

Technical Bulletin 00

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E-Max Bingo Console Upgrade

This Document contains Instructions, Diagrams and Procedures to upgrade the E-Max Bingo Console from Revision 1 to Revision 2. This document is for Arrow personnel only! This document is not to be reproduced in any manner without the written consent of Arrow International Inc.

NOTE: You MUST provide a copy of the system back up for the E-Max Bingo Console that you are going to upgrade. This disk will not be returned. Once the upgrade is complete, make a new system back up and destroy any copies of the old back up.



Technical bulletin Installation Guide

To perform this upgrade you will need to do the following: A. Replace the ball tray computer, B. install the ESD Upgrade D. replace the data router, E. replace the Dell CPU, F. add the three new A/V cables and G. perform a system back up. Once complete it will be necessary to destroy all previous system back ups that the hall may have. These back up disks will not work with the new CPU. The following list is the pre installation procedures that must be complete prior to scheduling this upgrade.

1. Make a back up disk of the halls games and sessions
2. Verify with the hall personnel that the back up is complete and accurate
3. Write the halls information, the service tag number of the dell CPU, the system administrator's password and the Mac address on the form provided
4. Write down the serial numbers of the E-console, CPU, Data Router and Ball Tray Computer and mail it along with the disk. Also note if the hall has special permutations and what they are.
5. Call in for an RMA
6. Mail the back up to Arrow International. ATTEN: Arrow Technical Center (include the RMA number on the package)
7. We will prepare the CPU with the new OS and Application software
8. We will load the games and sessions onto the CPU and verify all functionality
9. We will ship all the component parts needed to perform the upgrade back to you.

The following is the inventory list of the upgrade components:

1. (1) Ball Tray Computer (HH326)
2. (1) Data Router (HH446)
3. (2) ESD clips (HH1067)
4. (1) Dell CPU (HH443)
5. (1) Revision 2.1 Operators Manual (HH813)
6. (1 Set) Audio and Video cables (1 EA. HH441, 2EA. HH806)
7. (9) Operating System Disks (HH804)
8. (1) Application Disk (HH834)
9. (1) 5" Green grounding strap (HH1161)
10. (3) # 6 X ¼ type A screws (40781)
11. (1) # 6 EXT lock washer (40751)
12. (2) # 6 X1/2 type A screw (40725)
13. (2) 6-32 X3/8 SEMS (60606)

14. (1) Blank Back-up Disk (HH846)

A. Replace Ball Tray Computer.

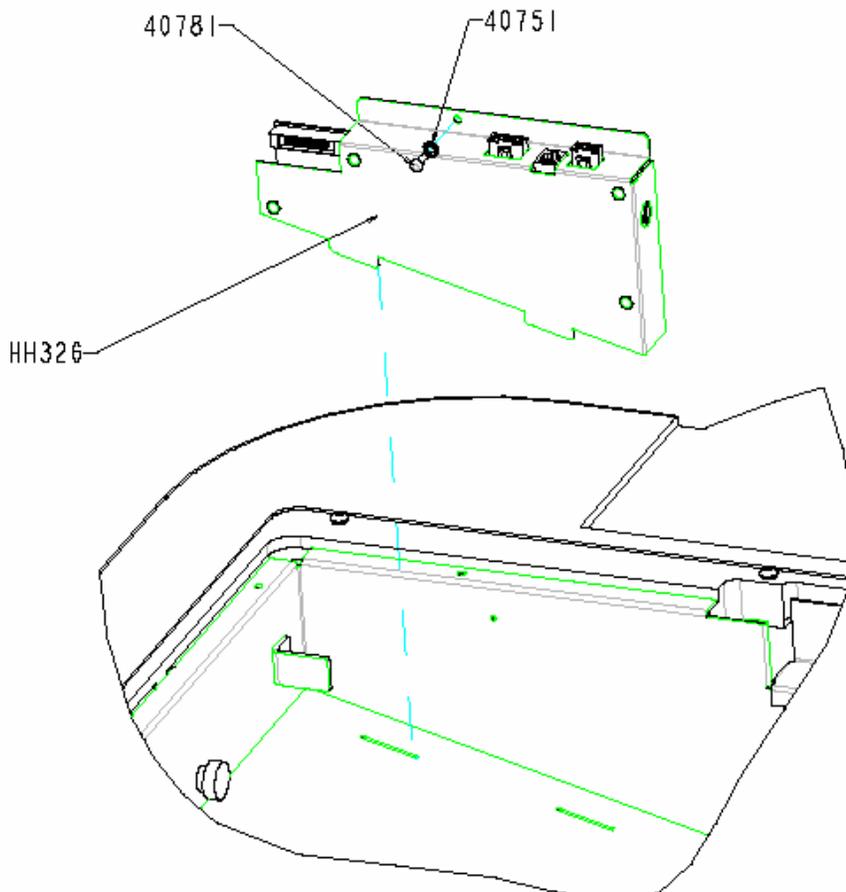


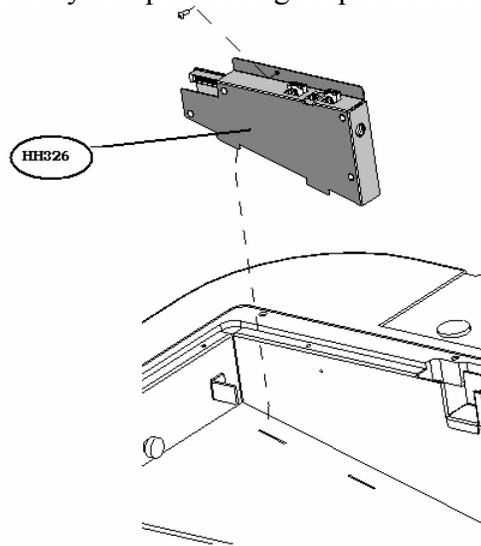
Figure 1.7

CAUTION! Ensure that the ball console power switch for the blower motor is in the off position and the console is unplugged before servicing the ball chamber and its components.

To remove the ball tray computer, refer to the following procedure and Figure 1.7

1. Remove the ball tray
2. Remove the Switch Bar Matrix
3. Disconnect the Ball Tray Computer communications cable (RJ-12) from the Ball Tray Computer. (figure 1.7)
4. Disconnect the manual switches by unplugging the 4 pin molex connector
5. Remove the one #2 Phillips head screw from the top of the ball tray computer

- Slide the ball tray computer straight up and out of the ball pan.

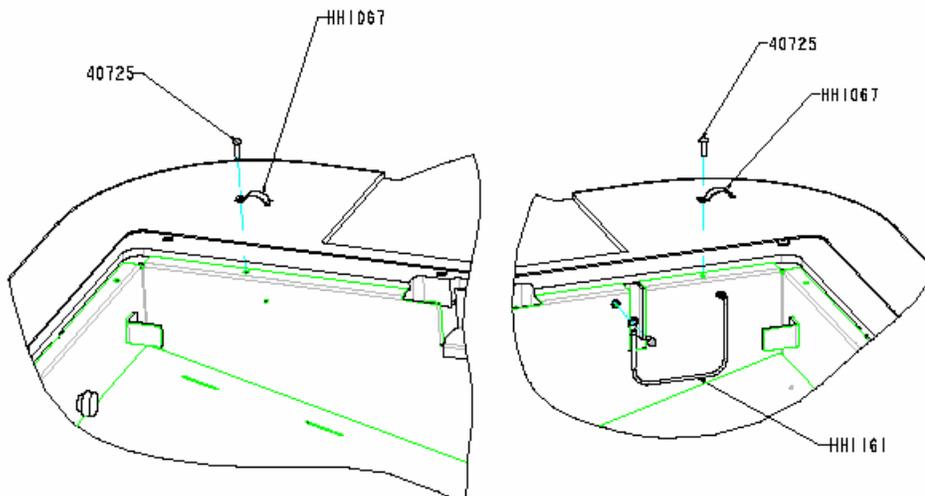


- Align the new ball tray computer housing tabs with the slots in the ball pan.
- Press down until the computer is firmly seated
- Replace the #2 Phillips screw with (1) screw 40781 and (1) washer 40751
- Reconnect the RJ-12 and 4 pin molex plug

NOTE: After replacing the ball tray computer, Complete step B before reinstalling the switch bar matrix and wait until the rest of the upgrade is complete before finishing the ball console assembly.

B. Install the ESD Clips (figure 1.8) (figure 1.9)

- Remove the two outer most screws from the left and right side of the ball pan
- Install one ESD clip on each side (refer to diagram)
- Align the clips so that they are parallel to the ball pan lip
- Install the grounding strap (HH1161) between the right ESD clip and the grounding strap located on the manual game switch assembly (figure 1.8&9)



5. replace the two screws with part # 40725 and hand tighten
6. Prior to re installing the switch bar and ball matrix, remove the paint from the underside of the matrix at the points where the ESD clips come into contact with the matrix.

During the first production run of the E-Max Bingo Console, there were a number of consoles that may have had their manual game switch assembly mis wired. The fault is in the ball reset and flashboard reset switches. The switches work in reverse. IE: the ball reset will clear the flashboard.

During the upgrade procedure outlined in this technical bulletin, check the manual game switches to ensure proper wiring. Refer to the diagram for proper wiring.

The problem is with the **White** and **Green** wires. The white wire should be on the ball reset and the green wire should be on the flashboard reset. If you find that the wires are on the wrong switches, just swap the white and green wires.

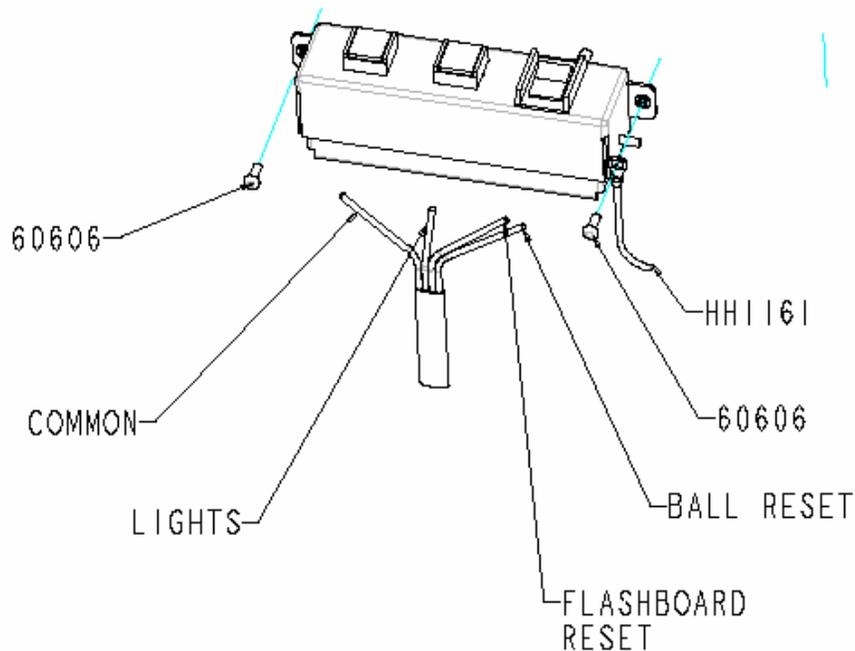


Figure 1.9

C. Replace the Ball Camera PCB Screws

1. Remove the two Philips screws from the ball camera PCB
2. Replace with (2) Philips screws (40781) (figure 1.10)

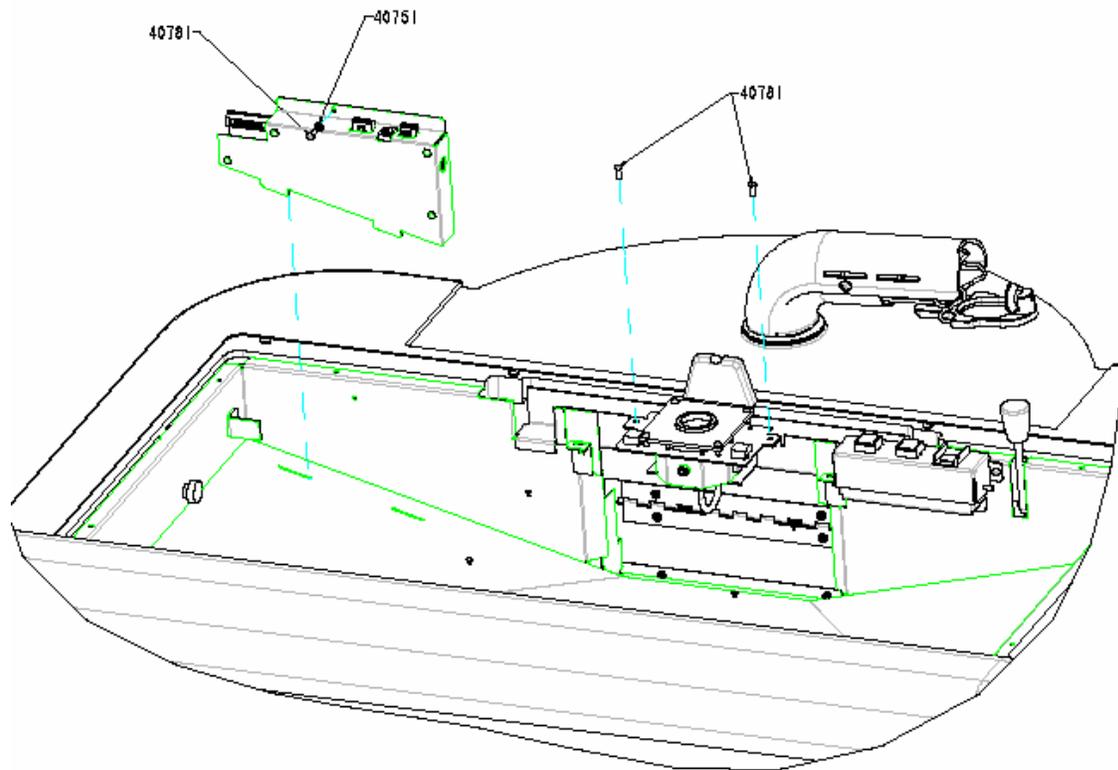
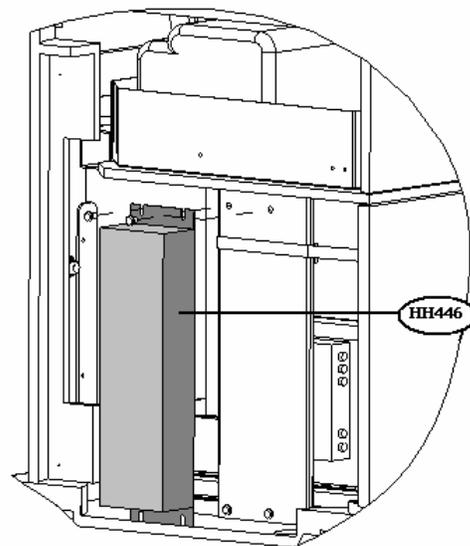


Figure 1.10

D. Replace the Data Router



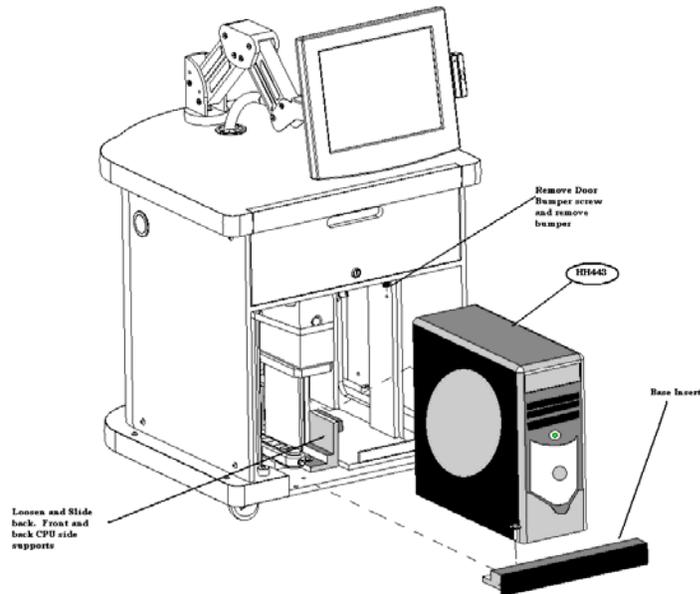
CAUTION! Ensure that the console power switch, the back UPS and the Dell CPU are powered down and the console is unplugged before servicing the electronics console and its components.

To remove the Data Router refer to the following procedure and Figure 2.5

1. Open and stow the Electronics cabinet doors
2. Open the Graphics panel door
3. Disconnect the ball tray, power, audio, video, flashboard and CPU interface cables from both sides of the data router
4. Remove the two # 2 Phillips head screws from the top of the data router
5. Slide the data router straight up to remove (figure 2.5)

NOTE: To install the new Data router, simply reverse the procedures listed above. Make sure to reconnect the Data router cables.

E. Replace the Dell CPU



CAUTION! Ensure that the console power switch, the back UPS and the Dell CPU are powered down and the console is unplugged before servicing the electronics console and its components.

To remove the Dell CPU refer to the following procedure and Figure 2.1

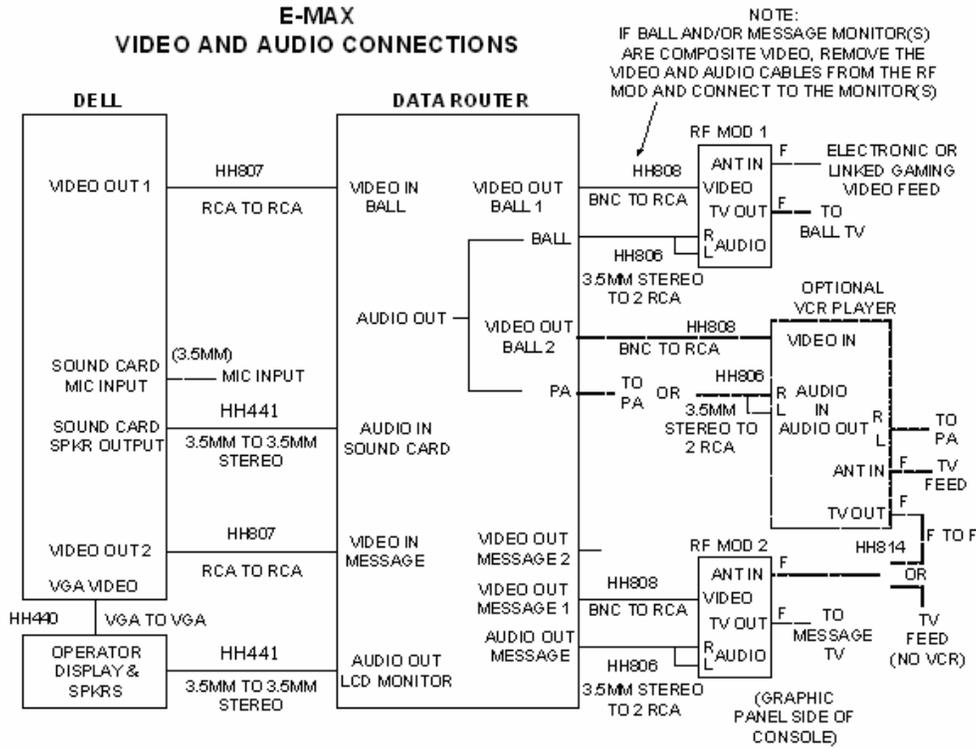
1. Open and stow the Electronics cabinet doors
2. Open the Graphics panel door
3. Remove the power and all interface cables from the back of the Dell CPU
4. Using a ½ inch nut driver Remove the bolt from the base insert and remove the insert (Figure 2.1)
5. Using a ½ inch nut driver, loosen the bolts on the front and rear CPU side supports and slide them away from the CPU
6. Using a #2 Phillips screwdriver, remove the upper right hand door bumper
7. Slide the CPU forward and lift out

NOTE: To install the new Dell CPU, simply reverse the procedures listed above. Make sure to reconnect the power and interface cables into their proper place (Refer to the Audio and Video paths diagram in appendix A of the operators’

manual) align the wooden dowels with the holes in the Electronics console base to reinstall the base insert.

F. Install and reconfigure the Audio Video cables for multimedia capabilities

1. Install the new audio and video cables as shown.



Power the console up. Test the ball tray computer in both the automatic and manual modes before completing the reassembly of the ball console. Verify all software functionality and verify all games and sessions with hall personnel before performing a Back up on the dell CPU.

G. Perform a system back up



To Create a back up CD follow the procedure below and refer to figure 3.3

It is highly recommended that backup operations be performed after initial installation, making any changes to the game program or after a software upgrade of the E-max operating system.

1. Power up the outlet strip
2. Power up the Back UPS
3. Power up the Dell CPU
4. Log in as the system administrator
5. Select **Utilities** from the Arrow bingo console options screen
6. Open the CDRW drive and insert the Arrow Backup CD PN: HH815. (this is the bottom of the two drives)
7. Touch the **Backup** button
8. The backup operation screen will appear
9. Touch the **Backup** button in the center of the screen
10. The time stamp window will appear and ask you if you wish to continue?
11. Touch yes
12. The backup operation will run. **NOTE: This may take several minutes**
13. The Backup completed successfully window will appear when the backup operation is complete.
14. Touch **OK**

15. You will be returned to the **Utilities** screen
16. Remove CD from drive and store in a safe place.

Pre-Upgrade Check List

Complete and return to Arrow International with the back up CD of your games.

RMA Number: _____

System Administrator password: _____

Dell Service Tag Number: _____

MAC Address _____

Special Perms: _____

Return Disk with this list to: **Arrow International**
ATTN: Technical Assistance Center
9900 Clinton Road
Cleveland, OH 44144

Please make sure to print the RMA number on the outside of the package