Installation Instructions

Kit #26723006, #26723010 – Conversion Kit
TT Allegro MX1 to AMI

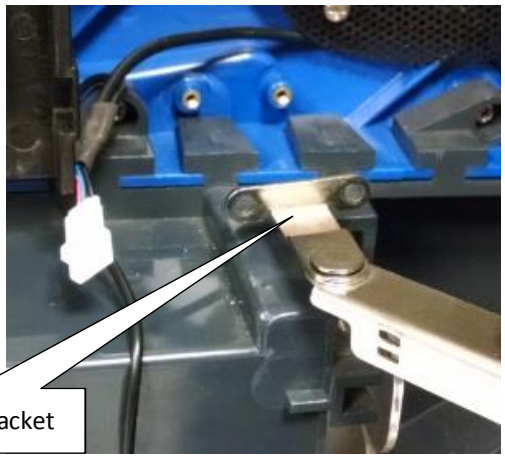
Tools needed: Philips screw driver, 1/4" & 5/16" nut drivers, Drill Driver with 3/32" drill bit

Parts included in this kit (see page 11 for a picture of the parts in this kit)

Item	Part #	Description	Quan	Item	Part #	Description	Quan
1	61197004	Computer Core	1	24	21965501	Velcro - Hook	4
2	32219001	Hard Drive SSD (U.S)	1	25	21965502	Velcro - Loop	4
	32219003	Hard Drive SSD (Canada)		26	22320601	Bracket – Reset	1
3	34113202	Bracket – Computer Mounting	1	27	21581801	Switch - Pushbutton	1
4	70350072	Data Plate TT-MX1	2	28	34103004	Cable – Modular(Red) 30"	1
5	30934235	Cable – Stereo Y Splitter 3.5mm 6"	1	29	34102010	Cable – Modular(Green)	1
6	34038701	Cable - DB9 Serial	1	30	34037905	Cable - IR Receiver	1
7	30934218	Cable – Audio 72"	1	31	22167733	Label - Notice	1
8	34022360	Harness – MX1 Door, Conversion	1	32	21958306	Transmitter - IR	1
9	30934233	Cable – Audio Adaptor 72"	1	33	40846302	Receiver Assy - IR	1
10	41024303	Harness – MX1 Main, Conversion	1	34	40978402	Controller - LED	1
11	30934231	Cable - Audio Adaptor 36"	1	35	34091606	Plate-Card Reader	1
12	34022361	Harness – MX1 Upper, Pwr, Lights	1	36	21185353	Card Reader-Programmed	1
13	21121240	Cable – Power Cord	1	37	22207608	Label-Card Reader	1
14	22140405	Cable Assy – CAT5 42"	1	38	28277901	#M3x6 Philips Screws (not shown)	2
15	34113401	Bracket – Volume Control Mtg	1	39	80342304	#6-32-¼" Philips Screw (not shown)	4
16	SV-70004-1A	Volume Ctrl – 2 Channel	1	40	PM0725-01	Label-Visa MasterCard (not shown)	1
17	87842300	#6-32 Keps Nut	2	41	34109403	Audio Interface Assy	1
18	80443005	#8-32x5/16 Hex WHS (SF)	2	42	41020004	Preamplifier Assy	1
19	86662708 or 84342708	#6 x 1/2 Hex WRHS (Type 17) #6 x 1/2 PPHS (Type AB)	14	43	61192902	Graphic – Lower Door AMI	1
20	28277902	#M3x10mm Screw	4	44	22188403	Card-Trigger Code (not shown)	1
21	70800107	Wire Tie	6	45	22167729	Label-AMI (not shown)	1
22	70093401	Clamp - Cable 1/2"	1	46	22132259	Cable-Coin mech (Canada only)	1
23	70093402	Clamp - Cable 3/4"	4	47	26723056	These Instructions	1

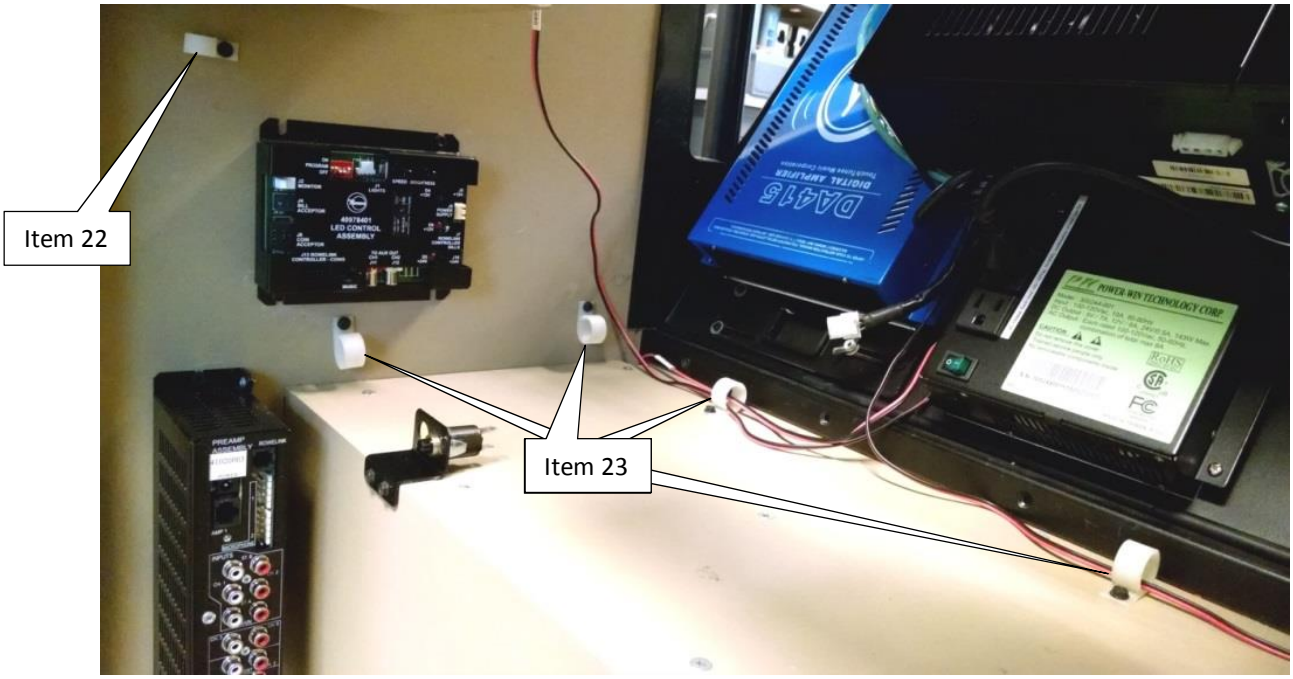
1. Move the jukebox to a suitable work space. Be sure it is unplugged from the wall.
2. Open the jukebox and remove the following components:
   - TouchTunes MJS and TouchTunes Control Board
   - Control Board Power Supply
   - Touch Tunes volume control
   - 19" Monitor (set aside – this will be reused)
   - Tune Central (if installed)
   - Tune Central power supply (if installed)
3. Remove TouchTunes wiring leaving only the following wires in place:
   - LED Lighting harness on lower front door
   - Amplifier power cords
   - CAT5 cables (three total) connected to the amplifiers
   - Speaker wiring

   Remove two screws to disconnect the upper door bracket to more easily remove the harness from the door.



4. For easier access, remove and retain the spring loaded friction points holding the guide brackets to the back amplifier panel. Lower the amplifier panel placing a box or some other support under the panel to hold it horizontal.

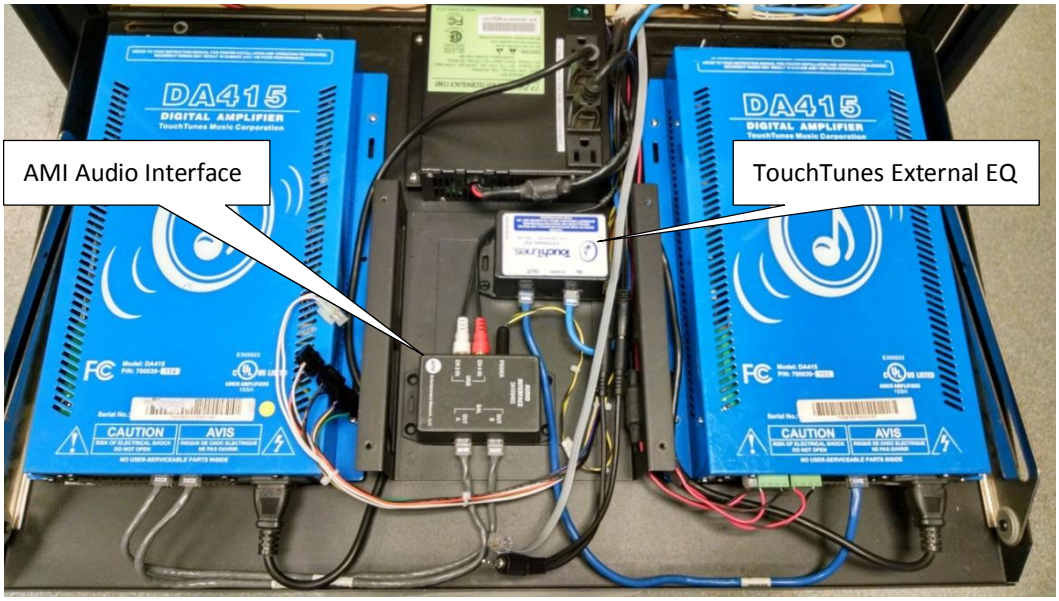
Stripped Amplifier Panel



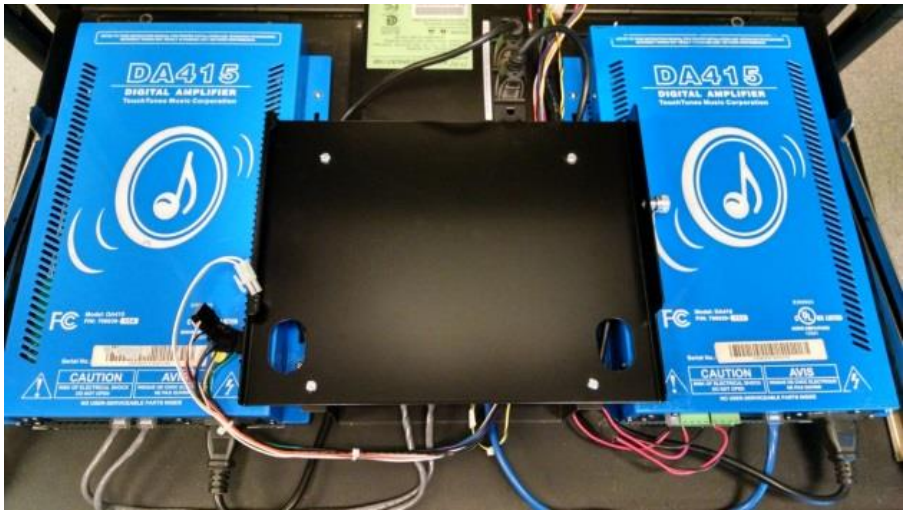
5. Drill pilot holes and install:
   - (4) ¾" Cable Clamps (item 23)
   - (1) ½" Cable Clamp (item 22)
   - (1) ATX Reset Bracket (item 26) and ATX Reset Switch (item 27)
   - (1) LED Controller (item 34)
   - Preamplifier Assembly (item 37)

   using (13) #6 x 1/2" wood screws (item 19) approximately where shown. **Caution:** Do not drill so deep as to break through the outside of the cabinet wall.

6. Using the Velcro pads (items 24,25) attach the AMI Audio Interface Assembly (item 36) and the TouchTunes External EQ box to the amplifier panel as shown.



7. Reuse the CAT5 cables to connect the AMI Audio Interface box to the 4 channel TouchTunes amplifier.
8. Reuse the CAT5 cable to connect the 3 channel amplifier to the TouchTunes External EQ. box output.
9. Connect the CAT5 cable from the kit (item 14) to the TouchTunes External EQ box input.
10. Connect RCA plugs from the Audio Cable (item 7) to the RCA jacks on the AMI Audio Interface box.
11. Connect the Power connector from the Main Harness (item 10) to the power jack on the AMI Audio Interface box.
12. Lay the end of the Main Harness with three black connectors and one white connector near the 4 channel amplifier. Route the other end of the Main Harness, the free end of the CAT5 cable, and the free end of the Audio Cable down along side of the power supply and into the cabinet.
13. Plug the 6 pin connector from the Main Harness into the 6 pin housing on the pigtail of the power supply output cable.
14. Locate the Stereo 'Y' Splitter (item 5) and the two Audio Adaptor Cables (items 9 and 11). Plug the two Audio Adaptor Cables into the Stereo 'Y' Splitter. Place the Audio Adaptor Cables along side the External EQ box such that the Stereo 'Y' Splitter is laying near the top of the Amplifier Panel.
15. Locate the Modular Rowelink Cable with the green color band (item 29). Place the Rowelink Cable along side the External EX box such that one end of the Rowelink Cable is near the top of the Amplifier Panel.
16. Install the Mounting Bracket (item 3) for the Core Computer using (4) M3-10mm screws (item 20).



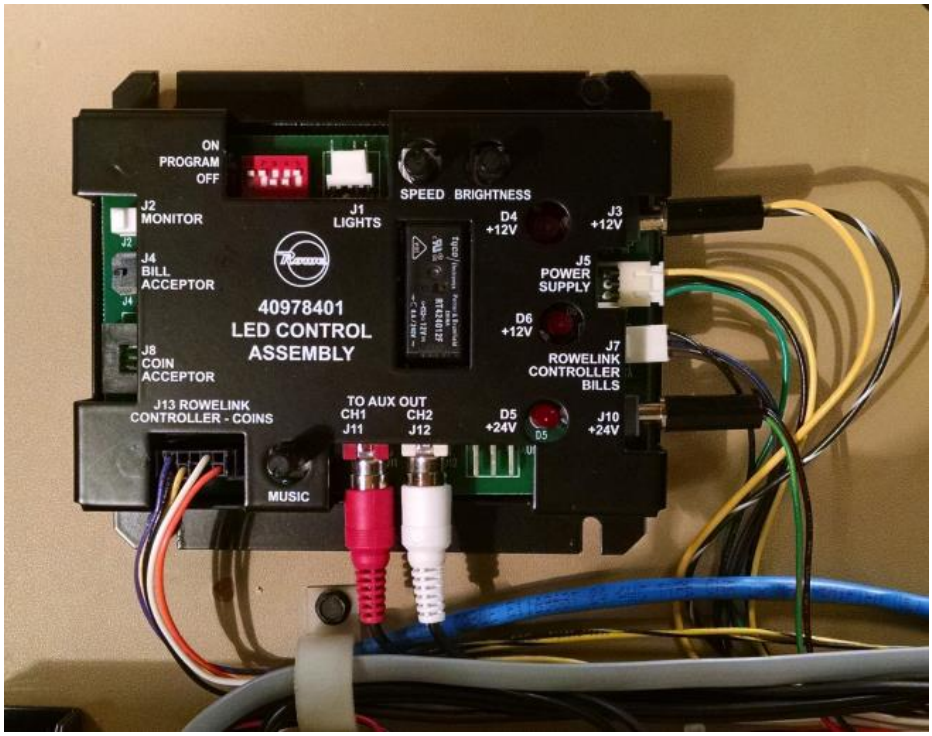
17. Install the Core Computer (item 1) on the Mounting Bracket. Tighten the thumb screw to secure the core computer to the Mounting Bracket.

18. Connect the three black connector housings on the Main Harness to the Core Computer "JUKEBOX", "BILLS", and "COINS" sockets. The connector with the orange wire goes to the "COINS" socket.

    Canada only: if using an electronic coin mech, use the Ribbon Cable (Item 46). Plug one end into the coin mech, plug the other end into the COINS location on the core computer. Route the cable to eliminate any interference by the door.

19. Plug the Stereo 'Y' Cable into the Green audio jack on the core computer I/O plate. Plug the Modular Rowelink Cable with the green color band into the green AMP jack on the top of the core computer.

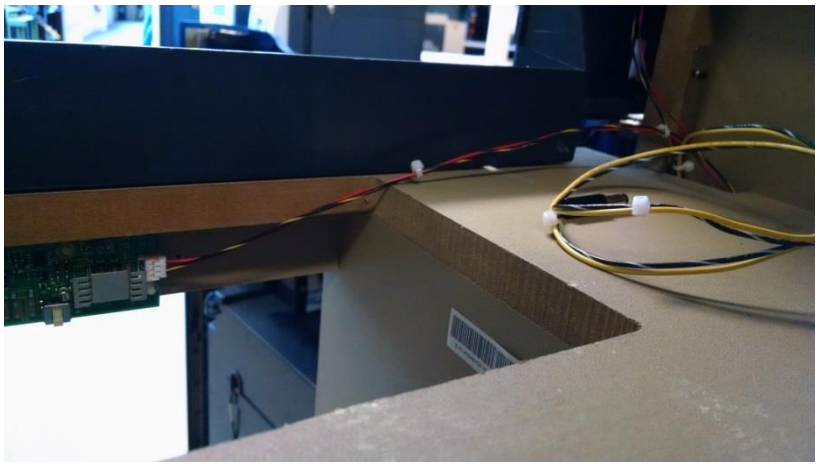
20. Raise the amplifier panel and reinstall the spring loaded friction points and guide brackets.



21. Working from the front of the machine, route all the wiring and cables from the Amplifier Panel into the cable clamps. Connect the free ends of the wiring as follows:
    - Main Harness
        - to LED Controller J13, J5, J7, J3(power jack yellow wire), J10(power jack green wire)
        - to ATX Reset Switch
        - to Preamplifier Ext Power and Power(power jack green wire)

- Short Audio Adaptor Cable from Stereo ‘Y’ splitter to RCA jacks J11, J12 on LED Controller
- Long Audio Adaptor Cable from Stereo ‘Y’ splitter to RCA jacks Main Input CH1 CH2 on Preamplifier
- Audio Cable from AMI Audio Interface box to RCA Jacks Output CH3 and CH4
- CAT5 Cable from TT External EQ box to AMP1 jack on Preamplifier

22. Locate the Upper Power/Lights Harness Assembly from the kit (item 12). Working from the front of the machine, plug the 2 pin connector into the upper LED board above the monitor opening. Plug the 3 pin connector into the Cabinet Service Light PWB below the monitor opening. Leave the monitor power plug loose for now. Route the other end of the harness down the side of the cabinet between the cabinet wall and the speaker enclosure. Plug the white 2 pin connector into J2 of the LED Control board.



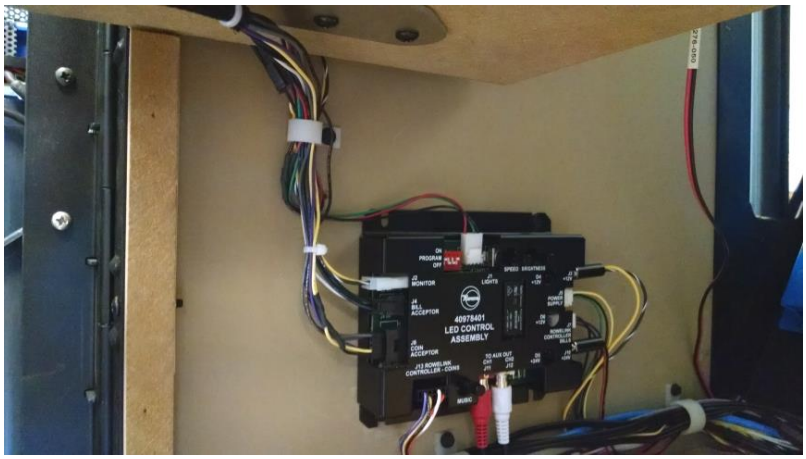
23. Mount the AMI 2 Channel Volume Control (item 16) onto the Volume Control Bracket (item 15) using (2) #8-32 Hex Nuts (item 17). Install the Volume Control and Mounting Bracket to the back of the Allegro MX-1 cabinet using (2) #8-32x5/16” screws (item 18). Drill pilot holes in the other two mounting hole locations then install (2) #6x1/2“ wood screws (item 19).

24. Locate the Modular Cable with the red band (item 28). Plug one end into the side of the volume control. Plug the other end into the red 6 BUTTON VOLUME jack on the Core Computer.

25. If using ICT bill acceptors, they must be reconfigured to run in pulse mode.
    a. Remove the bill acceptor(s) from the jukebox. Slide the front cover open to expose the 4 position DIP switch. Set the switches – S1, S2 ON, S3, S4 OFF. Replace the front cover.
    b. On the side of the bill acceptor, on the 4 position switch, ensure all switches are OFF. On the 8 position switch, ensure S6 and S7 are ON, all the rest are OFF.
    c. Reinstall the bill acceptor(s) into the jukebox.

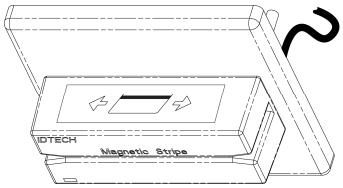
26. If using MEI (24V) bill acceptors, set the DIP switches as follows:
    a. Switches 1, 2, 3, 6 – ON and switches 4, 5, 7, 8 – OFF
27. Locate the Door Harness (item 8). Working from the door end first, strap the harness to the door bracket using a Wire Tie (item 21). Reconnect the door bracket to the door. Connect the Door Harness to the LED Lighting plug, Money Counter plug, and the Bill Acceptor(s) and/or Coin Acceptor.

28. Working on the cabinet end, strap the Door Harness to the door bracket using a wire tie (item 21). Connect the two pin and three pin inline connectors to the Upper Harness. Connect the Lights, Bill Acceptor, and Coin Acceptor plugs to the LED Controller board.



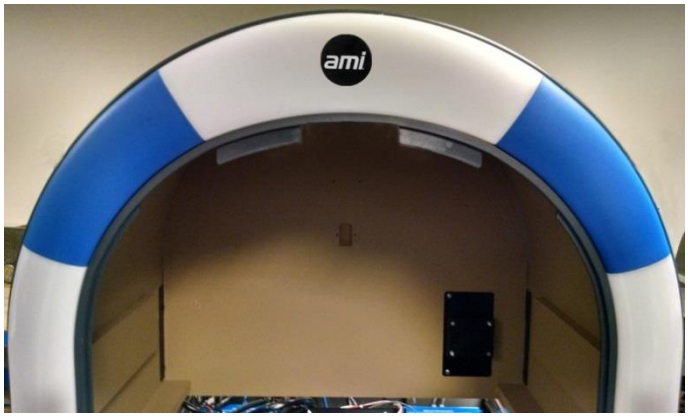
29. Route the wiring through the cable clamp. Verify the door opens and closes without causing strain on the wiring.
30. Plug the Power Cord (item 13) into the Core Computer then into the open 120V socket on the power supply.
31. Install the Card Reader (item 36) onto the Card Reader Plate (item 35) using (2) #M3x6 Philips screws (item 38).
32. Mount the Card Reader and Plate to the jukebox using (4) #6-32x1/4” Philips screws (item 39). Route the USB cable into the cabinet and plug it into an open USB port on the core computer.

33. Reinstall the 19” Monitor connecting the Monitor Power from the Upper Harness, VGA cable, and Serial Cable (item 6). Connect the other end of the VGA and Serial Cables to the Core Computer.
34. Mount IR Receiver (item 33) in a convenient location within line-of-site of where the transmitter will normally be kept. Connect the IR Receiver to the jukebox core computer using the Modular Cable with the yellow band (item 30).



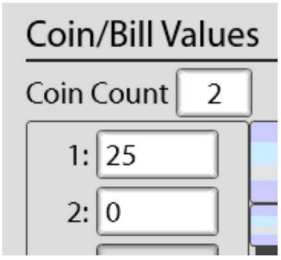
35. Apply the Card Reader Label (item 37) onto the card reader.
36. Ensure all wiring is secure and correct then power up the jukebox. It may take up to 20 minutes and multiple reboots to complete the automated hardware detection and initialization process.

    If the jukebox software fails to detect the touch controller, a special screen will appear allowing manual configuration of the touch controller. Be sure to calibrate the touch screen.
37. While the jukebox is booting up, replace the lower graphic on the front of the jukebox with the new graphic (item 38).
38. The TouchTunes Logo on the top light diffuser can be removed following these steps.
    a. Pour a small amount of Acetone on a clean cotton rag.
    b. Wipe the rag over the TouchTunes logo on the diffuser until the ink starts to soften.
    c. Alternately switch between a cloth containing Acetone and a clean cloth until all remnants of ink have been removed.
    d. The Acetone will attack the plastic of the diffuser. Do not use too much Acetone, just enough to remove the ink.



    e. Use 400 grit sand paper to smooth the surface of the plastic diffuser. Follow with 600 grit sand paper to further smooth the surface. The surface should be clean and smooth after using the 600 grit paper.
    f. Affix the AMI label (item 41) to the plastic diffuser.
39. Affix the Data Plate label (item 4) with the Windows license to the left hand inside of the jukebox cabinet. Affix the remaining Data Plate label to the back of the jukebox just above the TouchTunes data plate.

40. Locate label, item 31, and affix the label to the front of the jukebox on the currency panel just above the image over the card reader where it can be seen by customers.
41. The 25c coin switch is routed to COIN 1 input. Go into the Service Mode and navigate to Cash Management →Song Pricing and touch the Cash Values tab. Change the Coin 1 value to 25. If your coin acceptor takes two coins, set Coin 2 to the value of the second coin. Save and exit Service Mode.



Preamplifier

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.

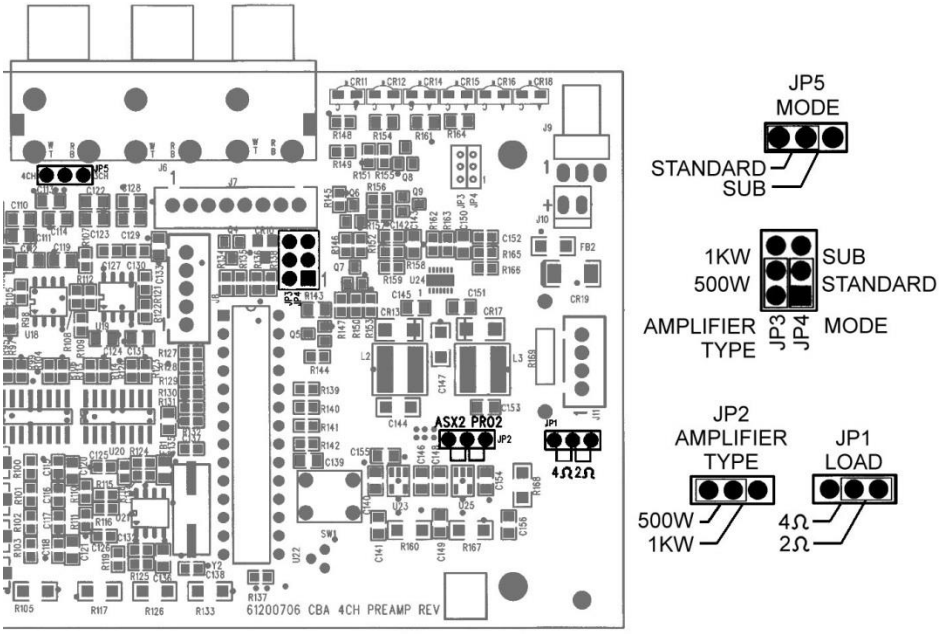
Preamplifier Jumpers

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

JP1: LOAD – used to set the speaker load. This jumper is not used in this kit.

JP2, JP3: AMPLIFIER TYPE – used to configure the preamplifier power supply. The preamplifier is powered by a separate 24 volt power supply. In this kit, both jumpers must be set to the 500 Watt amplifier position.

JP4, JP5: MODE – set these jumpers to the STANDARD position for normal operation.



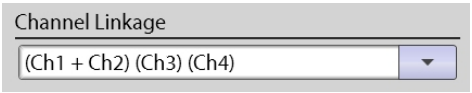
Preamplifier Jumpers

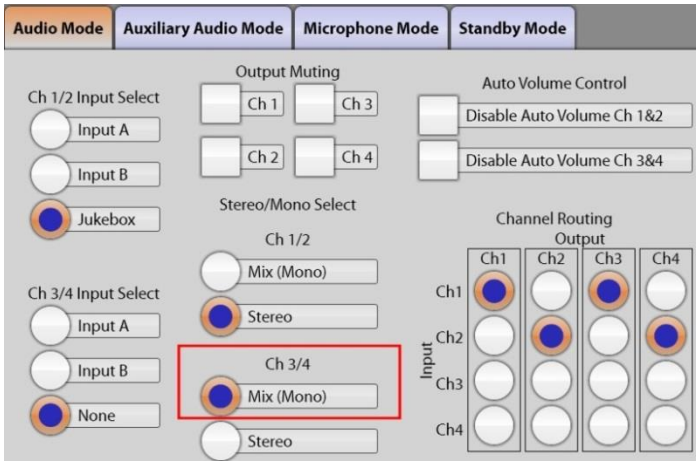
Preamplifier channels 1 & 2 are used to drive the jukebox speaker system. Preamplifier Channels 3 & 4 are used to drive the separate 4 channel TouchTunes DA-415 amplifier which connects to external speakers.

AMI Audio Interface

The AMI Audio Interface Box internal jumpers (JP1-JP4) are set to pins 1-2. This configures the Interface so Channel 3 Audio is routed to Output A Left and Right and Channel 4 Audio is routed to Output B Left and Right. For optimum jukebox audio on external speakers, set Ch 3/4 Stereo/Mono Select to Mono.

To use Channels 3 and 4 as independent zones, configure the Channel Linkage as shown below. Using this independent three zone configuration, the IR Transmitter must be used to control volume in the three separate zones.





LED Lighting

Color and Light Pattern Settings

The lighting patterns are determined by the five DIP switches. When selecting the light pattern, set the first switch (SW1), then the second switch (SW2) and finally the last three switches (SW3-SW5).

SW1: The first switch determines if the lighting is in COLOR (OFF) or MUSIC (ON) mode. When in MUSIC mode the lights will beat with the music, in COLOR mode they will not. When COLOR mode is selected OR MUSIC mode is selected but no music is playing for ~8 seconds, the lights will show a pattern determined by the rest of the switches.

SW2: The second switch determines if the lighting is in FADE/SOLID (OFF) or RAINBOW (ON) mode. When in FADE/SOLID mode the whole jukebox fades from one color to another or is a solid color. When RAINBOW mode is selected each color board will produce a different color and the colors will rotate from one board to the next showing a rainbow pattern on the jukebox.

SW3-SW5: The remaining three switches can be set to display a solid color if FADE/SOLID (SW2 OFF) mode is selected. The color settings are shown in the following table:

SW3	SW4	SW5	EFFECT
OFF	OFF	OFF	FADE colors
OFF	OFF	ON	Solid Red
OFF	ON	OFF	Solid Yellow
OFF	ON	ON	Solid Green
ON	OFF	OFF	Solid Cyan
ON	OFF	ON	Solid Blue
ON	ON	OFF	Solid Magenta
ON	ON	ON	Solid White

Speed (Flash Rate)

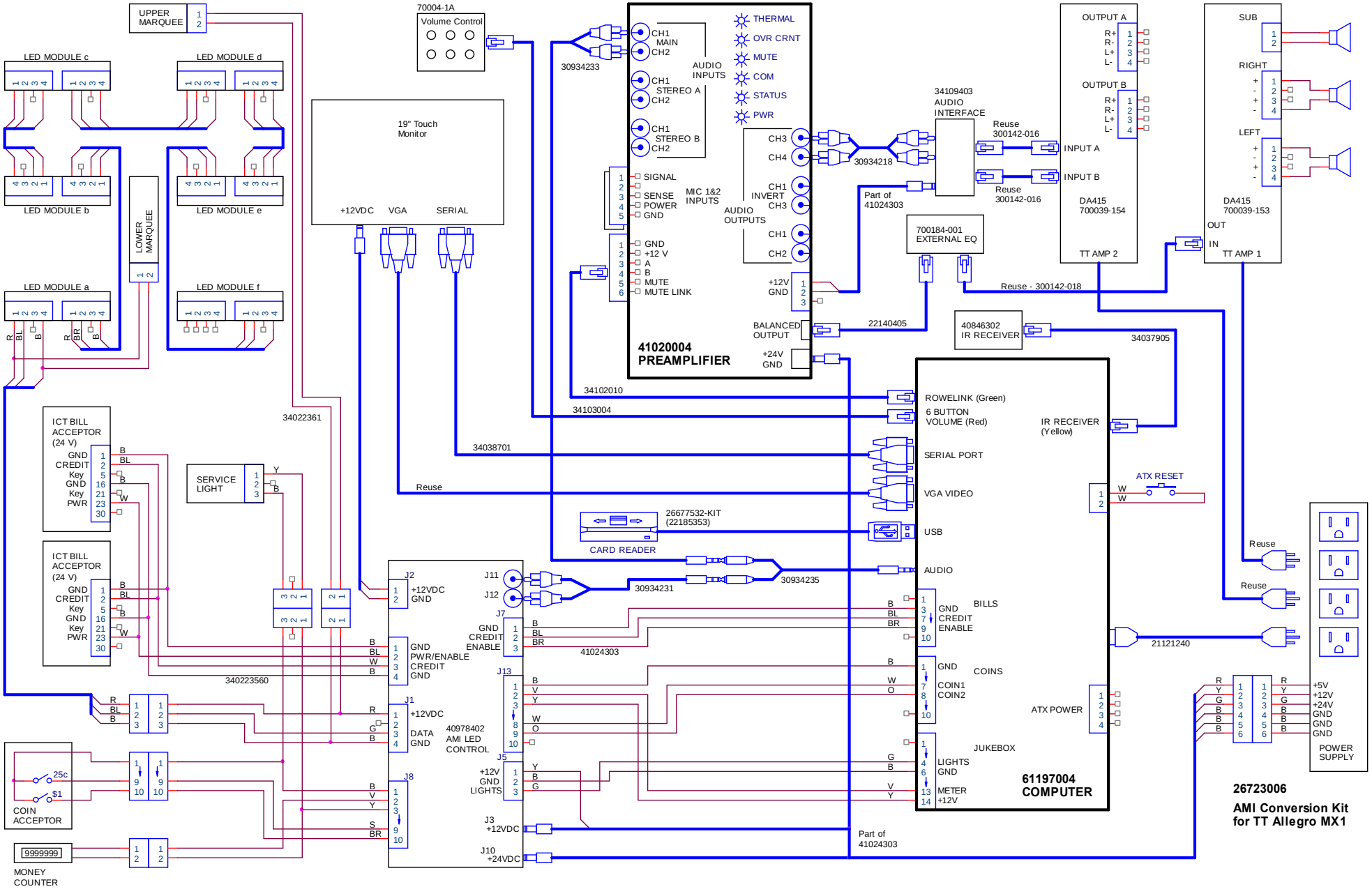
The Speed (flash rate) can be adjusted by turning the SPEED knob. The speed can be changed from very rapid to slow. The speed will only effect the lights when in COLOR mode or when no music is playing in MUSIC mode.

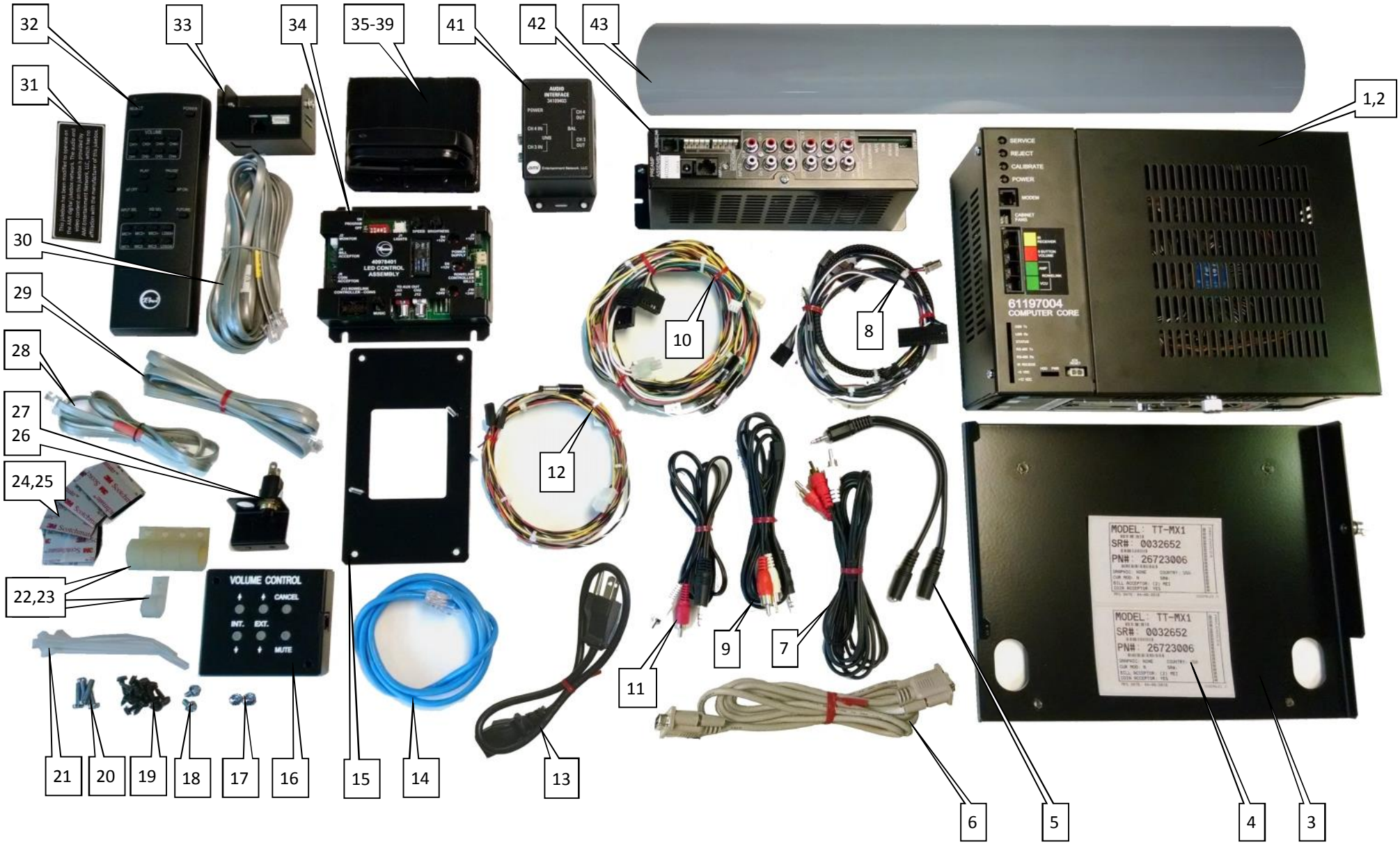
Brightness

The Brightness control will dim the lights when in COLOR mode. If the jukebox is in MUSIC mode, the dimming only effects the lights when there isn't any music.

Sensitivity

The Sensitivity control sets the music beat sensitivity when in MUSIC mode. When a song is playing the sensitivity knob can be adjusted so the lights flash a lot or a little. If FADE mode is selected the sensitivity knob will determine how often the color changes, or if RAINBOW mode is selected it will determine how often the colors rotate. If a solid color is chosen the intensity will be affected.


UPPER MARQUEE
LED MODULE c
LED MODULE d
LED MODULE b
LED MODULE e
LOWER MARQUEE
LED MODULE a
LED MODULE f
70004-1A
Volume Control
19" Touch Monitor
+12VDC
VGA
SERIAL
30934233
CH1 MAIN CH2
CH1 STEREO A CH2
CH1 STEREO B CH2
AUDIO INPUTS
THERMAL
OVR CRNT
MUTE
COM
STATUS
PWR
SIGNAL
SENSE
POWER
GND
MIC 1&2 INPUTS
CH3
CH4
CH1 INVERT CH3
CH1
CH2
AUDIO OUTPUTS
GND
+12 V
A
B
MUTE
MUTE LINK
+12V
GND
BALANCED OUTPUT
+24V
GND
41020004
PREAMPLIFIER
30934218
34109403
AUDIO INTERFACE
Reuse 300142-016
Reuse 300142-016
Part of 41024303
700184-001
EXTERNAL EQ
22140405
40846302
IR RECEIVER
34037905
Reuse - 300142-018
OUTPUT A
R+
R-
L+
L-
OUTPUT B
INPUT A
INPUT B
DA415
700039-154
TT AMP 2
SUB
RIGHT
LEFT
DA415
700039-153
OUT
IN
TT AMP 1
34102010
34103004
34038701
Reuse
34022361
ROWELINK (Green)
6 BUTTON VOLUME (Red)
SERIAL PORT
VGA VIDEO
USB
AUDIO
IR RECEIVER (Yellow)
ATX RESET
ICT BILL ACCEPTOR (24 V)
GND
CREDIT
Key
GND
Key
PWR
SERVICE LIGHT
26677532-KIT
(22185353)
CARD READER
30934231
30934235
J2
+12VDC
GND
J11
J12
J7
GND
CREDIT
ENABLE
41024303
GND
PWR/ENABLE
CREDIT
GND
J13
340223560
J1
+12VDC
DATA
GND
40978402
AMI LED CONTROL
J5
+12V
GND
LIGHTS
J8
J3
+12VDC
J10
+24VDC
BILLS
GND
CREDIT
ENABLE
COINS
GND
COIN1
COIN2
JUKEBOX
LIGHTS
GND
METER
+12V
ATX POWER
61197004
COMPUTER
Part of 41024303
Reuse
Reuse
21121240
+5V
+12V
+24V
GND
GND
GND
POWER SUPPLY
26723006
AMI Conversion Kit for TT Allegro MX1
25c
$1
COIN ACCEPTOR
9999999
MONEY COUNTER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61197004
COMPUTER CORE
VOLUME CONTROL
CANCEL
INT.
EXT.
MUTE
MODEL: TT-MX1
SR#: 0032652
PN#: 26723006


ami™