CAUTION:

1. DO NOT EXPOSE THE PRINTED CIRCUIT BOARD (PCB) TO DIRECT SUNLIGHT.

2. WHEN TRANSPORTING THE PCB, USE ANTI - STATIC OR ALUMINUM PACKING MATERIAL TO AVOID DAMAGING THE INTEGRATED CIRCUITS.

3. MAKE SURE YOU CHOOSE THE PROPER POWER SUPPLY.

4. PLEASE READ THROUGH THIS MANUAL BEFORE USING THE GAME PCB.

LIST OF PARTS INCLUDED IN THE KIT

1. 510-0013-00 PCB, Chain Reaction
2. 830-0075-00 Marquee, Chain Reaction
3. 780-5034-00 Kit Manual, Chain Reaction
4. 001-0001-00 White Video Kit Carton (Box)
**CHAIN REACTION, KIT - INSTRUCTION MANUAL**

**HARNESS CONNECTION (JAMMA) CN1**

<table>
<thead>
<tr>
<th>SOLDER SIDE</th>
<th>PIN NUMBER</th>
<th>PIN NUMBER</th>
<th>PARTS SIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GND</td>
<td>A</td>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>GND</td>
<td>B</td>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>+5V</td>
<td>C</td>
<td>3</td>
<td>+5V</td>
</tr>
<tr>
<td>+5V</td>
<td>D</td>
<td>4</td>
<td>+5V</td>
</tr>
<tr>
<td>OPEN</td>
<td>E</td>
<td>5</td>
<td>OPEN</td>
</tr>
<tr>
<td>+12V</td>
<td>F</td>
<td>6</td>
<td>+12V</td>
</tr>
<tr>
<td>KEY</td>
<td>H</td>
<td>7</td>
<td>KEY</td>
</tr>
<tr>
<td>COIN COUNTER 2</td>
<td>J</td>
<td>8</td>
<td>COIN COUNTER 1</td>
</tr>
<tr>
<td>GND</td>
<td>K</td>
<td>9</td>
<td>(GND)</td>
</tr>
<tr>
<td>SPEAKER (-)</td>
<td>L</td>
<td>10</td>
<td>SPEAKER (+)</td>
</tr>
<tr>
<td>OPEN</td>
<td>M</td>
<td>11</td>
<td>OPEN</td>
</tr>
<tr>
<td>VIDEO GREEN</td>
<td>N</td>
<td>12</td>
<td>VIDEO RED</td>
</tr>
<tr>
<td>VIDEO SYNC</td>
<td>P</td>
<td>13</td>
<td>VIDEO BLUE</td>
</tr>
<tr>
<td>SERVICE SWITCH</td>
<td>R</td>
<td>14</td>
<td>VIDEO GROUND</td>
</tr>
<tr>
<td>OPEN</td>
<td>S</td>
<td>15</td>
<td>TEST SW</td>
</tr>
<tr>
<td>COIN SWITCH 2</td>
<td>T</td>
<td>16</td>
<td>COIN SWITCH 1</td>
</tr>
<tr>
<td>START SWITCH 2</td>
<td>U</td>
<td>17</td>
<td>START SWITCH 1</td>
</tr>
<tr>
<td>2 P UP</td>
<td>V</td>
<td>18</td>
<td>1P UP</td>
</tr>
<tr>
<td>2 P DOWN</td>
<td>W</td>
<td>19</td>
<td>1P DOWN</td>
</tr>
<tr>
<td>2 LEFT</td>
<td>X</td>
<td>20</td>
<td>1P LEFT</td>
</tr>
<tr>
<td>2P RIGHT</td>
<td>Y</td>
<td>21</td>
<td>1P RIGHT</td>
</tr>
<tr>
<td>2P PUSH 1</td>
<td>Z</td>
<td>22</td>
<td>1P PUSH 1</td>
</tr>
<tr>
<td>2 P PUSH 2</td>
<td>a</td>
<td>23</td>
<td>1P PUSH 2</td>
</tr>
<tr>
<td>OPEN</td>
<td>b</td>
<td>24</td>
<td>OPEN</td>
</tr>
<tr>
<td>OPEN</td>
<td>c</td>
<td>25</td>
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<tr>
<td>OPEN</td>
<td>d</td>
<td>26</td>
<td>OPEN</td>
</tr>
<tr>
<td>GND</td>
<td>e</td>
<td>27</td>
<td>GND</td>
</tr>
<tr>
<td>GND</td>
<td>f</td>
<td>28</td>
<td>GND</td>
</tr>
</tbody>
</table>
CHAIN REACTION, KIT - INSTRUCTION MANUAL

MONITOR (CRT):
- HORIZONTAL SCREEN
- RGB COLOR SIGNALS SEPARATE
- SYNC SIGNAL COMPOSITE:
  0  0, +.5V
  1  +3V, +5V
- IMAGE SIGNAL: +0.4V - 4.5V

OPERATING ENVIRONMENT
- TEMPERATURE: 41 F, 95 F.
- HUMIDITY: 20%, 80%

STORAGE
- TEMPERATURE: -10 F, 149 F.

JOYSTICK:
- 4 WAY JOYSTICK

PLAYER:
- TWO PLAYER GAME

PCB:
- E42-005D
- LENGTH: 11.811"
- WIDTH: 8.267"

POWER SUPPLY:
- +5V +/- 5% 2.5A
- +12V +/- 5% 1.5A
TEST MODE
At power up the PCB will enter in a auto self test mode. An error message will indicate if any malfunction is detected during power up.
If you encounter messages such as: WARNING
GAME MODE SETTING ERROR
please contact your distributor or Data East USA Inc.

GAME OPTIONS SETTINGS
Please locate the test switch on component side of the PCB. By pressing down on the test switch you will activate the game option main menu:

MENU
GAME OPTIONS
COIN OPTIONS
I/O CHECK
GAME MODE

Choose GAME OPTIONS and press the 1 Player Button to enter this screen.

GAME OPTIONS

<table>
<thead>
<tr>
<th>SCREEN ROTATION</th>
<th>NORMAL</th>
<th>REVERSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTRACT MODE SOUND</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>GAME DIFFICULTY</td>
<td>EASY</td>
<td>MEDIUM HARD VERY HARD</td>
</tr>
<tr>
<td>CHARACTER MODE</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>INITIAL HIGH SCORE</td>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>

Please select your preferred settings and press the 1 Player Button to confirm them. When finished highlight the EXIT selection and press the 1 Player Button.
CHAIN REACTION, KIT - INSTRUCTION MANUAL

WARRANTY INFORMATION:
DATA EAST USA Inc. (Seller), warrants only to the initial purchaser of its products that the items listed below are free from defects in material and workmanship under normal use and service for the warranty periods specified:

1. Printed Circuit Boards (PCB) 90 days.

No other parts of the Seller’s products are warranted.

Warranty periods are effective from the initial date of shipment from the Seller to its authorized distributors.

Seller’s sole liability shall be, at its options, 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, prepaid to Seller’s plant.

This warranty does not apply to any parts damaged during shipping or 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, incidental or consequential damages or any other losses incurred by the customer in connection with the purchase of a Data East USA, Inc. products.

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