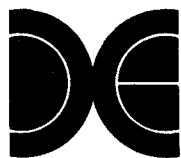


vs. TKO BOXING

for

Nintendo vs. System, vs. DualSystem, and Table model games

INSTALLATION & SERVICE MANUAL



DATA EAST USA, INC.

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INSTALLATION & SERVICE MANUAL

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1. INSTALLATION INSTRUCTIONS.

A. Before You Begin.

Thank you for purchasing this Data East product. This game pak is intended to be installed into any Nintendo Dual-System, Uni-System, or VS. Table-System video game. Check your pak for the components listed below.

| | | |
|---|--------------------------------------|-------------|
| 1 | SUB-BOARD, TKO BOXING | 520-0089-00 |
| 1 | NAMEPLATE OVERLAY | 800-0034-00 |
| 2 | HEADER STRIPS, UNI-SYSTEM | 820-0042-00 |
| 2 | HEADER STRIPS, DUAL-SYSTEM | 820-0043-00 |
| 1 | GAME INSTRUCTION SHEET, TABLE-SYSTEM | 406-0071-00 |
| 1 | INSTRUCTION MANUAL | 780-0071-00 |

B. Graphics.

Remove the marquee glass or plex from the cabinet and carefully remove the Nameplate Overlay.

VS. UNI-SYSTEM ONLY: Install the two top and bottom Header strips to the back of the marquee glass or plex as shown in figure 1.

VS. DUAL-SYSTEM ONLY: Install the Header strips to the right and left rear edges of the glass or plex as shown in figure 1.

Tape the Nameplate Overlay to the Header strips and re-install the glass or plex into the cabinet.

VS. TABLE SYSTEM: Remove the Instruction Plate and replace the existing instruction label with the TKO Boxing Instruction Label as shown in figure 1.

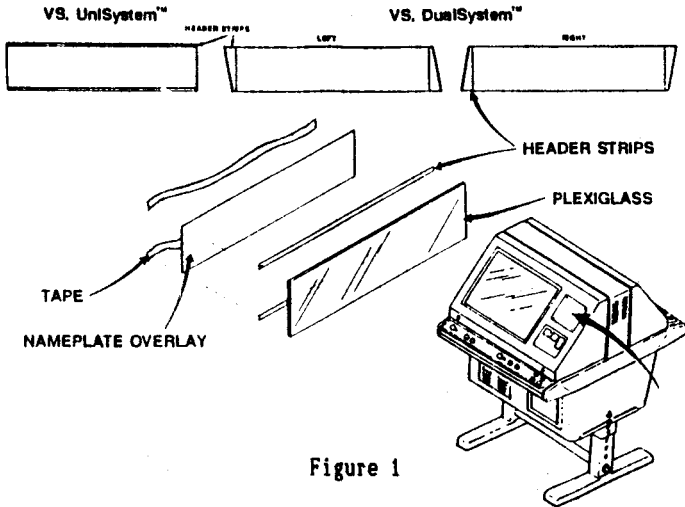


Figure 1

C. Sub-Board.

The VS. TKO Boxing game utilizes a Sub-Board pcb which mounts to the Nintendo MDS pcb and allows the use of larger capacity memory devices in the Nintendo System. Install the Sub-Board using the procedures specified below.

- * Remove the Nintendo MDS pcb from the cabinet.
- * Remove the existing game program Eproms, PPU, and CPU chips from the side you wish to install the Sub-Board (see specific information below).
- * Carefully bend down the Capacitors on the Nintendo MDS pcb at locations C3, C11, C30, and C47 to prevent them from touching the Sub-Board and causing a short circuit.

UNI-SYSTEM: Sub-Board must be installed on the SUB-SIDE, remove Eproms from locations 6A, 6B, 6C, 6D, 8A, and 8B. Remove the PPU and the CPU from locations 8F and 8J.

DUAL-SYSTEM: The Sub-Board can be installed on the MAIN SIDE (Left Screen) or the SUB SIDE (Right Screen). Remove only the Eproms, PPU, and CPU from the side that you select.

IMPORTANT NOTE: Sub-Board option settings **MUST** be set as follows for the TKO Boxing game software to operate.

Switch 1 = ON, Switch 2 = ON, Switch 3 = ON, Switch 4 = ON.

Position the two 40 pin headers protruding from the solder side of the Sub-Board into the respective 40 pin sockets on the Nintendo MDS pcb. Using the palm of your hand, apply pressure down on to the Sub-Board until it seats securely into the Nintendo MDS pcb's sockets. Install the CPU chip removed from the Nintendo MDS pcb into the CPU socket of the Sub-Board.

Install the standoff and retaining screw to ensure proper contact between the Sub-Board and the Nintendo MDS pcb as shown in Figure 2 to complete the installation.

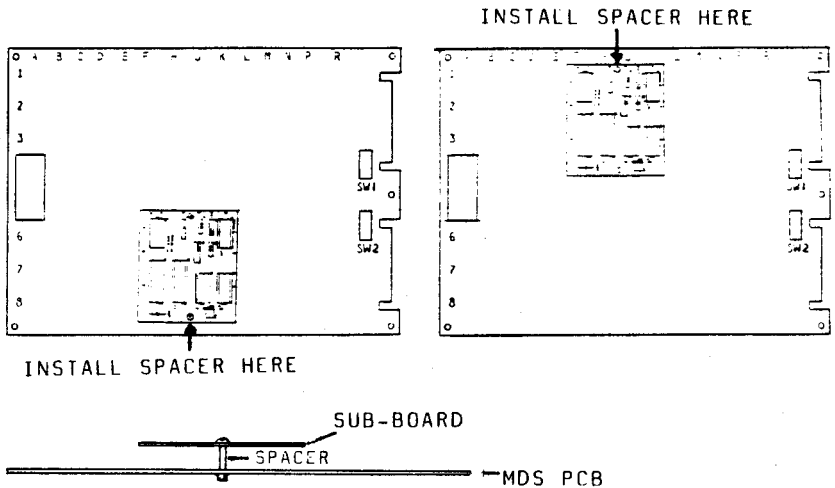


Figure 2

2. GENERAL INFORMATION

A. Operator Selectable options.

The TKO Boxing game contains game play options selectable by changing the settings of a Dip-Switch Bank on the Nintendo MDS pcb. Use SW1 if you have installed the Sub-Board on the MAIN SIDE, and SW2 if you have installed the Sub-Board on the SUB SIDE. The available option settings are shown below in Table 1.

- * To change the Dip-switch settings, remove power to the game, open the rear access, and remove the Nintendo MDS pcb from its cage.
- * Change the switch positions to the desired settings.
- * Re-install the pcb into the cage, making certain that all cabling is plugged in properly and secure.
- * Apply power to the game and test for proper game operation.

| ITEM | DESCRIPTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| COIN | 1 COIN = 1 CREDIT: | OFF | OFF | | | | | | |
| VS | 1 COIN = 2 CREDIT: | ON | OFF | | | | | | |
| CREDIT | 1 COIN = 3 CREDIT: | OFF | ON | | | | | | |
| | 2 COIN = 1 CREDIT: | ON | ON | | | | | | |
| GAME DIFFICULTY | EASY: | | | OFF | OFF | | | | |
| | NORMAL: | | | ON | OFF | | | | |
| | HARD: | | | OFF | ON | | | | |
| | VERY HARD: | | | ON | ON | | | | |
| NOT USED | | | | | | OFF | | | |
| P.P.U. SELECTION | RP2C04 0004: TKO BOXING | | | | | | OFF | OFF | OFF |

Table 1

IMPORTANT NOTE: THE P.P.U. SETTING IS CRITICAL FOR PROPER GAME COLORS! BE CERTAIN THAT SWITCHES 6, 7, AND 8 ARE IN THE "OFF" POSITION!!

B. Sub Board Options.

The Namco Sub-Board (see Figure 3) is used to expand the memory capacity of the Nintendo MDS pcb. The Sub-Board contains a 4 position dip-switch that configures the pcb for the specific memory chips (Eproms or Roms) used for a particular game. If the switches on the Sub-Board are not set properly, the game will not operate.

Table 2 outlines the various memory devices that can be utilized by the Sub-Board, and the proper switch settings for each configuration. The device numbers in the table are abbreviated. For example, 64 in the table would be a 2764 Eprom or an equivalent memory device.

| | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|
| PRG 1: | 512 | 512 | 512 | 512 | 256 | 256 | 256 |
| PRG 2: | 512 | 256 | 128 | 64 | 256 | 128 | 64 |
| SW 1 | ON | ON | ON | ON | OFF | OFF | OFF |
| SW 2 | ON | ON | OFF | OFF | ON | OFF | OFF |
| | | | | | | | |
| CHA : | 512 | 256 | 128 | 64 | -- | -- | -- |
| SW 3 | ON | OFF | OFF | OFF | -- | -- | -- |
| SW 4 | ON | ON | OFF | OFF | -- | -- | -- |

TABLE 2

B. Warranty information.

Data East USA, Inc., ("Seller"), warrants only to the initial purchaser ("Buyer") of its products that the items listed below are free from defects in material and workmanship under normal use and service for the period specified:

| | |
|--|---------|
| SUB-BOARD PCB (AS SUPPLIED IN VS. PAK) | 90 DAYS |
|--|---------|

No other parts of Seller's products are warranted.

Warranty periods are effective from initial date of shipment from Seller to Buyer. Seller's sole liability shall be, at its option, to repair or replace products which are returned to Seller during the warranty periods specified, provided:

1. Seller is notified promptly upon discovery by Buyer that stated products are defective.
2. Such products are properly packaged and then returned freight pre-paid, to Seller's plant.

This warranty does not apply to any parts damaged during shipment and/or due to improper handling, or due to improper installation or usage, or alteration. In no event shall the Seller be liable for any anticipated profits, loss of profits, loss of use, accidental or consequential damages, or any other losses incurred by the customer in connection with the purchase of a Data East USA, Inc., product.

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