



PRESENTS



Cardinal Amusement Products is a division of EPOS Corp

STREET HEAT DONKEY KONG® Conversion Kit

STREET HEAT is an exciting new conversion driving game from Cardinal Amusement Products. The player drives a powerful police cruiser in pursuit of bad guys in a variety of sleek, sharp automobiles. **STREET HEAT** combines the exciting elements of driving and shooting games, giving the player the chance to accelerate and feel the sensation of speed, to brake, maneuver through curves, to thread his way through traffic, and blast enemy cars. Points are awarded for speed: the faster you drive, the greater the excitement and the higher your score. Bonus points are awarded for blasting enemy cars, but be careful: shooting good guys (white cars) can wreck your bonus.

STREET HEAT 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 **DONKEY KONG®** game to an attractive new **STREET HEAT**.

In addition to this manual,

The upright conversion kit contains:

- Satellite board
- Marquee (header glass)
- Control panel overlay
- 3 Buttons and switches
- Steering wheel assembly (optional)

The cocktail conversion kit contains:

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

STREET HEAT is a trademark of Cardinal Amusement Products
DONKEY KONG® is a registered trademark of NINTENDO OF AMERICA INC.

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 logic board through the enclosed ferrite torroids to suppress radiated emissions.

If your game is an older model not having a cage, this should be obtained from the game manufacturer.

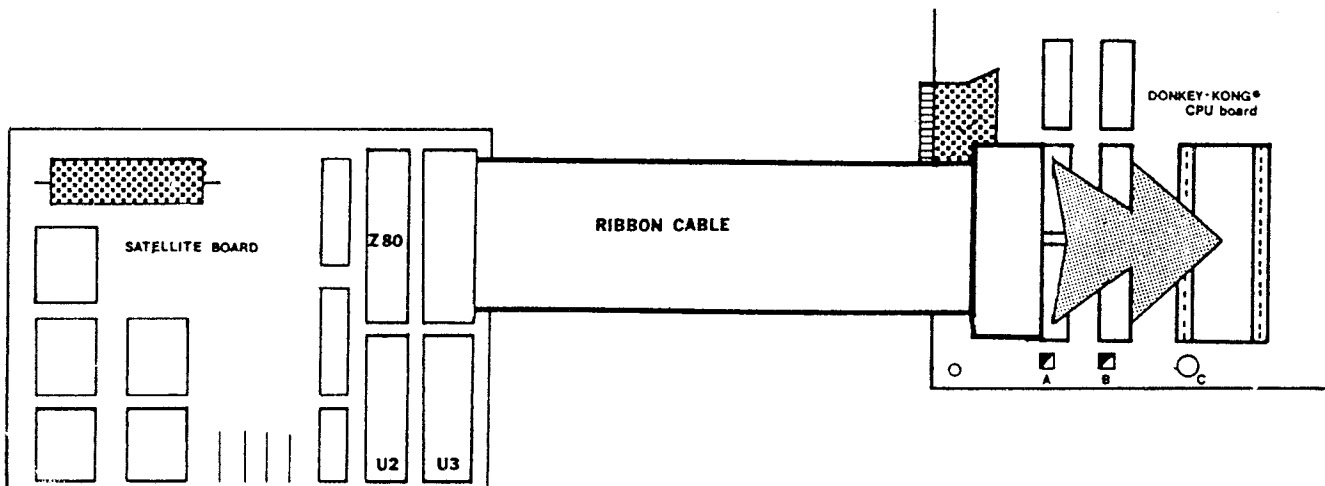
CAUTION

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 "STREET HEAT" Conversion

UPRIGHT VERSION

1. Check the contents of the box containing the "STREET HEAT" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Included with the kit are 10 chips labeled IC 1 through IC 10. Page 7 of this manual shows where the chips should go on both the two-board and the four-board versions of DONKEY KONG®. Replace your original DONKEY KONG® chips with the new STREET HEAT chips.
3. Take the satellite board out of its anti-static bag and align it with the DONKEY KONG® board so that the assembly appears as follows:

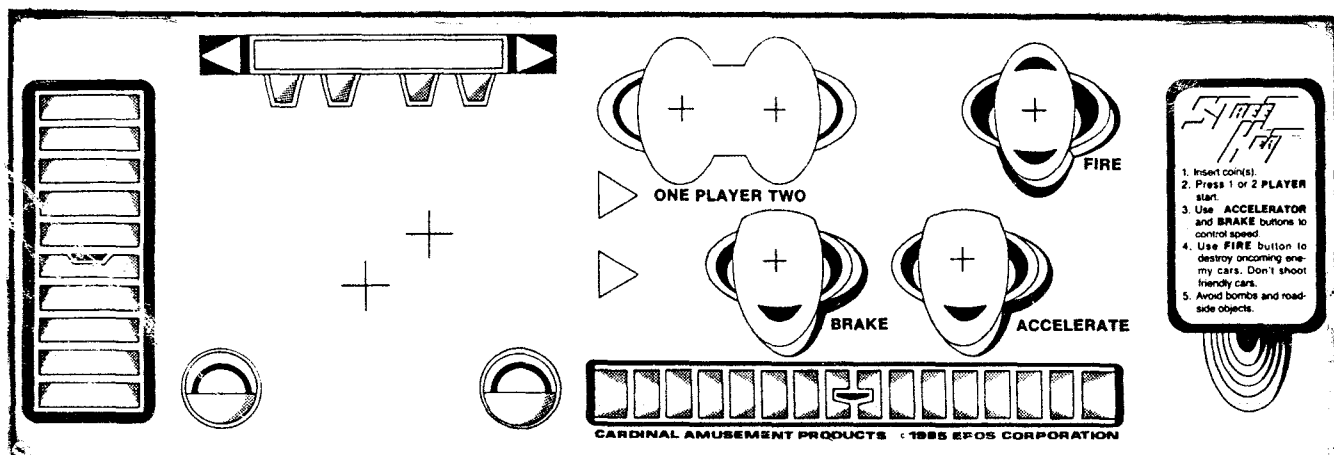


4. Carefully remove the Z80A microprocessor (7C on the two-board version or 5C on the four-board version) from the DONKEY KONG® CPU board and plug it into the satellite board in the empty socket location.

5. Next, plug the ribbon cable connector into the socket on the DONKEY KONG® CPU board located at 7C on the two-board version or 5C on the four-board version. See above figure for proper orientation.
6. No DONKEY KONG® software is used by this conversion; the remaining EPROMs (5A, 5B, 5C, 5E, and 3F on the CPU board for the two-board version or 5F, 5G, 5H, 5K, and 5L on the CPU board and 3J on the SOU board for the four-board version or 5A, 5B, 5C, and 5E on DONKEY KONG JUNIOR® boards) should be removed since they are not accessed and do not interface with "STREET HEAT".
7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside an 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 DONKEY KONG® control panel from the cabinet. Take the One and Two Player Start buttons, the Joystick, and the Jump button off of the control panel and remove the old DONKEY KONG® plexi-glass overlay. It will be necessary to drill a 1 1/8 inch diameter hole in the wooden control panel for the Brake button, and if the optional steering wheel is used a hole of approximately 2 1/8 inch diameter and four small mounting holes must also be drilled in the old control panel. The holes for the Brake button and steering wheel shaft can be outlined by fastening the new plexi-glass overlay to the control panel and following the edges of pre-cut holes with a pencil. (The overlay should be removed before the holes are drilled.)

Steering wheel models only: Holes for the four bolts which will secure the steering wheel assembly can be positioned by placing the steering wheel bracket against the control panel with the shaft through the large hole, and outlining the notches in the bracket with a pencil. Mount the steering wheel with the four bolts provided (the heads should be counter-sunk).

Mount the new overlay and bolt it down. Mount the buttons provided with the kit. Reinstall your original Player Start buttons.



9. Solder the wires from the Jump button to the new Fire button. The wire that was attached to Up on the Joystick should be soldered to the new Accelerator button, and the Down wire to the new Brake button.

Steering wheel models only:

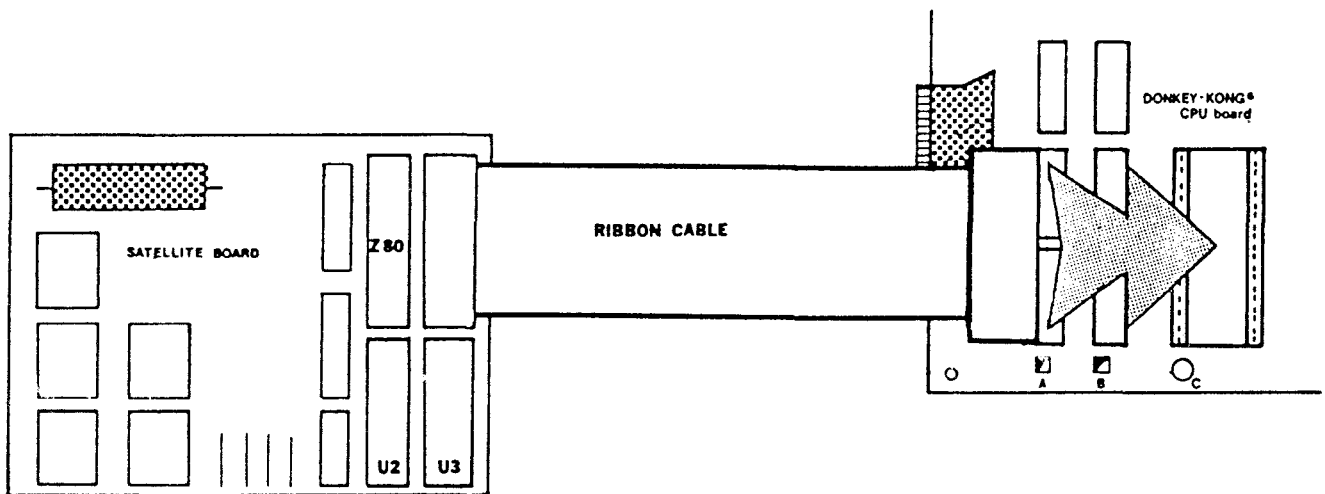
An exploded diagram of the steering wheel assembly is provided with this manual. Of particular importance is the alignment of the circuit board (17), which is mounted so that the slotted wheel (23) turns freely through the plastic guide containing the two LED pairs. If the steering wheel does not operate properly the manufacturer suggests that the circuit board be loosened and slid outward until the slotted wheel (23) contacts the inner part of the guide, then moved slightly inward (about 1/8 inch) to allow the wheel to turn freely, and tightened in this position. The wire that was connected to Left on the Joystick should be connected to the white wire from the decoder circuit board attached to the Steering Wheel assembly, and the Right wire to the brown wire on the decoder board; the black wire from the decoder board should be connected to a Ground wire on the control panel (common to all button switches), and the red wire from the decoder board should be connected to a +5v power supply (the + side of a filter capacitor on the DONKEY KONG® logic board is a convenient place to solder this wire, while a permanent connection to a +5v wire in the power supply harness may be better if the logic board is to be removed later).

10. Remove the old marquee and bezel. Turn the bezel around so that no DONKEY KONG® artwork shows and remount it. A STREET HEAT bezel to be mounted in front of the Donkey Kong® bezel is available as an option from Cardinal Amusement Products for a small cost. Repair any damage to the cabinet or metal framework.
11. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all DONKEY KONG® and Nintendo 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 "STREET HEAT".
12. Install the new marquee and the control panel.
13. Enjoy the increased earnings from your remanufactured video game.

Instructions For "STREET HEAT" Conversion

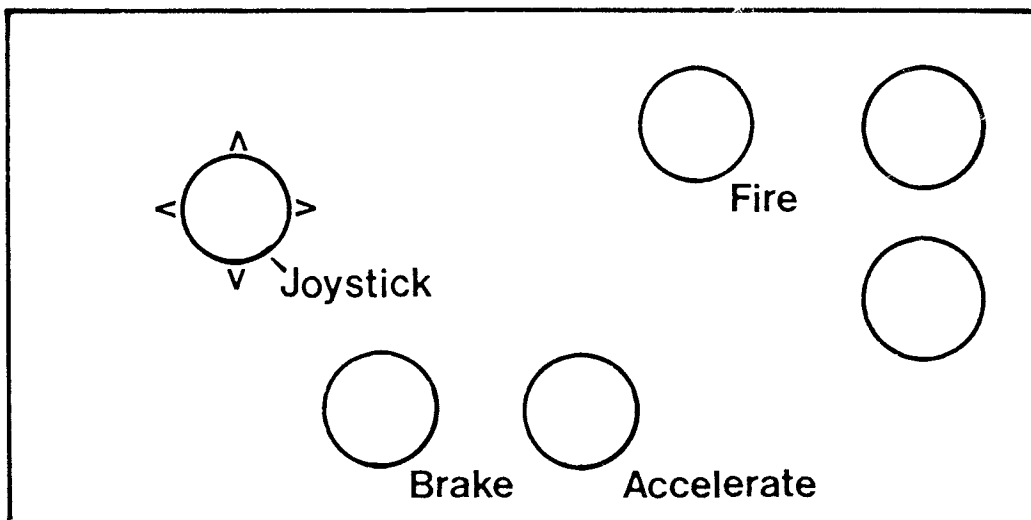
COCKTAIL VERSION

1. Check the contents of the box containing the "STREET HEAT" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Included with the kit are 10 chips labeled IC 1 through IC 10. Page 7 of this manual shows where the chips should go on both the two-board and the four-board versions of DONKEY KONG®. Replace your original Donkey Kong® chips with the new STREET HEAT chips.
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 (7C on the two-board version or 5C on the four-board version) from the DONKEY KONG® CPU 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 DONKEY KONG® CPU board located at 7C on the two-board version or 5C on the four-board version. See above figure for proper orientation.
6. No DONKEY KONG® software is used by this conversion; the remaining EPROMs (5A, 5B, 5C, 5E, and 3F on the CPU board for the two-board version or 5F, 5G, 5H, 5K, and 5L on the CPU board and 3J on the SOU board for the four-board version or 5A, 5B, 5C, and 5E on the DONKEY KONG JUNIOR® board) should be removed since they are not accessed and do not interface with "STREET HEAT".

7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside an 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, the Jump buttons, and the Joysticks from both control panels. Also remove the old DONKEY KONG® control panel overlays.
10. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all DONKEY KONG® and Nintendo 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 "STREET HEAT".
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 controls in them. See the diagram below for the placement of the controls. Trim the overlay material out of the dotted circles to make holes for the joysticks. 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 1 1/8 inch diameter holes where needed for the new controls. Mount the buttons provided with the kit. The wire from the Jump button should be soldered to the new Fire button. The wire from Up on the Joystick should be soldered to the new Accelerator button, and the Down wire from the joystick should be soldered to the new Brake button.



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

STREET HEAT IC #	TWO-BOARD DONKEY KONG®	FOUR-BOARD DONKEY KONG®
1	3H ON CPU BOARD	3I ON SOU BOARD
2	3N ON VIDEO BOARD	5H ON VIDEO BOARD
3	3P ON VIDEO BOARD	5K ON VIDEO BOARD
4	7C ON VIDEO BOARD	4M ON CLK BOARD
5	7D ON VIDEO BOARD	4N ON CLK BOARD
6	7E ON VIDEO BOARD	4R ON CLK BOARD
7	7F ON VIDEO BOARD	4S ON CLK BOARD
8	2E ON CPU BOARD	2K ON CPU BOARD
9	2F ON CPU BOARD	2J ON CPU BOARD
10	2N ON VIDEO BOARD	5F ON VIDEO BOARD

Dip Switch Assignments

Recommended Settings	Switch #	Description
ON	1	ATTRACT MODE SOUND ON OR OFF
OFF	2	# OF SHIPS PER CREDIT
ON	3	# OF SHIPS PER CREDIT
OFF	4	DIFFICULTY LEVEL
ON	5	DIFFICULTY LEVEL
OFF	6	DIFFICULTY LEVEL
---	7	ON-JOYSTICK, OFF-STEERING WHEEL
---	8	OFF-UPRIGHT, ON-COCKTAIL

SW #2	SW #3	
OFF	OFF	3 SHIPS/CREDIT
ON	OFF	4 SHIPS/CREDIT
OFF	ON	5 SHIPS/CREDIT
ON	ON	6 SHIPS/CREDIT

SW #4	SW #5	SW #6	DIFFICULTY LEVEL	EXTRA CAR AT:
OFF	OFF	OFF	1	10000 POINTS
ON	OFF	OFF	2	20000 POINTS
OFF	ON	OFF	3	30000 POINTS
ON	ON	OFF	4	40000 POINTS
OFF	OFF	ON	5	50000 POINTS
ON	OFF	ON	6	60000 POINTS
OFF	ON	ON	7	70000 POINTS
ON	ON	ON	8	80000 POINTS

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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