AUDIOACCESS

PX-600

MULTI-ROOM PREAM/CONTROLLER

PRELIMINARY SERVICE MANUAL



Harman Consumer Group 250 Crossways Park Dr. Woodbury, New York 11797

Six Zone, Multi-Room, Multi-Source Audio System

Flagship of the Audioaccess product line, the PX-600 Multi-Room Preamp/Controller forms the heart of a powerful multiroom audio system. Together with our time proven wall-mounted keypads and conventional audio source equipment, the PX-600 allows you to access and control five different music sources in six different areas simultaneously. The PX-600 combines a learning IR based source controller with six independent stereo preamps to form a six zone system in one compact package. Multiple PX-600s are easily interconnected to form systems as large as 36 independent zones and the PX-600 can be readily interfaced to both complex home automation and home theater systems.

You can turn zones on or off, select sources, control their basic functions, and change volume independently in each zone, by just the touch of a single button on the KPS keypad. And unlike rotary volume controls, our low profile keypad blends seamlessly with any decor. The PX-600 can also be operated from its own optional handheld IR remote control from any zone. Of course, the main zone can always be operated from the PX-600's front panel. Learning to operate the system is simplicity itself. Keypads, remotes, and even the front panel have identical controls and operate in exactly the same way.

Customized System Operation

The PX-600 is configured at the time of installation via a detachable handheld programmer that is available only to authorized dealers, preventing casual tampering with the comprehensive system programming. Programmable features include: turn-on volume, maximum volume, lockout, bass and treble settings for each zone, group setup, paging setup, and specific IR protocols for tuners, CD players, high-capacity CD changers, tape players and VCRs, as well as special macro commands tailored for control of popular surround processors.

Optional modules provide door chime and paging capability and an RS-232 interface for integrating the PX-600 with computer-based home automation systems.

The PX-600 is complemented both functionally and aesthetically by a Multi-Room Expander and a Multi-Room Amplifier. This combination forms a solution for all of your multi-room needs.

Features

- Simple, intuitive operation
- Easy installation and programming
- External keypad termination board for easy hookup in advance
- Each zone has independent access to each of five audio inputs plus a paging input
- Infrared receiver built into each keypad
- Main zone rear panel IR input, compatible with standard IR repeaters
- Four-conductor wiring to keypads (two twisted pairs: telephone or data cable)
- External fuse protects keypad (mis) wiring
- Main zone operable via front panel in addition to keypad
- · Keypads control basic functions of audio sources via learned infrared commands
- External plug-in programmer (required for setup)
- Each zone assignable to one of three ALL ON groups (or none)
- Zone setup and infrared commands are stored in non-volatile memory
- Compatible with the Audioaccess six-zone, stereo, multi-room amplifier
- · Compatible with the Audioaccess multi-room expander
- Expandable to 36 zones
- Paging and doorbell features available with optional Page/Doorbell Module
- RS-232 Interface Module available
- Compatible with other popular home automation and control systems
- Special grounding, filtering and intelligent circuit design for superior protection
- IR outputs compatible with industry standard systems
- Trigger outputs designed to drive relays for each zone
- System trigger output active whenever any zone is on
- IR loopthru output

Specifications PX-600 Multi-Room Controller

Audio Section

Inputs:

- Five stereo source inputs, 1 mono page input, each with loopthru capability
- Input impedance: 10k ohms
- Maximum input voltage: 3.5 Vrms

Outputs:

- Six stereo preamp outputs with independent volume, bass and treble
- Six stereo zone outputs (fix level post input selector)
- Tape output from the main zone (zone 6)

Source Equipment Control and Interface

Inputs:

- Trigger input to facilitate sharing source equipment (controls switched outlet and "stop" commands)
- Keypad interface connector
- DC voltage input for zone trigger outputs
- Hardwired IR input to control main zone from industry standard IR receivers

Outputs:

- Trigger output from each zone to control external relays
- One system trigger output to control external relay (active when system is on)
- Six infrared emitter jacks, one for each audio source (5) plus ALL
- IR loopthru output
- Switched AC outlet (North American model only)

Controls:

- Front panel controls zone 6 (controls: power, source selectors, volume, mute, and All Off)
- Independent source selection: Tuner, CD, Tape, Aux, Video, etc.
- Control of basic source functions (i.e. play, skip track, skip disc, skip preset, fast forward, etc.)
- Independent volume control per zone
- Independent On/Off per zone
- Programmable All On features

Specifications	Preamp Outputs	Zone Outputs
Frequency Response	10-84kHz, +0, -1 dB	10-95kHz, +0, -1 dB
S/N (ref: 1kHz, 1 Vrms, Filter at 22kHz, Volume at unity gain	> 99 dBV	> dBV
THD+Noise (@ 1kHz, Filter at 80kHz, Volume set at unity gain	<0.008% (500mV input signal)	<0.004% (1Vinput signal)
Maximum Output Level	3.5 Vrms	3.5 Vrms
Output Impedance	470 ohms 470 ohms	
Left/Right Crosstalk (@1kHz, each input)	<-85 dB	<-85 dB
Input to Input Crosstalk (@ 1kHz, any two inputs	<-100 dB	<-100 dB
Zone to Zone Crosstalk (@ 1kHz, any two zones	<-100 dB	<-100 dB
Maximum Gain	20 dB	Unity
Volume Control	80 dB in 2 dB steps	N/A
Bass (Shelving type, 100 Hz)	+15, -12 dB (3 dB steps)	N/A
Treble (Shelving type, 10kHz)	+12, -12 dB (3 dB steps)	N/A
Signal Connector Type	RCA with short hot pin (makes shield connection first)	

Power Requirements:

• 115 volts AC, 50Hz, 40 watts (not including equipment connected to switched outlet)

Dimensions/Weight:

- 17-3/8" W x 4" H x 15" D (442mm x 102mm x 381mm) (with connectors & feet)
- 12.2 lb (5.5 kg)



PX-600 Product Description

The PX-600 is a multi-room pre-amp/controller for six zones. It includes five audio inputs, six stereo pre-amps and an infrared (IR) interface for controlling audio and video sources. Up to six PX-600s may be connected together for a total of 36 independent zones. Each zone may be controlled from a simple, eight-button, wall-mounted keypad or with an Audioaccess hand-held IR remote control through the IR receiver in each keypad. The main zone may be controlled from the front panel as well as the keypad or IR remote. You may access independent on/off, volume control, source selection and source control in each zone.

The PX-600 IR outputs, used to control source equipment, are fully compatible with industry standard IR systems. These outputs may be combined with the outputs of most IR repeaters. An IR repeater may be connected directly into the back panel of the PX-600 for control of the main zone as an alternative to the front panel IR input.

The optional Page/Doorbell Module (PDM) provides paging and door chime capability through any or all zones of the PX-600. Another optional module, the Multi-room Computer Interface (MCI), allows control of the PX-600 from computer-based home automation systems.

Zone setup and IR source control programming is done by the installer with a detachable PX-600 Programmer. The PX-600 Programmer plugs into the left end of the front panel on the PX-600.

General Features

- Simple, intuitive operation, installation and programming
- External keypad termination board for easy advance hookup/troubleshooting
- Independent access to each of five audio inputs and paging input in each zone
- Independent volume control and programmable EQ in each zone
- Infrared receiver built into each keypad
- Four-conductor wiring to keypads (unshielded telephone or data cable, or shielded twisted pairs)
- External fuse for protection from shorted keypad wiring
- Main zone operable from front panel, keypad or IR remote
- Keypads control basic functions of audio sources via learned infrared commands
- External plug-in programmer (required for set-up)
- Zone setup and IR commands stored in non-volatile memory
- Each zone assignable to one of three ALL ON groups (or none)
- Compatible with the Audioaccess PX-612 six-zone, stereo, multi-room amplifier
- Compatible with the Audioaccess PX-603, stereo, multi-room zone expander
- Paging and doorbell features available with optional Page/Doorbell Module
- RS-232 interface with optional MCI for use with home automation systems
- Special grounding, filtering and intelligent circuit design for superior protection
- Zone trigger outputs drive relays independently for each zone
- System trigger output active when any zone is on
- Main zone rear panel IR input, compatible with standard IR repeaters
- IR outputs to source equipment compatible with industry standard systems
- IR loop-thru output



PX-600 SERVICE DOCUMENTATION

<u>Inputs</u>

- Five stereo audio inputs, and a mono paging input
- Paging trigger for the Page/Doorbell Module
- System trigger input allows sharing of audio sources with other systems
- Voltage input for operation of zone triggers
- Four-conductor keypad input
- Rear panel IR input
- AC power input

<u>Outputs</u>

- Loop-thru audio output for each audio input
- Six independent pre-amp outputs w/independent volume, bass and treble
- Six independent fixed level outputs monitor source selected in each zone, used with PX-603
- Record output from the Main Zone (Zone 6)
- System trigger output to control a relay
- Six zone trigger outputs to control relays for each zone
- Six discreet IR emitter jacks, one for each audio input, and one installer defined blaster or emitter
- Loop-thru IR output to control other equipment from an IR repeater
- Switched AC power outlet (200 Watt max)

Technical Specifications

Specification	Preamp Outputs	Zone Outputs	
Frequency Response	10 - 84k Hz, +0, -1 dB	10 - 95k Hz, +0, -1 dB	
S/N (ref.: 1k Hz, 1 Vrms, filter at 22k Hz, Volume at unity gain)	>99 dBV	>100 dBV	
THD + Noise @ 1k Hz, Filter at 80k Hz, Volume set at unity gain)	<0.008% (500m V input signal)	<0.004% (1 v input signal)	
Maximum Output Level	3.5 Vrms	3.5 Vrms	
Output Impedance	470Ω	470Ω	
Left/Right Crosstalk (@ 1k Hz, each input)	<-85 dB	<-85 dB	
Input to Input Crosstalk (@ 1k Hz, any two inputs)	<-100 dB	<-100 dB	
Zone to Zone Crosstalk (@ 1k Hz, any two zones)	<-100 dB	<-100 dB	
Maximum Gain	20 dB	Unity	
Volume Control	80 dB in 2 dB steps		
Bass (Shelving type, 100 Hz)	+15, -12 dB (3 dB steps)	N/A	
Treble (Shelving Type, 10k Hz)	+12, -12 dB (3 dB steps)	N/A	
Connector Type:	RCA with short hot pin (makes shield connection first)		
Power requirements:	115volts AC, 50Hz, 40 watts (not including equipment connected to switched		
Dimensions:	 outlet) 17 3/8" W x 4" H x 15 1/2" D (442 mm x 102 mm x 394 mm) Includes connectors, front panel knob and feet 		



FRONT PANEL



1. Power

The POWER button turns the Main Zone (Zone 6) on and off. Press-and-hold the POWER button to turn on all zones that are set to the same ALL ON group as the Main Zone.

2. Infrared Input Window

Behind this window is an infrared input eye for controlling the Main Zone with a handheld IR remote control.

3. Source Input Selection Buttons

The TUNER, CD, TAPE, AUX and VIDEO buttons select and control the audio sources for the Main Zone (Zone 6). There are three programmable commands (plus STOP) for each audio source and eight commands for the video source. There are also macros and special command sets for CD changers, etc.¹

4. Mute

Pressing the MUTE button mutes the audio in the Main Zone (Zone 6). Pressing the MUTE button again restores the audio. The red LED beside the button will light when mute is active. In the ALL ON mode, the MUTE button mutes the audio in all the zones in the same ALL ON group as the Main Zone.

5. All Off

Pressing the ALL OFF button turns off all zones in all PX-600s, regardless of the ALL ON zone grouping.

6. Volume Knob

The volume knob controls the volume level in the Main Zone. In the ALL ON mode, it controls the volume level of all the zones assigned to the same ALL ON group as the Main Zone. (For further information on Volume knob function and control, see the Learn IR section on Zone Six Macro.)

7. PX-600 Programmer Input

(26-pin dual row IDC connector)

A detachable PX-600 Programmer (sold separately) accesses zone setup and IR programming. It plugs into the **left side** of the front panel on the PX-600. Remove the plastic end cap to access the input connector (not labeled).

¹ All of these functions can be customized for your particular application.



REAR PANEL



1. Audio Inputs / Loop-Thru (RCA connectors)

The AUDIO INPUTS and PAGE INPUT have corresponding LOOP-THRU OUTPUTS for connecting sources to multiple PX-600s or to other systems which share the same sources (e.g. surround-sound processors or other receivers).

2. Zone 6 Tape Out (RCA connectors)

Connect this output to the input of the tape deck used for recording. The signal selected in the Main Zone (Zone 6) is routed to this output.

3. Preamp Outputs (RCA connectors)

There is one stereo PREAMP OUTPUT per zone. These variable outputs are controlled from the keypads, IR remotes or front panel. They can be programmed as fixed outputs if required.

4. Zone Outputs (RCA connectors)

These are fixed unity gain outputs for each zone designed specifically to provide audio source to the PX-603. They may also be used as fixed outputs to an amp that powers speakers through passive attenuators (autoformers). However, if the amplifier has a signal-sensing power circuit, use the zone trigger output to activate the amp, as signal is always present at <u>all</u> of the zone outputs when any zone or PX-603 room in the system is on.

5. IR In/Out (mono 1/8"/3.5mm mini-phone jacks)

The IR IN jack allows hook up of an IR repeater to control the Main Zone (Zone 6) of the PX-600. Use this when installing the PX-600 in a closed cabinet. This automatically disables the IR receiver on the front panel. Plug an emitter into the feed-thru IR OUT jack to control other equipment. Normally, the PX-600 controls the basic functions of the audio sources, unless the system requires control of more than the basic functions or access to other equipment such as lighting and drapes, etc.



6. Triggers (mono 1/8"/3.5mm mini-phone jacks)

Use the TRIGGER IN when sharing sources with a system other than another PX-600. A 12VDC input from the local system (such as an AC adapter plugged into a switched outlet) switches on the AC OUTLET of the PX-600 then sends IR POWER and STOP commands if necessary and alerts the PX-600 system that the sources are in use. Thus, the STOP and POWER commands are not sent while sources are also being used by the auxiliary system(s).

The TRIGGER marked OUT is active whenever any zone is on. It provides a means to energize a 12VDC relay while any zone in the system is on. Relays connected to this trigger activate whenever any zone in the system comes on.

Use the PAGE TRIGGER with the Page/Doorbell Module. When this jack is shorted, all zones programmed to receive paging and doorbell signals switch to the PAGE AUDIO INPUT until the jack is un-shorted. See instructions enclosed with the Page/Doorbell Module.

7. Zone Triggers (mono 1/8"/3.5mm mini-phone jacks)

The ZONE TRIGGERS provide a means to energize a relay per zone while that zone is on. Relays connected to these triggers activate whenever the particular zone comes on. You may want to switch on a remote amplifier for that zone, or you may develop some other creative application. Determine the voltage and current requirements of the relays you intend to use, then connect a power supply to the VIN (Voltage Input) next to the ZONE TRIGGERS. This power supply drives the relays attached to any of the ZONE TRIGGERS at the voltage selected.

8. IR Outputs (mono 1/8"/3.5mm mini-phone jacks)

Audio sources connected to the PX-600 are controlled by IR commands taught to the PX-600. Source specific IR OUTPUTS for each of five audio inputs allow multiple tuners, CD players or tape desks of the same brand to be controlled independently. IR Commands can be sent to the sources either via a 1/8" mono mini-plug from the IR Output to an IR input jack on the source equipment or through an IR Emitter glued over the IR receiver on the source.

The jack marked ALL may be connected to a blaster-type IR output device for control of multiple sources. Or, you may use it with a 1/8" mini-plug to control source components which have opto-isolated IR input and output jacks on their back panels. Jumper inside the unit behind IR jack can switch the ALL IR output for use as a blaster or an emitter output.

9. Keypad (4-conductor pluggable screw terminal)

The PX-600 comes equipped with one detachable 4-conductor screw terminal connector. Connect a single keypad or the last leg of daisy-chained cable from the keypads into this connector. If keypad cables are home run, connect them to a Keypad Termination Board (KPT), then run a jumper between the KPT and the PX-600.

(Fuse: 1-1/4", 1.5A, slo-blo for versions suffixed 1/4 and lower)

(Fuse: US 5X20mm, 1.6amp,250v, slo-blo NON-US 5X20mm T 1.6amp 250v)

This fuse will blow if there is a short on the keypad line or one of the IR emitter outputs. When an emitter fails, it may short and cause the fuse to blow. Replace this fuse only with a fuse of the correct type and rating.



10. Switched Outlet (3-conductor grounded, 200Watt maximum)

This outlet turns on when the first zone is turned on, and off when the last zone is turned off. It is also controlled by an input to the system TRIGGER IN as described above. Use this outlet with a power strip to supply AC power for source equipment connected to the PX-600. It is not designed to handle an amplifier or any combination of components that draw more then 200 watts of current.

11. Power Module

The POWER INPUT is a standard IEC type 3-prong male connector.

The POWER SWITCH turns the main power to the PX-600 on and off.

A 5mm x 20mm, 2A,(US) slo-blo fuse , a 5X20mm T 1A fuse (NON-US) is located in the drawer beneath the switch. One replacement fuse is located in the same drawer. Replace this fuse only with the correct type and rating.

PX-600 Field Repair





LOCK UPS or SLOW OPERATION

Incorrect Wiring IR Interference Keypad Termination Switch

KEYPAD INSTALLATION

- Make Tight Connections
- Insure Power, Ground, and Data wires are in Correct Order
- Provide Strain Relief On KPT
- Keep On hand Extra KPT Blocks
- Do Not "Insert" Insulation Into Connector
- Install Keypad with Termination
 Switch in "UP" Position (off)

KEYPAD REPAIRS

Replace RS 485 Driver

Replace Keypad Processor Board







Replacing Processor Board



Audioaccess MCI



MCI Multi-room Computer Interface RS-232 to RS-485 Translator

PX-600 Field Repairs

Unit Contains 3 Sections

- **Audio Preamplifiers**
- -CPU
- **Power Supply**

 Field Repairs May be Performed to Power Supply and CPU



•Audio Signal Path

•CPU

•Power Supply





Internal Fuse



POWER SUPPLY FIXES

NO POWER

- Replace Mains Fuse 5 X 20 mm 2A
 Slow Blow
- Replace Internal Fuse F1301 5 X 20 mm 500 ma Slow Blow

Main Power Issues

Check Power Load on Convenience Outlet

- Do not power amps directly with PX-600
- Do not Exceed 200 Watts on PX-600 outlet
- AC Line condition +- 10% rated Voltage
- Use Un-switched Outlets for ALL Audioaccess Components
- PX-600 Powers UP but Cycles Power on and OFF?

• "ALL OFF " LED on PX 600 Cycling On and Off

-ANY- KEY-TO-EXIT-

VERSION 2.04

AUDIOACCESS PX-600

Unit Hard Power Up

Replacing RS-485 Driver





PX-600 Internal Sections



UNIT CYCLES ON AND OFF

♦ REPLACE RS-485 Driver

Replace Microprocessor



RS-485 or SRAM Problems

AUDIOACCESS PX-600

VERSION 2.04

SOURCE EQUIPMENT NOW LOADING.....

-ANY- KEY-TO-EXIT-

Control Problem Descriptions

 Keypads Initialize but appear "dead"

Intermittent Control or "Lock UP"

No IR Output

Control Repairs

 Disconnect Keypad Bus and Check Unit From Front Panel Check Keypad Fuse ◆ Data Reset Replace RS 485 Replace SRAM Replace EPROM Replace Microprocessor



PX-600 Programmer Rev B0

BY Junthy Mulson 1 29,94





PX-600 Main Board Rev D2
PX-600 SCHEMATICS CONTENTS

MAIN BOARD REV B0 MAIN BOARD REV B1 MAIN BOARD REV C0 MAIN BOARD REV C1 MAIN BOARD REV D0 MAIN BOARD REV D1 MAIN BOARD REV D2 FRONT PANEL REV C0 PROGRAMMER REV B0

PX-600 MAIN BOARD REV B0

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PX600 NAIN BOARD 8-19-94





PX000 MAIN BOARD 8-19-94









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END8 CENOS

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PX600 B0ARD 2

Mar 14 of 18



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PX-600 MAIN BOARD REV B1

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PX600 MAIN BOARD 8-19-94

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PX-600 MAIN BOARD REV C0
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	TYPE		TULIAGE	JPIN NU.	50110	REFEREN	CE DESI	IGNATOF	CHAR	T	BYPI	ASS CA	1P																
			AGINU	*31	DEND	11704 11702	11202 1120																						
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			1	N/A	N/A	U507, U508.	U509, U51	0 U603 U	504 U60	7																			
				N/A	N/A	U508, U609,	U610										1 FC	DA CAPAC	1109 14	YPE SEE PARTS LIST.									
	NE 5532AN	B	4	N/A	N/A	U701, U702		-		CI	25, C147						2. AL	L RESIS	TOPS AR	ARE 1/8M, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.									
	C0 4052	SHOWN	ON SCH	N/A	N/A	U401, U402,	U501, U50	2, U80 1, U	602	CI	40-C148																		
	1EA5300	SHOWN	DN SCH	N/A	N/A	U405, U406,	U505, U50	8, U805, U	508	SI	IDMN ON	SCH																	
	800552	N/A	N/A	N/A	N/A	UB0 1				- 51	NO NWO	SCH			- +5¥														
	NAX707CPA	N/A	N/A	20	10	1/80.0	UB00 C1				20																		
	270512	N/A	N/A	28	14	0903					28							1						100.4					
-	DS1244YH-200	Z/1512 W N/A N/A Z8 14 U80 4 C DS12447N-200 N/A N/A 28 14 U80 4 C Z4HC138 N/A N/A 16 8 0x00 1 C					C	29							1	<u> </u>	302				_1	6							
	74HC138						C	30							1	-31.					74HC	14							
1	74HC245	N/A	N/A	20	10	0305				C	31								GND LF3	53				/					
	74HC08	N/A	N/A	14		U903, U1201	_U1505			C	32-0134																		
	74HC14	N/A	N/A	20		10204	2			C	35			_															
	CD 4051	C04051 N/A N/A 48 B U1001								36, C137																			
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PYSCO MAIN BOARD B-19-34





























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PX600 BOARD 3 CO

BOARD 8-19-94

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X600 MAIN BUARD

PX-600 MAIN BOARD REV C1

	LF353		4	N/A	N/A	U201, U202, U203, U204, U301, U302, U403,	C101-C124			11
				N/A	N/A	U404, U407, U408, U409, U410, U503, U504,				
				N/A	N/A	US07, US08, US09, US10, U603, U604, U607,				11
				N/A	N/A	U608, U609, U610		NOTEC		
1	NE 5532 AN		4	N/A	N/A	U7D1, U702	C125, C147	NUTES.		•
1	CD4052	SHOWN	ON SCH	N/A	N/A	U401, U402, U501, U502, U601, U602	C1 40-C1 48			
1	TEA6300	SHOWN	DN SCH	N/A	N/A	U405, U406, U505, U506, U605, U606	SHOWN ON SCH	1 FOR CAPACITOR TYPE SEE F	ARTS LIST	
1	B0C552	N/A	N/A	N/A	N/A	U801	SHOWN ON SCH	2. ALL RESISTORS ARE 1/RM	ST CLOSON FILM UN SER ATHERMISE CONSIST	
	74HC573	N/A	N/A	20	10	V802	C126		SE CRABON FILM, UNCESS UTHERMISE SPECIFIED	
	MAX7D7CPA	N/A	N/A	2	3	U800	C127			
	270512	N/A	N/A	28	14	U803	C128			
	051244YN-200	N/A	N/A	28	14	UBD4	C129			U
	74HC138	N/A	N/A	15	8	U901	C130			П
	74HC245	N/A	N/A	20	10	0902	C131			
	74HC08	N/A	N/A	54	7	U903, U1201, U1202	C132-C134			
1	74HC14	N/A	N/A	14	7	U904	C135			
	74L5574	N/A	H/A	20	10	V1001, V1002	C135 C137			
	C04051	N/A	N/A	16	0	V1003	C138		+) (
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BYPASS CAP

IC CHART

DGND

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REFERENCE DESIGNATOR CHART

YOLTAGE/PIN NO.

AGNO

TYPE

LF353

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(600 MAIN BOARD









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PX600 BOARD 2 Mar 14 of 18







PX-600 MAIN BOARD REV D0

			10 01	IART	•]										
IYPE		VOL TAGE	ZPIN NO.		REFERENCE DESIGNATUR CHART BYPASS CAP																
	V+	FIGND	•50	DGND	11941 11904 1190	2 11704 11701 11	202 11402				-			ЪЛ	ורר	C					
LF353	0	- 1	N/A	N/A	11484 1492 1149	B 11404 11414 10	392,0193,	C101-C12	en					140							
			N/H	NZH	US07 US08 US0	9.0510.0603.0	G04 .UG07.				174 M										
			11/0	N/R	UGUU, UGUD, UGII	0								1. 1	FOR COP	1100	1 YPE SE	E PRINTS	; 1151.		
NESS320N	NE5532NN 8 4			N/A	11701,11702			C125,C14	17			2. ALL RESISTORS ARE 1200, 52 CARDON FILM								EHUM, I	
CD1052	SHOUN	ON SCH	N/A	N/R	U101, U102, U501, US02, UC01, UC02			C110-C14	16												
TERG300	G388 SHOLIN ON SCH N/A N/A		U105, U106, USU	SHOWN ON	4 SCH																
080552	N/R	N/N	N/N	N/N	19191			SHOWN OF	4 SCH											,	
24HC523	N/H	N/R	20	10	1002			C126													
MAX707CPA	N/R	N/11	2	3	0800			C127									į				
270512	N/A	N/A	28	14	10803			C128								L_G N	1385				
		N/0	- 28	- 11	0001			C125			-						>:'				
2440245	N/1	N/H	20	- 10	1.10142			(1'11								1	8.3				
711/08	NZD	NZA	14		1997 11201 111	202		C132 C1	14							ICHO					
249014		NZ	11	7	1994			C135								*					
71LS571	NZB	N/A	20	10	01881,01882			C136.C13	37												
CD1051	N/A	N/R	16	8	01003			C138								ſ					
71L501	N/B	N/R	+508 14	GND7 7	U1203			C139								. 1170	a.2				
75176	N/R	N/R	8	5	01106											Lep	2				
- L	сісгс ІчГічГі івиsвиsе	3 C1 JF JuF Sau Sau	- CS - 1นโ โนโ รยบ รยบ	. 10 580	С8 С9 С Тог . Тог . Т 580 580 5		С12 luf . luf 500 500		L CIS JuF SHU	C16 . 1นF 5ยบ	C17 - 1uF 580	C18 . luF 580	C19 .14F 580	C28 . 14F 580	C21 .1uF 500	C22 .1uF 580	C23 - 1นF รยบ	C24 . LuF 580	C25 .14F		
C101C102C1 .UFUF1 .S0VS0VS1	81 C184 C18 uF 1uF 1 80 580 58	5C106	C107 C148	580 5	RA 740 740 177 - 171 - 17 178 - 171 - 17 178 - 171 - 17	12 L113 C1 a) .1aj .1 80 580 54		0116 101 500	ււլ/ լսի 580	114 14 560	() 117 . 161 580	C120 . Tal . 5.90	(12) .141 580	8122 . 1af 580	ເາວອ . 1ເປ ຣ.ຍບ	C124 Taf - 580	0.425 - 1.d - 580	C110 - tul 580	C141 . 1u) 500	C112 . Lut 580	
1012 101 500	5C128 LuFLuF 580 580	C129 C129 SØU 500 500	39 C131 uF 580	132 147 147 150 500	580 580	136 537 147 140 580 580	стан 196 200 200 200 200 200 200 200 200 200 20		RE M/ BY	LE	EAS	SE	D	FO UR	RE		SIG SMERIE DIN 10 Click DESIC CHK	N F	11.1.F 5N 4	//////////////////////////////////////	

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PX600 BOARD 1

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PX600 BOARD 1

SHEET 10 OF 16









• R1301 - M U GNDH 111 EG LGND2 ⁄ي H1302 6 111 GNDH COND2 12 81303 ----ю . ↓ GND8 17 CGND2

SEET14 of 16





PX-600 MAIN BOARD REV D1

			IC CH	INR I'		
TYPE		VOL TIGE	/PIN NO.			BYPASS CAP
	Ų+	NGND	+50	DGND	PREFERENCE DESIGNATUR CHART	
LF 353	0	1	N/R	N/A	0201,0202,0203,0204,0301,0302,0103,	C101-C121
			N/N	N/A	0404,0407,0408,0403,0410,0503,0504,	
			N/N	N/R	US07, US08, US09, US10, UG03, U604, U607,	
			N/N	N/A	UG08,UG09,UG10	
NESS32RN	0	1	N/A	N/R	U701,U702	C125,C142
CD4052	SHOWN ON SCH		NZN	NZN	U101, U102, U501, U502, U601, U602	C140-C146
TEA6300	SHOWN ON SCH		N/N	N/N	U105,U106,U505,U506,U605,U606	SHOWN ON SCH
80C552	N/N	N/R	N/R	N/A	0891	SHOWN ON SCH
74HC573	N/R	NZĤ	20	10	0802	0126
MNX707CPA	N/A	N/B	2	Э	0800	C177
270512	N/N	N/A	28	11	0993	C128
DS1244YM-200	N/R	N/R	20	11	U801	C129
74HC138	N∕ R	N/R	16	8	U901	C130
74HC245	N/A	N/A	20	10	U902	0131
71HC09	N/R	N/A	11	7	0303,01201,01202	0132-0134
74HC14	N/R	N/R	11	7	U901	C135
71L5571	N/R	N/R	20	10	U1001,U1002	C136,C137
CD 1051	N/A	N/R	16	8	U1003	C138
74L504	N/R	N/A	+548 14	GND7 7	U1203	C139
75176	N/B	N/B	8	5	U1106	

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1, FOR COPICLION TYPE SEE PORTS LIST.

2. DEL RESISTORS ARE 1/04, 5% CARDON FILM, UNLESS OTHERWISE SPECIFIED.



+5V 0 1/901 L.5 Do 5 74HC14

SHEET 1 OF 16











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PX-600 MAIN BOARD REV D2

		IC CF	-IAR1			
TYPE VOLTAGE/PIN NO. REFERENCE DESIGNATOR CHAR				REFERENCE DESIGNATOR CHART	BYPASS CAP	
	U+ AGND	+50	DGND			
LF353	8 1	N/R	N/H	0201,0202,0203,0204,0301,0307,0403,	C101-C124	
		N/N	N/11	10404,0407,0408,0400,0410,0503,0504,	·	
		N/H	N/A	U507, U508, U509, U510, U603, U604, U607,		1. LON COMPLETOR TYPE SEE PURTS LIST.
		N/R	N/H	0608,0609,0610		2 OF RESISTORS ON THRE SHOW FIND THRESS OTREBUISE SPECIFIED
NESSJZIN	8 1 1	N/N	N/H	0/01,0/02		
CD1052	SHOWN ON SCH	N/N	N/R	U101,U102,U501,U502,U601,U602	C110-C115	
TER6300	SHOWN ON SCH	N/A	N/R	U485,U486,U585,U586,U685,U686	SHOLIN ON SCH	
8900552		N/A	N/R	1181691	SHOLN ON SCH	・ てU
74HC573	N/A N/A	20	10	U892	r125	9
MAX707CPN	N/A N/A	2	3	0800	C127	·
270512	N/A N/A	28	14	0807	C129	6 F U302 U901
DS1211YM-200	N/A N/A	20	11	U891	C129	
24HC138	N/R N/R	16	11	0001	0.139	raincia
71HC215	N/0 N/0	219	149	0902	C131	1110-111-110-11
74HC0B	N/A N/A	14	2	0103,01201,01202	0132 0134	ب·ب
74HC14	N/D N/D	14	1	0904	0.135	
241,5574	N/N N/N	29	10	01091,01802	[ma6,032	1
CD4851	N/N N/II	16	н	01003	0138	
74LS84	N/R N/R	+SUB 14	GND7 7	U1203	0139	
75176	N/D N/D	B	5	U1186		
						MAPUE JRE By COC 4,3996
01C102C103 uFS07S07S07	C104 C105 C105. - UF - UF - UF 500 500 500 500	C102 C108 .1uF 500 500	C109_C1 .1uF1 S0U_S1	10 (11 (112113 (114) uF 1071 07 1071		110 C120 C121 C122 C123 C124 C125 C141 C142 C143 C144 C146 C147 80 S80
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X620 MAIN BOARD 4-18-96 11:33






















1.00 UUM 1.00 UUM - 2001 - 2000 - 1003 - 20100 A 1111 - 2010 1 т. (()) (()) | . [.] . JANT [.] | . [.] . [.] (()) (()) (()) (()) (()) (()) 1 0 101401 (1401[___]) [1] [10.401 111111 3 1 L P. 111 - 901ul 16 . 1617 01 1 112 111401 661.00 500 1 10 1P1401 014011 211 014011 4 1 ',HU 111 1114 را، بار – V 12 111 111 GNDH CGND2 CGND2 CGND2 GNDH GADE COND2 COND2 COND2 GNDE PREDME PRETAMP ZONE ZONE 1 RIGHT 2 RIGHT 1 BLGRE 2 BIGHE 1 (D) 2 11, 111402 P14011 .Z. F 1 3 111112 C16 031 . 6169 [...] POINT BHILLE 580 LE 1 101402 11101 (__ 5)--1.00 500 12 111102 P1101 | 0 } Ni ili 1/1_ VGNDH 111 S 111 111 5 6408 GNDB CGND2 CGND2 CGND2 GNDB CGND2 CGND2 CGND2 PREAMP PREAMP ZONE ZONI 3 LEFT 1 LEFT 3 LEFT 4 LEFT 1 3 J J502 F1402 7 P1402 5 ----[-3_]F1193 C31 C15 6.001uf T 500 LUF 500 [12] P1402 P1102 5 r{_1_103 P1402 500 500 177 171 0 5171 122 111 177 GNDB CGND2 CGND2 CGND2 GNDB GND8 CGND2 CGND2 GNDB CGND2 PREAMP PREAMP ZONE ZONE 3 RIGHT 4 RIGHT 3 RIGHT 4 RIGHT P1103 Q, P1402 9 -{ 7]PI 103 C11 J501 C30 -.001uF C42 .001uF 5.001uF T 50Y- _ G_ P1103 .001ur 500 P1402 10-P1403[2] [._8_]P1103 500 5ØV 3 M 11% 177 5 111 5/12 GNDB CGND7 CGND2 CGND2 GNDB GND8 CGND7 RCMA CGND2 CGND2 PREOMP PREOMP PONE 20NI 51111 61111 5 (11) 6 1111 111111444 30) JEAN 0 (\circ) P140.(11 }----(0)111031 04 15 101404 0.34 6 . 9916 1. (*29 .901s/ 500 HUTH HILLI P1403 [12] J 1 12 111144 111031 101 1.80, 10 1111111 'HU 112 YGNDB ÷ 171 121 GNDB GND8 CGND2 CGND2 CGND2 GNDB CGND2 CGND2 CGND2 SONE 20NE PREDMP PRI OMP 5 RIGHT 6 RIGHT 5 RIGHT 6 RIGHT -10 JGN1 J \odot P1404 [___]---P1101[____]----- [Z_]r1191 - 9 P1404 | c38 -__,881ur |`580 <mark>--{[8__]</mark> P1181 P1404 [2] - 0 11101 P1181 500 500 500 111 4 \$ 177 A1 177 0 Ŷ 177 17 GNDB CGND2 CGND2 CGND2 GND8 GND8 CGND2 CGND2 CGND2 GND8







U+ _ C105 _ C106 _ C107 _ C108 - .1uf _ .1uF _ .1uF _ .1uF - \$80 _ \$80 _ \$80 _ \$80 _ \$80 _ C109 C110 C111 .1uf .1uf .1uf .1uf 500 S00 S00 S00 $\begin{array}{c} - 112 \\ - 112 \\ - 500$ C104 C101 / C122 C123 C124 - 14F - 14F - 14F - 580 - 580 - 580 - C143 | L144 | L146 | - 187 | 186 | 187 - 187 | - 580 | 580 | 580 | 6141 C142 0140 .1uF 50V 0142 . Tub 520 . 1uf 580 1uF 580 COPY GND +5U harman consumer group SIGNH FURE DATE digital entertainment product center 1308 Borregas Avenue Sannyvale, CA 94089-1001 RELEASEDIUM DRAWN MITLLE 7/06/94 ⊥c126 ⊥c127 ⊥c128 ⊥c129 ⊥c132 ⊥c131 ⊥c132 ⊥c133 ⊥c134 ⊥c135 ⊥c136 ⊥c137 ⊥c138 ⊥c134 ⊥c135 ⊥c136 ⊥c137 ⊥c138 ⊥c139 □c139 DRF TG FSA N13/97 CHK 813,97 PX600 BOARD DESIGN MD 8/11/97 СНК eu. DWG. NO. 600MBE1.SCh SHEET 1 OF 16 3 1.....

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TYPE	VOL TAGE /P IN NO.					Τ
	U+	AGND	+50	DGND	MEREMENCE DESIGNATOR CHART	BYPASS CAP
LF353	8	4	N/A	N/A	U201, U202, U203, U204, U301, U302, U403	, C101-C124
			N/A	N/A	U404, U407, U408, U409, U410, U503, U504	,
			N/A	N/A	U507, U508, U509, U510, U603, U604, U607	,
			N/R	N/8	U608,U609,U610	
NE5532AN	8	4	N/A	N/A	U701,U702	C125,C147 ·
CD4052	SHOWN DN SCH		N/A	N/A	U401, U402, U501, U502, U601, U602	C148-C146
TEA6300	SHOWN ON SCH		N/A	N/A	U405, U406, U505, U506, U605, U606	SHOWN DN SCH
80C552	N/A	N/A	N/A	N/A	U801	SHOWN ON SCH
74HC573	N/A	N/A	20	10	U802	C126
MAX707CPA	N/A	N/A	2	3	U800	C127
270512	N/A	N/A	28	14	0803	C128
DS1244YM-200	N/A	N/A	28	14	U804	C129
74HC138	N/A	N/A	16	8	U901	C130
74HC245	N/A	N/A	20	10	U902	C131
74HCØ8	N/A	NZA.	14	7	U903.U1201.U1202	C132-C134
24HC14	N/A	N/A	14	7	U904	C135
74LS574	N/A	NZA	20	10	U1001,U1002	C135 C137
CD4051	N/A	N/A	16 4	8	U1003	C138
74LS04	N/A	N/R	+5UB .14	GND7 7	U1203	C139
75176	N/A	N/A	В	5	U1106	





2. ALL RESISTORS ARE 128W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.

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PX688

1. FOR CAPACITOR TYPE SEE PARTS LIST.

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PX600 BOARD 1

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PX600 BOARD 1

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MAIN ADAAD

E1 lag



1-3 CHADE NIAM 508

U Xa





ONE END OF EACH 12 PIN RIBBON CABLE SHOULD BE INSTALLED IN A MOLEX 51048-1200 RIBBON CABLE HOLDER AND SOLDERED TO THE PC BOARD. OBSERVE PIN 1 POLARITY. STRIPE ON CABLE SHOULD BE VISIBLE WHEN CABLE IS ORIENTED AS SHOWN ON DRAWING.

ONE END OF EACH 10 PIN RIBBON CABLE SHOULD BE INSTALLED MOLEX 51048-1000 RIBBON CABLE HOLDER AND SOLDERED TO THE PC BOARD. OBSERVE PIN 1 POLARITY. STRIPE ON CABLE SHOULD BE VISIBLE WHEN CABLE IS ORIENTED AS SHOWN ON DRAWING

RIGHT ANGLE BRACKETS SHOULD BE MOUNTED WITH THE LONG LEG (WITH OFFSET HOLE) TOWARD THE PCB.

THE SECTIONS OF THE PCB SHOULD NOT BE BROKEN APART

TWO HEATSINKS TO BE INSTALLED AT U1401 AND U1402 SEE PARTS

INSTALL SHUNT JUMPER ON THE FRONT TWO PINS (FLASHER POSITION) SQUARE PADS ON THRU HOLE PARTS (ie, CONNECTORS, DIPS, SIPS)

ASSEMBLE AND SOLDER PER ANSI/IPC-A-610A.

ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION. INSTALL ONE, 8 PIN DIP SOCKET AT U1106 ON COMPONENT SIDE OF PCB. INSTALL ONE, IC DS75176BN IN SOCKET AT U1106.





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2 PLACES

ONE END OF EACH 12 PIN RIBBON CABLE SHOULD BE INSTALLED IN A MOLEX 51048-1200 RIBBON CABLE HOLDER AND SOLDERED TO THE PC BOARD. OBSERVE PIN 1 POLARITY. STRIPE ON CABLE SHOULD BE VISIBLE WHEN CABLE IS ORIENTED AS SHOWN ON DRAWING.

ONE END OF EACH 10 PIN RIBBON CABLE SHOULD BE INSTALLED IN A MOLEX 51048-1000 RIBBON CABLE HOLDER AND SOLDERED TO THE PC BOARD. OBSERVE PIN 1 POLARITY. STRIPE ON CABLE SHOULD BE VISIBLE WHEN CABLE IS ORIENTED AS SHOWN ON DRAWING.

RIGHT ANGLE BRACKETS SHOULD BE MOUNTED WITH THE LONG LEG (WITH OFFSET HOLE) TOWARD THE PCB.

THE SECTIONS OF THE PCB SHOULD NOT BE BROKEN APART.

5. TWO HEATSINKS TO BE INSTALLED AT U1401 AND U1402 SEE PARTS LIST.

INSTALL SHUNT JUMPER ON THE FRONT TWO PINS (FLASHER POSITION)

7. SQUARE PADS ON THRU HOLE PARTS (ie, CONNECTORS, DIPS, SIPS) DENOTES PIN 1.

8. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610A.

ALL DOADDS DEOLIDE & COMPLETE AND THODOLIGH VISUAL INSPECTION

INSTALL ONE, 8 PIN DIP SOCKET AT U1106 ON COMPONENT SIDE OF PCB. INSTALL ONE, IC DS75176BN IN SOCKET AT U1106.
DO NOT INSTALL FUSE.

Description	mfg	mfg p/n#	qty	Reference	Comments
PC BOARD PX600 MAIN			1	750-2700-002-G1	ECN2630- 2/8/2000
RES 100 1/8W 5% CF	GENERIC		1	R1229	2012000-3/8/2000
RES 220 1/8W 5% CF	GENERIC		1	R1405	
RES 330 1/8W 5% CF	GENERIC		11	R226.227.230.231	
RES 330 1/8W 5% CF	GENERIC		0	B233.236.237.250	
RES 330 1/8W 5% CF	GENERIC		10	R316.319.320	
RES 390 1/8W 5% CF	GENERIC		1	B1402	
RES 470 1/8W 5% CF	GENERIC		26	R411 415 419 423	
RES 470 1/8W 5% CF	GENERIC		0	B427 431 435 439	
RES 470 1/8W 5% CF	GENERIC		0	B511 515 519 523	
RES 470 1/8W 5% CF	GENERIC		10	B527 531 535 530	
RES 470 1/8W 5% CF	GENERIC		6	B611 615 619 623	
RES 470 1/8W 5% CF	GENERIC		1 [°]	B627 631 635 637	
RES 470 1/8W 5% CF	GENERIC		10	B641 643	
RES 680 1/8W 5% CF	GENERIC		1	B1404	
RES 3K 1/8W 5% CF	GENERIC			B1403	
	· · · · · · · · · · · · · · · · · · ·				
			í	H203,204,209,210,R215,216,221	
				,222,H303,304,308,412,R416,42	
				U,424,428,H428,432,436,440,R5	
		1		12,516,520,524,R528,532,536,5	
			1	40,R612,616,620,624,R628,632,	~
				636,638,R642,644,801-	.4
				805,R811,1013-	-
				1018,R1102,1104,1106,R1111,1	()
			1	116,1118,R1232-	i D
				1238,1240,R1240,1241,1243,R1	Υ Δ
BES 10K 1/8W 5% CE	GENERIC			244,1246,1247,R1247,1249,125	۶.
	GENERIC		/3	0,H1253,1255	ž
				R201,202,207,208,R213,214,219	3
				,220,R301,302,307,R806-	
				810,1110,1125,R1205,1210,121	و.
BES 100K 1/8W 5% CE	GENERIC			[5,H1220,1225,1231,R1113,	2
BES 1 5K 1/8W 5% CE	GENERIC		24	R1115	U
BES 120 1/8W 5% CE	GENERIC		2	Dillio	
	GENERIC		1	R1112	
				R225,228,229,232,R234,235,238	
			1	,239,R1001-	
				1012,1019,R1101,1103,1105,R1	
				107-1109,1117,R1121-	
			1	1124,R1201-1204,R1206-	
			1	1209,R1211-1214,R1216-	
			1	1219,R1221-1224,R1226-	
				1228,1230,R1239,1242,1245,R1	
	IGENERIC		63	248,1251,1254,R1254,1401	
HES IN 1/8W 1% MF	IGENERIC		2	R717, R718	
HINET TUK 9X10 SIP	BOURNS	4610X-101-103	2	R1, R2	

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				C26-49 201-204 C209-212 217	
				220.C225-228.301-	
CAP .001UF 50V AX CE	KEMET	C410C102K5R50	CI46	304.C309 310	
				C101-124,126- 144,C146,147,414,426,C515,52 ,614,626,C707,801,806,807,C14	7
CAP 18PE AV CE		SA105C104MAA	60	05,1407,1410,C1412,1414	
Description		C410C180K1G5C	22	C802, C803	
		mfg p/n#	_qty_	Reference	
CAP 470PF 100V AX	AVX	SA101A471JAA	20	C1103-1108,C1202-1207,C1209	-
CAP .01UF 50V AX CE	AVX	SA105C103KAA	1	C1208	
				C205,206,213,214,C221,222,222 ,230,C305,306,311,C313- 315,401,402,C407,408,416,418, C421,425,429,431,C431,434,438 ,501,C502,508,509,517,C517,51 9,522,526,C530,532,536,539,C6	
				01,602,607,608,C616,618,621,6	
	SDDAQUE			25,C629,631,633,634,C639,640,	
CAP 22LIE 16V EL BD	NICHICON	515D106M016HW	54	800,805	
CAP TOUE SOV EL AX		UVH1C220MDA	6	C413,427,514,528,C613,627	
CAP 4711E 250V X2 PD			1	C1101	
0/11 14/01 230V A211D		DHS400V474J	<u> 1</u>	C1401	
CAP 100UE 16V EL BD	NICHICON			C423,436,524,537,C623,637,708	
CAP 100UE 50V EL BD	NICHICON		10	,709,01102, 01411	
CAP 470UF 25V FL BD	NICHICON			01/00	
CAP 2200UE 25V EL BD	NICHICON		3	C1406,C1409,C1415	
CAP 6800UF 25V FL BD	NICHICON		1	01410	
CAP .0056UF POLY 630V RD	PHILIPS	2222-371-85562	12	C405,406,411,412,C505,506,512	
CAP .033UF POLY 250V RD .	ROEDERSTEIN	MKT1818333255	12	C403,404,409,410,C503,504,510 ,511,C603,604,609,610	
DIODE 1N4002	LITE-ON	1N4002	12	D1101, D1103-1105,D1201- 1207,1401	
	LITE ON	1N5819	1	D1102	
DIODE TVS 15V 1500W		1.5KE6.8C	2	D1109, D1110	
		1.5KE15CA	1	D1108	
	DIODES INC.	HB155	2	D1402, D1403	
	DIODES INC.	HS404L	1	D1404	
TRANSISTOR MPSA56	MOTOROLA	MPSA56	16	Q1102,1103,1106,Q1107,1202,1 204,Q1206,1208,1210,Q1212,12 19-1224	
TRANSISTOR MPSA06	MOTOROLA	MPSA06	16	Q1101,1104,1105,Q1201,1203,1 205,Q1207,1209,1211,Q1213- 1218,1401	
U 74ALS574N 20 PIN	TI	SN74ALS57	2	U1001, U1002	

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IC 74HC08 14 PIN	TI	SN74HC08N	13	U999, U1201, U1202	
IC 74HC138 16 PIN	MOTOROLA	MC74HC138	1	U901	
IC 74HC14 14 PIN	TI	SN74HC14N	1	U904	
IC 74HC245 20 PIN	MOTOROLA	MC74HC245	1	U902	
IC 74HC573N 20 PIN	MOTOROLA	MC74HC573	1	U802	
IC 74LS04N 14 PIN	MOTOROLA	SN74LS04N	1	U1203	
IC CD4051	HARRIS	CD4051BE	1	U1003	
IC CD4052 16 PIN	HARRIS	CD4052BE	6	U401.402.501.502.U601.602	
IC DS75176BN 8 PIN	NATIONAL	DS75176BN	1	INSTALL IN U1106	
IC LF353N 8 PIN IC LM317 TO-220 MISC	NATIONAL SGS	LF353N LM317T	24 2	U201-204,301,302,U403,404,407 410,U503,504,507- 510,U603,604,607-610 U1401, U1402	
		MAX707CPA	1	U800	
TEAG200T SMD DACK		NE5532P	1	U702	
POLYSWITCH 24	PHILIPS	TEA6300T	6	U405,406,505,506,U605,606	ECN2630- 3/8/2000
	RAYCHEM	RXE020-2	7	F1102, F1201-1206	
HELAY SV DPD1	OMHON	G5V-2-DC5	2	K1101, K1102	
HELAY 12V 30A SPST	SIEMANS	SDT-SS-11	1	K1401	
				FI47-54,56,57,F59-61,64-	
FILTER FERRITE 270PF 100V	MURATA	DSS306-5571M10	21	65,68,F69,1101,1102,1103	
40UH CORE	MICROMETALS	T68-26A	1	L1401	
FUSE HOLDER	BUSSMAN	HBH -M	1	F1101	
Fuse clips			2	F1301	
Description	mfg	mfg p/n#	qty	Reference	
CRYSTAL 11.0592MHZ	FOX.	FOX115	1	Y801	
MOV 400V	PANASONIC	ERZV07D47	2	MOV1401, MOV1402	
OPTO 4N26	MOTOROLA	4N26	3	U1101.U1102.U1103	······································
CONN SHUNT 2-PIN LOW PRO	AMP	531220-2	1	INSTALLED AT DIDO	
WIRE THAP 12-PIN	MOLEX	52007-121	4	P1401A-1404A	
WIRE TRAP 12-PIN WIRE TRAP 10-PIN	MOLEX	52007-121 52007-101	4	P1401A-1404A P106A, P111A	
WIRE TRAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND	MOLEX MOLEX MOLEX	52007-121 52007-101 51048-120	4 2 4	P1401A-1404A P106A, P111A P1401-1404	
WIRE TRAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND RIBBON HOLDER 2MM 10-COND	MOLEX MOLEX MOLEX	52007-121 52007-101 51048-120 51048-100	4 2 4	P1401A-1404A P106A, P111A P1401-1404 P106 P111	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND RIBBON HOLDER 2MM 10-COND JACK 3.5MM PHONE	MOLEX MOLEX MOLEX MOLEX MOLEX	52007-121 52007-101 51048-120 51048-100 161-3505	4 2 4 2 18	P1401A-1404A P106A, P111A P1401-1404 P106, P111	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND RIBBON HOLDER 2MM 10-COND JACK 3.5MM PHONE FASTON MALE PCB	MOLEX MOLEX MOLEX MOLEX MOUSER AMP	52007-121 52007-101 51048-120 51048-100 161-3505 62409-1	4 2 4 2 18 14	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105, J1201-1213 P1 24 5 7 8 11 12 P16 21	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND RIBBON HOLDER 2MM 10-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE	MOLEX MOLEX MOLEX MOLEX MOUSER AMP	52007-121 52007-101 51048-120 51048-100 161-3505 62409-1 87220-3	4 2 4 2 18 14	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND RIBBON HOLDER 2MM 10-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND	52007-121 52007-101 51048-120 51048-100 161-3505 62409-1 87220-3 25 332 34	4 2 4 2 18 14 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 BT	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND	52007-121 52007-101 51048-120 51048-100 161-3505 62409-1 87220-3 25.332.34 528-04-4	4 2 4 2 18 14 1 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120 J11	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X 1 MALE RA	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND JST AMP	52007-121 52007-101 51048-120 51048-100 161-3505 62409-1 87220-3 25.332.34 S2B-PH-K 103210.6	4 2 4 2 18 14 1 1 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120 J11 P6	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND JST AMP PRECICONTACT	52007-121 52007-101 51048-120 51048-120 51048-100 161-3505 62409-1 87220-3 25.332.34 52B-PH-K 103310-6 UISO308TLA	4 2 4 2 18 14 1 1 1 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120 J11 P6 L1106	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH SOCKET IC 28-PIN .600 MAC	MOLEX MOLEX MOLEX MOLEX MOUSER AMP WEILAND JST AMP PRECICONTACT PRECICONTACT	52007-121 52007-101 51048-120 51048-120 51048-100 161-3505 62409-1 87220-3 25.332.34 52B-PH-K 103310-6 USO308TLA	4 2 4 2 18 14 1 1 1 1 1 2	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120 J11 P6 U1106 U106	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH SOCKET IC 28-PIN .600 MAC C SOCKET 68-PI CC	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND JST AMP PRECICONTACT PRECICONTACT PRECICONTACT BEBG	52007-121 52007-101 51048-120 51048-120 51048-100 161-3505 62409-1 87220-3 25.332.34 S2B-PH-K 103310-6 USO308TLA US0628TLA	4 2 4 2 18 14 1 1 1 1 1 1 2 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105, J1201-1213 P1,24,5,7,8,11,12, P16-21 P120 J11 P6 U1106 U803, U804 U804	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH SOCKET IC 28-PIN .600 MAC C SOCKET 68-PLCC	MOLEX MOLEX MOLEX MOLEX MOUSER AMP AMP WEILAND JST AMP PRECICONTACT PRECICONTACT PRECICONTACT BERG THERMALLOY	52007-121 52007-101 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 51048-120 5005 52009-1 52030 520-3 528-PH-K 103310-6 US0308TLA PLCC68P-T 5020	4 2 4 2 18 14 1 1 1 1 1 2 2 1 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105, J1201-1213 P1,24,5,7,8, 11, 12, P16-21 P120 J11 P6 U1106 U803, U804 U801	
WIHE THAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH SOCKET IC 8-PIN .600 MAC C SOCKET 68-PLCC HEATSINK TO-220 WILT 4-40 X kep SS	MOLEX MOLEX MOLEX MOLEX MOLEX MOUSER AMP WEILAND JST AMP PRECICONTACT PRECICONTACT PRECICONTACT BERG THERMALLOY	52007-121 52007-101 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 52032 523234 528-PH-K 103310-6 US0308TLA US0628TLA PLCC68P-T 6030	4 2 4 2 18 14 1 1 1 1 1 1 1 2 1 1 4 4	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105,J1201-1213 P1,24,5,7,8,11,12,P16-21 P120 J11 P6 U1106 U803, U804 U801	
WIRE TRAP 12-PIN WIRE TRAP 10-PIN RIBBON HOLDER 2MM 12-COND JACK 3.5MM PHONE FASTON MALE PCB HEADER 1X3X.1 MALE HEADER 4X.156 MALE RA PLU HEADER 1X2 RT HEADER 2X13X.1 MALE RA SOCKET IC 8-PIN .300 MACH SOCKET IC 8-PIN .600 MAC C SOCKET 68-PLCC HEATSINK TO-220 NUT 4-40 X kep SS SCREW 4-40 X 1/4 PHP SS	MOLEX MOLEX MOLEX MOLEX MOLEX MOUSER AMP WEILAND JST AMP PRECICONTACT PRECICONTACT PRECICONTACT BERG THERMALLOY GENERIC	52007-121 52007-101 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 51048-120 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 52007-101 51048-120 51048-100 161-3505 5232.34 528-PH-K 103310-6 US0308TLA PLCC68P-T 6030	4 2 4 2 18 14 1 1 1 1 1 1 1 2 2 1 1 2 1 2 1 1 2 1 1 2 1	P1401A-1404A P106A, P111A P1401-1404 P106, P111 J1101-1105, J1201-1213 P1,24,5,7,8,11,12, P16-21 P120 J11 P6 U1106 U803, U804 U801	

px600 Main bd bom G1.xls

TEST POINT	KEYSTONE	5006	1	ITP1	
BRACKET .25X.25	KEYSTONE	621	10		
12pos 8.5" Ribbon	CIC		4	P1401-1404	
10-pos 3" Ribbon	CIC			P106	
10-pos 4.75" Ribbon	CIC			P111	
			<u>/</u>		
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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
1	640-4900-102	46	C26, C27, C28, C29, C30, C31,	0.001 uF, 50V, Ceramic, Axial	030-2102-0
			C32, C33, C34, C35, C36, C37,		•.
			C38, C39, C40, C41, C42, C43,		
			C44, C45, C46, C47, C48, C49,		
			C201, C202, C203, C204, C209,		
			C210, C211, C212, C217, C218,		
			C219, C220, C225, C226, C227,		
			$C_{228}, C_{301}, C_{302}, C_{303}, C_{304}, C$		
2	640-7000-001	60			
-	040-7000-001	00	C101, C102, C103, C104, C105, C106, C106, C107, C108, C108	0.1 uF, 50V, Ceramic, Axial	030-2104-0
			C106, C107, C108, C109, C110,		, Ť
			$C_{111}, C_{112}, C_{113}, C_{114}, C_{115}, C_{116}, C_{116}, C_{117}, C_{118}, C$		
			$C_{110}, C_{117}, C_{118}, C_{119}, C_{120}, C_{121}, C_{122}, C_{122}, C_{124}, C_{126}, C$		
			$C_{121}, C_{122}, C_{123}, C_{124}, C_{120}, C_{121}$		
			$C_{127}, C_{128}, C_{127}, C_{130}, C_{131}, C_{132}, C_{133}, C_{134}, C_{135}, C_{136}$		
			C132, C133, C134, C135, C136, C137, C138, C139, C130, C137, C138, C139, C140, C141		
		,	C142 $C143$ $C144$ $C146$ $C147$		
			C414 C426 C515 C527 C614		
			C626, C707, C801, C806, C807		
			C1405, C1407, C1410, C1412,		
	,		C1414		
3	641-2700-005 [•]	12	C405, C406, C411, C412, C505,	0.0056 uF. Poly	036-8562-0
			C506, C512, C513, C605, C606,	·····	050-0502-0
			C611, C612		
4	641-2700-033	12	C403, C404, C409, C410, C503,	0.033 uF, Poly	036-8333-0
			C504, C510, C511, C603, C604,	-	,
<u>,</u>	640 4000 010		C609, C610		
2	640-4900-018	2	C802, C803	18 pF, Ceramic, Axial	030-2180-0
0	640-6000-100	54	C205, C206, C213, C214, C221,	10 uF, 16V, Axial	038-0106-0
			C222, C229, C230, C305, C306,		•
			C311, C313, C314, C315, C401,		
			C402, C407, C408, C416, C418,		
			C421, C425, C429, C431, C434,		
			C438, C501, C502, C508, C509,		
			$C_{517}, C_{519}, C_{522}, C_{526}, C_{530}, C_{533}, C$		
			$C_{32}, C_{30}, C_{39}, C_{01}, C_{00}, C_{02}, C_{01}, C_{02}, C_{01}, C_{01}, C_{02}, C_{01}, C_{0$		
			C_{00} , C_{008} , C_{010} , C_{018} , C_{021} ,		
			C639 $C640$ $C800$ $C805$		
7	640-6100-010	1	C1101	10 yE 25V Avial	
8	640-2800-220	6	CA13 CA27 C514 C528 C613	10 ur, 33 v, Axial	038-2106-0
		-	C627	22 ur, 109, raulai	031-0226-0
9	640-2900-008	10	C423, C436, C524, C537, C623	100 uF 16V Radial	031-0107 0
			C637, C708, C709, C1102, C1411	w, ,	V)1-VIV/-V
10	640-2900-010	1	C1201	100 uF, 50V, Radial	031-2107-0
11	640-2900-047	3	C1406, C1409, C1415	470 uF, 25V, Radial	031-1477-0
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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
12	640-2900-680	1	C1413	6800 uF 25V	031 1699 0
13	640-2900-220	1	C1408	2200 uF 25V	031-1000-0
14	642-1000-000	2	C1402, C1403	0 001 uF Y Rated	031-1220-0
15	642-1000-001	1	C1401	0.47 uF X Rated	039-7102-0
16	620-5819-000	1	D1102	1N5819	039-7474-0
17	620-2002-000	12	D1101 D1103 D1104 D1105	1N4002	020-1104-0
			D1201 D1202 D1203 D1204	1111002	020-2103-0
			D1205 D1206 D1207 D1401		
18	620-3157-000	2	D1402 D1403	Bridge Destifier 1.54	022 0002 0
19	620-3155-000	1	D1404	Bridge Rectifier AA	023-0002-0
20	663-1000-200	1	F1101	Fuse Holder	023-0001-0
21	664-1001-000	1	INSTALL IN HOLDER	Fuse 1 5A 250V Slow Blow	094-0014-0
22	650-2200-000	1	F1301	$\frac{1}{1000}, \frac{1}{1000}, \frac{1}$	091-0013-0
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52	Filter Ferrite 270 pE 16V	092-0000-0
			FI53, FI54, FI56, FI57, FI59, FI60	1 mai, 1 cinic, 270 pr, 10 v	083-22/1-0
			FI61, FI63, FI64, FI65, FI68, FI69		
			FI1101. FI1102. F1103		
24	667-2001-004	1 /	J11	Header 4X 156 Male RA Plug	003.0002.0
25	667-3500-001	18	J1101, J1102, J1103, J1104, J1105	3.5 mm Phone Tack	093-0032-0
			J1201, J1202, J1203, J1204, J1205,		072-0010-0
			J1206, J1207, J1208, J1209, J1210		
	1		J1211, J1212, J1213		
26	667-3000-400	12	J201, J202, J203, J204, J301, J302,	Ouad RCA Jack	092-0007-0
			J401, J402, J501, J502, J601, J602		072-0007-0
27	636-6000-000	2	K1101, K1102	Relay, DPDT, 5V	081-0002-0
28	636-6500-010	1	K1401	Relay, SPST, 30A, 12V	081-0003-0
29	646-1000-040	1	L1401	40 uH Toroid	081-0068-0
30	645-1000-100	5	MOV11, MOV12, MOV13,	MOV 400 Volt	022-0134-0
			MOV1401, MOV1402		
31	667-2001-026	1	P6	Header 2X13X.1 Male RA	093-0005-0
32	667-3800-010	17	P1, P2, P3, P4, P5, P7, P8, P11,	Male Faston PCB	092-0010-0
			P12, P16, P17, P18, P19, P20,		
~~	**		P21, P22, P23		
33	667-2000-003	1	P120	Header,1X3X.1 Male	
34 26	667-2236-000	1	INSTALLED AT P120	Shunt Jumper 0.1	093-0066-0
33	705-0600-000-A	4	P1401, P1402, P1403, P1404	12 Pin, 8.5" Ribbon Cable	
30	705-0600-002-A	1	P106	10 Pin, 3.0" Ribbon Cable	
3/	/05-0600-001-A	1	P111	10 Pin, 4.75" Ribbon Cable	
20	667-5000-012	4	P1401A, P1402A, P1403A, P1404A	12 Pin Wire Trap	
39	624 0056 000	2	P106A, P111A	10 Pin Wire Trap	
40	024-0056-000	9	Q1102, Q1103, Q1106, Q1202,	MPSA56	010-1013-0
			Q1204, Q1206, Q1208, Q1210,		
41	624 0006 000	10			
41	024-0000-000	10	Q1101, Q1104, Q1105, Q1201,	MPSA06	010-0012-0
			Q1203, Q1205, Q1207, Q1209,		
			Q1211, Q1213, Q1214, Q1215,		
			Q1216, Q1217, Q1218, Q1401		

ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
42	656-2337-100	2	R1, R2	10K Ω X 9 SIP	058-1003-0
43	651-0010-100	1.	R1229	100 Ω, 5%, 1/8W, CF	050-1001-0
44	651-0010-220	1	R1405	220 Ω 5% 1/8W CF	050-2201-0
45	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319, R320	330 Ω, 5%, 1/8W, CF	050-3301-0
46	651-0010-390	1	R1402	390 O 5% 1/8W CF	050 2001 0
47	651-0010-470	26	R411, R415, R419, R423, R427, R431, R435, R439, R511, R515, R519, R523, R527, R531, R535, R539, R611, R615, R619, R623, R627, R631, R635, R637, R641, R643	470 Ω, 5%, 1/8W, CF	050-3901-0 050-4701-0
48	651-0010-680	1	R1404	680 Ω, 5%, 1/8W, CF	050-6801-0
49	651-0020-100 /	56	R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1019, R1101, R1103, R1105, R1107, R1108, R1109, R1111, R1112, R1121, R1122, R1123, R1124, R1201, R1202, R1203, R1204, R1206, R1207, R1208, R1209, R1211, R1212, R1213, R1214, R1216, R1217, R1218, R1219, R1221, R1222, R1223, R1224, R1226, R1227, R1228, R1230, R1232, R1233, R1234, R1235, R1236, R1237, R1401	1k Ω, 5%, 1/8W, CF	050-1002-0
51	651-0020-300 651-0030-100	1 52	R1403 R203, R204, R209, R210, R215, R216, R221, R222, R303, R304, R308, R412, R416, R420, R424, R428, R432, R436, R440, R512, R516, R520, R524, R528, R532, R536, R540, R612, R616, R620, R624, R628, R632, R636, R638, R642, R644, R801, R802, R803, R804, R805, R811, R1013, R1014, R1015, R1016, R1017, R1018, R1102, R1104, R1106	3k Ω, 5%, 1/8W, CF 10k Ω, 5%, 1/8W, CF	050-3002-0 050-1003-0
52	651-0040-100	24	R201, R202, R207, R208, R213, R214, R219, R220, R301, R302, R307, R806, R807, R808, R809, R810, R1110, R1125, R1205, R1210, R1215, R1220, R1225, R1231	100k Ω, 5%, 1/8W, CF	050-1004-0
53	651-0020-100	2	R717, R718	1.00k Ω, 1%, 1/8W, MF	061-1002-0

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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
54	651-0000-000	53	R205, R206, R211, R212, R217, R218, R223, R224, R305, R306, R309, R310, R312, R314, R401, R402, R405, R406, R410, R414,	0Ω (0.300" lead spacing)	×
			R418, R422, R426, R430, R434, R438, R501, R502, R505, R506, R510, R514, R518, R522, R526, R530, R534, R538, R601, R602,		
		·	R605, R606, R610, R614, R618, R622, R626, R630, R634, R640, R1301, R1302, R1303		ţ.
55	679-1000-001	1	TP1	Test Point	093-0063-0
56	605-0353-000	24	U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610	LF353N Dual JFET Opamp	001-1030-0
57	605-7712-000	1	U702	RC5532N Bi-polar Opamp	001-1042-0
58	605-6300-000	6	U405, U406, U505, U506, U605, U606	TEA 6300	001-0003-1
59	605-4052-090	6	U401, U402, U501, U502, U601, U602	CD4052	002-0051-0
60	605-2213-008	3	U999, U1201, U1202	74HC08	002-1008-0
61	605-2213-574	2	U1001, U1002	74ALS574N	002-0574-0
62	605-0004-000	1	U1203	74LS04N	002-0008-0
63	605-2203-014	1	U904	74HC14	002-1014-0
64	605-0751-000	1	U1106	DS75176BN	001-1003-0
65	605-2213-573	1	U802	74HC573N	002-0573-0
66	605-2202-138	1	U901	74HC138	002-1138-0
67	605-2213-245	1	U902	74HC245	002-2245-0
68	605-0026-000	3.	U1101, U1102, U1103	4N26	001-0004-0
69	605-4051-000	1	U1003	CD4051	002-0051-0
70	633-0317-000	2	U1401, U1402	LM317	014-0070-0
71	605-7070-000	1	U800	MAX 707CPA	002-0007-0
72	678-2247-068	1	U801	Socket 68 Pin PLCC	093-0064-0
73	678-2247-028	2	U803 , U804	28 Pin DIP Socket	093-0076-0
74	631-2207-011	1	Y801	11.0592 MHz Crystal	024-1109-0
75	680-2000-000	4		Heatsink T0-220	130-0493-0
76	730-2117-000	12		Bolt 4-40X1/4" PHP CAD	111-0041-0
77	736-2117-000	2		Nut, 4-40 KEP	111-6001-0
78 79	770-3000-000 750-2700-002-B	10 1		.25 x .25 Bracket Keystone #621 PX600 Main PCB REV B	100-0104-0

Notes: All resistors are 1/8 W with a 0.300" lead spacing.

All axial caps with a value less than 0.33 μ F have a 0.300" lead spacing.

100 uF 16 V Aluminum Electrolytic Capacitor is an ECI Type CES.

22 uF 16 V Aluminum Electrolytic Capacitor is an ECI Type CES.

0.47 X Rated Cap is a Panasonic ECQ-E2A474MW.

3.5 mm Phone Jack is a Mouser 161-3505

Quad RCA Jack is an ECI RJ-PCM-204S-SG-R

The 12 Pin Wire Trap is a Molex 52007-1210.

The 10 Pin Wire Trap is a Molex 52007-1010.

One end of each 12 Pin Ribbon Cable should be installed in a Molex 51048-1200 Ribbon Cable Holder and soldered to the PC Board.

One end of each 10 Pin Ribbon Cable should be installed in a Molex 51048-1000 Ribbon Cable Holder and soldered to the PC Board.

The Test Point is a Mouser 151-103.

Audioaccess Parts List PX600 Front Panel Rev C0 926-0600-001-C0 Revised 8/23/94

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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
1	640-7000-001	8	C1, C5, C6, C14, C16, C17, C18, C19	0.1 uF, 50V, Ceramic, Axial	030-2104-0
2	640-5000-330	2	C2, C7	33 uF, 16V, Al, Electro, Axial	038-0336-0
3	640-6000-100	2	C8, C15	10 uF, 16V, Al, Electro, Axial	038-0106-0
4	621-2009-000	7	D1, D2, D3, D4, D5, D7, D14	LED. Yellow, T1	025-0023-0
5	621-2008-000	1	D6	LED, Red, T1	025-0022-0
6	647-1000-000	5	L1, L2, L3, L4, L5	2 uH, 7A, Ferrite Bead	081-0057-0
7	705-1001-105-A	1	P1	Cable Assembly, 5 Pin	
8	667-2003-005	1	P3	Header, 5 X.1. Male, Locking	093-0009-0
9	667-2001-026	2	P4, P5	Header, 2 X 13 X .1. Male, RA	093-0005-0
10	624-0006-000	1	Q4	MPSA06	010-0012-0
11	660-1000-141	1	R1	Pot, $10k \Omega$, Motorized	
12	650-2349-100	1	R9	100 Ω, 1/4 W, 5%, CF	051-1001-0
13	650-2350-010	1	R17	1k Ω. 1/4 W. 5% CF	051-1002-0
14	656-2337-100	1	R18	10k Ω X 9 SIP	058-1003-0
15	656-2337-018	1	R19	180 Ω X 9 SIP	030 1003-0
16	650-2350-100	1	R100	10k Q. 1/4 W. 5% CF	051-1003-0
17	650-2349-180	1	R101	180 Ω 1/4 W 5% CF	051-1801-0
18	650-2349-820	1	R102	820 Q 1/4 W 5% CF	051-1001-0
19	745-1000-300	8	SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8	E-Switch 320.02 E1-1 Black	031-0201-0
20	665-2500-100 '	1	U1	Sharp IS1U60	001-0009-0
21	633-3400-005	1	U3	LM78L05ACZ, 5V, T0-92, Reg.	014-0001-0
22	605-2213-244	3	U4, U6, U7	74HC244	.002-1224-0
23	605-2201-374	1	U5	74LS374	002-1374-0
24	770-1500-350	8		LED Spacers, 0.350"	,
25	750-2700-001-C	1	PCB	PCB, PX600 Front Panel, Rev C	

Notes: P4 and P5 should be mounted on the component side of the PCB.

P3 should be mounted on the solder side of the PCB. The locking ramp should be toward the right edge of the PCB when viewed from the front.

Ul should be mounted with its body at a right angle to the PCB. The bottom should be 0.350" off the surface of the PCB.

R1 is an ECI RC10201-20F08-10KB. Pot hardware must be provided with the assembled PCB.

The motor terminals of R1 should be connected to the pads on the PCB with short lengths of bus wire. The lower motor terminal should be connected to the pad directly beneath it, and the other terminal should be connected to the other pad.

The 5 pin Cable Assembly should be soldered at P1, projecting out from the component side of the PCB. Observe Pin 1 polarity.

The sections of the PCB should not be broken apart.



ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
1	640-4900-102	46	C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C201, C202, C203, C204, C209, C210, C211, C212, C217, C218, C219, C220, C225, C226, C227, C228, C301, C302, C303, C304,	0.001 uF, 50V, Ceramic, Axial	030-2102-0
2	640-7000-001	60	C309, C310 C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C146, C147, C414, C426, C515, C527, C614, C626, C707, C801, C806, C807, C1405, C1407, C1410, C1412, C1414	0.1 uF, 50V, Ceramic, Axial	030-2104-0
3	641-2700-005	12	C405, C406, C411, C412, C505, C506, C512, C513, C605, C606, C611, C612	0.0056 uF, Poly	036-8562-0
4	641-2700-033	12	C403, C404, C409, C410, C503, C504, C510, C511, C603, C604, C609, C610	0.033 uF, Poly	036-8333-0
5	640-4900-018	2	C802, C803	18 nF Ceramic Avial	030 2190 0
6	640-6000-100	54	C205, C206, C213, C214, C221, C222, C229, C230, C305, C306, C311, C313, C314, C315, C401, C402, C407, C408, C416, C418, C421, C425, C429, C431, C434, C438, C501, C502, C508, C509, C517, C519, C522, C526, C530, C532, C536, C539, C601, C602, C607, C608, C616, C618, C621, C625, C629, C631, C633, C634, C639, C640, C800, C805	10 uF, 16V, Axial	038-0106-0
7	640-6100-010	1	C1101	10 uF. 35V. Axial	038-2106-0
8	640-2800-220	6	C413, C427, C514, C528, C613, C627	22 uF, 16V, Radial	031-0226-0
9	640-2900-008	10	C423, C436, C524, C537, C623, C637, C708, C709, C1102, C1411	100 uF, 16V, Radial	031-0107-0
10	640-2900-010	1	C1201	100 uF, 50V, Radial	031-2107-0
11	640-2900-047	3	C1406, C1409, C1415	470 uF, 25V, Radial	031-1477-0

ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
12	640-2900-680	1	C1413	6800 uF 25V	031-1688-0
13	640-2900-220	1	C1408	2200 uF. 25V	031-1008-0
14	642-1000-000	2	C1402, C1403	0.001 uFY Rated	039-7102-0
15	642-1000-001	1	C1401	0 47 uF X Rated	039_7474_0
16	620-5819-000	1	D1102	1N5819	020-1104-0
17	620-2002-000	12	D1101, D1103, D1104, D1105,	1N4002	020-2105-0
			D1201, D1202, D1203, D1204,		020-2105-0
			D1205, D1206, D1207, D1401		
18	620-3157-000	2	D1402, D1403	Bridge Rectifier, 1.5A	023-0002-0
19	620-3155-000	1	D1404	Bridge Rectifier, 4A	023-0002-0
20	663-1000-200	1	F1101	Fuse Holder	023-0001-0
21	664-1001-000	1	INSTALL IN HOLDER	Fuse, 1.5A 250V, Slow Blow	091-0015-0
22	664-2220-005	1	F1301	Fuse, 0.5A 125V, Slo Blo, Pico	
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52,	Filter, Ferrite, 270 pF, 16V	083-2271-0
			F153, F154, F156, F157, F159, F160,		
			FI61, FI63, FI64, FI65, FI68, FI69,		
			FI1101, FI1102, FI1103		
24	667-2001-004	1	J11	Header,4X.156 Male, RA, Plug.	093-0092-0
25	667-3500-001	18	J1101, J1102, J1103, J1104, J1105,	3.5 mm Phone Jack	092-0016-0
			J1201, J1202, J1203, J1204, J1205,		
			J1206, J1207, J1208, J1209, J1210,		
26	((7 2000 400		J1211, J1212, J1213		
20	667-3000-400	12	J201, J202, J203, J204, J301, J302,	Quad RCA Jack	092-0007-0
77	676 6000 000	a '	J401, J402, J501, J502, J601, J602		
21	636-6000-000	2	K1101, K1102	Relay, DPDT, 5V	081-0002-0
20	646 1000 040	1	K1401	Relay, SPST, 30A, 12V	081-0003-0
30	645 1000-040	1		40 uH Toroid	081-0068-0
31	645-1000-100	2	MOV1401, MOV1402	MOV 400 Volt	022-0134-0
32	667-2001-026	3	MOV11, MOV12, MOV13	MOV 50 Volt	022-0060-0
33	667-3800-010	17		Header 2X13X.1 Male RA	093-0005-0
55	007-3000-010	17	P1, P2, P3, P4, P3, P7, P8, P11, P12 P16 P17 P18 P10 P20	Male Faston PCB	092-0010-0
			P21 P22 P22		
34	667-2000-003	1	P120	Header 1828 1) (ala	
35	667-2236-000	1	INSTALLED AT P120	Shunt Jumper 0.1	002 0066 0
36	705-0600-000-A	4	P1401, P1402, P1403, P1404	12 Pin 8 5" Ribbon Cable	093-0000-0
37	705-0600-002-A	1	P106	10 Pin 3 0" Ribbon Cable	
38	705-0600-001-A	1	P111	10 Pin 475" Ribbon Cable	
39	667-5000-012	4	P1401A, P1402A, P1403A P1404A	12 Pin Wire Tran	
40	667-5000-010	2	P106A, P111A	10 Pin Wire Tran	
41	624-0056-000	9	Q1102, O1103, O1106, O1202,	MPSA 56	010-1013-0
			Q1204, Q1206, Q1208, Q1210,		010-1015-0
			Q1212		
42	624-0006-000	16	Q1101, Q1104, Q1105, O1201.	MPSA06	010-0012-0
			Q1203, Q1205, Q1207, Q1209.	-	
			Q1211, Q1213, Q1214, Q1215,		
			Q1216, Q1217, Q1218, Q1401		

ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
43	656-2337-100	2	R1, R2	INK O X 9 SIP	059 1002 0
44	651-0010-100	1	R1229	100 O 5% 1/8W CF	050 1001 0
45	651-0010-220	1	R1405	$220 \odot 5\% 1/8W, CF$	050-1001-0
46	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319	330 Ω, 5%, 1/8W, CF	050-2201-0
			R320		
47	651-0010-390	1	R1402	390 O 5% 1/9W CE	050 2001 0
48	651-0010-470	26	R411 R415 R419 R423 D427	470 0 59/ 1/8W CE	050-3901-0
			R431 R435 R439 R511 R515	470 32, 376, 178 W, CF	050-4701-0
			R519 R523 R527 R531 R535		
			R539 R611 R615 R619 R623		
			R627 R631 R635 R637 R641		
			R643		
49	651-0010-680	1	R1404	680 O 594 1/914 CE	050 (001 0
50	651-0020-100	56	R1001 R1002 R1003 R1004	110032, 5%, 1/8W, CF	050-6801-0
			R1005, R1006, R1007, R1008,	IK 12, 576, 178 W, CF	050-1002-0
			R1009, R1010, R1011, R1012		
			R1019, R1101, R1103, R1105		
			R1107, R1108, R1109, R1111		
			R1112, R1121, R1122, R1123,		
			R1124, R1201, R1202, R1203,		
			R1204, R1206, R1207, R1208,		
			R1209, R1211, R1212, R1213,		
			R1214, R1216, R1217, R1218,		
			R1219, R1221, R1222, R1223,		
			R1224, R1226, R1227, R1228,		
			R1230, R1232, R1233, R1234,		
_			R1235, R1236, R1237, R1401		
51	651-0020-300	1	R1403	3k Ω, 5%, 1/8W, CF	050-3002-0
52	651-0030-100	52	R203, R204, R209, R210, R215,	10k Ω, 5%, 1/8W, CF	050-1003-0
			R216, R221, R222, R303, R304,		
			R308, R412, R416, R420, R424,		
			R428, R432, R436, R440, R512,		
			R516, R520, R524, R528, R532,		
			R536, R540, R612, R616, R620,		
			R624, R628, R632, R636, R638,		
			R642, R644, R801, R802, R803,		
			R804, R805, R811, R1013, R1014,		
			R1015, R1016, R1017, R1018,		
52	651 0040 100		R1102, R1104, R1106		
22	051-0040-100	24	R201, R202, R207, R208, R213,	100k Ω, 5%, 1/8W, CF	050-1004-0
			R214, R219, R220, R301, R302,		
			R307, K800, K807, K808, R809,		
			ROLU, KIIIU, KIIZO, KIZUO, DIDIO DIDIE DIDOO DIDOC		
			R1210, K1213, K1220, K1225,		
54	651-0020-100	2	N1231 D717 D710		
54	JI-0020-100	۷	K/1/, K/18	1.00k \$2, 1%, 1/8W, MF	061-1002-0

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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
55	651-0000-000	53	R205, R206, R211, R212, R217,	0Ω (0.300" lead spacing)	
			R218, R223, R224, R305, R306,		
			R309, R310, R312, R314, R401,		
			R402, R405, R406, R410, R414,		
			R418, R422, R426, R430, R434,		
			R438, R501, R502, R505, R506,		
			R510, R514, R518, R522, R526,		
			R530, R534, R538, R601, R602,		
			R605, R606, R610, R614, R618,		
			R622, R626, R630, R634, R640,		
			R1301, R1302, R1303		
56	679-1000-001	1	TP1	Test Point	093-0063-0
57	605-0353-000	24	U201, U202, U203, U204, U301,	LF353N Dual JFET Opamp	001-1030-0
			U302, U403, U404, U407, U408,	- I F	
			U409, U410, U503, U504, U507,		
			U508, U509, U510, U603, U604,		
			U607, U608, U609, U610		
58	605-7712-000	1	U702	RC5532N Bi-polar Opamp	001-1042-0
59	605-6300-000	6	U405, U406, U505, U506, U605, U606	TEA 6300	001-0003-1
60	605-4052-000	6	U401, U402, U501, U502, U601, U602	CD4052	002-0051-0
61	605-2213-008	3	U999, U1201, U1202	74HC08	007-1008-0
62	605-2213-574	2	U1001, U1002	74ALS574N	002-1003-0
63	605-0004-000	1	U1203	74LS04N	002-007-4-0
64	605-2203-014	1	U904	74HC14	002-0003-0
65	605-0751-000	1	U1106	DS75176BN	001-1003-0
66	605-2213-573	1	U802	74HC573N	002-0573-0
67	605-2202-138	1	U901	74HC138	002-1138-0
68	605-2213-245	1	U902	74HC245	002-2245-0
69	605-0026-000	3	U1101, U1102, U1103	4N26	001-0004-0
70	605-4051-000	1	U1003	CD4051	002-0051-0
71	633-0317-000	2	U1401, U1402	LM317	014-0070-0
72	605-7070-000	1	U800	MAX 707CPA	002-0007-0
73	678-2247-068	1	U801	Socket 68 Pin PLCC	093-0064-0
74	678-2247-028	2	U803, U804	28 Pin DIP Socket	093-0076-0
75	631-2207-011	1	Y801	11.0592 MHz Crystal	024-1109-0
76	680-2000-000	4		Heatsink T0-220	130-0493-0
77	730-2117-000	12		Bolt 4-40X1/4" PHP CAD	111-0041-0
78	736-2117-000	2		Nut, 4-40 KEP	111-6001-0
79	770-3000-000	10		.25 x .25 Bracket Keystone #621	100-0104-0
80	750-2700-002-С	1		PX600 Main PCB REV C	

Notes: All resistors are 1/8 W with a 0.300" lead spacing.

All axial caps with a value less than 0.33 μF have a 0.300" lead spacing.

100 uF 16 V Aluminum Electrolytic Capacitor is an ECI Type CES.

22 uF 16 V Aluminum Electrolytic Capacitor is an ECI Type CES.

0.47 X Rated Cap is a Panasonic ECQ-E2A474MW.

3.5 mm Phone Jack is a Mouser 161-3505

Quad RCA Jack is an ECI RJ-PCM-204S-SG-R

The 12 Pin Wire Trap is a Molex 52007-1210.

The 10 Pin Wire Trap is a Molex 52007-1010.

One end of each 12 Pin Ribbon Cable should be installed in a Molex 51048-1200 Ribbon Cable Holder and soldered to the PC Board.

One end of each 10 Pin Ribbon Cable should be installed in a Molex 51048-1000 Ribbon Cable Holder and soldered to the PC Board.

The Test Point is a Mouser 151-103.

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ITEM	AA Part #	Qty	Reference Designator	Description
1	640-4900-102	46	C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C201, C202, C203, C204, C209, C210, C211, C212, C217, C218, C219, C220, C225, C226, C227, C228, C301, C302, C303, C304, C309, C310	0.001 uF, 50V, Ceramic. Axial
2	640-7000-001	60 ,	C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C146, C147, C414, C426, C515, C527, C614, C626, C707, C801, C806, C807, C1405, C1407, C1410, C1412, C1414	0.1 uF, 50V, Ceramic, Axial
3	641-2700-005	, ¹²	C405, C406, C411, C412, C505, C506, C512, C513, C605, C606, C611, C612	0.0056 uF, Poly
4	641-2700-033	12	C403, C404, C409, C410, C503, C504, C510, C511, C603, C604, C609, C610	0.033 uF, Poly ,
5	640-4900-018	2	C802, C803	18 pF Ceramic Axial
6	640-6000-100	54	C205, C206, C213, C214, C221, C222, C229, C230, C305, C306, C311, C313, C314, C315, C401, C402, C407, C408, C416, C418, C421, C425, C429, C431, C434, C438, C501, C502, C508, C509, C517, C519, C522, C526, C530, C532, C536, C539, C601, C602, C607, C608, C616, C618, C621, C625, C629, C631, C633, C634, C639, C640, C800, C805	10 uF, 16V, Axial
7	640-6100-010	1	C1101	10 uF. 35V, Axial
8	640-2800-220	6	C413, C427, C514, C528, C613, C627	22 uF, 16V, Radial
9	640-2900-008	10	C423, C436, C524, C537, C623, C637, C708, C709, C1102, C1411	100 uF. 16V. Radial
10	640-2900-010	1	C1201	100 uF. 50V. Radial
11	640-2900-047	3	C1406, C1409, C1415	470 uF. 25V, Radial
12	640-2900-680	1	C1413	6800 uF. 25V

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ITEM	AA Part #	Qty	Reference Designator	Description
13	640-2900-220	1	C1408	2200 uF 25V
14	642-1000-000	2	C1402, C1403	0.001 uE V Pated
15	642-1000-001	1	C1401	0.47 uE Y Poted
16	620-5819-000	t t	D1102	INS910
17	620-2002-000	12		
		12	D1201, D1202, D1203, D1204,	1114002
10	(00.0.00.00.000		D1205, D1206, D1207, D1401	
18	620-3157-000	2	D1402, D1403	Bridge Rectifier, 1.5A
19	620-3155-000	1	D1404	Bridge Rectifier, 4A
20	663-1000-200	1	F1101	Fuse Holder
21	664-1001-000	1	INSTALL IN HOLDER	Fuse, 1.5A 250V, Slow Blow
22	664-2220-005	1	F1301	Fuse, 0.5A 125V, Slo Blo, Pico
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52, FI53, FI54, FI56, FI57, FI59, FI60, FI61, FI63, FI64, FI65, FI68, FI69,	Filter, Ferrite. 270 pF, 16V
24	667 2001 004		F11101, F11102, F11103	
24	667 2500 001	1	JII	Header,4X.156 Male, RA, Plug.
23	007-3300-001	18	J1101, J1102, J1103, J1104, J1105, J1201, J1202, J1203, J1204, J1205, J1206, J1207, J1208, J1209, J1210, J1211, J1212, J1213	3.5 mm Phone Jack
26	667-3000-400	12	J201, J202, J203, J204, J301, J302, J401, J402, J501, J502, I601, I602	Quad RCA Jack
27	636-6000-000 4	2	K1101, K1102	Relay DPDT SV
28	636-6500-010	ī	K1401	Relay SPST 20A 12V
29	646-1000-040	1	L1401	AO uH Toroid
30	645-1000-100	2	MOV1401 MOV1402	
31	645-1000-200	3	MOVIL MOVI2 MOVI3	MOV 50 Volt
32	667-2001-026	1	P6	Hender 22132 1 Mala DA
33	667-3800-010	17	P1, P2, P3, P4, P5, P7, P8, P11, P12, P16, P17, P18, P19, P20, P21, P22, P23	Male Faston PCB
34	667-2000-003	1	P120	Usedas 1V2V 1 Male
35	667-2236-000	1	INSTALLED AT P120	Shurt Lumas 0.1
36	705-0600-000-4	4	P1401 P1402 P1403 P1404	12 Di- 9 Cir Dill C Ll
37	705-0600-002-A		D106	12 Pin, 8.5 Kibbon Cable
38	705-0600-001-4	1	P111	10 Pin, 3.0 Kibbon Cable
39	667-5000-012	1	P1401A P1402A P1402A P1404A	10 Pin. 4.75 Ribbon Cable
40	667-5000-012	7 7	PI06A DILLA	12 Pin wire Irap
41	624-0056-000	0	01102 01102 0110(01202	IU Pin wire Irap
••	02+-0050-000	9	Q1204, Q1206, Q1208, Q1210, Q1212	MPSA36
42	624-0006-000	16	Q1101, Q1104, Q1105, Q1201, Q1203, Q1205, Q1207, Q1209, Q1211, Q1213, Q1214, Q1215, Q1216, Q1217, Q1218, Q1401	MPSA06
43	656-2337-100	2	R1, R2	10K Ω X 9 SIP
44	651-0010-100	1	R1229	100 Ω. 5%. 1/8W. CF

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ITEM	AA Part #	Qty	Reference Designator	Description
45	651-0010-220	1	R1405	220 0 5% 1/8W CE
46	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319, R320	330 Ω, 5%, 1/8W, CF
47	651-0010-390	1	R1402	390 Ω. 5%, 1/8W CF
48	651-0010-470	26	R411, R415, R419, R423, R427, R431, R435, R439, R511, R515, R519, R523, R527, R531, R535, R539, R611, R615, R619, R623, R627, R631, R635, R637, R641, R643	470 Ω, 5%, 1/8W, CF
49	651-0010-680	1	R1404	680 Ω. 5%, 1/8W, CF
50	651-0020-300	64 ,'	R225, R228, R229, R232, R234, R235, R238, R239, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1019, R1101, R1103, R1105, R1107, R1108, R1109, R1111, R1112, R1121, R1122, R1123, R1124, R1201, R1202, R1203, R1204, R1206, R1207, R1208, R1209, R1211, R1212, R1213, R1214, R1216, R1217, R1218, R1219, R1221, R1222, R1223, R1224, R1226, R1227, R1228, R1230, R1232, R1233, R1234, R1235, R1236, R1237, R1401 P1403	21 O. 67. 179W, CF
52	651-0040-100	24	R1403 R203, R204, R209, R210, R215, R216, R221, R222, R303, R304, R308, R412, R416, R420, R424, R428, R432, R436, R440, R512, R516, R520, R524, R528, R532, R536, R540, R612, R616, R620, R624, R628, R632, R636, R638, R642, R644, R801, R802, R803, R804, R805, R811, R1013, R1014, R1015, R1016, R1017, R1018, R1102, R1104, R1106 R201, R202, R207, R208, R213	3k Ω, 5%, 1/8W, CF 10k Ω, 5%, 1/8W, CF
		-7	R214, R219, R220, R301, R302, R307, R806, R807, R808, R809, R810, R1110, R1125, R1205, R1210, R1215, R1220, R1225, R1231	100K 12. 3%, 1/8W, CF
54	651-0020-100	2	R717. R718	1.00k Ω. 1%, 1/8W, MF
55	651-0000-000	53	R205, R206, R211, R212, R217,	0Ω (0.300" lead spacing)

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ITEM	AA Part #	Qty	Reference Designator	Description
			R218, R223, R224, R305, R306,	
			R309, R310, R312, R314, R401,	
			R402, R405, R406, R410, R414,	
			R418, R422, R426, R430, R434,	
			R438, R501, R502, R505, R506,	
			R510, R514, R518, R522, R526,	
			R530, R534, R538, R601, R602,	
			R605, R606, R610, R614, R618,	
			R622, R626, R630, R634, R640,	
			R1301, R1302, R1303	
56	679-1000-001	1	TP1	Test Point
57	605-0353-000	24	U201, U202, U203, U204, U301,	LF353N Dual JFET Opamp
			U302, U403, U404, U407, U408,	•••
			U409, U410, U503, U504, U507,	
			U508, U509, U510, U603, U604,	
50	(05 7710 000		U607, U608, U609, U610	
28 50	605-7712-000	1	0702	RC5532N Bi-polar Opamp
29	003-0300-000	6,	U405, U406, U505, U506, U605,	TEA 6300
60	605 4052 000		U606	
00	003-4032-000	0	U401, U402, U501, U502, U601, U602	CD4052
61	605-2213-008	3	U999 U1201 U1202	744009
62	605-2213-574	,2	U1001, U1002	7411C08 74 A I S574NI
63	605-0004-000	$\frac{1}{1}$	U1203	74I SOAN
64	605-2203-014	1	U904	74HC14
65	605-0751-000	1	U1106	D\$75176BN
66	605-2213-573	1	U802	74HC573N
67	605-2202-138	1	U901	74HC138
68	605-2213-245	I	U902	74HC245
69	605-0026-000	3	U1101, U1102, U1103	4N26
70	605-4051-000	1	U1003	CD4051
71	633-0317-000	2	U1401, U1402	LM317
72	605-7070-000	1	U800	MAX 707CPA
13	678-2247-068	1	U801	Socket 68 Pin PLCC
74	6/8-2247-028	2	U803, U804	28 Pin DIP Socket
15	631-2207-011	1	Y801	11.0592 MHz Crystal
70 77	080-2000-000	4		Heatsink T0-220
// 79	736-2117-000	12		Bolt 4-40X1/4" PHP CAD
70 70	770 2000 000	2		Nut, 4-40 KEP
80	750 2700 002 5	10		.25 x .25 Bracket Keystone #621
30	750-2700-002-D	1		PX600 Main PCB REV D

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ITEM	AA Part #	Qty	Reference Designator	Description
1	640-4900-102	46	C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C201, C202, C203, C204, C209, C210, C211, C212, C217, C218, C219, C220, C225, C226, C227, C228, C301, C302, C303, C304, C309, C310	0.001 uF. 50V, Ceramic, Axial
2	640-7000-001	60	C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C146, C147, C414, C426, C515, C527, C614, C626, C707, C801, C806, C807, C1405, C1407, C1410, C1412, C1414	0.1 uF, 50V, Ceramic, Axial
3	641-2700-005	₁ ′ 12	C405, C406, C411, C412, C505, C506, C512, C513, C605, C606, C611, C612	0.0056 uF, Poly
4	641-2700-033	12	C403, C404, C409, C410, C503, C504, C510, C511, C603, C604, C609, C610	0.033 uF. Poly
5 6	640-4900-018 640-6000-100	2 54	C802, C803 C205, C206, C213, C214, C221, C222, C229, C230, C305, C306, C311, C313, C314, C315, C401, C402, C407, C408, C416, C418, C421, C425, C429, C431, C434, C438, C501, C502, C508, C509, C517, C519, C522, C526, C530, C532, C536, C539, C601, C602, C607, C608, C616, C618, C621, C625, C629, C631, C633, C634, C630, C610, C800, C805	18 pF, Ceramic, Axial 10 uF, 16V. Axial
7	640-6100-010	1	C1101	10 uF 35V Axial
8	640-2800-220	6	C413, C427, C514, C528, C613, C627	22 uF, 16V, Radiał
9	640-2900-008	10	C423. C436, C524, C537, C623, C637, C708, C709, C1102, C1411	100 uF, 16V, Radial
10	640-2900-010	1	C1201	100 uF, 50V, Radial
11 12	640-2900-047 640-2900-680	3 1	C1406. C1409, C1415 C1413	470 uF, 25V. Radial 6800 uF, 25V

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ITEM	AA Part #	Qty	Reference Designator Description	
13	640-2900-220	1	C1408	2200 uF. 25V
14	642-1000-000	2	C1402, C1403	0 001 uFY Rated
15	642-1000-001	1	C1401	0.47 uF X Rated
16	620-5819-000	1	D1102	1N5810
17	620-2002-000	12		1113013
		12	D1201, D1202, D1203, D1204, D1205, D1206, D1207, D1401	1114002
18	620-3157-000	2	D1402, D1403	Bridge Rectifier, 1.5A
19	620-3155-000	1	D1404	Bridge Rectifier, 4A
20	663-1000-200	1	F1101	Fuse Holder
21	664-1001-000	1	INSTALL IN HOLDER	Fuse 1.5A 250V Slow Blow
22	664-2220-005	1	F1301	Fuse 0.54 125V Slo Blo Bigs
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52, FI53, FI54, FI56, FI57, FI59, FI60, FI61, FI63, FI64, FI65, FI68, FI69, FI1101, FI1102, FI1103	Filter, Ferrite, 270 pF, 16V
24	667-2001-004	1	J11	Header.4X.156 Male, RA, Plug
25	667-3500-001	18 ,	J1101, J1102, J1103, J1104, J1105, J1201, J1202, J1203, J1204, J1205, J1206, J1207, J1208, J1209, J1210, J1211, J1212, J1213	3.5 mm Phone Jack
26	667-3000-400	12	J201, J202, J203, J204, J301, J302, J401, J402, J501, J502, J601, J602	Quad RCA Jack
27	636-6000-000	2	K1101. K1102	Relay DPDT 5V
28	636-6500-010	1	K1401	Relay SPST 304 12V
29	646-1000-040	1	L1401	40 uH Toroid
30	645-1000-100	2	MOV1401 MOV1402	MOV 400 Volt
31	645-1000-200	3	MOV11 MOV12 MOV13	MOV 50 Volt
32	667-2001-026	1	P6	Header 22132 1 Male DA
33	667-3800-010	17	P1, P2, P3, P4, P5, P7, P8, P11, P12, P16, P17, P18, P19, P20, P21, P22, P23	Male Faston PCB
34	667-2000-003	1	P120	Header 1X3X 1 Male
35	667-2236-000	1	INSTALLED AT P120	Shunt Jumper 0.1
36	705-0600-000-A	4	P1401 P1402 P1403 P1404	12 Pin 85" Pibbon Cable
37	705-0600-002-A	1	P106	10 Pin 3 0" Pibbon Cable
38	705-0600-001-A	1	P111	10 Pin 475" Pibbon Cable
39	667-5000-012	4	PI401A PI402A PI403A PI404A	12 Pin Wise Tree
40	667-5000-010	2	D106A D111A	10 Die Wies Tree
41	624-0056-000	<u>^</u>	01102 01102 01106 01202	MDSA56
••	024-0050-000	9	Q1204, Q1206, Q1208, Q1210, Q1212	MPSA30
42	624-0006-000	16	Q1101, Q1104, Q1105, Q1201, Q1203, Q1205, Q1207, Q1209, Q1211, Q1213, Q1214, Q1215, Q1216, Q1217, Q1218, Q1401	MPSA06
43	656-2337-100	2	R1, R2	10K Ω X 9 SIP
44	651-0010-100	1	R1229	100 Ω. 5%. 1/8W, CF

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ITEM	AA Part #	Qty	Reference Designator	Description
45	651-0010-220	1	R 1405	220 0 50 URW CT
46	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319, R320	330 Ω, 5%, 1/8W, CF
47	651-0010-390	1	R1402	300 0 50 1/9W CE
48	651-0010-470	26	R411, R415, R419, R423, R427, R431, R435, R439, R511, R515, R519, R523, R527, R531, R535, R539, R611, R615, R619, R623, R627, R631, R635, R637, R641, R643	470 Ω, 5%, 1/8W, CF
49	651-0010-680	1	R1404	680 0 5% 1/8W CE
50	651-0020-300	, 64	R1404 R225, R228, R229, R232, R234, R235, R238, R239, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1019, R1101, R1103, R1105, R1107, R1108, R1109, R1111, R1112, R1121, R1122, R1123, R1124, R1201, R1202, R1203, R1204, R1206, R1207, R1208, R1209, R1211, R1212, R1213, R1214, R1216, R1217, R1218, R1219, R1221, R1222, R1223, R1224, R1226, R1227, R1228, R1230, R1232, R1233, R1234, R1235, R1236, R1237, R1401	080 Ω, 5%, 1/8W, CF lk Ω, 5%, 1/8W, CF
52	651-0030-100	52	R1403 R203, R204, R209, R210, R215, R216, R221, R222, R303, R304, R308, R412, R416, R420, R424, R428, R432, R436, R440, R512, R516, R520, R524, R528, R532, R536, R540, R612, R616, R620, R624, R628, R632, R636, R638, R642, R644, R801, R802, R803, R804, R805, R811, R1013, R1014, R1015, R1016, R1017, R1018, R1102, R1104, R1106	3k Ω, 5%, 1/8W, CF 10k Ω, 5%, 1/8W, CF
53	651-0040-100	24	R201, R202, R207, R208 , R213, R214, R219, R220, R301 , R302, R307, R806, R807, R808 , R809, R810, R1110, R1125, R1205 , R1210, R1215, R1220, R1225 , R1231	100k Ω, 5%. 1/8W, CF
54	651-0020-100	2	R717, R718	1.00k Ω. 1%. 1/8W, MF
22	651-0000-000	53	R205, R206, R211, R212, R217,	0Ω (0.300" lead spacing)

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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ITEM	AA Part #	Qty	Reference Designator	Description
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				R218, R223, R224, R305, R306,	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				R309, R310, R312, R314, R401,	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				R402, R405, R406, R410, R414,	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				R418, R422, R426, R430, R434,	
R510, R514, R518, R522, R526, R530, R534, R538, R601, R602, R605, R606, R610, R614, R618, R622, R626, R630, R634, R640, R1301, R1302, R1303 1.5k Ω, 1/8W, 5% 56 651-0020-150 2 R1113, R1115 1.5k Ω, 1/8W, 5% 57 679-1000-001 1 TP1 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610 Test Point LF353N Dual JFET Opamp				R438, R501, R502, R505, R506,	
R530, R534, R538, R601, R602, R605, R606, R610, R614, R618, R622, R626, R630, R634, R640, R1301, R1302, R1303 1.5k Ω, 1/8W, 5% 56 651-0020-150 2 R1113, R1115 1.5k Ω, 1/8W, 5% 57 679-1000-001 1 TP1 Test Point 58 605-0353-000 24 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610 Test Point				R510, R514, R518, R522, R526,	
Figure 1 R605, R606, R610, R614, R618, R622, R626, R630, R634, R640, R1301, R1302, R1303 Figure 1 R1301, R1302, R1303 Figure 1 R1113, R1115 Figure 1 TP1 Figure 1 TP1 Test Point LF353N Dual JFET Opamp U201, U202, U203, U204, U301, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610				R530, R534, R538, R601, R602,	
56 651-0020-150 2 R1113, R1102, R1303 56 651-0020-150 2 R1113, R1115 1.5k Ω, 1/8W, 5% 57 679-1000-001 1 TP1 Test Point 58 605-0353-000 24 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U508, U609, U610 Test Point				R605, R606, R610, R614, R618,	
56 651-0020-150 2 R1301, R1302, R1303 R1113, R1115 1.5k Ω, 1/8W, 5% 57 679-1000-001 1 TP1 Test Point 58 605-0353-000 24 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610 Test Point				R622, R626, R630, R634, R640,	
56 651-0020-150 2 R1113, R1115 1.5k Ω, 1/8W, 5% 57 679-1000-001 1 TP1 Test Point 58 605-0353-000 24 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610 Test Point	- /	(1)		R1301, R1302, R1303	
57 679-1000-001 1 TP1 Test Point 58 605-0353-000 24 U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610 Test Point	56	651-0020-150	2	R1113, R1115	1.5k Ω, 1/8W, 5%
58 605-0353-000 24 U201, U202, U203, U204, U301, LF353N Dual JFET Opamp U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610	57	679-1000-001	1	TPI	Test Point
U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610	28	005-0353-000	24	U201, U202, U203, U204, U301,	LF353N Dual JFET Opamp
U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610				U302, U403, U404, U407, U408,	
U508, U509, U510, U603, U604, U607, U608, U609, U610				U409, U410, U503, U504, U507,	
0607, 0608, 0609, 0610				U508, U509, U510, U603, U604,	
	50	605 7712 000	, ,	U607, U608, U609, U610	
60 605-6300 000 6 U105 U105 U105 U105 U105 U105	60	605-6300 000	I C		RC5532N Bi-polar Opamp
00 005-0500-000 0 0405, 0406, 0505, 0506, 0605, TEA 6300	00	000-000-000	0	0405, 0406, 0505, 0506, 0605, 11606	TEA 6300
61 605-4052-000 6 U401 U402 U501 U502 U601 CD4052	61	605-4052-000	6	U401 U402 U501 U502 U601	CD4052
U602			1	U602	CD4052
62 605-2213-008 3 U999, U1201, U1202 74HC08	62	605-2213-008	' 3	U999, U1201, U1202	74HC08
63 605-2213-574 2 U1001, U1002 74AL\$574N	63	605-2213-574	2	U1001, U1002	74AL\$574N
64 605-0004-000 1 U1203 74LS04N	64	605-0004-000	1	U1203	74LS04N
65 605-2203-014 1 U904 74HC14	65	605-2203-014	1	U904	74HC14
66 328-00008-00 1 U1106 8 Pin DIP Socket	66	328-00008-00	1	U1106	8 Pin DIP Socket
67 605-2213-573 1 U802 74HC573N	67	605-2213-573	1	U802	74HC573N
68 605-2202-138 1 U901 74HC138	68	605-2202-138	1	U901	74HC138
69 605-2213-245 1 U902 74HC245	09 70	605-2213-245	1	U902	74HC245
70 605-0026-000 3 U1101, U1102, U1103 4N26	70	605-0026-000	3	U1101, U1102, U1103	4N26
71 605-4051-000 1 U1003 CD4051	71	605-4051-000	1	U1003	CD4051
72 055-0517-000 2 U1401, U1402 LM317	72	605 7070 000	2	U1401, U1402	LM317
75 005-7070-000 1 U800 MAX 707CPA	74	678 2247 049	1		MAX 707CPA
75 678-2247-008 1 U801 Socket 68 Pin PLCC	75	678-2247-008	1		Socket 68 Pin PLCC
76 631-2207 011 1 X801 28 Pin DIP Socket	76	631-2207 011	2	U803, U804	28 Pin DIP Socket
77 680-2000-000 4 1801 11.0592 MHz Crystal	77	680-2000-000	1	1 001	11.0592 MHz Crystal
78 730-2117-000 12 Heatsink T0-220	78	730-2117-000	4		Heatsink TO-220
79 736-2117-000 2 Boit 4-40X1/4" PHP CAD	79	736-2117-000	1. <u>~</u> 2		Boit 4-40X 1/4" PHP CAD
80 770-3000-000 10	80	770-3000-000	10		Nut. 4-40 KEP
81 750-2700-002-D 1	81	750-2700-002-D	1		.25 X .25 Bracket Keystone #621
82 605-0751-000 1 INSTALL IN SOCKET 111106 DS75176PM	82	605-0751-000	1	INSTALL IN SOCKET 11106	r AUUU Main PUB KEV D DS75176BN

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Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - Non US Model Rev E Revised 3/17/97

Level	Part Number	Rev	Qty	Description	
0	PX600-NUS	00	1	PX600 Multiroom Preamp	Export Version
1	900-0600-001	00	1	Kit, Shipping, PX600-NUS	
2	664-2101-100		1	Fuse, 5X20mm, T1A, SEMKO	
2	380-10050-00		1	Fuse, 5x20mm, 500mA 250V, SEMKO	
2	380-10160-00		1	Fuse, 5x20mm, 1.6A 2500V SEMKO	
2	190-20672-00		1	Cable Core, w/hldr, 0.390"/110 ohm	
2	190-20642-00		1	Cable Core, w/hldr, 0.250"/130 ohm	
2	474-02001-00		1	Label, CE, Outer Package	
1	801-3150-000		1	Shipping Bag, Anti-Static, 24X24	
1	800-3160-000	00	1	Shipping Box, PX600/PX612	
1	805-3000-005	00	1	Shipping Foam, PX600/PX612	
1	820-0600-000	00	1	Instruction Sheet, PX600	
1	800-4000-000	00	1	Warranty Card	
1	825-0600-000		1	Installation Manual, PX-600	
1	826-0600-000		1	Owner's Manual, PX-600	
1	700-1000-210		3	Wire Assy, Xantech IR Emitter	
1	920-0600-001	00	1	Assembly, Final, PX600-NUS	Assembled and Tested
2	760-4600-009	Α	1	Chassis, PX600-NUS	
2	905-0600-000	00	1	Kit, Chassis Hardware, PX600	
3	760-4600-005	Е	1	Chassis, Top Cover, PX600	
3	690-3500-010		1	Conn. AC Male W/Switch & Fuse	
3	720-2500-010		4	Foot, Snap In, Gold	TAC 1319-03901
3	730-2320-000		12	Screw,#4X3/8" Blk, Sheet Metal	
3	730-2117-000		8	Screw,4-40X1/4" Phil Pan Zinc	
3	734-3500-004		8	Washer, #4 Internal Star	
3	730-2117-001		2	Screw, 4-40X1/4" PH, Blk, Self Tp	
3	730-2117-003		7	Screw, 4-40X5/8" PH PAN BLK MCH	
3	770-1200-000		7	Spacer, Nylon, 4-40X5/16", Hex	Microplastics 14HTSP022
3	736-2117-000		7	Nut, KEP 4-40 X 1/4"	
3	730-2321-101		15	Screw.6-32X1/4" PH PAN TAP BLK	
3	700-0600-000	Α	1	Wire Assy,X,X",BLK,18AWG, MF/MF	
3	700-0600-001	Α	1	Wire Assy X.X", WHT, 18AWG, MF/MF	
3	700-0600-002	Α	1	Wire Assy,X,X",G/Y,18AWG,RT/ST	
3	458-00041-00		1	Wire Assy, AWG26, F-F, 12" Wht	
3	734-3500-006		1	Washer, #6 Internal Star	
3	730-2330-000		1	Screw, 6-32X3/4", PHIL PAN ZINC	
3	736-2117-001		2	Nut, KEP 6-32 X 5/16"	
3	730-2321-001		2	Screw, 6-32X3/8" PH PAN BLK MCH	
3	735-4500-000		7	Cable Tie, 4"	
3	736-2200-000		2	Nut, Nylock, Hex, 6-32	
3	734-1000-010		2	Washer, Rubber Grommet, Keystone #730	
3	667-1000-006		1	Screw Terminal, 4 Pos Plugable	
3	470-00043-00		1	Label, T500mA 250V, PX-600/230V	
3	472-00043-00		1	Label, T1.6A 250V, PX-600/230V	
3	472-02001-00		1	Label, SEMKO	
3	473-02001-00		1	Label, CE, Product	

Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - Non US Model Rev E Revised 3/17/97

Level	Part Number	Rev	Qty	Description	
2	371-00043-00		1	Transformer, PX600 SEMKO/VDE	
3	690-3550-000		1	Conn., AC Female 3 Prong. IEC	
3	700-0600-004	Α	1	Wire Assy X.X".BLK.18AWG.MF/SF	
3	700-0600-005	Α	1	Wire Assy X.X", WHT 18AWG MF/SF	
3	700-0600-006	Α	1	Wire Assy,X.X".G/Y.18AWG.RT/ST	
2	925-0600-000	B0	1	Assembly.Board.AT.PX600 Main	
3	926-0600-000	B0	1	Assembly, Board, TK, PX600 Main	
3	610-2712-000		1	I.C. 27C512-200	
3	606-1244-000		1	BO4011Y-200 (Static RAM)	
3	606-8055-000		1	I.C. 80C552-4A68 Signetics	
2	930-0600-001	00	1	Assembly, Mech, AT, PX600 Frnt Pl	
3	906-0600-000	00	1	Kit, Chassis, PX600 Front Panel	
4	741-1000-021	00	1	Knob, PX600, Modified	
5	741-1000-020		1	Knob, TAC AP2500	TAC 1630-04902
5	401-0600-000		1	Printing, PX-600 Knob	
5	640-00125-00		1	Spacer, Nylon Rnd, .1875" x .125"	
4	780-0600-001	00	6	Pushbutton Bezel, Modified	
5	780-0600-000		6	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-000		2	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-002		8	Bezel Light Pipe, TAC	TAC 1732-08801
4	740-0600-000		8	Pushbutton Switch Cap, TAC	TAC 1662-66902
4	735-0100-000	А	1	Adhesive, Die Cut, PX600 FP	
4	780-0600-100		1	Window, IR	TAC 1532-21101
4	770-1500-100		8	Spacer, NYLON, T1 LED, .20"	
4	736-2117-000		8	Nut, KEP 4-40 X 1/4"	
4	730-2321-101		7	Screw, 6-32X1/4" PH PAN TAP BLK	
4	780-0600-050		1	End Cap, Right TAC 90 mm	TAC 1562-08302
4	780-0600-051		1	End Cap, Left TAC 90 mm	TAC 1562-08202
4	705-1000-850	Α	1	Rib Ass'y, 26 Pin, F-F, XX"	
4	760-4600-001	В	1	Chassis, PX600 Z Bracket	
4	760-4600-002	В	1	Chassis, PX600 Front Panel	
4	760-4600-000	В	1	Chassis, PX600 Pot Mnt Bracket	
3	925-0600-001	C0	1	Assembly, Board, AT, PX600 FP	
4	926-0600-001	C0	1	Assembly, Board, TK, PX600 FP	



ITEM	AA Part #	Qty	Reference Designator	Description
1	640-4900-102	46	C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C201, C202, C203, C204, C209, C210, C211, C212, C217, C218, C219, C220, C225, C226, C227, C228, C301, C302, C303, C304,	0.001 uF, 50V, Ceramic, Axial
2	640-7000-001	60	C309, C310 C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C146, C147, C414, C426, C515, C527, C614, C626, C707, C801, C806, C807, C1405, C1407, C1410, C1412, C1414	0.1 uF, 50V, Ceramic, Axial
3	641-2700-005	12	C405, C406, C411, C412, C505, C506, C512, C513, C605, C606, C611, C612	0.0056 uF, Poly
4	641-2700-033	12	C403, C404, C409, C410, C503, C504, C510, C511, C603, C604, C609, C610	0.033 uF, Poly
5	640-4900-018	2	C802, C803	18 nF Ceramic Axial
6	640-6000-100	54	C205, C206, C213, C214, C221, C222, C229, C230, C305, C306, C311, C313, C314, C315, C401, C402, C407, C408, C416, C418, C421, C425, C429, C431, C434, C438, C501, C502, C508, C509, C517, C519, C522, C526, C530, C532, C536, C539, C601, C602, C607, C608, C616, C618, C621, C625, C629, C631, C633, C634, C639, C640, C800, C805	10 uF, 16V, Axial
7	640-6100-010	1	C1101	10 uF, 35V, Axial
8	640-2800-220	6	C413, C427, C514, C528, C613, C627	22 uF, 16V, Radial
9	640-2900-008	10	C423, C436, C524, C537, C623, C637, C708, C709, C1102, C1411	100 uF, 16V, Radial
10	640-2900-010	1	C1201	100 uF, 50V, Radial
11	640-2900-047	3	C1406, C1409, C1415	470 uF, 25V, Radial

ITEM	AA Part #	Qty	Reference Designator	Description
12	640-2900-680	1	C1413	6800 uF 25V
13	640-2900-220	1	C1408	2200 uF 25V
14				2200 u i ; 25 v
15				
16	620-5819-000	1	D1102	1N5810
17	620-2002-000	12	D1101, D1103, D1104, D1105	1N4002
			D1201, D1202, D1203, D1204	110002
			D1205, D1206, D1207, D1401	
18	620-3157-000	2	D1402, D1403	Bridge Rectifier 1.54
19	620-3155-000	1	D1404	Bridge Rectifier 4A
20	690-01000-00	1	F1101	Fuse Holder
21	320-00012-00	4	P1401, P1402, P1403, P1404	Ribbon Holder 2mm 12 Cond
22	320-00010-00	2	P106, P111	Ribbon Holder 2mm 10 Cond
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52,	Filter Ferrite 270 pF 16V
			FI53, FI54, FI56, FI57, FI59, FI60,	, · on
			FI61, FI63, FI64, FI65, FI68, FI69,	
			FI1101, FI1102, FI1103	
24	667-2001-004	1	J11	Header.4X.156 Male RA Plug
25	667-3500-001	18	J1101, J1102, J1103, J1104, J1105,	3.5 mm Phone Jack
			J1201, J1202, J1203, J1204, J1205,	
			J1206, J1207, J1208, J1209, J1210,	
			J1211, J1212, J1213	
26	667-3000-400	12	J201, J202, J203, J204, J301, J302,	Quad RCA Jack
07	(2) (()) ()	_	J401, J402, J501, J502, J601, J602	
27	636-6000-000	2	K1101, K1102	Relay, DPDT, 5V
28	308-15012-00	1	K1401	Relay, SPST, 30A, 12V
29	646-1000-040	1	L1401	40 uH Toroid
21	045-1000-100	2	MOV1401, MOV1402	MOV 400 Volt
27	667 2001 026			
32	667 2800 010	1	P6	Header 2X13X.1 Male RA
22	007-3800-010	14	P1, P2, P4, P5, P7, P8, P11,	Male Faston PCB
			P12, P16, P17, P18, P19, P20,	
34	667-2000-003	,	P21 D120	
35	667-2236-000	1		Header,1X3X.1 Male
36	705-0600-000 A	1	DIALLED AT PIZU	Shunt Jumper 0.1
37	705-000-000-A	- 4 1	P1401, P1402, P1403, P1404	12 Pin, 8.5" Ribbon Cable
38	705-0600-002-A	1	P100	10 Pin, 3.0" Ribbon Cable
39	667-5000-012	1	P1401A P1402A P1402A P1404A	10 Pin, 4.75" Ribbon Cable
40	667-5000-012	7 2	P106A D111A	12 Pin Wire Trap
41	624-0056-000	16	01102 01102 01106 01107	IU PIN WIRE I rap
-		10	Q1202, Q1103, Q1100, Q1107, Q1202 Q1204 Q1204 Q1204 Q1204 Q1204 Q1209	MIL2Y20
			$Q_{1202}, Q_{1204}, Q_{1200}, Q_{1208}, Q_{1210}$	
			01221 01222 01223 01224	
			X, X, X1223, X1224	

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ITEM	AA Part #	Qty	Reference Designator	Description
42	624-0006-000	16	Q1101, Q1104, Q1105, Q1201, Q1203, Q1205, Q1207, Q1209, Q1211, Q1213, Q1214, Q1215, Q1216, Q1217, Q1218, Q1401	MPSA06
43	656-2337-100	2	R1, R2	10K Ω X 9 SIP
44	651-0010-100	1	R1229	100 Ω. 5% 1/8W CF
45	651-0010-220	1	R1405	$220 \Omega, 5\%, 1/8W, CF$
46	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319, R320	330 Ω, 5%, 1/8W, CF
47	651-0010-390	1	R1402	390 Ω. 5%, 1/8W CF
48	651-0010-470	26	R411, R415, R419, R423, R427, R431, R435, R439, R511, R515, R519, R523, R527, R531, R535, R539, R611, R615, R619, R623, R627, R631, R635, R637, R641, R643	470 Ω, 5%, 1/8W, CF
49	651-0010-680	1	R1404	680 Q 5% 1/8W CF
50	651-0020-100	63	R225, R228, R229, R232, R234, R235, R238, R239, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1019, R1101, R1103, R1105, R1107, R1108, R1109, R1117, R1121, R1122, R1123, R1124, R1201, R1202, R1203, R1204, R1206, R1207, R1208, R1209, R1211, R1212, R1213, R1214, R1216, R1217, R1218, R1219, R1221, R1222, R1223, R1224, R1226, R1227, R1228, R1230, R1239, R1242, R1245, R1248, R1251,	1k Ω, 5%, 1/8W, CF
51	651-0020-300	1	R1403	3k Ω, 5%, 1/8W, CF

ITEM	AA Part #	Qty	Reference Designator	Description
52	651-0030-100	73	R203, R204, R209, R210, R215, R216, R221, R222, R303, R304, R308, R412, R416, R420, R424, R428, R432, R436, R440, R512, R516, R520, R524, R528, R532, R536, R540, R612, R616, R620, R624, R628, R632, R636, R638, R642, R644, R801, R802, R803, R804, R805, R811, R1013, R1014, R1015, R1016, R1017, R1018, R1102, R1104, R1106, R1111, R1116, R1118, R1232, R1233, R1234, R1235, R1236, R1237, R1238, R1240, R1241, R1243, R1244, R1246, R1247, R1249, R1250, R1252, R1253, R1255	10k Ω, 5%, 1/8W, CF
53	651-0040-100	24	R201, R202, R207, R208, R213, R214, R219, R220, R301, R302, R307, R806, R807, R808, R809, R810, R1110, R1125, R1205, R1210, R1215, R1220, R1225, R1231	100k Ω, 5%, 1/8W, CF
54 55	651-0020-100	2	R717, R718	$1.00k \Omega$, 1%, 1/8W, MF
56	651-0020-150	2	R1113, R1115	1.5k Ω, 1/8W, 5%
57	679-1000-001	1	TP1	Test Point
58	605-0353-000	24	U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610	LF353N Dual JFET Opamp
59	605-7712-000	1	U702	RC5532N Bi-polar Opamp
60	605-6300-000	6	U405, U406, U505, U506, U605, U606	TEA 6300
61	605-4052-000	6	U401, U402, U501, U502, U601, U602	CD4052
62	605-2213-008	3	U999, U1201, U1202	74HC08
63	605-2213-574	2	U1001, U1002	74AL\$574N
64	605-0004-000	1	U1203	741 S04N
65	605-2203-014	1	U904	74HC14
66	328-00008-00	1	U1106	8 Pin DIP Socket
67	605-2213-573	1	U802	74HC573N
68	605-2202-138	. 1	U901	74HC138
69	605-2213-245	1	U902	74HC245
70	605-0026-000	3	U1101, U1102, U1103	4N26
71	605-4051-000	1	U1003	CD4051

ITEM	AA Part #	Qty	Reference Designator	Description
72	633-0317-000	2	U1401, U1402	LM317
73	605-7070-000	1	U800	MAX 707CPA
74	678-2247-068	1	U801	Socket 68 Pin PLCC
75	678-2247-028	2	U803, U804	28 Pin DIP Socket
76	631-2207-011	1	Y801	11.0592 MHz Crystal
77	680-2000-000	4		Heatsink TO-220
78	730-2117-000	12		Bolt 4-40X1/4" PHP CAD
79	736-2117-000	2		Nut, 4-40 KEP
80	770-3000-000	10		.25 x .25 Bracket Keystone #621
81	750-2700-002-Е	1		PX600 Main PCB REV E
82	605-0751-000	1	INSTALL IN SOCKET U1106	DS75176BN
83		1	R1112	120 Ω, 5%, 1/8W, CF
84	320-52102-00	1	P9	HEADER, 1x2, RT ANG
85	135-30147-00	20	C1103, C1104, C1105, C1106,	470Pf, 100V, Axial
			C1107, C1108, C1202, C1203,	
			C1204, C1205, C1206, C1207,	
			C1209, C1210, C1211, C1212	
			C1213, C1214, C1215, C1216	
86		1	C1208	.01uF, 50V, Axial
87	381-00020-00	7	F1102, F1201, F1202, F1203,	.2A, Polyswitch
0.0			F1204, F1205, F1206	
88	205-10068-00	2	D1109, D1110	TVS, 6.8V, 1500W
89	644-1000-015	1	D1108	TVS, 15V, 1500W
90	663-1000-100	2	F1301	Fuse clips

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ITEM	AA Part #	Qty	Reference Designator	Description
I	640-4900-102	46	C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C201, C202, C203, C204, C209, C210, C211, C212, C217, C218, C219, C220, C225, C226, C227, C228, C301, C302, C303, C304, C309, C310	0.001 uF, 50V. Ceramic, Axial
2	640-7000-001	60	C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C146, C147, C414, C426, C515, C527, C614, C626, C707, C801, C806, C807, C1405, C1407, C1410, C1412, C1414	0.1 uF, 50V, Ceramic, Axial
3	641-2700-005	12	C1414 C405, C406, C411, C412, C505, C506, C512, C513, C605, C606, C611, C612	0.0056 uF, Poly
4	641-2700-033	12	C403, C404, C409, C410, C503, C504, C510, C511, C603, C604, C609, C610	0.033 uF, Poly
5 6	640-4900-018 640-6000-100	2 54	, C802, C803 C205, C206, C213, C214, C221, C222, C229, C230, C305, C306, C311, C313, C314, C315, C401, C402, C407, C408, C416, C418, C421, C425, C429, C431, C434, C438, C501, C502, C508, C509, C517, C519, C522, C526, C530, C532, C536, C539, C601, C602, C607, C608, C616, C618, C621, C625, C629, C631, C633, C634,	18 pF, Ceramic, Axial 10 uF, 16V, Axial
7	640-6100-010	1	C_{1101}	10 5 251 4 11
8	640-2800-220	6	C413, C427, C514, C528, C613, C627	22 uF, 16V, Radial
9	640-2900-008	10	C423, C436, C524, C537, C623, C637, C708, C709, C1102, C1411	100 uF, 16V, Radial
10	640-2900-010	1	C2302	100 uF, 50V, Radial
11 12	640-2900-047 640-2900-680	3 1	C1406, C1409, C1415 C1413	470 uF, 25V, Radial 6800 uF, 25V

ITEM	AA Part #	Qty	Reference Designator	Description
13 14	640-2900-220	1	C1408	2200 uF, 25V
15	642-1000-001	1	C1401	0.47 uE X Poted
16	620-5819-000	1	D1102	1N5810
17	620-2002-000	12	D1101, D1103, D1104, D1105	1N3013
			D1201, D1202, D1203, D1204, D1205, D1206, D1207, D1401	1114002
18	620-3157-000	2	D1402, D1403	Bridge Rectifier, 1.5A
19	620-3155-000	1	D1404	Bridge Rectifier, 4A
20	690-01000-00	1	F1101	Fuse Holder
21	320-00012-00	4	P1401, P1402, P1403, P1404	Ribbon Holder, 2mm 12 Cond
22	320-00010-00	2	P106, P111	Ribbon Holder, 2mm, 10 Cond
23	647-1000-270	21	FI47, FI48, FI49, FI50, FI51, FI52,	Filter, Ferrite, 270 pF 16V
			FI53, FI54, FI56, FI57, FI59, FI60,	, =, = . • p1 , 1 0 ,
			FI61, FI63, FI64, FI65, FI68, FI69,	· · · · · · · · · · · · · · · · · · ·
			FI1101, FI1102, FI1103	
24	667-2001-004	1	J11	Header.4X.156 Male, RA, Plug
25	667-3500-001	18	J1101, J1102, J1103, J1104, J1105,	3.5 mm Phone Jack
			J1201, J1202, J1203, J1204, J1205,	
			J1206, J1207, J1208, J1209, J1210,	
			J1211, J1212, J1213	
26	667-3000-400	12	J201, J202, J203, J204, J301, J302,	Ouad RCA Jack
			J401, J402, J501, J502, J601, J602	
27	636-6000-000	2	K1101, K1102	Relay, DPDT, 5V
28	308-15012-00	1	K1401	Relay, SPST, 30A, 12V
29	646-1000-040	1	L1401	40 uH Toroid
30	645-1000-100	2	MOV1401, MOV1402	MOV 400 Volt
31				
32	667-2001-026	1	• P6	Header 2X13X.1 Male RA
33	667-3800-010	14	P1, P2, P4, P5, P7, P8, P11,	Male Faston PCB
			P12, P16, P17, P18, P19, P20,	
. .			P21	
34	667-2000-003	1	P120	Header,1X3X.1 Male
35	667-2236-000	1	INSTALLED AT P120	Shunt Jumper 0.1
36	705-0600-000-A	4	P1401, P1402, P1403, P1404	12 Pin, 8.5" Ribbon Cable
37	705-0600-002-A	1	P106	10 Pin, 3.0" Ribbon Cable
38	705-0600-001-A	1	P111	10 Pin, 4.75" Ribbon Cable
39	667-5000-012	4	P1401A, P1402A, P1403A, P1404A	12 Pin Wire Trap
40	667-5000-010	2	P106A, P111A	10 Pin Wire Trap
41	624-0056-000	16	Q1102, Q1103, Q1106, Q1107,	MPSA56
			Q1202, Q1204, Q1206, Q1208,	
			Q1210, Q1212, Q1219, Q1220,	
			Q1221, Q1222, Q1223, Q1224	

ITEM	AA Part #	Qty	Reference Designator	Description
42	624-0006-000	16	Q1101. Q1104. Q1105. Q1201, Q1203, Q1205. Q1207, Q1209, Q1211, Q1213, Q1214. Q1215, Q1216, Q1217, Q1218, Q1401	MPSA06
43	656-2337-100	2	R1, R2	IOK O X 9 SIP
44	651-0010-100	1	R1229	100 Q 5% 1/8W CE
45	651-0010-220	1	R1405	220 Q 5% 1/8W CE
46	651-0010-330	11	R226, R227, R230, R231, R233, R236, R237, R250, R316, R319, R320	330 Ω, 5%, 1/8W. CF
47	651-0010-390	1	R1402	390 O 5% 1/8W CE
48	651-0010-470	26	R411, R415, R419, R423, R427, R431, R435, R439, R511, R515, R519, R523, R527, R531, R535, R539, R611, R615, R619, R623, R627, R631, R635, R637, R641, R643	470 Ω, 5%. 1/8W, CF
49	651-0010-680	1	R1404	680 Q 5% 1/8W CE
50	651-0020-100	63	R225, R228, R229, R232, R234, R235, R238, R239, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1019, R1101, R1103, R1105, R1107, R1108, R1109, R1117, R1121, R1122, R1123, R1124, R1201, R1202, R1203, R1204, R1206, R1207, R1208, R1209, R1211, Ř1212, R1213, R1214, R1216, R1217, R1218, R1219, R1221, R1222, R1223, R1224, R1226, R1227, R1228, R1230, R1239, R1242, R1245, R1248, R1251, R1254, P1401	lk Ω, 5%, 1/8W, CF
51	651-0020-300	1	R1403	3k Ω, 5%, 1/8W, CF

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ITEM	AA Part #	Qty	Reference Designator	Description
52	651-0030-100	73	R203, R204, R209, R210, R215, R216, R221, R222, R303, R304, R308, R412, R416, R420, R424, R428, R432, R436, R440, R512, R516, R520, R524, R528, R532, R536, R540, R612, R616, R620, R624, R628, R632, R636, R638, R642, R644, R801, R802, R803, R804, R805, R811, R1013, R1014, R1015, R1016, R1017, R1018, R1102, R1104, R1106, R1111, R1116, R1118, R1232, R1233, R1234, R1235, R1236, R1237, R1238, R1240, R1241, R1243, R1244, R1246, R1247, R1249, R1250, R1252, R1253, R1255	10k Ω, 5%, 1/8W, CF
53	651-0040-100		R201, R202, R207, R208, R213, R214, R219, R220, R301, R302, R307, R806, R807, R808, R809, R810, R1110, R1125, R1205, R1210, R1215, R1220, R1225, R1231	100 k Ω, 5%, 1/8W, CF
54 55	651-0020-100	2	R717, R718	1.00k Ω, 1%, 1/8W, MF
56	651-0020-150	2	R1113, R1115	1.5k Ω, 1/8W, 5%
57	679-1000-001	1	TP1	Test Point
58	605-0353-000	24	U201, U202, U203, U204, U301, U302, U403, U404, U407, U408, U409, U410, U503, U504, U507, U508, U509, U510, U603, U604, U607, U608, U609, U610	LF353N Dual JFET Opamp
59	605-7712-000	1	U702	RC5532N Bi-polar Opamp
60	605-6300-000	6	U405, U406, U505, U506, U605, U606	TEA 6300
61	605-4052-000	6	U401, U402, U501, U502, U601, U602	CD4052
62	605-2213-008	3	U999, U1201, U1202	74HC08
63	605-2213-574	2	U1001, U1002	74ALS574N
64	605-0004-000	1	U1203	74LS04N
65	605-2203-014	1	U904	74HC14
66	328-00008-00	1	U1106	8 Pin DIP Socket
67	605-2213-573	1	U802	74HC573N
68	605-2202-138	1	U901	74HC138
69	605-2213-245	1	U902	74HC245
70	605-0026-000	3	U1101, U1102, U1103	4N26
71	605-4051-000	1	U1003	CD4051
72	633-0317-000	2	U1401, U1402	LM317
Audioaccess Parts List PX600 Main Board Rev E1 926-0600-000-E1 Revised 6/27/97

ITEM	AA Part #	Qty	Reference Designator	Description
73	605-7070-000	1	U800	MAX 707CPA
74	678-2247-068	1	U801	Socket 68 Pin PI CC
75	678-2247-028	2	U803, U804	28 Pin DIP Socket
76	631-2207-011	1	Y801	11 0592 MHz Crystal
77	680-2000-000	4		Heatsink T0-220
78	730-2117-000	12		Bolt 4-40X1/4" PHP CAD
79	736-2117-000	2		Nut. 4-40 KEP
80	770-3000-000	10		.25 x .25 Bracket Keystone #621
81	750-2700-002-Е	1		PX600 Main PCB REV F
82	605-0751-000	1	INSTALL IN SOCKET U1106	DS75176BN
83		1	R1112	120 Ω. 5%, 1/8W CF
84	320-52102-00	1	P9	HEADER, 1x2, RT ANG
85	135-30147-00	20	C1103, C1104, C1105, C1106,	470Pf. 100V. Axial
			C1107, C1108, C1202, C1203,	, , , ,
			C1204, C1205, C1206, C1207,	
			C1209, C1210, C1211, C1212	, ,
			C1213, C1214, C1215, C1216	
86		1	C1208	.01uF, 50V, Axial
87	381-00020-00	7	F1102, F1201, F1202, F1203,	.2A, Polyswitch
			F1204, F1205, F1206	
88	205-10068-00	2	D1109, D1110	TVS, 6.8V, 1500W
89	644-1000-015	1	D1108	TVS, 15V, 1500W
90	663-1000-100	2	F1301	Fuse clips

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Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - US Model Rev E1 Revised 7/10/97



Level	Part Number	Rev	Qty	Description	
0	PX600	00	1	PX600 Multiroom Preamp	North American Vand
1	900-0600-000	00	1	Kit, Shipping, PX600-US	North American Version
2	688-2500-000		1	Power Cord. 8 Ft. IEC. USA	
1	664-2101-200		1	Fuse, 5X20mm 2A Slow Blow III	
1	380-00050-00		1	Fuse, $5x_{20}$ mm, 500 mA 250 V, UU/CSA	
1	380-00160-00		1	Fuse, 5x20mm, 1 6A 250V 111/CSA	
1	801-3150-000		l	Shipping Bag, Anti-Static 24X24	
1	800-3160-000	00	1	Shipping Box, 20" X 23" X 11"	
1	805-3000-005	00	1	Shipping Foam, PX600/PX612	
1	820-0600-000	00	1	Instruction Sheet, PX600	
1	800-4000-000	00	1	Warranty Card	
1	825-0600-000		1	Installation Manual PX600	
1	508-00041-00		1	Addendum, PX600 Installation Manual	
1	826-0600-000		1	Owner's Manual PX600	
1	470-00042-00		1	Label, PX-600 120V Interior Fuse Value	
1	700-1000-210		3	Wire Ass'y, Xantech IR Emitter	282.00 Mini Emitter
1	920-0600-000	02	1	Assembly, Final PX600-US	Assembled and Tested
2	760-4600-006	G	1	Chassis. PX600	Assembled and Tested
2	905-0600-000	01	1	Kit, Chassis Hardware, PX600	
3	760-4600-005	Е	1	Chassis, Top Cover, PX600	
3	690-3500-010		1	Conn. AC Male W/Switch & Fuse	
3	720-2500-010		4	Foot, Snap In, Gold	TAC 1319-03001
3	730-2320-000		12	Screw,#4X3/8" Blk, Sheet Metal	1110 1519-05901
3	730-2117-000		8	Screw,4-40X1/4" Phil Pan Zinc	
3	734-3500-004		8	Washer, #4 Internal Star	
3	730-2117-001		2	Screw,4-40X1/4" PH, Blk, Self Tp	
3	730-2117-003		7	Screw,4-40X5/8" PH PAN BLK MCH	
3	770-1200-000		7	Spacer,Nylon,4-40X5/16",Hex	Microplastics 14HTSP022
3	736-2117-000		7	Nut, KEP 4-40 X 1/4"	
3	730-2321-101		15	Screw,6-32X1/4" PH PAN TAP BLK	
3	/00-0600-000	, A	1	Wire Assy,3.0",BLK,18AWG, MF/MF	
3	700-0600-001	А	1	Wire Assy, 3.2", WHT, 18AWG, MF/MF	
3	700-0600-002	А	1	Wire Assy,3.5",G/Y,18AWG,RT/ST	
3	458-00041-00		1	Wire Assy, AWG26, F-F, 12" Wht	
3	734-3500-006		1	Washer, #6 Internal Star	
2	730-2330-000		1	Screw,6-32X3/4", PH PAN BLK MCH	
2	736-2117-001		2	Nut, KEP 6-32 X 5/16"	
2	730-2321-001		2	Screw,6-32X3/8" PH PAN BLK	
2	735-4500-000		7	Cable Tie, 4"	
3	730-2200-000		2	Nut, Nylock, hex, 6-32	
3	/ 54-1000-010		2	Washer, Rubber Grommet, Keystone #730	
2	625 2000 020			Screw Terminal, 4 Pos Plugable	
$\frac{2}{2}$	023-3000-020	A	1	Transformer, PX600 120V UL/CSA	
2	507-0000-000 600 3000 001	00	1	Kit, Chassis, ID, PX600-US	
2	700 0600 004	٨	1	Conn. AC Female Receptacle	Power Dynamics PD-15-1
2	700-0000-004 700 0600 00 <i>5</i>	A	1	wire Assy,5.0",BLK,18AWG,MF/SF	
3	700-0000-005	A	L L	wire Assy,5.0",WHT,18AWG,MF/SF	
2	925 0600 000	A E0	1	wire Assy,5.0",G/Y,18AWG,RT/ST	
3	926-0600-000	E0 E0	1	Assembly,Board,AT,PX600 Main Assembly,Board,TK,PX600 Main	

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Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - US Model Rev E1 Revised 7/10/97

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Level	Part Number	Rev	Qty	Description	
3	610-2712-000		1	I.C. 27C512-200	
3	606-1244-000		1	BQ4011Y-200 (Static RAM)	
3	606-8055-000		ł	I.C. 80C552-4A68 Signetics	
2	930-0600-001	00	1	Assembly, Mech. AT, PX600 Frnt Pl	
3	906-0600-000	00	1	Kit, Chassis, PX600 Front Panel	
4	741-1000-021	00	1	Knob, PX600, Modified	
5	741-1000-020		1	Knob, TAC AP2500	TAC 1630-04902
5	401-0600-000		1	Printing, PX-600 Knob	1110 1050 04902
4	640-00125-00		1	Spacer, Nylon Rnd, .1875" x .125"	
4	780-0600-001	00	6	Pushbutton Bezel, Modified	
5	780-0600-000		6	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-000		2	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-002		8	Bezel Light Pipe, TAC	TAC 1732-08801
4	740-0600-000		8	Pushbutton Switch Cap, TAC	TAC 1662-66902
4	735-0100-000	А	1	Adhesive, Die Cut, PX600 FP	110 1002 00902
4	780-0600-100		1	Window, IR	TAC 1532-21101
4	770-1500-100		8	Spacer, NYLON, T1 LED, .20"	2
4	736-2117-000		8	Nut, KEP 4-40 X 1/4"	
4	730-2321-101		7	Screw, 6-32X1/4" PH PAN TAP BLK	
4	780-0600-050		1	End Cap, Right TAC 90 mm	TAC 1562-08302
4	780-0600-051		1	End Cap, Left TAC 90 mm	TAC 1562-08202
4	705-1000-850	А	1	Rib Ass'y, 26 Pin, F-F, 13"	
4	760-4600-001	С	1	Chassis, PX600 Z Bracket	
4	760-4600-002	В	1	Chassis, PX600 Front Panel	
4	760-4600-000	D	1	Chassis, PX600 Pot Mnt Bracket	
3	925-0600-001	D0	1	Assembly, Board, AT, PX600 FP	
4	926-0600-001	D0	1	Assembly, Board, TK, PX600 FP	



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Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - Non US Model Rev E1 Revised 7/16/97



Level	Part Number	Rev	Qty	Description	
0	PX600-NUS	00	1	PX600 Multiroom Preamp	Export Version
1	900-0600-001	00	1	Kit.Shipping.PX600-NUS	
2	664-2101-100		1	Fuse, 5X20mm, T1A, SEMKO	
2	380-10050-00		1	Fuse, 5x20mm, 500mA 250V, SEMKO	
2	380-10160-00		1	Fuse, 5x20mm, 1.6A 250V, SEMKO	
2	190-20672-00		1	Cable Core, w/hldr, $0.390^{\circ}/110$ ohm	
2	190-20642-00		1	Cable Core, w/hldr, 0.250"/130 ohm	
2	474-02001-00		I	Label, CE, Outer Packaging	
2	507-00043-00		1	Installation procedure, FC cable clamp	
1	801-3150-000		1	Shipping Bag, Anti-Static, 24X24	
1	800-3160-000	00	1	Shipping Box, PX600/PX612	
1	805-3000-005	00	1	Shipping Foam, PX600/PX612	
1	820-0600-000	00	1	Instruction Sheet, PX600	
1	800-4000-000	00	1	Warranty Card	
1	825-0600-000		1	Installation Manual, PX-600	2
1	508-00041-00		1	Addendum, PX600 Installation Manual	
1	826-0600-000		1	Owner's Manual, PX-600	
1	700-1000-210		3	Wire Assy, Xantech IR Emitter	
1	920-0600-001	00	1	Assembly, Final, PX600-NUS	Assembled and Tested
2	760-4600-009	D	1	Chassis, PX600-NUS	rissentered and rested
2	905-0600-000	00	1	Kit, Chassis Hardware, PX600	
3	760-4600-005	E	1	Chassis, Top Cover, PX600	
3	690-3500-010		1	Conn. AC Male W/Switch & Fuse	
3	720-2500-010		4	Foot, Snap In, Gold	TAC 1319-03901
3	730-2320-000		12	Screw,#4X3/8" Blk, Sheet Metal	
3	730-2117-000		8	Screw,4-40X1/4" Phil Pan Zinc	
3	734-3500-004		8	Washer, #4 Internal Star	
3	730-2117-001	, -	2	Screw,4-40X1/4" PH, Blk, Self Tp	
3	730-2117-003		7	Screw,4-40X5/8" PH PAN BLK MCH	
3	770-1200-000		7	Spacer,Nylon,4-40X5/16",Hex	Microplastics 14HTSP022
3	736-2117-000		7	Nut, KEP 4-40 X 1/4"	-
3	730-2321-101		15	Screw,6-32X1/4" PH PAN TAP BLK	
3	/00-0600-000	A	1	Wire Assy, 3.0", BLK, 18AWG, MF/MF	
3	700-0600-001	A	1	Wire Assy, 3.2", WHT, 18AWG, MF/MF	
3	/00-0600-002	A	1	Wire Assy,3.5",G/Y,18AWG,RT/ST	
3	458-00041-00		1	Wire Assy, AWG26, F-F, 12" Wht	
3	734-3500-006		1	Washer, #6 Internal Star	
3	730-2330-000		1	Screw,6-32X3/4", PHIL PAN ZINC	
3	730-2117-001		2	Nut, KEP 6-32 X 5/16"	
3	730-2321-001		2	Screw,6-32X3/8" PH PAN BLK MCH	
3	735-4500-000		/	Cable Tie, 4"	
3	736-2200-000		2	Nut, Nylock, Hex, 6-32	
3 2	/34-1000-010		2	Washer, Rubber Grommet, Keystone #730	
2	470,00042,00		1	Screw Terminal, 4 Pos Plugable	
2	470-00043-00		1	Label, PX-600 230V, Interior Fuse Value	
2	472-00043-00		1	Label, PX-600 230V, Exterior Fuse Value	
3	4/2-02001-00		1	Ladel, SEMKO	

Audioaccess Bill of Materials PX600 Multiroom Preamp/Controller - Non US Model Rev E1 Revised 7/16/97

Level	Part Number	Rev	Qty	Description	
3	473-02001-00		1	Label, CE. Product	
2	371-00043-00		1	Transformer, PX600 230V SEMKO	
3	690-3550-000		1	Conn., AC Female 3 Prong. IEC	
3	700-0600-004	А	1	Wire Assy, 5.0", BLK, 18AWG, MF/SF	
3	700-0600-005	А	1	Wire Assy, 5.0", WHT, 18AWG, MF/SF	
3	700-0600-006	Α	1	Wire Assy, 5.0", G/Y, 18AWG, RT/ST	
2	925-0600-000	E0	1	Assembly, Board, AT, PX600 Main	
3	926-0600-000	E0	1	Assembly, Board, TK, PX600 Main	
3	610-2712-000		1	I.C. 27C512-200	
3	606-1244-000		1	BQ4011Y-200 (Static RAM)	
3	606-8055-000		1	I.C. 80C552-4A68 Signetics	
2	930-0600-001	00	1	Assembly, Mech. AT. PX600 Frnt Pl	
3	906-0600-000	00	1	Kit, Chassis, PX600 Front Panel	
4	741-1000-021	00	1	Knob, PX600, Modified	
5	741-1000-020		1	Knob, TAC AP2500	TAC 1630-04902
5	401-0600-000		1	Printing, PX-600 Knob	1110 1050 04902
4	640-00125-00		1	Spacer, Nylon Rnd, .1875" x .125"	
4	780-0600-001	00	6	Pushbutton Bezel, Modified	
5	780-0600-000		6	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-000		2	Pushbutton Bezel, TAC	TAC 1742-08302
4	780-0600-002		8	Bezel Light Pipe, TAC	TAC 1732-08801
4	740-0600-000		8	Pushbutton Switch Cap, TAC	TAC 1662-66902
4	735-0100-000	А	1	Adhesive, Die Cut, PX600 FP	
4	780-0600-100		1	Window, IR	TAC 1532-21101
4	770-1500-100		8	Spacer, NYLON, T1 LED, .20"	
4	736-2117-000		8	Nut, KEP 4-40 X 1/4"	
4	730-2321-101		7	Screw, 6-32X1/4" PH PAN TAP BLK	
4	780-0600-050	,	1	End Cap, Right TAC 90 mm	TAC 1562-08302
4	780-0600-051		1	End Cap, Left TAC 90 mm	TAC 1562-08202
4	705-1000-850	А	1	Rib Ass'y, 26 Pin, F-F, 13"	
4	760-4600-001	В	1	Chassis, PX600 Z Bracket	
4	760-4600-002	В	1	Chassis, PX600 Front Panel	
4	760-4600-000	В	1	Chassis, PX600 Pot Mnt Bracket	
3	925-0600-001	D0	1	Assembly, Board, AT, PX600 FP	
4	926-0600-001	D0	1	Assembly, Board, TK, PX600 FP	-

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MADRIGAL AUDIO LABORATORIES, INC.

INDENTED COSTED BILL OF MATERIAL (STANDARD) AS OF 6/ 6/97 FOR SELECTED PARTS

FRI, JUN 6, 1997, 1:06 PM

Part Number PX-600

MULTI-ROOM PREAMP CONTROLLER Revision Level: 00

Engineering Status: AL Comment: NORTH AMERICAN VERSION

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level	line Rev	Part Number	Desserves	Extend	ed				Standard
<u>Lover</u>	Line Kev		Description	Quanti	ty U/M	<u>Material</u> <u>Material OH</u>	Labor	Labor OH	Cost
Тор		PX-600	MULTI-ROOM PREAMP	1	FA				
1	10	688-2500-000	POWER CORD, 8 FT.	1	EA	1.3500			1 7500
1	20	664-2101-200	FUSE, 5x20MM, 2A	1	FA	4512			1.3500
1	25	380-00050-00	FUSE,5x20mm, 500m	1	FA				.4512
1	28	380-00160-00	FUSE, 5x20mm, 1.6A	1	FA	2800			
1	30	380-00050-00	FUSE.5x20mm500m	1	FA	.2000			.2800
1	40	380-00160-00	FUSE, 5x20mm, 1, 6A	1	FA	2800			
1	50	801-3150-000	SHIPPING BAG, ANT	1	FA	5503			.2800
1	60	800-3160-000-00	SHIPPING BOX, 20"	1	FÅ	. 5000			- 5503
1	70	805-3000-005-00	SHIPPING FOAM . PX	1	FA	9.000			4.5000
1	80	820-0600-000-00	INSTRUCTION SHEFT	1	FA	7.0200			9.0208
1	90	800-4000-000-00	WARRANTY CARD	1	54				
1	100	825-0600-000-00	INSTALLATION MANU	1	54	05.90			
1	110	826-0600-000-00	OWNER'S MANUAL P	, 1		.9300			.9580
1	120	470-00042-00	LABEL 500mA 250V	1		.9002	·		.9082
1	130	700-1000-210	WIRE ASS'Y ZANTE	י ז		1/ 007/			
1	140	920-0600-000-02	ASS'Y FINAL PYS	1	EA	14.0076			14.0076
2	10	760-4600-006-G	CHASSIS PX600-US	, 1					
2	20	905-0600-000-01	KIT, CHASSIS HARD	1					
3	10	760-4600-005-E	CHASSIS TOP COVE	1	EA	10 2/00			
3	20	690-3500-010	CONN. AC MALE W/S	1		10.2400			10.2400
3	30	720-2500-010	FOOT, SNAP IN GO	4	EA	3 5400			10.3300
3	40	730-2320-000	SCREW. #4X3/8" BLK	12	FA	24/0			3.5600
3	50	730-2117-000	SCREW, 4-40x1/4"	8	EA	.2040			.2640
3	60	734-3500-004	WASHER, #4 INTERN	8	EA	.0400			.0400
3	70	730-2117-001	SCREW, 4-40x1/4"P	2	FA	0400			.0280
3	80	730-2117-003	SCREW, 4-40x5/8"	7	ΕΔ	1100			-0490
3	90	770-1200-000	SPACER, NYLON, 4-	7	FA	- 1 1 7 0			.1190
3	100	736-2117-000	NUT, KEP 4-40 X 1	7	ΕΔ	.0100			.6160
3	110	730-2321-101	SCREW, 6-32x1/4"P	15	FA	3750			.0980
3	120	700-0600-000-a	WIRE ASS'Y.3.0".B	1	FA	.5750			.3750
3	130	700-0600-001-A	WIRE ASSY.3.2".WH	1	FA	.4700			.4700
3	140	700-0600-002-A	WIRE ASSY .3.5".G/	1	FA	2000			.4700
3	150	700-0600-003-A	WIRE ASSY.3.0: G/	1	FA	.2700			.2900
3	160	734-3500-006	WASHER, #6 INTERN	1	FA	.4500			.4300
3	170	730-2330-000	SCREW, 6-32X3/4", P	1	FA	.0040			.0040
3	180	736-2117-001	NUT, KEP 6-32 X 5	2	FA	0300			.0100
3	190	730-2321-001	SCREW, 6-32x3/8" P	2	EA	.0300			.0300
3	200	735-4500-000	CABLE TIE, 4"	7	EA	. 1162			.0300
3	210	736-2200-000	NUT, NYLOCK, HEX.	2	EA	.0190			.1162
3	220	734-1000-010	WASHER, RUBBER GR	2	EA	.0650			.0190
3	230 6	667-1000-006	SCREW TERMINAL 4	1	EA	1.7500			1 75 00
2	30 1 3	370-00042-00	TRANSFORMER, PX60	1	EA				1.7500
2	40 9	907-0600-000-00	KIT, CHASSIS, ID,	1	EA				
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٢	10	690-3000-001	CONN. AC FEMALE R	1	EA	.5500	5500
3	20	700-0600-004-4	UTRE ASSY 5 OH DI				
-		100 0000 004 A	WIRE ASST, 5.0", BL	1	EA	.4800	.4800
3	30	700-0600-005-A	WIRE ASSY,5.0",WH	1	F۵	4800	(000
3	60	700-0600 004 4				.4000	.4800
5	40	700-0800-008-A	WIRE ASSY,5.0",G/	1	EA	.3000	.3000

FRI, JUN 6, 1997, 1:06 PM

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Part Number PX-600

Revision Level: 00

MADRIGAL AUDIO LABORATORIES, INC. FRI INDENTED COSTED BILL OF MATERIAL (STANDARD) AS OF 6/ 6/97 FOR SELECTED PARTS

MULTI-ROOM PREAMP CONTROLLER

REAMP CONTROLLER (Continued) Engineering Status: AL Comment: NORTH AMERICAN VERSION

Extended Standard Level Line Rev Part Number Description Quantity U/M Material Material OH <u>Labor</u> Labor OH Cost 2 50 1 925-0600-000-E0 ASS'Y, BOARD, AT, 1 EA 3 10 926-0600-000-E0 PX600 MAIN BOARD 1 EA 3 20 610-2712-000 1.C. 27C512-200, 1 EA 2.6500 2.6500 3 30 606-1244-000 I.C. BQ4011Y-200, 1 EA 20.0000 20.0000 3 40 606-8055-000 I.C. 80C552-4A68 1 EΑ 9.3178 9.3178 2 60 930-0600-001-00 ASS'Y, MECH, AT, 1 EA 3 10 906-0600-000-00 KIT, CHASSIS, PX6 1 FA KNOB, PX600, MODI 4 5 741-1000-021-00 1 EA 5 10 741-1000-020 KNOB, TAC AP2500 1 EA 3.1731 3.1731 5 20 401-0600-000 PRINTING, PX600 K 1 EA 4 20 780-0600-000 PUSHBUTTON BEZEL, 8 EA .8208 .8208 4 30 780-0600-002 BEZEL LIGHT PIPE, 8 EA .7384 .7384 4 40 740-0600-000 PUSHBUTTON SWITCH 8 ΕA 1.3128 1.3128 4 60 735-0100-000-A ADHESIVE, DIE CUT 1 EA .4900 .4900 4 70 780-0600-100 WINDOW, IR 1 EA .1538 .1538 4 80 770-1500-100 SPACER, NYLON, T1 8 EA .4800 .4800 4 90 736-2117-000 NUT, KEP 4-40 X 1 8 EΑ .1120 .1120 4 100 730-2321-101 SCREW, 6-32x1/4"P 7 EA .1750 .1750 4 110 780-0600-050 END CAP, RIGHT, T 1 EΑ .2046 .2046 4 120 780-0600-051 END CAP, LEFT, TA 1 EΑ .2046 .2046 4 705-1000-850-A 130 RIB ASS'Y, 26 PIN 1 EA 5.1200 5.1200 4 140 760-4600-001-D CHASSIS, PX600 Z 1 EA 5.4300 5.4300 4 150 760-4600-002-B CHASSIS, PX-600 F 1 EA 15.8000 15.8000 4 160 760-4600-000-D CHASSIS, PX600 PO 1 EA 2.2100 2.2100 3 20 1 926-0600-001-D0 PX600 FRONT PANEL 1 EA 0000

BIN	.0000	.0000	.0000	.0000	.0000
NON-BIN	131.9122	.0000	.0000	.0000	131.9122
TOTAL	131.9122	.0000	.0000	.0000	131.9122

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MADRIGAL AUDIO LABORATORIES, INC. FRI, JUN 6, 1997, 1:06 PM

INDENTED COSTED BILL OF MATERIAL (STANDARD) AS OF 6/ 6/97 FOR SELECTED PARTS PAGE 1

Part Number PX-600/NUS CE MULTIROOM PREAMP/CONTROLLER - NON US

Revision Level: 00

Engineering Status: AL Comment:

				Extende	d					Standard
Level	<u>Line Rev</u>	Part Number	Description	Quantit	<u>у U/M</u>	Material	Material OH	Labor	Labor OH	<u> </u>
Тор		PX-600/NUS CE	MULTIROOM PREAMP/	1	E۸					
1	10	900-0600-001-E0	KIT, SHIPPING PX-	1	EA					
2	10	664-2101-100	FUSE, 5x20MM T1A	1	54	4000				
2	20	380-10050-00	FUSE, 5X20mm, 500	1	FA	2800				.4000
2	30	380-00160-00	FUSE . 5x20mm . 1 . 6A	1	FA	2800				.2800
2	33	190-20672-00	CABLE CORE, W/HID	1	FA	.2000				.2800
2	37	190-20642-00	CABLE CORE, W/HLD	1	EA					
2	60	474-02001-00	LABEL CE OUTER P	1	EA	0/40				
2	70	508-00043-00	DECLARATION OF CO	1	EA	.0480				.0460
2	80	507-00043-00	INSTRC SHEET PY60	1	EA EA					
1	20	801-3150-000	SHIPPING BAG ANT	1	EA	5507				
1	30	800-3160-000-00	SHIPPING BOX, 20"	1	EA	.5000				.5503
1	40	805-3000-005-00	SHIPPING FOAM . PX	1	FA	9.0208				4.5000
1	50	820-0600-000-00	INSTRUCTION SHEFT	1	FA	7.0200				9.0208
1	60	800-4000-000-00	WARRANTY CARD	1	54					
1	70	505-00041-00	INSTALLATION MANU	1	EA	0580				
1	80	826-0600-000-00		1		.9300				.9580
1	90	700-1000-210	WIRE ASS'Y ZANTE	3	EA	1/ 0074				.9082
1	100	920-0600-002-00	ASS'Y, FINAL PX6	1	EA	14.0078				14.0076
2	10	760-4600-009-D	CHASSIS PX-600/N	, 1	EA					
2	20	905-0600-000-02	KIT. CHASSIS HOWR	1	FA					
3	10	760-4600-005-E	CHASSIS TOP COVE	, 1		10 2/00				
3	20	690-3500-010	CONN. AC MALE W/S	1	EA	10.2400				10.2400
3	30	720-2500-010	FOOT, SNAP IN, GO	4	FA	3 5600				10.3300
3	40	730-2320-000	SCREW, #4X3/8" BLK	12	FA	2640				3.5600
3	50	730-2117-000	SCREW, 4-40X1/4"	8	FA	0400				.2640
3	60	734-3500-004	WASHER, #4 INTERN	8	FA	0280				.0400
3	70	730-2117-001	SCREW, 4-40X1/4"P	2	FA	0490				.0280
3	80	730-2117-003	SCREW, 4-40x5/8"	- 7	EA	1190				.0490
3	90	770-1200-000	SPACER, NYLON, 4-	7	FA	6160				.1190
3	100	736-2117-000	NUT, KEP 4-40 X 1	7	FA	0980				0010.
3	110	730-2321-101	SCREW, 6-32x1/4"P	15	FA	3750				.0980
3	120	700-0600-000-A	WIRE ASS'Y, 3.0", B	1	FA	4700				.3730
3	130	700-0600-001-A	WIRE ASSY, 3.2", WH	1	FA	4700				.4700
3	140	700-0600-002-A	WIRE ASSY .3.5".G/	1	FA	2900				.4700
3	150	458-00041-00	WIRE ASS'Y, AWG26	1	FA	.2,00				.2900
3	160	734-3500-006	WASHER, #6 INTERN	1	FA	0040				00/0
3	170	730-2330-000	SCREW, 6-32X3/4", P	1	EA	-0100				.0040
3	180	736-2117-001	NUT, KEP 6-32 X 5	2	FA	0300				.0100
3	190	730-2321-001	SCREW, 6-32x3/8" P	2	EA	0300				.0300
3	200	735-4500-000	CABLE TIE, 4"	7	EA	.1162				.0300
3	210	736-2200-000	NUT, NYLOCK, HEX,	2	EA	_0190				.1102
3	220	734-1000-010	WASHER, RUBBER GR	2	EA	.0650				.0190
3	230	667-1000-006	SCREW TERMINAL, 4	1	EA	1.7500				1 7500
3	240	470-00043-00	LABEL, PX-600 230	1	EA					1.7500
3	250	472-00043-00	LABEL, PX-600 230	1	EA					
3	260	472-02001-00	LABEL, SEMKO	1	EA	.1000				1000
3	270	473-02001-00	LABEL, CE PRODUCT	1	EA	.1000				. 1000

MADRIGAL AUDIO LABORATORIES, INC. FRI, JUN 6, 1997, 1:06 PM

INDENTED COSTED BILL OF MATERIAL (STANDARD) AS OF 6/ 6/97 FOR SELECTED PARTS PAGE 2

Part Number PX-600/NUS CE MULTIROOM PREAMP/CONTROLLER - NON US (Continued)

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Revision Level: 00 Engineering Status: AL Comment:

				Extend	ed					Standard
Level	<u>Line</u> <u>Rev</u>	Part Number	Description	Quanti	ty U/M	<u>Material</u> Mat	erial OH	Labor	Labor OH	<u> </u>
3	275	690-3550-000	CONN. AC FEMALE 3	1	FA	1 6500				
3	280	690-3550-000	CONN. AC FEMALE 3	1	FΔ	1 6500				1.6500
3	290	700-0600-004 - A	WIRE ASSY.5.0".BL	1	FA	4800				1.6500
3	300	700-0600-005-a	WIRE ASSY.5.0", WH	1	FA	.4800				.4800
3	310	700-0600-006-A	WIRE ASSY 5.0" G/	1	EA	3000				.4800
2	30	371-00043-00	XFMR, PX-600 230V	1	FA	.3000				.3000
2	40	925-0600-000-E0	ASS'Y, BOARD, AT.	1	FA					
3	10	926-0600-000-E0	PX600 MAIN BOARD	1	FA					
3	20	610-2712-000	I.C. 27C512-200.	1	FA	2 6500				0 (500
3	30	606-1244-000	I.C. BQ4011Y-200,	1	EA	20 0000				2.6500
3	40	606-8055-000	I.C. 80C552-4A68	1	EA	9 3178				20.0000
2	50	930-0600-001-01	ASS'Y, MECH. AT.	1	FA					9.3178
3	10	906-0600-000-01	KIT, CHASSIS, PX6	1	FA					
4	10	741-1000-021-01	KNOB, PX600/NUS C	1	EA					
5	10	741-1000-020	KNOB, TAC AP2500	1	EA	3 1731				7 4 77 4
5	20	401-0600-000	PRINTING, PX600 K	1	ÊA	511151				3.1731
4	20	780-0600-000	PUSHBUTTON BEZEL,	8	EA	- 8208				0000
4	30	780-0600-002	BEZEL LIGHT PIPE,	8	EA	.7384				.8208
4	35	780-0600-002	BEZEL LIGHT PIPE,	8	EA	.7384				./304
4	40	740-0600-000	PUSHBUTTON SWITCH	8	EA	1.3128				1 7129
4	50	735-0100-000-A	ADHESIVE, DIE CUT	1	EA	.4900				/000
4	60	780-0600-100	WINDOW, IR	1	EA	. 1538				1578
4	70	770-1500-100	SPACER, NYLON, T1	8	EA	.4800				. 1550
4	80	736-2117-000	NUT, KEP 4-40 X 1	8	EA	.1120				.4000
4	90	730-2321-101	SCREW, 6-32x1/4"P	7	EA	.1750				1750
4	100	780-0600-050	END CAP, RIGHT, T	1	EA	.2046				20/6
4	110	780-0600-051	END CAP, LEFT, TA	1	EA	.2046				2040
4	120	705-1000-850-A	RIB ASS'Y, 26 PIN	1	EA	5.1200				5 1200
4	130	760-4600-001-в	CHASSIS, PX600 Z	1	EA	5.4300				5 4300
4	140	760-4600-002-в	CHASSIS, PX-600 F	1	EA	15.8000				15 8000
4	150	760-4600-000-D	CHASSIS, PX600 PO	1	EA	2.2100				2 2100
3	20	926-0600-001-D0	PX600 FRONT PANEL	1	EA					2.2.00
				8	IN	.0000	.0000	.0000	.0000	0000

BIN	.0000	.0000	.0000	.0000	.0000
NON-BIN	133.8154	.0000	.0000	.0000	133.8154
TOTAL	133.8154	.0000	.0000	.0000	133.8154



10. THE 5 PIN CABLE ASSEMBLY SHOULD BE SOLDERED AT P1, PROJECTING OUT FROM THE COMPONENT SIDE OF THE PCB. OBSERVE PIN 1 POLARITY. STRIP ON CABLE SHOULD BE VISIBLE WHEN CABLE IS ORIENTED AS SHOWN ON DRAWING.

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PX-600 Front Panel Rev CO

Audioaccess Parts List PX600 Front Panel Rev D0 926-0600-001-D0 Revised 11/13/96



AA Part #	Qty	Reference Designator	Description
640-7000-001	8	C1, C5, C6, C14, C16, C17, C18, C19	0.1 uF, 50V, Ceramic, Axial
640-5000-330	2	C2, C7	33 uF 16V Al Electro Axial
640-6000-100	2	C8, C15	10 uF, 16V, Al Electro Axial
621-2009-000	7	D1, D2, D3, D4, D5, D7, D14	LED. Yellow, T1
621-2008-000	1	D6	LED, Red. T1
647-1000-000	5	L1, L2, L3, L4, L5	2 uH, 7A, Ferrite Bead
705-1001-105-A	1	P1	Cable Assembly, 5 Pin
667-2003-005	1	P3	Header, 5 X .1. Male, Locking
667-2001-026	2	P4, P5	Header, 2 X 13 X .1. Male, RA
624-0006-000	1	Q4	MPSA06
660-1000-141	1	R1	Pot. 10k Ω . Motorized
650-2349-100	1	R9	$100 \Omega_{-} 1/4 W_{-} 5\% CF_{-}$
650-2350-010	1	R17	$1k \Omega 1/4 W 5\% CF$
656-2337-100	1	R18	$10k \Omega X 9 SIP$
656-2337-018	1	R19	180 Q X 9 SIP
650-2350-100	1	R100	$10k \Omega 1/4 W 5\% CF$
650-2349-180	1	R101	180 Q 1/4 W 5% CF
650-2349-820	1	R102	820 Q 1/4 W 5% CF
745-1000-300	8	SW1, SW2, SW3, SW4, SW5,	E-Switch 320 02 E_{1-1} Black
		SW6, SW7, SW8	
665-2500-100	1	U1	Sharp IS1U60
633-3400-005	1	U3	LM78L05ACZ, 5V, T0-92, Reg
605-2213-244	3	U4, U6, U7	74HC244
605-2201-374	1	U5	74LS374
770-1500-350	8		LED Spacers, 0.350"
750-2700-001-D	1	- PCB	PCB, PX600 Front Panel, Rev D
320-52102-00	1 '	P2 .	HEADER, 1x2, RT ANG
	AA Part # 640-7000-001 640-5000-330 640-6000-100 621-2009-000 621-2008-000 647-1000-000 705-1001-105-A 667-2003-005 667-2001-026 624-0006-000 660-1000-141 650-2349-100 650-2350-010 656-2337-018 650-2350-100 656-2337-018 650-2349-820 745-1000-300 665-2500-100 633-3400-005 605-2213-244 605-2201-374 770-1500-350 750-2700-001-D 320-52102-00	AA Part #Qty $640-7000-001$ 8 $640-5000-330$ 2 $640-6000-100$ 2 $621-2009-000$ 7 $621-2008-000$ 1 $647-1000-000$ 5 $705-1001-105-A$ 1 $667-2003-005$ 1 $667-2001-026$ 2 $624-0006-000$ 1 $660-1000-141$ 1 $650-2349-100$ 1 $656-2337-018$ 1 $650-2349-100$ 1 $650-2349-100$ 1 $650-2349-820$ 1 $745-1000-300$ 8 $665-2500-100$ 1 $633-3400-005$ 1 $605-2213-244$ 3 $605-2201-374$ 1 $770-1500-350$ 8 $750-2700-001-D$ 1 $320-52102-00$ 1	AA Part #QtyReference Designator $640-7000-001$ 8C1, C5, C6, C14, C16, C17, C18, C19 $640-5000-330$ 2C2, C7 $640-6000-100$ 2C8, C15 $621-2009-000$ 7D1, D2, D3, D4, D5, D7, D14 $621-2008-000$ 1D6 $647-1000-000$ 5L1, L2, L3, L4, L5 $705-1001-105-A$ 1P1 $667-2003-005$ 1P3 $667-2001-026$ 2P4, P5 $624-0006-000$ 1Q4 $660-1000-141$ 1R1 $650-2349-100$ 1R9 $650-2350-010$ 1R18 $656-2337-108$ 1R100 $650-2349-180$ 1R100 $650-2349-820$ 1R102 $745-1000-300$ 8SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8 $665-2500-100$ 1U1 $633-3400-005$ 1U3 $605-221-374$ 1U5 $770-1500-350$ 8 $750-2700-001-D$ 1PCB $320-52102-00$ 1P2

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Audioacces Parts List PX600 Front Panel Rev D0 926-0600-001-D0 Revised 11/13/96

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ITEM	AA Part #	Qty	Reference Designator	Description
1	640-7000-001	8	C1, C5, C6, C14, C16, C17, C18, C19	0.1 uF, 50V, Ceramic, Axial
2	640-5000-330	2	C2. C7	33 uF 16V Al Flectro Arial
3	640-6000-100	2	C8, C15	10 uF, 16V, Al, Electro Axial
4	621-2009-000	7	D1, D2, D3, D4, D5, D7, D14	LED. Yellow, T1
5	621-2008-000	1	D6	LED, Red. T1
6	647-1000-000	5	L1, L2, L3, L4, L5	2 uH, 7A, Ferrite Bead
7	705-1001-105-A	1	P1	Cable Assembly, 5 Pin
8	667-2003-005	1	P3	Header, 5 X.1, Male, Locking
9	667-2001-026	2	P4, P5	Header, 2 X 13 X .1, Male, RA
10	624-0006-000	1	Q4	MPSA06
11	660-1000-141	1	R1	Pot, 10k Ω , Motorized
12	650-2349-100	1	R9	100 Ω, 1/4 W, 5%, CF
13	650-2350-010	1	R17	1k Ω. 1/4 W. 5%, CF
14	656-2337-100	1	R18	10k Ω X 9 SIP
15	656-2337-018	1	R19	180 Ω X 9 SIP
16	650-2350-100	1 '	R100	10k Ω, 1/4 W, 5%, CF
17	650-2349-180	1	R101	180 Ω. 1/4 W. 5%. CF
18	650-2349-820	1	R102	820 Ω, 1/4 W, 5%, CF
19	745-1000-300	8	SW1, SW2, SW3, SW4, SW5,	E-Switch 320.02 E1-1 Black
	,		SW6, SW7, SW8	
20	665-2500-100	1	U1	Sharp IS1U60
21	633-3400-005	1	U3	LM78L05ACZ, 5V, T0-92, Reg.
22	605-2213-244	3	U4, U6, U7	74HC244
23	605-2201-374	1	U5	74LS374
24	770-1500-350	8		LED Spacers, 0.350"
25	750-2700-001-D	1	PCB	PCB, PX600 Front Panel, Rev D
26	320-52102-00	1	P2	HEADER, 1x2, RT ANG

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PX600 FRONT PANEL

Blanatune Bate

BRANK PTILLE 12/27/02

PX600FP8.SCH

IC CHART								
TYPE	VOLTAGE	PIN NO.	REFERENCE DESIGNATOR CHART	BYBAR ALT				
	- 05	10	U4. U8. U7	BTPASS CAP				
		10	US	C18, C17, C19 C18				

C15 D7 L5 P5 R4 R19 SHB U7		LAST USED
07 19 P5 R4 R19 SHB U7		C15
<u> </u>		07
P3 U7		19
Q4 SHB U7		P5
		R4
<u>SK8</u> U7	- 1	R18
		SKB
	ા	V7



NOTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST. 2. ALL RESISTORS ARE 1/40, 88 CARBON FILM, UNLESS OTHERMISE SPECIFIED.

14-67-6 PME THORY DOSK ζö





	REVISIONS		
PEY	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
A0	FLAST PADTOTYPE	LAN	5/5/93
80	SECONO PROTOTYPE	LAN	3-2-94

IC CHART						
TYPE	YOLTAGE	/PIN ND.	DEEEDENCE DECIONATOD CUADT	DYDAGO CAD		
TIPE	VCC	6N0	HEFEHENLE DESIGNATUR CHART	BYPASS CAP		
74HC244	20	10	U4, U6, U7	C16, C17, C19		
74LS374	20	10	U5	C18		

LAST	USED
C1	5
D	1
i l	5
p	5
0	4
R	9
5)	8
U	7



NOTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST.

2 ALL RESISTORS ARE 1/4M, SX CARBON FILM, UNLESS DIHERMISE SPECIFIED.









			IC CHA	RT			
TYPE	UOL TAGE	/PIN ND.	REFERENCE	DESIGNATOR	СНВВТ		
	000	GND		020101011	CIMIT	D	11155 CH
71HC244	20	10	U1, U6, U7			C16, C17	, C19
7415374	20	10	U5			C18	· · · · · · · · · · · · · · · · · · ·
IS1U60		2	Ul				

	LAST	USED
	C1	5
	D	7
	19	5
i	P	5
	Q	9
	RI	9
1	SM	8
	U	7



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NUTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST.

2. ALL RESISTORS ARE 1/44,5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.



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PX-600 PROGRAMMER REV B0

Audioaccess Parts List PX600 Programmer Rev C0 926-0599-000-C0 Revised 8/23/94

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ITEM	AA Part #	Qty	Reference Designator	Description	Gallien Part #
1	640-5000-033	2	C9, C12	3.3 uF. 25V. Al. Electro Axial	038-2335-0
2	640-4900-103	1	C10	0.01 uF. 25V. Ceramic Axial	030-1103-0
3	640-4900-102	1	C11	0.001 uF, 50V, Ceramic, Axial	030-2102-0
4	640-6000-100	2	C13, C18	10 uF, 16V, Al, Electro, Axial	038-0106-0
5	640-7000-001	3	C16, C17, C20	0.1 uF, 50V, Ceramic, Axial	030-2104-0
6	620-0526-000	1	D8	LTR526AB. Photodiode	025-0000-0
7	621-2008-000	1	D9	LED. Red. T1	025-0000-0
8	620-2599-000	1	D11	1N759A, 12V Zener 400 mW	020-0120-0
9	620-2914-000	3	D12, D13, D18	1N4148. Diode	020-0120-0
10	667-2000-016	1	J1	Header, 6 X.1. Male	020 0000 0
11	667-2075-021	1	P2	Connector, 20 Pin, SIP, Female	093-0099-0
12	667-2001-026	1	P3	Header, 2 X 13 X .1. Male, RA	093-0005-0
13	624-0056-000	2	Q1, Q2	MPSA56, PNP, T0-92	010-1013-0
14	624-0006-000	1	Q3	MPSA06, NPN, T0-92	010-0012-0
15	650-2350-010	5	R1, R2, R3, R10, R12	lk Ω, 1/4 W, 5%, CF	051-1002-0
16	650-2350-470	1	R4	47k Ω, 1/4 W, 5% CF	051-4703-0
17	650-2350-100	3	R5, R7, R11	10k Ω, 1/4 W, 5%, CF	051-1003-0
18	650-2349-010	1	R6	10 Ω 1/4 W 5% CF	051-0101-0
19	650-2350-020	1	R8	$2k \Omega 1/4 W 5\% CF$	051-2002-0
20	650-2350-022	1	R13	$2.2k \Omega 1/4 W 5\% CF$	051-2002-0
21	660-1000-100	1	R14	10K O Trim Pot	070-0521-0
22	650-2351-100	1	R15	100k O 1/4 W 5% CF	051-1004-0
23	650-2349-039	1	R16	390 1/4 W 5% CF	051_0300.0
24	659-0015-000	1	RT1	Thermistor	022-0081-0
25	740-2000-600	5	SW12, SW13, SW14, SW15, SW16	E-Switch 320 E1-1 Black	022-0001-0
26	605-3373-000	1	U2	MC3373P	002-3373-0
27	750-2700-000-С	1	PCB	PX600 Programmer PCB Rev C	VVZ-JJ1J-V

Notes: For J1, the length of the pin past the body of the header should be at least 0.295".

Do not install a part at JIA. JIA holes to be free of solder.

D8 should be mounted at a right angle to the PCB with the flat side up. The flat side should be 0.500" off the surface of the PCB.

D9 should be mounted flush to the PCB.

Q2 and Q3 must be mounted at right angles to the PCB with their flat sides flush with the PCB.

The sections of the PCB should not be broken apart.

The overall height of the trimpot above the PCB should not exceed 0.150".

Audioaccess Bill of Materials PX600 Programmer Rev 00 Revised 07/01/94

Level	Part Number	Rev	Qty	Description	
0	PX600 Prog	00	1	PX600 Programmer	
1	920-0599-000	00	1	Assembly, Final, PX600 Prgrmmr	Assembled and Tested
2	715-2600-000	С	1	Case, PX600 Programmer	
2	810-1100-000	В	1	Overlay, PX600 Programmer	
2	925-0599-000	-0599-000 C0 1 Assembly, Board, AT, PX600 Prgrmr		Assembly, Board, AT, PX600 Prgrmr	
3	927-0599-001	00	1	Assembly, Board, LCD	
4	622-1000-010		1	LCD Display, Densitron 64X120	LMH4328BG64G128DNY
4	667-2075-020		1	Conn. 20 PIN MALE HDR SNGL ROW	
3	926-0599-000	C0	1	Assembly, Board, TK, PX600 Prgrmr	
3	770-1000-200		2	Spacer, NYLON, 187" #4	
3	730-2320-000		2	Screw, #4X3/8" BLK, SHEET METAL	
3	770-1000-250		4	Spacer, NYLON, #4X1/4"	Keystone Cat # 876
3	730-2117-002		4	Screw, 4-40X1/2"PH, BLK SELF TP	
2	730-2200-000		2	Screw, 4-40 x 3/4", Flat SKTCP BLK	Master Fasteners 440X0750FSCSA
2	770-1200-000		2	Spacer, NYLON, 4-40X5/16", HEX	Microplastics 14HTSP022
2	736-2117-000		2	Nut, KEP 4-40 X 1/4"	
1	705-1000-800		1	RIB ASS'Y, 26 Pin, F-F, 48"	
1	801-0599-000		1	Shielding Bag, 6X10, Recloseable	
1	715-2600-001		1	Case, Carrying, PX600 Prgmr	
1	810-1100-001	Α	1	Label, PX600 Prgmr Carry Case	
1	715-2600-005	00	1	Foam, PX600 Prgmr Carry Case	
1	820-0599-000	00	1	Instruction Sheet, PX600 Prgrmr	
1	800-4000-000	00	1	Warranty Card	







PX-600 Field Repair Guide

Version xxxx Rev Level xxx





PX-600 Field Repair Flow Chart Initial System Power-UP





PX-600 Field Repair Flow Chart KPS Bus Operations



OCTOBER 8, 2003

PX-600 FIELD REPAIR TROUBLE SHOOTING

XXXXXX]

PX-600 REPAIR PARTS LOCATIONS





TECHNICAL SERVICES

Madrigal Audio Laboratories P.O. Box 781 Middletown, CT 06457-0781 (860) 346-0896 FAX (860) 347-6251

PX-600FRK – PX-600 FIELD REPAIR KIT

SEPTEMBER 22, 1999

The Audioaccess Field Repair Kit has been developed for authorized Audioaccess installation companies to improve servicing time and overall customer satisfaction of PX-600 systems. Field repair eliminates system downtime and the cost of multiple trips to job sites to reinstall keypads and controllers. This kit contains socket parts and subassemblies to perform simple repairs to Audioaccess KPS keypads and PX-600 controllers. We recommend that dealers bring this kit on all Audioaccess installation and/or troubleshooting visits.

The following parts and quantities are included in each kit. Dealer costs are also included for reordering individual components:

DESCRIPTION	Part NO.	LOCATION	Qty	DLR EACH	DLR EXT
PX-600/KPS PARTS					
Ribbon Cable for Programmer	705-1000-800	PX-600 PROG	1	\$10.50	\$10.50
Fuse 2 Slo Blo	664-2101-200	MAINS FUSE	6	\$0.93	\$5.58
Fuse 1.5 5 X 20 mm	664-1001-500	KEYPAD (NEW)	6	\$1.47	\$8.82
Fuse 1.6 Slo Blo	380-00160-00	KEYPAD	6	\$0.78	\$4.68
Fuse 500ma Slo Blo	380-00050-00	F 1301 (INTERNAL)	6	\$0.69	\$4.14
LTC485 Bus Driver	605-0485-008	U 1106	12	\$3.45	\$41.40
Keypad Processor Board	450-9862-100	KPS	4	\$38.82	\$155.28
Volume Control ass'y	926-0600-002-00	FRONT PANEL	1	\$60.50	\$60.50
Microprocessor	606-8055-000	U 801	1	\$26.82	\$26.82
SRAM	606-1244-000	U 804	2	\$31.95	\$63.90
V2.04	610-1204-000	U 803	2	\$20.00	\$40.00
Total Cost if purchased separately.					\$426.62
Total Kit Price	PX600FRK				\$245.00

Please contact Audioaccess Technical Support at 888-691-4171 or 860-346-0896 from the job site when a specific Audioaccess system malfunction occurs. Audioaccess will assist the installer in system diagnostics and possible onsite repair. Below is a brief description of usage for some of the parts listed above.

- LTC 485 Bus Driver This eight-pin IC sends and receives communication data on the RS-485 keypad bus. This device is located in each KPS keypad, PX-600, PX-603, and MRX-NT. The RS-485 transceiver is socket mounted in KPS keypads manufactured after April 1, 1998 and in the PX-600 dating from 1995.
- SRAM This component provides the non-volatile memory in the PX-600. The SRAM "holds" all programmed settings in a system. This is the second part to suspect after replacement of the LTC 485 driver for any functional or source control related failure.
- 3. **EPROM** This is the operating software for the PX-600. Version 2.04 is the current software version.
- 4. **Microprocessor** The main "brain" of the system. This part may need replacement if RS-485, EPROM and SRAM replacements result in continued system control errors.
- Keypad Processor Board A failed keypad may require the replacement of the entire keypad processor board. Replacement of this board will result in the successful repair of 99% of remaining keypad related problems. *Note* - KPS keypads mis-installed or damaged by EMI (Electro-Magnetic Interference) are not covered under the Audioaccess warranty.
- Volume Control Assembly This volume control pot on the PX-600 and MRX controls the volume of Zone 6 in these systems. A broken volume assembly will cause the system to "lock up" when zone 6 is "turned on" inhibiting volume and source control in an entire system.

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TECHNICAL SERVICES

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PX 600 ALL IR Output / MRX Blaster IR Output

DECEMBER 8, 1999 (ORIGNINALLY TECHNICAL MEMO 9711)

OVERVIEW

The "**All**" and "**Blaster**" IR Output ports the on the PX-600 and MRX-NT may be used as an alternative or in conjunction with the individual source IR control ports (ie: CD Tape AUX and Video) to control source components in an Audioaccess system. As suggested by its name, these "all" output ports route all of the IR codes that are learned by the PX 600 and MRX-NT. The dedicated IR outputs route only IR for a specific source. Output voltages may be adjusted on both the PX-600 and MRX-NT for blaster or emitter settings. The following are some suggestions of how these "ALL" outputs are used.

CONFIGURATION OF THE ALL IR OUTPUT

PX-600 - The All Output is factory configured for standard low power emitters but can be changed to drive a blaster style emitter. To make this change, remove the top cover, and move the header jumper located on the main board at P120, one position back towards the rear panel. The two positions are labeled Blaster and Emitter.

<u>MRX-NT</u> - The ALL output of the MRX-NT is factory set for using high power blaster emitters. Functionally, the IR output is identical to that of the PX-600. To modify this to a standard low power emitter port you must modify the emitter being used. Using the positive supply wire, place a one 1K Ohm 1/4w 5% resistor in series with the LED. This will cause a voltage drop across the resistor and will avoid damaging the emitter's LED.

USING THE ALL IR OUTPUT

<u>Application 1</u> – If using source components from a single manufacturer that contain control in/out ports, you may use only the "ALL" out (emitter setting) and daisy chain the control signal to each of the source components. This method eliminates the emitters on the front panel of the source gear and is easy to install. The source gear must be opto-isolated. Opto-isolation indicates that the source component internally strips the IR carrier from the control signal. If this is not the case, you may use the Xantech 794 and 797 series of interface modules for direct connection between the PX-600 IR out and the source component's control inputs. Using the "ALL" output is not desirable if you wish to control two identical source components that use the same IR codes. In this case it is better to use the dedicated IR ports that allow for independent control of identical sources.

<u>Application 2</u> - Four additional source control functions are located in the video programming and may be accessed using the Audioaccess RT-A remote. These extra control functions may be used by any source component if you use the "ALL" control port to expand functionality of a given source. For example, in for a high capacity CD changer, you may use the macro functions located in the HIGH CAPACITY CD Programming, **and also** add extra transport functions located in the "Video" programming under Channel UP, Channel DN, Fast Forward, and Rewind. Instead of connecting an IR emitter from the CD output, connect it to the "ALL" Output port. These extra functions will then be available to the CD changer only when using the Audioaccess RT-A remote. Only one source may use these additional functions.

<u>Application 3</u> – The Zone 6 Macro incorporates a 10 step Video Enter Macro, 10 step Video Exit Macro, and Volume Up and Down commands for controlling an external AV processor or receiver. The "All" or "Blaster" output must be used to route the IR commands to the theater components. In some cases it may be necessary to include a secondary IR repeater system connecting block which allows for multiple output connections to the various components that need to receive IR control data. Alternatively, a Blaster style emitter may be used to "spray" the room with the appropriate commands when this setting is selected.

<u>Note</u> – For any questions concerning the use of the "ALL" IR output, please contact our Technical Support Department at 888-691-4171.





Madrigal Audio Laboratories, Inc.

We define products for your ears, eyes, and mind.

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AUDIOACCESS PX-600 LEARNING PARASOUND IR

PAGE 1 OF 1

OVERVIEW

The IR bursts on Parasound remotes are short quick bursts. If the button on the Parasound remote is held too long the px-600 programmer will lock up. To avoid this from happening the button on the remote must be pressed and released quickly and then the volume up button press to fill up the IR. space inside the PX-600.

LEARNING IR. CODES

- 1. Hold the remote in front of the IR. window on the programmer.
- 2. Press and release the button for the command being learned.
- 3. Press the VOLUME UP button and hold until programmer says STORAGE SUCCESSFUL.

NOTE : For the volume up or down commands this step should be skipped.

4. Repeat the previous steps until all buttons IR. commands are learned



Voltage Change for PX-600

Directions to change from 120VAC to 230VAC version. Locate the terminations for the power transformer to main PCB. Looking from the back of the unit they are directly above of the AC power connection and main switch. The Common must be connected always. The 2 transformer wires that are presently connected to US-Only (Brown = P17 & Black/White = P18)should be moved and re-connected to the NON-US terminal block (Brown = P22 & Black/White = P23) while maintaining the same color code for this connection as it was for the US-Only version. The main power fuse value must be halved for 230V.

Values as follows 120V= 2amp slo blo @ 250 volt. 230V= 1amp slo blo @ 250 volt



If you have any questions regarding this change, please call our Technical Support Department at (510) 293-0183

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2081 S. Main St, Middletown, CT 06457 Ph: 888-691-4171, 860-346-0896... Fx: 860-346-1540...

PX-600 EPROM CHANGE

<u>CAUTION</u> - Be sure to ground yourself before performing this procedure!! This is a static sensitive device.

To change the EPROM in a PX-600 - Make sure to follow the ESD Warning on the page 1, provided. Take off the top cover and look for U803 on the main circuit board. With an IC puller or a small screwdriver, very carefully remove the old EPROM. Replace the new EPROM in the same location and make sure that notch in the IC is facing the same direction as the old one. You can also verify this by the drawing on the PCB. Replace the top cover with the same screws in the proper locations.

Hook up the programmer and power up the PX-600. Go into the TEST MENU and scroll to DATA RESET, then press ENTER. This will clear the memory of all IR codes and reset the controller to factory default settings. You are now ready to configure the system to your client's needs. After you finish programming, check each zone for proper operation. If there are any questions please contact the customer support department at one of the numbers above.



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TECHNICAL SERVICES

PX-600 SRAM REPLACEMENT

Page 1 of 2

OVERVIEW

This procedure will guide you through the steps needed to replace the SRAM in the PX-600. Read the procedure carefully before beginning the SRAM replacement.

INSTALLING THE SRAM

WARNING: Follow Anti-static Procedures!

A static-free workspace with conductive mat and wrist-strap or equivalent precautions must be used to protect static sensitive parts on the control board from damage. Before touching any of the boards inside the MRX, if you're not using the mat and wriststrap, discharge any static you may be carrying by touching something metal, preferably something that is grounded like the wallplate screw on a grounded electrical box. You should re-ground yourself often throughout the procedure and certainly whenever you are about to handle a board, or when you have walked away momentarily and come back.

What is Needed

Philips Screwdriver

<u>Procedure</u>

- 1. Turn OFF the PX-600 main power on the rear panel and disconnect the AC cord.
- 2. Remove the top cover of the PX-600.
- 3. Carefully remove the IC at location U804.

This is next to the EPROM (Vx.xx). It can be found on the mid left side of the printed circuit board when looking downward from the front of the unit.

Note that the correct SRAM should be Benchmarq BQ 4011. If a Benchmarq BQ 4010 is installed in this location, it should be replaced with the BQ 4011.

4. With the FRONT of the PX-600 towards you, Carefully place the new SRAM into the socket with the dimple on top of the IC in the upper right hand corner and give a slight push down to ensure the SRAM is properly seated in the socket.

There is a dimple on the IC designating pin 1 as well as a notch designating the front end of the IC. The notch is also visible on the IC socket and on the PCB silk-screen. And give a slight push down to ensure the SRAM is properly seated in the socket.

- 5. Replace the top cover with the original screws.
- 6. Hook up the programmer and power up the PX-600 from the main power switch on the back panel.
- 7. Go to the main programming menu and choose TEST MENU, scroll to DATA RESET and press ENTER.
- 8. This will clear the memory of all IR codes and reset the controller to factory default settings.
- 9. You are now ready to configure the system to your client's needs. After you have finished programming, check each zone for correct operation. If you have questions please contact our Customer Support Department at the above numbers.


SRAM LOCATION

The SRAM can be found at location U304. Please see diagram below showing location on the PCB.



PX-600 COMPONENT LAYOUT

MICROPROCESSOR U801

485 DRIVER U1106



SRAM U804

FUSE F1301

> EPROM U803



PX-600 Field Repair **Rear Panel Layout**





PX-600 Field Repair INTERNAL COMPONENT LAYOUT





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DSS Programming

Page 1 of 2

Technical Services

Information Sheet

OVERVIEW

There are two possibilities for programming the DSS in a PX-600 system, using your choice of source inputs. Each method has its pros and cons, but one of them should work for your particular client's needs. Follow the examples below to program a DSS to suit the customers needs.

SAMPLE # 1: (SEE FIGURE 1, HIGH-CAPACITY CD OPTION)

Caution: using this method will take away the option of having a High-capacity CD player in the system with group control. Additionally, the response time between changing channels tends to run a little slower. The advantage to using this method is that you do not have to use any of the DSS program features, leaving them open for their intended use.

To start the programming

- 1) Go to LEARN IR.
- 2) Go to CD
- 3) Go to OTHER HIGH CAP (If the unit does have discrete IR power, you must first go to LOW CAP and enter a power command).
- 4) Follow the steps outlined below to program your presets (groups), up to six.
- 5) The STOP command is not used. Leave this address in memory empty.
- 6) At SKIP TRACK, enter the DSS code for "channel up".
- 7) Enter the number of presets (groups), up to 6. This sample is based on a total of 30 stations, with presets set at 5 station increments. The "delay" command is optional, as this will add a .7 second delay between commands if necessary to run the macro correctly. It depends on your particular unit. You may want to try it without the delay first. If there is more than one group, make sure GROUP 1 is the same as the "PLAY" macro .The first press and hold will go to GROUP 2.

Figure #1 HIGH CAP CD

SAMPLE PROGRAMMING TABLE FOR Sony DS	S
PX-600 DISPLAY	DSS IR REMOTE BUTTON
INPUT IR FOR PLAY STEP 1	5
INPUT IR FOR PLAY STEP 2	DELAY
INPUT IR FOR PLAY STEP 3	0
INPUT IR FOR PLAY STEP 4	DELAY
INPUT IR FOR PLAY STEP 5	0
INPUT IR FOR PLAY STEP 6	ENTER (OPTIONAL)
INPUT IR FOR STOP	NOT USED
INPUT IR FOR SKIP TRACK	CHANNEL UP
NUMBER OF GROUPS #	6
INPUT IR FOR GROUP 1 STEP 1	5 (FIRST DIGIT OF DESIRED STATION)
INPUT IR FOR GROUP 1 STEP 2	DELAY
INPUT IR FOR GROUP 1 STEP 3	0 (SECOND DIGIT OF DESIRED
	STATION)
INPUT IR FOR GROUP 1 STEP 4	DELAY
INPUT IR FOR GROUP 1 STEP 5	0 (THIRD DIGIT OF DESIRED STATION)
INPUT IR FOR GROUP 1 STEP 6	ENTER (OPTIONAL)
INPUT IR FOR GROUP 2 STEP 1	5 (FIRST DIGIT OF DESIRED STATION
INPUT IR FOR GROUP 2 STEP 2	DELAY
INPUT IR FOR GROUP 2 STEP 3	0 (SECOND DIGIT OF DESIRED
	STATION)
INPUT IR FOR GROUP 2 STEP 4	DELAY
INPUT IR FOR GROUP 2 STEP 5	5(THIRD DIGIT OF DESIRED STATION)
INPUT IR FOR GROUP 2 STEP 6	ENTER (OPTIONAL)

AUDIOACCESS DSS PROGRAMMING

SEPTEMBER 29, 1999

Page 2 of 2

This process will continue until the programming is complete for the number of presets you have selected. Your client may want a specific station attached to press and hold function. All the stations are determined by your programming. After the last GROUP is entered, the programming display shows the source selection screen for LEARN IR. From there you may program IR commands for other sources or press STORE/ENTER twice to exit programming mode.

SAMPLE # 2: (SEE FIGURES 2A/2B)

The second method uses the "Custom Guide" of the DSS to program desired stations, and the PX-600 to control it. However, you take away the "Custom Guide" from the client in the following manner.

A. The "channel up/down" buttons will only scan the stations contained in the "Custom Guide".

B. Your client will need to use the other "Guides" available to change channels on the DSS during regular DSS viewing. The advantage to this method is the ability to program as many stations as are available on the Custom Guide.

LOW CAP CD, AUX, TAPE, or VIDEO can be used on the PX-600 to control the DSS. We've included samples from TAPE or CD under AUX programming. Again, a POWER command is necessary if the unit does have discrete IR power, if you wish to have the source turn on and off with the system.

Figure #2A (TAPE)

SAMPLE PROGRAMMING TABLE FOR Sony DSS			
PX-600 DISPLAY	DSS IR REMOTE BUTTON		
NUMBER OF TAPES	1		
INPUT IR FOR PLAY	CHANNEL UP /CUSTOM GUIDE		
INPUT IR FOR STOP	NOT USED		
INPUT IR FOR FORWARD PLAY	CHANNEL UP		
INPUT IR FOR REVERSE PLAY	CHANNEL UP		
TAPE !A	CHANNEL DOWN		
TAPE 1B	NOT USED		

Figure #2B (CD)

SAMPLE PROGRAMMING TABLE FOR Sony DSS			
PX-600 DISPLAY	DSS IR REMOTE BUTTON		
NUMBER OF DISCS	1		
INPUT IR FOR PLAY	CHANNEL UP/CUSTOM GUIDE		
INPUT IR FOR STOP	NOT USED		
INPUT IR FOR SKIP TRACK	CHANNEL UP		
DISC 1A	CHANNEL DOWN		
DISC 1B	NOT USED		

TECH NOTES IR PROGRAMMING

Ideal Programming Conditions

In order to minimize interference and maximize the reliability of source control, follow these guidelines during programming:

- 1. Eliminate direct or bright indirect sunlight near the PX-600 Programmer.
- 2. Turn off any halogen, fluorescent and neon lights in the area.
- 3. Position Programmer so that no lights, even incandescent lights, shine directly into the IR input window.
- 4. Hold the transmitter for the source equipment you are programming 2" to 6" from the PX-600 Programmer. Hold it level and squarely aligned with the red IR input window.
- Except as directed elsewhere in these Tech Notes, when you enter a command into the PX-600 Programmer, press and hold the button on the IR remote until you see the words: "Storage Successful" on the LCD screen.

CD - Multiple Skip Track

You may encounter some CD players that skip more than one track when you issue the SKIP TRACK by pressing the CD button the second and subsequent times. These players probably utilize 32 bit IR codes. When learning these 32 bit codes, the PX-600 will take 2-3 seconds before indicating "Storage Successful", whereas 16 bit codes are stored almost immediately. When 32-bit codes are learned and played back, often the player sees two separate commands and thus skips more than one track.

To compensate for this and skip only one track, get into programming and proceed to the spot where you are to enter the SKIP TRACK command. Briefly tap SKIP TRACK on the CD's remote and immediately press and hold another button on the remote until the PX-600 indicates "Storage Successful" on the display. The PLAY button works well for this unless the player has a combination PLAY/PAUSE button. If this is the case, or if the player is affected in some other way when you press PLAY while it is already in PLAY, use a command from a remote that has nothing to do with the audio system to complete the storage of that IR address. The point is to fill the space allotted for the command without duplicating the SKIP TRACK command.

System Learning Remotes

These remotes are designed to control the functions of a stack of same-brand equipment, as well as learn the IR commands of other equipment. Often the PLAY buttons on these remotes send two IR commands: one to the receiver to select the input, and one to the player (CD, Tape, etc.) to start it playing. When using this type of remote to program IR commands into the PX-600, the PLAY command often gets cut off and is not stored properly. When this happens it will appear that the PX-600 cannot control the source equipment. For this reason, it is best to use the transmitter for the player itself whenever possible.

However, sometimes the individual player's remote is not available or doesn't exist. To program the PLAY command or any other command using a System Remote, follow this procedure:

- 1. Place the remote in the proper location for programming.
- 2. Place your hand between the remote and the PX-600 Programmer.
- 3. Press PLAY your hand will block the first command (SOURCE SELECTION).
- 4. Move your hand in time to record the second command (PLAY). This may take only a fraction of a second.

It may take a little practice to get the timing right, but it works and it may get you out of a jam.

IR Programming tips for Tape Players

There are different formats for the control of tape players, and clients have differing needs or expectations of how a player should respond from a keypad or remote. With this in mind, we have outlined the programming protocol for the TAPE input along with some suggested ways of using it.

During IR programming for TAPE, enter the number of tapes the player has and the commands for: PLAY, STOP, REVERSE PLAY and FORWARD PLAY, then TAPE 1A/1B, TAPE 2A/2B, etc. The PX-600 issues PLAY the first time TAPE is selected in a zone, unless it was already selected in another zone. STOP is issued shortly after the first zone is turned on in the system, after the last zone is turned off and whenever the user switches out of TAPE, unless another zone has TAPE selected.

The REVERSE PLAY and FORWARD PLAY commands toggle back and forth each time you press TAPE after the first time. Normally these provide a CHANGE DIRECTION function on players that have two PLAY buttons.

TAPE 1A/1B, 2A/2B, etc. are two-step commands issued when you press and hold the TAPE button. The intended use of the two steps is to accommodate multi-tape changers that require a tape select command followed by the tape number or the tape number followed by PLAY. Most players change tapes by pressing the tape number only, in which case enter the tape number in the "A" step and skip the "B" step. If you have a tape player with one PLAY button and a DIRECTION button:

- 1. Enter DIRECTION for both the REVERSE PLAY and FORWARD PLAY commands so that you get the DIRECTION function each time you press TAPE after the first time. Using this option, you could tell the PX-600 you have 2 tapes and enter FF into TAPE 1A, press STORE to skip TAPE 1B, then enter PLAY into TAPE 2A and press STORE to skip TAPE 2B. You'll now be able to toggle between FF and PLAY on the press-and-hold function.
- 2. Enter FF into REVERSE PLAY and PLAY into FORWARD PLAY, then enter DIRECTION in TAPE 1A. This toggles between FF and PLAY to find a particular part of a tape. When you press and hold TAPE, you change the direction of play. Another twist to this is to tell the PX-600 that the player has 2 tapes as in Option 1, and enter REW and PLAY in TAPE 1A and TAPE 2A. Then you toggle between FF and PLAY by momentarily pressing TAPE and toggle between REW and PLAY using the TAPE press-and-hold function.

Sources with IR input on back panel

Many sources, particularly tape decks and tuners, have no IR input to the front panel. These products are designed for use with receivers and a "system" remote. Some tape players and other source components have opto-isolated IR inputs as with Harman Kardon equipment. With these components, plug the emitter outputs of the PX-600 directly into the IR inputs on the back panels using mono mini plug to mini plug cables.

When the IR inputs are not opto-isolated, route the IR through a CD player in the system that is the same brand and series, and connect the CD player via the IR port to the back of the tape deck. Use the ALL OUTPUT in this case. If this is not an option consider using a Xantec 794/797 connecting block and route the IR signal through this device which provides opto-isolation for the source component.

Using a CD Player on the Tape input

The programming is the same for PLAY, STOP and SKIP DISC (SKIP TAPE). However, enter SKIP TRACK for both REVERSE PLAY and FORWARD PLAY. Then each time you press TAPE on the transmitter, keypad or front panel, you will get SKIP TRACK on the CD Player.

Laser Video Disc Players as main CD Players

Many current LD players play regular CDs as well as laserdiscs. One may be tempted to use these players as both the CD and VIDEO source. We recommend a separate, dedicated CD player on the CD input. However, if you must use the LD/CD arrangement, please consider the following:

Split the audio output into both the CD input and the VIDEO input of the PX-600. If you're using some other means of video switching, connect one of the splits into that device and then into the PX-600. In this way the audio will track with the labeling on the keypad.

LD players often have PLAY/PAUSE buttons which means you will undoubtedly get PAUSE at some point when you really want PLAY.

LD players often have STOP and EJECT on the same button, so it is likely that the drawer will open when you don't want it to. You may opt to eliminate the STOP command altogether.

If you plug the LD player into the PX-600 for AC power, it may power up into a "standby" mode. Before it accepts any other commands, the player needs the IR POWER command. Use the POWER command from either the CD or the VIDEO input - not both. You can get around this on some players by setting the timer to the "on" position if it has this feature (this solution *may* work for *any* equipment with stand-by power).

Sharing Sources with Other Systems

Some pre-amps, receivers and A/V surround receivers short their audio inputs together when they are turned off. This will show up in the PX-600 as cross talk between CD, TAPE, AUX and VIDEO if the PX-600 is on and the other system is off. This cross talk or bleed from one source to another is often accompanied by low frequency distortion. One solution is a line level switch made by Sonance, Model AL-1S, which has A/B switching between multiple sources and provides the necessary isolation. It requires a 12VDC power supply, also available from Sonance, and is reported to work perfectly in this situation. The only other way to deal with it is to build a relay circuit that isolates the preamp or receiver from the source equipment when it is off.



TECHNICAL SERVICES

Madrigal Audio Laboratories P.O. Box 781 Middletown, CT 06457-0781 (860) 346-0896 FAX (860) 347-6251

PX-600FRK – PX-600 FIELD REPAIR KIT

SEPTEMBER 22, 1999

The Audioaccess Field Repair Kit has been developed for authorized Audioaccess installation companies to improve servicing time and overall customer satisfaction of PX-600 systems. Field repair eliminates system downtime and the cost of multiple trips to job sites to reinstall keypads and controllers. This kit contains socket parts and subassemblies to perform simple repairs to Audioaccess KPS keypads and PX-600 controllers. We recommend that dealers bring this kit on all Audioaccess installation and/or troubleshooting visits.

The following parts and quantities are included in each kit. Dealer costs are also included for reordering individual components:

DESCRIPTION	Part NO.	LOCATION	Qty	DLR EACH	DLR EXT
PX-600/KPS PARTS					
Ribbon Cable for Programmer	705-1000-800	PX-600 PROG	1	\$10.50	\$10.50
Fuse 2 Slo Blo	664-2101-200	MAINS FUSE	6	\$0.93	\$5.58
Fuse 1.5 5 X 20 mm	664-1001-500	KEYPAD (NEW)	6	\$1.47	\$8.82
Fuse 1.6 Slo Blo	380-00160-00	KEYPAD	6	\$0.78	\$4.68
Fuse 500ma Slo Blo	380-00050-00	F 1301 (INTERNAL)	6	\$0.69	\$4.14
LTC485 Bus Driver	605-0485-008	U 1106	12	\$3.45	\$41.40
Keypad Processor Board	450-9862-100	KPS	4	\$38.82	\$155.28
Volume Control ass'y	926-0600-002-00	FRONT PANEL	1	\$60.50	\$60.50
Microprocessor	606-8055-000	U 801	1	\$26.82	\$26.82
SRAM	606-1244-000	U 804	2	\$31.95	\$63.90
V2.04	610-1204-000	U 803	2	\$20.00	\$40.00
Total Cost if purchased separately.					\$426.62
Total Kit Price	PX600FRK				\$245.00

Please contact Audioaccess Technical Support at 888-691-4171 or 860-346-0896 from the job site when a specific Audioaccess system malfunction occurs. Audioaccess will assist the installer in system diagnostics and possible onsite repair. Below is a brief description of usage for some of the parts listed above.

- LTC 485 Bus Driver This eight-pin IC sends and receives communication data on the RS-485 keypad bus. This device is located in each KPS keypad, PX-600, PX-603, and MRX-NT. The RS-485 transceiver is socket mounted in KPS keypads manufactured after April 1, 1998 and in the PX-600 dating from 1995.
- SRAM This component provides the non-volatile memory in the PX-600. The SRAM "holds" all programmed settings in a system. This is the second part to suspect after replacement of the LTC 485 driver for any functional or source control related failure.
- 3. **EPROM** This is the operating software for the PX-600. Version 2.04 is the current software version.
- 4. **Microprocessor** The main "brain" of the system. This part may need replacement if RS-485, EPROM and SRAM replacements result in continued system control errors.
- Keypad Processor Board A failed keypad may require the replacement of the entire keypad processor board. Replacement of this board will result in the successful repair of 99% of remaining keypad related problems. *Note* - KPS keypads mis-installed or damaged by EMI (Electro-Magnetic Interference) are not covered under the Audioaccess warranty.
- Volume Control Assembly This volume control pot on the PX-600 and MRX controls the volume of Zone 6 in these systems. A broken volume assembly will cause the system to "lock up" when zone 6 is "turned on" inhibiting volume and source control in an entire system.

OVERVIEW

The PX-600 Field Repair Kit contains components that can be changed in the field to repair the PX-600 system. By following the below flow charts a PX-600 can be diagnosed and repaired at the job site. This will eliminate the need to remove the unit and have the customer down while the unit is being repaired.

Description	Part No.	Location	QTY	DLR	DLR
				EA	EXT
PX-600/KPS PARTS					
Ribbon Cable for Programmer	705-1000-800	PX-600 PROG	1	\$10.50	\$10.50
⁻ use 2 Slo Blo	664-2101-200	MAINS FUSE	6	\$0.93	\$5.58
⁻ use 1.5 5 X 20 mm	664-1001-500	KEYPAD	6	\$1.47	\$8.82
⁻ use 1.6 Slo Blo	380-00160-00	KEYPAD (NEW)	6	\$0.78	\$4.68
⁻ use 500ma Slo Blo	380-00050-00	F 1301 (INTERNAL)	6	\$0.69	\$4.14
_TC485 Bus Driver	605-0485-008	U 1106	12	\$3.45	\$41.40
Keypad Processor Board	450-9862-100	KPS	4	\$38.82	\$155.28
Volume Control ass'y	926-0600-002-00	FRONT PANEL	1	\$60.50	\$60.50
Microprocessor	606-8055-000	U 801	1	\$26.82	\$26.82
SRAM	606-1244-000	U 804	2	\$31.95	\$63.90
Software Eprom v2.04	610-1204-000	U 803	2	\$20.00	\$40.00

USING THE PARTS

We recommend that any parts used from this kit be replaced to maintain a constant stock within the kit for future service calls. Replacement parts for the kit or new kits can be ordered from Audioaccess with the enclosed parts order form. A list of parts and their quantities are also included.

<u>In Warranty Repairs</u>

Parts used from this kit for In Warranty repairs will be replaced at no charge provided a serial number for the unit is supplied. When calling Tech Services please have serial number and problem description handy. If the enclosed form is being used please be sure to fill out all the fields on the form or the part will be charged.

Out of Warranty Repairs

Parts used for Out of Warranty Repairs will be charged. As with In Warranty Repairs please supply serial number of unit when calling.

Should you have questions about the use of this kit or need help after all the steps have been followed, please call Audioaccess Technical Services at 888-691-4171.

TROUBLESHOOTING

Basic Troubleshooting Steps

Problem Encountered	Find the problem component	solution
Keypad locked up - lights come on but no functions. System locked up Zone or system locks up after ON button is	Unplug (isolate) all keypad wires from control unit and test unit functions from front panel. Test each keypad on system individually. Test using an alternate KPS addressed for the same zone.	Check all keypad connections. Set DIP switches for correct zone, room, & system. Insure data bus wires polarity. Replace KPS Processor assembly. Check front panel Volume knob is not rubbing on Motor Pot bracket. Gently pull out knob 1/16 th ".
Keypad has no functions and no lights	On back panel of head unit. Check bus fuse - Use ohmmeter to measure for 0 ohms. Check bus voltage -Use voltmeter across pin 1 & 4 – DC voltage is unregulated and should be between 8 – 14 volts DC.	Replace bus fuse w/ 1.5 A slo-blo Check data bus wires polarity. Replace KPS Processor assembly.
Slow reaction time from keypad, front panel or RT-A remote.	Check KPS terminator switch. Check wire terminations. Check for IR interference (Ambient light source)	Change to opposite direction and test system speed. Make sure there are no cut or frayed wires and that there are no intermittent shorts in wiring. Disable IR on keypad - DIP switch 9 UP.
Keypad turns on but there is Audio in the wrong zone or more than one zone.	This usually indicates the wrong zone or system address on the KPS keypad - Preamp output is connected to the wrong channels on the amplifier.	Check DIP switch address settings and make sure the proper zone and system codes are set. Change wiring to correct amplifier input.
there is Audio in more than one zone.	Check PX-600 back panel outputs	Command at turn on from keypad. Variable audio comes out of the preamp section and NOT the zone outputs. All zone outputs become HOT when any zone is active.
No Audio in one zone	Identify Zone What type of Amp is powering this zone? Is it signal sensing turn on/off? Check Speaker continuity. Check Preamp output. Check amp inputs – Check Fuse Source dependent? - Check source input continuity and line level signal.	Turn all zones off but the problem zone. Use the Zone or Room command to find out which zone is active. Is there preamp line level signal. If so, check amp channel. Replace fuse with same value. Fuses. Change source or it's wiring connection.
NO AUUIO III aliy 2011e		system is designed to use current amp in this fashion.

[logo]

	Is the amp plugged into a switched outlet that is not on?	Replace fuse with same value.
	Check main power fuse to Amp and to Preamp.	
Audio always very loud in all zones. Sources can be controlled but volume can not.	Check PX-600 back panel outputs.	Variable audio comes out of the preamp section and NOT the zone outputs.
Audio drops out then	What volume level does this occur?	When using a PX-612 check by slowly adjusting the
returns	Does this happen when music has soft passages in it?	PX-600 programmer or Room button on MRX to see what the actual level is. If the threshold is below 10 the amp needs to be modified.
	Is it source dependent?	
	Does it always happen at the same volume level?	
Cross talk between inputs and zones.	Is the Audioaccess system used in conjunction with a local system? – IE: source sharing.	Disconnect the local system – if the problem is not present use a ground loop isolator in line with the local system feed.
	Some MRX units inherently have this	
Hum in speakers	Is there a cable system integrated	Remove the cable connection. If the problem is not
	with this unit? Check for DC offset at source inputs.	present then use an IN-LINE ground loop isolator or make your own using 2pcs. of 75 to 300 ohm transformers back to back on the 300-ohm side. This effectively makes an isolation transformer. Disconnect the local system – if the problem is not
	Is the Audioaccess system used in conjunction with a local system? – IE: source sharing	present use a ground loop isolator in line with the local system feed.
Popping sound in	Check terminations for bad	Terminate wires correctly.
with switching lights, motors, etc.	Cabling routed too close to AC wiring, dimmers or electric motors. Systems connected to same AC circuit as electromechanical devices causing noises on system.	Re-rout cables away from AC wiring. Use different AC circuit for either the system or electromechanical device.
System or zone turns on seemingly by itself	Is there an extra ordinary amount of light shining on any keypad or the front panel of the system?	Disable IR receiver in KPS keypad by putting DIP switch 9 in the UP position. If it is coming in through the front panel – PX-600 use a pigtailed 1/8" mono jack and plug it into the IR input on the back panel. MRX use a piece of Black tape to cover the IR receiver.
		Make sure buttons do not stick in the down position.
	Check for stuck button on keypad.	Disconnect control system and test. If operational the problem lies in the control system
	If using an outboard control system.	
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	[logo]	

	check perameters of control system. Does it have functions for timed operations?	
MRX tuner has little or no reception.	Is the antenna connected?	Connect antenna.
	Powered Antenna?	Make sure powered unit is supplied with the correct voltage (AC or DC).
	Check for Proper tuner set up	US frequencies should be set at .2MHz.
Front Panel "talk back" LED lit or blinking – no intentional input.	Is there an extra ordinary amount of light shining on the front panel? Use programmer screen to check status identifiers: I = Front Panel is receiving IR. K = Information from A keypad is being received at head unit. Either a button press or receiving IR. P = head unit is send IR to sources.	Front panels – PX-600 use a pigtailed 1/8" mono jack and plug it into the IR input on the back panel. MRX use a piece of Black tape to cover the IR receiver.
Front Panel LCD (MRX) has no font	LCD intensity potentiometer needs adjustment.	Remove the top cover of the MRX and find the small hole direct behind and to the right of the LCD screen. Use a small #1 blade screwdriver to gently move the potentiometer till the font is visible on the LCD screen.
Front Panel LCD (MRX) has no back light or is split	Check ribbon connections to front panel.	Make sure there is a complete connection and there are no shorted wires.
Programmer LCD (PX- 600) has no font	LCD intensity potentiometer needs adjustment.	Remove the top cover of the programmer and find the only potentiometer on this circuit. Use a small #1 blade screwdriver to gently move the potentiometer till the font is visible on the LCD screen.
Programmer LCD (PX- 600) has no back light or is split	Check ribbon connections to front panel	Make sure there is a complete connection and there are no shorted wires or broken connectors.
Characters remain on LCD after back light goes off.	After PX-connect or MRX-connect this is normal.	If this happens at any other time call Customer support.
Tuner frequency displayed on LCD (MRX) does not match station being listed to.	Check that tuner set up is set for US standards.	US frequencies should be set at .2MHz. Use tuner preset button 1 and MUTE to activate main menu.
PX-600 or MRX constantly resets.	Remove keypads. If the problem still exists then it is an RS-485 Transceiver failure. If the problem stops then	Change RS-485 Transceiver. Put one Keypad on the data bus at a time until the bad keypad is found. Replace KPS processor board or entire keypad.
MRX Overheats	Does the fan run?	Remove cover and find the power wire to the fan. Use a multi meter to see if the fan's windings are still in tact. NO- replace fan. Ventilate cabinet.
	Is the unit installed in cabinet w/no ventilation?	
PX-600 Overheats	Is the unit installed in cabinet w/no ventilation?	Ventilate cabinet.

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MRX main fuse blown	Check for shorted wiring. Check for source input DC offset.	Repair faulty wiring. Change or repair source.
PX-000 main fuse blown	Check correct wair voltage.	Connect to TTOVAC.
No power on MRX switched outlets.	Does the AC relay click on power up? Check fuse on Power supply.	Change relay.
No newer on DV 600	Deep the AC releviation power up?	Change fuse w/ correct value
switched outlet	Check fuse on Power supply	Change relay.
	Check fuse link at location F1301	Change fuse w/ correct value
Dashlama an ann tao d	near power supply.	Install jumper wire 24 ga. To replace this fuse.
after changing software.	installed in the correct direction.	Perform DATA reset to system.
IR emitter blows	Check to make sure the emitter is	If using the ALL output on PX-600 then remove cover
	plugged into an emitter port and not the All or Blaster port.	and set jumper to emitter @ location P120. If using an MRX Blaster output then install in line with the emitter a 1000hm ¼ watt %5 resistor to shunt the voltage.
Page Doorbell Module	Check header settings.	If using one Panasonic door station only the si9ngle
chimes constantly.	Check trigger wiring. Insure door station is powered.	trigger input should be configured for this device. The other header should be set for contact closure or voltage trigger.
MRX fan always runs.	Check thermo couple on amplifier heat sink.	If always closed then replace.
MRX fan never runs.	Check thermo couple on amplifier heat sink. Check fan windings.	If always open replace.
LED source indicator	Check DIP Switch settings.	Use correct settings for system and zone.
changes on keypad but audio does not follow change.	Check data bus wiring.	Correctly connect wiring.
IR input on keypad does	Check DIP Switch 9	To enable IR put DIP switch 9 in the down position.
commands issued from hand held IR remote.	Does the remote have good batteries?	Replace batteries in remote.
PX-603 room does not	Check DIP Switch settings on KPS or	Use correct settings for system and zone and room.
come on.	Check data bus wiring. Check PX-600 software	PX-600 software to work w/ PX-603 is Ver. 2.04.
PX-603 KPS keypad	Check DIP Switch settings on KPS or	Use correct settings for system and zone and room.
controls main room (0)	PX-603.	Correctly connect wiring.
and not the attached	Check data bus wiring.	PX-600 software to work w/ PX-603 is Ver. 2.04.
KP3 keypad does not	Check data bus wiring.	Data wires are 6 conductor and must be home run to
function.	<u> </u>	PX-603. This is a one to one connection.
KP3 keypad lights up but	Check data bus wiring.	Use correct settings for system and zone and room.
controls the wrong room.	panel of PX-603	PX-600 software to work w/ PX-603 is Ver. 2.04.
PX-603 has no output.	Check feed to PX-603 from PX-600.	Use Zone output from PX-600. Check continuity of interconnects from PX-600 to PX-
	Chook apocker connection	603.
	Check speaker connection.	Replace speaker or wiring as pecessary
		The PX-603 requires constant power and should not
	Check AC power.	be plugged into the PX-600 switched outlet.

PX-603 LED indicator	Check AC line voltage.	Requires 110VAC constant.
light always stays RED.	Check that speakers are not shorted.	No lower than 8 Ohms per channel.
DX 602 LED indicator	Check data bus connection.	Connect data bus with correct polarity.
light always stays Vellow	Check DIP switch settings	Set switches to correct system, zone, and room
I Init is always stays reliow.	Check Data bus connection	address
	Check Data bus connection.	Insure correct connection and polarity to data bus
		When using KP3 keypads a 6-conductor wire must be
		home run
PX-603 LED indicator	Check DIP switch settings.	Set switches to correct system, zone, and room
light always stays Green.		address.
Unit is always ON.	Check Data bus connection.	Insure correct connection and polarity to data bus.
		When using KP3 keypads a 6-conductor wire must be
	Check ALL ON group settings.	home run.
		All On commands are set in group set up for single
		systems and in Multi set up in multi configurations.
		To issue an All On command press and hold the ON
		button from a keypad that is not currently on.
	Maa the reason turned as builtering	
	an All On command?	
PX-612 ED indicator		Requires 110VAC constant
light always stays RED	Check that speakers are not shorted	No lower than 4 Ohms per channel
Amp is in protect mode	and that the impedance is correct	Change or repair source
Amp is in protect mode.		Change or repair Preamp
	Check for DC offset for sources or	
	Preamp.	Ventilate cabinet.
	Check for overheating.	
PX-612 LED indicator	Check input signal from Preamp.	Feed a direct signal to Amplifier such as from a CD
light always stays Yellow.		player to see if it turns on and off with signal sensing.
IE: unit does not come		
out of stand-by.		Change or repair defective cable.
	Check continuity of cabling feeding	
DV 612 LED indicator	la thora a cable system attached to	Disconnect cable. If the problem goes away then use
light always stays Green	the Audioaccess controller?	a ground loop isolator in line with the cable input feed
IE: Amplis always ON		Disconnect wiring feeding the local system. If problem
		goes away use an in line (RCA style) ground loop
	Is there a local system sharing	isolator to bring the signal to the local system
	sources with the system? Some	
	receivers short the input to ground	
	when in stand-by condition.	
Subsequent units in multi	PX-connect or MRX-connect	Start system 1 and go into the multi set up menu.
system (other than	sequence was not performed	Choose multi set up again then identify which unit it is
system 1) always jump	correctly.	and how many units there are in the system. Follow
back to FM after another		all the steps in the menu. Go to the subsequent units
source key has been		and follow the same procedure. Last step is to go to
pressed.		multi set up in system 1 and run XX-Connect then exit
		programming completely. When exited push the All
		Off key on the front panel of the highest number
		system to the lowest. This provides a handshake
Subcoquent unite in multi	Check Data bus connection	Detween Systems.
system do not respond to		RED (or power) wire
any commands other		
than front panel.		Make sure keypads are correctly connected for
		Page 8

	Check keypad connections.	polarity.
	Check Data bus fuse on back panel. Voltage between pins 1 & 4 should be between 8 to 13 VDC. This non- regulated and van be anywhere in this range.	Change fuse w/ 1.5 amp slo-blo
MCI Green LED does not indicate passing of code sets because it is not flashing.	Check Data bus connection. Check that MCI is receiving power from Data bus. Check outboard control systems connection and polarity. (RS-232)	Connect w/ correct polarity. The RED indicator LED should be lit if there is power at the MCI. Voltage between pins 1 & 4 should read between 8 to 13VDC. Insure correct connection and polarity from RS-232 connection.
MCI Red LED does not light	Check Data bus connection. Check data bus voltage at head unit.	Connect w/ correct polarity. The RED indicator LED should be lit if there is power at the MCI. Voltage between pins 1 & 4 should read between 8 to 13VDC.



Madrigal Audio Laboratories P.O. Box 781 Middletown, CT 06457-0781 (860) 346-0896 FAX (860) 347-6251



PROGRAMMING DMX ON THE AUX INPUT

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Technical Services

Information Sheet

OVERVIEW

The following procedure should be used to program a DMX on the AUX input. The system will control the DMX unit in an individual channel advance and/or preset channel advance, See Figure#1.

PROGRAMMING

- 1. Go to LEARN IR.
- 2. Go to AUX.
- 3. Go to CD.
- 4. Enter number of discs as 10 or the number of presets you intend to use.
- 5. At AUX POWER enter the power command for the DMX.
- 6. Skip the PLAY and STOP sections for entering IR codes (leave those addresses in memory empty).
- 7. At SKIP TRACK enter the DMX code for channel advance (the tune up button).
- 8. In all the disc "A" prompts enter the DMX code for PRESET.
- 9. In all the disc "B" prompts enter the number of the preset that you wish to access. The easiest way is to start at 1 through 9 and then end with 0, which will be the 10th preset.
- 10. Follow the example below

FIGURE # 1

SAMPLE PROGRAMMING TABLE FOR scientific Atlanta DMX					
MRX / PX-600 DISPLAY	DMX IR REMOTE BUTTON				
INPUT IR FOR AUX POWER	POWER				
INPUT IR FOR AUX PLAY	NOT USED				
INPUT IR FOR AUX STOP	NOT USED				
INPUT IR FOR AUX SKIP TRACK	ADVANCE CHANNEL				
INPUT IR FOR AUX DISC 1A	PRESET				
INPUT IR FOR AUX DISC 1B	1				
INPUT IR FOR AUX DISC 2A	PRESET				
INPUT IR FOR AUX DISC 2B	2				
INPUT IR FOR AUX DISC 3A	PRESET				
INPUT IR FOR AUX DISC 3B	3				
INPUT IR FOR AUX DISC 4A	PRESET				
INPUT IR FOR AUX DISC 4B	4				
INPUT IR FOR AUX DISC 5A	PRESET				
INPUT IR FOR AUX DISC 5B	5				
INPUT IR FOR AUX DISC 6A	PRESET				
INPUT IR FOR AUX DISC 6B	6				
INPUT IR FOR AUX DISC 7A	PRESET				
INPUT IR FOR AUX DISC 7B	7				
INPUT IR FOR AUX DISC 8A	PRESET				
INPUT IR FOR AUX DISC 8B	8				
INPUT IR FOR AUX DISC 9A	PRESET				
INPUT IR FOR AUX DISC 9B	9				
INPUT IR FOR AUX DISC 10A	PRESET				
INPUT IR FOR AUX DISC 10B	0				

This process will continue until the programming is complete for the number of presets you have selected. After the last disc B is entered, the programming display shows the source selection screen for LEARN_IR. From there you may program IR commands for other sources or press STORE/ENTER twice to exit programming mode.

If there are any questions regarding this programming procedure please call our Customer Support Department at 860-346-0896.

...................... PX-600 Volume Drive Termination: PX-600 Main PCB. Pin#1-> (+) 0 PIN # 2->(-) Volume Motor Main Transformer: ASS White Orange: 8V AC = Yellow: IZVAC= CT31 122 35 Blue ! ILev Act 36 Temperation J.C. Combral 20 Bread 33' Transfermes 84 * RJ = 3.68 V.

4 4 4 4 4 4. Phoenix Volts: MRX 600 MRX & PX-600: 9.3 > 10.5 Voc PX-700: 13.0VDC MRX: Vol. PLS: CTRL \$ 97.66 (705-1001-105-A) * 705-1001-100 +2+ Ribbon 2.40 400-9862-703 660-1000-141 3.50× Audio \$ 120.94 750-2500-600 Beard (-1-30x) 400-9862-704 6.25x 735 1000-000 Bushing . cix MRX P.S. Caps: 18,000 uf/sov 640-3000-220 KPS Phoenix MRX-FI;F2,F3 Red Form F1: 4.8VACRMS FZ: 6.9VACRUS F3: 8. 7VACAMS grai wh+ BIK.

MRX PX-600 F/P Repair (MRX) 780-1000-300 Leuse . 69x (1) KPS Volts 780-1000-400 Light Rive 72x (1) 780-1000-201 window 440x (1) 780-3000-400 F/P 13.39x (1) Between Data Lines 135mV 735-2600-000 fogugasket .48x(1) Between Red & Grm 734-4000-006 Washer/11/104, 04x (3) 7.00 940-0000-000 Labor \$40.-Between 7.18V Red & Yellow Between 2.50 MRX 14" BIKEGry Between BIK & Yellow 2.30 MRX-NT 15" KPS 27 mA each MRX F/P P/B SW. MRX 740-3000-500 IR LED: PX-600 Input 150 mV across Signal Level: IR LED (DC Valls) floating on - 11000 121 Reference To ground 2 Vrms / 2.828 V P/p max

MRX Do Not Ship 600 a Control PCB 600 × famer for MRX-NT Loaded with out first Blue 16.5VAC Setting Taper To Linear Yellow 12.4 VAC ORange 8.95 VAC MRX Bug V3.43 @ Audio Taper Selected U3.40 OK PX-600: PX-600 Will Store IR -X-FMR-Commands IN 0 8.5VActa system"o" or Y 11.5VAC+/-B 15.5VAct/-1° only.

MRX Tuner 600 MRX Amp. Mod. 2200 pt/25V: 200262.32x 100 mf/500: 200222 \$ 526.00 10mf/250:640-2800100 400-9862-700 1 mf/ sou : 130-52210-00 PX-600 Main PCB 2.20 0 /251: 140-32422-00 .06 926-0600-000-110 \$ 480 00 Monthematy MRX Pot. Motor Assy. 705-1001-100 Ribbon 1.27x MRX > MRX-NT 660-1000-141 Pol. 330x List \$4700.00 7 50 - 2500 - 600 Board 1.80x Cost: 2495.00 Trede In: 1000.00 735 - 1000-000 Bushing oix final \$ 1500.00 Prog. Ribbon: 705-1000-800 Prog. Replacement MRX Fan : Prog-00" 755-1000-001

PX-600 F/P: full Repair

PX-600

F/P: 760-4600-002-C Beel: 780-0600-001-00 light Ripe: 780-0600-002 Adheigive: 735-0100-000-A IR wombow: 780-0600-100 Right Side: 780-0600-050 Left Side: 780-0600-051

PX-600 PS Caps:

68000f/35V:640-2900-680 22000f/35V:200052 470,0f/35V: 100,0f/35V:200222

PX-600

AA MULTI-ROOM PREAMP CONTROLLER

Revision Level: 03 Drawing Number: Engineering Status: AL

Comment: NORTH AMERICAN VERSION

Line Rev		Start Date	Stop Date	Part Number	Rev	Description	Quanti ty	U/M
4	-	1/15/03		630706		LIT MAN AA WARRANTY REGISTRATION CARD AS PER- 630706 POSTSCRIPT AND PDF FILES REPLACES 500-00000-00	1	EA
						PER ECN3356- 1/15/2003 ECN3356- 1/15/2003		
30	01	1/23/98		801-3150-000	00	PKG ANTISTATIC SHIPPING BAG 24" X 24" OPEN END BAYSTAT #CS37542	1	EA
40	01	1/23/98		800-3160-000-00	00	POLYMER PLASTICS CORP- SE-P4F24X24 PKG KRAFT SHIPPING CTN	1	EA
52		7/ 3/02		805-3000-008	00	22. 5" X 20" X 9. 75" PKG PX600/PX700/VX241 SHIPPING FOAM SE	Г 1	EA
80	01	1/23/98		801-3350-000	00	SET = FUAM AND PAD ECN3204- 6/3/2002 PKG SHIPPING BAG 9"X12"X2MIT CLEAR POLY	۷ 1	FΔ
90	02	2/24/98		825-0600-000-B	01	NORTHEAST POLY #480	1	ΕΛ
100	02	Q/ 1/08		826-0600-000-B	B	IN-HOUSE OR OUT OF HOUSE	1	ΕA
120	02	1/22/00		820-5000-000-B	00	OUT OF HOUSE	1	
120	01	1/23/90		820-5000-000-A	00	EITHER IN-HOUSE OR OUT OF HOUSE ORIGINAL @ MAD MKTG	I	LA
130	01	1/23/98		870-0600-000-A	00	LBL SER #PX-600 GENERATED IN-HOUSE	1	EA
140	04	10/ 1/01		920-0600-000-02	04	USING P/N 470-00044-00. ASS'Y, FINAL, PX600-US ASSEMBLED AND TESTED	1	EA
10	1	11/ 6/97		688-2500-000	00	ECN2986- 10/1/2001 WIR CORDSET 8' IEC USA	1	EA
28		10/ 1/01		760-4600-005-G		PACIFIC ELECTICORD- C-3120-008BL METAL PX-600 TOP COVER REV G AS PER DWG# 760-4600-005-G	1	EA
85		11/10/97		667-1000-006	00	ECN2986- 10/1/2001 CONN TERM SCREW 4POS PLUGABLE PHOENIX# 1754481 DLCLKEV# 272, 1002, NDL	1	EA
95 100	06	11/13/97 10/ 1/01		730-2321-101 921-0600-000-00	00 06	SCREW, 6-32x1/4"PH PAN TAP BLK KIT, CHASSIS, PX600	6 1	EA EA
5		11/11/97		370-00042-00	00	ECN2986- 10/1/2001 XFR PX600 120V UL/CSA	1	EA
12		10/ 1/01		760-4600-006-H	00	METAL PART # "PACIFIC" 19775 METAL PX-600 US CHASSIS AS PER DWG# 760-4600-006-H	1	EA
20		11/ 6/97		690-3500-010	00	ECN2986- 10/1/2001 CONN AC MALE W/SWITCH & FUSE **THIS IS A 3PC PART**	1	EA
30		11/ 6/97		720-2500-010	00	MISC PLSTC FOOT GOLD SNAP IN FOOT-A-03-K2	4	EA
44		7/17/00		926-0600-000-H0	00	GALLIEN TECHNOLOGY P/N 101-0000-0 AA PX600 TK MAIN BD ASS'Y ECN2696-7/17/2000	1	EA
50 60		11/ 6/97		730-2320-000	00	HDW SCR #4X3/8" BLK SHT MTL HDW SCR #AX1/8" DHLL 4-40X1/4" ZLNC	12	EA FA
70		11/ 6/97		734-3500-004	00	HDW WSH #4 INTERNAL STAR SAME AS 611-10000-00	8	ĒA
80 90		11/ 6/97		730-2117-001	00	HDW SCR PHIL 4-40X1/4" BLK SELF TAP	2	EA FA
100		11/ 6/97		770-1200-000	00	HDW ELEC SPACER HEX 4-40X5/16" NYLON	, 7	ĒA
105		11/ 6/97		736-2117-000	00	HDW NUT KEP 4-40X1/4" USE CIT 610-10100-00 FOR A SUB	7	EA
120		11/ 6/97		700-0600-000-A	00	SAME AS MADRIGAL 420913 WIR 18AWG BLK MF/MF 3" ASS'Y	1	EA
130 140		11/ 6/97 11/ 6/97		700-0600-001-A 700-0600-002-A	00 00	wir t8awg wht MF/MF 3.2" ASS'Y WIR 18AWG G/Y RT/ST 3.5" ASS'Y	1 1	EA EA
150 160		11/ 6/97 11/ 6/97		458-00041-00 734-3500-006	00	WIR 12" WHT 26AWG F-F ASSY HDW WSH #6 INTERNAL STAR	1 1	EA EA
170	01	7/ 8/98		600-20004-00	00	SAME AS CIT 611-20000-00 SCRW, MCH PH PN ZNC, 6-32X0.500" MASTER FASTENERS #632X0500PPMSZ	1	EA
180 190		10/ 6/98 11/ 6/97		420842 420004		HDW NUT KEPS 6-32 ZP HDW SCR PAN HD PHIL 6-32 x .375 BLACK (2 DX 2	EA EA

202	4/10/01	735-4500-000	00	SAME PART AS 730-2321-001 HDWRE PLSTC TYWRAP 4" MOUSER #561N3500	3	EA
210	11/ 6/97	736-2200-000	00	ECN2879- 4/10/2001 HDW NUT HEX 6-32 NYLOCK TOWER- 6CNNMS (TOWER ORDER#)	2	EA
220	11/ 6/97	734-1000-010	00	ECR 1288- 1/13/2000U WASHER, RUBBER GROMMET	2	EA
240	11/ 6/97	690-3000-001	00	CONN AC FEMALE RECEPTACLE	1	EA
250	11/ 6/97	700-0600-004-A	00	WIR 18AWG BLK MF/SF 5" ASS'Y	1	EA
270	11/ 6/97	700-0600-005-A 700-0600-006-A	00	WIR 18AWG G/Y RT/ST 5" ASS Y	1	EA
280 292	03 6/18/99 2/10/00	926-0600-001-E0 741-1000-021-00	00 00	AA PX600 TK FP BD ASS'Y MISC PLSTC PX600 KNOB MODIFIED	1 1	EA EA
10	11/ 6/97	741-1000-020	00	ECN2618- 2/10/2000 MISC PLSTC PX600 KNOB TAC AP2500	1	EA
302	2/10/00	640-00125-00	00	TAC 1630-04902 HDWRE PLSTC NYLON SPACER RND .1875"X.125 ECN2618- 2/10/2000	3	EA
310 320	01 4/16/99 11/11/97	780-0600-001-00 780-0600-002	00 00	HDW PLSTC PUSHBTN BEZEL MODIFIED HDW PLSTC BEZEL LIGHT PIPE TAC TAC 1732-08801 AS DED DWC# 780.0600.002	8 8	EA EA
330	11/11/97	740-0600-000	00	HDWRE PLSTC SWITCHCAP PUSHBUTTON TAC	8	EA
340 350	11/11/97 11/11/97	735-0100-000-A 780-0600-100	00	LBL PX600 FP ADHESIVE DIE CUT LENSE PX-700 LR WINDOW	1 1	EA FA
240	11/11/07	770 1500 100	00	TAC 1532-21101		
360 370	11/11/97	736-2117-000	00	HDW ELEC SPACER . 20 TT LED NYLON HDW NUT KEP 4-40X1/4" USE CIT 610-10100-00 FOR A SUB SAME AS MADU CAL 420913	8	EA
380 390	3/ 5/98 11/11/97	730-2321-101 780-0600-050	00 00	SCREW, 6-32x1/4"PH PAN TAP BLK HDW PLSTC END CAP RT TAC 90MM TAC 1562-08302	16 1	EA EA
410	11/11/97	705-1000-850-A	00	WIR 26 PIN F-F 13" RIBBON ASS' Y	1	EA
420 432	10/ 1/01	760-4600-001-D 760-4600-002-C	00	METAL PX-600 Z BRKT METAL PX-600 FRONT PANEL CHASSIS AS PER DWG# 760-4600-002-C FCN2986- 10/1/2001	1	EA EA
440 450	11/11/97 12/ 1/97	760-4600-000-D 735-3500-100	00 00	METAL PX-600 POT MOUNT BRKT TAPE VINYL FOAM ASHESIVE 1/6"X1/2" 3M # 4726 1 ROLL IS EQUAL TO 36 YDS (1296.00")	1 16	EA I N
460 10	01 5/ 7/99 10/10/97	610-1204-000 610-2712-000	00 00	18 ROLLS TO A CASE. MIN FROM 3M IS 18RLS ICS DIG PROG EPROM PX-600 V2.04 ICS DIG PROG EPROM 27C512-200 UNPRG'D TEXAS INSTRUMENT TMS27C512-20JL OR EQUIV	1 1	EA EA
470	3/10/99	606-1244-000	00	ICS DIG BQ4011Y-200 RAM BENCHMAPO B04011YMA 200	1	EA
480	3/10/99	606-8055-000	00	ICS DIG 80C552-4A68 SIGNETICS- PCB80C552-4	1	EA
500	12/29/99	380-00050-00	00	PHILLIPS- PCB80C552EBA FUS 500MA 250V SLO-BLO 5X20MM CITATION PART EQUIV = 380-00060-00 1R 35A 250VAC BK/GMD-500MA	1	EA
510	12/29/99	380-00160-00	00	BUSSMAN GMD-500MA FUS 1.6A 250V SLO-BLO 5X20MM	1	EA
520	12/29/99	470-00042-00	00	LBL PX600 500MA 250V SLO-BLO FUSE LABEL	1	EA
530	12/27/99	705 0(00 000	00	LITTELFUSE 239002	2	
540	2710700	735-0600-000		AS PER DWG# 735-0600-000 ECN2618- 2/10/2000	I	EA
105	11/13/97	780-0600-051	00	HDW PLSTC END CAP LT TAC 90MM	1	EA
150	6/ 3/02	503-00042-00		TAC 1562-08202 LIT AA PX600 UNPACK&PACK SHEET IN-HOUSE GENERATED. SEE ENGINEERING FOR PDF MASTER ECN3223-6/2/2002	1	EA