

 **CARDINAL**  
**AMUSEMENT PRODUCTS**  
TM

**PRESENTS**



## BEASTIE FEASTIE PAC-MAN® Conversion Kit

Cardinal Amusement Products proudly brings you BEASTIE FEASTIE. Guide the insatiable TOBY through the corridors, up and down the elevators and through the side tunnels in his never ending search for snacks. An assortment of crafty animals relentlessly pursue TOBY and fight him for control of the elevators. Stop them or avoid them and munch a dozen different snacks to clear the 24 unique, exciting levels. Colorful graphics, exciting game play and a buy-in feature to promote continued play make this kit a great investment.

BEASTIE FEASTIE was designed for one or two players and supports both upright and cocktail cabinet models. The kit features a highly-reliable printed circuit board and all other materials needed to completely convert your old PAC-MAN® game to an attractive new BEASTIE FEASTIE. Advanced on-board diagnostics assist troubleshooting and setup.

In addition to this manual,

The upright conversion kit contains:

- Satellite board
- Marquee (header glass)
- Bezel (monitor glass)
- Oversized control panel overlay
- 2 Buttons and switches

The cocktail conversion kit contains:

- Satellite board
- Oversized underlay
- 2 control panel overlays
- 4 Buttons and switches

## OPERATOR INFORMATION

### W A R N I N G

#### F.C.C. REGULATION COMPLIANCE

This conversion kit must be installed according to the following instructions for F.C.C. regulation compliance.

This is required to avoid radio frequency radiation and to comply with the limits for a class "A" computing device pursuant to Subpart "J" of Part 15 of F.C.C. Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

The operation of this equipment in a residential area is likely to cause interference - in which case the user will be required to take whatever measures are necessary to correct the interference at his own expense.

#### Instructions for F.C.C. Compliance

For F.C.C. compliance, mount the satellite board inside a well-grounded cage with the main logic board. Run the wires from the filter board through the enclosed ferrite torroids to suppress radiated emissions.

If your game is an older model not having a cage or filter board, these should be obtained from the game manufacturer.

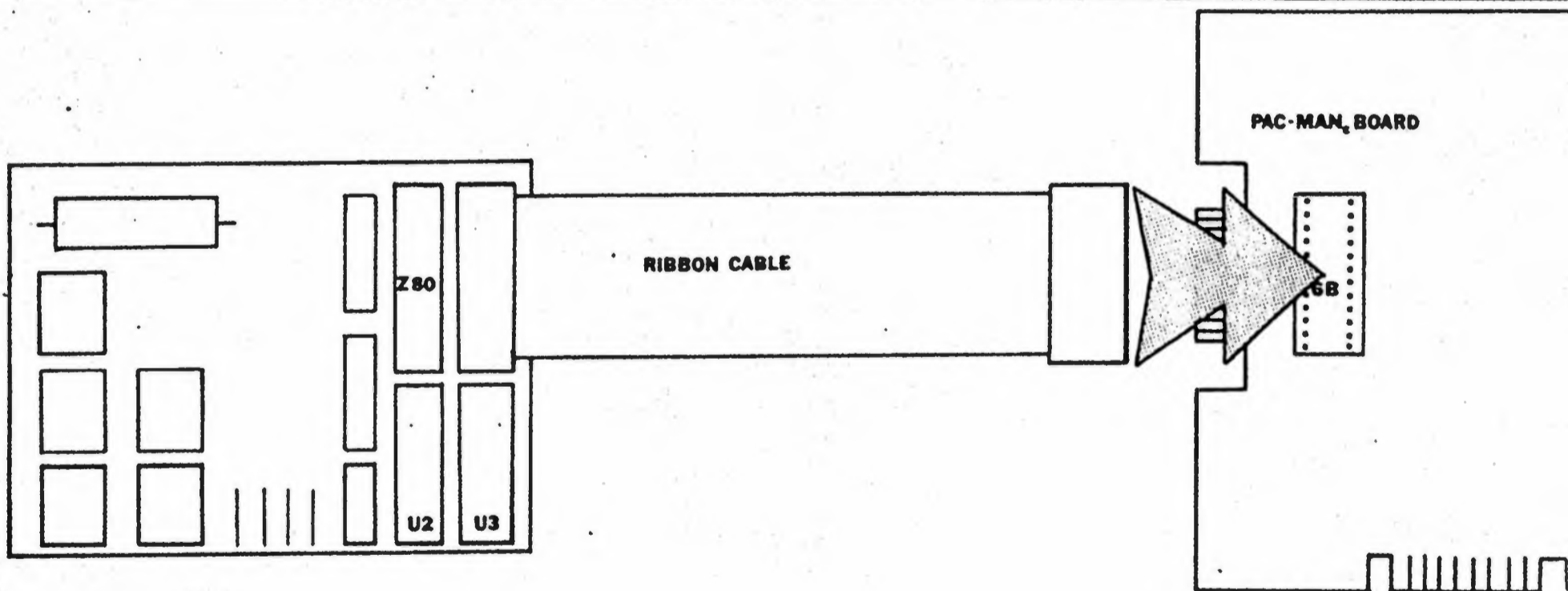
## CAUTION

This kit should be installed by a qualified technician. All safety precautions as recommended by the original game manufacturer should be carefully adhered to.

### Instructions For "BEASTIE FEASTIE" Conversion

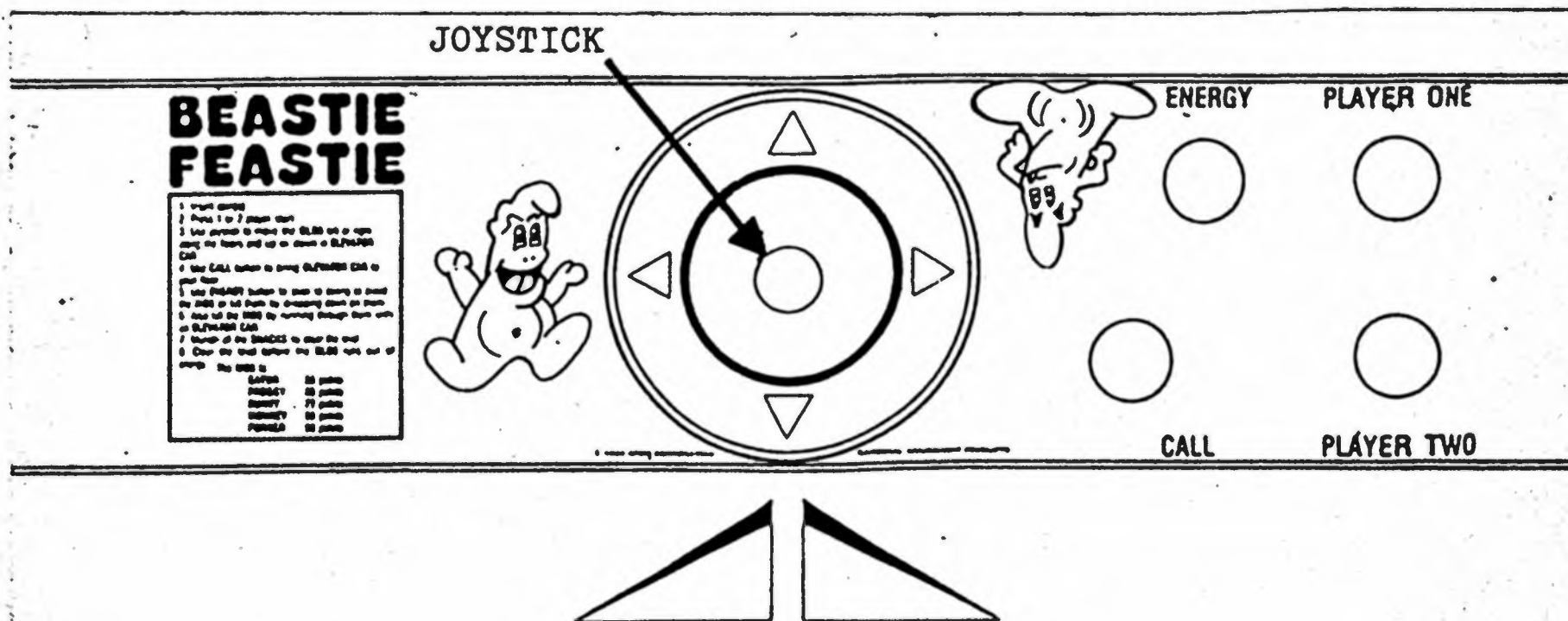
#### UPRIGHT VERSION

1. Check the contents of the box containing the "BEASTIE FEASTIE" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Remove the PAC-MAN® PROMs at locations 4A and 7F and replace with the corresponding "BEASTIE FEASTIE" PROMs. Also, remove the PAC-MAN® character PROMs at locations 5E and 5F and replace with the EPROMs included in the package.
3. The satellite board has been shipped to you with both ends of the ribbon cable plugged in. Carefully unplug the end of the cable nearest the center of the board so that the assembly appears as follows:



4. Carefully remove the Z80A microprocessor (6B) from the PAC-MAN® board and plug it into the satellite board in the empty socket location.
5. Next, plug the ribbon cable connector into the socket on the side of the PAC-MAN® board located at 6B. See above figure for proper orientation.

6. No PAC-MAN® software is used by this conversion; the remaining EPROMs (6E, 6K, 6F, 6M, 6H, 6N, 6J, 6P) may be removed or left on the board for storage, since they are not accessed and do not interface with "BEASTIE FEASTIE".
7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside the R.F. cage. Make sure the R.F. cage is well grounded. Securely fasten the satellite board inside the cage, do not let it dangle.
8. Remove the PAC-MAN® control panel from the cabinet. Take the One and Two Player Start buttons off of the control panel and remove the old PAC-MAN® overlay. Cut a hole for the joystick in the new overlay. Apply the self-adhesive control panel overlay. Wrap the excess material against the sides of the control panel and tack it down securely. Trim the overlay material out of the One and Two Player Start button holes and remount the buttons. Drill two holes, 1 1/8 inches in diameter, at the spots indicated on the diagram below for the Energy and Call buttons. Mount the buttons provided with the kit. Wire the Energy button to the One Player Start button and the Call button to the Two Player Start button. The Table input (pin R on the edgeconnector) should not be connected to ground.

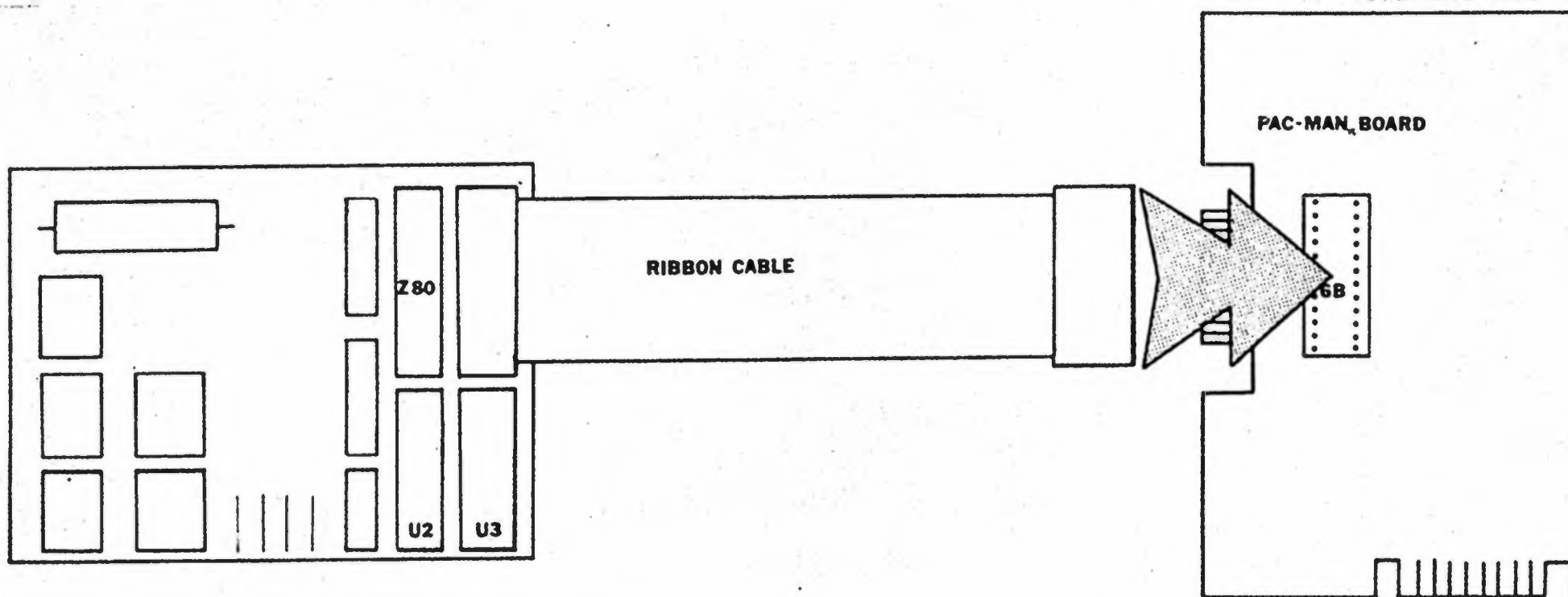


9. Remove the old marquee and bezel. Repair any damage to the cabinet or metal framework.
10. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all PAC-MAN® and Midway decals. We have provided exciting new graphics so that when freshly painted, your old game will look brand new and will be easily recognized as the exciting new game "BEASTIE FEASTIE".
11. Install the new marquee and bezel. Next, install the control panel so that it locks down over the bezel glass.
12. Enjoy the increased earnings from your remanufactured video game.

# Instructions For "BEASTIE FEASTIE" Conversion

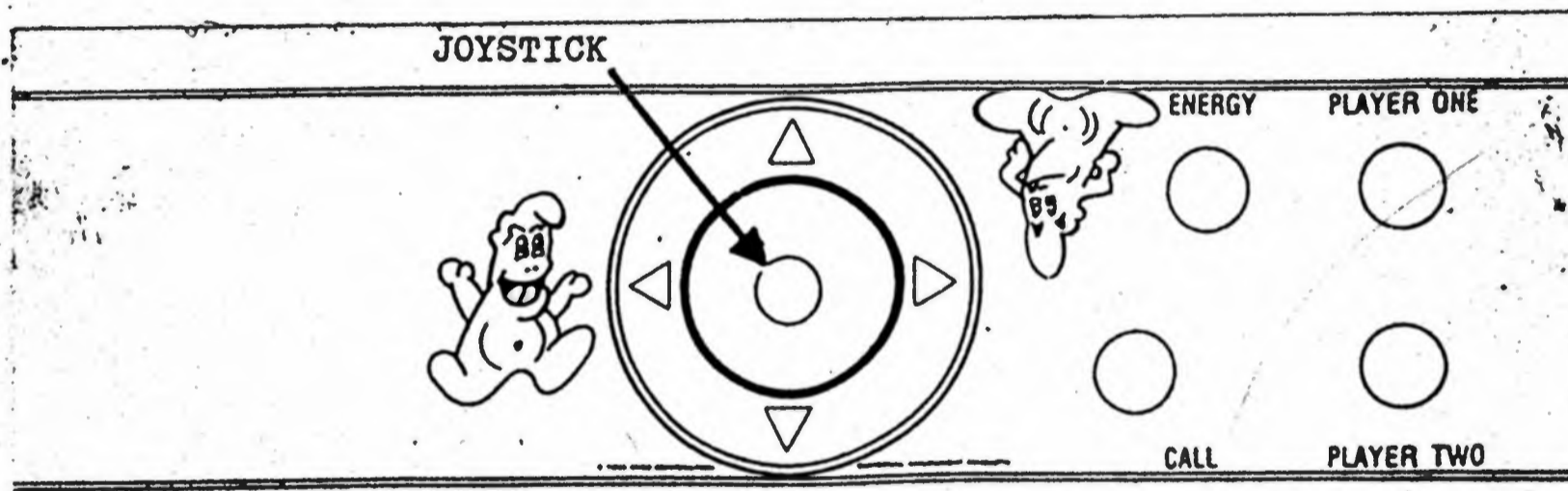
## COCKTAIL VERSION

1. Check the contents of the box containing the "BEASTIE FEASTIE" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Remove the PAC-MAN® PROMs at locations 4A and 7F and replace with the corresponding "BEASTIE FEASTIE" PROMs. Also, remove the PAC-MAN® character PROMs at locations 5E and 5F and replace with the EPROMs included in the package.
3. The satellite board has been shipped to you with both ends of the ribbon cable plugged in. Carefully unplug the end of the cable nearest the center of the board so that the assembly appears as follows:



4. Carefully remove the Z80A microprocessor (6B) from the PAC-MAN® board and plug it into the satellite board in the empty socket location.
5. Next, plug the ribbon cable connector into the socket on the side of the PAC-MAN® board located at 6B. See above figure for proper orientation.
6. No PAC-MAN® software is used by this conversion; the remaining EPROMs (6E, 6K, 6F, 6M, 6H, 6N, 6J, 6P) may be removed or left on the board for storage, since they are not accessed and do not interface with "BEASTIE FEASTIE".
7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside the R.F. cage. Make sure the R.F. cage is well grounded. Securely fasten the satellite board inside the cage, do not let it dangle.

8. Remove the cover glass and gently scrape the old artwork off.
9. Remove the One and Two Player Start buttons. Also remove the old PAC-MAN® control panel overlays.
10. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all PAC-MAN® and Midway decals. We have provided exciting new graphics so that when freshly painted, your old game will look brand new and will be easily recognized as the exciting new game "BEASTIE FEASTIE".
11. The cover glass underlay sheet has the new control panel overlays in the center of it. Cut these out and cut holes for the joysticks in them. Apply the self-adhesive control panel overlays. Use screws on each corner to hold them down securely. Trim the overlay material out of the One and Two Player Start button holes and remount the buttons. Drill two holes, 1 1/8 inches in diameter, at the spots indicated below for the Energy and Call buttons. Mount the buttons provided with the kit. Wire the player one Energy button to the One Player Start button. Wire the player one Call button to the Two Player Start button. On the player two control panel, the Energy button should be wired to pin K on the PAC-MAN® edgeconnector and the Call button should be wired to pin 9. Make sure the Table input (pin R on the edgeconnector) is connected to ground.



13. Apply the new cover glass underlay and trim to size. Remount the cover glass.
14. Enjoy the increased earnings from your remanufactured video game.

## Dip Switch Assignments

Switch #	Description
1	# OF TOBYS PER CREDIT
2	# OF TOBYS PER CREDIT
3	DIFFICULTY LEVEL
4	DIFFICULTY LEVEL
5	DIFFICULTY LEVEL
6	ATTRACT MODE SOUND ON
7	DIAGNOSTICS ON-ENTER OFF-EXIT
8	NOT USED

SW #1	SW #2	
OFF	OFF	3 TOBYS/CREDIT
ON	OFF	4 TOBYS/CREDIT
OFF	ON	5 TOBYS/CREDIT
ON	ON	6 TOBYS/CREDIT

SW #3	SW #4	SW #5	
OFF	OFF	OFF	DIFFICULTY LEVEL #1
ON	OFF	OFF	DIFFICULTY LEVEL #2
OFF	ON	OFF	DIFFICULTY LEVEL #3
ON	ON	OFF	DIFFICULTY LEVEL #4
OFF	OFF	ON	DIFFICULTY LEVEL #5
ON	OFF	ON	DIFFICULTY LEVEL #6
OFF	ON	ON	DIFFICULTY LEVEL #7
ON	ON	ON	DIFFICULTY LEVEL #8

## BEASTIE FEASTIE Diagnostics

In order to aid the operator in setting up "BEASTIE FEASTIE", adjusting the monitor, and quickly locating and correcting problems, several comprehensive diagnostic routines were provided in "BEASTIE FEASTIE" software. Flip dip switch number seven on, then back to off to enter diagnostics on both upright and cocktail models. As an additional convenience to the operators, the standard Test switch may be used to enter diagnostics on upright models. After activating one of the diagnostics switches, a menu will be displayed which instructs the operator to use the player's controls to select and execute the various routines. The options are:

1. Current Settings
2. Static RAM
3. EPROMs
4. Convergence
5. Sounds
6. Buttons
7. Exit

The above seven selections are described as follows:

1. **CURRENT SETTINGS** - Upon entering this routine, the status of Dip Switches 1 through 5 will be displayed along with a description of the function of each switch. Additionally, "Upright" or "Table" is displayed, indicating which mode the game is in. Use this routine when checking the settings or use it as an aid in readjusting the settings. Among the game functions which may be adjusted are the number of Tobys per credit, the difficulty level, and whether the attract mode sound is on or off.
2. **STATIC RAM** - This routine allows IC's 4K, 4L, 4M, 4N, 4P, and 4R on the main game board to be checked for faulty static RAM locations. Should an error be found, try reseating the "bad" chip. If an error still persists, replace the offending IC.
3. **EPROMS** - This selection performs a ROM checksum on U2 and U3 on the sub-board which point out data and program memory errors should they exist. Faulty EPROM's will be identified after execution of this routine and the checksums will be displayed. Try reseating the EPROM's before an EPROM failure is assumed. If an EPROM is replaced, replace it with one with the same code number as indicated on the EPROM label.
4. **CONVERGENCE** - This routine displays a convergence pattern which allows the operator to align the color guns of the video game monitor.
5. **SOUNDS** - Each of the game sounds found in "BEASTIE FEASTIE" may be initiated with this test.

6. **BUTTONS** - This routine allows the operator to locate faulty buttons. Each of the player inputs (including the coin-in) is displayed on the screen. When a button is depressed, the appropriate display is highlighted and a tone is sounded to indicate activation. If no indication is given, faulty or dirty contacts should be suspected. This routine can also be used to assist in the initial hookup of all of the controls.
7. **EXIT** - This routine tests the automatic watchdog reset feature of the hardware and if successful, takes the operator out of diagnostics and into the game's attract mode. Dip switch number seven must be off for this routine to work.

#### **SERVICE INFORMATION**

If this kit fails to operate properly, contact your local distributor or **CARDINAL AMUSEMENT PRODUCTS'** service department at 1-800-421-0667. In Alabama call 826-7056. Our service staff will address your problem quickly and courteously.

**CARDINAL AMUSEMENT PRODUCTS**  
**A DIVISION OF EPOS CORPORATION**  
507 STAGE ROAD  
P.O. BOX 2219  
AUBURN, AL 36830

## W A R R A N T Y

EPOS Corporation's Cardinal Amusement Products printed circuit boards are warranted against defects in materials and workmanship under normal usage for a period of ninety (90) days from the date of shipment. If EPOS receives notice of such defects during the warranty period, and the product is returned, EPOS shall, at its option, either repair or replace the defective product, or credit the Buyer's account for such products as are returned to EPOS during the warranty period.

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