



ROAD RIOT 4WD™

Installation Instructions for Link Kit

Supplement to the Road Riot 4WD Universal Kit
Installation Instructions (TM-373)

Introduction

This link kit contains the parts necessary to link two Road Riot 4WD™ upright games together. (Refer to Table 1 for the contents of the link kit.) This supplement to the kit installation instructions describes how to install these parts. It also describes the self-test software unique to this linked version.

Installing the Electronic Components

First, make sure your two upright cabinets have been completely retrofitted with the Road Riot 4WD kit parts. However, *do not install* the red steering control decal and control panel decal on one of the games. One game of the linked pair will have red decals on

Part No.	Description	Part No.	Description
72-1606F	#6-32 x 3/8"-Long Pan-Head, Cross-Recessed Screws (4)	178032-002	#10 Wire and Cable Ties (4)
049319-01	Blue Steering Control Decal	178275-016	1" PCB Support Standoffs (2)
049864-01	Label for Monitor Bezels (2)	178340-001	Ceiling Mobile Hook with String
049865-01	Overhead Attraction Card	A049773-01	Com/Link PCB Assemblies (2)
049969-01	Blue Control Panel Decal	A049817-01	Link Interconnect Harness Assemblies (2)
150036-008	8-Foot DB25 Straight-Through Serial Cable	A049819-01	Link Plate & Harness Assemblies (2)
175015-0113	#6 Steel/Cadmium External-Tooth Lock Washers (4)	A049823-01	Link PCB Interconnect Harness Assemblies (2)
176015-112	#10 x 3/4"-Long Pan-Head, Cross-Recessed Deep-Thread Screws (6)	A050127-01	Link Filter PCB Assemblies (2)

Packaging materials are not listed. All parts are a quantity of 1, except as noted in parentheses.

Table 1 Contents of Road Riot 4WD Link Kit

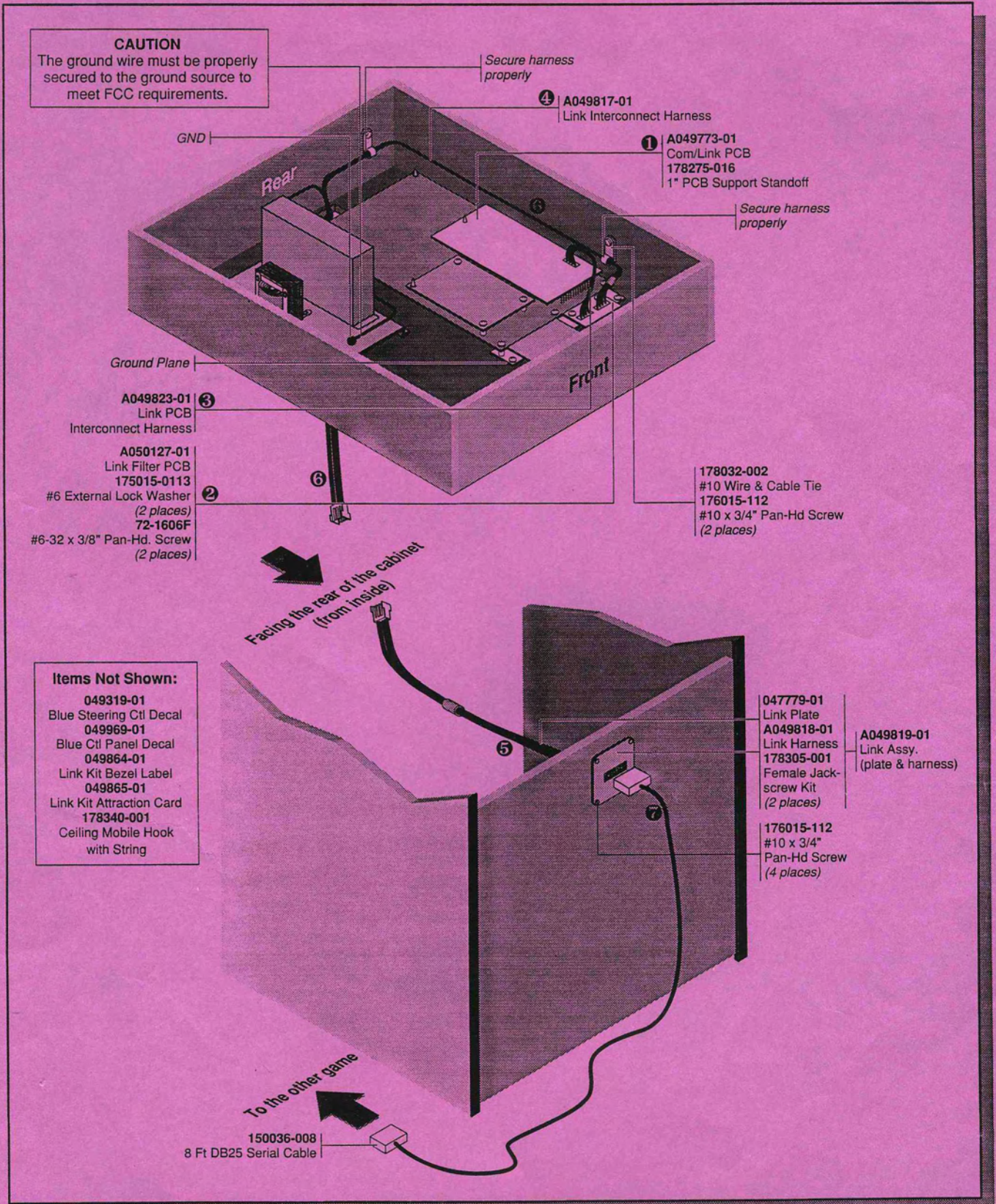


Figure 1 Assembled Board Set with Link Kit Options Installed
A049867-01 E

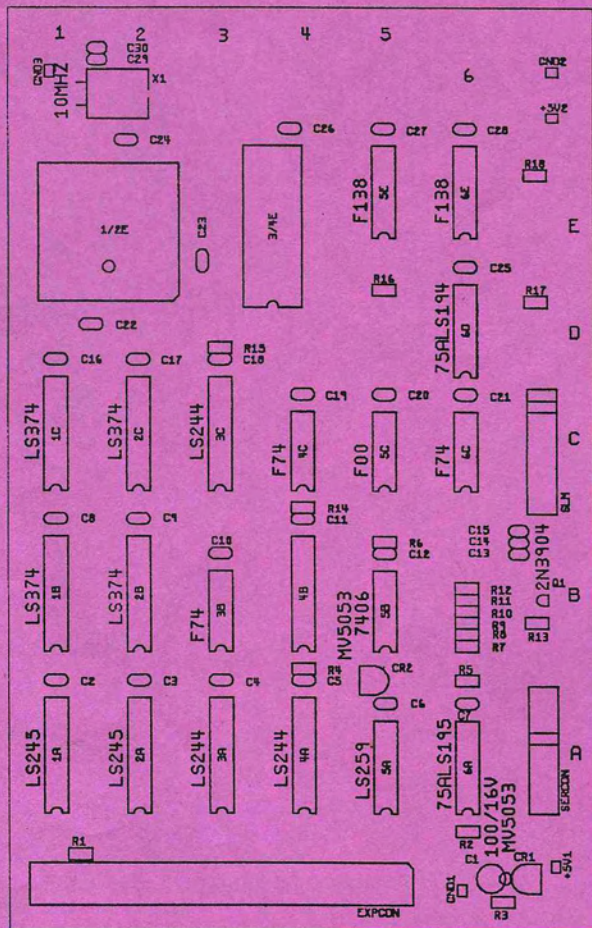


Figure 2 Comm/Link Board Assembly

the control panel, and the other linked game will have blue decals (to match the car colors on the screen).

Both one-player games should pass their respective Complete RAM/ROM Tests. At this point you do not have to permanently mount the printed-circuit boards into the cabinets.

As you install the link kit parts into each game, follow the numbered steps below and shown in Figure 1 of this supplement.

1. With the large board sets completely accessible to you, insert one PCB support standoff into each hole on the large Road Riot 4WD Game PCBs. Mount each Com/Link PCB on top of the wide connector underneath it, and press down on the rear of the Com/Link PCB to snap it over the standoff and to secure it.

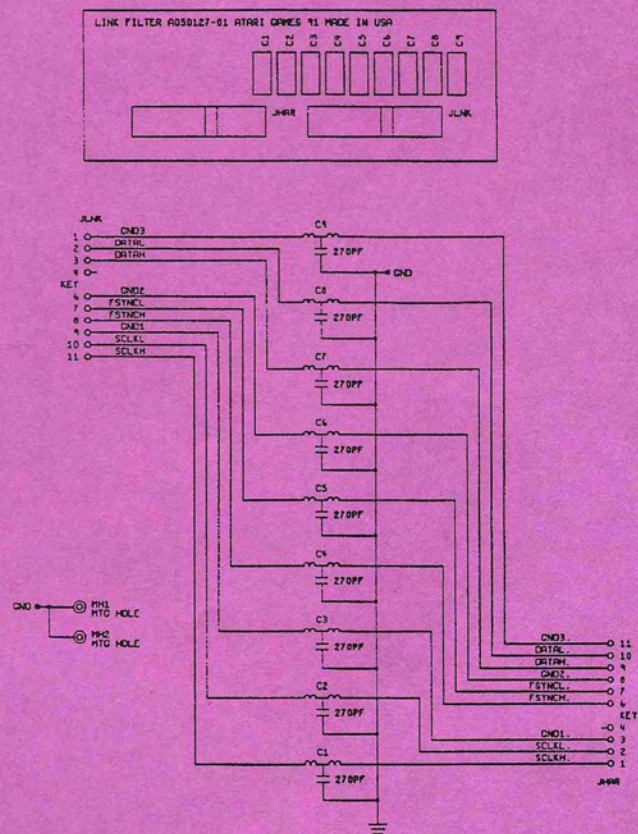


Figure 3 Link Filter Board Assembly and Schematic Diagram

2. Mount each Link Filter PCB at the front edge of the Game PCB, halfway on the ground plane. Use two lock washers and two #6-32 screws to secure the Link Filter PCBs.
3. Plug the Link PCB Interconnect Harnesses (the very short harnesses, part no. A049823-01) into left connector on each Link Filter PCB. Plug the other end into each Com/Link PCB.
4. Plug the long Link Interconnect Harnesses (part no. A049817-01) into the right connector on each Link Filter PCB.
5. Drill a 3-inch-diameter hole in the rear wall of each cabinet you will link together. Mount the link plates on the outsides of the holes, drill pilot holes, and insert four screws on the outside of the cabinets to secure each plate.

6. Plug the Link Interconnect Harness into right connector on the Link Filter PCB. Route each of these harnesses away from (above) the game PCB as shown in Figure 1. Then secure the harnesses to the inside of the cabinets with the screw-down cable ties provided. Use two ties per harness. If a hole does not exist in the rear of your cabinet's drawer, drill one large enough to allow the connector to pass through. Then thread the harness down through the hole and towards the rear of the cabinet. Plug the Link Harness and Link Interconnect Harness together.
7. Plug the serial cable into the jack on the back of each cabinet. The cable is 8 feet long — make sure it is located so no one will trip over it.

Now permanently mount the board set and ground plane on the wood shelf in the cabinet.

Installing the Decals and Sign

Follow the instructions on page 1-7 of the *Road Riot 4WD Universal Kit Installation Instructions (TM-373)* for drilling and assembling the control panel. Then install the blue control panel label on that game.

Install the blue steering control decal onto the steering control. Then adhere the bezel label onto the center bottom of the monitor bezel.

Move the game with the blue decals to the left side, and the one with the red decals to the right.

Finally, attach the hook to the attraction card, and hang the card from the ceiling above the two games.

Using the Self-Test Procedure with Linked Games

On the game with the blue decals, enter the self test and select the Game Options screen. Set the car color option to *Blue*.

The DSP Comm Tests and DSP Link Tests in the self-test will now work properly because two games are linked together.

DSP Comm Tests

The tests under this main screen item check the local communications of the game. Press the start button to see the sub-menu, which lists five tests:

- Vital signs
- 2105 internal data RAM
- 2105 internal program RAM
- 2105 link
- 2105 special functions (intended to be used *only* by Atari Games technicians to troubleshoot a faulty link board)

Select each test with the trigger switch (except the special functions test), and execute each test by pressing the start switch. You should see *OK* displayed on the screen. If any test fails, contact the Atari Games Customer Service office closest to you for help.

DSP Link Tests

The tests under this main screen item check the link between the two games. These tests are intended to be used *only* by Atari Games technicians, except for the cable test.

To use the cable test, set one game to "Echo" and the other game to one of the "Originate" settings. The screen will show hexadecimal numbers transmitted by the originating game and what data it received back. Then reverse the settings of the games: change the game that was echoing to be the one originating, and vice versa.

NOTE

*A link problem can remain hidden and unsolved if you do not check the link in **both** directions.*

If incorrect data is received in any of these cable tests, you may have a problem with the cable, plug, harnesses, or connectors.

If you need technical assistance, call Atari Games Customer Service at one of the following locations:

United States: (408) 434-3950
Atari Games Corporation, 737 Sycamore Drive,
Milpitas, CA 95036-1110
(Monday–Friday, 7:30 a.m.–4:00 p.m.
Pacific time)

OR

Europe: 062-52155
Atari Games Ireland Limited,
Tipperary Town, Ireland
(Monday–Friday, 9:00 a.m.–5:30 GMT)