NGX® ULTRA

Installation & Owner's Manual

With 1000 Watt Amplifier

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22022626 Rev A

AMI NGX ULTRA JUKEBOX WARRANTY

AMI Entertainment Network, LLC (AMI) extends the original operator of this equipment the following warranty:

All parts are guaranteed to be free of defects in material and workmanship for the specific periods listed. AMI agrees to repair or replace without charge during such period any part which proves defective upon examination by AMI. All costs of shipping a defective part to AMI's offices shall be borne by the original operator. AMI shall bear the shipping costs for the replacement of defective parts.

Component	Warranty Period (from date of shipment)	Condition
Electronic Circuit Boards	2 Years	Parts
Core Computer Motherboard	1 Year	Parts
Electrical & Mechanical	2 Years	Parts
LCD Display	1 Year	Parts
Touch Screen Sensor	1 Year	Parts
Touch Screen Controller	1 Year	Parts
Hard Drives	Life*	*Full Replacement by AMI, at no charge, for the life of the AMI contract.

In the case of parts supplied to AMI as components, AMI extends the same warranty period as extended by the original manufacturer.

The above warranty applies provided that all parts of the product have been serviced properly as directed in the service manual, and provided the alleged defective part, upon examination by AMI, shall prove to be thus defective. Under no circumstances shall AMI be liable for any incidental, consequential or special damages, losses or expenses arising from or in connection with the use of, or the inability to use, the product for any purpose. AMI reserves the right to make any changes or improvements in its products without notice and obligation, and without being required to make corresponding changes or improvements in products theretofore manufactured or sold.

This warranty will not apply to any product or any part which has been subjected to any accident, abuse, or misuse.

AMI ENTERTAINMENT NETWORK, LLC EXTENDS NO WARRANTY, EXPRESSED OR IMPLIED, TO PURCHASERS OR USERS OF ITS PRODUCTS EXCEPT AS HEREIN SET FORTH, WHETHER BY OPERATION OF LAW OR OTHERWISE.

ATTENTION

The Music Video feature requires a high capacity Internet connection capable of supporting 10GB to 50GB per month of data updates. Use of this feature on a cellular wireless connection or a capped broadband data plan is disallowed.

By enabling video capability you are acknowledging that this jukebox is connected to a high capacity wired connection. AMI will not be responsible for any overage charges that may result from operating a Music Video jukebox on capped bandwidth data plans.

Use on an AMI supplied wireless plan is strictly prohibited.

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Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use the attachments/accessories specified by the manufacturer.
11. Use only with the bracket specified by the manufacturer or sold with the apparatus.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance servicing instructions in the literature accompanying the jukebox.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. No objects filled with liquid, such as vases, shall be placed on the apparatus.

AVERTISSEMENT

Pour réduire le risque d'incendie ou un choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité. Aucun objet rempli de liquide, comme les vases, ne doit être placé sur l'appareil.

CAUTION!

RISK OF ELECTRIC SHOCK. DO NOT OPEN

DO NOT REMOVE ANY COVERS, GUARDS, OR SHIELDS.
NO USER SERVICEABLE PARTS ARE INSIDE THIS JUKEBOX.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ATTENTION!

RISQUE DE CHOC ÉLECTRIQUE. NE PAS OUVRIR

NE JAMAIS RETIRER LES COUVERCLES, GARDES, OU DES BOUCLIERS.
AUCUNE PIÈCE RÉPARABLE DANS CE JUKEBOX.
CONFIER L'ENTRETIEN DE PERSONNEL QUALIFIÉ.

Section A -
Jukebox Specifications

	NGX ULTRA
Dimensions: Uncrated: Height Width Depth Crated: Height Width Depth	 31” 33” 7.5” 39” 37” 14”
Weight: Uncrated Crated	 110 lbs. 132 lbs.
Amplifier: Output Power: (Standard) Protection:	 1000 Watts, 4 channels into 2 Ohm Load Thermal and speaker overload Automatic, self-resetting
Voltage: **Frequency:** **LCD (User Interface):** **LCD (Video Display):**	120VAC 60Hz 18.5” HD flat screen 32” HD flat screen
Speakers:	none

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Section B -
Placing the Wall-Mounted Jukebox on Location

- Location Power and Warnings
- Jukebox Power and Reset Switch
- Wall Mounting Instructions
- IR Remote Installation Instructions
- Testing the Unit
- Lighting Controller
- Marque Display

Location Power and Warnings

The jukebox must have a clean source of properly-phased and grounded 120VAC power at 10 amps max. This MUST be provided 24 hours a day, 7 days a week. The outlet the jukebox is connected to must NOT be controlled by a switch, nor should the circuit breaker feeding it be shut off at night.

If the outlet is not properly phased, grounded, or is connected to an overloaded circuit, it must be corrected by a qualified electrician before using.

The main power distribution unit is the power supply. This device contains a 10 amp fuse with a separate ON/OFF power switch located on the front of the power supply chassis.

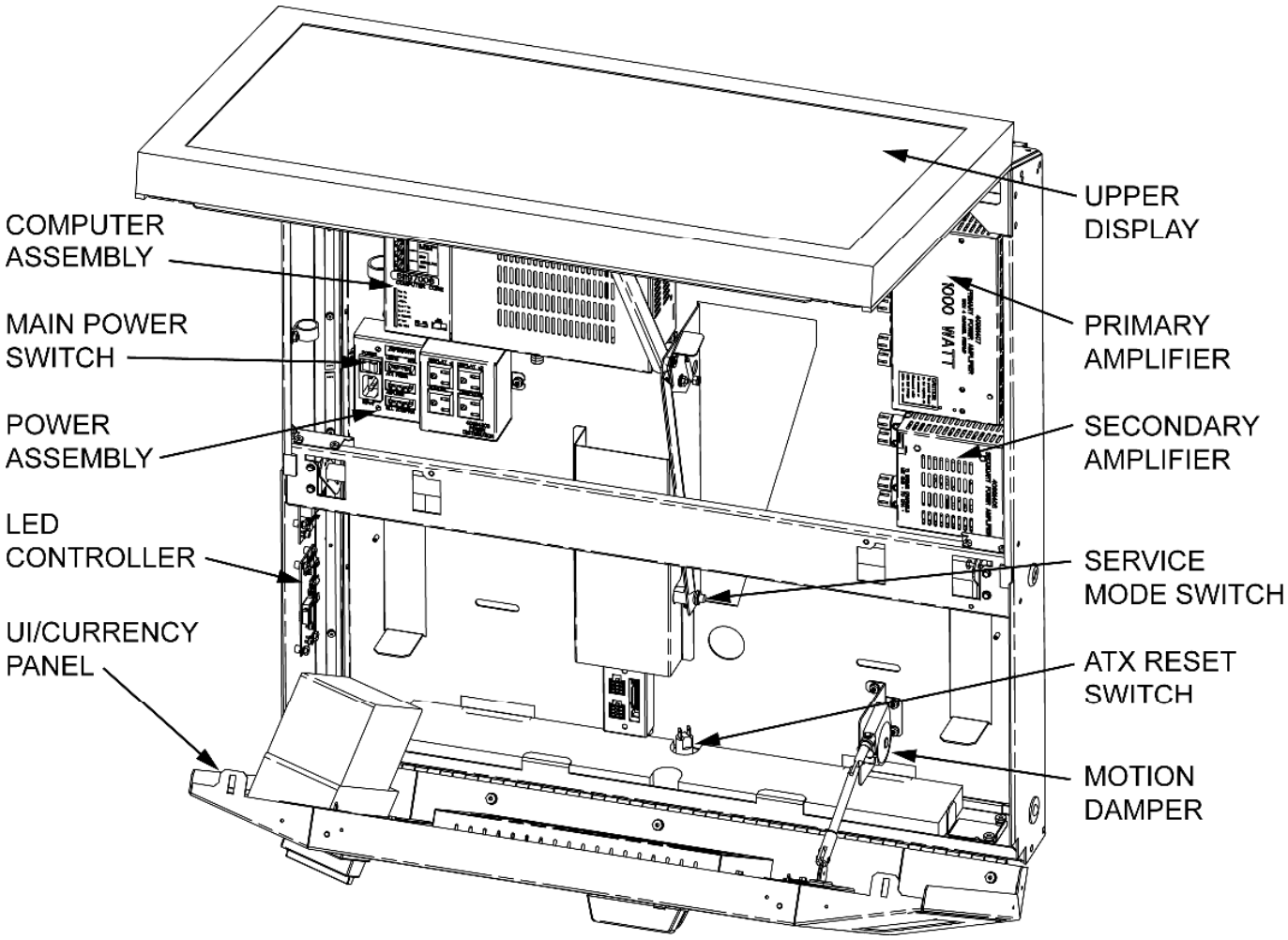


Figure 1-B – Inside View of Cabinet with Front Door Opened

Jukebox Power and Reset Switch

The NGX Ultra jukebox is powered from a standard 120VAC wall plug using the provided power cord. Inside the jukebox, power is routed to a power distribution assembly located on the back of the cabinet (see *Figure 1-B*). This assembly includes a 10 amp fuse and separate power ON/OFF switch. All other components in the jukebox are powered by plugging them into this power distribution assembly.

Soft Power Down

The Core Computer and other components in the jukebox should remain powered up at all times. However, there may be times when the jukebox needs to be turned off so that customers cannot insert money or make selections. The soft power down mode will give every outward appearance that the jukebox is off by turning off the lights, the LCD displays, the bill acceptor(s), and the credit card reader; however, the Core Computer and other internal components remain powered up. There are multiple ways to enter and exit this soft power down mode:

- **Core Computer Power Button** – The button labeled "POWER" on the Core Computer inside the jukebox (see *Figure 1-B*) is used to enter the soft power down mode. Push it again to exit the soft power down mode.
- **IR Remote Control** – The button labeled "POWER" on the IR remote control transmitter will also toggle the soft power state just like the button described above.
- **6 Button Wired Volume Control** – This control can be modified to provide a POWER function. See *Wired 6 Button Volume Control* on page 10 for details.

Computer Core

The jukebox Computer Core can be powered off by pressing the "SERVICE" button on the Computer Core (see *Figure 1-B*), and then touching "Shutdown Jukebox" on the touchscreen. This will turn off the Computer Core and other components that get their power from the ATX power supply in the Computer Core. To restore power after turning off the ATX power supply, the jukebox must be rebooted. Reboot the jukebox by toggling the main power ON/OFF switch (see *Figure 1-B*) OFF then back ON,, or by pushing the ATX Reset Switch (see "ATX Reset Switch").

Hard Power Down

When the jukebox power cord is unplugged or the main power ON/OFF switch is turned off (see *Figure 1-B*), the jukebox is in the hard power down state. All power is removed from all components in the jukebox.

ATX Reset Switch

There is a hidden ATX reset switch located inside the cabinet on the bottom center of the jukebox cabinet (see *Figure 1-B*). It is accessible by either opening the jukebox door, or by inserting a paper clip, toothpick, or other long, thin object through the access hole on the bottom of the jukebox.

- The **ATX Reset Switch** resets the Computer Core. This is like the reset switch on a PC. Pressing and releasing this switch will cause the computer main board to completely reboot. Use this switch only if the jukebox is completely non-responsive. Additionally, when the Computer Core has been powered down using the "Shutdown Jukebox" option in Service Mode, pushing this button will restart the computer.

Choosing the Location

The jukebox must be mounted on a strong, flat wall. For uneven walls we recommended a sub panel made from ¾" plywood or similar material and properly shimmed to provide a flat mounting surface. The jukebox should be visible and convenient to use. Do NOT install directly above a radiator or other source of heat. Be sure speaker, power, and Internet wiring can be easily run to the bottom of the unit.

WARNING

The mounting of the jukebox on the wall should be done by a qualified installer familiar with wall construction and loading. The wall and installation hardware MUST be capable of supporting a 700 lb. load for the NGX Ultra 2. Failure to follow these instructions could result in serious injury.

Tools and hardware required for normal installation into wood wall studs:

- Socket wrench with 3/8" and 7/16" sockets
- Level
- (4) ¼" x 1 ½" lag screws (provided)
- Drill driver with 3/16" bit
- Pencil
- (4) ¼" flat washers (provided)

Mounting the Jukebox Cabinet

1. The NGX Ultra uses a simple mounting bracket designed to attach to two wall studs spaced 16" on center.
2. While the jukebox remains flat in the packing carton, remove the plastic bag covering the machine. Locate the door keys in the handy pack. Unlock the User Interface (UI) panel and swing it up far enough to allow the Upper Display to swing open past the UI panel. Close and lock the UI panel. Remove the key.
3. Swing the Upper Display up so it is about 90° to the jukebox cabinet. Locate the Thumb Screw fastener in the upper right corner of the jukebox cabinet. Loosen the Thumb Screw and slide it back toward the rear of the cabinet then retighten. Slide the Upper Display to the right to disengage the hinges. Set the Upper Display to the side for now.

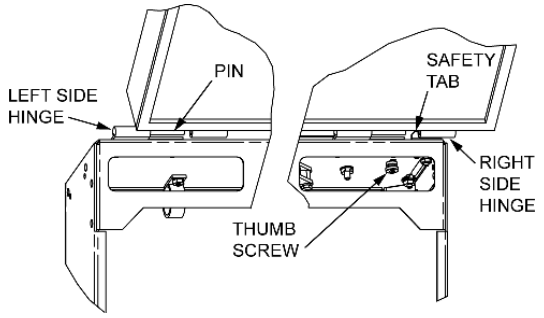


Figure 2-B – Upper Display Hinges

4. Locate the mounting bracket in the packing carton. Also, locate (4) ¼" x 1½" lag screws, and (4) ¼" flat washers in the jukebox handy pack.
5. If two wall studs are not located precisely where the jukebox will be installed, install a subpanel to provide a solid mounting surface for the jukebox.
6. Drill a 3/16" pilot hole 72¾" up from the floor into the left most wall stud. Drill a second 3/16" pilot hole 16" to the right of the first hole. Be sure the holes are level with each other and be sure both holes hit wall studs. Install the mounting bracket as shown using ¼" x 1½" lag screws and ¼" flat washers. (See *Figure 3-B*).

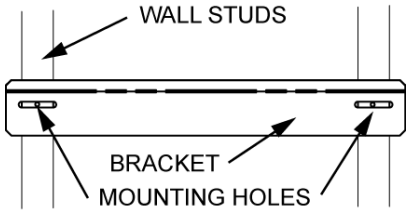


Figure 3-B – Inside View of the Cabinet

7. Lift the jukebox cabinet out of the shipping box and hang it on the mounting bracket. (See *Figure 4-B*).

Caution: the jukebox cabinet weighs about 78 pounds. Use a helper if you cannot safely manage this much weight.

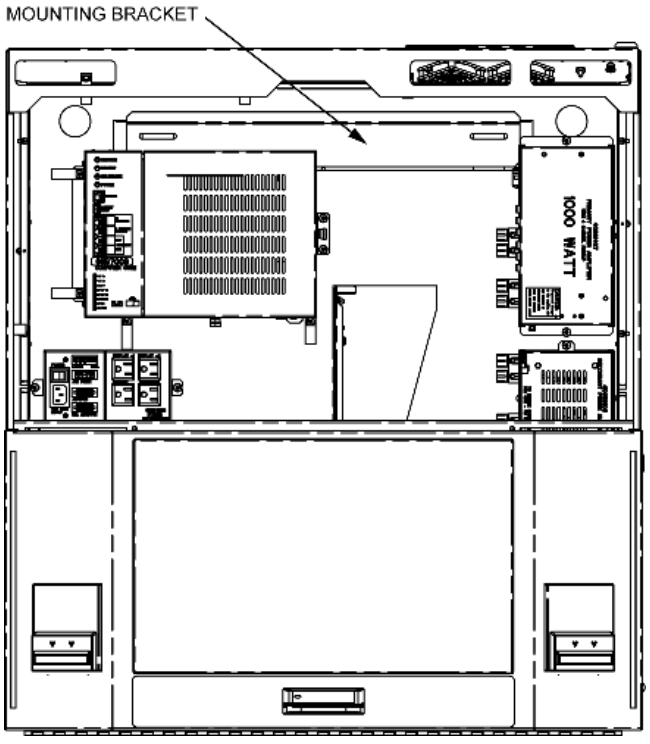


Figure 4-B – Cabinet on Mounting Bracket

8. Unlock the UI panel and swing it open. Fall stop cables will keep the panel from falling completely open. Use the remaining (2) lag screws and washers to secure the back of the cabinet to the wall through the slotted mounting holes in the back of the cabinet.

NOTE: *If the wall is concrete, cinder block, brick, or uses metal wall studs, then a subpanel with the appropriate fasteners must be used. Heavy-duty fasteners (one in each corner) must be employed. The fasteners and subpanel must be able to support a minimum 700 lbs. Do NOT use "press-in" anchors or any other "light" or "medium" duty fasteners. Consult a contractor experienced in the type of construction used if there is any doubt about the strength of the mounting devices.*

9. Prepare the external wiring. The power cord, speaker wiring, and Ethernet cable must be routed to enter the bottom of the jukebox. Use the block-out plates and nuts to secure the wiring. Be sure the wiring inside the jukebox cabinet does not interfere with the bill acceptor stacker boxes when the currency door is closed. Cable clamps are provided to help keep wiring out of the way.

10. Locate the Upper Display Support Brace taped to the Support Bracket next to the Core Computer in the cabinet. Remove the tape to free the Support Brace.

11. Loosen the Thumb Nut and allow the Hinge Latch safety tab to spring into place.

12. Locate the Display Support Retainer on the back of the Upper Display. Loosen the two ¼" hex head screws and move the retainer so the key hole is exposed on the mounting bracket (See *Figure 6-B*).

13. Carefully lift the Upper Display and place it in position over your head to line up the slide hinges. The right side hinge on the Upper Display will push the spring loaded safety tab back as the display is positioned. Slide the Upper Display onto the hinges.

Caution: the Upper Display weighs about 30 pounds. Use a helper if you cannot safely manage this much weight.

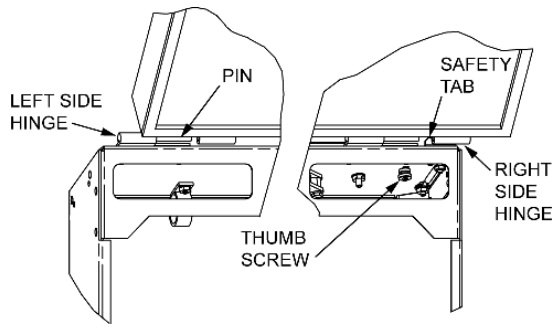


Figure 5-B – Upper Display Hinges

14. Retighten the Thumb Nut to prevent the Upper Display from coming off the hinges.

15. While holding the Upper Display open, slide the Support Brace up until the lower shoulder bolt is up past the Support Latch. Swing the free end of the Support Brace up and insert the shoulder bolt into the key hole on the Upper Display Mounting Bracket.

16. Slide the Display Support Retainer toward the shoulder bolt making sure the retainer fully engages the shoulder bolt. Tighten the Display Support Retainer screws (See *Figure 6B*).

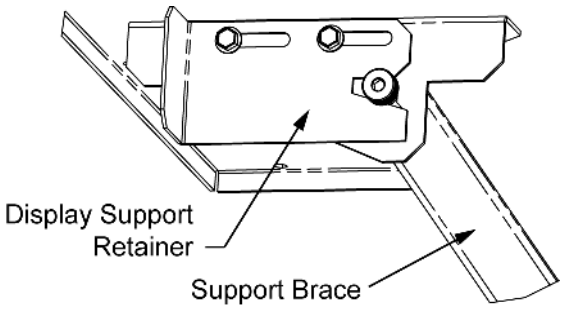


Figure 6-B – Upper Display Attachment

17. Locate the HDMI and Power cables stored inside, near the top of the cabinet or inside the Upper Display. Route the cables from the Upper Display over then around the left side of the core computer to the Power Distribution Unit and the HDMI plug on the Video Card in the core computer.

18. Make sure all cables are dressed properly. Use the cable clamps in the jukebox to keep cables in place. Make sure nothing interferes with opening and closing the Upper Display or the Currency Panel Door.

IR Remote Control Installation Instructions

The NGX Ultra Jukebox comes with an IR remote (located in the Handy Pack). To install, plug the provided cable into the provided IR remote receiver (see *Figure 10-B*) and route the other end of the cable through one of the wire access holes in the cabinet. Connect the end of the cable into the Yellow port labeled "IR Receiver" on the Core Computer. Install the IR remote receiver above the jukebox, with a clear line of sight between the receiver and the handheld transmitter. Plug in and turn on the jukebox and test the remote.

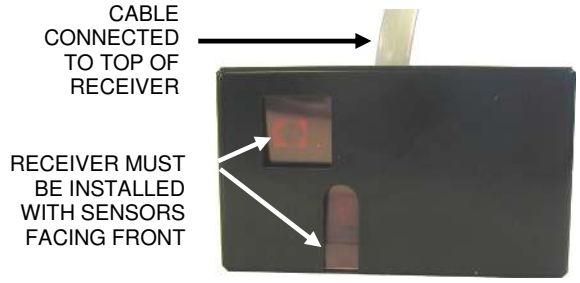


Figure 10-B – IR Remote Receiver

Button Functionality on the IR Remote Transmitter

To enable or disable options on the IR remote, see "IR Remote Setup" in the *Network Setup, Jukebox Operation, Operator Setup Screens Manual.*

REJECT
This button is used to cancel (or "reject") the selection currently playing, and cancels all (rejects all) selections in the queue if held down for four seconds. This functionality can be enabled and disabled through the software.

POWER
This button turns the lights, the LCD display, the bill acceptors, and the credit card reader ON/OFF. To turn them back on and resume normal operation, press the "POWER" button again.

VOLUME

The **CH1+** and **CH2+** buttons raise the volume.
The **CH1–** and **CH2–** buttons lower the volume.

The **PLAY** button puts the jukebox in play mode.

The **PAUSE** button puts the jukebox in pause mode for a programmed amount of minutes or until the PLAY button is pushed.

The **AP OFF** and **AP ON** buttons turn any programmed Autoplay mode on/off.

The **FUTURE** button is used to give a remote credit.

The **VID SEL** button is used to enable and disable video selections on the jukebox.

Wired 6 Button Volume Control

The NGX Ultra Jukebox also comes with a small 6 button wired remote control. This control is designed to be mounted close to the jukebox and provides some basic functions.

INT.
These buttons change volume for Channels 1 & 2.

EXT.
These buttons change volume for Channels 3 & 4.

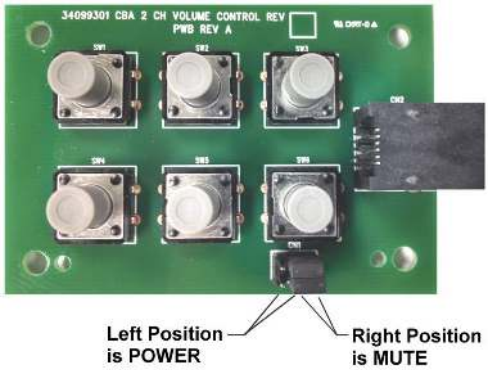
CANCEL
This button will cancel the selection currently playing.

MUTE
This button toggles the jukebox between PAUSE mode and PLAY mode.

The MUTE button on this remote can be repurposed to function as a POWER button.

Remove the back cover of the remote control then remove the circuit board. There are two shunt jumpers located on the board. When these jumpers are both in the right hand position, the MUTE button functions as MUTE.

Move both shunt jumpers to the LEFT hand position to repurpose the MUTE button to function as a POWER button.



Testing the Unit

Initial Set Up

When all of the network connections have been made, boot up the jukebox. The first time you turn on the jukebox with a new hard drive, you will see the Local Music Configuration Screen, which lists the available local music configurations that can be installed on the jukebox. You will be prompted to select one from the list of available configurations. This selection can be changed at any time by pressing the SERVICE button on the Computer Core, and then touching **System Setup** -> **Advanced Administration** -> **Local Music Configuration**.

Touch the **View** button to display a dialog box listing all of the albums in the selected list. Some albums may appear grayed out; this means that some or all of the songs in the album are not currently stored on this jukebox. If a list with grayed albums is installed, the grayed albums will start being downloaded to the jukebox within 24 hours (as long as the jukebox is connected). If the jukebox becomes disconnected, any songs not yet downloaded will be unavailable to patrons.

Touch the **Install** button to display a dialog box prompting you to install the selected list. To install the selected list, touch the Install button at the bottom of the dialog box.

Testing the Touchscreen, Bill and Coin Acceptor(s), and Credit Card Reader

Touchscreen – Every time a new hard drive is installed, the touchscreen should be calibrated.

Follow these steps to calibrate.

1. Press the "CALIBRATE" button on the Computer Core (see *Figure 1-B*) to launch the calibration program.
2. Close the currency door and make sure it is locked.
3. Follow the directions on the screen, touching the center of the targets, and then touching different areas on the screen. If the cursor follows your movement, touch **YES** to exit.

Bill/Coin Acceptor(s) and Credit Card Reader –

(NOTE: Credit Card functionality requires a broadband Internet connection).

1. Press the "SERVICE" button on the Computer Core to enter Service Mode.
2. Touch the **Diagnostics** button.
3. Touch **Credit Device Tests**.
4. To test the bill acceptor(s), insert a $1, $5, $10, and $20 bill (into each bill acceptor, if the jukebox has two) and check the screen to make sure proper credit is displayed.
5. To test the coin acceptor (if installed), deposit coins into the coin slot and verify proper credit is displayed on the screen.
6. To test the credit card reader, swipe a valid credit card and check that the screen displays the last four digits of the credit card.
7. When finished, touch the **Back** button to return to the Main Menu.

Testing the Network

Enter Service Mode by pressing and releasing the "SERVICE" button on the Computer Core. To test the network:

1. Touch the **System Setup** button on screen and then touch **Advanced Administration**.
2. On the Advanced Administration Screen, touch **Configure Server**. Then touch the **Test Connection** button. This test confirms the jukebox can connect to AMI's server ("Server Found"), and authenticate a connection with AMI's server ("Connected").
3. If the connection is successful, you will see "**Yes**" next to "**Server Found**" and "**Connected**". If the connection fails, you will see "**No**". If the connection fails, check the settings on the Network Information Screen (**Diagnostics** –> **Network Information**). This screen will allow you to check the IP Configuration and run LAN and WAN tests.

Testing the Audio

NOTE: For operators pre-testing the jukebox in their own facility, any features in the application associated with the network will not work unless the jukebox is connected to the Internet.

1. If the jukebox is not in Service Mode, press the "SERVICE" button on the Computer Core to enter Service Mode.
2. Add one (or more) credits to play a song and test the audio. Touch **Cash Management** and then touch **Credit Management**.
3. Touch the box under "Credits" and a pop-up box will display.
4. Touch **Clear** to remove the "0" from the box.
5. Touch **1** (or more) and then touch **Update**.
6. Touch **Save** on the Credit Management Screen.
7. Touch **Exit Service Mode**.
8. After connecting speakers to the jukebox (see section C), play a local music selection to test the audio.

Lighting Controller

The NGX ULTRA lighting assembly can be programmed for several different modes of operation. By default, the lighting assembly is set to display random colors and random patterns.

To change the mode, open the main door of the jukebox. The LED controller is located on the lower left hand side of the jukebox cabinet. There are two adjustment pots on the board marked **BRIGHT** and **SPEED**. These are used to set the brightness of the LEDs and adjust the speed of color changes for the color cycle display modes.

The five position DIP switch is used to set the operating mode of the controller. Use the following table to set the mode.

Beat to the Music

The NGX Ultra includes an audio interface, located above or on the LED Controller, which allows the LEDs to change to the beat of the music.

To disable this feature, simply disconnect the audio cable going to the board.

SW1	SW2	SW3	SW4	SW5	Mode
OFF	OFF	OFF	OFF	ON	Color cycle – quick change between colors
ON	OFF	OFF	OFF	ON	Static – Red
OFF	ON	OFF	OFF	ON	Static – Yellow
ON	ON	OFF	OFF	ON	Static – Green
OFF	OFF	ON	OFF	ON	Static – Cyan
ON	OFF	ON	OFF	ON	Static – Blue
OFF	ON	ON	OFF	ON	Static – Magenta
ON	ON	ON	OFF	ON	Static – White
OFF	OFF	OFF	ON	ON	Static – Orange
ON	OFF	OFF	ON	ON	Static – Rose
OFF	ON	OFF	ON	ON	Color cycle – Rainbow: Pastels
ON	ON	OFF	ON	ON	Color cycle – Patriotic: Red, White and Blue
OFF	OFF	ON	ON	ON	Color cycle – Holiday: Reds and Greens
ON	OFF	ON	ON	ON	Color cycle – programmed colors and patterns
OFF	**ON**	**ON**	**ON**	**ON**	**Color cycle – random colors and patterns (default)**
ON	ON	ON	ON	ON	Color cycle – gradual change between colors
---	---	---	---	OFF	LED lighting OFF

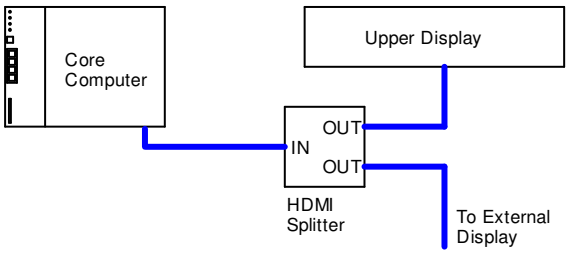
External Video Display

An external video display can be used with NGX Ultra. However, an HDMI splitter must be purchased separately. These are available from just about any electronics retailer like Best Buy or Amazon.com.

The HDMI splitter should be installed inside the jukebox. The video source is the Video Card inside the core computer assembly. Disconnect the HDMI cable from the core computer video card (yellow mounting plate) and plug it into the primary HDMI output on the HDMI splitter. Plug the HDMI splitter input cable into the HDMI connector on the Video Card in the core computer (yellow mounting plate).

The HDMI cable going to the external monitor will plug into one of the other HDMI outputs on the splitter. Route the HDMI cable out one of the cable access holes in the bottom of the NGX Ultra cabinet.

If the splitter needs 120 volt power, you may be able to use the Router plug on the Power Distribution unit in the NGX Ultra jukebox. Just be aware, that outlet will be power cycled every 15 to 30 minutes if the Internet connection to the AMI servers is lost. Normally this is not a problem.



ATTENTION

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Use on an AMI supplied wireless plan is strictly prohibited.

Enable Music Video Selections

Video Selections must be enabled in the software in order for Music Video Selections to appear on the User Interface. Music Video Selections are **not** factory enabled in the software.

Once your jukebox is up and running, in Service Mode navigate to Playback Management → Video Settings. If the Video Settings menu option is not visible, check the video card to be sure it is installed properly and fully seated in the PCI-Ex slot on the mother board. The video card must be present and detected by the software before this option is made available.

On the Video Settings screen, verify the Enable Music Videos checkbox is checked.

Video Signals

The video signal from a Music Video is played through the Video Card while the jukebox User Interface (UI) is played through the VGA interface on the mother board. Video will play from any of the three video ports (HDMI, DVI, or VGA) on the video card but only one at a time. **The upper video display must be connected to the video card during jukebox boot for the software to detect the display and properly configure the correct port.** If the upper display is plugged into the video card on boot up, the default video port output will be VGA. All videos are played using High Definition 720p. Be sure your video display can accept this signal.

To provide the best video signal, the preferred video display output port is HDMI. If your location requires more than one display, use of an HDMI splitter will be needed. These are available from your local video retailer or from an Internet retailer. If your cable runs are excessively long, you may also need an HDMI repeater. Another option for long video runs is to purchase an HDMI to Cat5 extender device. Some of these devices will allow video signals to be extended up to 328 feet over standard Cat5 or Cat6 cable.

If your video monitor installation uses multiple HDMI splitters and/or repeaters there is the possibility that the video image and audio playing through the jukebox speakers can get out of sync. The Video Settings page in the Service Mode provides a delay adjustment to help get the audio and video back in sync.

While playing a music video, adjust the delay until the audio and video are back in sync. The slider can be used for large timing changes. Use the arrows for small incremental changes. If you touch either of the boxes showing the time delay in milliseconds (ms), a keypad will pop open allowing you to enter a specific number.

Music Video Selection Pricing

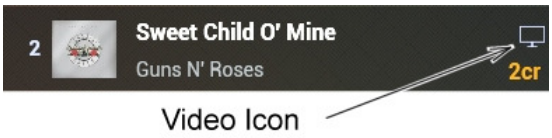
Pricing of Video selections is set to 1 more credit than audio selections. If the audio selection cost is 1 credit, the associated video will cost 2 credits. If the audio cost is 2 credits, the associated video will cost 3 credits. The incremental price of a video can be configured on the Song Pricing screen in the Service Mode with the minimum increment being 1 credit.

The VID SEL button on the AMI IR Remote control can be used to enable/disable music videos on the jukebox. This action will be reflected by the checkbox shown on the Video Settings screen in Service Mode.

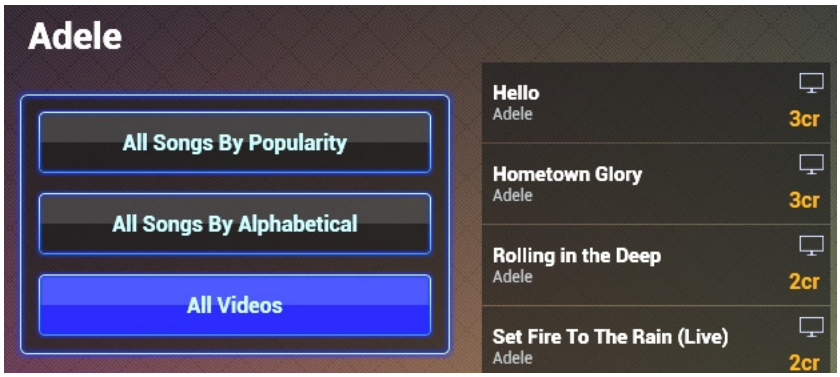
Video User Interface Features

Several changes to the jukebox User Interface have been made to support Music Videos. A “Top Video” tab has been added to the left edge of the User Interface. This launches a page similar to the Top 40 page but shows only video selections.

Songs that have an associated video are shown with a small TV Monitor icon in the song selection tab.



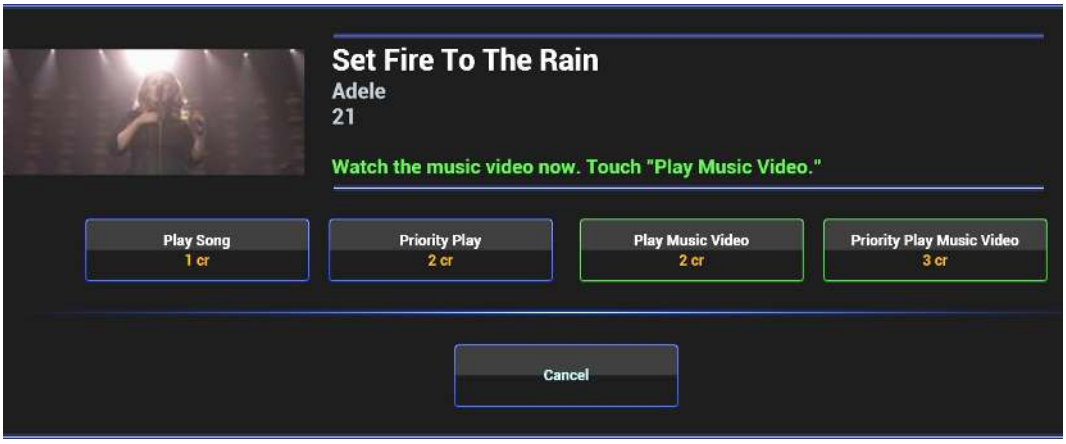
The artist page on the User Interface now includes a tab to display only video selections for that artist. However, if the artist has no videos available the All Videos tab will not show up.



Videos are associated with one or more audio selections. When a customer selects a song to play and there is an associated video available, the customer is presented a choice to Play Song which plays just the audio from the song or Play Music Video which plays both. Selecting the video option will cost additional credits.

Selecting a video from the Top Video tab or the All Videos tab will present only the video selection. The audio only option will not be presented in this case.

The Priority Play option will place the selection in a priority pay queue. Selections in the priority play queue are played ahead of any selections in the regular play queue.



Section C -
Sound System Set Up

- Extension Speaker Operation
- Selecting Speaker Power
- Speaker Connection Diagrams

Sound System Set Up

The NGX Ultra jukebox sound system is powered by a 1000 Watt S-Pro2 Class 2 power amplifier manufactured by Pascal. Speaker terminals are provided to connect extension speakers directly to the amplifier. An Audio Output Transformer Kit (part number 22180806) is available if your installation uses 70 volt speakers or you need to connect extension speakers using various power taps.

Extension Speaker Operation

To avoid poor sound quality, care must be taken when adding extension speakers. The following requirements must be met:

- Speakers connected to the amplifier must be wired so the power consumed by the extension speakers does not exceed the amplifier power rating of 500 watts per channel.
- Complete the Extension Speaker Worksheet (*Table 1-1*) for each channel and verify it does not exceed the 500 watt amplifier channel rating. After wiring the speakers, perform the Amplifier Overload Check immediately following *Table 1-1.*
- All speakers must be connected with the correct polarity (see *Figure 1-A)*.
- Do not bridge output channels.

Low Impedance Speakers

Low impedance speakers (16, 8, or 4-ohm) can be used when the connecting cable is less than 100 feet. Keep the following two things in mind when wiring your speakers:

1. No more than one 4-ohm speaker should be connected to a speaker line. If several 4-ohm speakers are to be used, each speaker should have its own line.
2. The loss in 100 feet of 18-gauge zip-cord feeding on an 8-ohm speaker is 15%. The loss for two 8-ohm speakers is 30%.

Selecting Speaker Power

General Instructions

This section will lead you through the power and speaker selection process. This process consists of three major steps and several smaller steps. The major steps are:

1. Identify the extension speakers and compute the speaker power for speakers connected directly across the amplifier.
2. Make the extension speaker connections.
3. Perform an amplifier overload check (see instructions immediately following *Table 1-1*).

Selection Procedures

- Use a pencil (you may want to revise your figures) to fill in the Extension Speaker Worksheet on the following pages.
- Use the *Table 1-1* Worksheet to help you calculate the amount of power consumed by the extension speakers.
- An extension speaker RMS power rating should be at least 10% higher than the power it will consume at maximum jukebox volume.

When RMS power to speaker at maximum jukebox volume is:	Then recommended RMS power rating of speaker is:
240 watts	300 watts
120 watts	150 watts
60 watts	75 watts
30 watts	40 watts

Table 1-1 – Extension Speaker Worksheet
Sheet 1

Extension Speakers Connected to Amplifier Channel + and – terminals

Place the quantity of speakers in the blank under **Qty** and multiply the quantity times the power consumption. Place your results in the blank under **Total**.

	Qty			Total		
	CH 1	CH 2		CH 1	CH 2	
Two 8-ohm speakers in series: (30 watts to each speaker)	_____	_____	at 60 watts per series =	_____	_____	watts
Two 4-ohm speakers in series: (60 watts to each speaker)	_____	_____	at 120 watts per series =	_____	_____	watts
8-ohm speakers:	_____	_____	at 120 watts each =	_____	_____	watts
4-ohm speakers:	_____	_____	at 240 watts each =	_____	_____	watts
Total Load, sum Total columns for CH1 and CH2				_____	_____	watts

	Qty			Total		
	CH 3	CH 4		CH 3	CH 4	
Two 8-ohm speakers in series: (30 watts to each speaker)	_____	_____	at 60 watts per series =	_____	_____	watts
Two 4-ohm speakers in series: (60 watts to each speaker)	_____	_____	at 120 watts per series =	_____	_____	watts
8-ohm speakers:	_____	_____	at 120 watts each =	_____	_____	watts
4-ohm speakers:	_____	_____	at 240 watts each =	_____	_____	watts
Total Load, sum Total columns for CH3 and CH4				_____	_____	watts

Amplifier Overload Check

Check that the amplifier is not overloaded by performing the following steps:

1. Make sure that the extension speakers are connected to the amplifier terminals properly (Channel X + –).
2. If the red OVERLOAD LED is always lit, the amplifier is overloaded and will shut down. You must perform Step 3.
3. Do this step only if the OVERLOAD LED came on as described in Step 2.
   - Find the source of the overload (shorted speaker wires, shorted speaker, too many speakers connected).
   - After you fix the short, disconnect a few speakers to reduce the wattage. Repeat Step 2.
   - If no overload is detected, reconnect the disconnected speakers (ensure you do not have too many speakers, use Table 1-1). Repeat step 2.

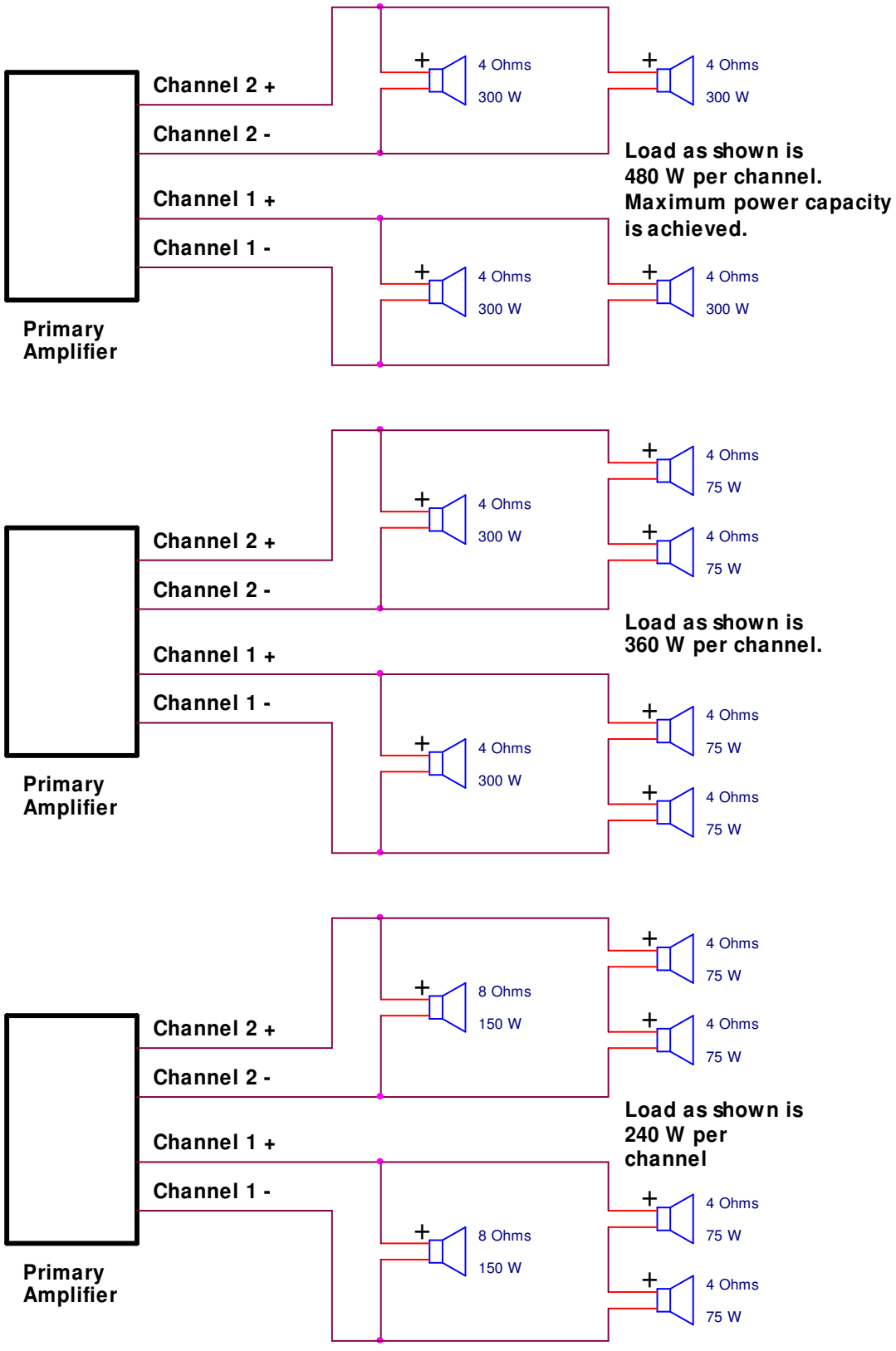

NOTE: SPEAKER WATTAGE SHOWN
IS RATING OF SPEAKER
Channel 2 +
Channel 2 -
Channel 1 +
Channel 1 -
Primary
Amplifier
4 Ohms
300 W
4 Ohms
300 W
4 Ohms
300 W
4 Ohms
300 W
Load as shown is
480 W per channel.
Maximum power capacity
is achieved.
Channel 2 +
Channel 2 -
Channel 1 +
Channel 1 -
Primary
Amplifier
4 Ohms
300 W
4 Ohms
75 W
4 Ohms
75 W
4 Ohms
300 W
4 Ohms
75 W
4 Ohms
75 W
Load as shown is
360 W per channel.
Channel 2 +
Channel 2 -
Channel 1 +
Channel 1 -
Primary
Amplifier
8 Ohms
150 W
4 Ohms
75 W
4 Ohms
75 W
8 Ohms
150 W
4 Ohms
75 W
4 Ohms
75 W
Load as shown is
240 W per
channel

Figure 1-C

NOTE: SPEAKER WATTAGE SHOWN IS RATING OF SPEAKER

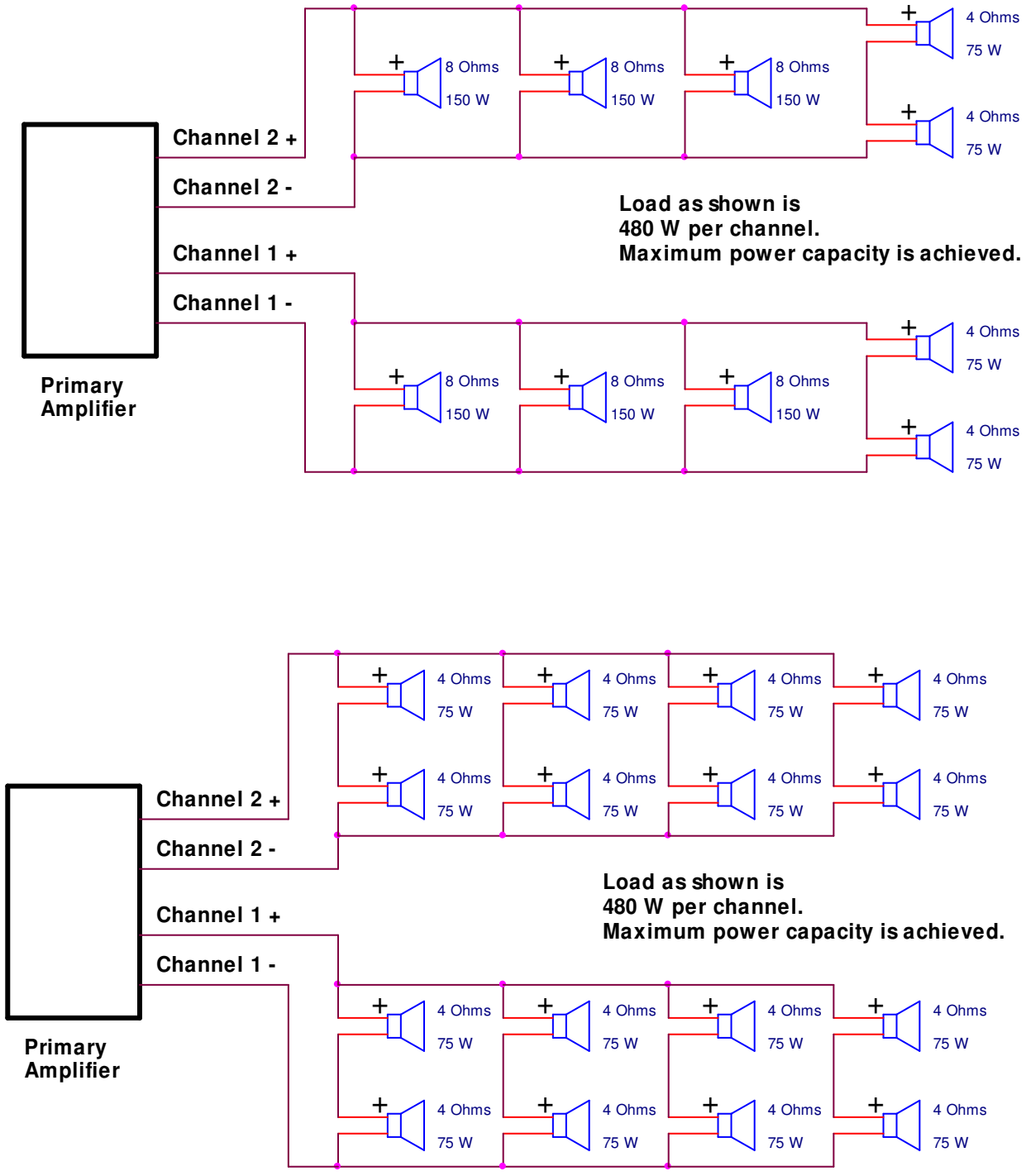
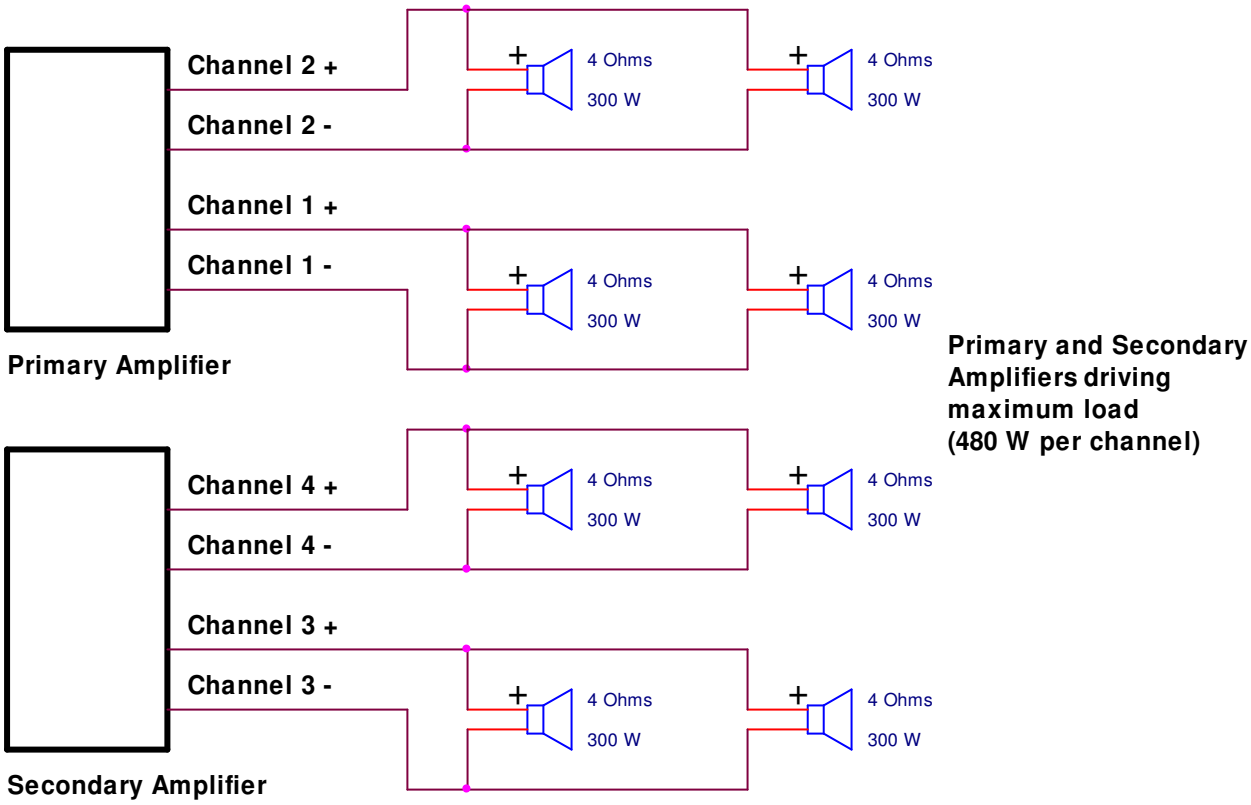


Figure 1-C (continued)



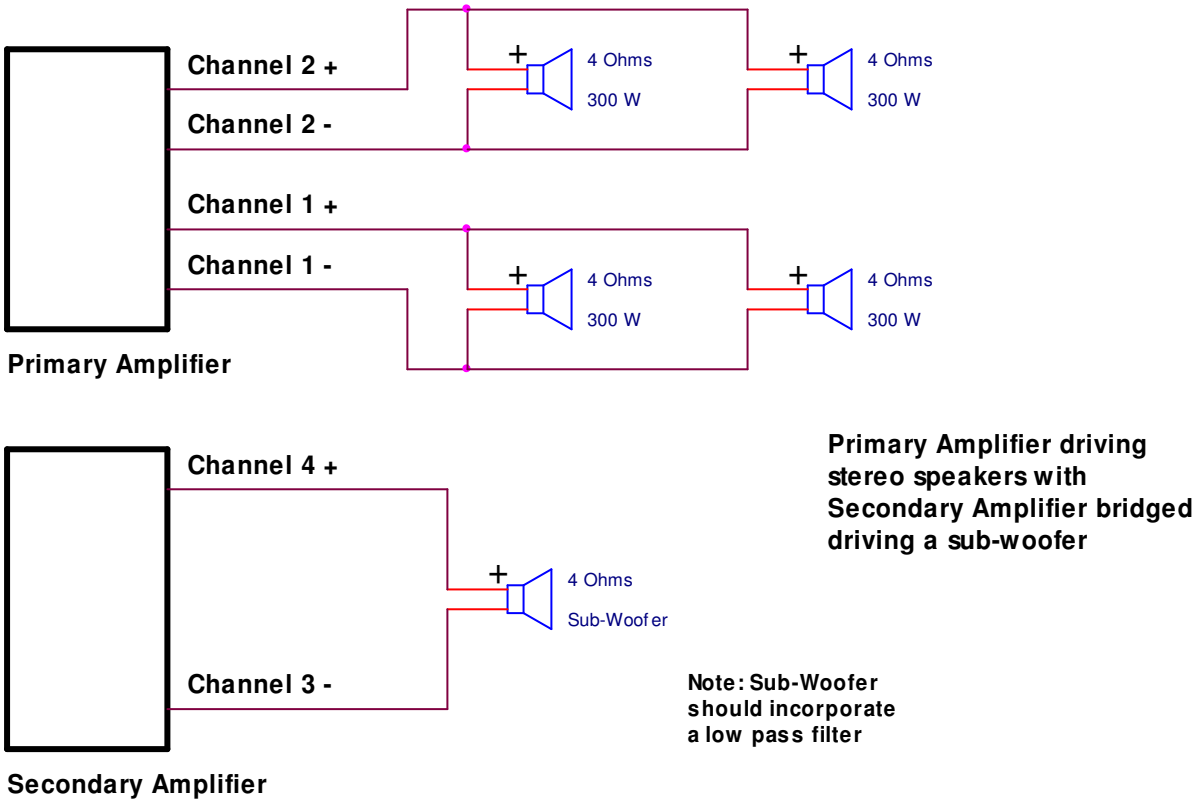
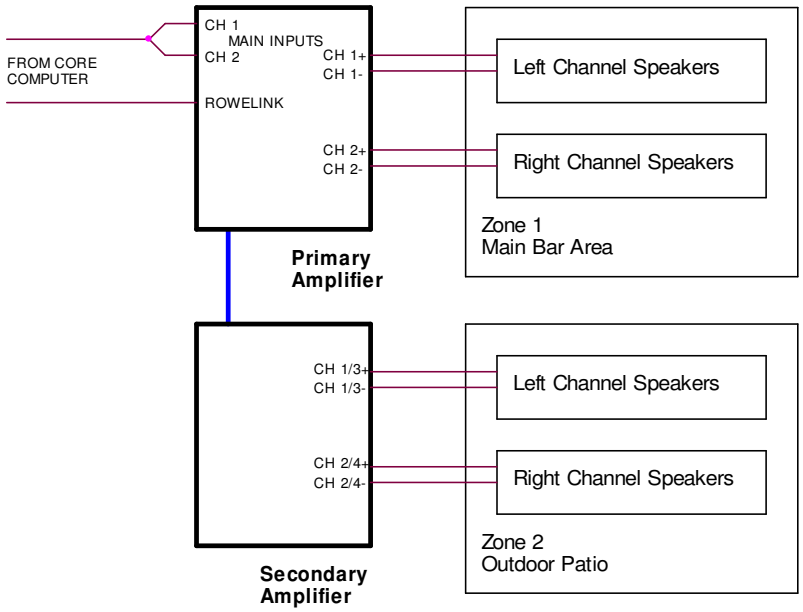
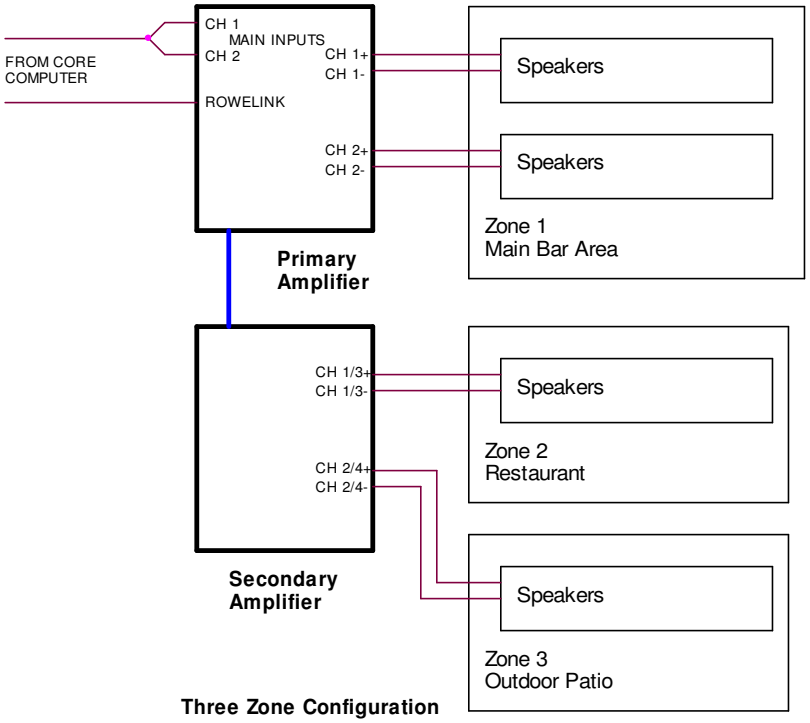


Figure 1-C (continued)



Two Stereo Zone Configuration

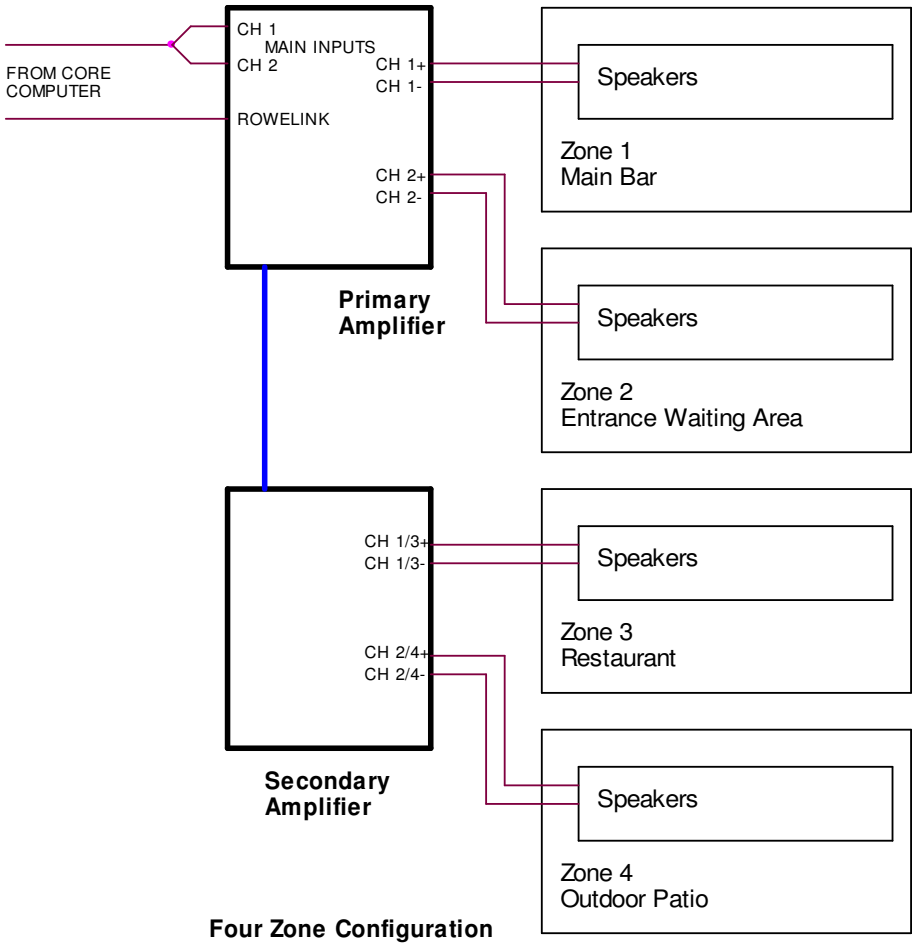
Audio Mode - Stereo/Mono	Audio Mode - Output Routing	Channel Linkage
Ch 1/2 = Stereo	Ch1 In → Ch1 & Ch3 Out	(Ch1 + Ch2) (Ch3 + Ch4)
Ch 3/4 = Stereo	Ch2 In → Ch2 & Ch4 Out	



Three Zone Configuration

Audio Mode - Stereo/Mono	Audio Mode - Output Routing	Channel Linkage
Ch 1/2 = Stereo or Mono	Ch1 In → Ch1 & Ch3 Out	(Ch1 + Ch2) (Ch3) (Ch4)
Ch 3/4 = Mono	Ch2 In → Ch2 & Ch4 Out	

Figure 1-C Continued



Four Zone Configuration

Audio Mode - Stereo/Mono	Audio Mode - Output Routing	Channel Linkage
Ch 1/2 = Mono	Ch1 In → Ch1 & Ch3 Out	(Ch1) (Ch2) (Ch3) (Ch4)
Ch 3/4 = Mono	Ch2 In → Ch2 & Ch4 Out	

Figure 1-C Continued

Section D -
Service & Maintenance

- Recommended Routine Maintenance

Heat is the biggest enemy of electronic components. Proper maintenance is essential for maximum earnings and reliability.

It is very important to keep all cooling fans clean. Once dust and dirt is visible on a cooling fan, the airflow can be reduced by 25% or more. There are several cooling fans in the cabinet (see *Figure 1-D*).

Recommended preventative maintenance

Routine Service

The following steps take about 3 minutes and should be performed at each collection.

1. Check the CPU fan from the "Health Status" Screen.
2. Ensure the cabinet fans at the upper-right top of the cabinet are blowing air out and the fans look clean. (See *Figure 1-D*).
3. Be sure that nothing is resting on top of the unit or otherwise blocking the airflow around the machine.

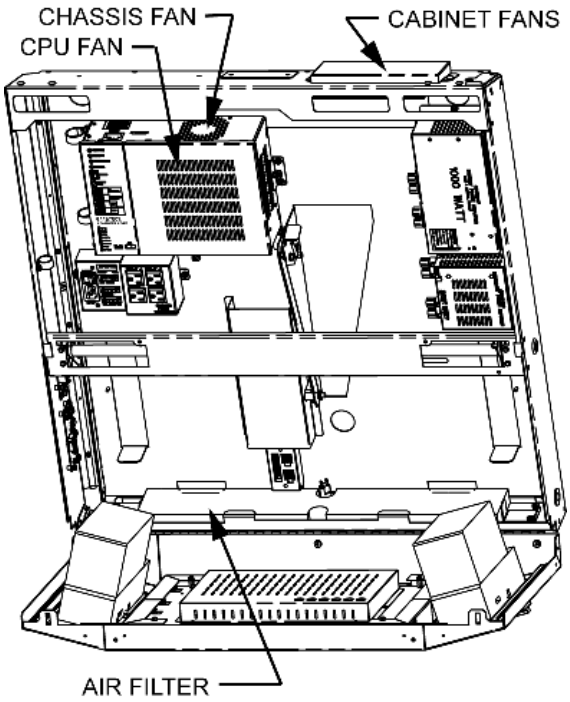


Figure 1-D – Inside View of Cabinet

Collecting from the Bill Acceptor

1. Unlock and open the front door.
2. To remove the bill stacker, slide the tab on the bottom of the bill acceptor towards the front door, push the stacker downward then pull it off the bill acceptor.
3. Open the side door on the bill stacker to remove the cash.
4. Push the Service button to access the Collect Now function to help manage and audit your collections.
5. Slide the bill stacker back on the bill acceptor. Be sure the green light is on (for MEI, make sure the green lights/arrows are flashing).
6. Close and lock the jukebox door.

Minor Service

Perform these steps a minimum of every 3 months if operating more than 14 hours per day, operating where smoking is allowed, or operating in a dusty environment. Perform these steps a minimum of every 6 months if operated less than 14 hours per day and in a very clean environment. You will need a new, soft 2" paintbrush*.

1. Gently brush* dirt from the cabinet cooling fan. Verify fan operation.
2. Check the operation of the CPU fan from the "Health Status" Screen.
3. Listen to the CPU fan for excessive noise or vibration. Replace faulty fans as needed.
4. Clean the bill acceptor with an approved cleaning card.
5. Clean the credit card reader with an approved cleaning card.
6. Clean then calibrate the touchscreen (see the next page for calibration instructions).

Cleaning the Touchscreen

Any standard glass cleaner can be used to clean the touchscreen. Always spray the glass cleaner on the cloth or towel and not directly on the touchscreen. Glass cleaner sprayed directly on the screen could possibly leak inside and cause damage.

Cleaning the Currency Panel

The door panel is made of plastic. We recommend cleaning with a mild cleaner and a soft cloth to avoid scratching the surface.

Annual Service

The following steps should be performed every year in addition to everything in the minor service section.

1. Vacuum the interior of the cabinet and fans.
2. Inspect the power cord for fraying or damage.
3. Check the power ground.
4. Check all LAN connections and wiring.
5. Listen to all speakers to make sure they are operating correctly.

***Scheduled* maintenance *always* costs less time and money than an unscheduled breakdown.**

Calibrating the Touchscreen

Every time a new hard drive is installed, the touchscreen should be calibrated. Follow these steps to calibrate.

1. Press the “CALIBRATE” button on the Computer Core (see *Figure 2-D*) to launch the calibration program (see *Figure 3-D*).

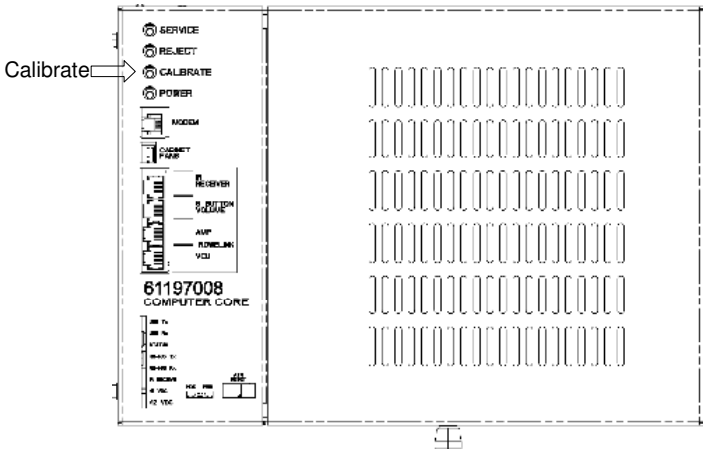


Figure 2-D – Computer Core

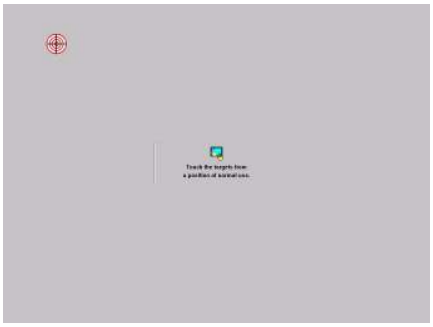


Figure 3-D – Calibration Screen

2. Close the jukebox door and make sure it is locked.
3. Follow the directions on the screen, touching the center of the targets, and then touching different areas on the screen. If the cursor follows your movement, touch **YES** to exit.

Hard Drive Replacement

1. Turn off and unplug the jukebox.
2. Loosen the thumbscrew securing the cover on the Computer Core and slide it off (see *Figure 4-D*).

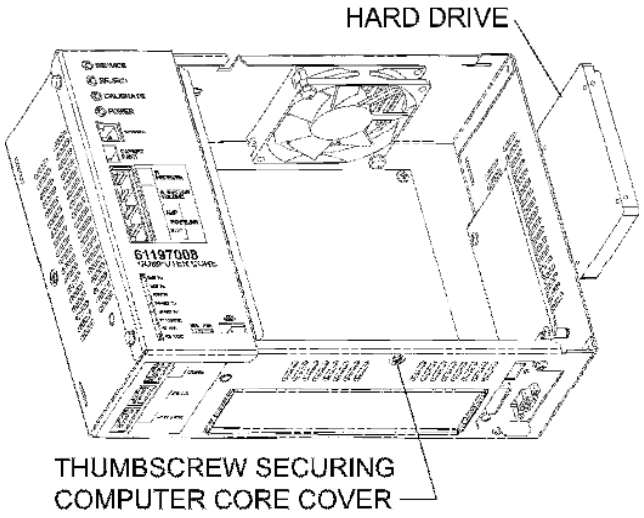


Figure 4-D – Computer Core

3. Carefully slide the hard drive out of the assembly as far as cabling will allow.
4. Disconnect the SATA power and data cables from the drive.
5. Connect the SATA power and data cables to the new hard drive.
6. Slide the hard drive back into the assembly. Make sure not to pinch any cables while doing so. Also make sure cables are not interfering with cooling fans.
7. Replace the Computer Core cover and secure it with the existing thumbscrew.

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Section E -
Troubleshooting

- LED Indicators
- Troubleshooting Chart
- Connection Diagrams

LED Indicators

The LEDs are described below to help you isolate a problem.

COMPUTER CORE ASSEMBLY (61197004)

USB Tx LED – It should be flashing, indicating good communication between the motherboard and the I/O board.

USB Rx LED – It should be flashing, indicating good communication between the motherboard and the I/O board.

STATUS LED – Flashes three times on power up, but otherwise it should be off.

RS485 Tx LED – It should be flashing, indicating good communication between the I/O board and Rowelink devices such as the Amplifier and Volume Control Units.

RS485 Rx LED – It should be flashing, indicating good communication between the I/O board and Rowelink devices such as the Amplifier and Volume Control Units.

IR RECEIVER LED – Flashes when an IR signal is received.

+5VDC – Indicates this voltage from the ATX power supply is present.

+12VDC – Indicates this voltage from the ATX power supply is present.

HDD LED (RED) – Flashes when the motherboard is accessing data on the hard drive.

PWR LED (GREEN) – When lit, indicates the power supply in the Computer Core assembly is on.

PRIMARY POWER AMPLIFIER ASSEMBLY (40991407)

POWER (Green) – When lit, indicates power is applied to the Amplifier.

STATUS (Red) – Indicates the status of the Preamplifier/Amplifier.

COM (Green) – Quick flashes indicate communication with the Core Computer is OK.

MUTE (Red) – Indicates the mute status of the Amplifier (On = muted, Off = not muted)

OVERCURRENT – When lit, indicates the Amplifier is overloaded. Verify speaker load and ensure there are no shorted speaker wires.

THERMAL – When lit, indicates the Amplifier is overheating. Be sure the cabinet fan(s) are working, the filters are clean, and nothing is blocking air flow through the cabinet.

RAIL VOLTAGE – When lit, indicates the Amplifier power supply is on or the power supply capacitors have not yet discharged. To prevent damage to the Amplifiers, DO NOT connect or disconnect the cable between the Primary Amplifier and the Secondary Amplifier while these two LEDs are lit.

Preamplifier STATUS – normal operation

The STATUS LED is used to indicate the status of the preamplifier. Under normal conditions the STATUS LED will flash once on power up, stay off for a second, and then turn back on and stay on. If either of the two microphone inputs become active, either by activation of the SENSE line or by the Voice Activation Circuits, the STATUS LED will blink on and off at a 150ms rate until the microphone circuits become inactive.

Preamplifier STATUS – error conditions

The STATUS LED is used to indicate possible faults on the preamplifier board. During power up, the preamplifier runs a self test. If a fault is detected, the STATUS LED is used to indicate what may be wrong. The LED will repeat a pattern of a specific number of blinks.

The blink pattern is 500ms on, 500ms off and then one to seven quick 100ms on blinks, three seconds off. The blinking pattern will repeat until the preamplifier is reset or power is turned off.

Number of Blinks	Problem Description
1	Digital Audio Processor did not come out of RESET
2	Digital Audio Processor COM error
3	EEPROM COM error
4	Digital Audio Processor memory load error
5	EEPROM data error
6	Digital Potentiometer COM error in Mic circuit
7	I^2C SDA line is stuck low

If the DAP (Digital Audio Processor) fails during normal operation, after power up the STATUS led will start to blink one second on, two seconds off, continuously until power is cycled or until the DAP failure goes away.

Preamplifier Jumpers

There are 5 jumpers on the preamplifier. They are preset at the factory and should not have to be reconfigured.

The preamplifier will support both the IcePower 250ASX2 500 watt power amplifier and the Pascal S-PRO2 1000 watt power amplifier. JP2 and JP3 must be set to match the power amplifier in use.

JP1: LOAD – used to set the speaker load. This jumper affects the S-PRO2 1000 watt amplifier only.

JP2, JP3: AMPLIFIER TYPE – used to configure the preamplifier power supply. Set both jumpers to match which amplifier is being used. If these jumpers are set in the wrong position, the preamplifier will not work.

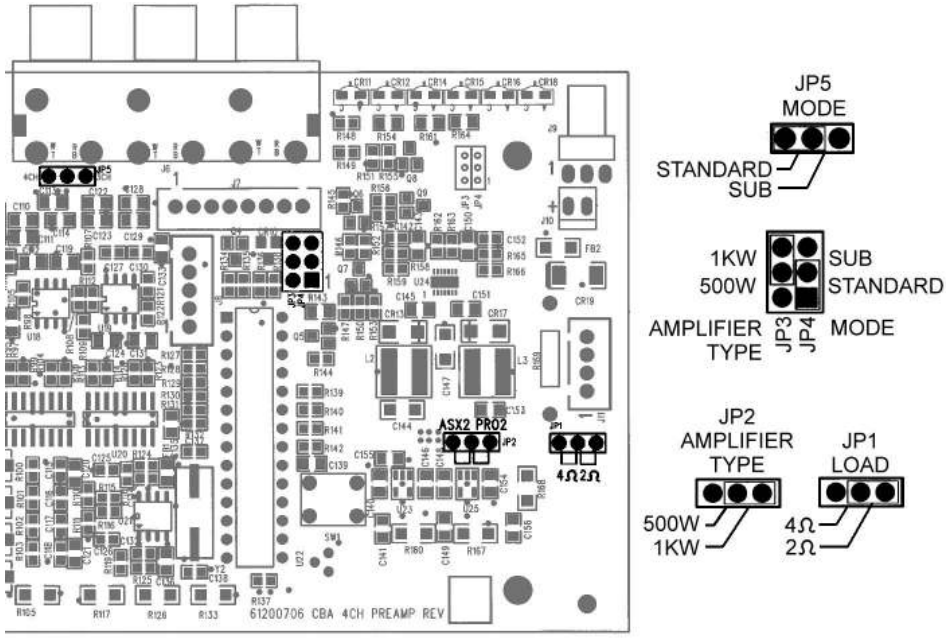


Figure 1-E – Preamplifier Jumpers

JP4, JP5: MODE – set these jumpers to the STANDARD position for normal operation. The SUB position implements a High Pass Filter on Channel 1 and a Low Pass Filter on Channel 2.

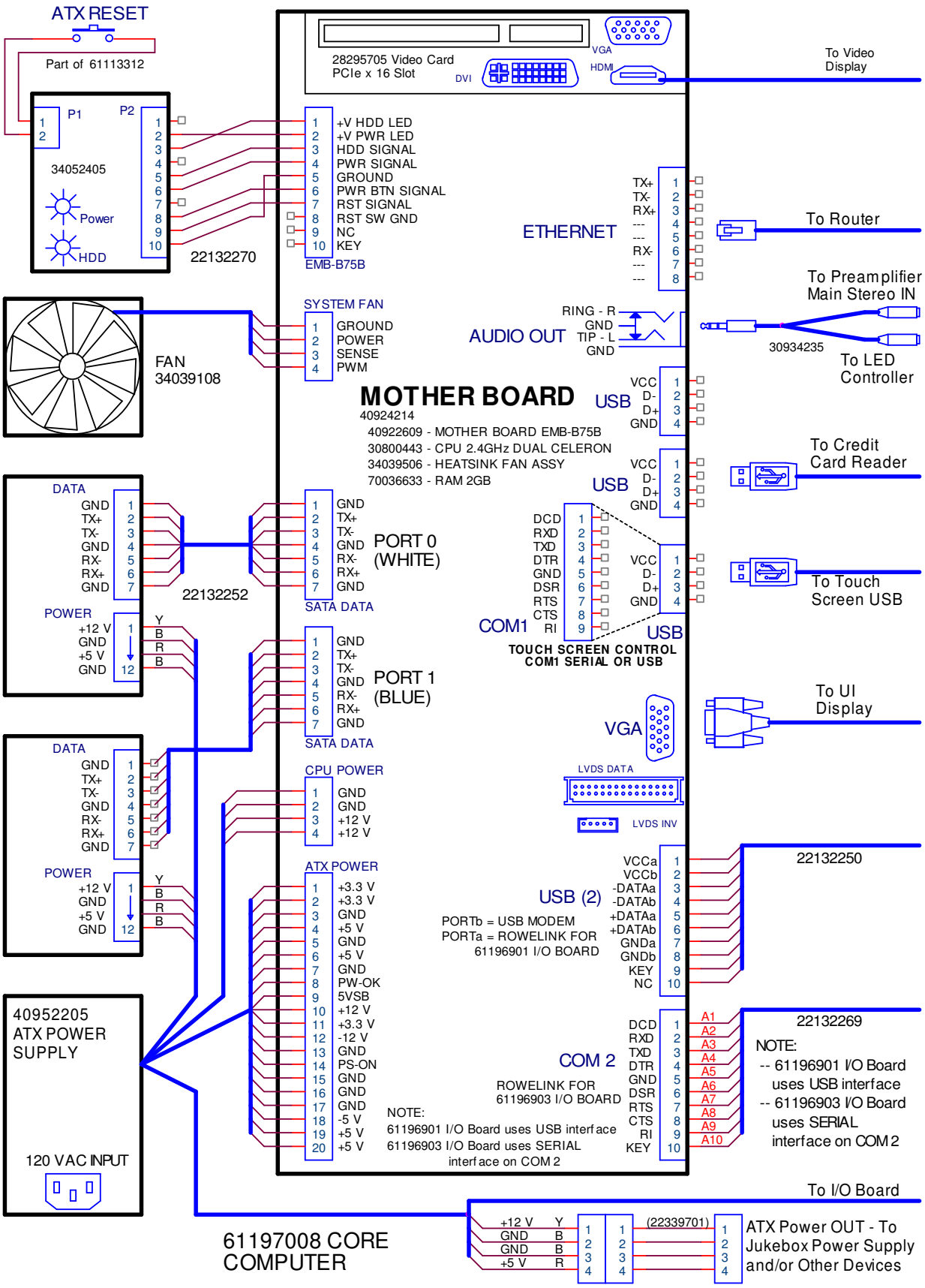
Troubleshooting Charts

The best way to isolate a problem is to determine its cause. The following charts should help to narrow down which module is failing and whether it can be fixed or it needs to be replaced.

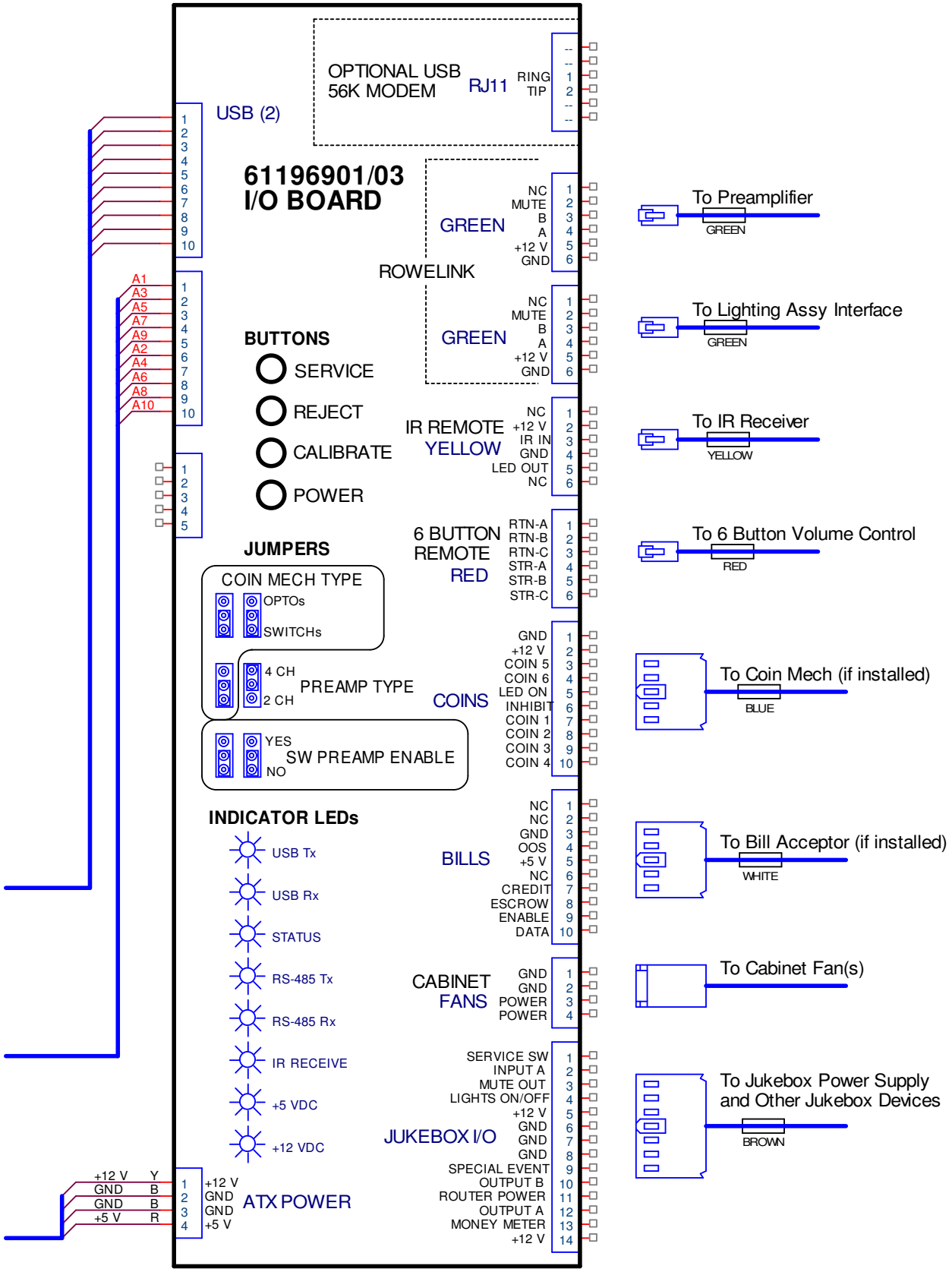
Start with finding the "Problem" column that relates the closest to the problem you are experiencing and then match it to the closest "Symptom". There can be many "Probable Causes" listed for each Symptom. The Probable Causes are listed in decreasing order of probability.

PROBLEM	SYMPTOM	PROBABLE CAUSE
The Windows operating system does not boot up.	At the first boot up screen, "PASSWORD"	1. There is no hard drive in the Computer Core. 2. The plugs are not completely seated in the hard drive. 3. The data cable or power cable has come loose from the motherboard or hard drive.
	The boot up process stops at "DISK BOOT FAILURE, INSERT SYSTEM DISK AND PRESS ENTER."	1. There is no hard drive in the Computer Core. 2. The data cable or power cable has come loose from the motherboard or hard drive. 3. The hard drive is faulty.
The LCD screen stays dark when the jukebox is powered up.	The PWR LED on the Computer Core does not light.	1. The plug is not completely inserted into the outlet. 2. The wall circuit is not "hot". 3. The ON/OFF switch on the power supply is in the OFF position. 4. The ATX power supply in the Computer Core is faulty.
	The LEDs on the Computer Core come on, but the screen stays dark.	1. The power plug to the display is not seated completely. 2. The power distribution assembly is defective. 3. The LCD is faulty.
The LCD briefly shows "NO CABLE" or "NO VIDEO SIGNAL".	The computer fan is on and all system's LEDs and lights are normal.	1. The video cable wiring is not seated completely. 2. The LCD is defective. 3. The Computer Core is defective.
The touchscreen does not work.	The application boots up, but the touchscreen does not respond to touch.	1. The USB cable is not seated completely at the LCD or at the Computer Core. 2. The touchscreen is not calibrated. 3 The touchscreen is defective.
The touchscreen will not calibrate.	Nothing happens after pressing the calibration button.	1. The I/O interface board in the Computer Core is faulty. 2. The hard drive is faulty. 3. The Computer Core is faulty.
	The calibration program runs, but will not respond to touch.	1. The USB cable plug is not fully seated at the LCD or at the Computer Core. 2. The touchscreen controller is faulty. 3. The touchscreen sensor (glass) is faulty. 4. The motherboard in the Computer Core has failed.
No music from jukebox.	No sound from jukebox, although the application reports "Now Playing…a New Song."	1. Volume control is turned all the way down. 2. The audio mode input routing or muting is configured incorrectly. 3. Audio cables are disconnected or loose from the Computer Core or the preamplifier. 4. Volume control is broken. 5. The amplifier is overloaded and shutdown.
	No sound from jukebox and the application doesn't appear to be playing the song selected.	1. There are no more credits available for play. 2. Reject song was activated.

PROBLEM	SYMPTOM	PROBABLE CAUSE
Machine is locked up during normal runtime.	Bill acceptor is taking money but credits are not accumulating, the touchscreen is not responsive, and I/O board LEDs are not flashing.	The Computer Core is locked up. Reboot it by pressing and releasing the ATX Reset Switch. If the Computer Core does not boot up, perform a complete Power Down and Power Up.
The bill acceptor does not work.	Lights on the bill acceptor are lit, but the bill acceptor will not accept a bill.	1. The bill acceptor bill box is full. 2. The bill box was not re-installed on the bill acceptor correctly. 3. There is a jammed bill in the device. 4. The plugs are not inserted securely at the acceptor. 5. The bill acceptor is defective.
	The lights on the bill acceptor are not flashing.	1. The cable is damaged at the acceptor. 2. The jukebox has disabled the bill acceptor. Put the jukebox into normal operating mode. 3 The bill acceptor is defective.
Location network line not installed in the location.	There is no designated broadband line installed in the location.	1. The inside wiring installation appointment was not scheduled. 2. The inside wiring installation has not occurred. 3. The line was not installed in the pre-selected location. 4. The line (jack) was not labeled by the technician.
Router does not work.	When the power supply is connected to the router, nothing happens.	1. The AC power plug is not fully inserted in the receptacle on the back of the router. 2. Router reset circuit in power distribution assembly is defective.
	The “Link/Act #” light (on the front of the router) does not light up when an Ethernet cable is plugged in the respective port.	1. The cable is loose at the Computer Core or router. 2. The jukebox is not powered on. 3. The Ethernet port is defective.
	The WAN light does not light up.	1. The broadband connection is not plugged into the WAN port. 2. The cable modem or DSL modem is not powered on.
The “Music On Demand” feature does not work.	The feature has never worked in the location before.	1. There is no Ethernet cable connection between the router and the jukebox. 2. The Ethernet cable is not fully seated in the port on the Computer Core or in the back of the router. 3. The connection is loose between the installed line and the router. 4. The cable is bad. 5. The Internet line is down. 6. The hard drive trigger code was not entered.
	The feature did work at one time, but is no longer available.	1. The connection has become loose between the router and the jukebox. 2. The connection has become loose between the installed line (jack) and the router. 3. All the lights on the front of the router are ON. 4. The router was shut off or lost power. 5. The Internet service provider (ISP) is down. 6. The AMI Entertainment server is down.

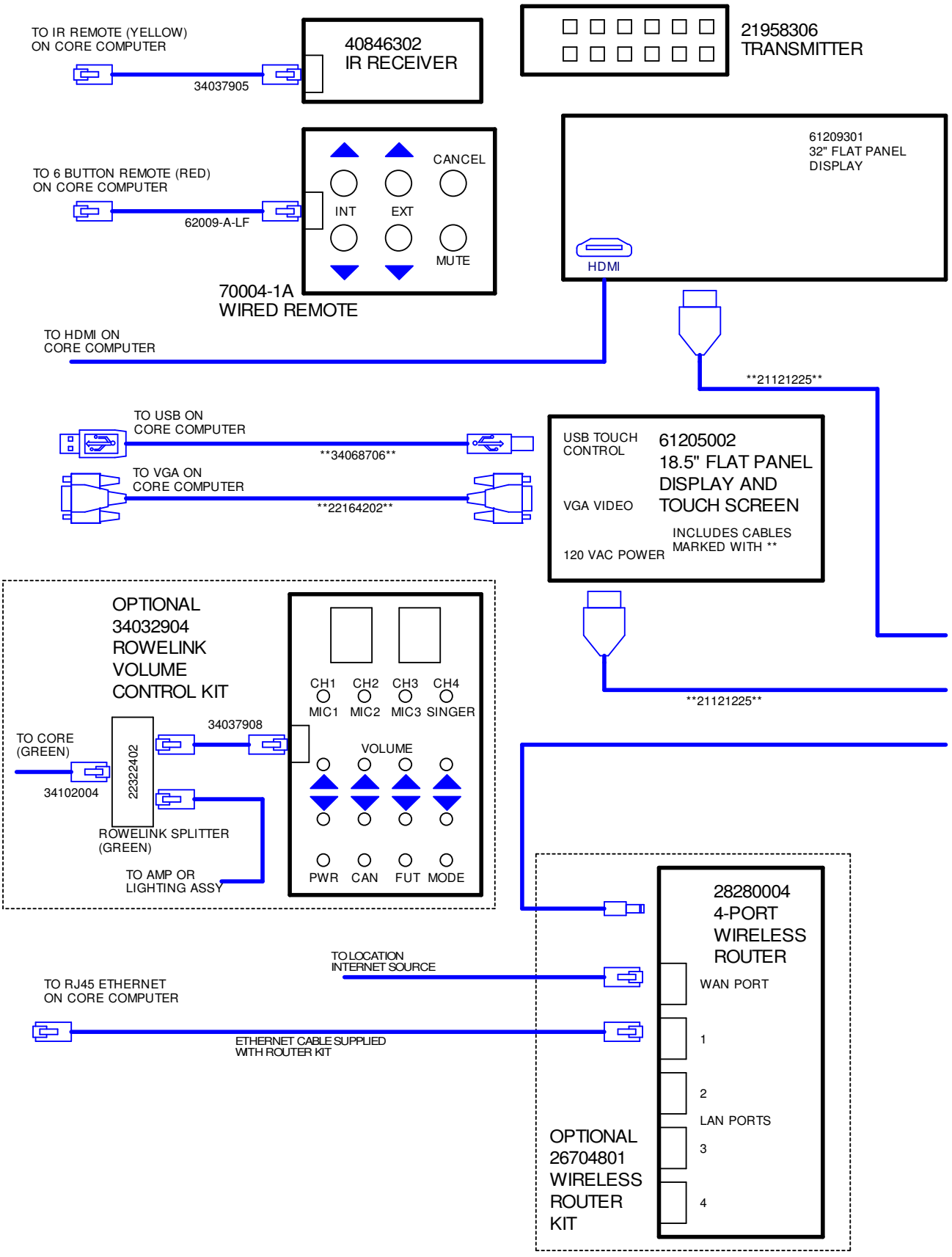


NGX ULTRA COMPUTER CORE SCHEMATIC (PAGE 1)

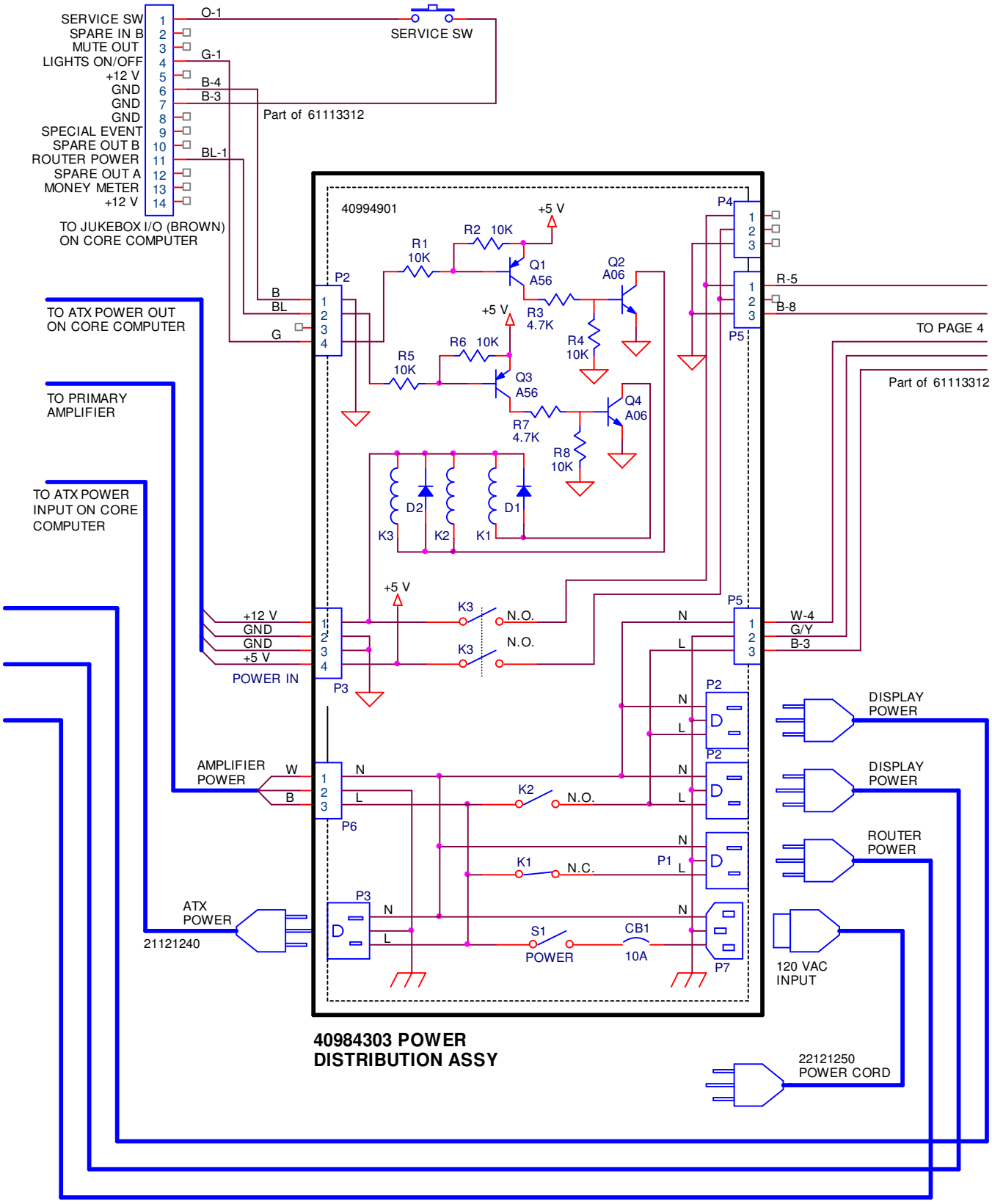


NGX ULTRA COMPUTER CORE SCHEMATIC (PAGE 2)

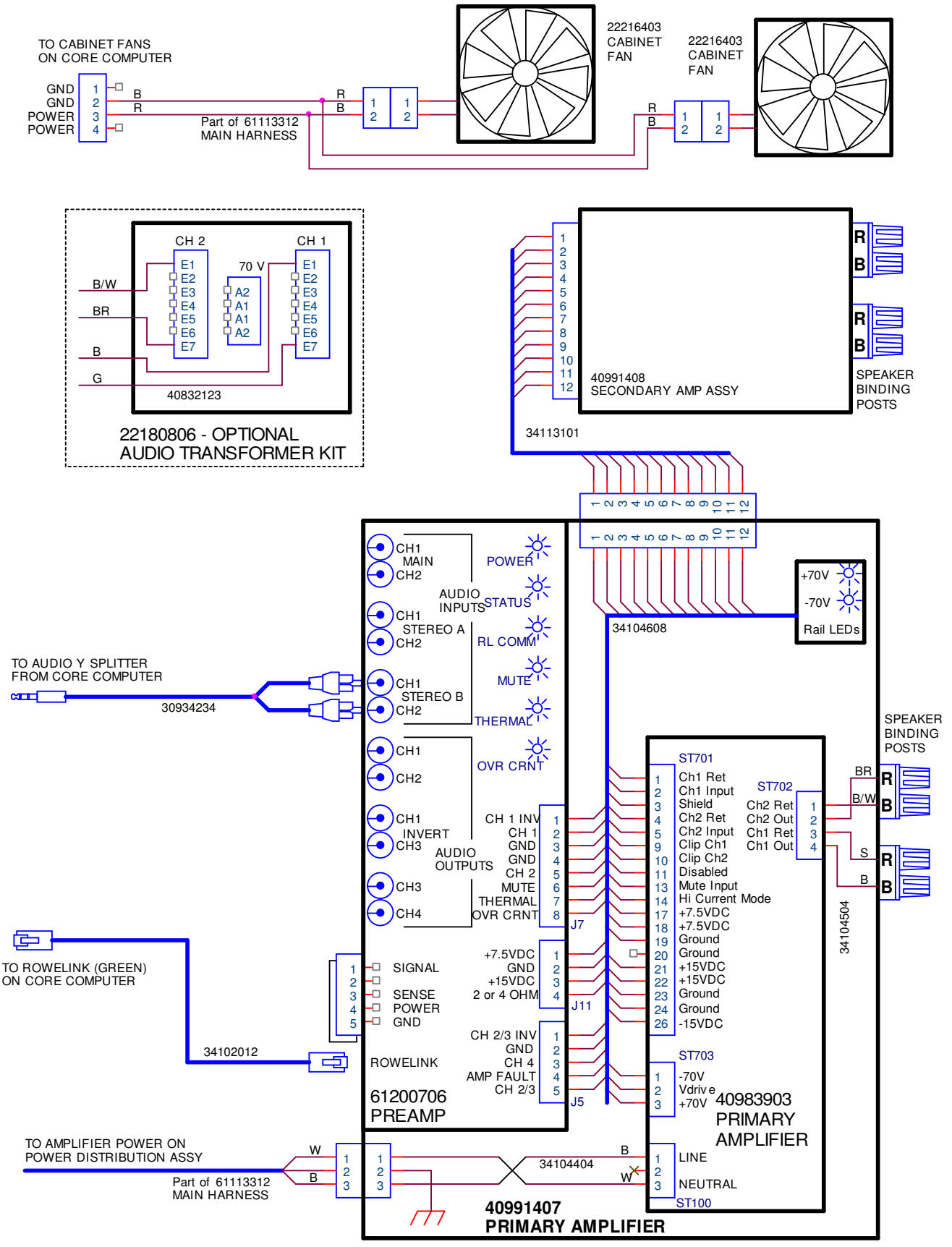
Connection Diagrams



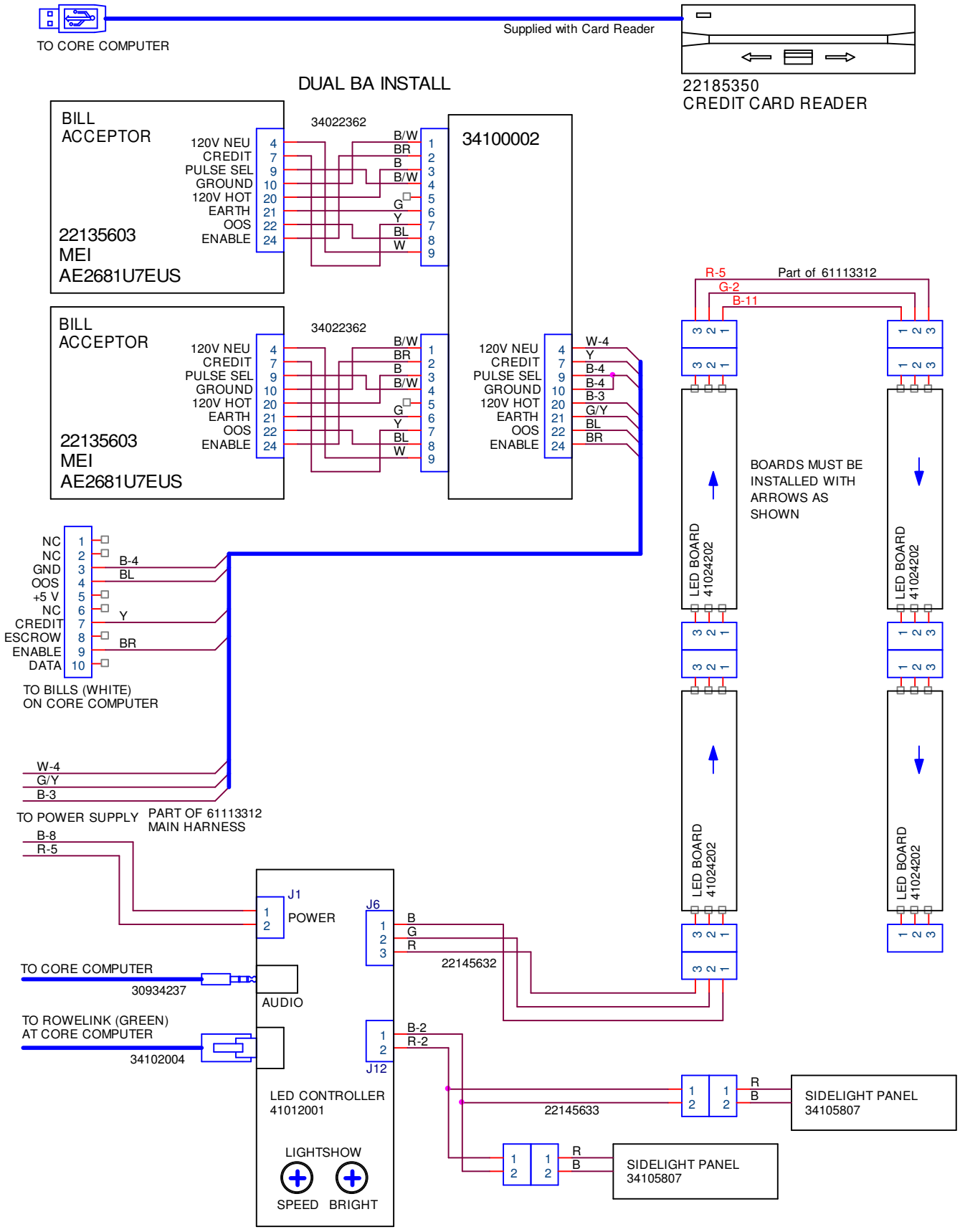
NGX ULTRA WIRING DIAGRAM (PAGE 1)



NGX ULTRA WIRING DIAGRAM (PAGE 2)



NGX ULTRA WIRING DIAGRAM (PAGE 3)



NGX ULTRA WIRING DIAGRAM (PAGE 4)

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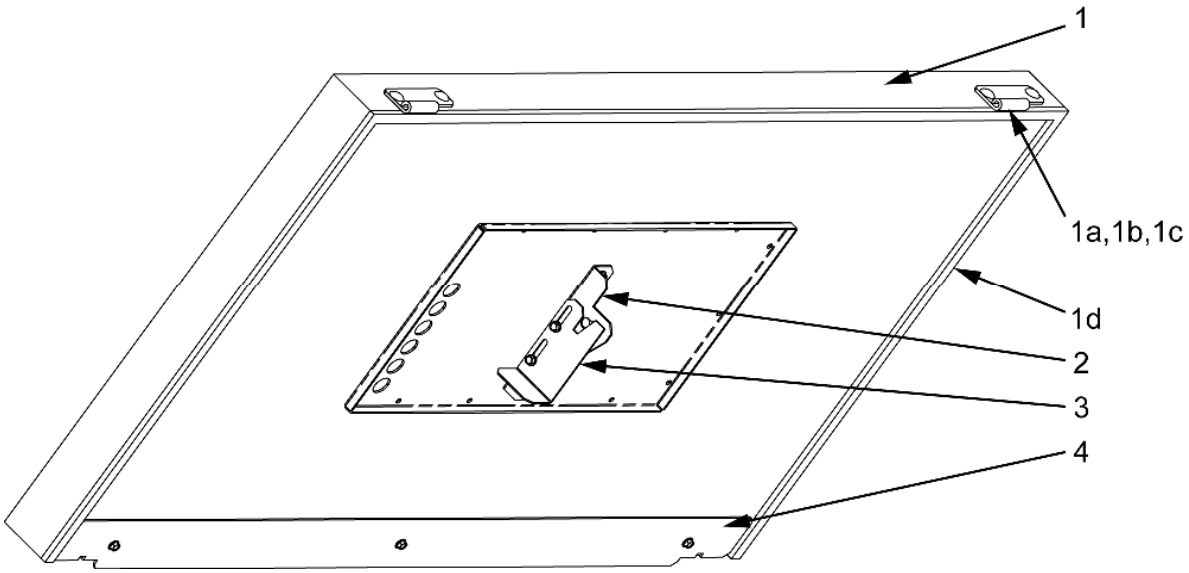
Section F -
Parts Catalog

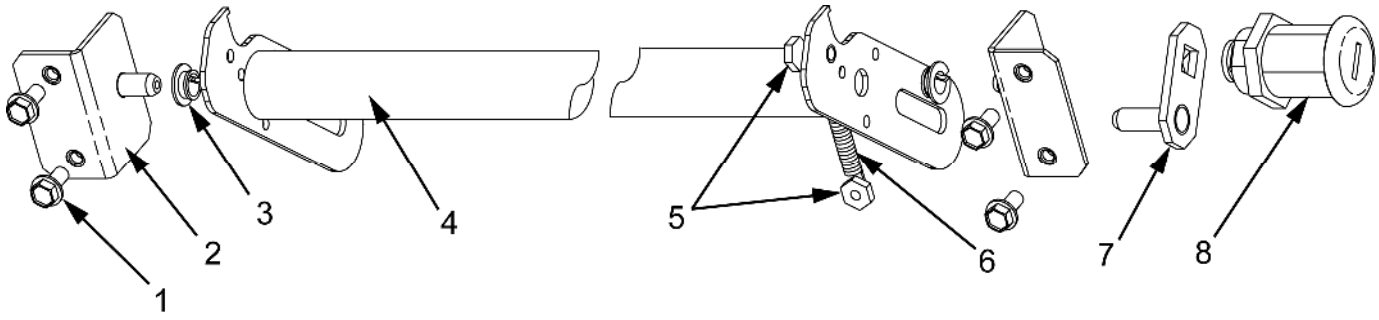
- Upper Display Assembly
- UI Panel Door Latch Assembly
- Inside Cabinet
- Currency Components
- Electronic Components
  - Computer Core
  - Power Supply
  - Amplifier Assembly
- Accessories

Upper Display Assembly



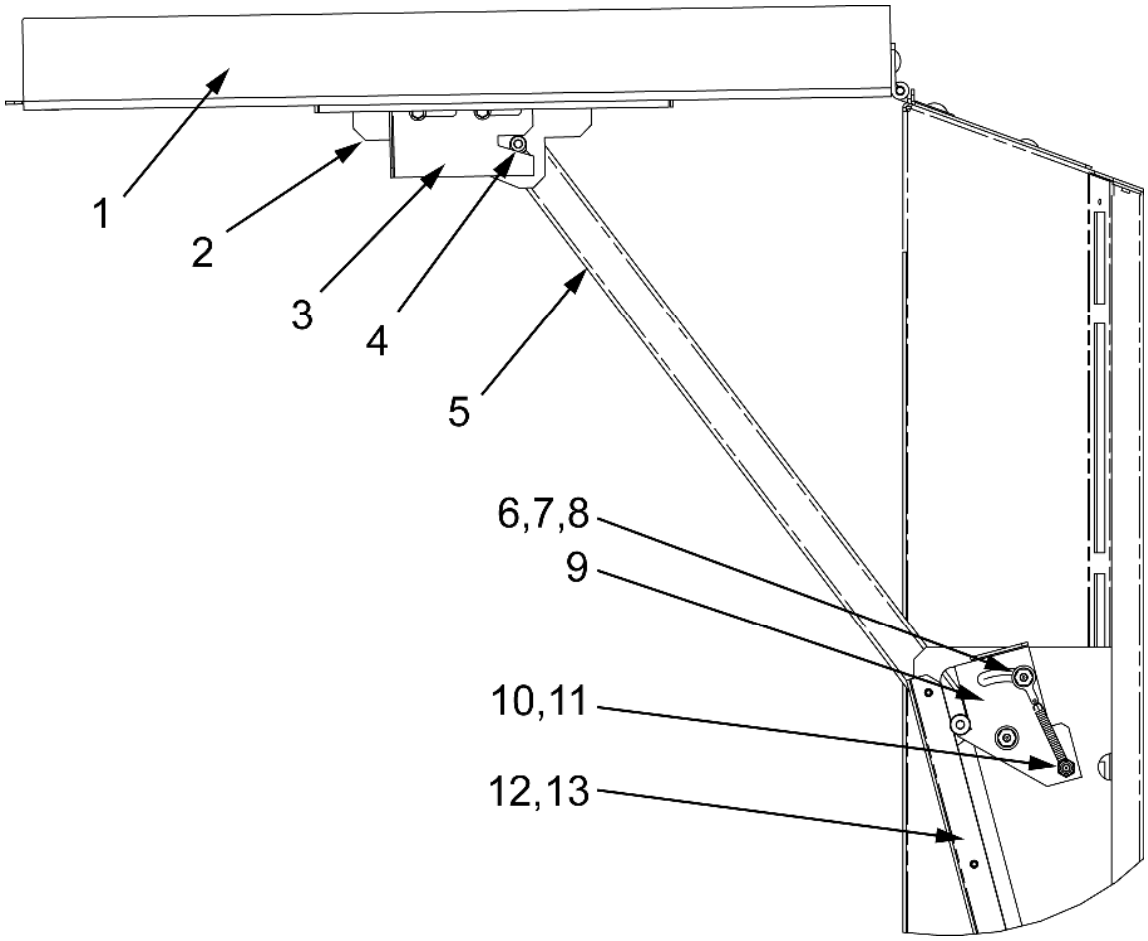
Ref.	Qty.	Part #	Description	Ref.	Qty.	Part #	Description
1	1	61209401	Display – 32”	2	1	34114601	Bracket – Display Support
1a	2	22323002	Hinge – Female	3	1	22338301	Bracket – Retainer, Display Support
1b	4	89974808	#10-32x1/2 Bolt - Carriage	4	1	22338201	Bracket – Display Latch
1c	4	87844400	#10-32 KEPS Hex Nut				
1d	95 in	00710011	Foamed Tape				
1e	1	21121225	Cable – Power (not shown)				
1f	1	22335502	Cable – HDMI (not shown)				

UI Panel Door Latch Assembly



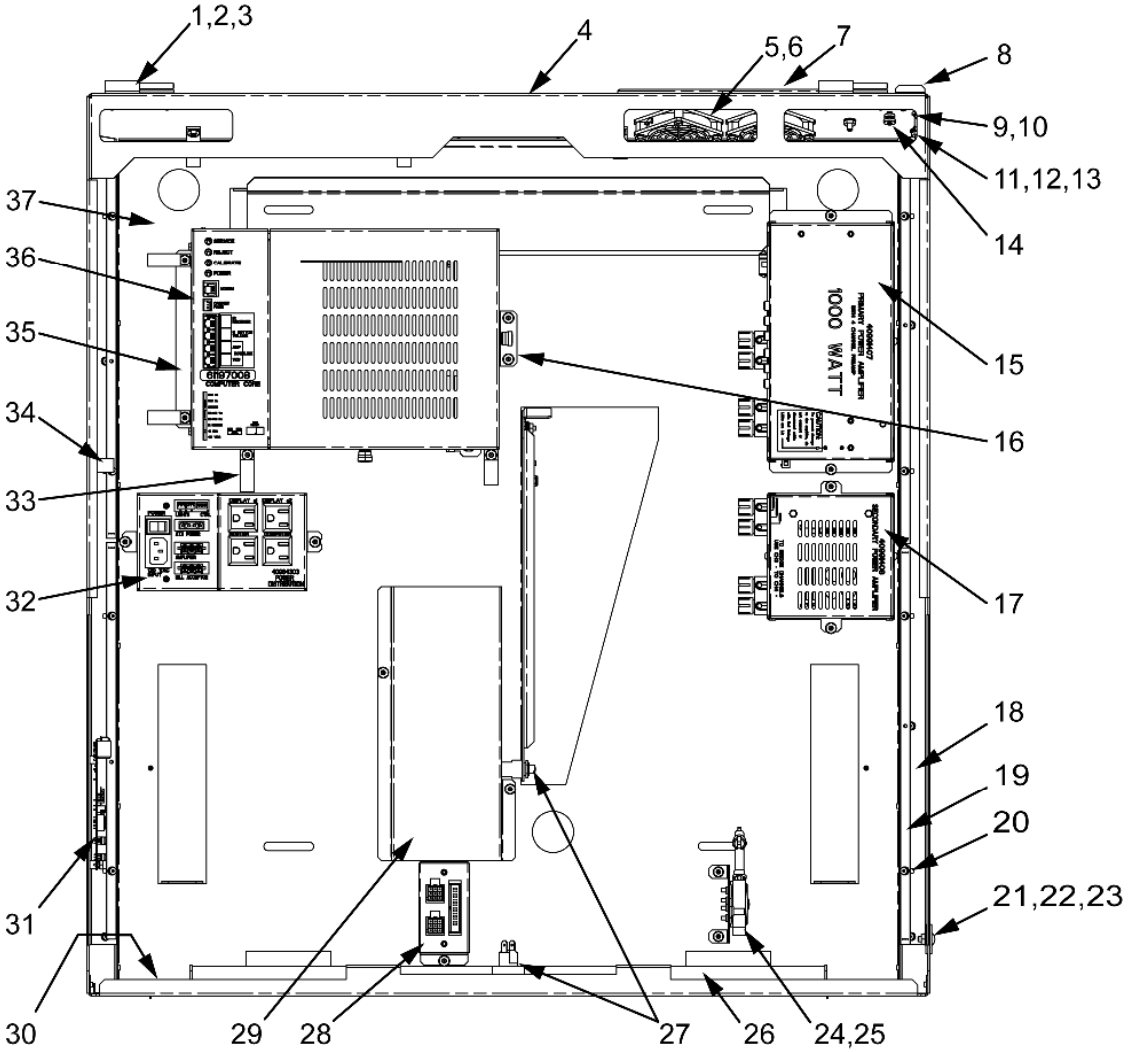
Ref.	Qty.	Part #	Description	Ref.	Qty.	Part #	Description
1	4	80663006	#8-32x3/8 HEX WHMS	5	2	21357810	#6-32 Nut – Elastic Stop
2	2	22337801	Bracket – Latch Pivot	6	1	21256201	Spring – Tension
3	2	70146024	Bearing – Nylon	7	1	22337701	Lockbolt
4	1	41022301	Latch – UI Panel	8	1	70163215	Cylinder Lock – Common Key

Display Support Assembly



Ref	Qty	Part #	Description	Ref.	Qty.	Part #	Description
1	1	61209301	Display Assy – Upper 32”	8	1	70091702	Lug – Solder
2	1	34114601	Bracket – Display Support	9	1	22338801	Bracket – Display Support Stop
3	1	22338301	Bracket – Retainer, Display Support	10	1	21256201	Spring – Tension
4	2	70134157	#1/4-20 Shoulder Bolt	11	1	21357811	#8-32 Nut – Elastic Stop
5	1	34114001	Support – Display	12	1	34116401	Bracket – Spacer, Display Support
6	2	25156904	Washer – Shoulder	13	4	28277904	#M3-5 Phil Flat Head Screw
7	2	87843000	#8-32 KEPS Hex Nut				

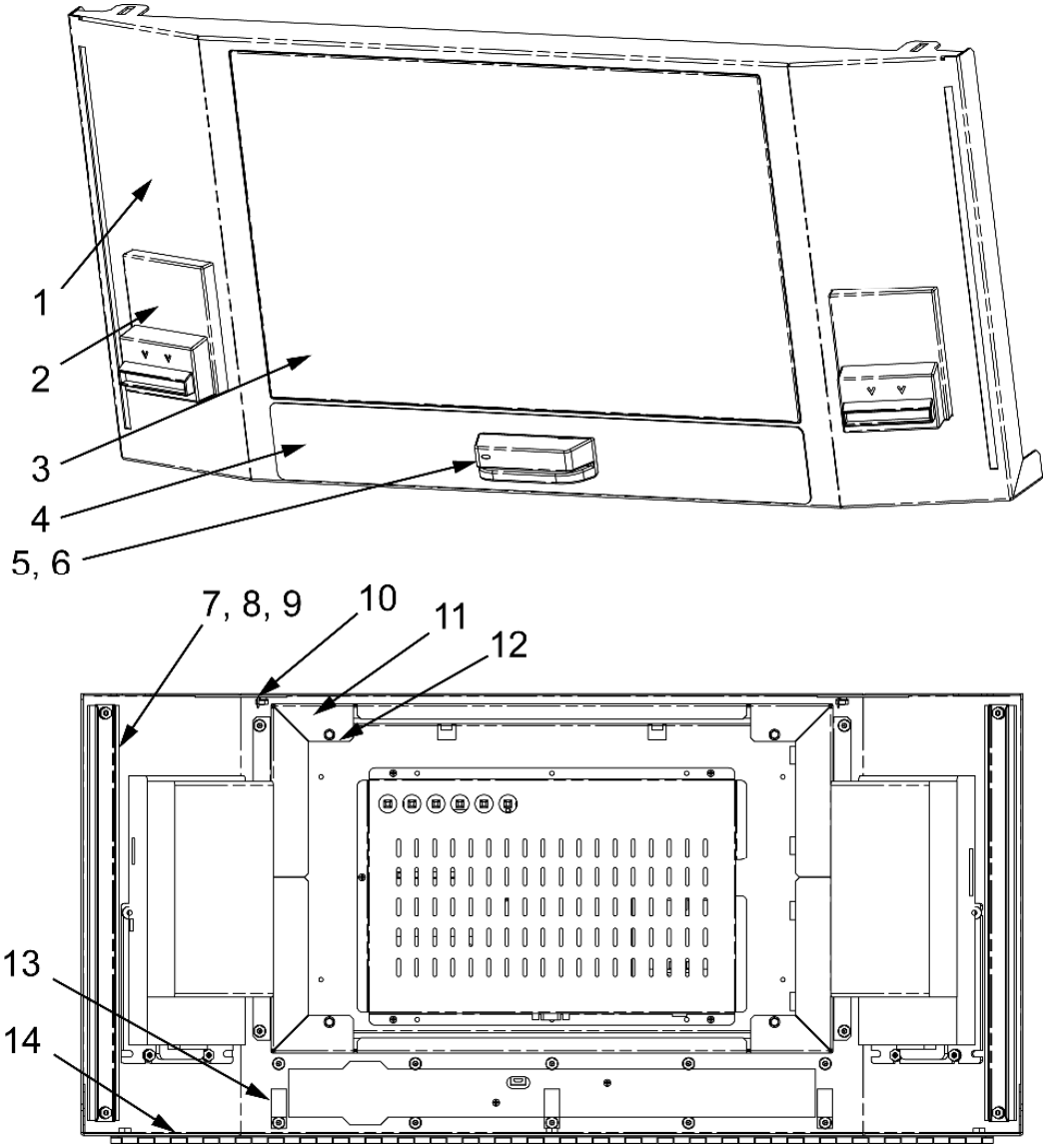
Inside Cabinet



Ref.	Qty.	Part #	Description	Ref.	Qty.	Part #	Description
1	2	22323001	Hinge – Male	24	1	22340701	Damper, Motion
2	4	89974808	#10-32x1/2" Bolt – Carriage	25	1	34117001	Bracket – Mounting, Motion Damper
3	4	87844400	#10-32 KEPS Hex Nut	26	1	34053005	Filter – Air
4	1	22338101	Plate – Blockout	27	2	21581801	Switch – Pushbutton
5	2	22216403	Fan – Cooling	28	1	34100002	CBA & Cover Assy – Dual BA
6	2	21895505	Guard – Finger	29	1	41025301	Cover – Cable
7	1	41024601	Bracket – Fan Shroud	30	2	22338001	Cover – Cord Hole
8	1	22340301	Bracket – Hinge Lock	31	1	41011801	CBA – LED Controller
9	1	21256201	Spring – Tension	32	1	40984303	Power Distribution Assy
10	1	21357810	#6-32 Hex Nut Elastic Stop	33	5	70093403	Clamp – Cable 1"
11	2	25156904	Washer – Shoulder	34	3	70093402	Clamp – Cable ¾"
12	2	87843000	#8-32 KEPS Hex Nut	35	1	22321701	Bracket – Mounting (Left)
13	1	70091702	Lug – Solder	36	1	61197008	Computer Assy with Video
14	5	22324201	Nut – Finger 8-32	37	1	61208901	Cabinet Assy – Riveted
15	1	40991407	Ampifier – Primary 1000W	**Components not shown above**			
16	1	22321601	Bracket – Mounting (Rt)	38	2	21572602	Cable – Fall Stop 13"
17	1	40991408	Amplifier – Secondary	39	1	61113312	Harness – Cabinet
18	2	41023804	Diffuser – LED Backlight	40	1	34102004	Cable – Modular (Green)
19	4	41024202	CBA – LED Lighting	41	1	21121242	Cord – Power 36"
20	8	70121769	Spacer - #5 x 1/2" Long	42	1	22145633	Harness – Lights, Door
21	2	70120926	Washer	43	1	22145632	Harness – Lights, Power
22	1	89974808	#10-32x1/2" Bolt – Carriage	44	1	61208925	Cabinet – Brace, Horizontal
23	1	87844400	#10-32 KEPS Hex Nut				

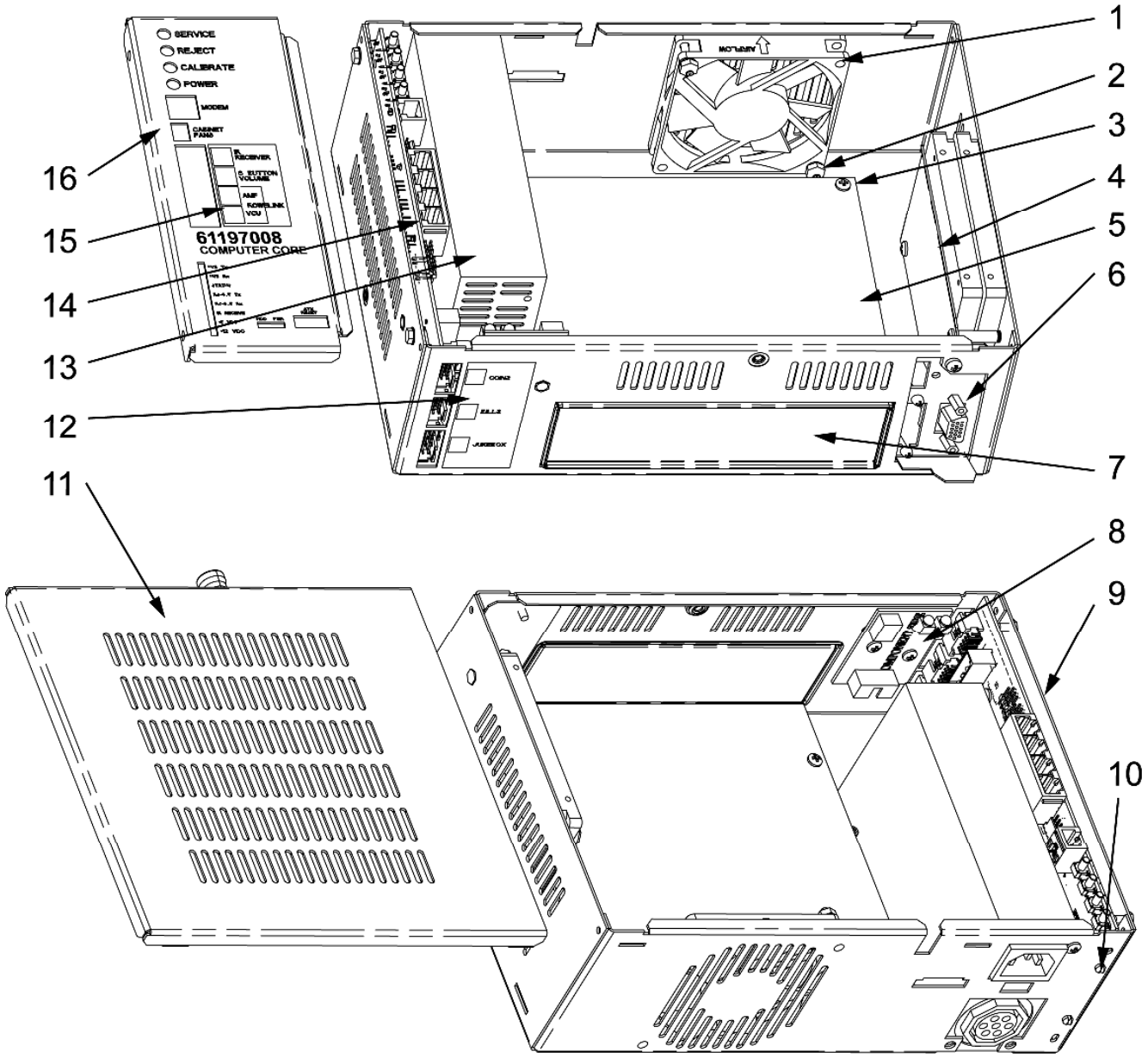
Currency Components

U.S. – Currency Panel



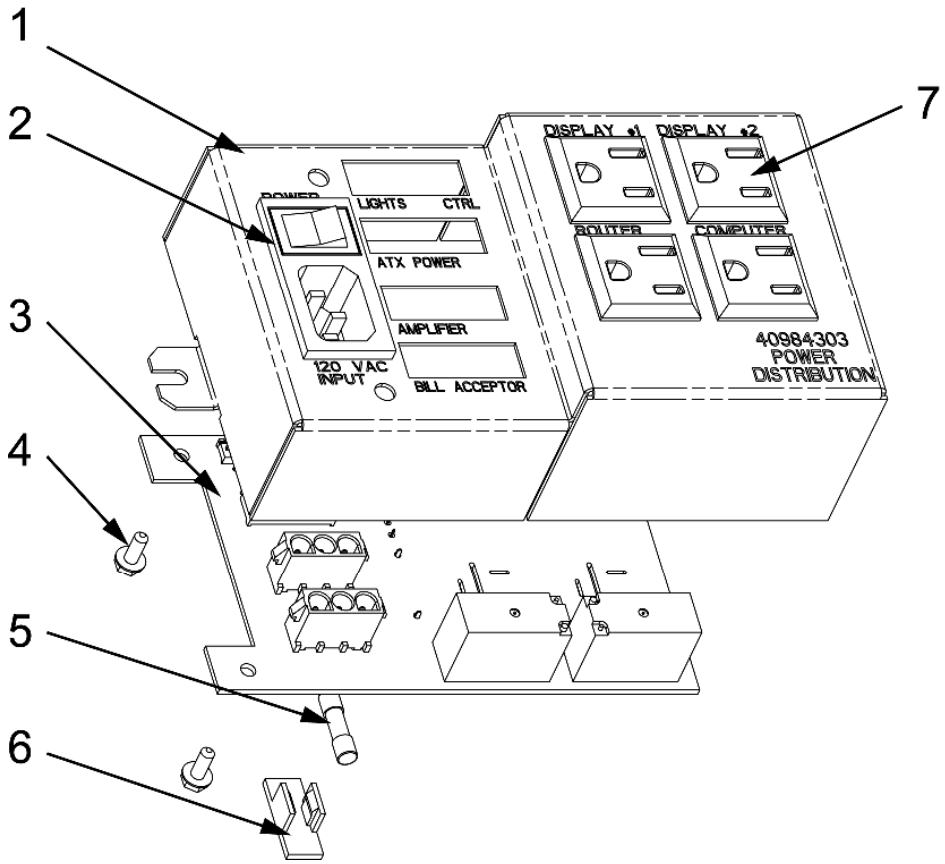
Ref	Qty	Part #	Description	Ref.	Qty.	Part #	Description
1	1	61209101	Panel – User Interface	6	2	28277901	#M3-5 Philips Pan Head Screw
2	2	22135603	MEI Bill Acceptor (US)	7	2	22325407	Panel-Lighting
3	1	61205002	Display Assy – 18.5" HD	8	2	34105807	CBA – Side Light Panel
3a	1	61210601	Touch Glass Sensor Assy	9	4	87843000	#8-32 KEPS Hex Nut
3b	1	40993902	Display Panel LCD 18.5"	10	2	21730001	Hook – Fall Stop Cable
3c	1	61205052	Power Supply	11	2	41024001	Bracket – Display Mounting
3d	1	61205061	Touch Controller	12	4	71300093	Stand off
3e	1	61194756	A/D Board	13	3	70093402	Cable Clamp
3f	1	61194755	OSD Board	14	1	41022401	Hinge
3g	1	21121225	Power Cord	15	3	87844400	#10-32 KEPS Hex Nut
3h	1	22164202	Cable-VGA	**Components not shown above**			
3i	1	34068706	Cable-USB	16	2	34022362	Harness – BA Connect
4	1	34114501	Plate – Credit Card Reader	17	1	22145633	Harness – Lights UI Panel
5	1	22185350	Credit Card Reader				

Computer Core Assembly 61197008



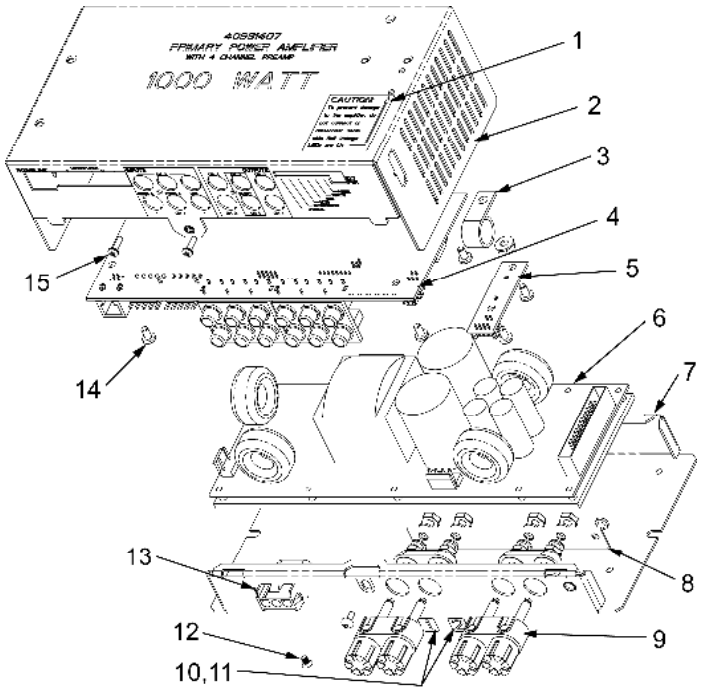
Ref.	Qty.	Part #	Description	Ref.	Qty.	Part #	Description
1	1	34039110	Fan – Chassis Cooling w/Tach	13	1	40952205	Power Supply
2	2	87842300	Nut - #6-32 Keps Hex	14	1	61196903	CBA – I/O Interface
3	8	80352304	#6-32x1/4 PPHMS	15	1	22167705	Label – Jukebox Connections
4	1	34101203	Bracket – Hard Drive Mtng (2 Drives)	16	1	34101103	Cover – Small
5	1	40924214	Single Bd Computer Assy (B75B)	**Components not shown above**			
6	1	28295705	Video Card Assy	17	1	22132269	Harness Assy – Com I/O
7	1	40922699	I/O Shield (B75B)	18	1	22132270	Harness Assy – Power On/Reset
8	1	34052405	CBA – Power On/Reset	19	1	22132282	Cable – SATA Data
9	1	91197103	Housing – Core Computer	20	1	22132285	Cable – SATA Data (Blue)
10	1	22137302	Guide – Card	21	1	22330802	Insulator – Hard Drive Separator
11	1	40983503	Cover - Top	22	1	22219001	Hard Drive – System, US
12	1	22167704	Label – Computer Connections	23	1	22219701	Hard Drive – Video Content

Power Supply Assembly 40984303



Ref.	Qty.	Part #	Description	Ref.	Qty.	Part #	Description
1	1	40984403	Power Supply Cover	5	1	70072129	Fuse – 10A
2	1	22118707	Power Inlet/Switch	6	1	25077506	Cover - Fuse Clip
3	1	40994901	CBA – Power Control	7	4	21375905	Convenience Outlet
4	2	80712306	#6-32x3/8” Screw				

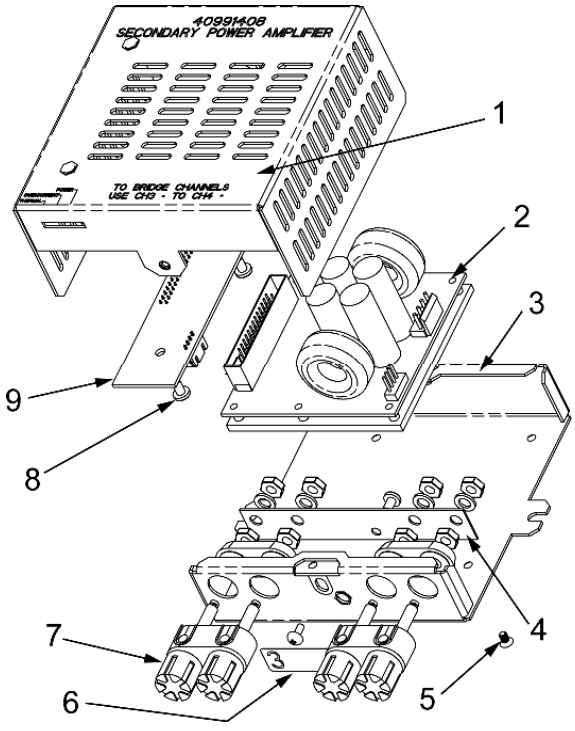
Primary Amplifier Assembly 40991407



Ref.	Qty	Part #	Description
1	1	22167723	Label – Caution
2	1	61200311	Amplifier Cover
3	1	70093401	Clamp – Cable
4	1	61200706	CBA – 4-Channel Preamplifier
5	1	22337501	CBA – Rail Voltage LEDs
6	1	40983903	1000-Watt Amplifier
7	1	61200407	Amplifier Base
8	1	22337201	CBA – Output Decoupler
9	2	34104201	Dual Binding Post
10	1	22167717	Label – “1”
11	1	22167718	Label – “2”
12	6	28277904	#M3x5 Phil Flat Head Screw
13	1	34104404	Amp Power Harness
14	7	80342304	#6-32 1/4” Pan Head Screw
15	2	89281606	#4-24 x 3/8 Pan Head Screw
Components not shown in diagram:			
	1	34104608	Audio In Harness
	1	34104504	Audio Out Harness

Secondary Amplifier Assembly 40991408

Ref.	Qty	Part #	Description
1	1	61200314	Amplifier Cover
2	1	40983904	Secondary Amplifier (S-A2)
3	1	61200408	Amplifier Base
4	1	22337202	CBA – Output Decoupler
5	4	28277904	#M3x5 Phil Flat Head Screw
6	1	22167719	Label – “3 4”
7	2	34104201	Dual Binding Post
8	5	80342304	#6-32 1/4” Pan Head Screw
9	1	34101805	CBA – Interface
Components not shown in diagram:			
	1	34113001	Harness Assy-Secondary Amp
	1	34113002	Cable Assy-Ribbon
	1	34104505	Audio Out Harness



Accessories

Part Number	Description
22118916	**Handy Pack (contains the following):**
21958306	IR Transmitter
40846302	IR Receiver
34037905	IR Receiver Cable
21121250	Power Cord
70004-1A	2-Channel Remote Control
62009-A-LF	Remote Control Cable
22337702	Lock Bolt (Ace Lock)
22324601	Cable Retainer Bracket
34115701	Blockout – Bill Acceptor
22200862	**Small Parts Kit (contains the following):**
89986124 (4)	Screw, Lag 1/4" x 1-1/2" Hex Head
70120926 (4)	Washers 1/4" Flat
ST-11327 (2)	#8 x 1 1/2" Phillips Pan Head Screws for 2-Channel Remote

Optional Kits	
26704801	Kit – Router, Wireless
22180806	Kit – Output Transformers
26682503	Kit – Money Meter
26681501	Kit – Special Event Switch
02468	Kit – Wireless, RF Remote Control
26679501	Kit – Paging with Cable
26679502	Kit – Paging w/o Cable
26684704	Kit – Trackball ADA Compliant (Dual BA)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