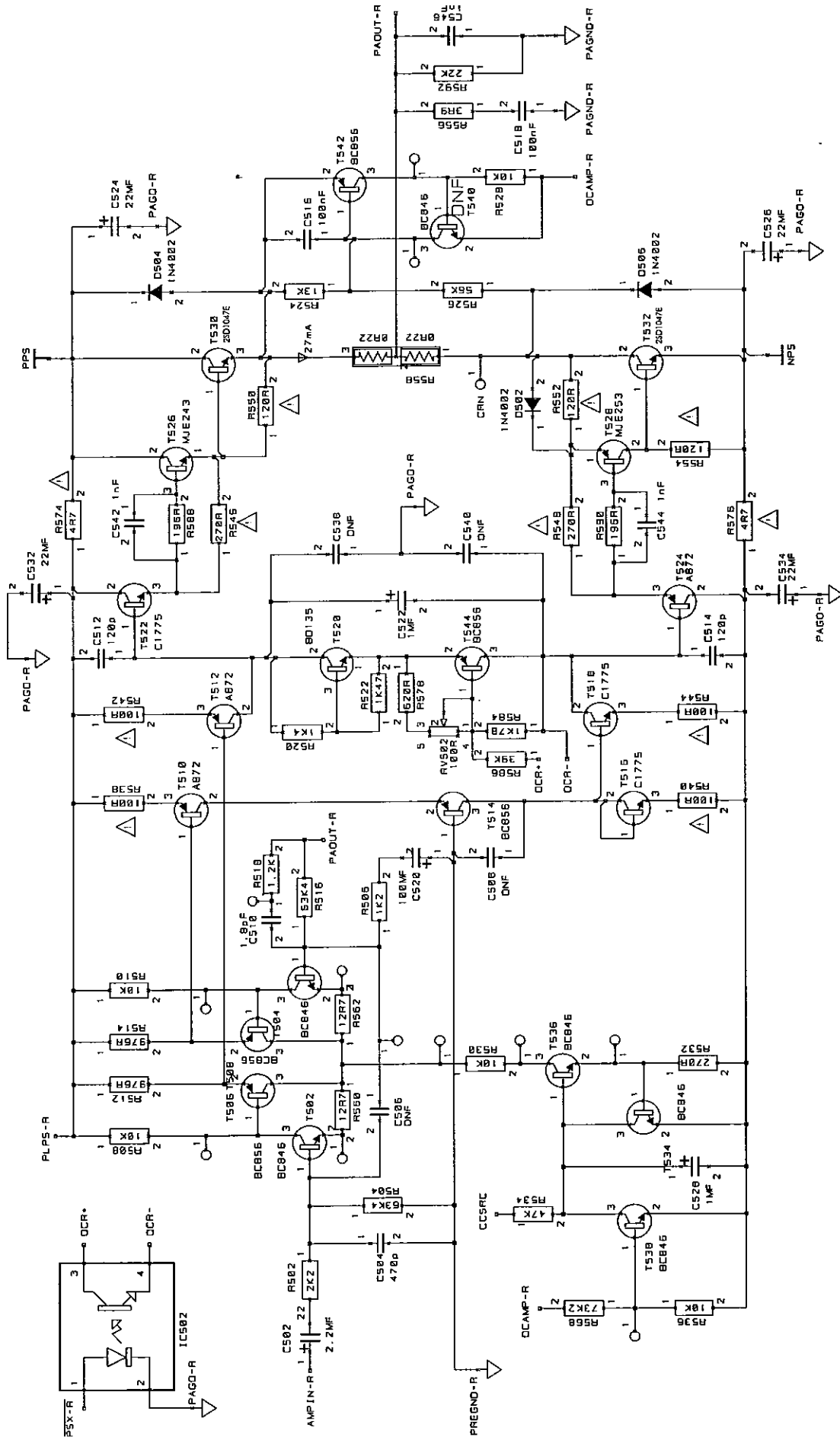
# HA7A2157 CONTROL BOARD SCHEMATIC



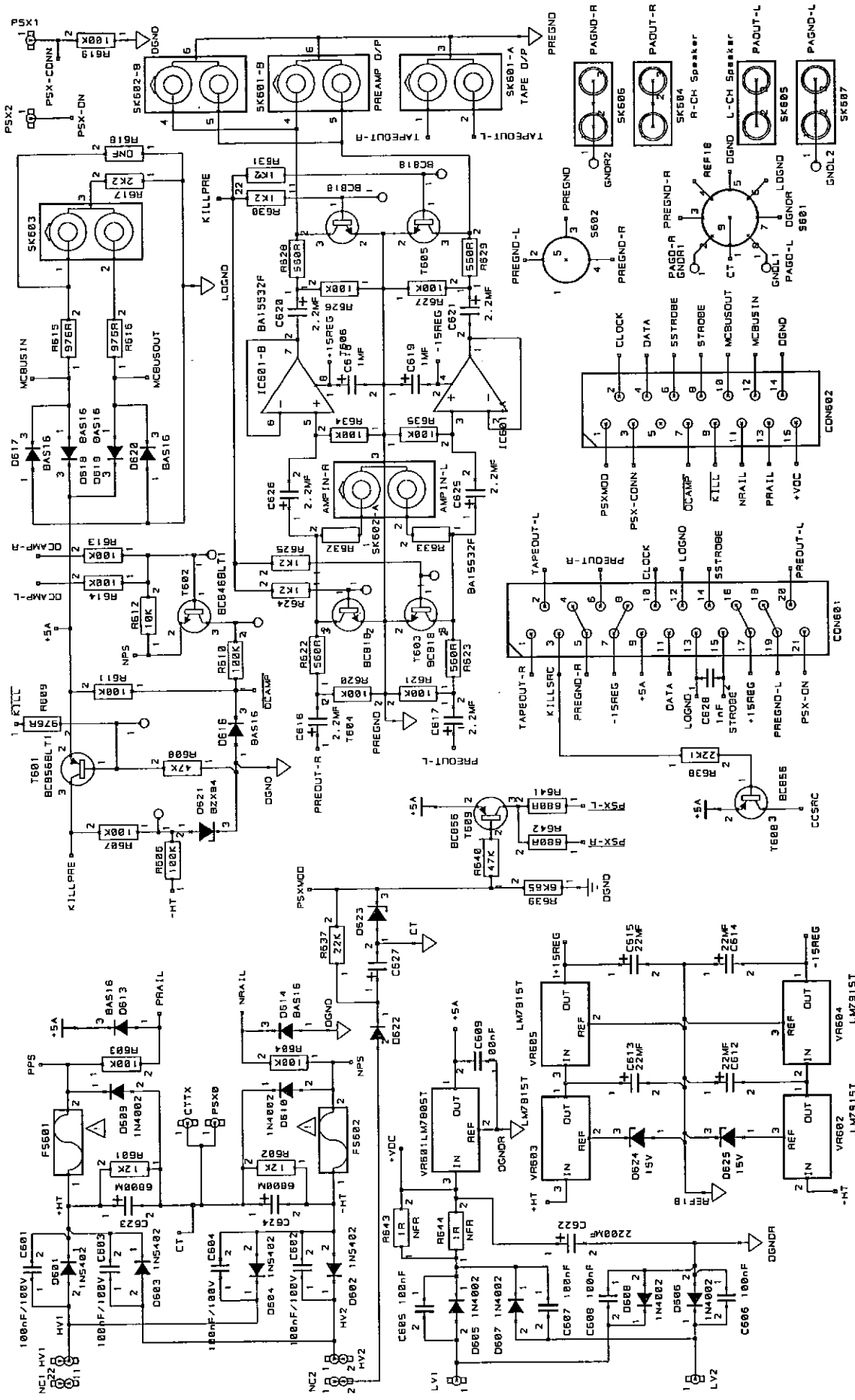
# HA7A3157 LEFT POWER AMPLIFIER SCHEMATIC



# HA7A3157 RIGHT POWER AMPLIFIER SCHEMATIC

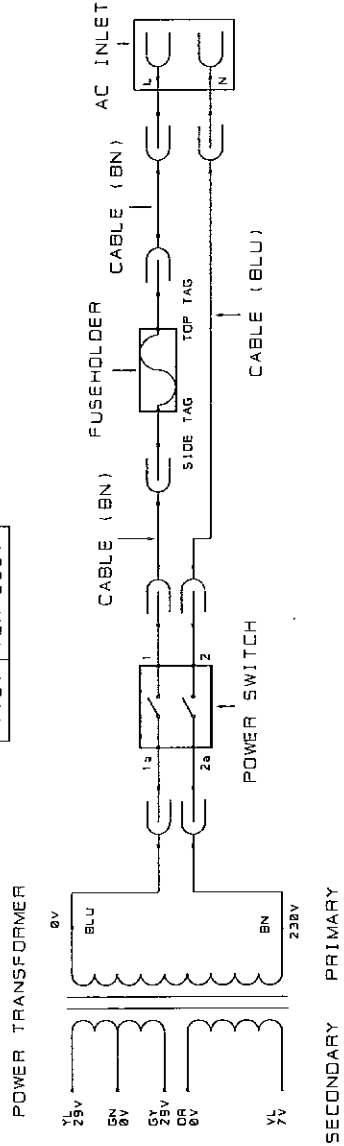


# HA7A3157 POWER SUPPLY, PROTECTION, PREAMP OUT SCHEMATIC



# CHASSIS PRIMARY WIRING SCHEMATIC

FUSE RATING	
230V	T1A 250V
115V	T2A 250V



SECONDARY PRIMARY