

# 2", 4" & 8" FLASHBOARDS OPERATOR'S MANUAL

ARROW INTERNATIONAL  
CAPITOL BINGO



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## Warranty

### **2", 4" & 8" Flashboard Manual May 2016 Version 1.2**

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**Capitol® Bingo Equipment Division  
9900 Clinton Road  
Cleveland, Ohio 44144**

# UNPACKING

Arrow International, Inc. designed your new flashboard to have a distinctively attractive appearance, and we used careful manufacturing and assembly techniques to preserve this appearance. Each Arrow International flashboard is inspected for scratches, bumps or abrasions during packing and is warranted to be free from defects.

## **Damage Action Process**

Your Arrow International, Inc. equipment contains delicate electronic equipment. It is imperative that you thoroughly inspect the contents of the package before accepting product delivery from the carrier.

In case of severe damage, refuse the equipment from the carrier. Contact your distributor or Arrow for immediate replacement.

If the product is damaged but acceptable, make a note on the bill of lading before accepting. Take a photo of the damage before and after unpacking as a record of the damage. Keep the packaging to aid in recovering the amount of claim against the carrier. Contact the carrier's agent immediately for inspection. Be sure to obtain a copy of the inspection report for your records.

If these precautions are not taken, we cannot assist you in recovering the amount of the claim against the carrier.

## **Warranty Assurance**

You must keep a copy of your receipt or invoice for proof of purchase. Please review the warranty information in this manual.

If there are any questions, contact your distributor or call Technical Assistance at: 800-277-6214

**Technical Assistance Center**  
**1-800-277-6214**

## Flashboards

The flashboard is banded into a heavy cardboard enclosure with foam inserts at each end and in the middle. This carton is marked with various warning labels and stampings. Lay the carton flat, observing that the outside overlapping cover of the flashboard is on the top side.

Before opening, closely inspect the carton for evidence of shipping damage such as puncture holes, tears and crushed edges or corners. Damage to the carton may mean damage to the flashboard. If damage is detected refer to the Damage Action Process section (pg. 2) for procedures.

Use scissors to cut all straps. Carefully lift off the carton top. Cut the tape on the four corners of the carton bottom and the retaining tape on the center foam insert then lay the carton flaps down flat. Slide both ends and the top center foam pieces off to allow access to the flashboard. To prevent scratches, make sure the flashboard remains on the cardboard prior to actual installation. Obtain assistance in setting the flashboard upright.

Do not destroy or discard carton materials until after you make a final inspection and test of the product.

**CAUTION!** Please take great care when unpacking the flashboard from the packing material. Cutting the packing material too aggressively may lead to flashboard damage.

# FLASHBOARD CONNECTION/INSTALLATION

**NOTE!** The new style flashboards may require a signal adapter to properly work with older style or other manufacturer's equipment. Contact your Arrow distributor for more information.

1. Data connections for the bingo flashboards are made with your console's data cable output connectors, located on console's input/output panel.
2. Install the flashboard data cable. When possible, we recommend using a one-piece cable avoiding splices, adapters and other mating devices. Wiring to the flashboard may be permanently installed using a wire channel or raceway. Where a permanent installation is not possible, install the flashboard data cable through the walls and/or ceiling to where the console can be rolled in and easily connected with all data and power cables.
3. Utilize the telephone style data cable provided with the flashboard and plug the data cable into your console's I/O panel and then the telephone jack on the side of the flashboard labeled "INPUT."
4. You may have an installation that requires hook up of more than one flashboard. In such an instance, the second and subsequent flashboards may be daisy chained by connecting the data cable to the "OUTPUT" connection on the first flashboard to the "INPUT" connection on the second flashboard, and so on.
5. When mounting the flashboard to the wall or hanging from a ceiling, take great care to attach mounting hardware to solid wood, brick, or metal. Use only the manufacturer's approved hanging hardware. See Section 4.



**Flashboard Side Panel**

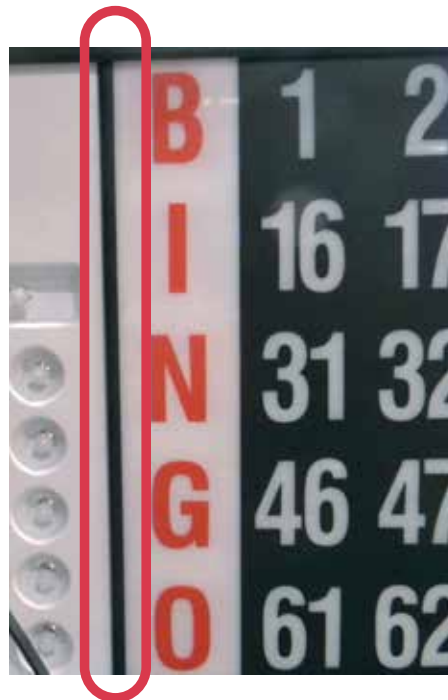
**CAUTION!** Avoid running the flashboard cable next to high current lines such as smoke eaters, air conditioners, public address systems, etc.

**CAUTION!** Flashboards can weigh anywhere from 80 to 600 pounds. If you are not confident in hanging your flashboard(s) safely, please contact a qualified and licensed rigger and electrician for proper installation. In many cases, the local building inspector may require a permit as well as an inspection of the site for structural stability.

## Accessing 4" Flashboard Lamps

1. Remove the retaining strip next to the vertical bingo lamps. This is accomplished by gently pushing in the low side acrylic panel while grasping the retaining strip and gently pulling it out and to the right. (Reference B.) Once the strip is removed, slide the acrylic panels to gain access to the light bulbs needing replaced. (Reference C).
2. Change the light bulb(s) as necessary (Refer to Flashboard Light Bulb section, pg. 8).
3. Slide the acrylic panels to their home position.
4. Re-insert the retaining strip.

**CAUTION!** Turn off and unplug your console and/or flashboard before performing any maintenance. Failing to perform this very important step could lead to equipment damage and/or personal injury!



Reference B



Reference C



### NOTE:

The 1820 miniature bayonet lamp is standard on most manufacturers' flashboards. (Check individual flashboard specifications). A good lamp should have a resistance measurement of about 28 ohms. Inexpensive lamps often have a poor quality and do not have consistent resistance ratings. Using a lamp that is too far out of specifications could produce too much heat and draw too much current, causing premature failure and possible damage to your flashboard electronics and/or plexiglass.

## Accessing 8" Flashboard Lamps

1. Open individual acrylic panels by locating the two 1/4 turn fasteners for each panel and twisting each a 1/4 turn counterclockwise while gently pushing in.
2. Gently open the acrylic panels allowing the velcro tabs to release.
3. Change the light bulb(s) as necessary (refer to Flashboard Light Bulb section, page 8).
4. Close the acrylic panels and apply gentle pressure to lock the velcro tabs.
5. Lock the acrylic panels in place by gently pushing in the 1/4 turn fastener, compressing the spring and twisting 1/4 turn clockwise.



Reference D



Turn key counterclockwise to open.

**NOTE!** THE POWER PACK/GAME INDICATOR SECTIONS REQUIRE THE USE OF A PHILLIPS SCREWDRIVER.

**CAUTION!** Turn off and unplug your console and/or flashboard before performing any maintenance. Failing to perform this very important step could lead to equipment damage and/or personal injury!

## Changing Light Bulbs

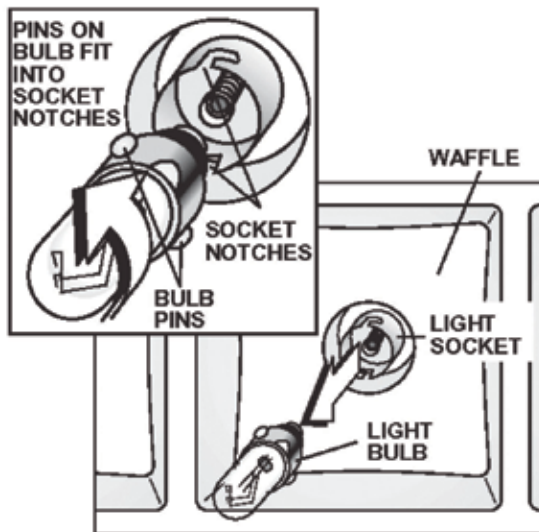
1. Gently push light bulb in while turning counterclockwise. The socket is spring loaded and only requires less than a 1/4 turn to release the light bulb from the socket.
2. Remove the light bulb from the socket.
3. Insert the new light bulb by aligning light bulb pins with the light socket notches and gently pushing in and turning clockwise. Twist 1/4 turn to secure the light bulb in place.
4. Replacement light bulbs may be purchased from your distributor or a local electrical or electronics supply house. We recommend using only high quality replacement light bulbs to minimize the chance of printed circuit board failures.
5. LED bulbs are available for longer life and a brighter display.



**28 Volt Miniature  
Bayonet Light Bulb**



**LED Bulb**



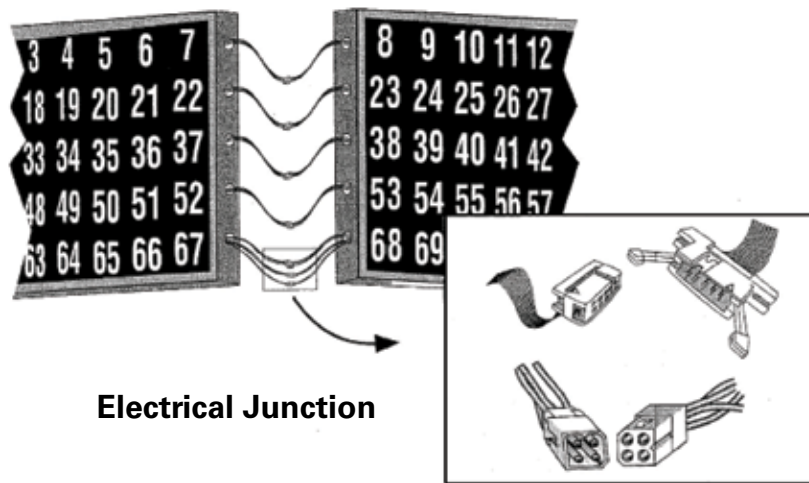
## 8" Flashboard Assembly

The 8" flashboard requires electrical and mechanical assembly before use!

### Electrical Connections

When the two flashboard halves are positioned so the open ends are adjacent to each other, connect each 10 pin data connector with its corresponding half (male/female connector junction). Be careful to position the key and arrow marks so they align with each other and lock together.

Next, connect the 4 pin power connectors located in the lower section of each half. These connectors are keyed and labeled to insure positive connection.



**Junction Shown Open**

### Mechanical/Electrical Assembly

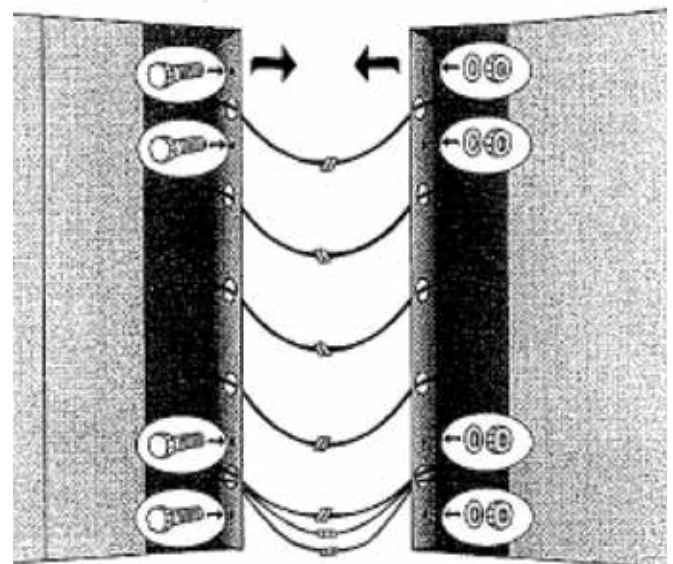
Once the electrical connections have been made on your flashboard, remove the masonite backing near the unfinished or open halves on each flashboard section. Each masonite panel maybe slightly different, so take notice of which panel goes on which half for easier re-installation.

Move the flashboard halves together and remove the interconnecting cable slack by pulling the excess cable back into each of the flashboard halves. Fasten the flashboard halves together using the four (4) 1/4 -20 bolts, washers and nuts.

At this point it is a good idea to test the flashboard(s) before reattaching the masonite panels and hanging the flashboard to assure the cabling has been assembled properly.

Place the masonite panels back in place and fasten.

The flashboard is now ready for hanging. Before moving the flashboard, please make sure the cables are in the flashboard and are not pinched between the halves.

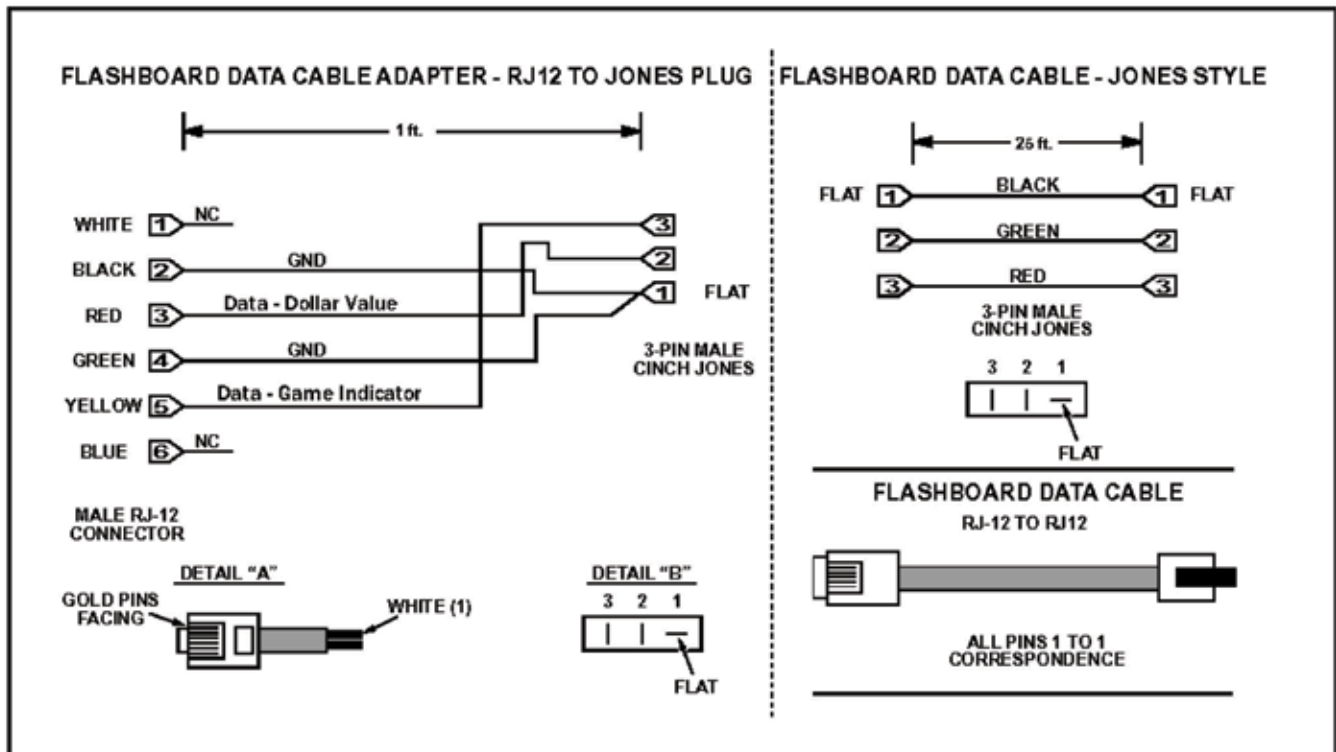


**Back View of Flashboard**

# FLASHBOARD DIAGRAMS

**CAUTION!** The following sections contain diagrams and information regarding your flashboard. Please remember to turn off and unplug your console and/or flashboard before performing any maintenance. Failing to perform this very important step could lead to equipment damage and/or personal injury!

## Data Cable Diagram



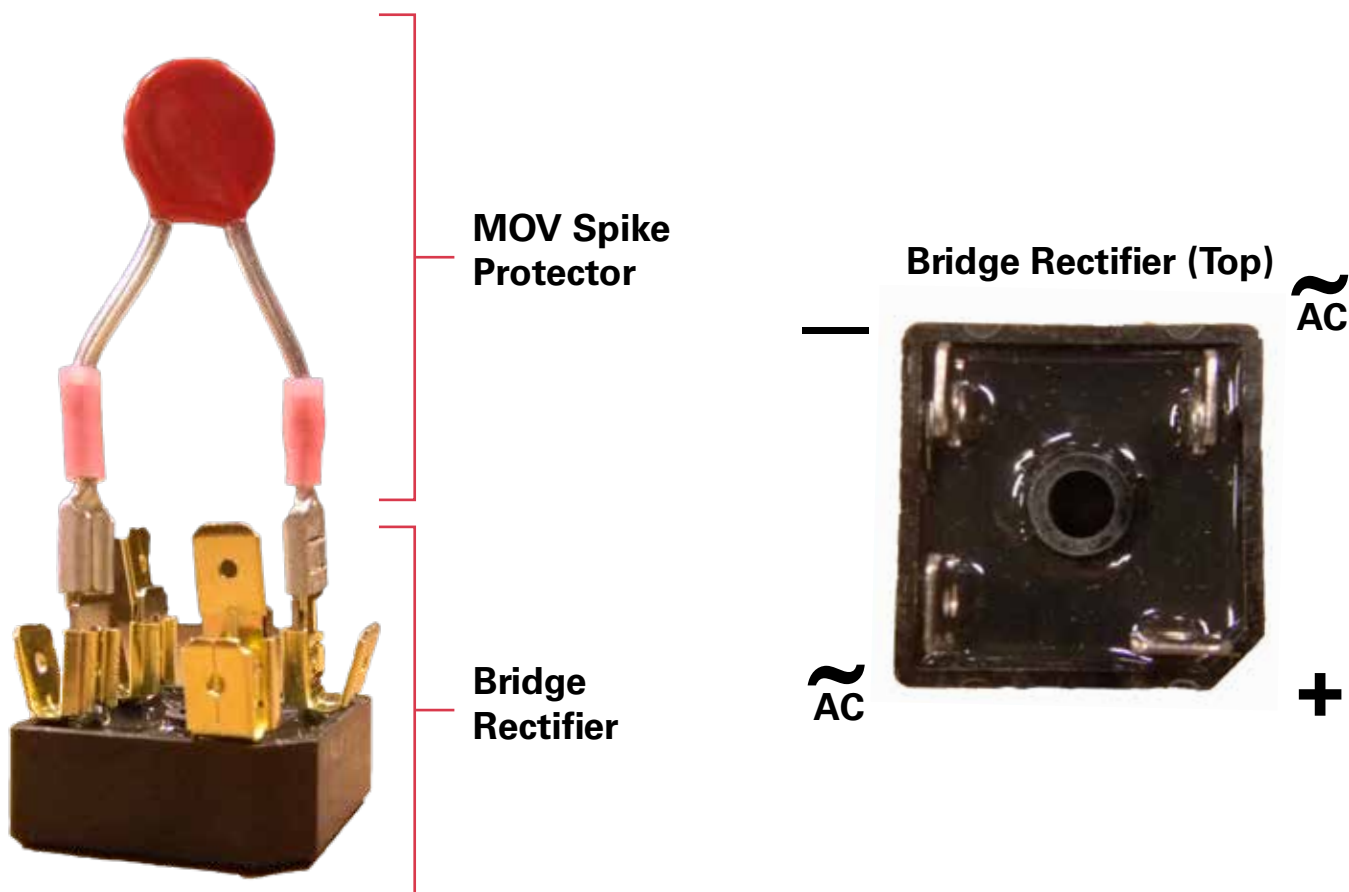
## Bridge Rectifier

The bridge rectifier supplies the DC voltage to the flashboard which powers the printed circuit board and lights the lamps. The power transformer reduces the line voltage down to about 28 to 30 volts AC and the bridge rectifier will rectify or convert this AC voltage into a DC voltage.

The component attached to the top of the bridge rectifier is a metal oxide varistor (MOV) spike protector. This component absorbs incoming voltage spikes to protect your quality bingo equipment. If this fails, it may short and cause the fuse to blow. It can be disconnected for troubleshooting, but should be replaced as soon as possible. Contact your Arrow distributor for replacement details.

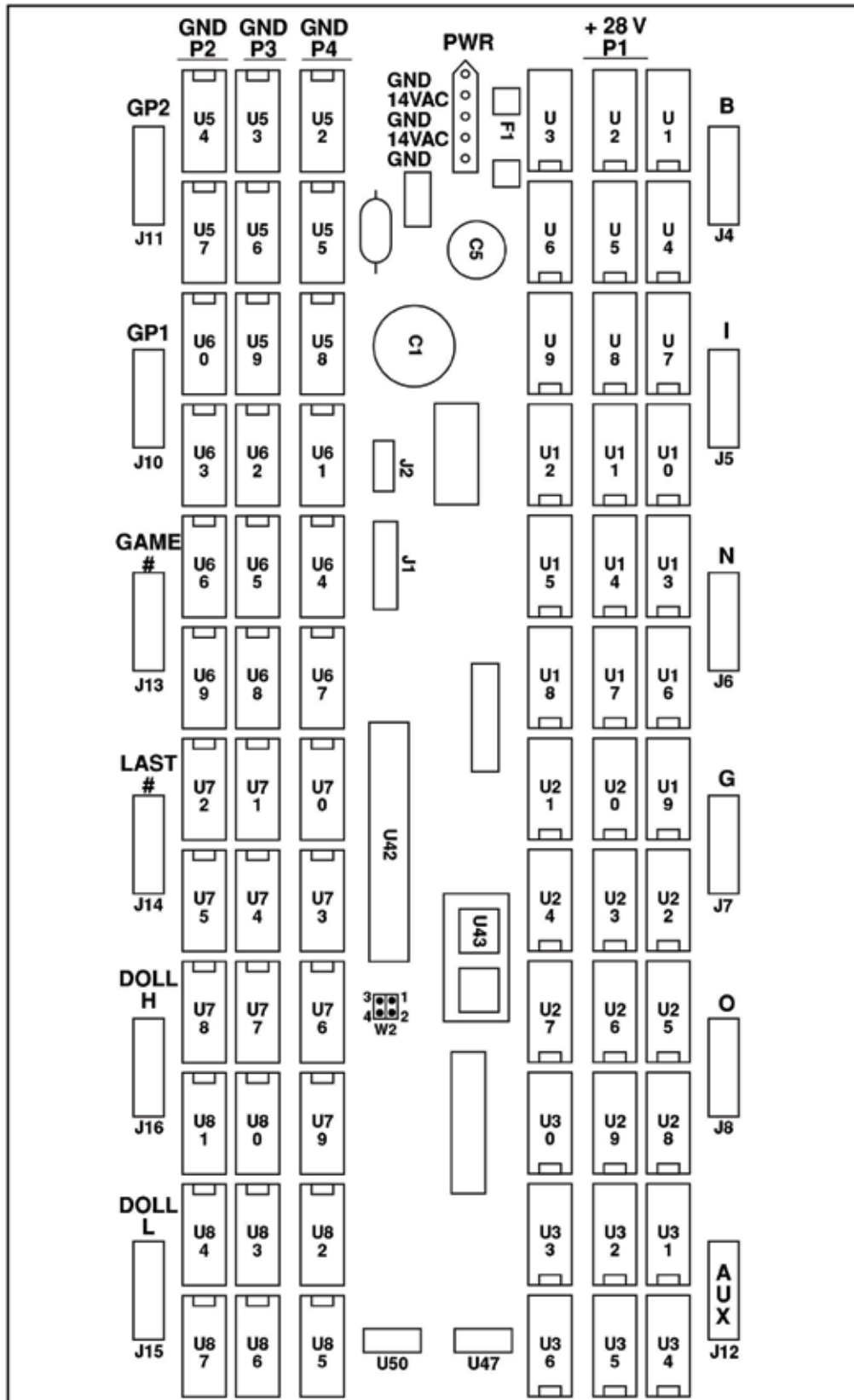
The MOV should be connected across the AC lines from the transformer coming into the bridge rectifier.

**If you are unsure about working with electricity, please consult your distributor or an electrician. Although the voltage on a bridge rectifier is only 28 volts, there is line voltage (110 volts AC) inside of the flashboard, and this can cause injury or even death. Also, if the bridge rectifier is improperly replaced it could cause other damage to your flashboard and/or circuitry.**



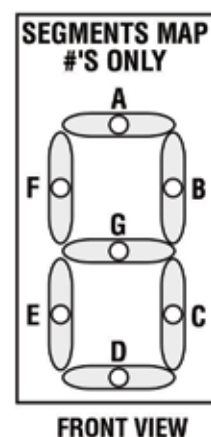
## Printed Circuit Board Diagram

### ACRC Darlington Map



## ACRC Darlington Map Detail

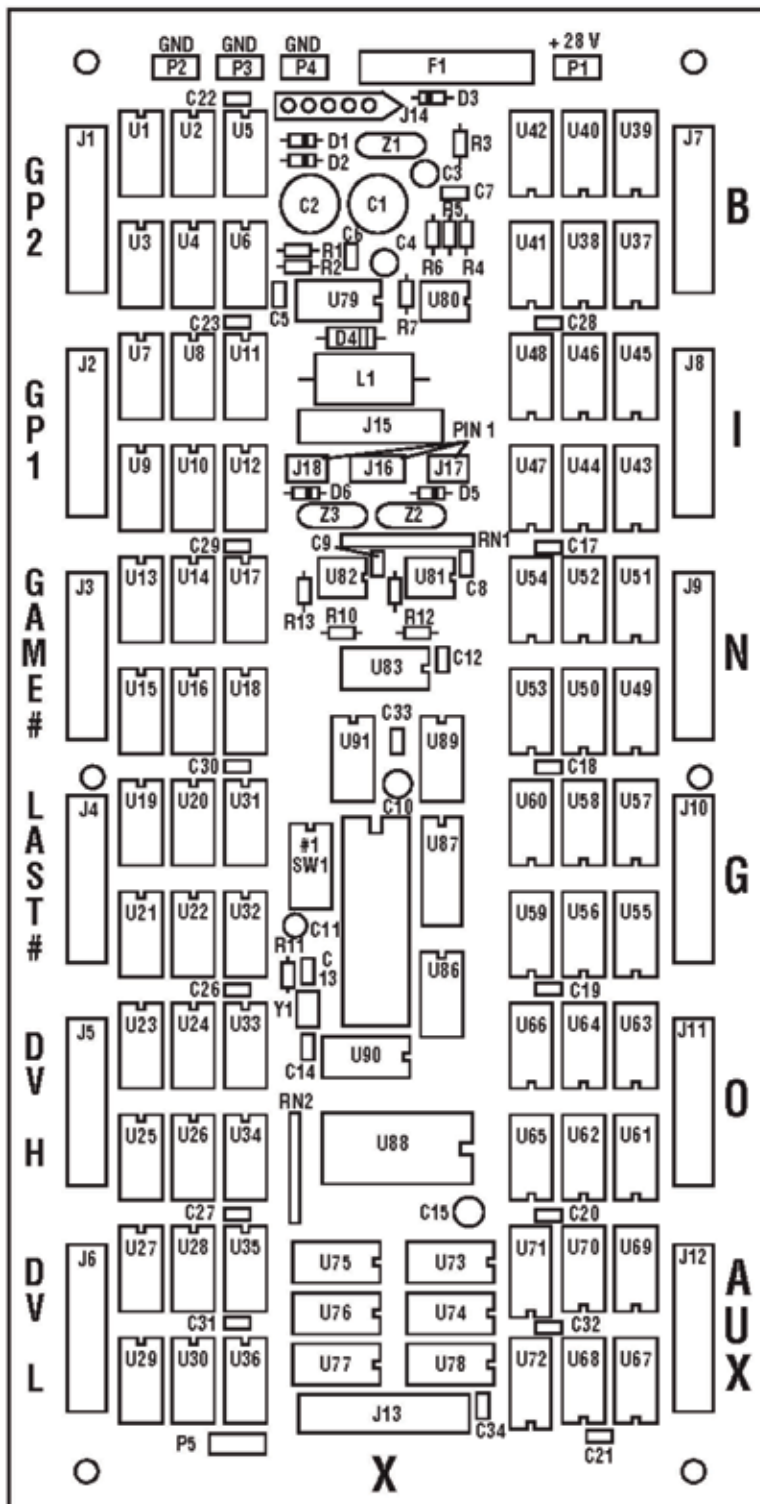
| LAMP NUMBERS               | DRIVER (92068B) | LAMP NUMBERS                     | DRIVER (92068B) |
|----------------------------|-----------------|----------------------------------|-----------------|
| <b>NUMBERS:</b>            |                 | <b>DOLLAR VALUE:</b>             |                 |
| B 1-4                      | U5              | 10000-B,C,E,G                    | U80             |
| B 5-8                      | U4              | 10000-D,F,A                      | U81             |
| B 9-12                     | U2              | 1000-B,C,E,G                     | U78             |
| B 13-15                    | U1              | 1000-D,F,A                       | U77             |
| I 16-19                    | U11             | 100-B,C,E,G                      | U86             |
| I 20-23                    | U10             | 100-D,F,A                        | U87             |
| I 24-27                    | U8              | 10-B,C,E,G                       | U84             |
| I 28-30                    | U7              | 10-D,F,A                         | U83             |
| N 31-34                    | U17             | 1-B,C,E,G                        | U32             |
| N 35-38                    | U16             | 1-D,F,A                          | U31             |
| N 39-42                    | U14             | <b>LAST NO. CALLED:</b>          |                 |
| N 43-45                    | U13             | 10'S-B,C,E,G                     | U74             |
| G 46-49                    | U23             | 10'S-D,F,A                       | U75             |
| G 50-53                    | U22             | 1'S-B,C,E,G                      | U72             |
| G 54-57                    | U20             | 1'S-D,F,A                        | U71             |
| G 58-60                    | U19             | <b>NUMBER OF BALLS:</b>          |                 |
| O 61-64                    | U29             | 10'S-B,C,E,G                     | U68             |
| O 65-68                    | U28             | 10'S-D,F,A                       | U69             |
| O 69-72                    | U26             | 1'S-B,C,E,G                      | U66             |
| O 73-75                    | U25             | 1'S-D,F,A                        | U65             |
| <b>GAME PATTERN:</b>       |                 | B-G LETTERS                      | U35             |
| GP 1-4                     | U59             | O LETTER                         | U34             |
| GP 5-8                     | U60             | <b>SPARES</b>                    |                 |
| GP 9-12                    | U62             |                                  | 46              |
| GP 13-16                   | U63             |                                  | 47              |
| GP 17-20                   | U53             |                                  | 49              |
| GP 21-24                   | U54             |                                  | 50 & 51         |
| GP 25                      | U56             |                                  |                 |
| W2 1 & 2 \$ VALUE W/O SELF |                 | JUMPER 1 & 2 FOR GAME IND.       |                 |
| W2 3 & 4 CONN. SELF TEST   |                 | NO JUMPER 1 & 2 FOR DOLLAR VALUE |                 |
| W2 1 & 2 # & 4 \$ VALUE    |                 | JUMPER 1 & 2 FOR TIME OUT        |                 |
| W2 1 & 3 PRES W/O TIME OUT |                 | NO JUMPER 3 & 4 FOR NO TIME OUT  |                 |
| REV. 2.2                   |                 | REV. 2.3                         |                 |



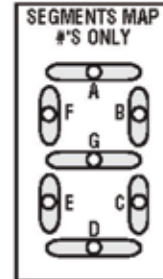
**Caution:** If Darlington is cracked or burnt, check the associated lamp socket and bulb before replacing the Darlington or PCB.

## Printed Circuit Board Darlington Map

### ACRD Darlington Map

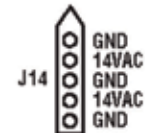


#### FRONT VIEW SEGMENTS



#### FRONT VIEW

| B  | I  | N  | G  | O  |
|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  |
| 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 |



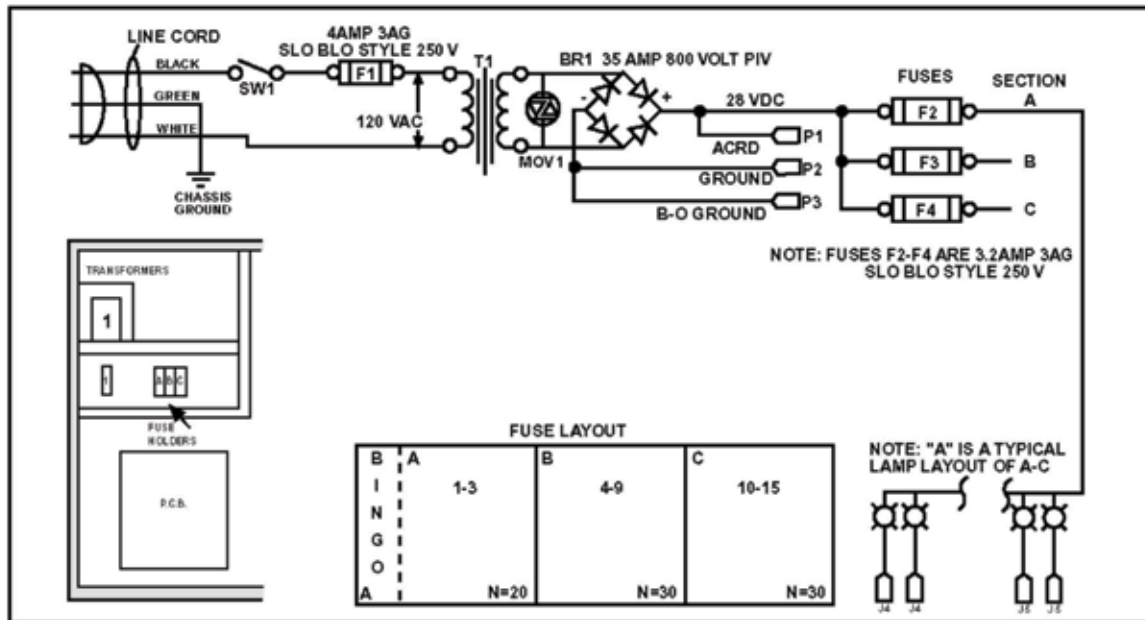
CLOSE = OFF

POWER OFF WHEN RESETING  
ANY SWITCH ON SW1

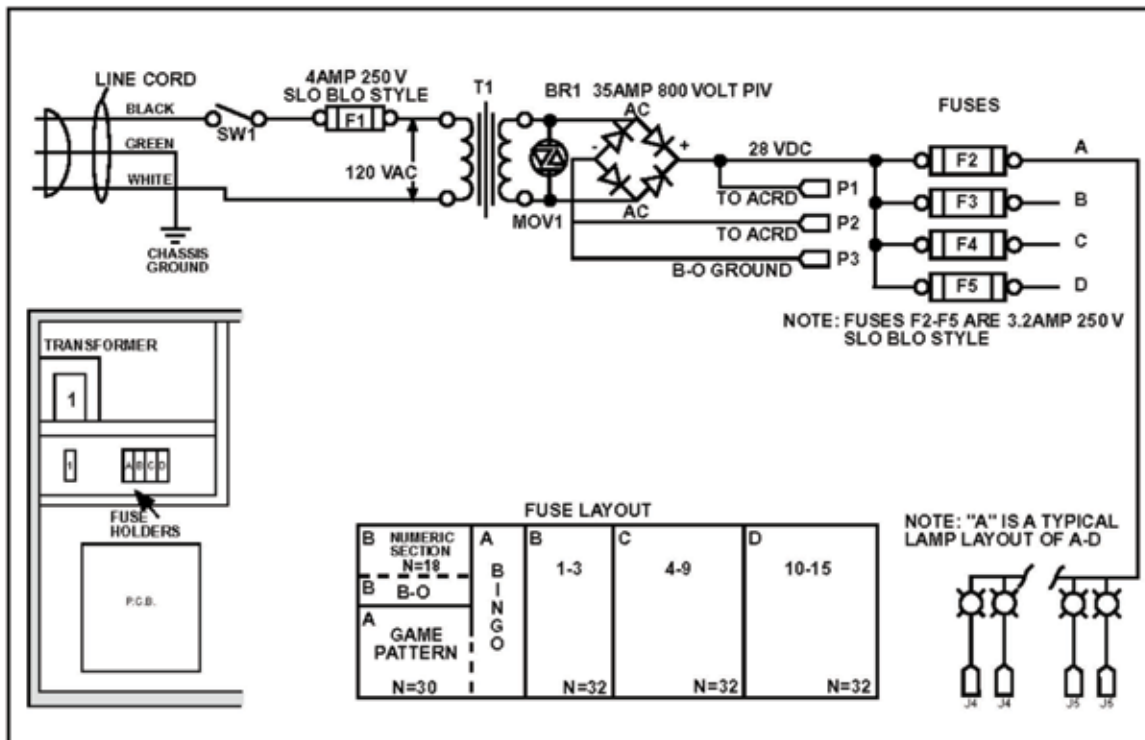
## ACRD Darlington Map Detail

| LAMP NUMBERS | DRIVER | LAMP NUMBERS                                                                                     | DRIVER | LAMP NUMBERS                                                                               | DRIVER |  |  |      |      |      |      |
|--------------|--------|--------------------------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------|--------|--|--|------|------|------|------|
| B1           | U38    | X76-78                                                                                           | U77    | GAME #                                                                                     |        |  |  |      |      |      |      |
| B2-4         | U37    | X79                                                                                              | U76    | 1'S NO. BALLS A-C                                                                          | U13    |  |  |      |      |      |      |
| B5-6         | U38    | X80                                                                                              | U77    | 1'S NO. BALLS D-F                                                                          | U14    |  |  |      |      |      |      |
| B7           | U37    | X81-83                                                                                           | U76    | 1'S NO. BALLS G                                                                            | U13    |  |  |      |      |      |      |
| B8           | U38    |                                                                                                  |        | 10'S NO. BALLS A                                                                           | U15    |  |  |      |      |      |      |
| B9-10        | U40    | X84                                                                                              | U78    | 10'S NO. BALLS B-C                                                                         | U16    |  |  |      |      |      |      |
| B11-12       | U39    | X85                                                                                              | U74    | 10'S NO. BALLS D-E                                                                         | U15    |  |  |      |      |      |      |
| B13          | U40    | X86-87                                                                                           | U78    | 10'S NO. BALLS F-G                                                                         | U16    |  |  |      |      |      |      |
| B14          | U39    | X88-89                                                                                           | U74    | LAST #                                                                                     |        |  |  |      |      |      |      |
| B15          | U40    | X90                                                                                              | U78    | 1'S LAST A-C                                                                               | U19    |  |  |      |      |      |      |
| I16          | U44    | GP1                                                                                              | U8     | 1'S LAST D-F                                                                               | U20    |  |  |      |      |      |      |
| I17-19       | U43    | GP2-4                                                                                            | 7      | 1'S LAST G                                                                                 | U19    |  |  |      |      |      |      |
| I20-21       | U44    | GP5-6                                                                                            | U8     | 10'S LAST A                                                                                | U21    |  |  |      |      |      |      |
| I22          | U43    | GP7                                                                                              | U7     | 10'S LAST B-C                                                                              | U22    |  |  |      |      |      |      |
| I23          | U44    | GP8                                                                                              | U8     | 10'S LAST D-E                                                                              | U21    |  |  |      |      |      |      |
| I24-25       | U46    | GP9-10                                                                                           | U10    | 10'S LAST F-G                                                                              | U22    |  |  |      |      |      |      |
| I26-27       | U45    | GP11-12                                                                                          | U9     | DOLLAR H                                                                                   |        |  |  |      |      |      |      |
| I28          | U46    | GP13                                                                                             | U10    | 10K'S DV A                                                                                 | U25    |  |  |      |      |      |      |
| I29          | U45    | GP14                                                                                             | U9     | 10K'S DV B-C                                                                               | U26    |  |  |      |      |      |      |
| I30          | U46    | GP15                                                                                             | U10    | 10K'S DV D-E                                                                               | U25    |  |  |      |      |      |      |
| N31          | U50    | GP16                                                                                             | U9     | 10K'S DV F-G                                                                               | U26    |  |  |      |      |      |      |
| N32-34       | U49    | GP17                                                                                             | U2     | 1000'S DV A-C                                                                              | U23    |  |  |      |      |      |      |
| N35-36       | U50    | GP18-20                                                                                          | U1     | 1000'S DV D-F                                                                              | U24    |  |  |      |      |      |      |
| N37          | U49    | GP21-22                                                                                          | U2     | 1000'S DV G                                                                                | U23    |  |  |      |      |      |      |
| N38          | U50    | GP23                                                                                             | U1     | DOLLAR L                                                                                   |        |  |  |      |      |      |      |
| N39-40       | U52    | GP24                                                                                             | U2     | 100'S DV A                                                                                 | U29    |  |  |      |      |      |      |
| N41-42       | U51    | GP25                                                                                             | U4     | 100'S DV B-C                                                                               | U30    |  |  |      |      |      |      |
| N43          | U52    | AUX                                                                                              |        | 100'S DV D-E                                                                               | U29    |  |  |      |      |      |      |
| N44          | U51    | B LMP                                                                                            | U67    | 100'S DV F-G                                                                               | U30    |  |  |      |      |      |      |
| N45          | U52    | I LMP                                                                                            | U67    | 10'S DV A-C                                                                                | U27    |  |  |      |      |      |      |
| G46          | U56    | N LMP                                                                                            | U68    | 10'S DV D-F                                                                                | U28    |  |  |      |      |      |      |
| G47-49       | U55    | G LMP                                                                                            | U67    | 10'S DV G                                                                                  | U27    |  |  |      |      |      |      |
| G50-51       | U56    | O LMP                                                                                            | U68    | AUX                                                                                        |        |  |  |      |      |      |      |
| G52          | U55    |                                                                                                  |        | 1'S DV A-D                                                                                 | U70    |  |  |      |      |      |      |
| G53          | U56    |                                                                                                  |        | 1'S DV E-G                                                                                 | U69    |  |  |      |      |      |      |
| G54-55       | U58    | SPARES                                                                                           |        |                                                                                            |        |  |  | SW 3 | SW 4 | SW 5 | SW 6 |
| G56-57       | U57    | U3, U77, U78                                                                                     |        | Emerald w/ time out                                                                        |        |  |  | ON   | OFF  | ON   | ON   |
| G58          | U58    |                                                                                                  |        | Emerald w/o time out                                                                       |        |  |  | ON   | OFF  | ON   | OFF  |
| G59          | U57    | OUTPUT - U83                                                                                     |        | Sapphire (G1) w/o time out                                                                 |        |  |  | OFF  | OFF  | ON   | OFF  |
| G60          | U58    |                                                                                                  |        | Sapphire (G1) w/ time out                                                                  |        |  |  | OFF  | OFF  | ON   | ON   |
| O61          | U62    |                                                                                                  |        | Sapphire (DV) w/o time out                                                                 |        |  |  | OFF  | OFF  | OFF  | OFF  |
| O62-64       | U61    |                                                                                                  |        | Sapphire (DV) w/ time out                                                                  |        |  |  | OFF  | OFF  | OFF  | ON   |
| O65-66       | U62    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O67          | U61    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O68          | U62    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O69-70       | U64    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O71-72       | U63    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O73          | U64    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O74          | U63    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
| O75          | U64    |                                                                                                  |        |                                                                                            |        |  |  |      |      |      |      |
|              |        | If Darlington is cracked or burnt, check associated lamp sockets before changing the darlington. |        | NOTE 1 : IF USING FLASHBOARD AS TEAR OPEN, SET SW 6 TO OFF. THIS WILL DISABLE THE TIMEOUT. |        |  |  |      |      |      |      |

## 4" Numbers Only

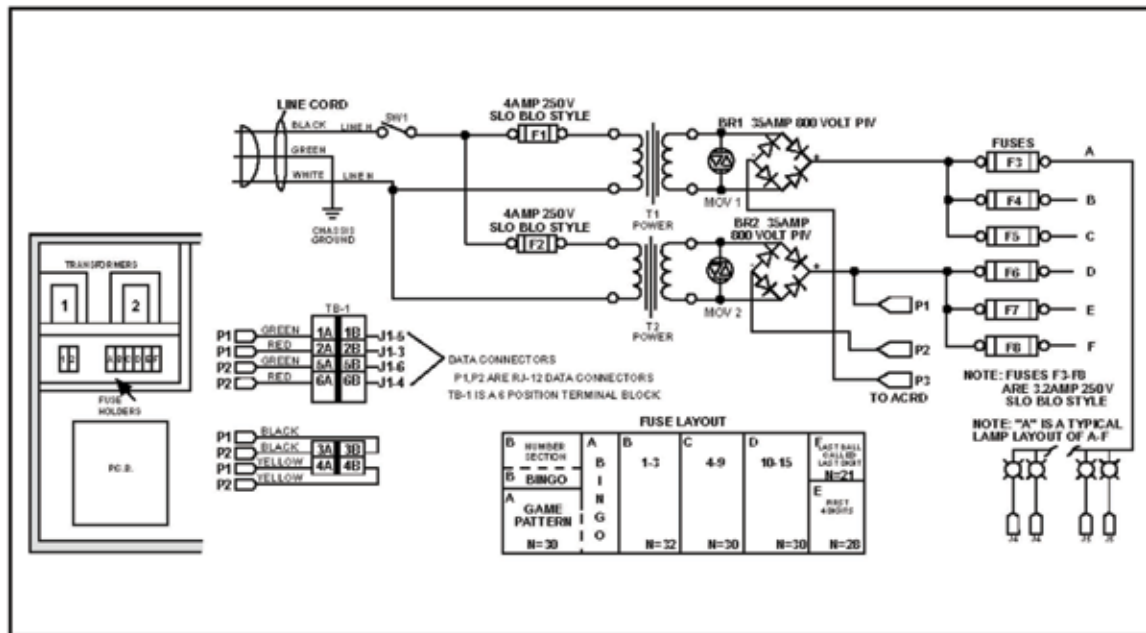


## 4" Game Indicator



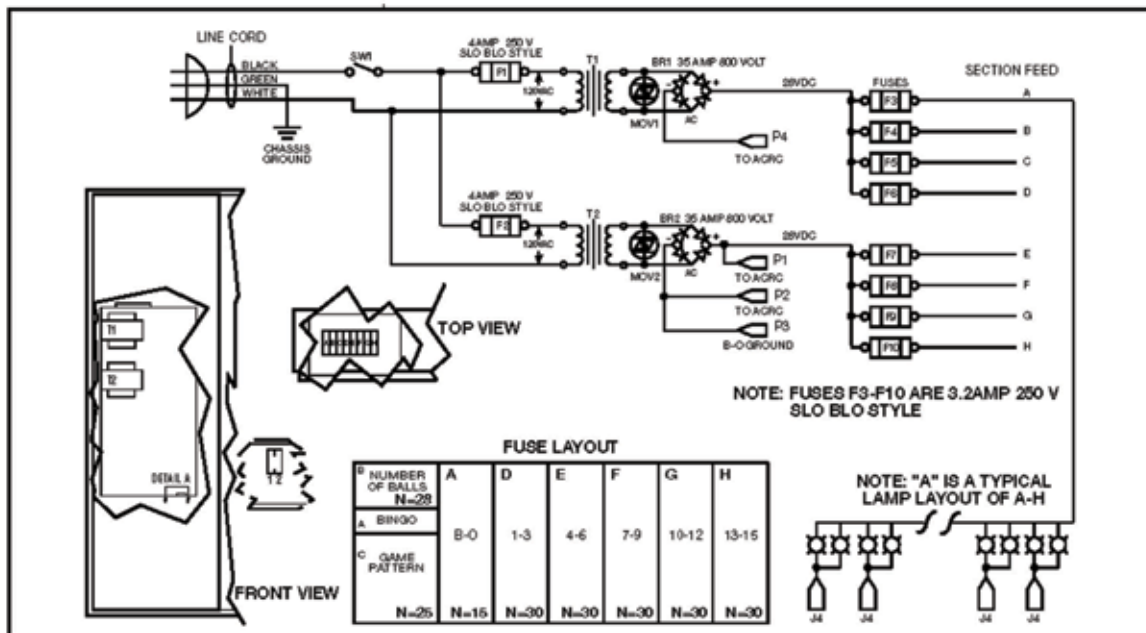
## 4" Flashboard Diagrams

### 4" Dollar Value

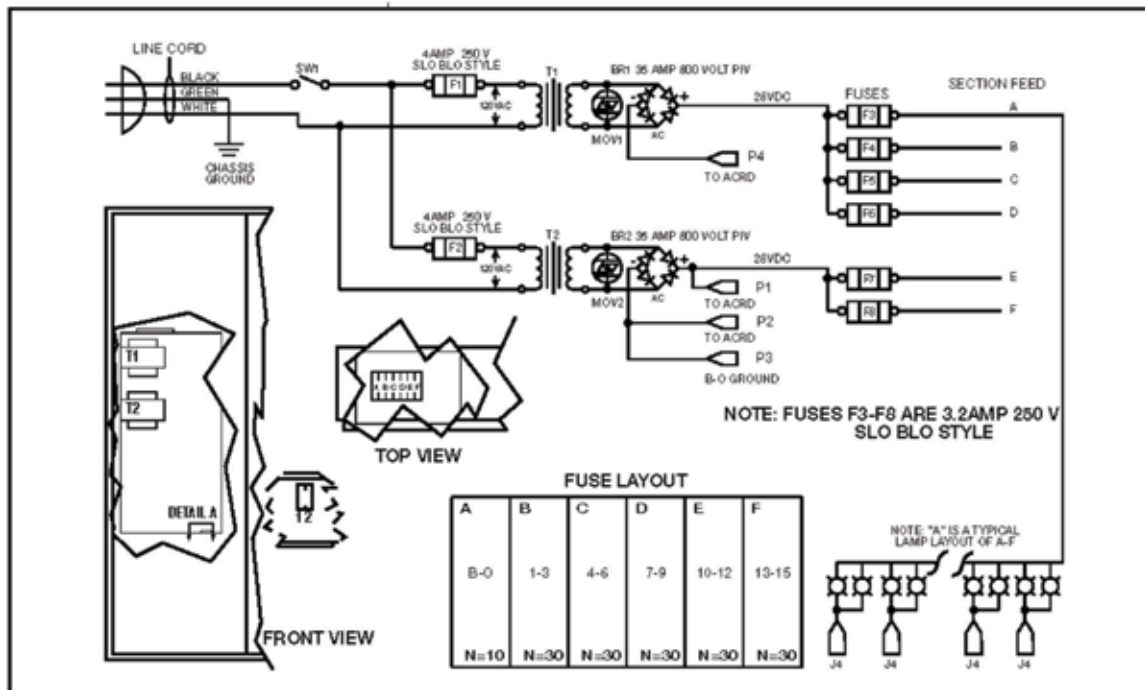


## 8" Flashboard Diagrams

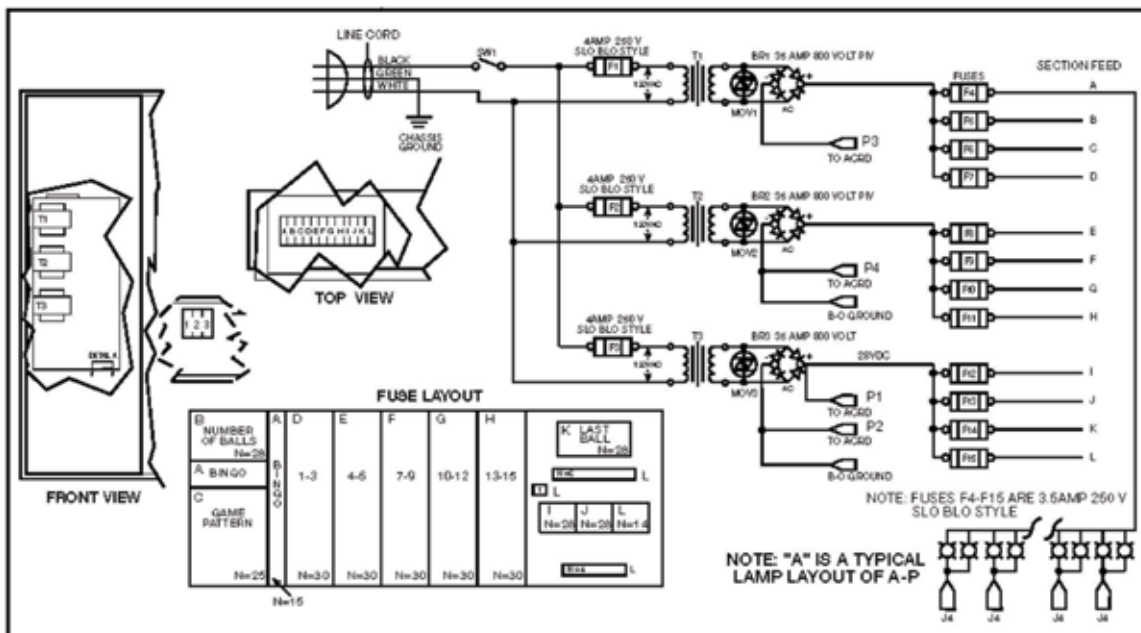
### 8" Game Indicator



## 8" Numbers Only



## 8" Dollar Value



# FLASHBOARD STAND

**Before attempting assembly, be sure to have two persons available for safe assembly and mounting of the flashboard.** The flashboard stand is used with 2" Game Indicator and Dollar Value; 4" Numbers, Game Indicator and Dollar Value (triple stand). The stand is configured for either 2" or 4" flashboard at assembly.

## Tools required:

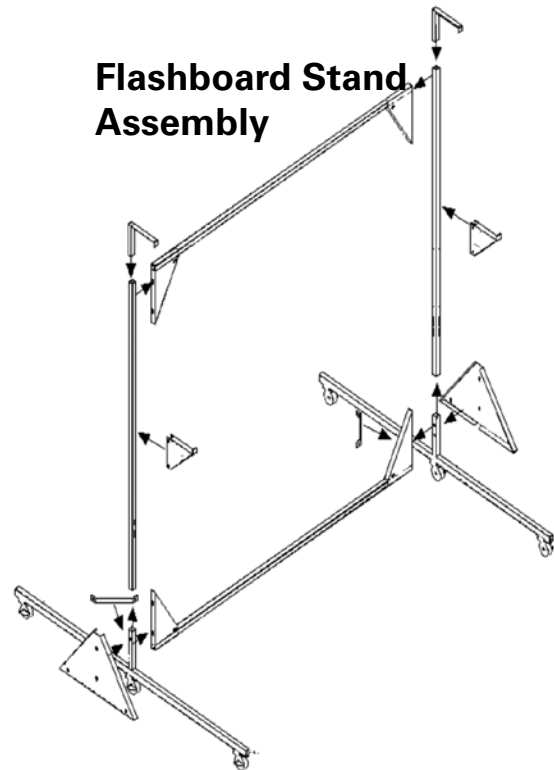
#2 Phillips screwdriver and 7/16" wrench

## Unpack the box and make sure the following assembly hardware is present:

- (2) flashboard uprights
- (2) support brackets
- (2) cross supports
- (2) gussets
- (2) J brackets
- (2) leg assemblies
- (2) leg stiffeners
- (16) nut, bolt and washer sets size: 1/4-20x2"
- (4) nut, bolt and washer sets size: 1/4-20x1"

## A triple flashboard stand, which is used with 4" dollar value style flashboards, will have this assembly hardware:

- (3) flashboard uprights
- (3) support brackets
- (4) cross supports
- (3) gussets
- (3) J brackets
- (3) leg assemblies
- (4) leg stiffeners
- (24) nut, bolt and washer sets size: 1/4-20x2"
- (7) nut, bolt and washer sets size: 1/4-20x1"



## Note: Install all bolts with the bolt head showing on the outside of the stand.

1. Slide one upright onto each leg assembly so that the end with 6 holes is away from the leg.
2. Place one of the gussets on one of the upright/leg assemblies. Insert 2 of the 2" bolts with flat washers to hold the gusset in place
3. Attach one of the cross supports to the leg assembly on the opposite side from the gusset and fasten with flat washers, lock washers and nuts.
4. Attach the other upright, leg and gusset to the opposite end of the cross support following steps B and C.
5. Orient the stand so that it is resting on the casters.
6. Install the leg stiffeners between the leg and cross support using 1" bolts with flat washers, lock washers and nuts. Install both stiffeners on the same side of the cross brace. This will be the back of the stand.
7. Fasten the remaining cross support at the top of the uprights.
8. Install one support bracket on each upright on the opposite side from the stiffeners. Use the upper holes for 2" flashboard and the lower holes for 4" flashboard.
9. Check to be sure that all parts are properly installed and that all bolts are tight.
10. Center the flashboard on the stand and insert the J brackets into the top of the uprights so that the hooks hold the flashboard in place.

## Flashboard Mounting Methods

**CAUTION!** Flashboards can weigh anywhere from 80 to 600 pounds. If you are not confident in hanging your flashboard(s) safely, please contact a qualified and licensed rigger and electrician for proper installation. In many cases, the local building inspector may require a permit as well as an inspection of the site for structural stability.

**Installed Number of Flashboard Mounting Eyebolts**

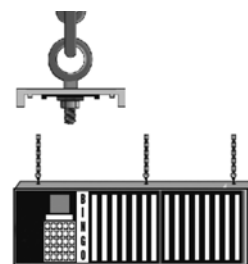
|                     | Numbers Only | Numbers & Game Indicator | Numbers, Game Indicator & Dollar Value |
|---------------------|--------------|--------------------------|----------------------------------------|
| <b>4" Eye Bolts</b> | 2            | 3                        | 4                                      |
| <b>8" Eye Bolts</b> | x            | 4                        | 5                                      |

### Wall Mounting Preparation for Flashboard

Before mounting the flashboard to the wall, first determine the type of wall construction. For hollow walls, we recommend that the flashboard mounting brackets be fastened directly into wall studs. For concrete, brick and cinder block construction, the mounting brackets should be fastened using a bolt and anchor method (moly bolt). If other methods of wall construction are used, consider ceiling mounting or consult a local licensed and bonded rigger for advice.

### Ceiling Mounted Flashboards

There are two different methods for suspending any flashboard from the ceiling. In any ceiling application, the chain or wire must be attached to the steel building frame or girder. In addition, check with your local building inspector on local codes governing weight restrictions and mounting methods.



**Eyebolt for Chain-mount**

**Chain:** Use a high quality 3/8" or larger chain link made of high strength alloy steel, grade 80 or its equivalent. Bolt chain together with a 3/8" x 1-3/4" bolt with two flat washers, a lock washer and a hex nut.

**Wire:** Use high quality 1/8" or larger diameter 19x7 strand steel aircraft cable with appropriate cable clamp.

**Flashboard Eyebolt Locator Table**

| Flashboard               | Eyebolt Location Measured from Left End |                     |                     |                     |      |
|--------------------------|-----------------------------------------|---------------------|---------------------|---------------------|------|
| <b>8" Dollar Value</b>   | 6 $\frac{1}{2}$ "                       | 108 $\frac{3}{4}$ " | 128 $\frac{1}{2}$ " | 193 $\frac{1}{2}$ " | 222" |
| <b>8" Game Indicator</b> | 6 $\frac{1}{2}$ "                       | 108 $\frac{3}{4}$ " | 128 $\frac{1}{2}$ " | 193 $\frac{1}{2}$ " |      |
| <b>4" Dollar Value</b>   | 8"                                      | 50"                 | 88"                 | 128"                |      |
| <b>4" Game Indicator</b> | 24"                                     | 56"                 | 88"                 |                     |      |
| <b>4" Numbers Only</b>   | 11"                                     | 82 $\frac{1}{2}$ "  |                     |                     |      |

# WARRANTY

## Arrow/Capitol Bingo Equipment Limited Warranty

Set out below are the terms of the Limited Warranty made by Arrow International, Inc ("Arrow") in connection with the sale of the Capitol Bingo Equipment (the "Equipment").

### 1. Limited Warranty

Arrow warrants to the original purchaser ("Purchaser") that the Equipment will, for a period of ONE YEAR from the date of original purchase from an authorized Arrow dealer, be free from manufacturing defects in material and workmanship. Purchaser represents to Arrow that no employee, agent, or representative of Arrow (or of an Arrow dealer) has made any representation or warranty regarding the Equipment except as set out herein. Does not cover consumable items such as filters and bulbs.

THE WARRANTY CARD MUST BE COMPLETED AND RETURNED TO ARROW WITHIN 30 DAYS OF PURCHASE FROM ALL AUTHORIZED CAPITOL BINGO EQUIPMENT DISTRIBUTOR FOR THIS LIMITED WARRANTY TO BE EFFECTIVE. A purchase receipt or other proof of date of original purchase must be submitted with the Warranty Card and will be required before warranty service is rendered.

This Limited Warranty applies to normal commercial use and does not cover damage which occurs in shipment; failures which are caused by products not supplied by Arrow, failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, set-up adjustments or modifications. This Limited Warranty does not cover any damage to the Equipment resulting from failure to install in strict conformity with both local fire and building codes and regulations, or if installation does not comply with the installation instructions provided by Arrow.

### 2. Disclaimer of Warranties

Arrow makes no warranties, express or implied (including, without limitation, merchantability, fitness for particular purpose, or against infringement of any patent), except as expressly provided herein. The express warranties provided herein are in lieu of and exclude all other warranties, guarantees or representations, express or implied, whether arising by operation of law or otherwise.

### 3. Limitation of Remedies

If the Equipment supplied does not conform to the Limited Warranty set out above, Arrow will, at first option, (a) repair or replace the Equipment, or part thereof, which is defective or (b) refund so much of the purchase price as Purchaser has paid for the defective Equipment, less 1/12 of the purchase price for each month between the date of the purchase from an authorized Arrow dealer and the date of the discovery of the defect, but in no event later than 90 days from the date of the discovery of the defect.

### 4. Limitation of Liability

The remedy of repair, replacement, or refund of the purchase price is Purchaser's sole and exclusive remedy and will satisfy all of Arrow's liabilities, whether based on contract, negligence, tort, product liability, strict liability, or otherwise. IN NO EVENT WILL ARROW BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, NOR WILL ITS INABILITY IN CONNECTION WITH ANY EQUIPMENT OR SERVICE SOLD (INCLUDING NONDELIVERY OR LATE DELIVERY THEREOF) EXCEED THE SALES PRICE OF SUCH EQUIPMENT OR SERVICE.

### 5. Warranty Voided

Any obligations of Arrow under this Limited Warranty will be deemed to have been satisfied if anyone other than an authorized Capitol Bingo Equipment Dealer services the Equipment.

#### 6. Transfer of Limited Warranty

Purchaser may transfer its rights under this Limited Warranty, subject to the terms and conditions hereof, to a buyer ("Buyer") from Purchaser of the Equipment. Thereafter, the rights under this Limited Warranty are not transferable. For the transfer by Purchaser of the Limited Warranty to be effective, the following conditions must have occurred no later than the 30th day following the date of resale to Buyer:

- A. Purchaser must have complied with all requirements to make the Limited Warranty effective as to Purchaser;
- B. The Equipment (as an entire unit and as purchased by Purchaser) must be transferred to Buyer; and
- C. Buyer must have submitted a new warranty card together with proof of purchase by Buyer from Purchaser.

Upon an effective transfer of this Limited Warranty, Buyer will be considered to be "Purchaser" for paragraphs 1 and 4 hereof.

#### 7. Inspection

With respect to any claim that the Equipment is defective, Arrow will be allowed a reasonable time to inspect the Equipment, in place. If the Equipment is altered or removed before Arrow has made such inspection or waived its right to do so, the obligations of Arrow will be deemed to have been satisfied.

#### 8. Limitation of Actions

Any legal action against Arrow for a default of its obligations under this Limited Warranty must be commenced within two years from the date the Equipment was sold by an authorized dealer of the Equipment.

#### 9. How to Obtain Service

If a problem with this Equipment develops during or after the warranty period, proceed as follows:

- A. Refer to your Operator's Manual and follow the Troubleshooting Table within the "Service Section."
- B. Contact the authorized Capitol Bingo Equipment Distributor from whom you purchased the Equipment.
- C. Contact the Capitol Bingo Equipment Service Manager at (800) 277-6214.

#### 9. How to Obtain Service (cont'd)

SERVICE CALLS WHICH DO NOT INVOLVE DEFECTIVE MATERIALS OR WORKMANSHIP AS DETERMINED BY ARROW IN ITS SOLE DISCRETION, ARE NOT COVERED. COST OF SUCH SERVICE CALLS ARE THE RESPONSIBILITY OF THE PURCHASER.

Arrow wants you to remain a satisfied customer. If a problem occurs that cannot be resolved to your satisfaction, please contact us immediately. Phone one of the numbers listed above or write to:

Capitol Bingo Equipment Division  
c/o National Service Manager  
9900 Clinton Rd.  
Cleveland, Ohio 44144

Please be sure to include the name, model number, serial number, date of original purchase, and the distributor from whom you purchased the Equipment, as well as any actions taken to correct the problem.

**Technical Assistance Center**  
**1-800-277-6214**

[illegible]



[www.arrowinternational.com](http://www.arrowinternational.com)

Arrow International, Inc. • 9900 Clinton Rd. • Cleveland, Ohio 44144



Part # 48220 • Revision: June 2022