Required power capacity
GND-Vcc 5V 5A or more
GND-(+12V)
*See the Wiring Diagram.

Output
R(red) analog, positive
G(green) analog, positive
B(blue) analog, positive
SYNC. H-V complexed, negative

The monitor should be horizontally installed. Adjust display area especially in the vertical size so that the entire picture will be perfectly displayed on the screen. Use “SCREEN CHECK” of the Manual Test mode.

There is no sound volume knob on the PCB. Sound level should be adjusted in the Manual Test mode.

Handle with care.

BE SURE TO ADJUST THE VERTICAL SIZE OF THE MONITOR - TO GET THE PERFECT IMAGE.

Play Instruction
- 1 or 2 players can play at the same time. The second player can join in at any time.
- Control your spaceship using the 8-way joystick and destroy the enemies with SHOOT button.
- Destroy the glimmering enemies and pick up power up items: speed up, powerful laser, destructive missile, and FLINT (a biological force) power up.
- Press FLINT button to separate FLINT. Press FLINT button again to call it back and unite.
- Keep pressing SHOOT button to restore energy and release it to make a strongest attack.
- You are given a certain amount of energy per credit at the game start, which decreases each time you are attacked by the enemies. The game is over when your energy is used up.
- Pick up the “EXTRA ENERGY” item to restore your energy.
- There are 7 stages in all and the game loops endlessly. Continuation is available as many times as you want.

Cabinet Information
Use a dual control upright cabinet with an 8-way joystick and two function buttons for each player.

Self Test
Normal: "OK" will be displayed. Then the game will start.
Abnormal: "BAD" will be displayed and the self-test will repeat. If "VERSION ERROR" is displayed, switch off and switch on again with TEST SWITCH (on the PCB) pressed.
1) HOW TO START
After switching on the power, press the TEST SWITCH on the PCB or on the cabinet, and you will get the MAIN MENU of the Manual Test.

**NOTE** Switching on with TEST SWITCH pressed causes the program in the EEPROM to be initialized to default.

2) HOW TO RETURN TO THE GAME MODE
Select "GAME MODE" on the MAIN MENU then press player 1 START button to return to the game mode.

3) ITEMS AND HOW TO SELECT
Use player 1 JOYSTICK to select desired test and press player 1 START button to initiate testing. Press player 1 START button during or at the end of each test to return to the MAIN MENU.

```
I/O CHECK
SCREEN CHECK
COLOR CHECK
SOUND CHECK
MASK ROM CHECK
GAME OPTIONS
COIN OPTIONS
GAME MODE
1PLYR JOYSTICK=SELECT ITEM
1PLYR START=DO CHECK
```

4) EXPLANATION OF THE ITEMS
1. I/O CHECK
   Check all the joysticks and buttons to see "1" when switched on.
   Press player 1 and 2 START buttons at the same time to return to MAIN MENU.

2. SCREEN CHECK
   Adjust focus, alignment, size, etc. using the cross-hatch screen. The outer frame in red should be completely displayed and each square should be a regular square.

3. COLOR CHECK
   Adjust color brightness so that all the color bars are displayed perfect and the background is black enough.

4. SOUND CHECK
   When "SOUND SCALE CHECK" is selected, a music scale sounds.
   At "SOUND CODE", push player 1 JOYSTICK right/left to change sound code.

5. MASK ROM CHECK
   Roms will be checked one after another, and the message "OK" or "BAD" will be displayed on the screen.

6. GAME OPTIONS
   Following screen will appear. Use player 1 JOYSTICK up/down to select the item and push JOYSTICK right/left to modify setting. Factory settings are shown in green and modified results in red. (Settings on the next page are not always factory settings.)
   After modification is completed, select "SAVE AND EXIT" and press player 1 START button to save and return to MAIN MENU.
GAME OPTIONS

DIFFICULTY LEVEL 4/MEDIUM
STAGE CLEAR DEMO ON
VIDEO SCREEN FLIP NORMAL
SOUND OUTPUT MONOURAL
SOUND IN ATTRACT MODE ON
SOUND VOLUME 54

FACTORY SETTINGS
SAVE AND EXIT
EXIT

1PLYR JOYSTICK UP/DOWN=SELECT OPTION
1PLYR JOYSTICK RIGHT/LEFT=MODIFY SETTING

* If you select "EXIT" instead of "SAVE AND EXIT" after modifying some settings, the message appears: "YOU DID NOT SAVE. DO YOU WANT TO SAVE? YES/NO". When you choose "YES", the screen shows "NOW SAVING" and returns to MAIN MENU. If you select "NO", "NO MODIFICATION" is shown and then MAIN MENU appears.

7. COIN OPTIONS

Selecting this item, following screen will appear. On the cabinet with two coin slots, select "COMMON" or "INDEPENDENT" for coin mechanism. In "COMMON" setting, coin setting must be done for each coin slot.

COIN OPTIONS

FREE PLAY NO
COIN MECHANISM COMMON

COIN SLOT 1 1COIN 1CREDIT
COIN SLOT 2 1COIN 1CREDIT

FACTORY SETTINGS
SAVE AND EXIT
EXIT

1PLYR JOYSTICK UP/DOWN=SELECT OPTION
1PLYR JOYSTICK RIGHT/LEFT=MODIFY SETTING

When "INDEPENDENT" coin mechanism is selected, the left coin slot will be for player 1, the right one for player 2. On this setting, "PREMIUM START" setting is available; you can set the play fee for starting higher than the play fee for continuation (2 coin start and 1 coin continue, for example).

COIN OPTIONS

FREE PLAY NO
COIN MECHANISM INDEPENDENT
PREMIUM START YES 1
STARTING 2COIN 1CREDIT
CONTINUATION 1COIN 1CREDIT

FACTORY SETTINGS
SAVE AND EXIT
EXIT

1PLYR JOYSTICK UP/DOWN=SELECT OPTION
1PLYR JOYSTICK RIGHT/LEFT=MODIFY SETTING

When you want "PREMIUM START" setting, choose the number of extra coins necessary for starting, then decide the coin setting for continuation. The number of coins for starting will be the sum of both numbers. If you do not want premium start setting, the number of coins necessary for starting and continuation will be the same.

* When "FREE PLAY=YES" is selected, the coin mechanism and coin setting display will disappear.