SERVICE INSTRUCTION

DANGER

BERMUDA

TRIANGLE

SNK
SNK GROUP
BERMUDA TRIANGLE

P.C.B. SPECIFICATIONS

1. EDGE CONNECTOR: CR7E-5GDA-3, 96EC(S6PIN) : HRS
2. SWITCHING:
   - DC +5V 7A
   - DC +12V 1A
   - DC -5V 1A

* Use with voltage on P.C.B. between the range of ±5.00V ± 5.10V
* SNK has no responsibility for any changes/modifications without SNK's approval.
* Specifications will be changed without advance notice.

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A6003UP03-02

SOUND VOLUME
Turn clockwise for volume up of whole sounds.

VOLTAGE ADJUSTING LED
Turn on 2 LED lights, when the voltage is correct.

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DIP SWITCH

PARTS SIDE

- CN7
- CN8

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1. Even if Solid State Module is clearly found defective, please do not check Circuit with a Tester, etc. The ICs may be destroyed by the voltage of a Tester.

2. Turn on 2 LED lights, when the voltage is correct. If only one LED light turns on, adjust by 5VADJVR of switching regulator. When no LED light turns on, check electric voltage of power source.
   (To adjust voltage more correctly, it is advisable to use tester for checking.)

3. Don't forget to cut of Power Source when you change Parts or insert/pull off of Connector.

4. Please be sure to pull off Power Source by pulling Plug. (Not by Cord)
A lot of ICs and Memories are used, by which Electric power consumption for +5V (Volls) is about 5A (Amperes). Please connect P.C.B. to Cabinet and adjust electric voltage of Power Source to be +5V at each Edge Connector (50pin) of P.C.B.

In case voltage does not indicate more than +5V even by fully adjusted by Voltage Adjustor, it is because of insufficient Power Source or lack of capacity of Electric Current. So, please change Power Supply of which rated voltage is higher.

For +5V, please use sufficient cable (1.25mm X 2 or 3.5 mm) which is capable for Electric Currency.

Voltage of intermediate Harness descend by contact resistance, so please avoid to connect several intermediate Harnesses in order to keep sufficient voltage. If +6V Coin counter is connected from +5V, which causes Voltage drop, so please use +12V Coin Counter.

**ROTARY SWITCH WIRING**

Connect Joystick of PLAYER 1 with CN7 of PCB and PLAYER 2 with CN8 of PCB.
HOW TO PLAY

1P or 2P space-action shooting game
2nd player can join the game anytime after the 1st player starts and either player can join anytime and any stage during playing
On this coin system, other player can join anytime while one of players is on the play. But when battle ship, ZIG of both players are crushed, the game becomes over.
"Loop Lever" (LS30 Joystick) and 2-fire buttons control ZIG.
Loop lever is for ZIG movement and direction of turret. Fire button A is for attacking. Fire button B is for selection of formation and power-up.
ZIG is the giant time space battle ship, which turret turns in all angles.
ZIG can attack through the air and ground simultaneously.
Get power mark and ZIG will be power-up.
Get +3 power mark, then change the energy indication.
When energy indication reaches to power-up points, 'Power UP' letters on the screen flash on and off.
While 'Power UP' letters flush on and off, select one of power by pushing selection button.
ZIG will be crushed when number of Energy indication reaches to Zero(0).
By DIP switch adjustment, 4 varieties of game styles can be selected.

1) Standard play.
2-players can play simultaneously. The other player can join anytime while one of players is playing. Game continues up to the crushes of both players, ZIG.

2) Continue Play.
In addition to standard play, receive additional ZIG by inserting coins, or maximum 30ZIG(10 coins). After game is over, continue scene will be indicated in 5-seconds, so insert coin, then player can start again from starting position of crushed area.

3) 3 minutes play.
During 3 minutes after starting, the game never finish even though ZIG is crushed many times. With 3-minutes play mode, time count is indicated on lower part of monitor during play. After passing 3 minutes, time over is indicated on the monitor and the game will be finished in case of 1 player game.
In case 2 players are playing simultaneously, the game will be finished only after finishing time of both players. Then game over is indicated on the screen, and indication of continue scene will be indicated in 5-seconds. If player insert coin during such 5-seconds, player can start again from starting position of 'TIME OVER' area.

4) 5-minutes play.
This play mode is same style with 3 minutes play, but time limit is 5 minutes.

Note: Please stick a mode explanation seal in a prominent position, when 3 minutes or 5 minutes play is selected.
HOW TO CHECK P.C.B.

CONFIRMING AUTOMATICALLY MEMORIES WHEN POWER SWITCH TURNS ON.
KEEP PUSHING PLAY 1 BUTTON UNTIL PICTURE 1 IS DISPLAYED.
IN EACH PICTURE, PUSH PLAY 1 BUTTON TO CHANGE TO NEXT PICTURE
OR PUSH PLAY 2 BUTTON TO START THE GAME.

PICTURE 1

Picture 1 CROSS HATCH
Adjust monitor to get Square Measure.

PICTURE 2

1. COLOR

RED  GREEN  BLUE

PICTURE 2 COLOR TEST
Adjust colors of Monitor.

PICTURE 3

2. LEVER

P1 UP  0  P2 UP  0
P1 DOWN 0  P2 DOWN 0
P1 LEFT 0  P2 LEFT 0
P1 RIGHT 0  P2 RIGHT 0
P1 NOBU 0  P2 NOBU 0
P1 PUSHL 0  P2 PUSHL 0
P1 PUSHL2 0  P2 PUSHL2 0
COIN 0

PICTURE 3 LEVER & BUTTON TEST
When lever or button turns on, 0 on the monitor change to 1.
Indicative number of lever knob is increased each 1 by turning clockwise and decrease each 1 by turning counter-clockwise.
Confirm if coin 0 change to 1 by pushing service switch or by inserting coin.
4. FRONT

COLOR: 00

FRONT CHARACTER

5. SOUND

SOUND CODE = ?
MUSIC 41-7B
EFFECT 81-BB
VOICE CO-FF
STOP: OE

PICTURE 4. MODE CHECK
Set up the mode as you like by DIP SWITCH.
(Refer to List of DIP Switch).
When switch turns on, indicative number of each
BIT change to 1 from 0. And displayed actual
mode at the bottom of monitor.

PICTURE 5. FRONT TEST
Confirm if Characters are displayed on
the monitor.

PICTURE 6. SOUND TEST
Set up sound Code ("?" of Picture 6) to
41-7B or 81-BB or CO-FF by lever and push
firing button. Then music or effective sounds
or voice comes out. If you wish to stop it, set
up sound Code to OE and push firing button.
### DIP SW No. 1

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*# EVERY BONUS......CREDIT EACH ONE HERO IN EVERY 2ND BONUS.*

*# SECOND BONUS......CREDIT ONE HERO AT 1ST AND 2ND BONUS ONLY.*

*NO FURTHER HERO CREDITED AFTERWARD.*

### DIP SW No. 2

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