

# COBRA COMMAND

CONVERSION KIT  
FOR  
INTER STELLAR

INSTALLATION INSTRUCTIONS



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# DATA EAST USA, INC.

Thank you for purchasing a **Data East COBRA COMMAND™** Laser Conversion Kit.

Your Kit includes:

- A. 1 COBRA COMMAND Laser Disk.
- B. 1 COBRA COMMAND EMI shield and mounting hardware.
- C. 1 COBRA COMMAND P.C. Board with 3 Harnesses.
- D. 1 Clear control panel plexi-glass.
- E. 1 Set of control panel decals.
- F. 1 Control panel overlay.
- G. 1 COBRA COMMAND monitor cardboard underlay.
- H. 1 COBRA COMMAND marquee decal.
- I. 2 COBRA COMMAND side decals.
- J. 1 FCC WARNING STICKER.
- K. 4 Pushbuttons with Holders.

## NOTICE:

Proper game play requires Wico No. 15-943106 or Wico No. 15-943104 or equivalent heavy duty joystick. The heavy duty joystick is not part of this kit.

## HIGH VOLTAGE CAUTION

All video games use life threatening high voltages. Only qualified electronic personnel should perform these conversions.

# I CONVERSION SUMMARY

## CHOOSING THE MACHINE TO BE CONVERTED

The COBRA COMMAND™ Conversion Kit has been designed to easily be installed in the Interstellar Laser Game manufactured by Funai. One of the most important considerations determining the success of your conversion will be the condition of the machine you are converting.

## COSMETIC CONSIDERATIONS:

It is important that care is taken when installing the Conversion Kit. The graphics of this kit must be installed carefully to insure an attractive looking game machine. It is recommended that if there are any scratches in the cabinet, they be filled and painted over. This should be done prior to the graphics kit installation.

## MECHANICAL CONSIDERATIONS:

In order to comply with the FCC Rules and Regulations it will be necessary to install an EMI Shield to protect against undesirable radio interference. (see page 7 for installation instructions.) In addition, it will be necessary to replace the joystick with a Wico No. 15-943106 or Wico No. 15-943104 or equivalent for proper game operation.

# II GAME OPERATION

## THE WORLD'S FIRST VIDEO DISC HELICOPTER GAME!!!

You are in command of the most Awesome Combat Machine ever designed . . .

Armed with the world's most sophisticated weaponry, your ultra-modern Jet Helicopter will take you through 10 dangerous missions from New York City to Easter Island . . .

Squeeze the trigger on your Control Lever and unleash 6000 rounds a minute of twin gatling Cannon fire. Press the missile release button and watch the dual Air-to-ground missiles blast off to destroy and ground targets in your sights.

Your life will depend on these weapons as you fly through Canyons, Jungle Valleys, Subterranean Caverns, City Streets, and the high seas on a series of harrowing seek-and-destroy sorties.

A central reconnaissance station calls voice commands and an arrow flashes on your display panel to direct you through complex flying maneuvers, but your ability to **react** to these commands instantly with Control Lever inputs, Cannon and missile fire will ultimately determine your survival.

Take the controls of COBRA COMMAND and thrill to the excitement of the world's first Video Disc Helicopter game - only from Data East.

## HOW TO PLAY

1. Destroy Enemy Targets
2. Use Machine Guns for Flying Targets
3. Use Rockets for Non-Flying Targets

# IV SELF TEST

## SUMMARY

The Self-Test Diagnostic Program is an important function of your COBRA COMMAND Laser game. It is the best way to check for proper operation of the entire game.

## OPERATION

Turn the game off before activating the Self-Test, as a safety precaution. The option switches must be adjusted to activate the Self-Test Diagnostics. (refer to the option setting page) After the switches are set, turn the game ON. Pushing the Player 1 switch will cause the game to step through each of its 10 different Self-Tests. To repeat a test, hold the Rocket button down, while pushing the Player 1 button. The Self-Test Diagnostics will continue to repeat through the 10 tests until the option switch settings have been returned to the game mode. Dip switch II position 8 must be OFF for the game mode and ON for diagnostic mode. Switch 7 must also be OFF for the diagnostics.

### 1) RAM TEST

The Zero Page Ram (Address 0000-0fff) on the VDO-2 Logic Board. Ram locations 3F, 5F are tested. The video (Address 2000-3FFF) and (Address 1800-1837) on the VDO-1 logic board is tested. Several multi-colored screens will quickly be displayed on the screen.

PASS: "OK" will be displayed on the screen.

FAIL: The faulty RAM location will be displayed on the screen.

### 2) ROM READ TEST

The program RAM (Address 4000-Dfff) on the VDO-2 logic board is tested by the check sum process.

PASS: "OK" will be displayed on the screen.

FAIL: The faulty ROM location will be displayed on the screen.

### 3) MONITOR TEST

Use the rocket button to advance through the 18 monitor test patterns.

- |                      |                             |
|----------------------|-----------------------------|
| 1) Red Color Bars    | 10) R.G.B. Color Bars ½     |
| 2) Green Color Bars  | 11) Black Reference (Laser) |
| 3) Blue Color Bars   | 12) Color Bar (Laser)       |
| 4) White Screen      | 13) Red Scale (Laser)       |
| 5) Blue Border       | 14) Green Scale (Laser)     |
| 6) R.G.B. Blocks     | 15) Blue Scale (Laser)      |
| 7) Cross Hatch       | 16) Gray Scale (Laser)      |
| 8) Character Display | 17) White (Laser)           |
| 9) R.G.B. Color Bars | 18) Cross Hatch (Laser)     |

9) **LDP LINE TEST**

The RS 232 Connector and cable for the video disc player communications is tested. This test requires a special purpose socket from the factory. The RS 232 connector is removed from the video disc player and plugged into the special purpose socket. The fire button must be pressed to activate the test.

PASS: "OK" will be displayed on the screen.

FAIL: An Error Message will be displayed on the screen.

10) A **LDP TEST**

The Video Disc Player command are tested, forward play, fast forward, forward slow, forward step, still, reverse play, reverse fast, reverse slow, reverse step, still.

PASS: The Video Disc Player should step through all of the commands and automatically advance to the Disc Test 10 B.

FAIL: If the Video Disc Player does not respond to a command, then the Video Disc Player is bad. Be sure to run the LDP Line Test, because it must work in order for this test to work.

10) B **DISC TEST**

The Video Disc Players search capabilities are tested. Several video screens will rapidly be displayed on the screen.

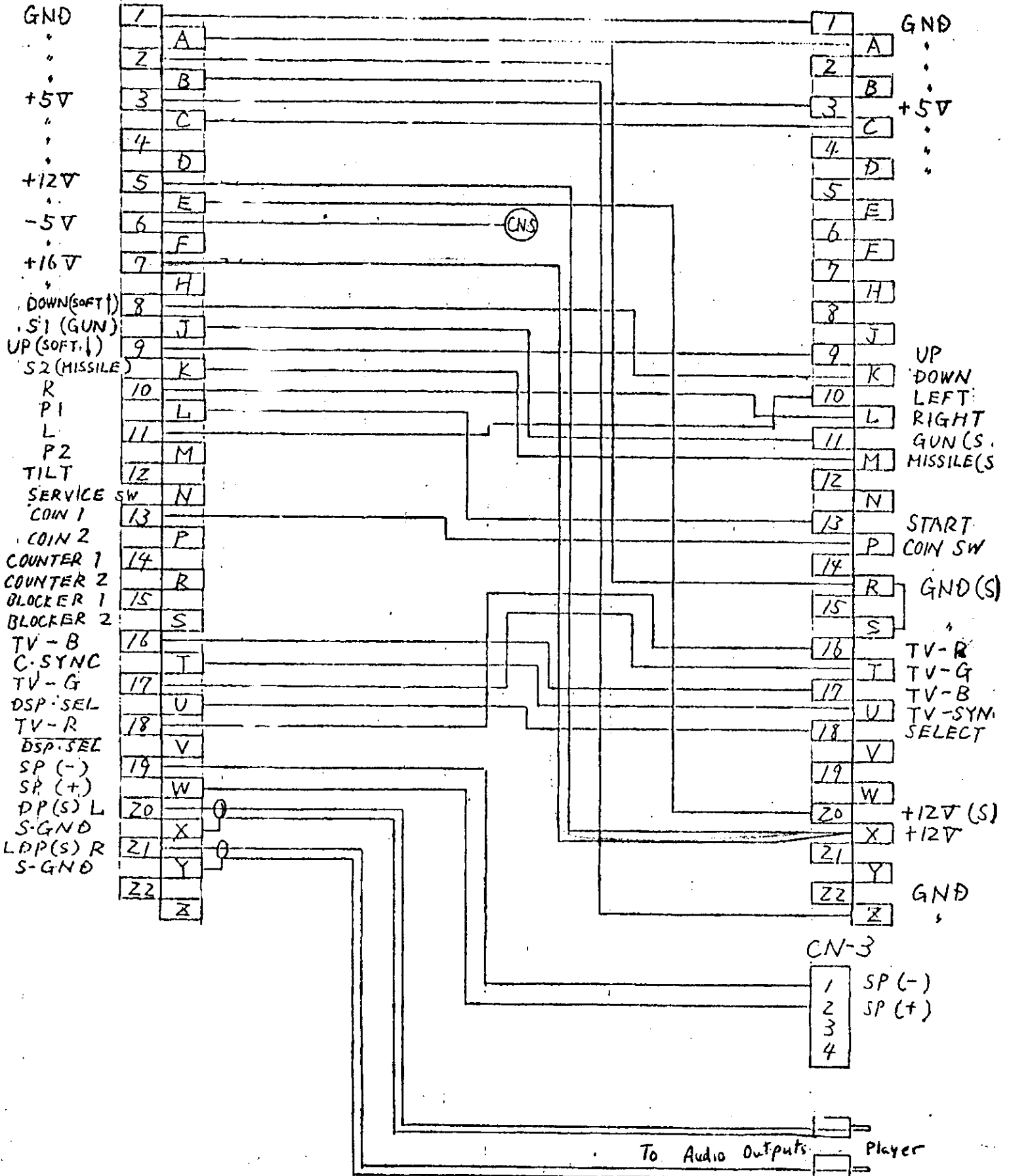
PASS: "End" will be displayed on the screen and automatically advance to RAM TEST.

FAIL: "Error" will be displayed on the screen with the faulty Disc Address.

ADAPTOR HARNESS DIAGRAM

To Cobra Command PC Board

To Interstellar PC Board



# VI COSMETICS

## COSMETICS

### GETTING STARTED

All components that contain any possible original manufacturers name (other than the serial number plate), graphics or game information must be removed or covered by some means. Do not destroy or discard the Header Plex (top flashing), Control Panel and/or Monitor Plex or Glass as these items may have to be used or modified for your conversion.

The Control Panel Monitor areas are probably the most important components of your conversion since they are the main interface between the player and the game.

### MONITOR PLEXI GLASS

Many games have been manufactured with graphics screens printed to the back side of the plex. These graphics must be removed or a new clear plex installed. One method of removing the screen printed material is to soak a rag in lacquer thinner and wipe the plex clean. It may take repeated applications of the thinner to completely remove all traces of the graphics. An oversized COBRA COMMAND cardboard overlay has been supplied to be placed under the monitor plex. Using masking tape, temporarily align the viewing hole of the underlay with the monitor screen. Mark and trim the excess cardboard as required.

### CONTROL PANEL

The COBRA COMMAND control panel overlay supplied in your kit has been designed to work with player controls in a variety of positions. The first step is to remove all push-buttons and the joystick. We have included player buttons and Harness in your kit. Drive any necessary mounting holes before installing control panel overlay. The control panel overlay has a very strong adhesive applied to one side which is protected with an easy-release paper backing. Since the overlay is oversized, position it carefully over the control panel before removing the protective backing to determine exactly how it will be installed. Remove the backing and apply the overlay to the panel as it was judged to fit best. Smooth the overlay from the center of the panel towards the edges being sure to remove all air bubbles as you proceed. The excess overlay material at the top and bottom of the control panel should be wrapped around the edges to prevent players from peeling the material off. All holes may be cut and other excess overlay material may be trimmed using an Exacto Knife or razor blade.

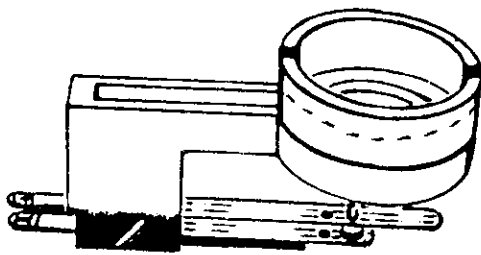
Carefully apply the appropriate push button decals.

A Control panel clear plexi has been supplied to place over the control panel overlay, to prevent decals from being peeled off. To apply the plexi, first, drill all necessary Button and Joystick holes, and 6 holes for the plastic rivets. Next install the plastic rivets and the new push buttons according to the schedule below:

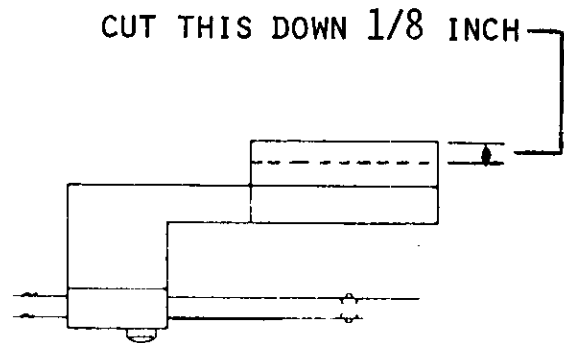
# ATTENTION

PUSHBUTTON SWITCHES—AFTER REPLACING YOUR OLD PUSHBUTTONS WITH THE NEW ONES SUPPLIED IN THE KIT, IF THE BUTTONS DO NOT MAKE CONTACT WITH THE LEAF SWITCHES, CUT THE BUTTON HOLDER DOWN APROX. 1/8 INCH, A HACK SAW IS RECOMMENDED.

## BUTTON HOLDER



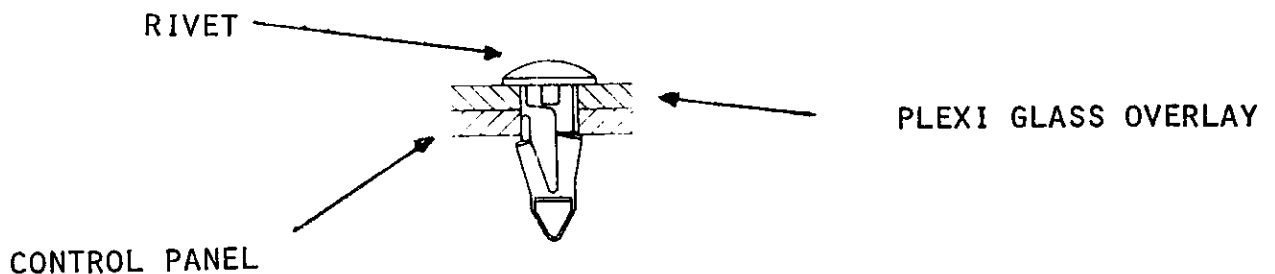
BEFORE



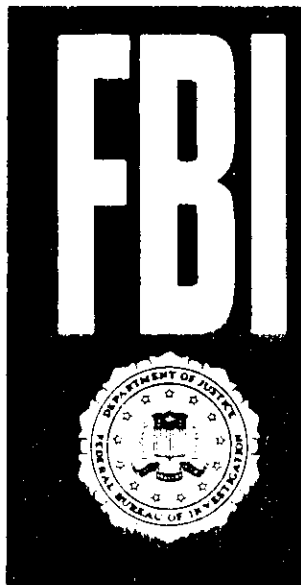
AFTER

CONTROL PANEL—PLASTIC RIVETS HAVE BEEN SUPPLIED TO FASTEN THE CONTROL PANEL TO THE PLEXI GLASS OVERLAY. TO DO THIS, DRILL A 3/16 INCH HOLE IN BOTH THE CONTROL PANEL, AND THE PLEXI GLASS OVERLAY.

## FASTENING THE PLASTIC RIVETS







## **WARNING**

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The Federal Bureau of Investigation investigates allegations of criminal copyright infringement.