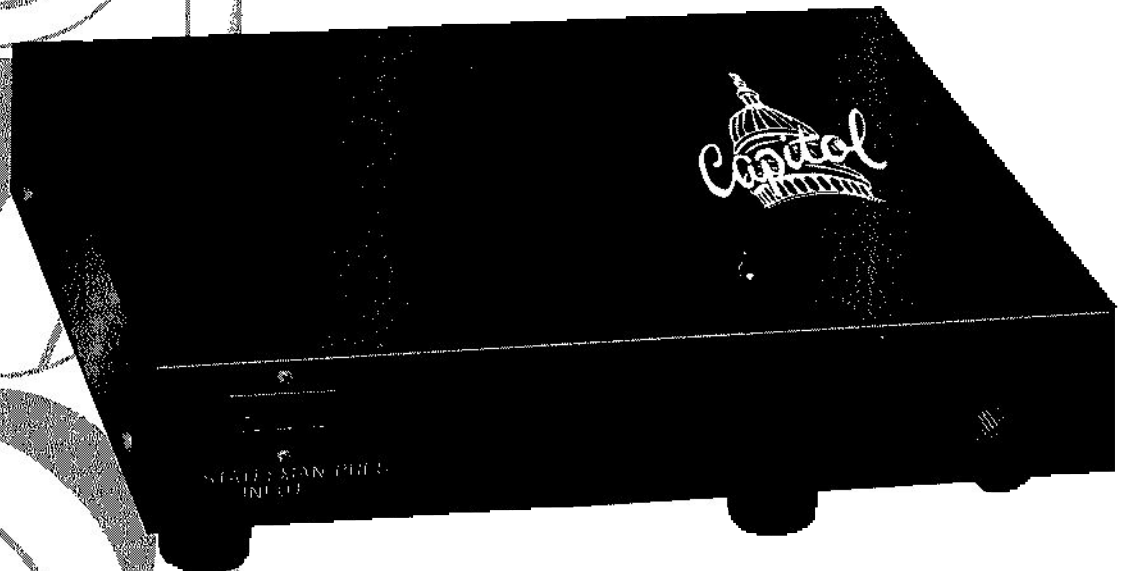
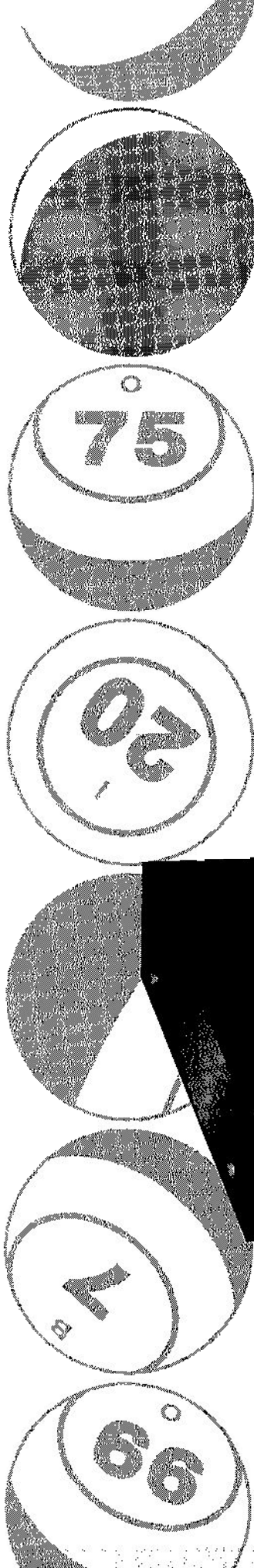


# Arrow Intelligent Adapter Operator's Manual

Arrow International  
Equipment Division



Thank you for choosing to purchase Arrow International's Capitol Bingo Equipment. We are confident that you will be completely satisfied with our high quality, durable bingo equipment. Our Capitol Bingo Equipment has the most technologically-advanced electronics and is designed for easy and reliable operation and trouble-free maintenance by the operator.

**We are proud to announce that we have been given design and safety certification approval on all our bingo equipment from Underwriters Laboratories, Inc. (UL). Arrow International, Inc. is the only bingo equipment manufacturer that has earned the UL approval certification. Look for the UL seal of approval on all our Capitol Bingo Equipment.**

Arrow manufactures the highest furniture quality, hand crafted equipment consoles in the industry. Our metal fabricated steel consoles are constructed of the finest, heavy duty materials available and guaranteed to withstand many years of use.

This equipment manual introduces you to the Arrow Intelligent Adapter. It will take you step by step through the simple procedures for installation, set up and operation. Easy to follow instructions and illustrations allow you to perform routine service and maintenance.

Arrow's hard work and dedication enable us to offer you a breadth of product line that continues to grow. We are proud to offer you the most extensive charitable fundraising product line consisting of high quality, easy to open Popp-Opens™ tabs; "Top Shelf" banded jar tickets; the largest series of bingo paper available in the largest variety of colors, patterns and cuts to meet your game's needs; Tear Opens™; and our popular Wink® Ink, Ink-A-Dot™ and Electra Dot™ bingo markers. This dedication to providing an extensive line of high quality products is accompanied by our commitment to satisfying your product needs with fast and trouble free service.

We value you as a customer and always welcome and appreciate your comments and suggestions to help improve our products. Our best suggestions always come from our game operators and distributors. We want you to always be a satisfied customer, and we will continue to design and improve our products through the valuable feedback received from you and our reliable network of Arrow Distributors.

Once again, thank you for choosing Arrow International/Capitol for your charitable fundraising needs.



John E. Gallagher, Sr.  
President



# Introduction

The Arrow Intelligent Adapter (AIA) is a general purpose adapter that allows non-compatible bingo consoles and flashboards to work with each other. Now you are able to upgrade most systems simply by keeping existing flashboards in place and upgrading to a more advanced system simply by changing your bingo console with the Arrow Intelligent Adapter.

This manual will guide you through installation of the AIA. In several occasions, a flashboard printed circuit board must be modified to work with Capitol consoles. Pay careful attention to section I entitled "Configuration." When using a BK flashboard, some older circuit boards may need factory modification. Contact our service department for assistance.

## Table of Contents

Introduction .....	3
Warranty Assurance .....	4
<b>I. Configuration</b>	
A. Presidential/2001 Console to Senator Flashboard .....	4
B. Presidential/2001 Console to BK Flashboard .....	4
C. Statesman Console to Senator Flashboard .....	5
D. Statesman Console to BK Flashboard .....	5
E. Senator or 600 LV-3 Console to Presidential/2001Flashboard ....	5
<b>II. Flashboard Printed Circuit Board Modifications</b>	
A. AR Darlington Map .....	6
B. ALR Darlington Map .....	6
C. Primary Schematic .....	6
<b>III. Electrical Specifications</b> .....	7
Capitol Bingo Equipment Limited Warranty .....	7

### Damage Action Process

Your Capitol Bingo Equipment contains delicate electronic equipment. It is imperative that you thoroughly inspect the contents of the package before accepting from the carrier. In case of damage, make a note on the bill of lading before accepting, take a photo of the damage, and keep the packaging to aid in recovering the amount of claim against the carrier.

**In case of severe damage, refuse the equipment from the carrier.**

If the product is damaged but acceptable, take a photo before and after unpacking as a record of the damage and 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

At this time, please verify the serial number and fill out the warranty card. On this unit, the serial number is located in the lower right of the rear panel.

**To validate your warranty, you must complete the enclosed warranty card and return it to Arrow International, Inc. within 30 days of purchase from your Capitol Bingo Equipment Distributor.**

A second warranty card appears on the back cover of this manual. We suggest that you fill out this card and keep the information on hand for future reference.

## I. Configuration

**Caution:** Before changing the configuration, always unplug the AIA from the wall or console outlet.

Normally, the AIA is shipped from the factory already set for a particular console to flashboard application. However, if your current set-up should change through upgrading or you have received a generic version, the AIA can easily be modified to fit the new configuration.

To access the printed circuit board jumper area, remove the four (4) screws holding the cover on the AIA. Remove the metal cover. The jumper areas will be clearly visible in the center of the PCB. Configure the AIA to reflect the type of components you are utilizing as follows:

### A. Presidential/2001 Console to Senator Flashboard

1. Configure jumpers as follows:

W1 - A  
W2 - C  
W3 - C

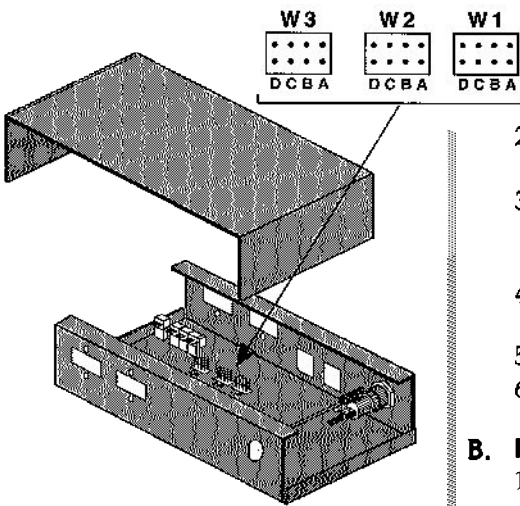
2. Reassemble the AIA by replacing the cover and inserting the (4) four mounting screws.
3. Plug the console adapter cable into one of the Presidential console flashboard output connectors. Connect the other end to the AIA Statesman/Pres Input.
4. Plug the flashboard cable into the Senator/LV3 Output connector on the AIA.
5. Plug the power cord into a 120 VAC grounded wall outlet.
6. Modify the ALR PCB in the Senator flashboard. (See section II-B)

### B. Presidential/2001 Console to BK Flashboard

1. Configure jumpers as follows:

W1 - A  
W2 - A  
W3 - Open

2. Reassemble the AIA by replacing the cover and inserting the (4) four mounting screws.
3. Plug the console adapter cable into one of the Presidential console flashboard output connectors. Connect the other end to the Statesman/Pres Input on the AIA.
4. Plug the flashboard cable into the BK Output connector on the AIA.
5. Plug the power cord into a 120 VAC grounded wall outlet.



### C. Statesman Console to Senator Flashboard

1. Configure jumpers as follows:
  - W1 - A
  - W2 - C
  - W3 - A and C
2. Reassemble the AIA by replacing the cover and inserting the (4) four mounting screws.
3. Plug the console adapter cable into one of the Statesman console flashboard output connectors. Connect the other end to the Statesman/Pres Input connector on the AIA.
4. Plug the flashboard cable into Senator/LV3 connector on the AIA.
5. Plug the power cord into a 120 VAC grounded wall outlet.
6. Modify the ALR PCB in the Senator flashboard. (See section II-B)

### D. Statesman Console to BK Flashboard

1. Configure jumpers as follows:
  - W1 - A
  - W2 - A
  - W3 - A
2. Reassemble the AIA by replacing the cover and inserting the (4) four mounting screws.
3. Plug the console adapter cable into one of the Statesman console flashboard output connectors. Connect the other end to the Statesman/Pres Input connector on the AIA.
4. Plug the flashboard cable into the BK Output connector on the AIA.
5. Plug the power cord into a 120 VAC grounded wall outlet.

### E. Senator or 600 LV-3 Console to Presidential/2001 Flashboard

1. Configure jumpers as follows:
  - W1 - A
  - W2 - A
  - W3 - B
2. Reassemble the AIA by replacing the cover and inserting the (4) four mounting screws.
3. Plug the console adapter cable into your Senator or 600 LV-3 console flashboard output connector. Connect the other end to the Senator/LV3 Input connector on the AIA.
4. Plug the flashboard cable into the Presidential output connector on the AIA.
5. Plug the power cord into a 120 VAC grounded wall outlet.
6. If you purchased your flashboard before Jan 1991, the AR printed circuit board requires modification. (See section II-A)

There are no operating controls for the AIA after its hook-up. Simply use your bingo system as you normally would. If you are using a combination of systems that offer fewer display features (i.e., Presidential to Senator), the Senator flashboard will not display the game pattern as it would if you had a Presidential flashboard.

With a Senator console to Presidential flashboard interface, the Presidential flashboard will display the number of balls called without the game pattern display. If only one ball is called, the numerical display will flash a (1). This is a normal condition—the display will function normally from 2 thru 75 balls called.

---

*Note: When driving Capitol flashboards with an AIA, an unlimited number of flashboards may be driven. When driving BK flashboards with an AIA, each output will drive up to three flashboards.*

---

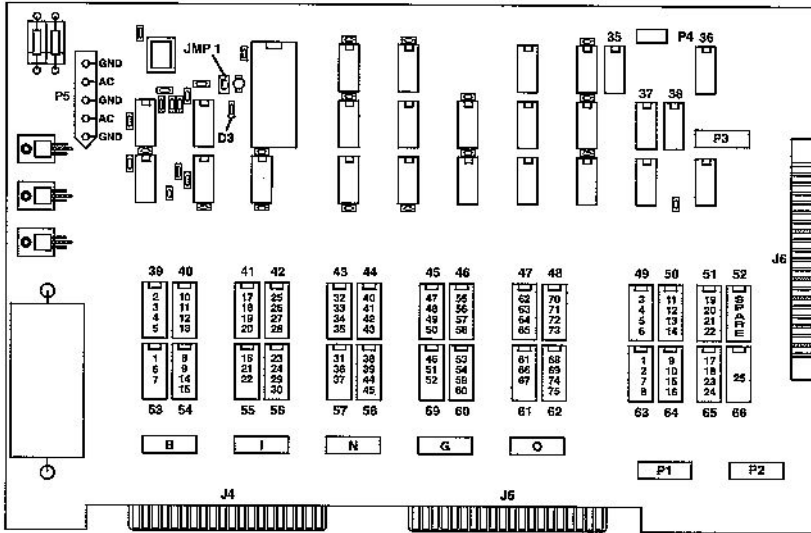
---

*Note: The Arrow Intelligent Adapter is shipped with 25 ft. of 3-conductor data cable.*

---

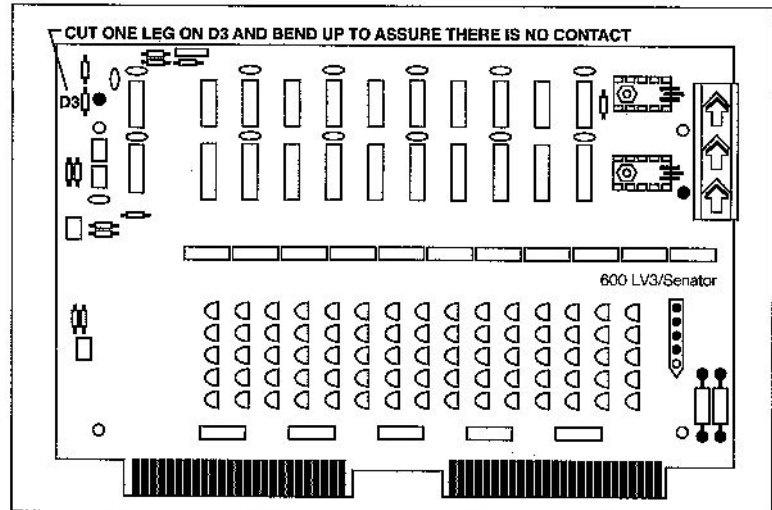
## II. Flashboard Printed Circuit Board Modifications

### A. AR Darlington Map

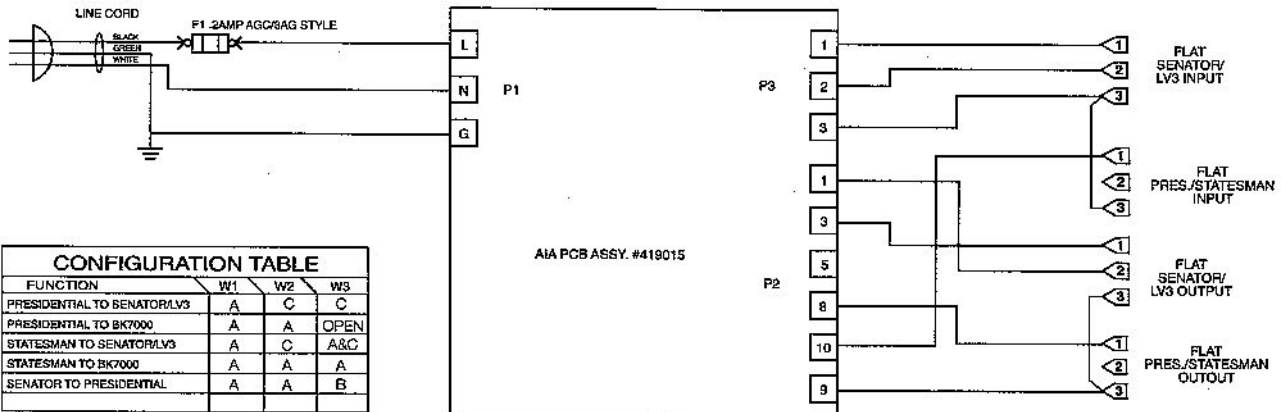


\* AR modification instructions: Prior to Dec. 1988, cut one side of D3. After Dec. 1988, remove shunt (jumper) from JMP 1.

### B. ALR Darlington Map



### C. AIA Primary Schematic



# III. Electrical Specifications

All systems 120 VAC 60HZ  
Total Power Required: .2 Amps, 24W  
Primary Fuse Rating: 1/2 Amp 3 AG

## 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.

THE WARRANTY CARD MUST BE COMPLETED AND RETURNED TO ARROW WITHIN 30 DAYS OF PURCHASE FROM AN 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 its 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 1/24th 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, provided that written notice of the defect and its nature is given to Arrow as soon as practical after 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 the most convenient phone number listed below:

- 1 (800) 321-0757 outside Ohio, but within the U.S.A.
- 1 (800) 537-3479 within the state of Ohio
- 1 (216) 961-3500 within the 216 area code or outside the continental U.S.A.
- 1 (216) 281-5950 FAX

**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.

**CUSTOMER WARRANTY CARD**  
**CAPITOL BINGO EQUIPMENT OWNER REGISTRATION CARD**

Model No. \_\_\_\_\_ PCB No(s). \_\_\_\_\_

Serial No. \_\_\_\_\_ Date Purchased \_\_\_\_\_

Distributor Purchased From \_\_\_\_\_

Name of Organization \_\_\_\_\_

Address \_\_\_\_\_ Phone ( ) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Chairman \_\_\_\_\_

Address \_\_\_\_\_ Phone ( ) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Additional Information (Optional) ATTACH PROOF OF PURCHASE DATE

Purchase Price \_\_\_\_\_ Average Attendance \_\_\_\_\_

No. Of Night Games Played \_\_\_\_\_

Time Games Played \_\_\_\_\_ Average Spending Per Person \_\_\_\_\_

**ARROW INTERNATIONAL, INC.**

and our subsidiaries

**CAPITAL GAME MANUFACTURING**

**METRO GAME MANUFACTURING**

9900 Clinton Rd., Cleveland, Ohio 44144

1 (800) 321-0757 outside Ohio, but within the U.S.A.

1 (800) 537-3479 within the state of Ohio

1 (216) 961-3500 within the 216 area code or outside the continental U.S.A.

1 (216) 281-5250 Facsimile

© 1992 Capitol Bingo Equipment Division of Arrow International, Inc.

Revision 1-1-1992



ARROW INTERNATIONAL, INC.  
9900 CLINTON RD.  
CLEVELAND, OHIO 44144  
(800) 321-0757

CAPITOL BINGO EQUIPMENT DIVISION  
OF ARROW INTERNATIONAL, INC.  
9900 CLINTON RD.  
CLEVELAND, OHIO 44144  
(800) 537-3479

METRO BINGO EQUIPMENT DIVISION  
OF ARROW INTERNATIONAL, INC.  
9900 CLINTON RD.  
CLEVELAND, OHIO 44144  
(800) 537-3479

ARROW INTERNATIONAL, INC.  
9900 CLINTON RD.  
CLEVELAND, OHIO 44144  
(800) 321-0757

ARROW INTERNATIONAL, INC.  
9900 CLINTON RD.  
CLEVELAND, OHIO 44144  
(800) 321-0757