1 ST PRINTING - (UK Edition)

SEGA

ALIEN 3™

THE GUN

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OWNER'S MANUAL



Built in the UK by Deith Leisure Limited (A SEGA Company)

MANUAL NO. ALIEN3 / MAN

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SPECIFICATIONS

Installation space	:	1,360 mm (53.5 in.)(D) × 800 mm(31.5 in.)(W)
Height	:	1,930 mm (76.0 in.)
Weight	:	Approx.215 kg. (475 lbs.)
Power, maximum current	:	
		230W 1.6A(AC 220V 50 Hz AREA)
		220W 1.6A(AC 220V 60 Hz AREA)
		230W 1.5A(AC 240V 50 Hz AREA)
		220W 1.4A(AC 240V 60 Hz AREA)
CRT	:	28 INCH MONITOR

NOTE: Descriptions in this manual are subject to change without prior notice.

INTRODUCTION OF THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high eletronic technology of LSIs, microprocessors, etc. and a wealth of experience, has for more than 30 years been supplying various innovative and popular game machines to the world market. This Owner's Manual is intended to provide detailed descriptions together with all the necessary information covering the general operation of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regards ALIEN^3 THE GUN , a new SEGA product .

This manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read this manual to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstances touch the interior system. Should such a case arise, contact our Main Office or the closest branch office listed as follows:

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1. HANDLING PRECAUTIONS

- When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.
- Be sure to switch the power off before working on the machine.
- To insert or pull out the plug quickly is dangerous.
- It is necessary to make sure that the power cord or grounding wire is not routed in a manner so as to be dangerous. Make sure that grounding connections are made safely at a position where so specified.
- Do not use any fuse that does not meet specified rating.
- Make complete connections for the IC board and other connection. Insufficient insertion of ICs and connectors will lead to unreliability and possible damage to the machine.
- The operating (ambient) temperature range is from 5°C to 40°C.
- When cleaning the Monitor CRT front glass, use a soft dry cloth and glass cleaner. Do not apply chemicals such as thinners, benzene etc.

After confirming that there are no irregularities, turn the power ON.

2. PREVENTION OF COUNTERFEITING AND CONVERSION

☐ LABELLING

To prevent counterfeits and conversions, the following labels are put on all the SEGA products. When handling such goods, be sure to confirm the labels. They are used to prevent illegal acts such as the unauthorized copying of the products and the printed circuit boards thereof or carrying on business by manufacturing similar merchandise or by converting, selling or using such products or printed circuit boards.

ORIGINAL SEAL

The following seal is put on the machines manufactured by SEGA.



LICENSE SEAL

The following seal is put on all SEGA kits, such as the printed circuit boards.



☐ COPYRIGHT NOTICE

This SEGA product has the copyright notice as follows:

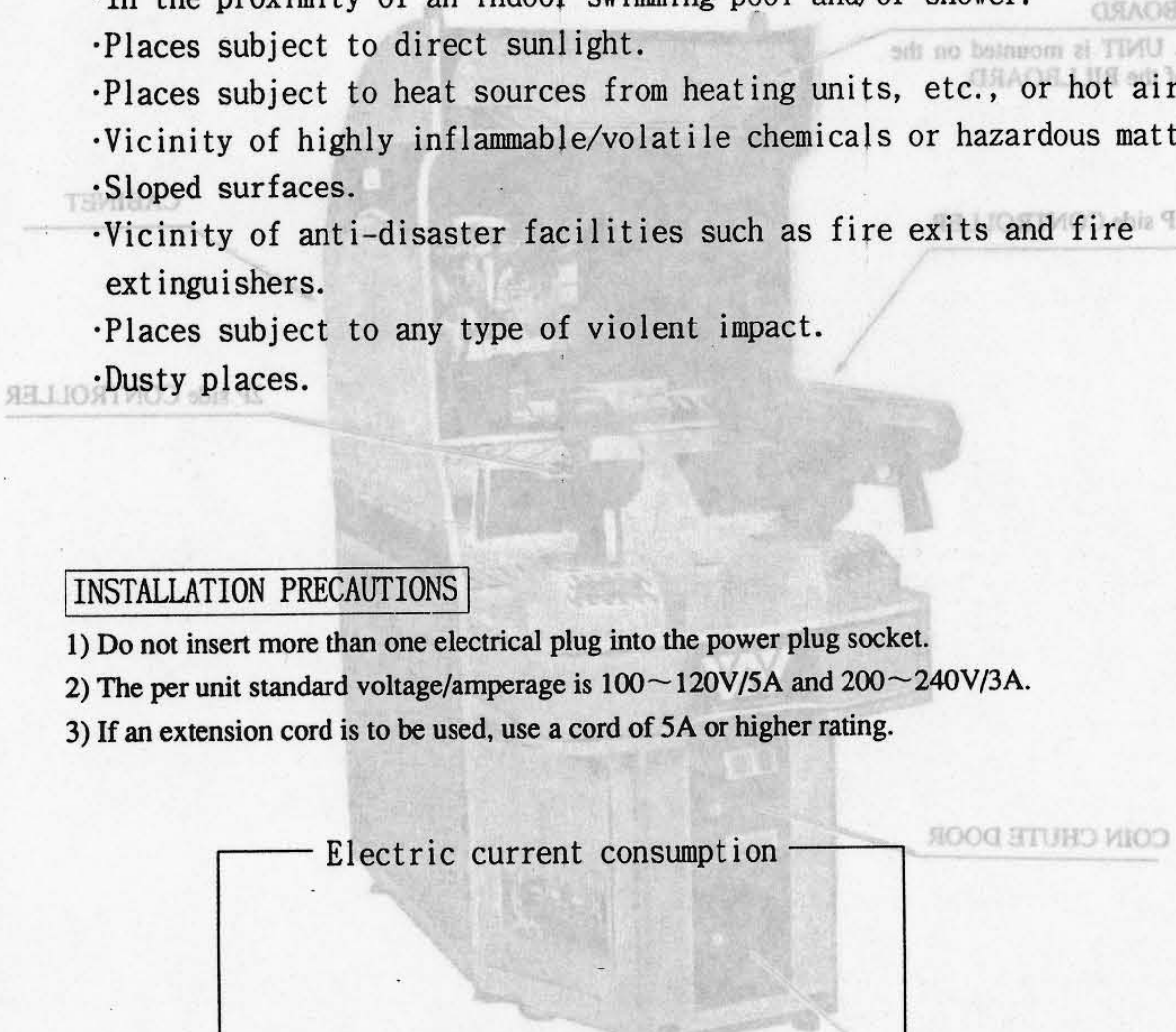
© SEGA 1993

This signifies that this work was disclosed in 1993 and is the property of SEGA ENTERPRISES, LTD.

3. PRECAUTIONS CONCERNING INSTALLATION LOCATION

The ALIEN³ THE GUN is an indoor game machine. Absolutely do not install it outside. Even indoors, avoid installing in places mentioned below so as to ensure proper usage:

- ·Places subject to rain or water leakage, or condensation due to humidity.
- ·In the proximity of an indoor swimming pool and/or shower.
- ·Places subject to direct sunlight.
- ·Places subject to heat sources from heating units, etc., or hot air.
- ·Vicinity of highly inflammable/volatile chemicals or hazardous matter.
- ·Sloped surfaces.
- ·Vicinity of anti-disaster facilities such as fire exits and fire extinguishers.
- ·Places subject to any type of violent impact.
- ·Dusty places.



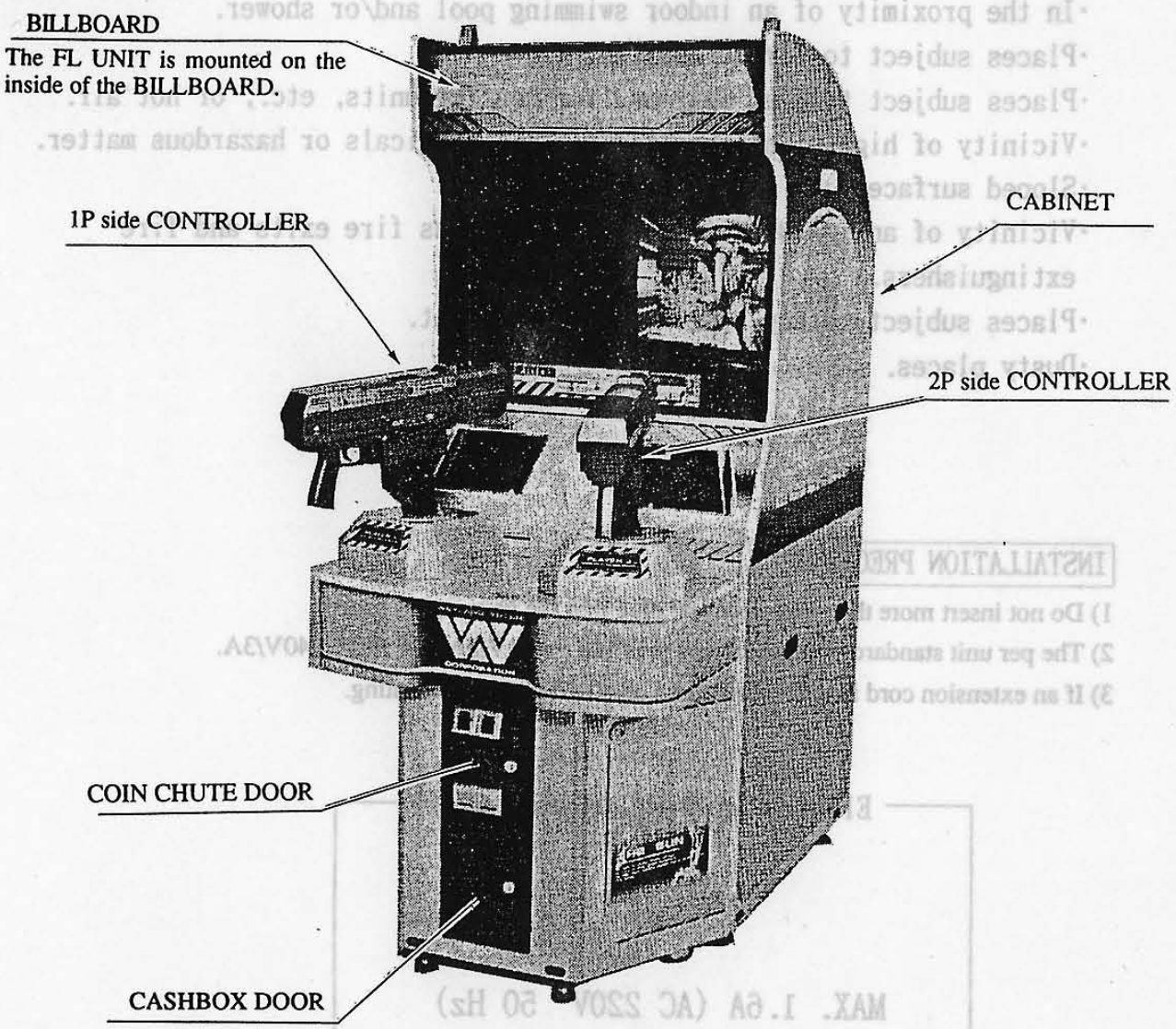
INSTALLATION PRECAUTIONS

1) Do not insert more than one electrical plug into the power plug socket.
2) The per unit standard voltage/amperage is 100~120V/5A and 200~240V/3A.
3) If an extension cord is to be used, use a cord of 5A or higher rating.

Electric current consumption

MAX. 1.6A (AC 220V 50 Hz)
MAX. 1.6A (AC 220V 60 Hz)
MAX. 1.5A (AC 240V 50 Hz)
MAX. 1.4A (AC 240V 60 Hz)

4. NAME OF PARTS



5. SPARES AND ACCESSORIES

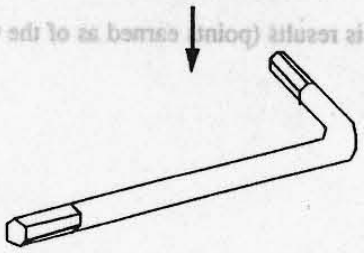
Part No.	Qty	Description	Remarks
ALIEN3 / MAN	1	Owners Manual, Alien Gun (UK)	Please read
53889750	1	Hantarex Monitor Service Manual	
540-0006-01	1	Wrench for TMP PRF SCR M4	Tool
540-0007-01	1	Wrench for TMP PRF SCR M5	Tool
220-5373	1	Potentiometer, B - 5k Ω Lin	For spare, refer to section 9
601-7227	2	Motor Brush	For spare, refer to section 9
E1253	1	Euro Mains Lead with Plug	To convey power to the machine
	2	Key, Coin door	For opening/closing door
	2	Key, Cash box	For opening/closing door
	2	Key, Front service door	For opening/closing door

TOOL

(TAMPERPROOF WRENCH)

M4 540-0006-01

M5 540-0007-01



- The Life Gauge and Gun Power Gauge for the player using the left-hand side gun are displayed on the lower left-hand side of the screen, and those for the player using the right-hand side gun are displayed on the lower right-hand side of the screen.
- When the Life Gauge shows 0, the game is over.
- When the Gun Power shows 0, the machine gun's consecutive shooting becomes slow.

Note: While the Flamethrower is used, the Gun Power Gauge becomes whitish and shows the remaining fuel.

HOW TO PLAY, ETC.

- After credits are registered, the "pull trigger" message will be shown. Start the game by pulling the trigger.
- When the game is started, the story and the still image of that STAGE as well as the map of all stages are displayed (pull the trigger when cancelling).
- Destroying the Boss enemy at the end of each stage results in a STAGE CLEAR.
- In each stage, various ITEMS can be found. Shoot and capture them.

Note: Capturing the ITEMs gives various effects such as strengthening the weapons, recovering the Power, etc. Explanations on the ITEMs are given later.

- Depending on the results of each stage (the number of enemies shot, frequency of damage caused to the player, etc.), the player's ranking varies. As regards ranking, explanations are given later.
- The player's name can be entered if his results (points earned as of the GAME OVER time) are placed 15th or higher.

CONCERNING ITEMS:

Flamethrower 

This is fired from the muzzle. Use it to wipe out the enemies. Although powerful, it is not effective against far away enemies.

Hand Grenade Supply Unit 

Every time the player captures this, one hand grenade is replenished.

25% Life Supply Unit 

Recovers 1/4 of the player's power.

100% Life Supply Unit 

Recovers the player's power completely.

RANKING

- The ranking herein stated refers to the Colonial Marine which the characters operated by the player belong to.

Note: The following 21 ranks are based on the ranking of the U. S. Marine Corps.

Private
Private First Class
Lance Corporal
Corporal
Sergeant
Staff Sergeant
Gunnery Sergeant
Master Sergeant
Sergent Major
Warrant Officer
Chief Warrant Officer
Second Lieutenant
First Lieutenant
Captain
Major
Lieutenant Colonel
Colonel
Brigadier General
Major General
Lieutenant General
General

KNACK OF HOW-TO-EARN HIGH SCORE

Shoot the enemies (some are escaping) and articles appearing in the stage that can be damaged (lights, boxes, etc.), and be very careful not to shoot Marines (if you do, points decrease).

The ranking appearing after a stage may go higher in a slower pace due to the frequency of damage caused to the player, frequency of CONTINUE or shooting the Marine by mistake.

8. EXPLANATION OF TEST AND DATA DISPLAY

By operating the switch unit, periodically perform the tests and data check. When installing the machine initially or collecting cash, or when the machine does not function correctly, perform checking in accordance with the explanations given in this section.
The following shows tests and modes that should be utilized as applicable.

ITEMS	DESCRIPTION	REFERENCE SECTIONS
INSTALLATION OF MACHINE	When the machine is installed, perform the following: 1. Check to see that each setting is as per standard setting made at the time of shipment. 2. In the INPUT TEST mode, check each SW and VR. 3. In the OUTPUT TEST mode, check each motor. 4. In the SELF-TEST mode, check ICs on the IC Board.	 8-9 8-5 8-6 8-3
MEMORY	Choose MEMORY TEST in the MENU mode to allow the MEMORY to be performed. In this test, PROGRAM RAMs, ROMs, and ICs on the IC Board are checked.	8-3
PERIODIC SERVICING	Periodically perform the following: 1. MEMORY TEST 2. Ascertain each setting. 3. In the INPUT TEST mode, test the CONTROL device 4. In the OUTPUT TEST mode, check each motor.	 8-3 8-9 8-5 8-6
CONTROL SYSTEM	1. In the INPUT TEST mode, check each SW and VR. 2. Adjust or replace each SW and VR. 3. If the problem can not be solved yet, check the CONTROL's moves.	8-5 8-4, 8-5, 9-2
MONITOIR	In the MONITOR ADJUSTMENT mode, check to see if the MONITOR adjustment is appropriately made.	8-8
IC BOARD	1. MEMORY TEST 2. In the SOUND CHECK mode, check the sound related ROMs.	8-3 8-7
DATA CHECK	Check such data as game play time and histogram to adjust the difficulty level, etc..	8-11, 8-12 8-9

8.1 SWITCH UNIT

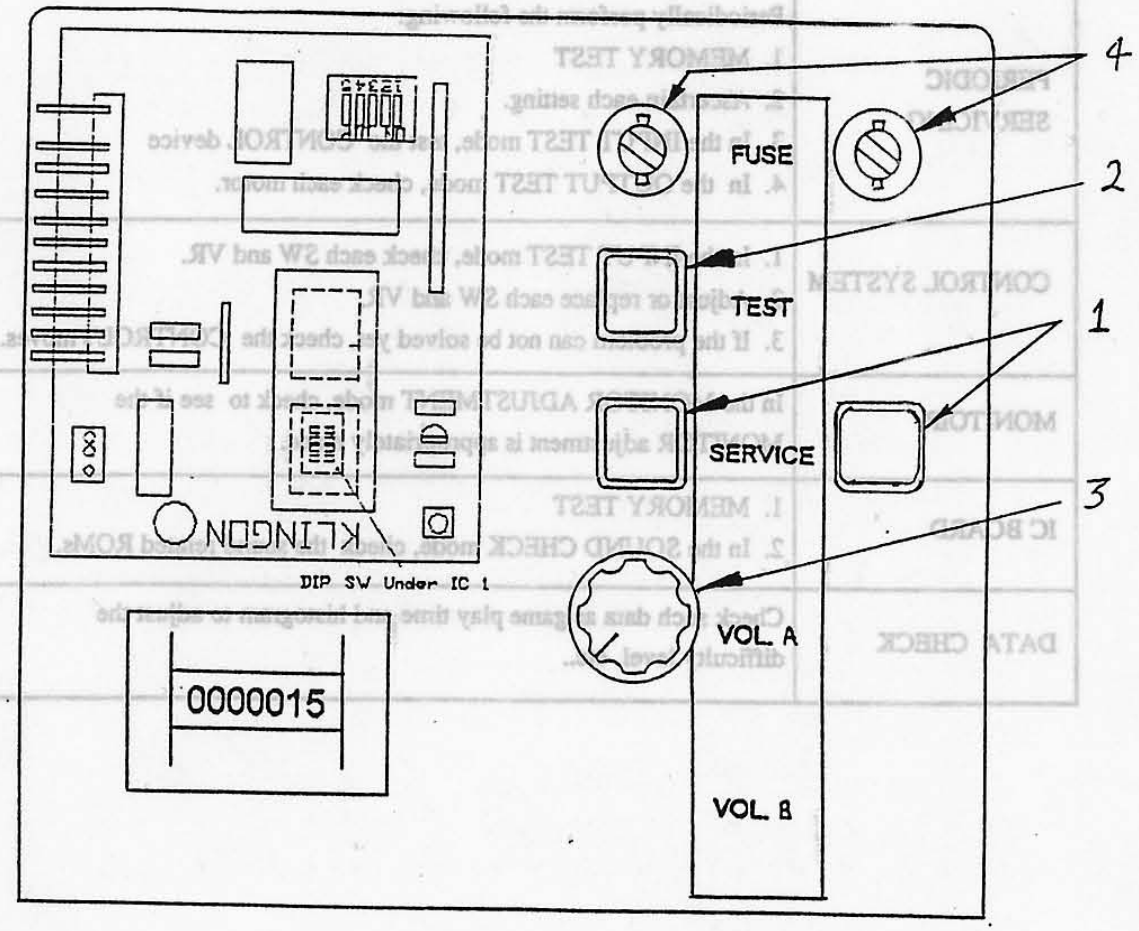
Open the coin chute door and the switch unit shown will appear. The Functioning of each SW is as follows:

① SERVICE SW. ----------Gives credit without registering on the coin meter. (SERVICE BUTTON)

② TEST SW.---------- For the handling of the test button. refer to the following pages.

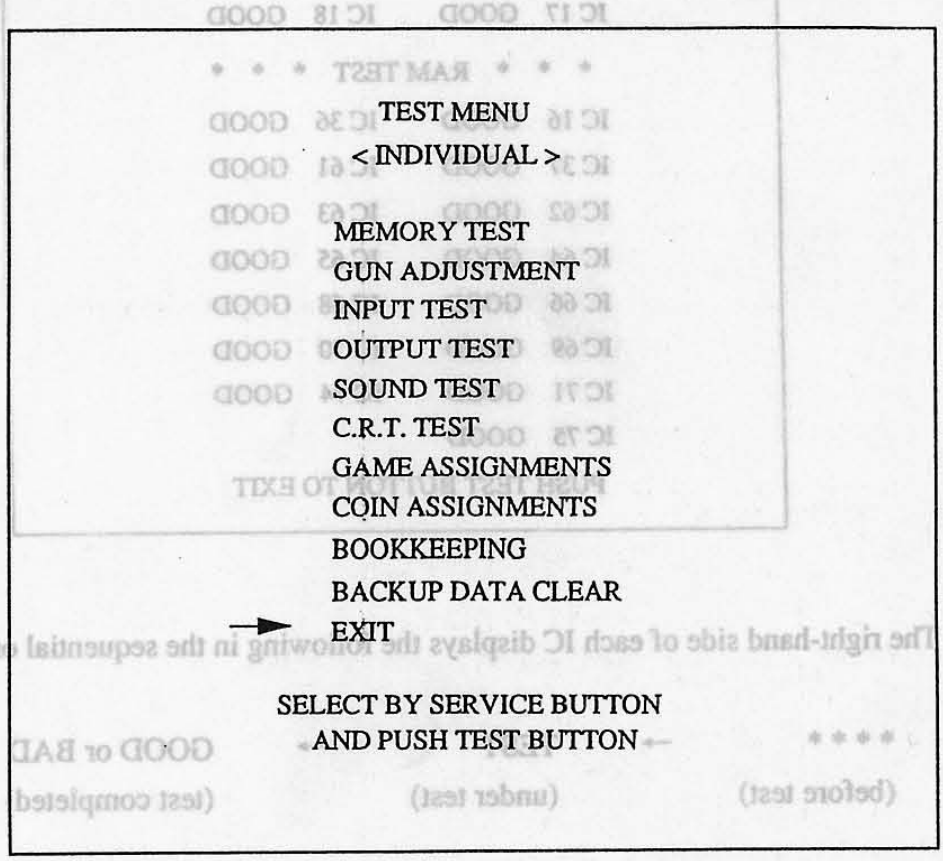
③ SOUND VOLUME. ---------- Adjust the sound volume of the Speaker

④ FUSE. ---------- When the Gun is subject to an overload, the circuit fuse to protect the motor.



8-2 TEST MENU

- The Test Menu allows the functioning of each part of the Cabinet to be checked, the monitor to be adjusted, and the coins and game related various settings to be performed.
- Basically, all settings (game, coin, etc.) are performed in the TEST MENU and therefore, DIP SW is not used.
- This cabinet is provided with 2 SERVICE BUTTONs and either can be used.
- Press the TEST BUTTON to cause the following Test Menu to be displayed on the monitor.

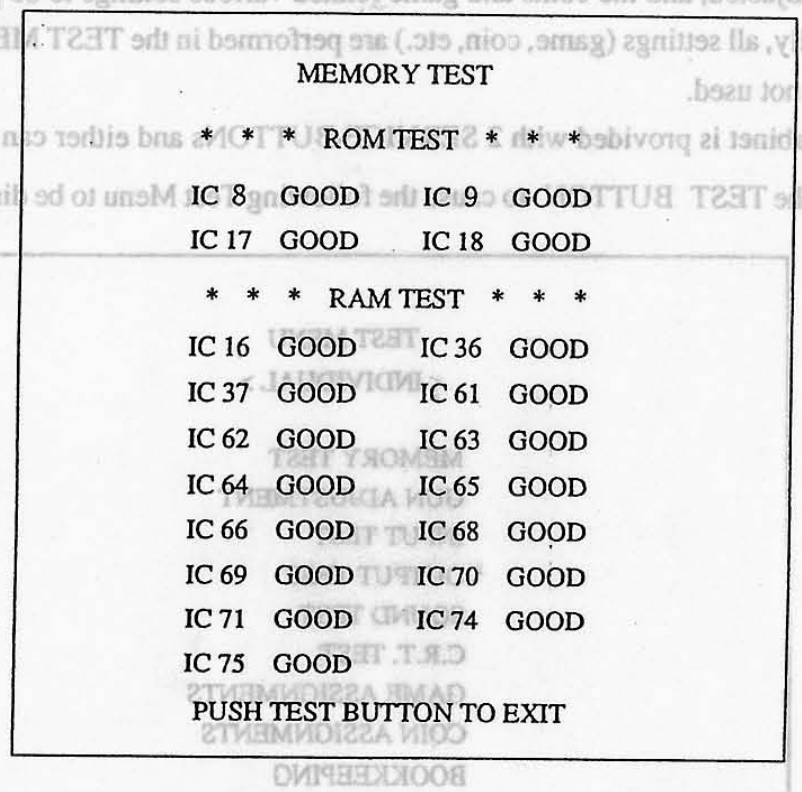


Press the SERVICE BUTTON untill the pointer "→" is moved to the desired item. Then press the TEST BUTTON.
After the test is complete, move "→" to "EXIT" and press the TEST BUTTON to return to the Game Mode.

You may position the pointer to "INDIVIDUAL" and press the TEST BUTTON. The word "INDIVIDUAL" toggles to "CONTINUE". In the "CONTINUE" mode, each push of the TEST BUTTON causes transition to the next item. In the "INDIVIDUAL" mode, only the item indicated by the pointer is tested.

8-3 MEMORY TEST

The MEMORY TEST mode is for checking the memory IC operations on the board. "GOOD" is displayed for normal ICs and "BAD" is displayed for abnormal ICs.



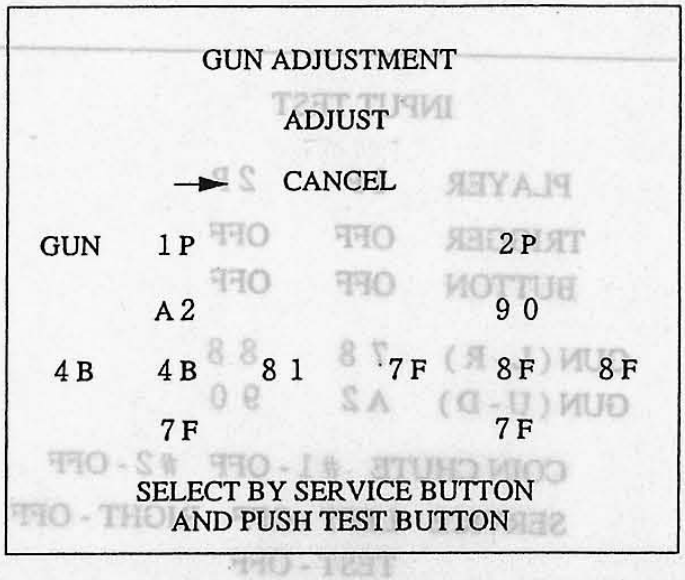
- The right-hand side of each IC displays the following in the sequential order.

* * * *	→ TEST →	GOOD or BAD
(before test)	(under test)	(test completed)

- During the test, NOW TESTING flashes at the above portion of PUSH TEST BUTTON TO EXIT.
- When the test is completed, if the results are shown as above, it is satisfactory.
- It takes approximately thirty seconds to complete the test. If the period exceeds thirty seconds, this may have been caused by board malfunctioning.
- After finishing the test, pressing the TEST BUTTON allows the MENU mode to return on to the screen.

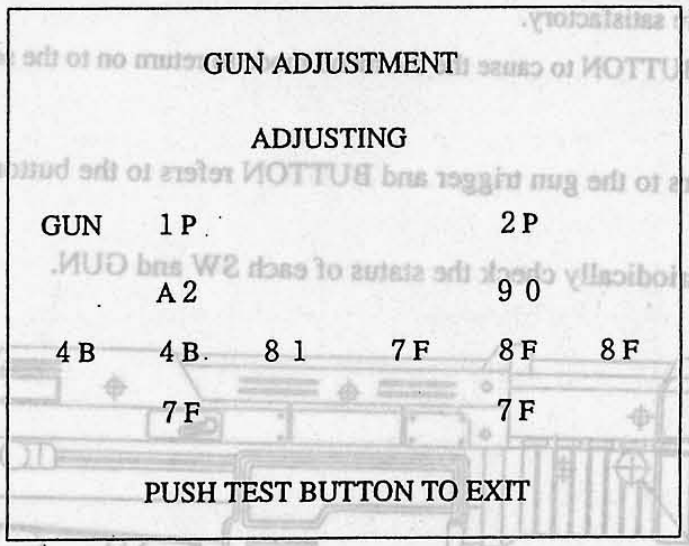
8-4 GUN ADJUSTMENT

Selecting "GUN ADJUSTMENT" causes the following to appear on the monitor screen and this enables the sighting of gun to be set.



- Bring the cursor to CANCEL and press the TEST BUTTON to allow the MENU mode to return on to the screen.
- Bring the cursor to ADJUST and press the TEST BUTTON to have the ADJUST mode appear. The ADJUST mode allows the gun (sight) to be set and adjusted.
- When replacing the game BD. and V. R., be sure to choose ADJUST in this menu for the setting.

When ADJUST is selected, the following screen appears:



- In this mode, carefully move the left-hand side and right-hand side guns within the mobile range. Move them fully in the horizontal direction. When moving them vertically, however, be sure to stop them before going beyond the normal mobile range so as to avoid a kickback reaction.
- Pressing the TEST BUTTON causes the GUN ADJUSTMENT setting to be registered, allowing the MENU mode to return on to the screen.

8-5 INPUT TEST

Selecting "INPUT TEST" causes the following to appear on the monitor screen and this enables the status of each switch and GUN(CONTROLLER) to be checked.

INPUT TEST

PLAYER	1P	2P
TRIGGER	OFF	OFF
BUTTON	OFF	OFF
GUN (L-R)	78	88
GUN (U-D)	A2	90

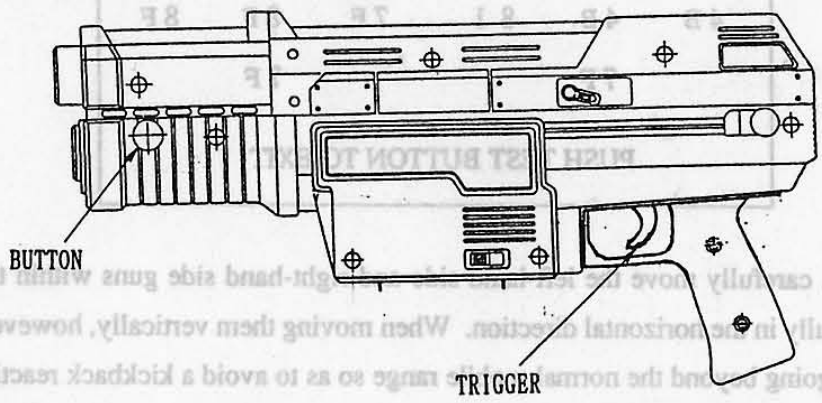
COIN CHUTE #1 - OFF #2 - OFF
SERVICE LEFT - OFF RIGHT - OFF
TEST - OFF

PUSH TEST BUTTON TO EXIT

- If the values corresponding to GUN (L-R) and GUN (U-D), are within the range of 00～FF (hexadecimal), they are satisfactory.
- Press the TEST BUTTON to cause the the menu mode to return on to the screen.

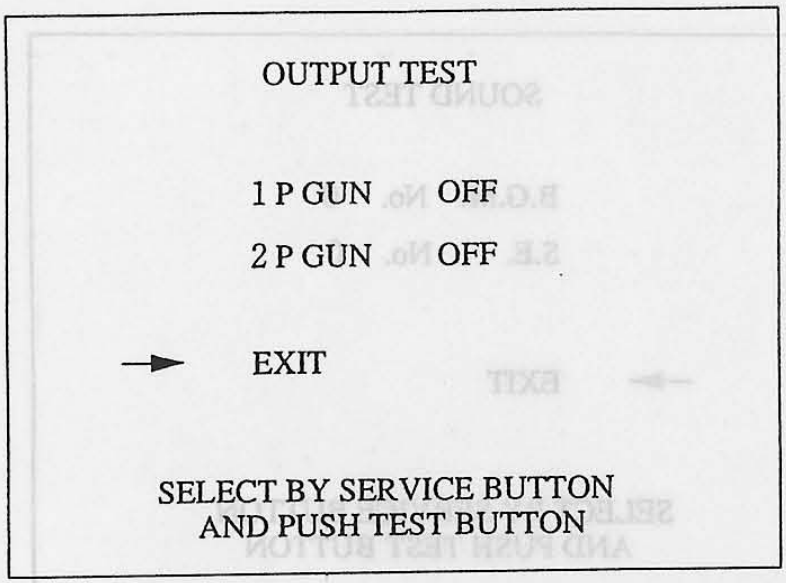
Note: TRIGGER refers to the gun trigger and BUTTON refers to the button attached to the gun.

Note: In this mode, periodically check the status of each SW and GUN.



8-6 OUTPUT TEST

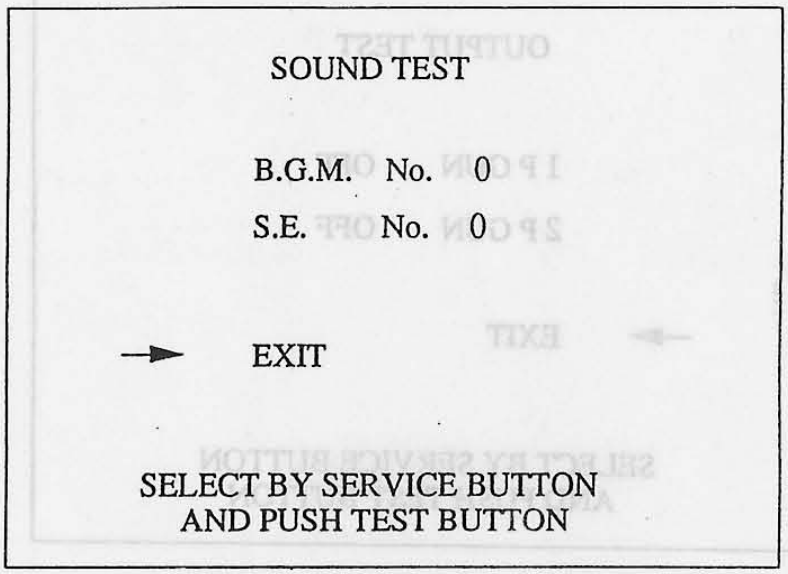
Selecting the "OUTPUT TEST" causes the following to appear on the monitor. This mode allows the gun's VIBRATE MOTOR to be tested.



- By bringing the arrow to each of the test items and pressing the TEST BUTTON, if ON is displayed on the screen and the vibration of the guns attached to the cabinet is ascertained, it is satisfactory. As seen from the front of the cabinet, the left-hand side gun is for 1P and the right-hand side one is for 2P.
- The gun is activated while the switch is depressed. When the switch is released, OFF is displayed and the gun ceases to operate.
- Bring the "→" to "EXIT" and press the TEST BUTTON to return to the Menu mode.

8-7 SOUND TEST

Choose SOUND TEST to cause the following mode to appear on the monitor so that SOUND MEMORY check can be performed.

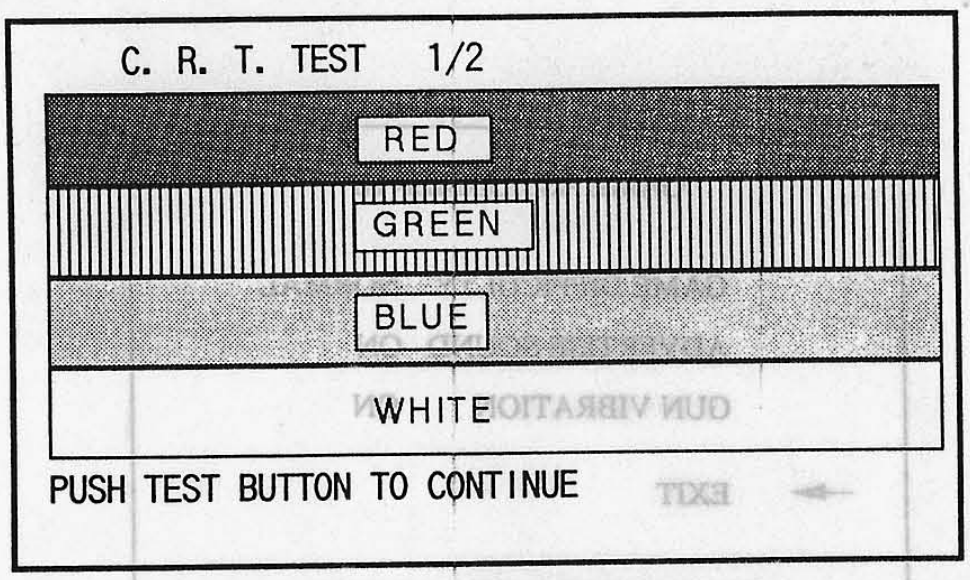


- Bring the arrow to B.G.M. for background music and move it to S.E. for sound effects.
- At No. 0, however, sound will not be emitted.
- Bring the "→" to "EXIT" and press the TEST BUTTON to return to the Menu mode.

8-8 C.R.T. TEST

(1) RGB color adjusting screen (1/2)

This page is for adjusting the monitor color.

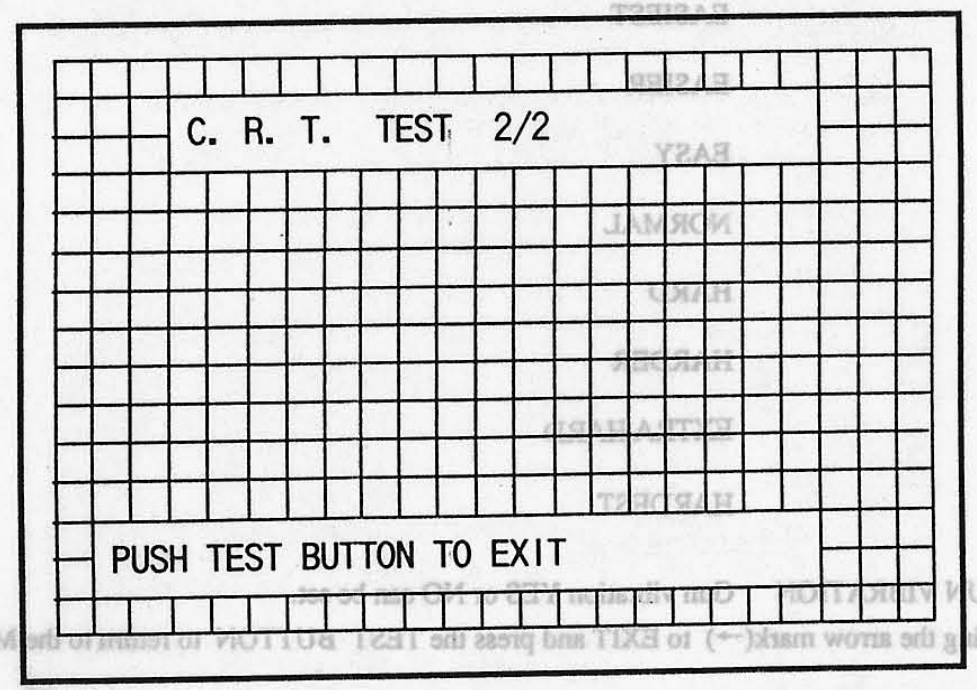


Red, green, and blue are darkest on the leftmost scale and get brighter by 31 gradations to the right. The contrast of the monitor is normal, if the white color bar is black in the leftmost position and is white in the rightmost position.

Press the TEST BUTTON to turn a page.

(2) Monitor size adjusting screen (2/2)

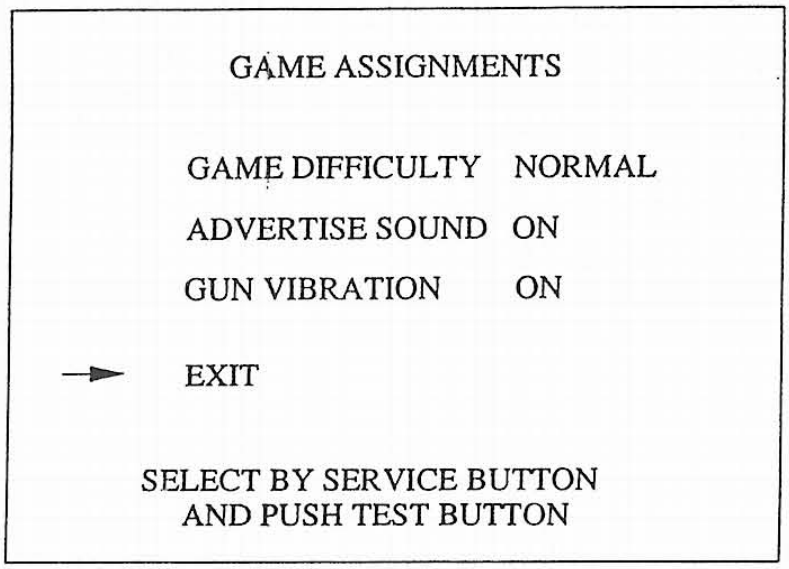
This page is for checking the monitor size.
When adjusting the monitor size, be careful so that grids do not go off of the screen.



Press the TEST BUTTON to return to the Menu.

8-9 GAME ASSIGNMENTS

In this mode, the present game setting is displayed and also, the game setting changes can be made.



- GAME DIFFICULTY The game difficulty is classified into 8 different categories from EASI EST to EXTRA HARDEST. (EASIEST~EXTRA HARDEST)

Game difficulty is classified into the following 8 different levels:

EASIEST

EASIER

EASY

NORMAL

HARD

HARDER

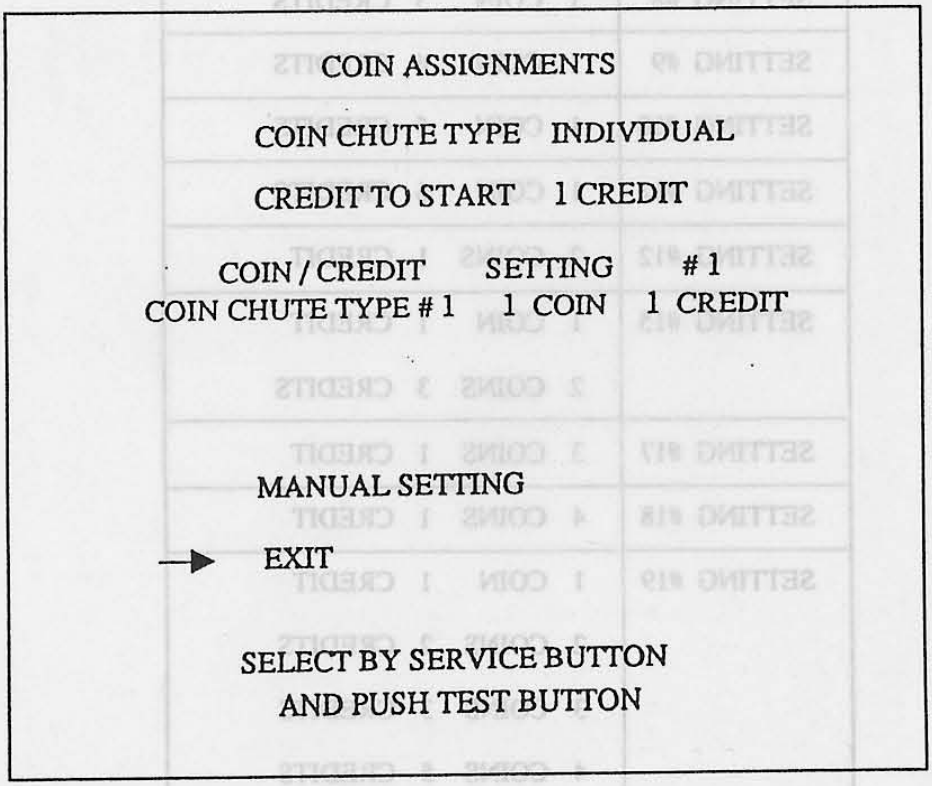
EXTRA HARD

HARDEST

- GUN VIBRATION Gun vibration YES or NO can be set.
- Bring the arrow mark(→) to EXIT and press the TEST BUTTON to return to the Menu.

8-10 COIN ASSIGNMENTS

The "COIN ASSIGNMENTS" mode permits you to set the start number of credits, as well as the basic numbers of coins and credits. This mode expresses "how many coins correspond to how many credits.".



Note: COIN CHUTE TYPE

INDIVIDUAL: Each player uses a coin chute which accepts coins independently.

COMMON: Coins are accepted in common for both players.

As a standard, it is set to "INDIVIDUAL."

- For COIN/CREDIT SETTING, refer to TABLE 1 (INDIVIDUAL) and TABLE 2 (COMMON).
- Choosing the MANUAL SETTING allows a finer classification settings to be made.
- Bring the arrow mark(→) to EXIT and press the TEST BUTTON to return to the Menu.

TABLE 1 COIN/CREDIT SETTING
(COIN CHUTE INDIVIDUAL TYPE)

NAME OF SETTING	FUNCTIONING OF EACH COIN CHUTE
SETTING #1	1 COIN 1 CREDIT
SETTING #6	1 COIN 2 CREDITS
SETTING #8	1 COIN 3 CREDITS
SETTING #9	1 COIN 4 CREDITS
SETTING #10	1 COIN 5 CREDITS
SETTING #11	1 COIN 6 CREDITS
SETTING #12	2 COINS 1 CREDIT
SETTING #15	1 COIN 1 CREDIT 2 COINS 3 CREDITS
SETTING #17	3 COINS 1 CREDIT
SETTING #18	4 COINS 1 CREDIT
SETTING #19	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS
SETTING #21	3 COINS 1 CREDIT 5 COINS 2 CREDITS
SETTING #22	2 COINS 1 CREDIT 4 COINS 2 CREDITS 5 COINS 3 CREDITS
SETTING #24	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS
SETTING #26	FREE PLAY

TABLE 2 COIN/CREDIT SETTING (COIN CHUTE COMMON TYPE)

NAME OF SETTING	FUNCTIONING OF COIN CHUTE #1	FUNCTIONING OF COIN CHUTE #2
SETTING #1	1 COIN 1 CREDIT	1 COIN 1 CREDIT
SETTING #2	1 COIN 1 CREDIT	1 COIN 2 CREDITS
SETTING #3	1 COIN 1 CREDIT	1 COIN 3 CREDITS
SETTING #4	1 COIN 1 CREDIT	1 COIN 4 CREDITS
SETTING #5	1 COIN 1 CREDIT	1 COIN 5 CREDITS
SETTING #6	1 COIN 2 CREDITS	1 COIN 2 CREDITS
SETTING #7	1 COIN 2 CREDITS	1 COIN 5 CREDITS
SETTING #8	1 COIN 3 CREDITS	1 COIN 3 CREDITS
SETTING #9	1 COIN 4 CREDITS	1 COIN 4 CREDITS
SETTING #10	1 COIN 5 CREDITS	1 COIN 5 CREDITS
SETTING #11	1 COIN 6 CREDITS	1 COIN 6 CREDITS
SETTING #12	2 COINS 1 CREDIT	2 COINS 1 CREDIT
SETTING #13	2 COINS 1 CREDIT	1 COIN 1 CREDIT
SETTING #14	2 COINS 1 CREDIT	1 COIN 2 CREDITS
SETTING #15	1 COIN 1 CREDIT 2 COINS 3 CREDITS	1 COIN 1 CREDIT 2 COINS 3 CREDITS
SETTING #16	1 COIN 1 CREDIT 2 COINS 3 CREDITS	1 COIN 3 CREDITS
SETTING #17	3 COINS 1 CREDIT	3 COINS 1 CREDIT
SETTING #18	4 COINS 1 CREDIT	4 COINS 1 CREDIT
SETTING #19	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS
SETTING #20	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS	1 COIN 5 CREDITS
SETTING #21	3 COINS 1 CREDIT 5 COINS 2 CREDITS	1 COIN 2 CREDITS
SETTING #22	2 COINS 1 CREDIT 4 COINS 2 CREDITS 5 COINS 3 CREDITS	2 COINS 1 CREDIT 4 COINS 2 CREDITS 5 COINS 3 CREDITS
SETTING #23	2 COINS 1 CREDIT 4 COINS 2 CREDITS 5 COINS 3 CREDITS	1 COIN 3 CREDITS
SETTING #24	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS
SETTING #25	1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS	1 COIN 6 CREDITS
SETTING #26	FREE PLAY	FREE PLAY

MANUAL SETTING

When the MANUAL SETTING is selected, the following appears on the screen:

```
                COIN ASSIGNMENTS

                MANUAL SETTING

     COIN TO CREDIT          1 COIN 1 CREDIT ..... ①

     BONUS ADDER          NO BONUS ADDER ..... ②

       COIN CHUTE#1  MULTIPLIER
   COIN 1 COIN COUNTS AS 1 COIN
     1  2  3  4  5  6  7  8  9
     1  2  3  4  5  6  7  8  9 ..... ③
   CREDIT

       COIN CHUTE#2  MULTIPLIER
   COIN          1 COIN COUNTS AS 1 COIN
     1  2  3  4  5  6  7  8  9 ..... ④
     1  2  3  4  5  6  7  8  9
   CREDIT

     → EXIT

            SELECT BY SERVICE BUTTON
              AND PUSH TEST BUTTON
```

① Determines COIN/CREDIT setting.

② This sets how many COINS should be inserted to obtain one SERVICE COIN.

③ This sets how many tokens one COIN represents.

④ COIN CHUTE #2 is displayed only at the time "COMMON" is set.

· For each setting, refer to TABLE 3.

TABLE 3 MANUAL SETTING

COIN TO CREDIT	1 COIN 1 CREDIT
	2 COINS 1 CREDIT
	3 COINS 1 CREDIT
	4 COINS 1 CREDIT
	5 COINS 1 CREDIT
	6 COINS 1 CREDIT
	7 COINS 1 CREDIT
	8 COINS 1 CREDIT
	9 COINS 1 CREDIT

BONUS ADDER	NO BONUS ADDER
	2 COINS GIVE 1 EXTRA COIN
	3 COINS GIVE 1 EXTRA COIN
	4 COINS GIVE 1 EXTRA COIN
	5 COINS GIVE 1 EXTRA COIN
	6 COINS GIVE 1 EXTRA COIN
	7 COINS GIVE 1 EXTRA COIN
	8 COINS GIVE 1 EXTRA COIN
	9 COINS GIVE 1 EXTRA COIN

COIN CHUTE MULTIPLIER	1 COIN COUNTS AS 1 COIN
	1 COIN COUNTS AS 2 COINS
	1 COIN COUNTS AS 3 COINS
	1 COIN COUNTS AS 4 COINS
	1 COIN COUNTS AS 5 COINS
	1 COIN COUNTS AS 6 COINS
	1 COIN COUNTS AS 7 COINS
	1 COIN COUNTS AS 8 COINS
	1 COIN COUNTS AS 9 COINS

8-11 BOOKKEEPING

This mode allows each of the CREDIT/TIME/GAME data to be ascertained.

```
                BOOKKEEPING   1/2

            COIN CHUTE  #1        0
            COIN CHUTE  #2        0
              TOTAL COIN          0

              COIN CREDIT         0
            SERVICE CREDIT        0
              TOTAL CREDIT        0

            NUMBER OF GAME        0

              TOTAL TIME    0 D  0 H  0 M  0 S
            GAME PLAY TIME  0 D  0 H  0 M  0 S
          AVERAGE GAME TIME      0 H  0 M  0 S
          LONGEST GAME TIME      0 H  0 M  0 S
         SHORTEST GAME TIME      0 H  0 M  0 S

            PUSH TEST BUTTON TO CONTINUE
```

- COIN CHUTE — Number of coins put in. As seen from the front of the cabinet, the right-hand side is #1 and the left- hand side is #2.
- TOTAL COIN — Total number of activations of coin chutes
- COIN CREDIT — Credits registered by both the left and right SERVICE BUTTONs.
- TOTAL CREDIT — Total number of credits (COIN CREDITS + SERVICE CREDITS)
- NUMBER OF GAME — Total play by both 1P and 2P
- GAME PLAY TIME — Total time of play by both 1P and 2P (in a simultaneous play, the overlapped time is not counted.)

- Press the TEST BUTTON to proceed to the next page.

BOOKKEEPING 2 / 2

TIME HISTOGRAM

0 M00S ~ 0 M29S	0
0 M30S ~ 0 M59S	0
1 M00S ~ 1 M29S	0
1 M30S ~ 1 M59S	0
2 M00S ~ 2 M29S	0
2 M30S ~ 2 M59S	0
3 M00S ~ 3 M29S	0
3 M30S ~ 3 M59S	0
4 M00S ~ 4 M29S	0
4 M30S ~ 4 M59S	0
5 M00S ~ 9 M59S	0
OVER 10M00S	0

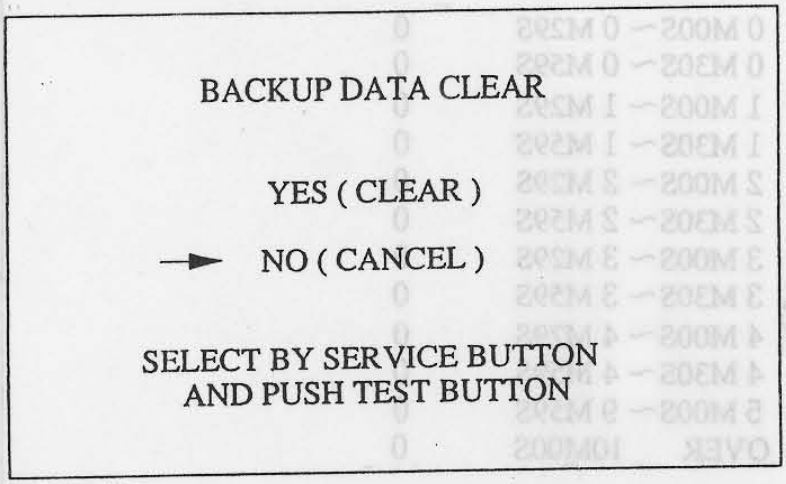
PUSH TEST BUTTON TO EXIT

- TIME HISTOGRAM shows the number of players whose play became "GAME OVER" in each of the above time periods.

- Press the TEST BUTTON to return to the Menu.

8-12 BACKUP DATA CLEAR

Clears the contents of BOOKKEEPING.



When clearing, bring "→" to "YES" and when not clearing, to "NO", by using the SERVICE BUTTON, and then push the TEST BUTTON.
When the data has been cleared, "COMPLETED" will be displayed. Bring "→" to "NO" and press the TEST BUTTON to cause the Menu mode to return on to the screen.

9. CONTROLLER

In the TEST menu, when the CONTROLLER's V.R. values can not be adjusted to the allowable range, it is necessary to adjust the V.R. installation position or replace the V.R.. Also, be sure to apply grease for the mechanism part every 3 months.

To perform the above-mentioned work, remove the CONTROLLER from the cabinet.

9-1 REMOVING THE CONTROLLER

① Take off the SERVICE DOOR from the CONTROLLER to be removed.

② Disconnect 7 CONNECTORs inside the SERVICE DOOR (3P red, 3P blue, 2P red, 2P blue, 2P black, and 1P white 2).

③ Take off 12 TAMPERPROOF SCREWs to remove the 2 MECHA COVERs.

④ Take out the 6 HEXAGON BOLTs and remove the CONTROLLER. First, make sure that the wires are free and then carefully lift it up.

NOTE: The V. R. is attached underneath the CONTROLLER. Therefore, be sure to position it sideways so as not to cause damage to the V. R.

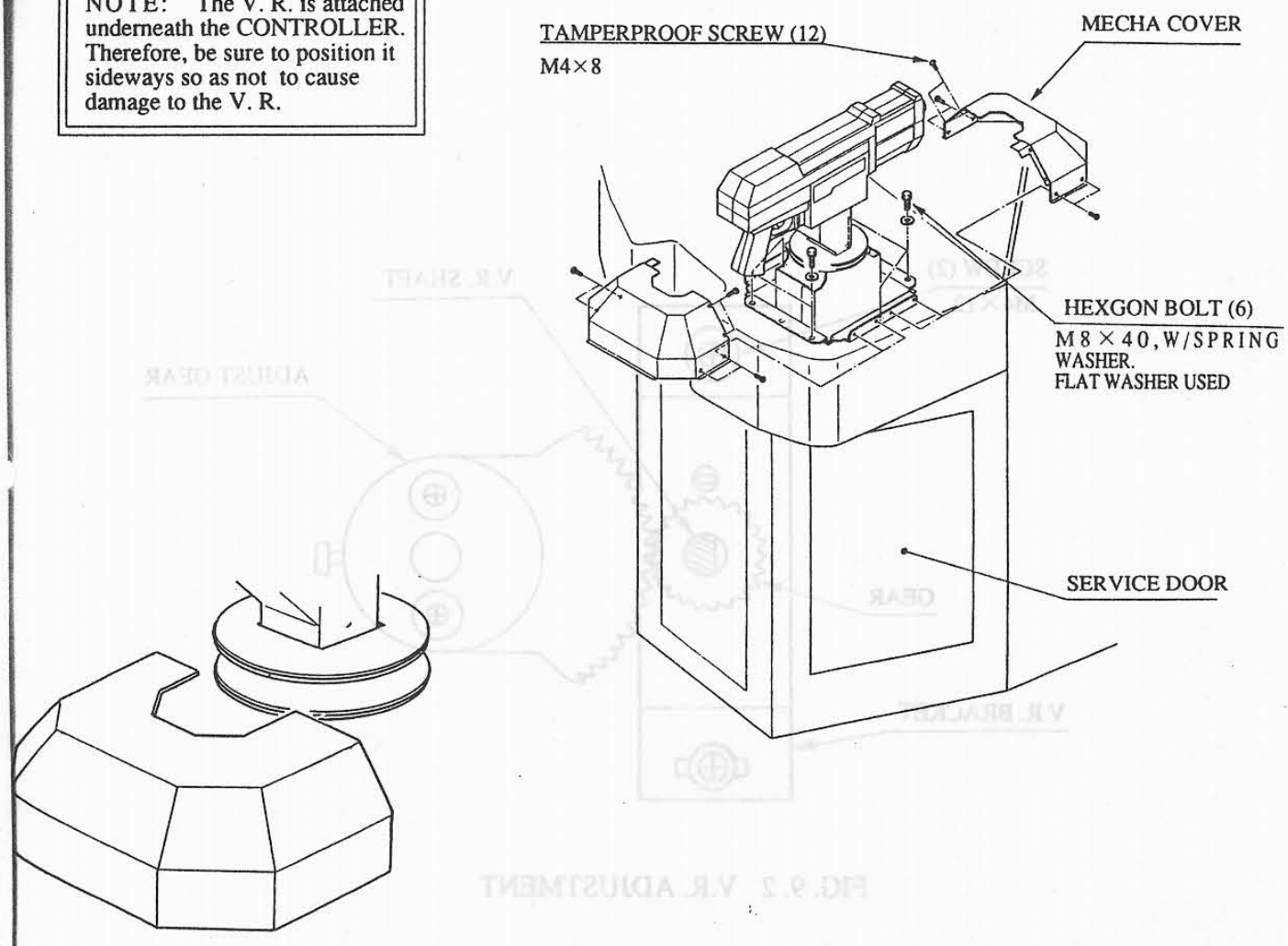


FIG. 9. 1 REMOVING THE CONTROLLER

9-2 ADJUSTMENT & REPLACEMENT OF V.R.

When the V.R. value is set in the GUN ADJUSTMENT of the TEST menu, if the COTROLLER's sight does not correctly function, it is necessary to adjust the V.R. installation position, or replace the V.R..

V.R. ADJUSTMENT

① Loosen the 2 screws (which secure the V.R. BRACKET) to move the V.R. BRACKET.

② Move the V.R. BRACKET to disengage the GEAR and ADJUST GEAR. Move the V.R. SHAFT and make sure that the cut portion of the V.R. SHAFT faces the opposite side of the ADJUST GEAR as shown in Fig. 9. 2.

③ Cause the GEAR to be engaged and tighten the 2 screws.
At this time, make backlash adjustments.

④ Carefully swing the gun in the horizontal and vertical directions and check to see if the V.R. value is within the allowable range.

⑤ After making adjustments, reset the V.R. value in the GUN ADJUSTMENT in the TEST menu.

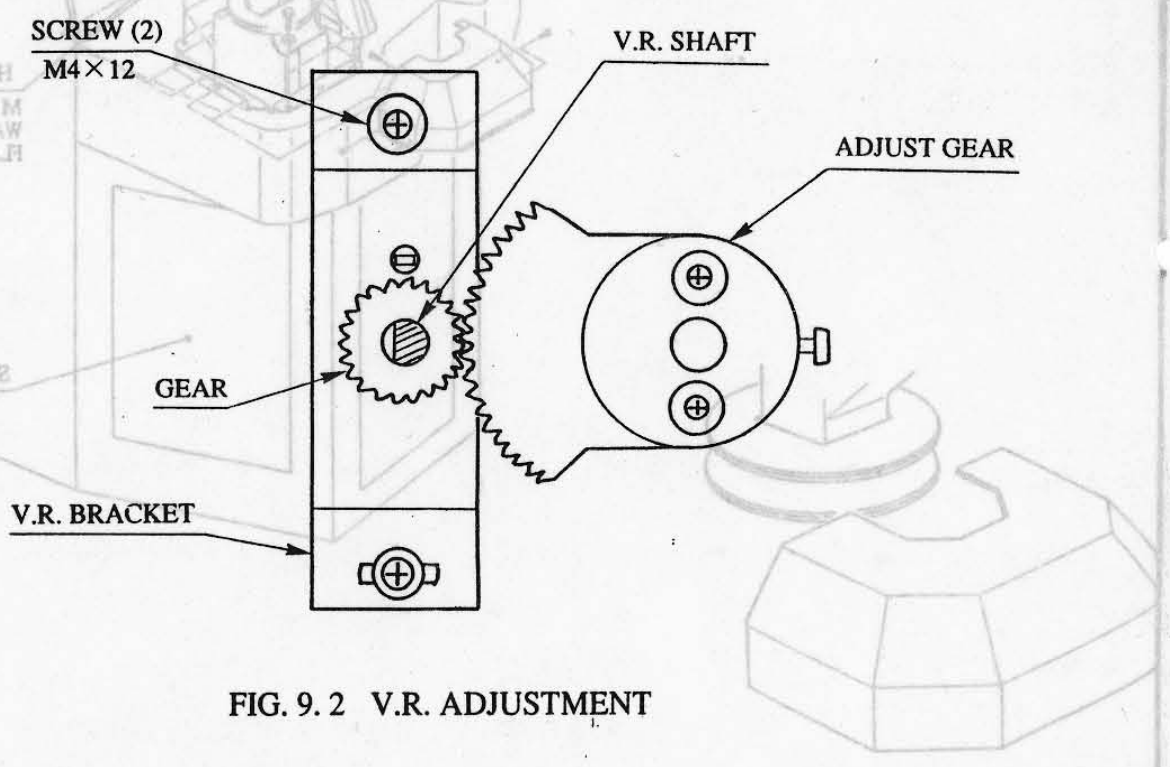


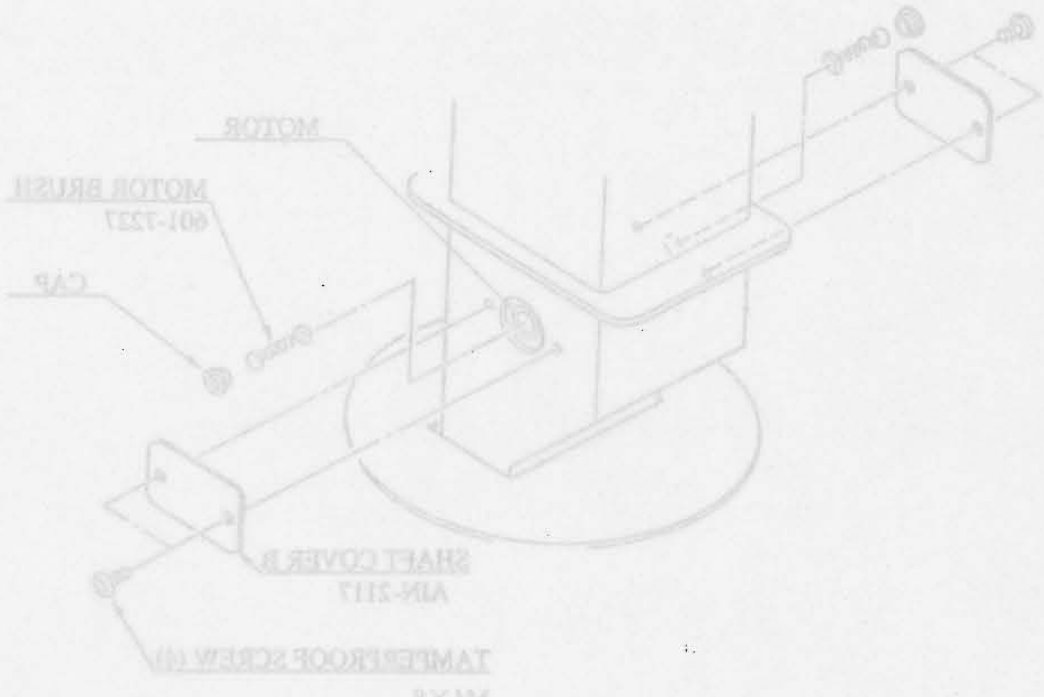
FIG. 9. 2 V.R. ADJUSTMENT

REPLACEMENT OF VOLUME (220-5130 or 220-5373 VOL CONT B-5K OHM)

① Remove the SCREWs "A" that fasten the VR BRACKET. The VR BRACKET becomes unfastened and the VR GEAR disengaged from the HANDLE GEAR.

② Remove the VR GEAR from the VR. Then, replace the VR.

③ After the replacement of the VR, newly set the VR value in the VOLUME ADJUSTMENT mode. (Refer to the preceding page.)



9-3 REPLACEMENT OF MOTOR BRUSH

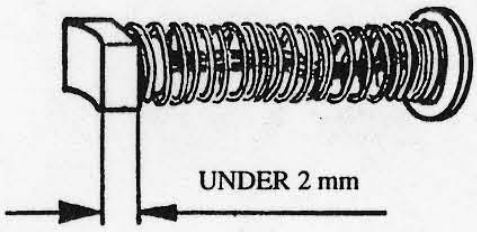
CAUTION: When replacing the brush, be very careful so as not to drop it in the machine.

When 1P GUN or 2P GUN display is ON in the OUTPUT TEST screen in the TEST mode, if the gun does not vibrate, first check the CIRCUIT PROTECTOR of the SWITCH UNIT.
If the circuit protector is satisfactorily working, check the motor brushes.

REMOVING THE MOTOR BRUSH

① Take off the 4 TAMPERPROOF SCREWs and remove 2 SHAFT COVERs B.

② The MOTOR appears as shown in the Fig. at the right. Turn the cap with a screwdriver, etc., to remove the brush.
If the motor brushes are worn out as shown, replace them.
Be sure to replace both of the brushes at the same time.



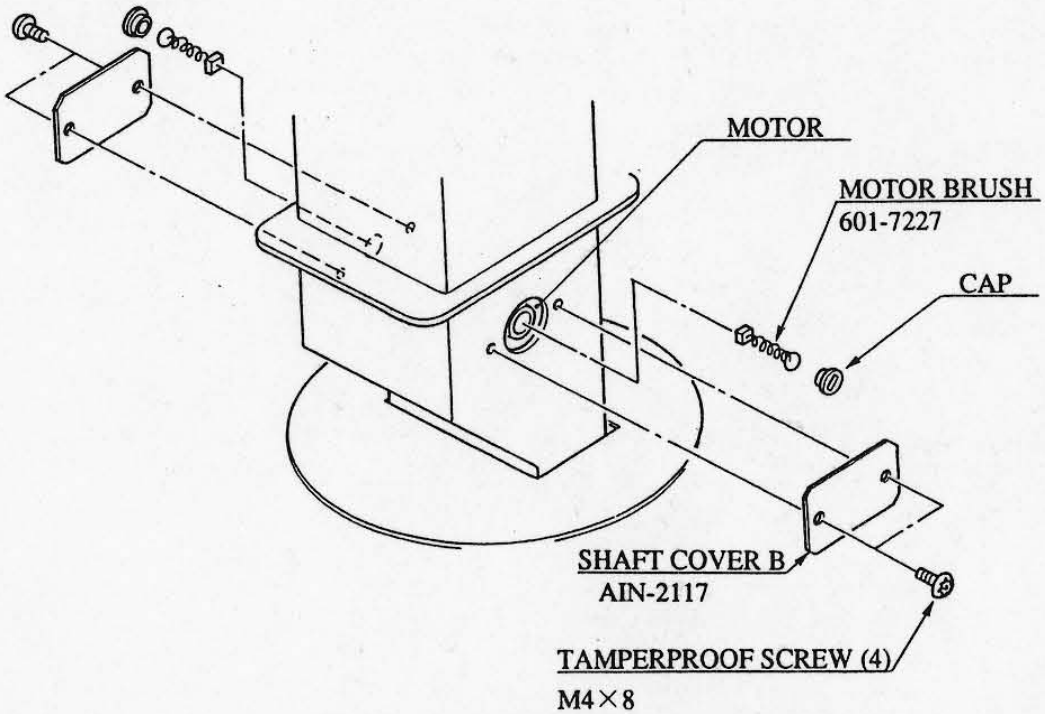


FIG. 9. 3 REPLACING THE MOTOR BRUSH

9-4 REPLACEMENT OF TRIGGER SW

When the TRIGGER is pulled, if ON is not shown in the TRIGGER display in the TEST menu "INPUT TEST" screen, the MICRO SW may be malfunctioning. In that case, it is necessary to replace the MICRO SW.

REMOVING THE GRIP:

① Take off 7 TAMPERPROOF SCREWs A and remove COVER RIGHT.

② Take off 5 TAMPERPROOF SCREWs and remove COVER LEFT with COVER BRACKET as is attached to it (or it could be removed), while paying attention to the wires.

③ Disconnect the CONNECTOR which is connected to the GRIP.

④ Remove the GRIP by taking out the 6 HEXAGON NUTs.

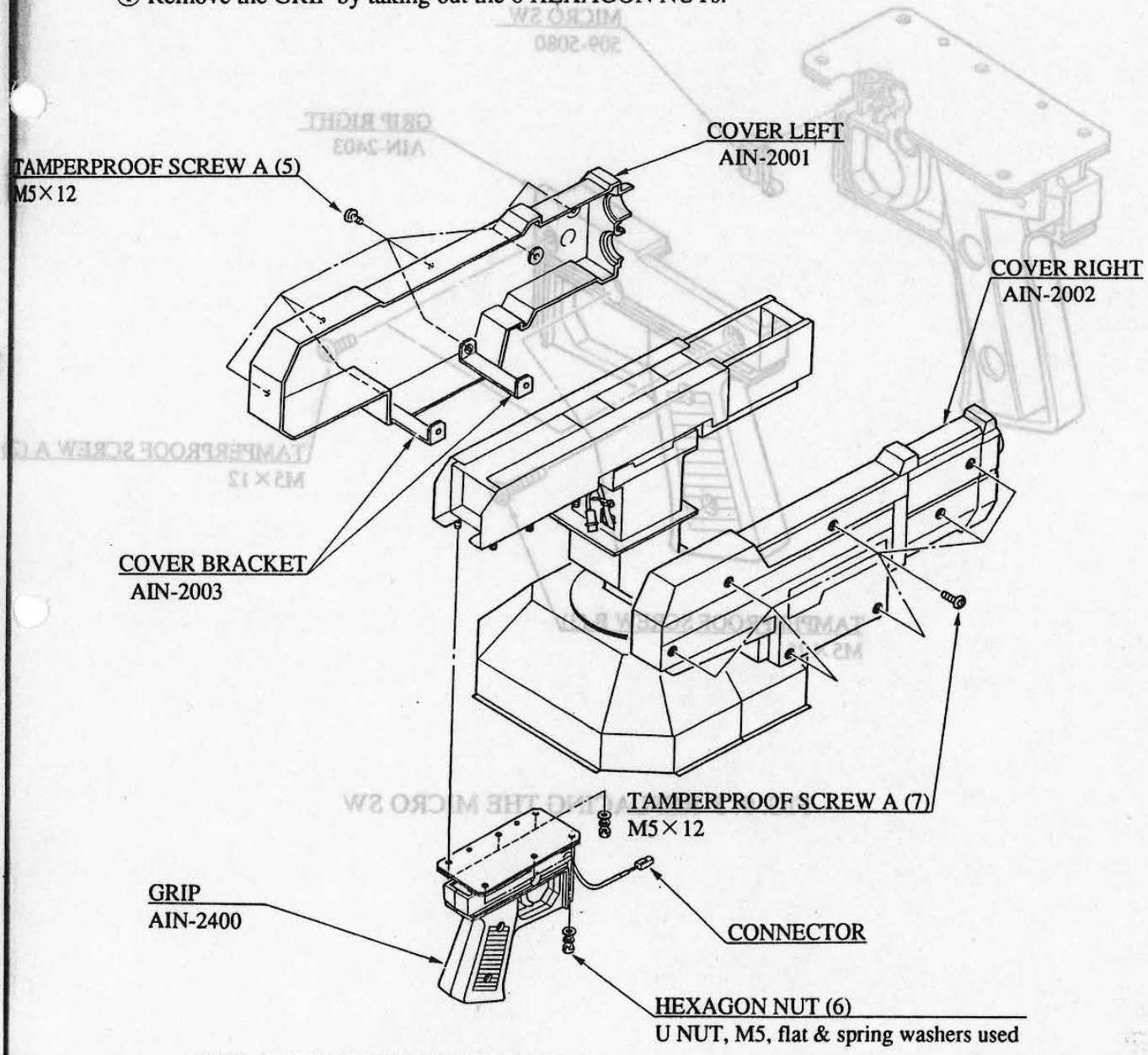


FIG. 9. 4 REMOVING THE GRIP

REPLACING THE MICRO SW:

① Take off 2 TAMPERPROOF SCREWs A and 3 TAMPERPROOF SCREWs B to remove GRIP RIGHT.

② In this status, the MICRO SW can be replaced.

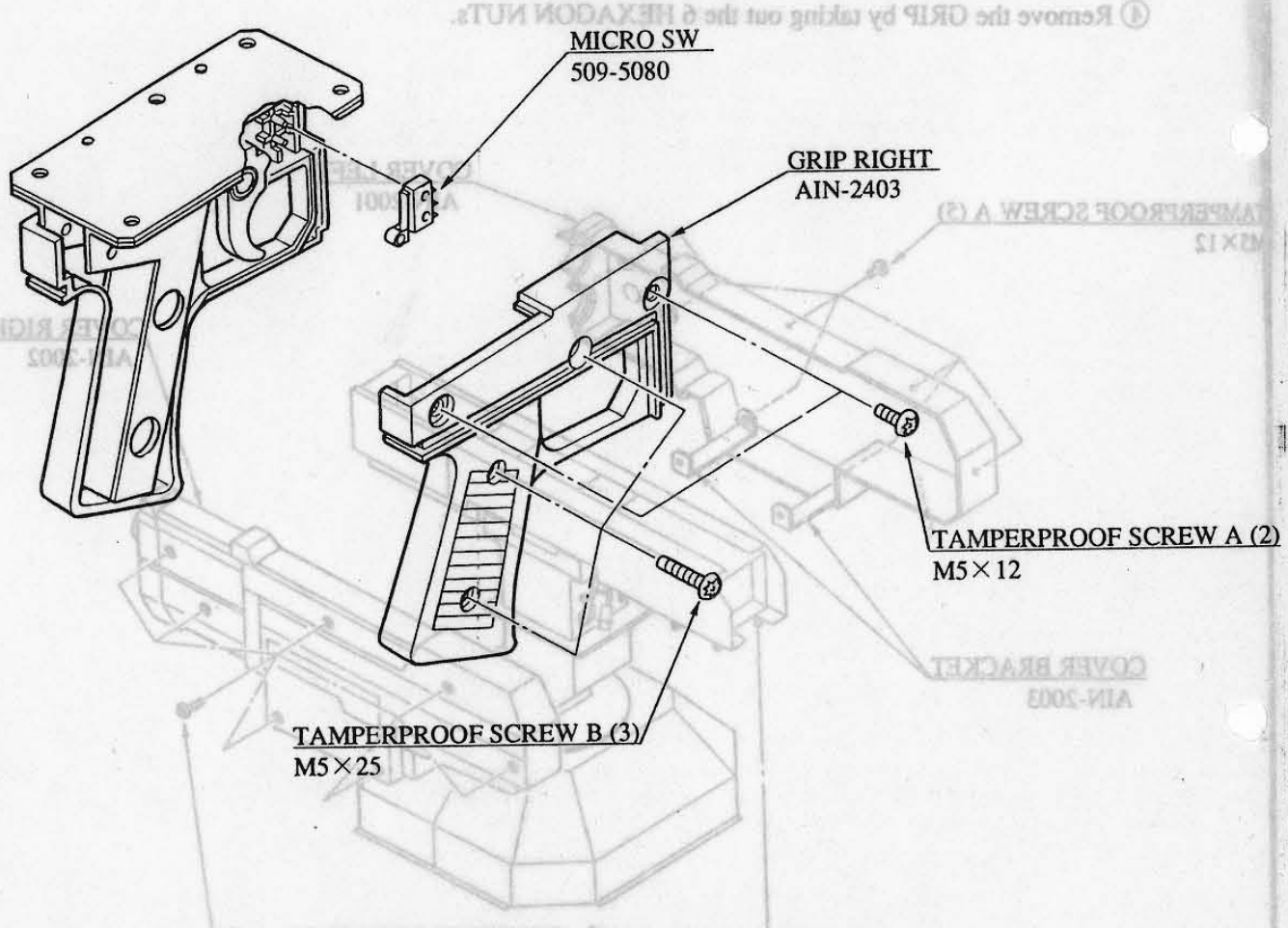


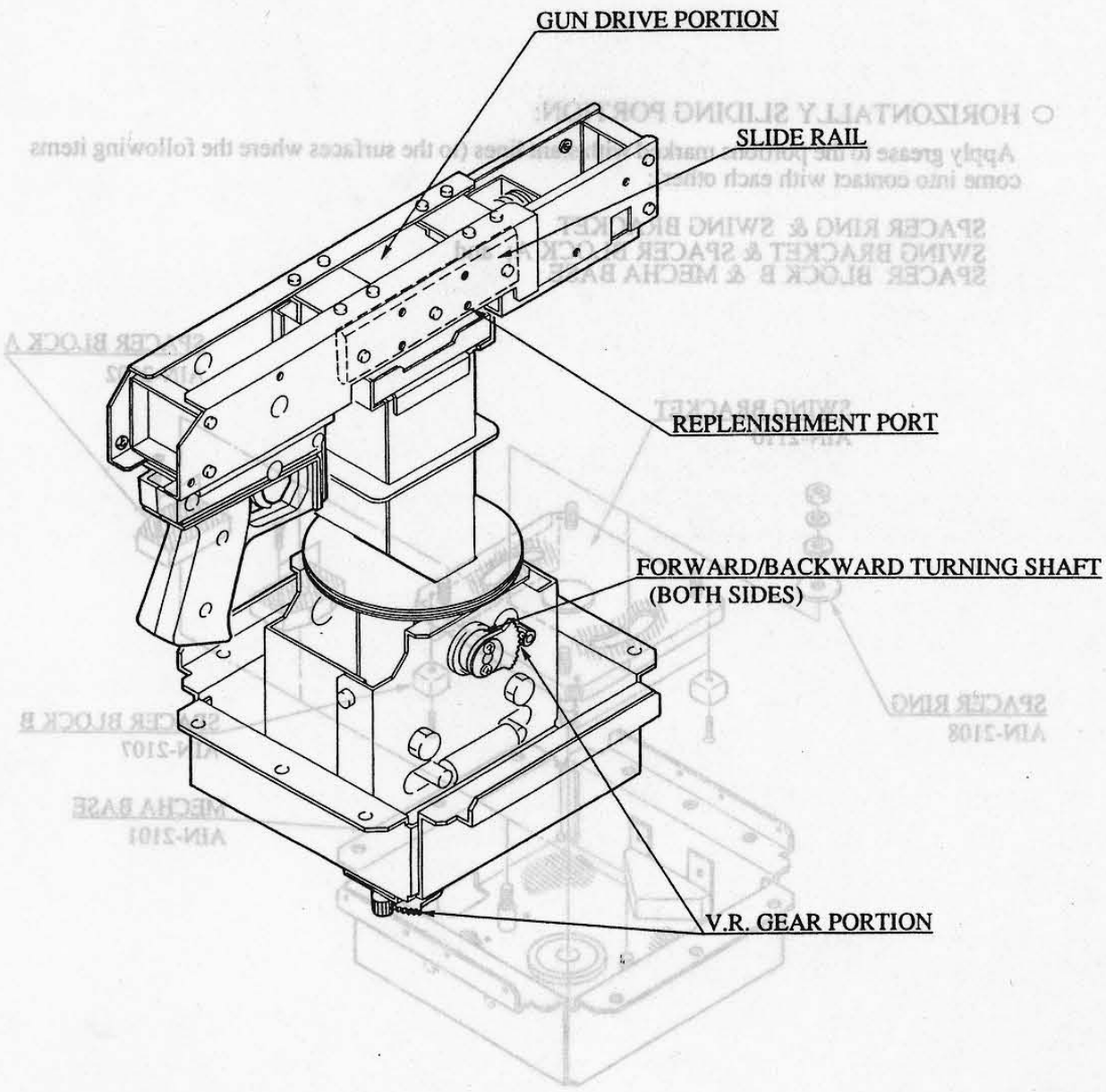
FIG. 9. 5 REPLACING THE MICRO SW

9-5 GREASING

Apply greasing for the following portions every 3 months:

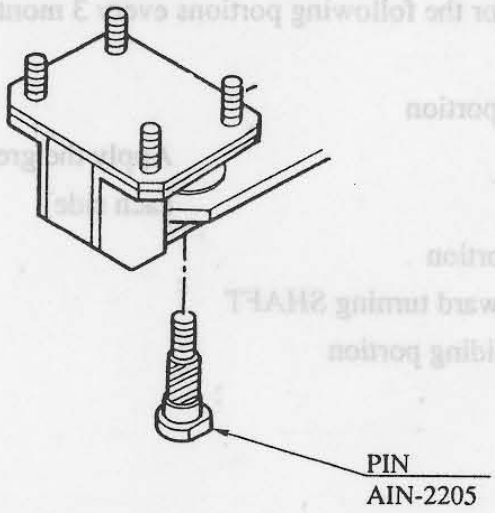
○GUN DRIVE portion
○SLIDE RAIL — Apply the grease from the 4 replenishment ports (on each side).

○V.R. GEAR portion
○Forward/Backward turning SHAFT
○Horizontally sliding portion



○ GUN DRIVE portion:

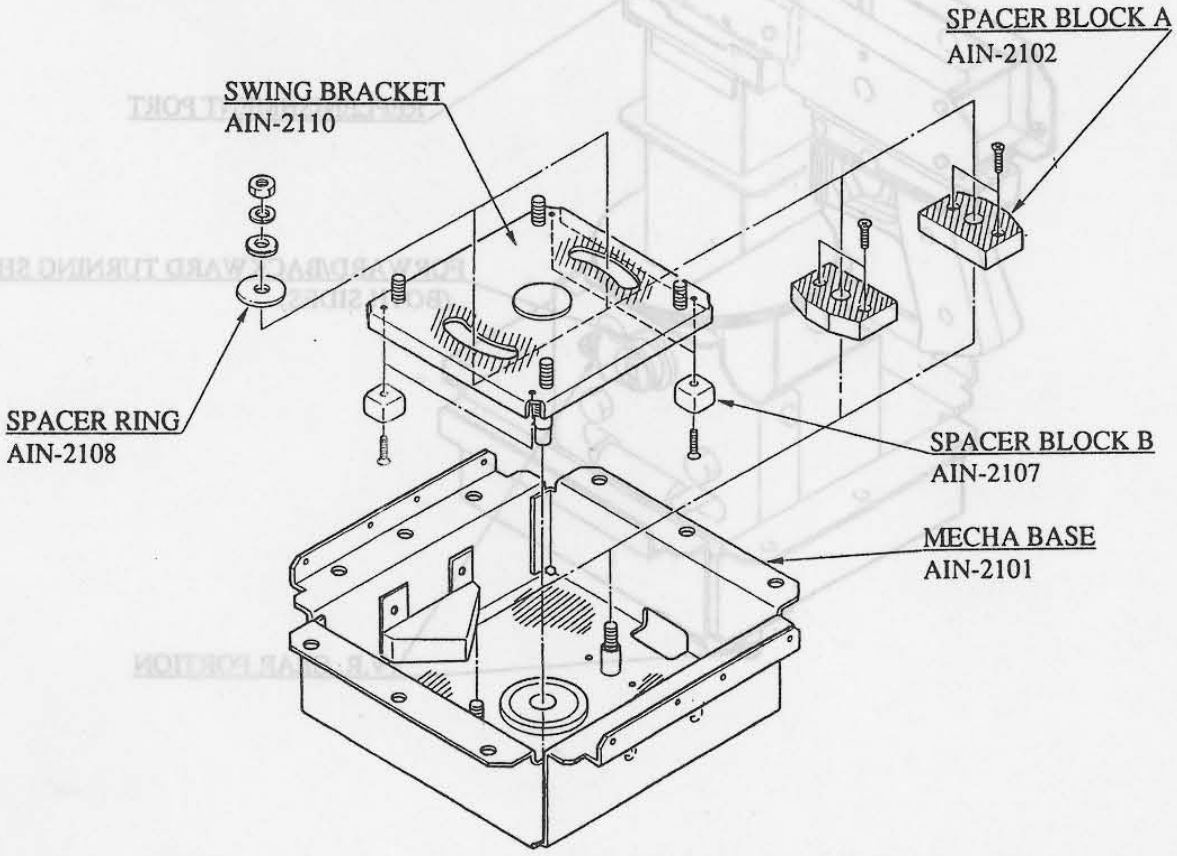
Apply grease to the pin's portion marked with slant lines.



○ HORIZONTALLY SLIDING PORTION:

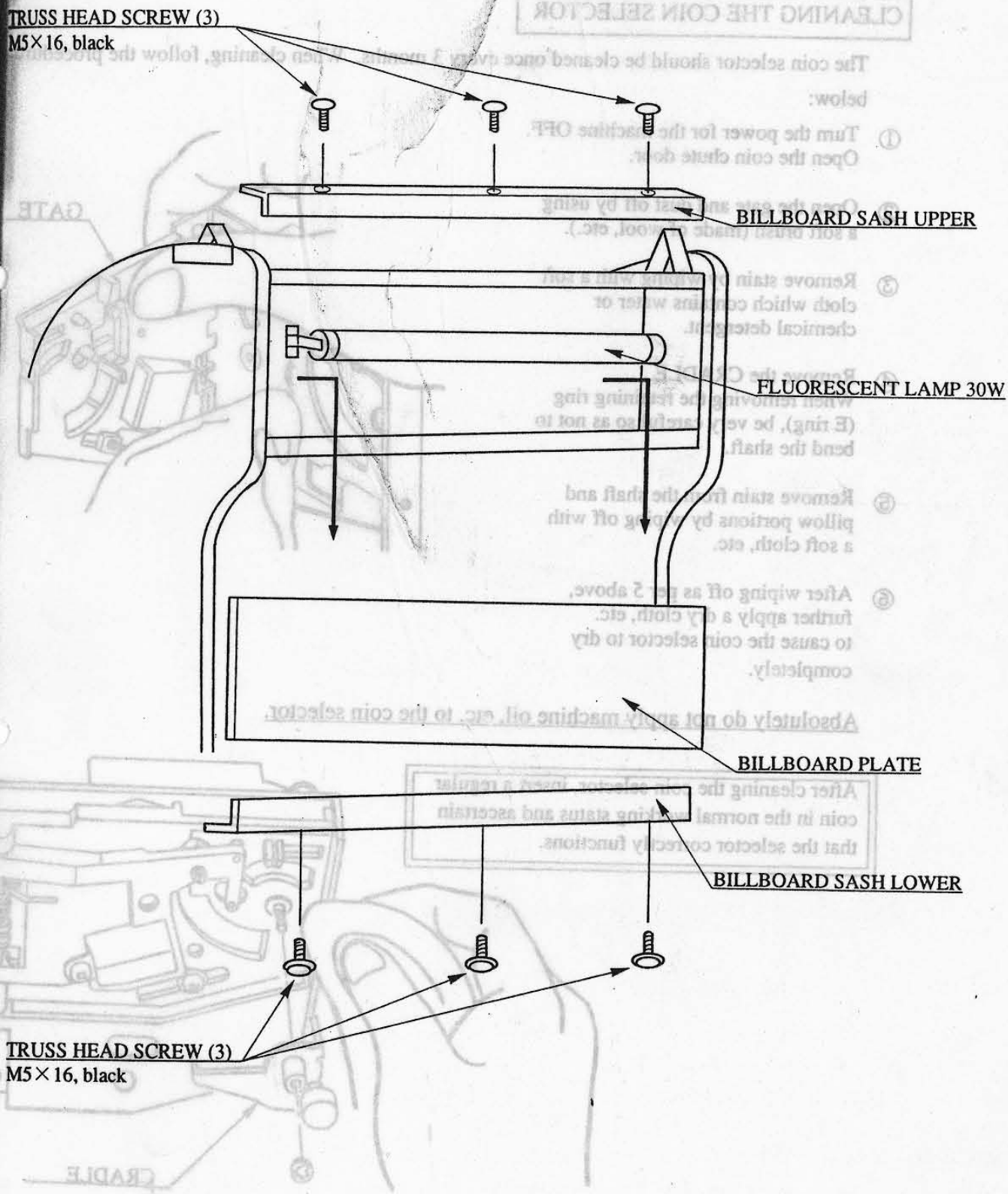
Apply grease to the portions marked with slant lines (to the surfaces where the following items come into contact with each other):

SPACER RING & SWING BRACKET
SWING BRACKET & SPACER BLOCK A; and
SPACER BLOCK B & MECHA BASE



10. REPLACEMENT OF FLUORESCENT LAMP

In a manner as shown below, replace the Fluorescent lamp.



11. EXPLANATION OF COIN SELECTOR

HANDLING THE COIN JAM

Even when the REJECT button is pressed, if the coin is not rejected, open the coin chute door and open the selector gate. After removing the jammed coin, put a normal coin in and check to see that the selector correctly functions.

CLEANING THE COIN SELECTOR

The coin selector should be cleaned once every 3 months. When cleaning, follow the procedure below:

① Turn the power for the machine OFF. Open the coin chute door.

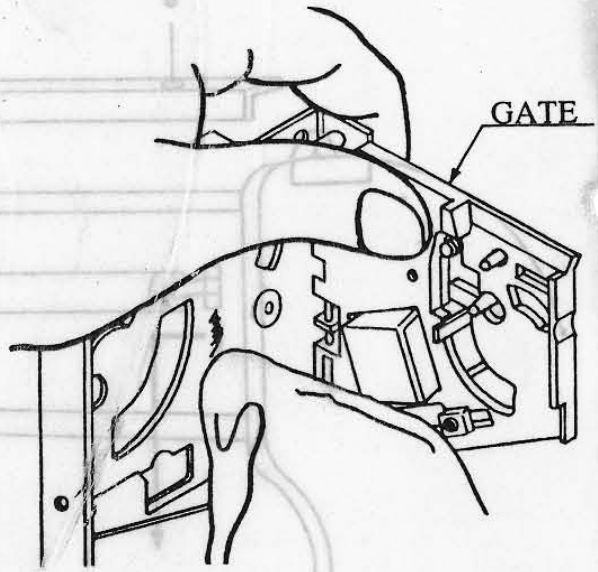
② Open the gate and dust off by using a soft brush (made of wool, etc.).

③ Remove stain by wiping with a soft cloth which contains water or chemical detergent.

④ Remove the CRADLE. When removing the retaining ring (E ring), be very careful so as not to bend the shaft.

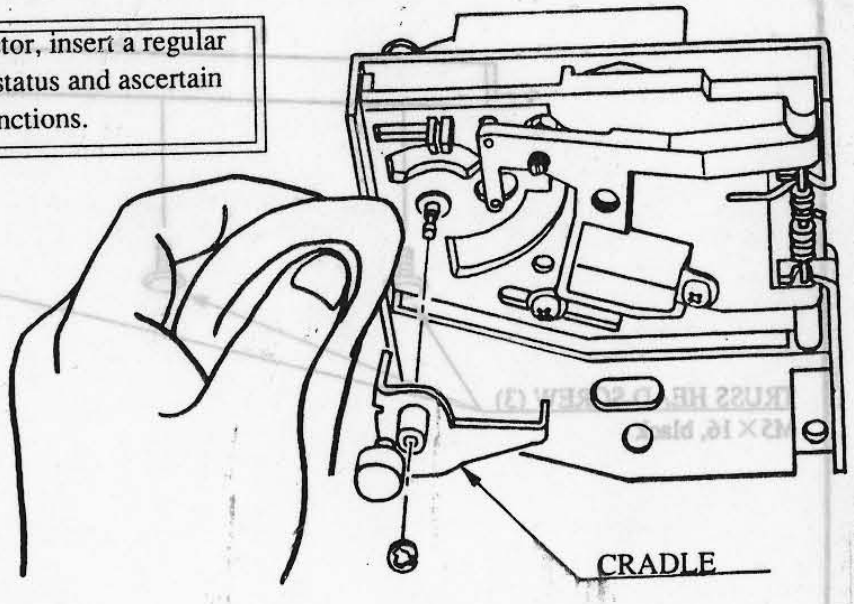
⑤ Remove stain from the shaft and pillow portions by wiping off with a soft cloth, etc.

⑥ After wiping off as per 5 above, further apply a dry cloth, etc. to cause the coin selector to dry completely.



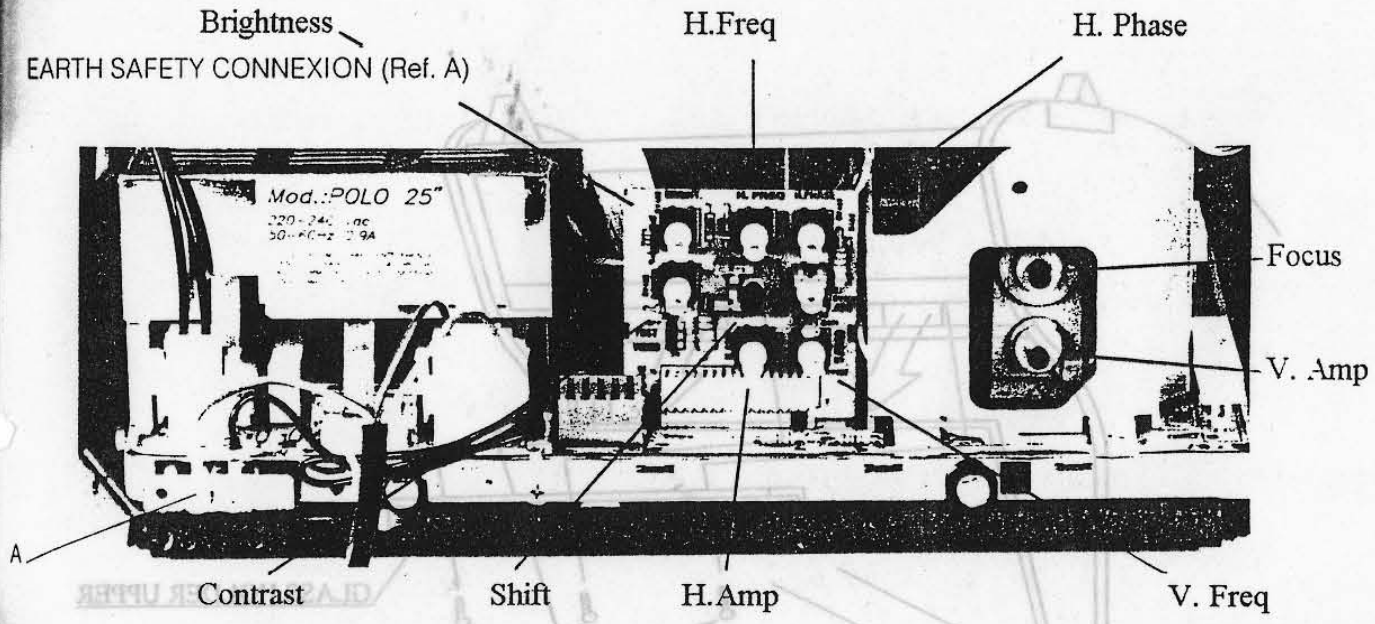
Absolutely do not apply machine oil, etc. to the coin selector.

After cleaning the coin selector, insert a regular coin in the normal working status and ascertain that the selector correctly functions.



12. MONITOR ADJUSTMENTS

- ○ Do not operate the ADJUSTMENT knobs without good reason.
- ○ A certain portion of the monitor is subject to a high voltage and therefore be very careful of this point.
- ○ When making adjustment, utilize a resinous Alignment Screwdriver.
- ○ Make adjustments from the BACK DOOR side.



For further information please refer to the Hantarex Service Manual supplied in the Spares and Accessories Kit.

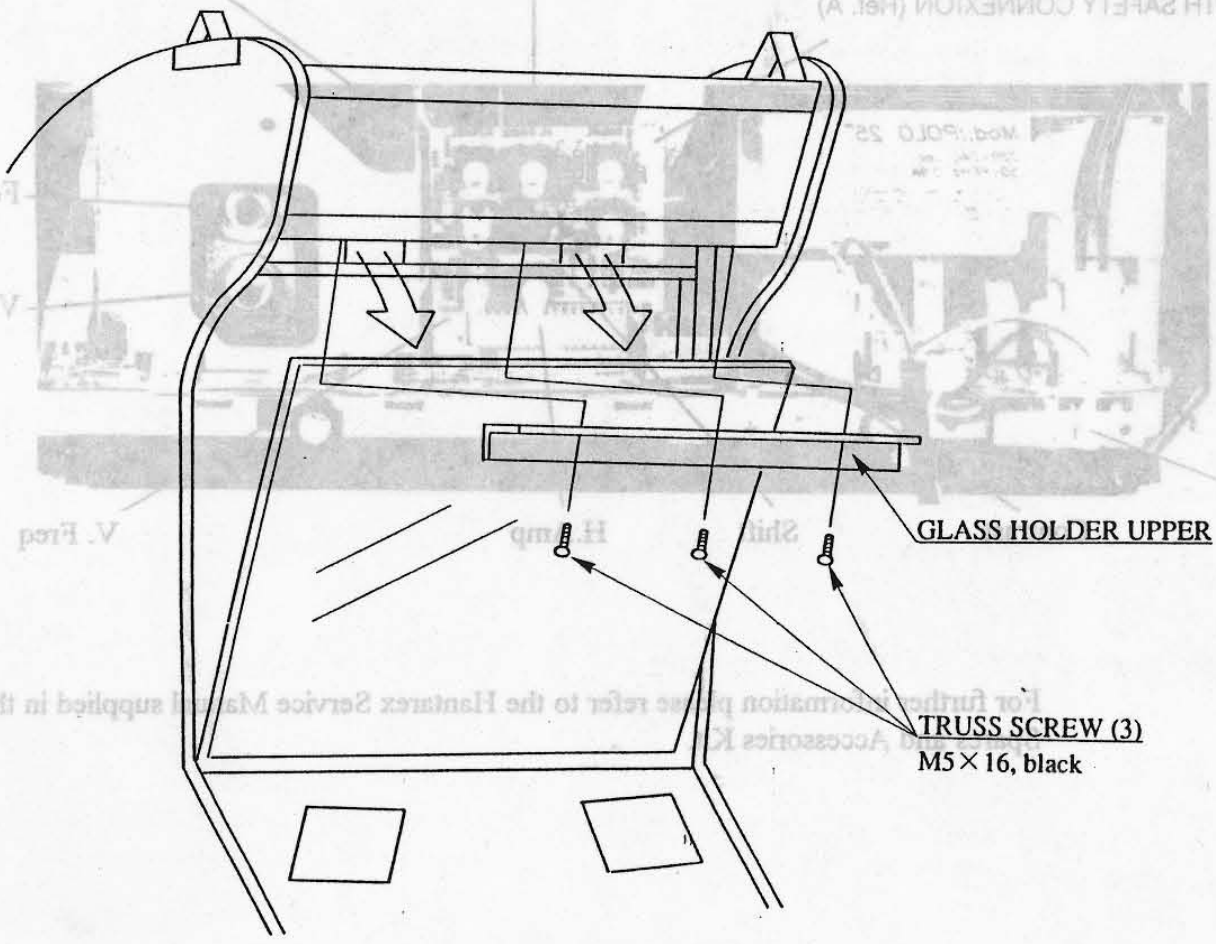
13. PERIODIC INSPECTION TABLE

The items listed below require periodic check and maintenance to retain the performance of this machine.

	Item	Interval	Reference
PERIODIC CHECK	SELF TEST, MEMORY CHECK	Monthly	8-3、8-7
	CHECK EACH SETTING		8-9、8-10
CONTROLLER	CHECK THE VOLUME VALUE	Monthly	8-4
	GREASING	Trimonthly	9-5
COIN SELECTOR	CLEANING	Trimonthly	11

REMOVING THE FRONT GLASS:

Remove the FRONT GLASS when cleaning the back side of it. First, remove GLASS HOLDER UPPER only. Then, put your hand through the square hole in the back side of GLASS HOLDER UPPER, and pull the FRONT GLASS towards you.



14. TROUBLESHOOTING

<table>
<tr><th>PROBLEM</th><th>CAUSE</th><th>COUNTERMEASURES</th></tr>
<tr><td>Main SW is turned ON but the machine is not functioning.</td><td>The power is not supplied.

The power supply voltage is not correct.

Blowing off of fuse due to instantaneous overcurrent.

Blowing off of fuse due to instantaneous overcurrent.</td><td>Make sure that the plug is fully inserted into the plug socket.

Make sure that the power supply voltage is correct.

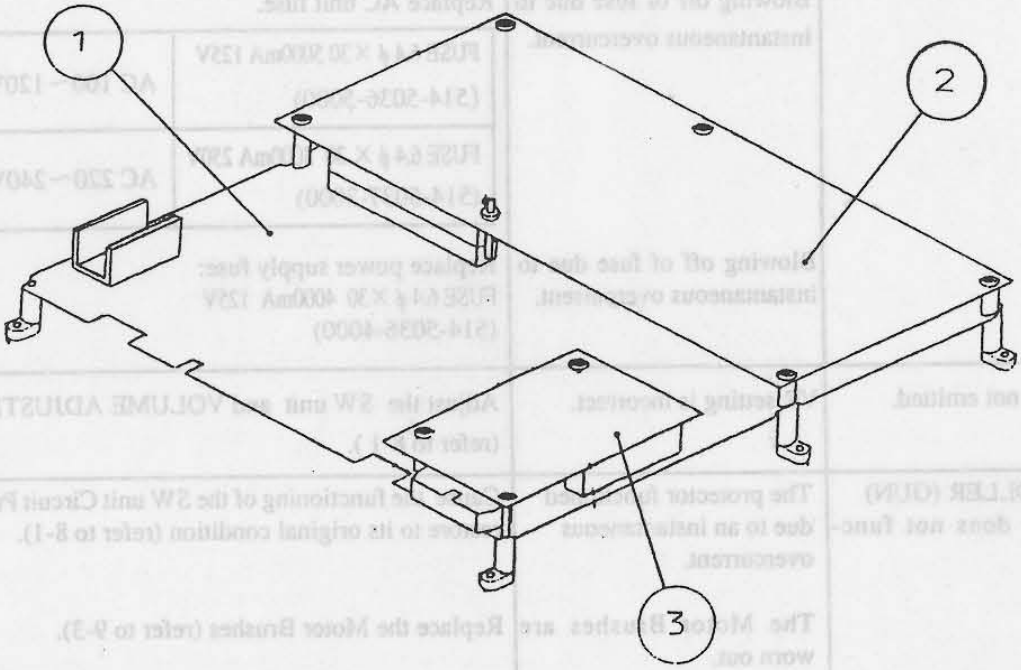
Replace AC unit fuse.<table><tr><td>FUSE 6.4 ϕ ×30 5000mA 125V (514-5036-5000)</td><td>AC 100～120V AREA</td></tr><tr><td>FUSE 6.4 ϕ × 30 3000mA 250V (514-5037-3000)</td><td>AC 220～240V AREA</td></tr></table>Replace power supply fuse:
FUSE 6.4 ϕ ×30 4000mA 125V
(514-5036-4000)</td></tr>
<tr><td>Sound is not emitted.</td><td>VR setting is incorrect.</td><td>Adjust the SW unit and VOLUME ADJUSTMENT (refer to 8-1).</td></tr>
<tr><td>CONTROLLER (GUN) MOTOR does not function.</td><td>The protector functioned due to an instantaneous overcurrent.

The Motor Brushes are worn out.</td><td>Cause the functioning of the SW unit Circuit Protector to restore to its original condition (refer to 8-1).

Replace the Motor Brushes (refer to 9-3).</td></tr>
<tr><td>The Fluorescent lamp does not light up.</td><td>The Fluorescent tube is burnt out.</td><td>Replace the Fluorescent tube with an FL 30W tube (refer to Sction 10).</td></tr>
<tr><td>During game play, CONTROLLER sight is not correct (deviates).</td><td>GUN ADJUSTMENT is incorrect.</td><td>Perform ADJUSTMENT and SETTING correctly as per GUN ADJUSTMENT in the TEST menu (refer to 8-4).</td></tr>
<tr><td>During game play, CONTROLLER's TRIGGER SW does not operate.</td><td>SW malfunctioning.</td><td>Replace SW (refer to 9-4).</td></tr>
<tr><td>The on-screen image of the monitor sways and or shrinks.</td><td>The power source and voltage are not correct.</td><td>Make sure that the power supply and voltage are correct.</td></tr>
</table>

15. GAME BOARD

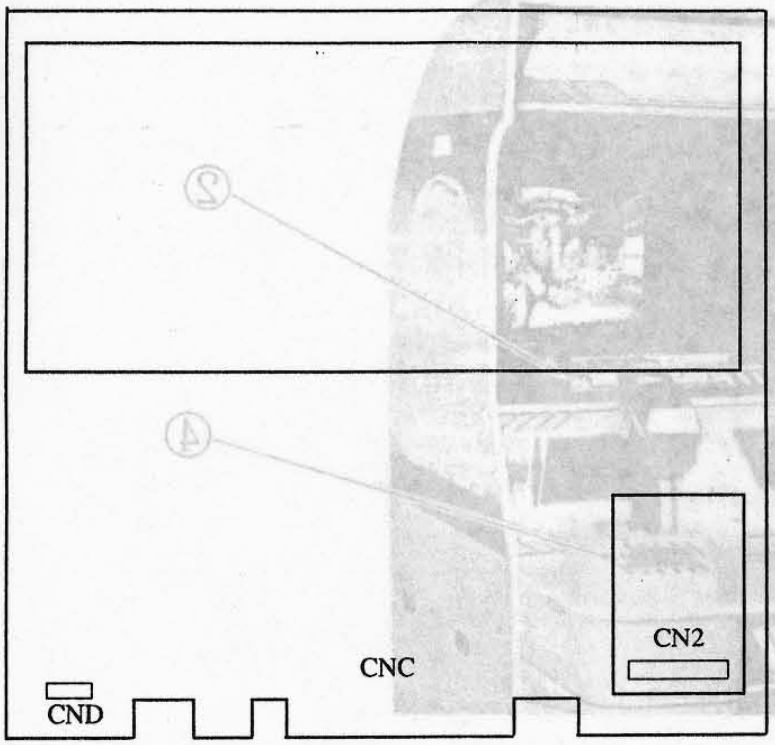
15-1 COMPOSITION OF GAME BOARD



	U.S.A.	OTHERS
GAME BD NO.	834-9877-01	834-9877-02
① MAIN BD (SYSTEM 32 COM)	837-7428-03	
② ROM BD	837-9878-01	837-9878-02
③ A/D BD SYSTEM 18, 32	837-7536	

15-2 INPUT AND OUTPUT

GAME BD ALIEN 3 THE GUN

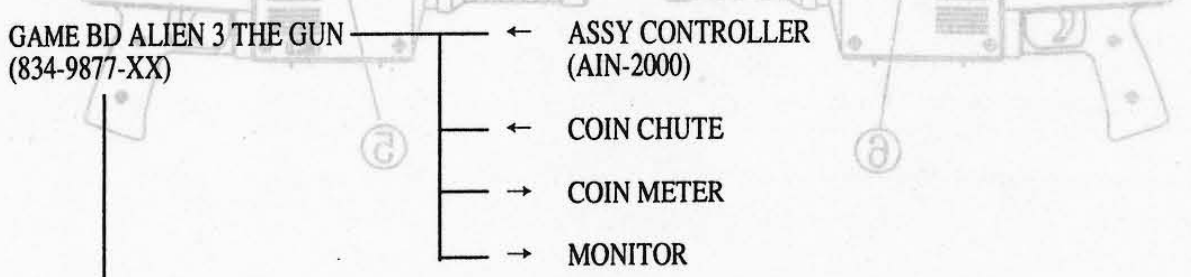


CNC: For I/O

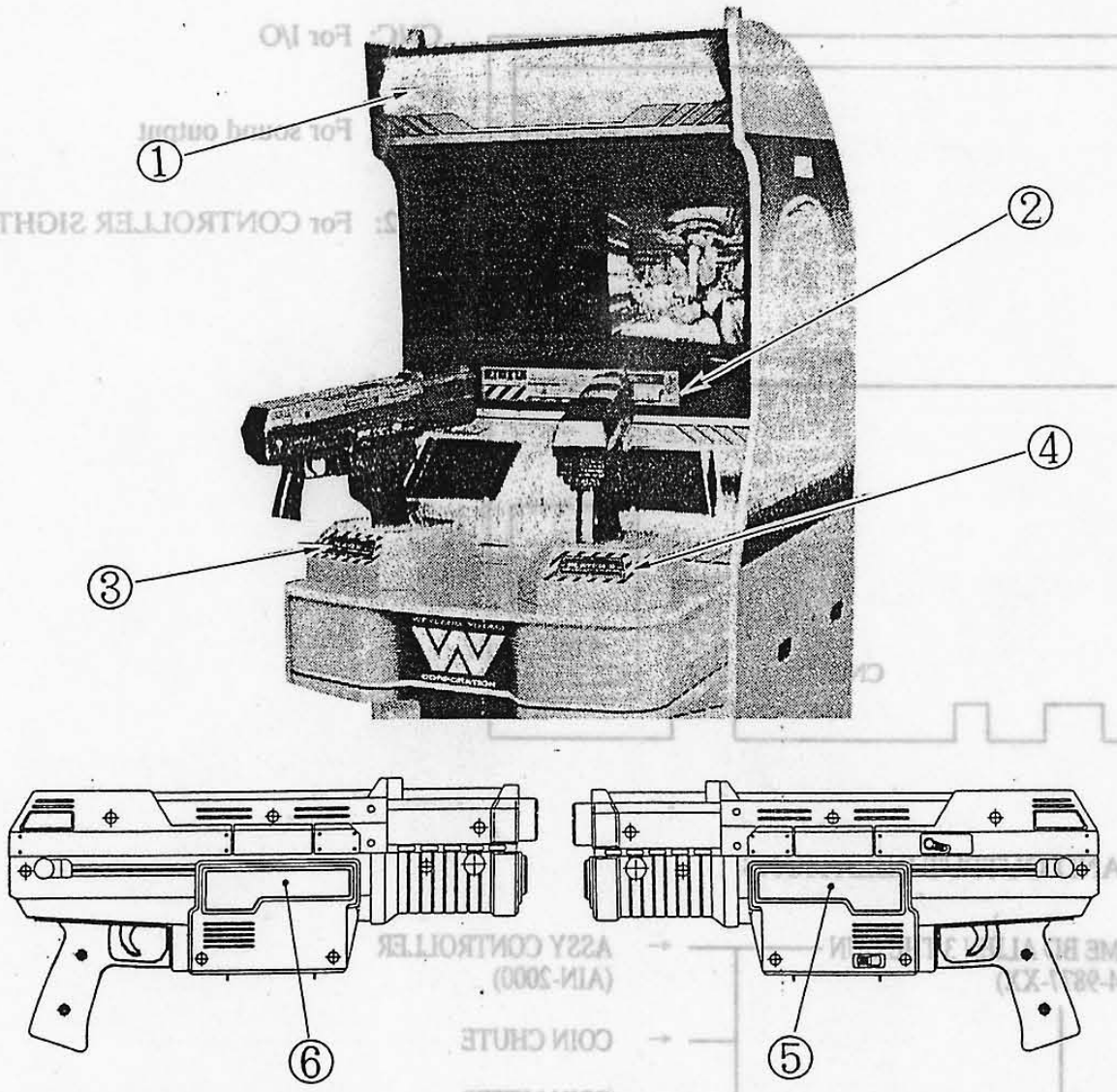
CND: For sound output

CN2: For CONTROLLER SIGHT

INPUT AND OUTPUT RELATIONS



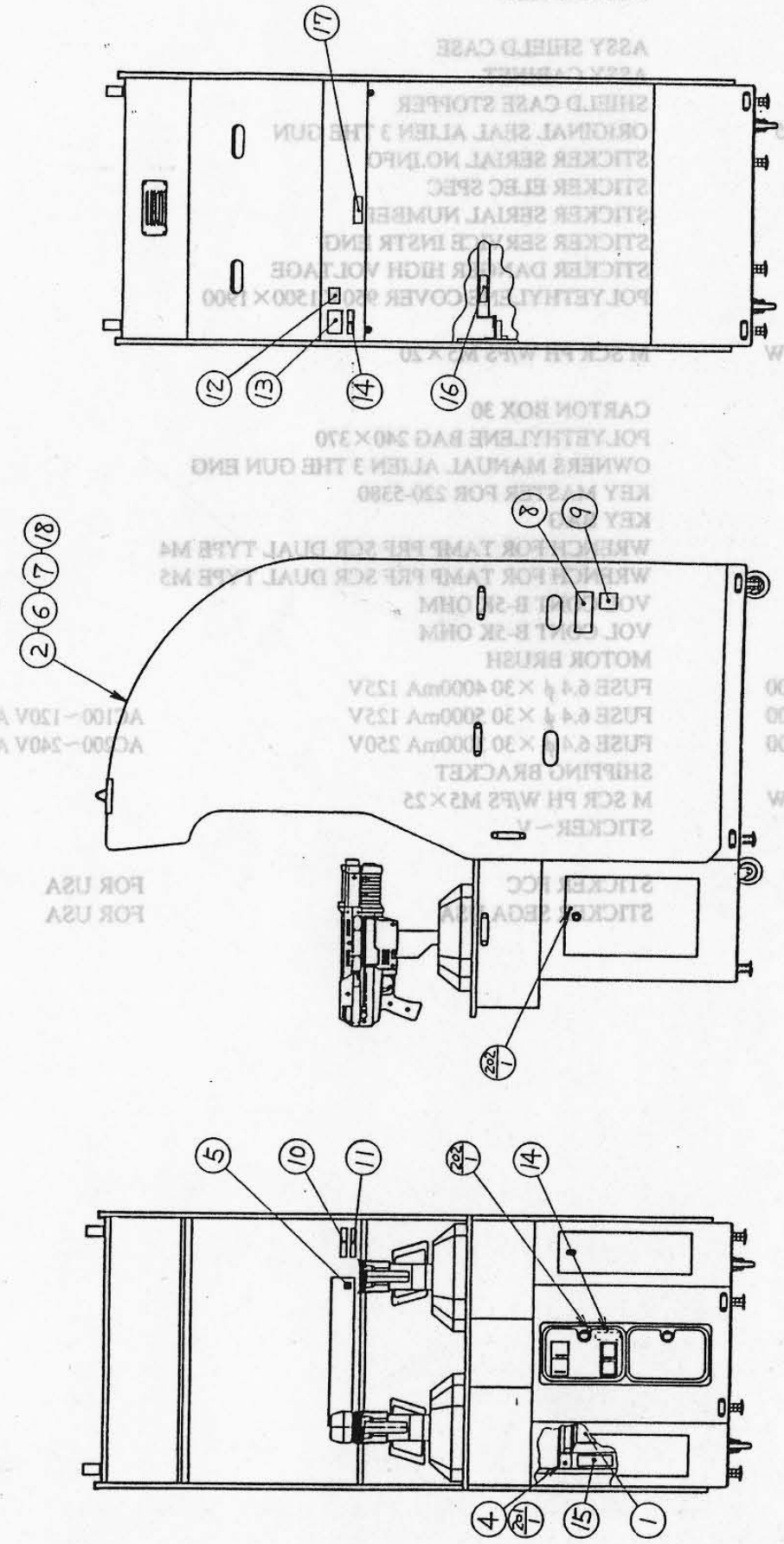
16. DESIGN RELATED PARTS



No.	PART NO.	DESCRIPTION
1	423-0207	BILLBOARD PLATE AIN
2	422-0460-01	PLAY INSTR SH AIN ENG
3	AIN-1042	STICKER MECHA COVER LEFT
4	AIN-1043	STICKER MECHA COVER RIGHT
5	AIN-2005	DESIGN PL LEFT
6	AIN-2006	DESIGN PL RIGHT

17. PARTS LIST

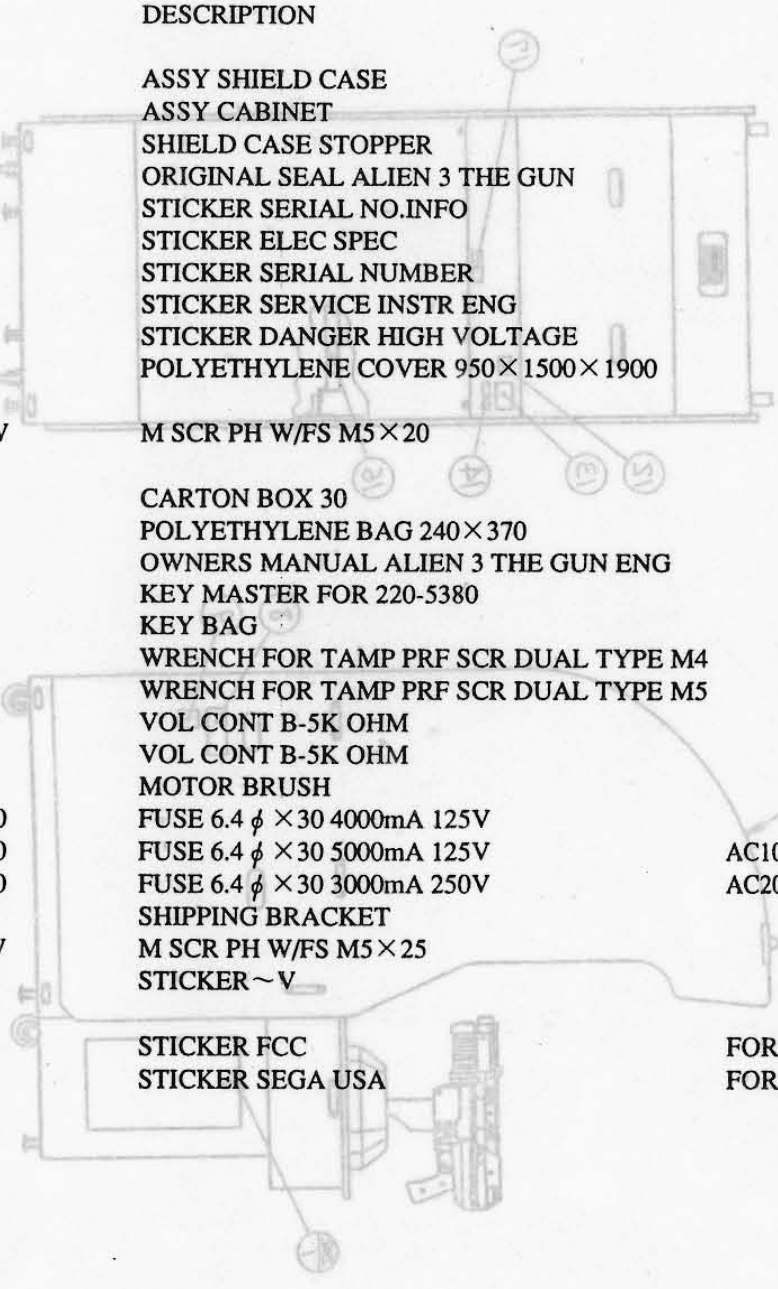
① TOP ASSY ALIEN 3 THE GUN (D-1/2)

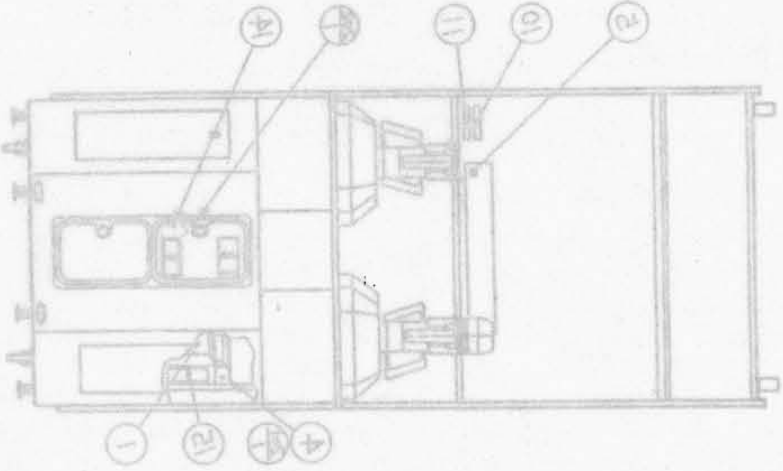


① TOP ASSY ALIEN 3 THE GUN

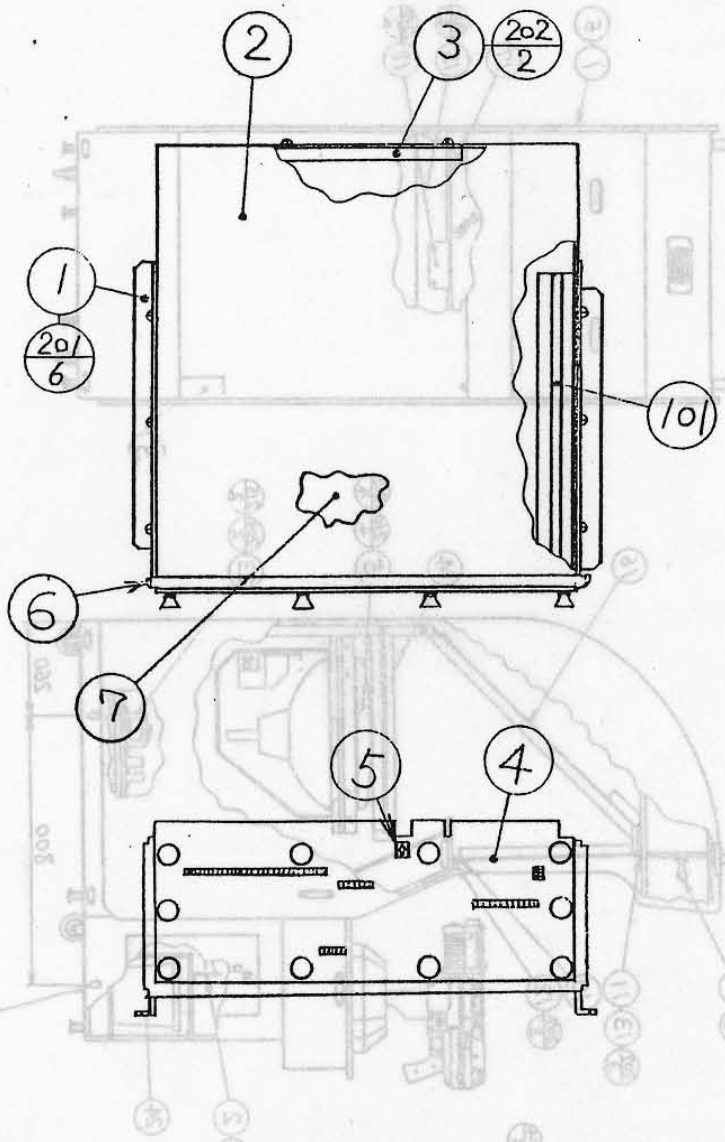
(D-2/2)

ITEM NO.	PART NO.	DESCRIPTION	
1	AIN-0100	ASSY SHIELD CASE	
2	AIN-1000	ASSY CABINET	
4	OUT-0003	SHIELD CASE STOPPER	
5	421-5800-215	ORIGINAL SEAL ALIEN 3 THE GUN	
6	421-6594	STICKER SERIAL NO.INFO	
13	421-7987	STICKER ELEC SPEC	
14	421-7988	STICKER SERIAL NUMBER	
15	421-6709	STICKER SERVICE INSTR ENG	
16	421-6671	STICKER DANGER HIGH VOLTAGE	
18	SGM-3784	POLYETHYLENE COVER 950×1500×1900	
201	000-P00520-W	M SCR PH W/FS M5×20	
401	601-6604-30	CARTON BOX 30	
402	SGM-2675	POLYETHYLENE BAG 240×370	
403	420-6101-01	OWNERS MANUAL ALIEN 3 THE GUN ENG	
404	220-5381	KEY MASTER FOR 220-5380	
405	SGM-4111	KEY BAG	
406	540-0006-01	WRENCH FOR TAMP PRF SCR DUAL TYPE M4	
407	540-0007-01	WRENCH FOR TAMP PRF SCR DUAL TYPE M5	
408	220-5130	VOL CONT B-5K OHM	
408	220-5373	VOL CONT B-5K OHM	
409	601-7227	MOTOR BRUSH	
410	514-5036-4000	FUSE 6.4 ϕ ×30 4000mA 125V	
411	514-5036-5000	FUSE 6.4 ϕ ×30 5000mA 125V	AC100~120V AREA
411	514-5037-3000	FUSE 6.4 ϕ ×30 3000mA 250V	AC200~240V AREA
	BVG-0026	SHIPPING BRACKET	
	000-P00525-W	M SCR PH W/FS M5×25	
	421-6690~	STICKER~V	
	421-6119-91	STICKER FCC	FOR USA
	421-6120-91	STICKER SEGA USA	FOR USA



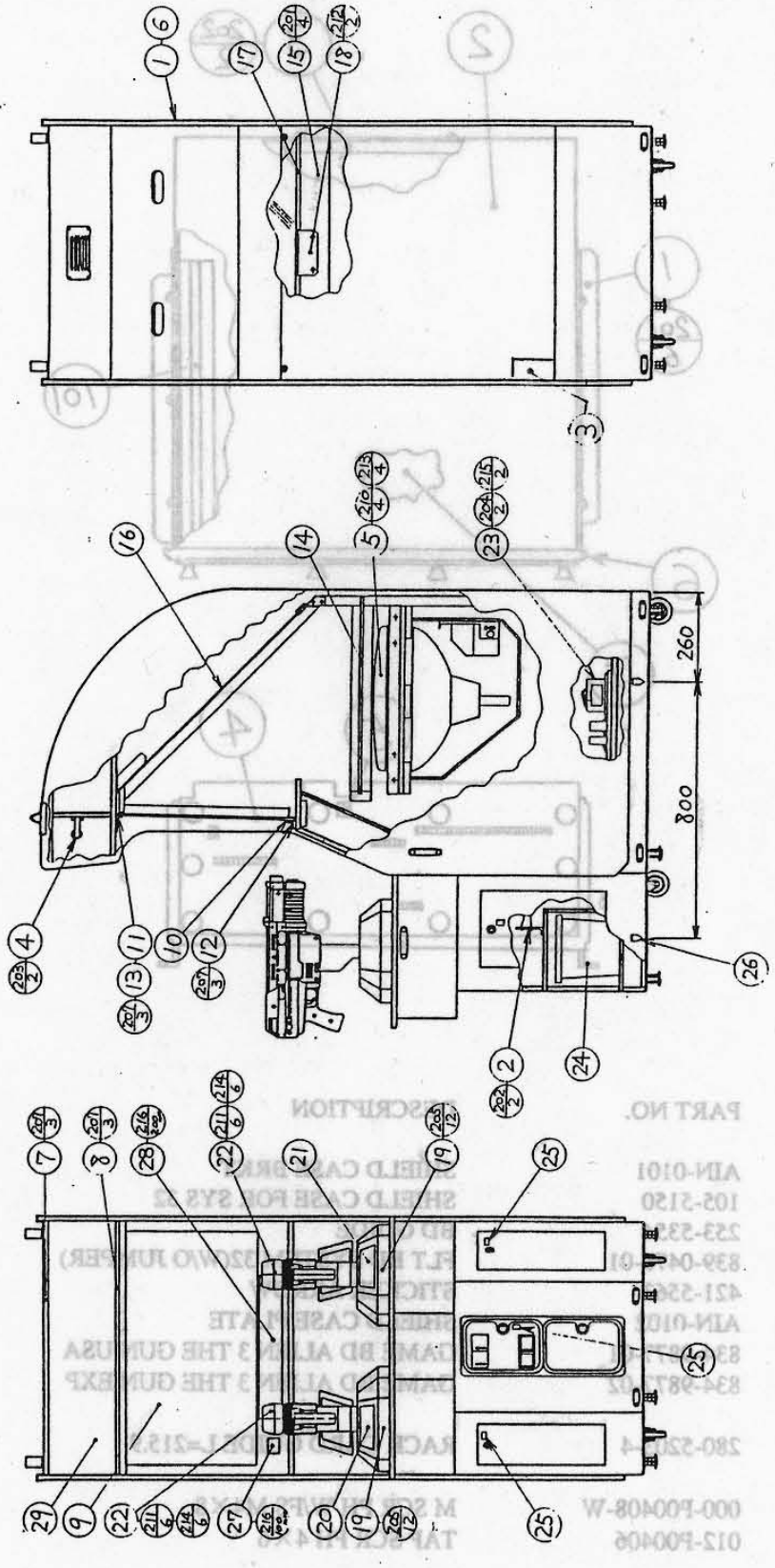


② ASSY SHIELD CASE (AIN-0100)



ITEM NO.	PART NO.	DESCRIPTION	
1	AIN-0101	SHIELD CASE BRKT	
2	105-5150	SHIELD CASE FOR SYS 32	
3	253-5354	BD GUIDE	
4	839-0476-01	FLT BD SYSTEM 32(W/O JUMPER)	
5	421-5563	STICKER ARROW	
6	AIN-0102	SHIELD CASE PLATE	
7	834-9877-01	GAME BD ALIEN 3 THE GUN USA	FOR USA
7	834-9877-02	GAME BD ALIEN 3 THE GUN EXP	FOR OTHERS
101	280-5203-4	RACK CARD GUIDE L=215.9	
201	000-P00408-W	M SCR PH W/FS M4×8	
202	012-P00406	TAP SCR PH 4×6	
301	CE15645	WIRE HARN SHIELD A/D	
302	CE15632	WIRE HARN LINE OUT SHIELD	

③ ASSY CABINET (AIN-1000) (D-1/3)



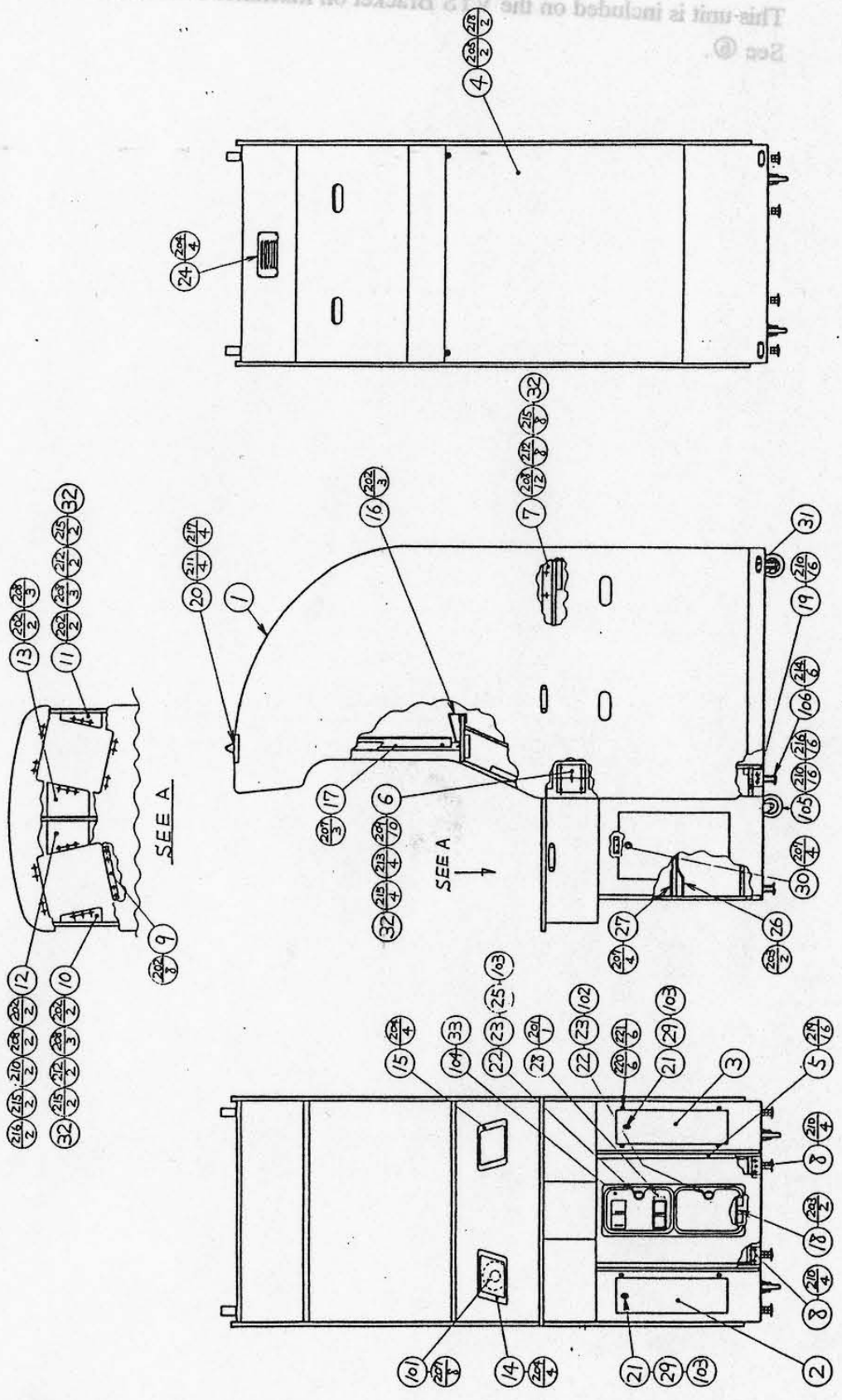
③ ASSY CABINET (AIN-1000) (D-2/3)

ITEM NO.	PART NO.	DESCRIPTION
1	AIN-1001	ASSY SUB-CABINET
2	AIN-1021	SW UNIT
3	AIN-1023	AC UNIT
4	AIN-1024	FL UNIT
5	AIN-1025	ASSY MONITOR 29
6	AIN-1028	ASSY WIRE
	CE15619	WIRE HARN MAIN
	CE15643	WIRE HARN A/D 1
	CE15644	WIRE HARN A/D 2
	600-6314-19	WIRE HARN EXT COIN
	600-6314-20	WIRE HARN EXT SOUND
	CE 15639	WIRE HARN EXT VOLUME
	CE 15640	LINE FILTER A
	601-0460	PLASTIC TIE BELT 100㎜
7	AIN-1029	BILLBOARD SASH UPPER
8	AIN-1030	BILLBOARD SASH LOWER
9	AIN-1031	FRONT GLASS
10	AIN-1032	RUBBER PACKING
11	AIN-1033	GLASS HOLDER UPPER
12	AIN-1034	GLASS HOLDER LOWER
13	AIN-1035	CUSHION
14	AIN-1036	WOODEN MASK
15	AIN-1037	MIRROR BRKT
16	AIN-1038	MIRROR
17	AIN-1039	MIRROR SASH
18	AIN-1040	MIRROR HOLDER
19	AIN 1041	MECHA COVER
20	AIN-1042	STICKER MECHA COVER LEFT
21	AIN-1043	STICKER MECHA COVER RIGHT
22	AIN-2000	ASSY CONTROLLER
23	AIN-4000	ASSY PWR SPLY
24	253-5366	CASH BOX
26	421-7020	STICKER CAUTION FORK
27	421-7308～	DENOMINATION SHEET 1GAME～
28	422-0460-01	PLAY INSTR SH AIN ENG
29	423-0207	BILLBOARD PLATE AIN
101	280-0419	HARNESS LUG
102	280-5009-01	CORD CLAMP 21
201	000-P00412-W	M SCR PH W/FS M4×12
202	000-P00420-W	M SCR PH W/FS M4×20
203	000-P00430-W	M SCR PH W/FS M4×30
204	000-P00530-S	M SCR PH W/S M5×30
205	008-T00408-0C	TMP PRF SCR TH CRM M4×8
206	008-T00420-OB	TMP PRF SCR TH BLK M4×20
207	000-T00516-OB	M SCR TH BLK M5×16
208	005-R03110	W SCR RH 3.1×10
209	005-F03113	W SCR FH 3.1×13
210	030-000612-S	HEX BLT W/S M6×12
211	030-000840-S	HEX BLT W/S M8×40

③ ASSY CABINET (AIN-1000)

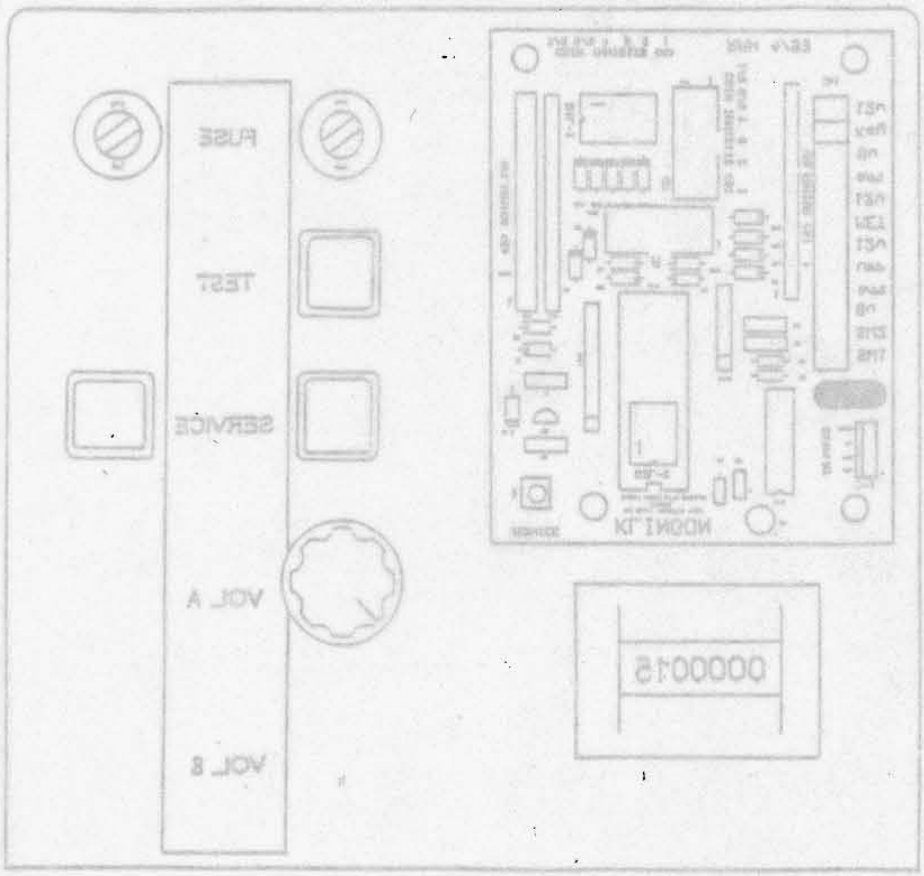
ITEM NO.	PART NO.	DESCRIPTION
212	050-F00400	FLG NUT M4
213	060-F00600	FLT WSHR M6
214	060-F00800	FLT WSHR M8
215	069-000001	FLT WSHR 5.5-20×1.6
216	090-0024	SCOCH ELEC. TAPE UL10 19mm×55mm
301	CE 15641	WIRE HARN EXT MOTOR
302	600-6314-44	WIRE HARN EARTH CONT R
303	600-6314-45	WIRE HARN EARTH CONT L
304	600-6314-46	WIRE HARN EARTH COIN SW
305	600-6314-47	WIRE HARN EARTH COIN METER

④ ASSY SUB-CABINET (AIN-1001) (D-1/3)



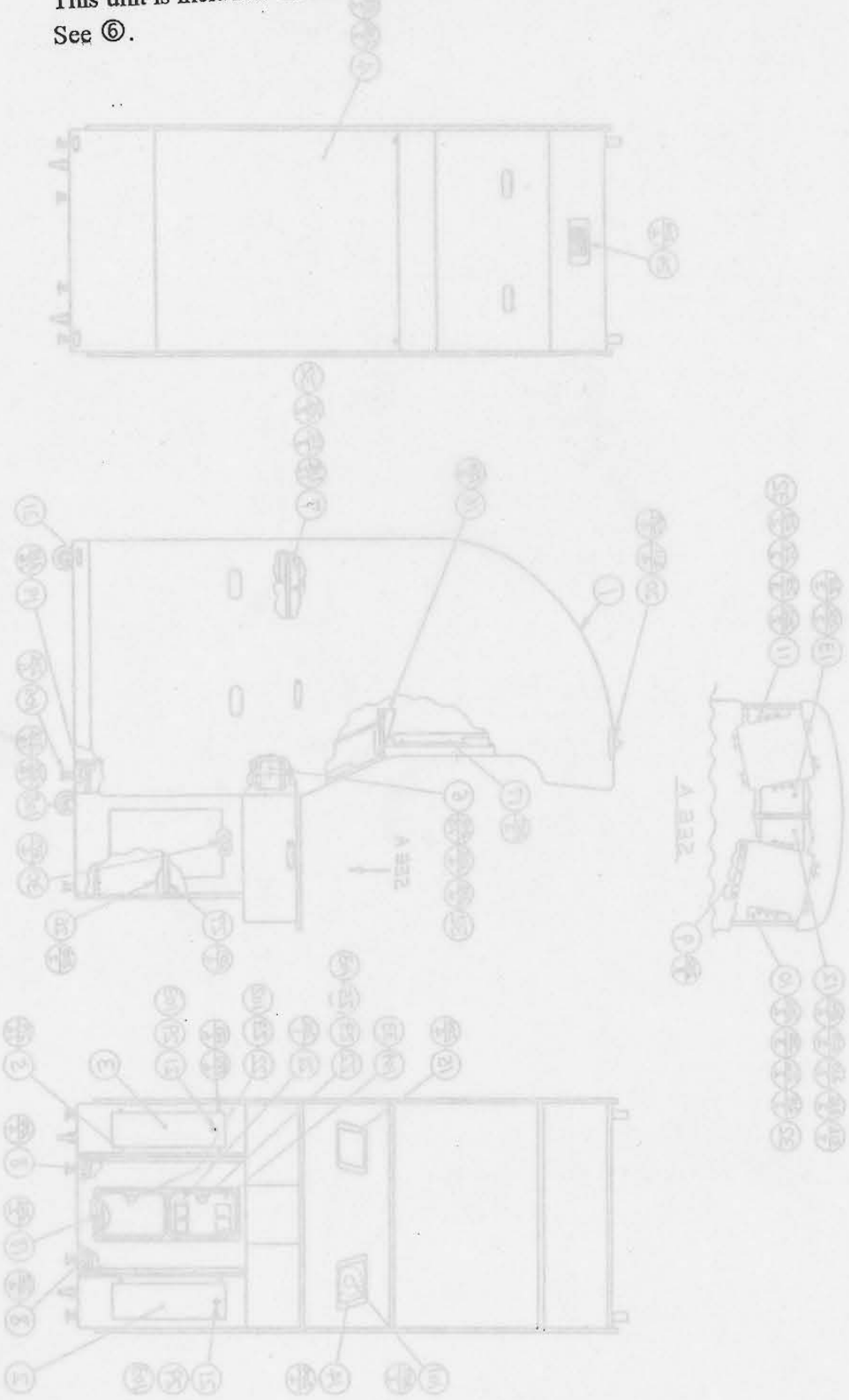
④ ASSY SUB-CABINET (AIN-1001)

ITEM NO.	PART NO.	DESCRIPTION	
201	000-P00308-W	M SCR PH W/FS M3×8	FOR OTHERS
201		NOT USED	FOR MARS
202	000-P00416-W	M SCR PH W/FS M4×16	
203	000-P00420-W	M SCR PH W/FS M4×20	
204	000-T00420-0B	M SCR TH BLK M4×20	
205	008-T00430-0B	TMP PRF SCR TH BLK M4×30	
207	005-R03113-F	W SCR RH W/F 3.1×13	
208	005-R03513-F	W SCR RH W/F 3.5×13	
209	005-R03525	W SCR RH 3. 5×25	
210	030-000630-SB	HEX BOLT BLK W/S M6×30	
211	030-000830-S	HEX BLT W/S M8×30	
212	031-000630-0C	CRG BLT CRM M6×30	
213	031-000650-0C	CRG BLT CRM M6×50	
214	050-H01600	HEX NUT M16	
215	050-F00600	FLG NUT M6	
216	060-F00600	FLT WSHR M6	
217	060-F00800	FLT WSHR M8	
218	069-000001	FLT WSHR 5.5-20×1.6	
219	031-000530-0C	CRG BLT CRM M5×30	
220	079-000008	SCR NAIL THH STNLS 1.5×16	
221	050-F00500	FLG NUT M5	



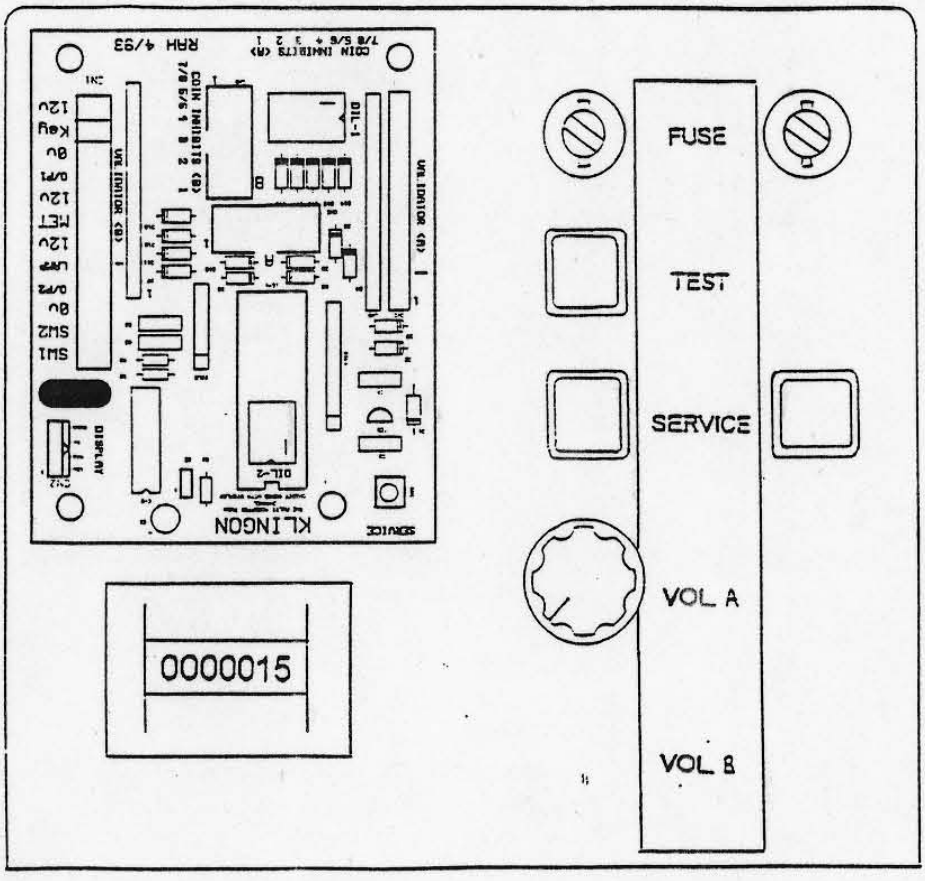
⑤ METER UNIT (AIN-1020).

This unit is included on the VTS Bracket on machines built in the UK
See ⑥.

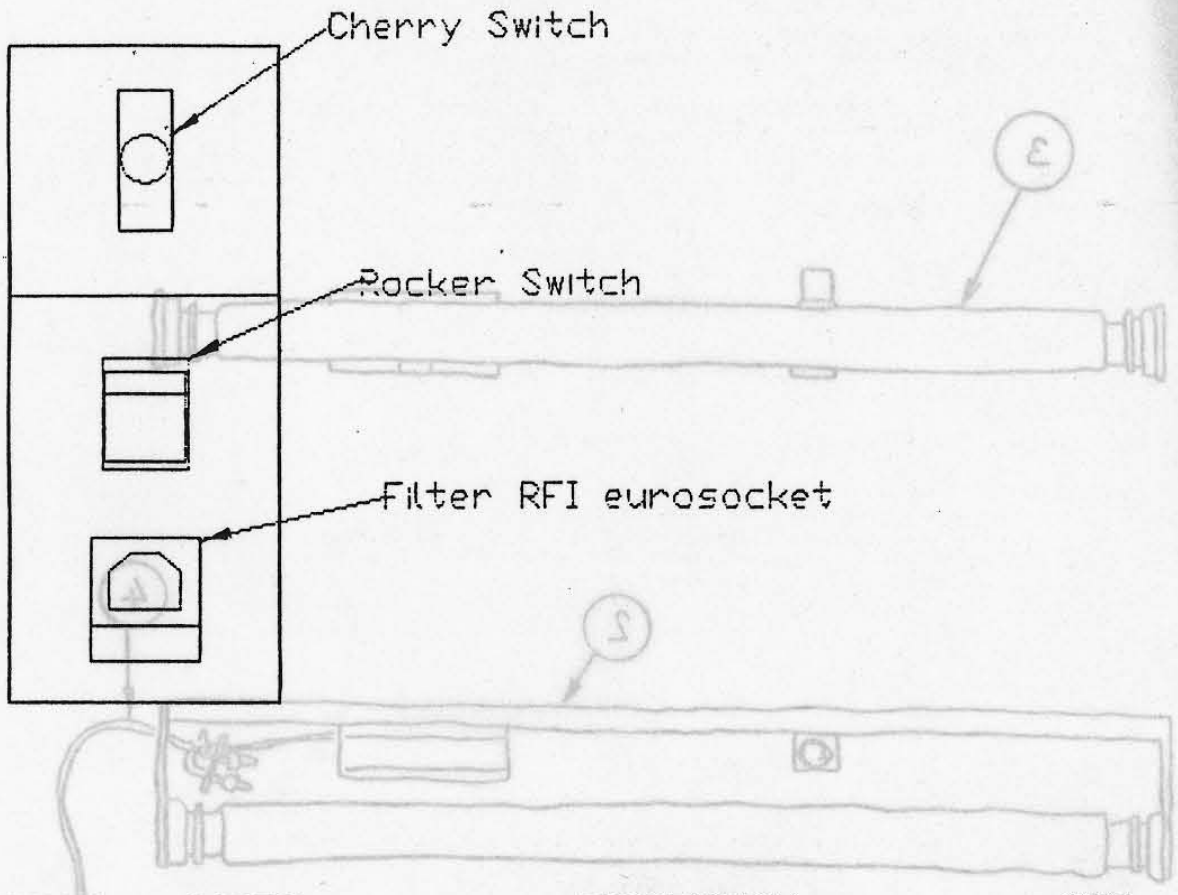


⑥ VTS ASSY

ITEM No.	PART No.	DESCRIPTION	QTY
1	DLM/MP-1029	VTS Panel Bracket Type B	1
2	DI-	VTS Label Type B	1
3	M2067D 12V	Impulse Counter, Panel	1
4	F207	Control Knob, 15mm	1
5	E0611 PS	Push Button	3
6	F0755I	Potentiometer, 5k LIN	1
7	F357	Fuse Holder, 20mm (Type FX0377)	2
8	E1031 PS	Fuse, 2A 20mm Anti-surge	2
9			
10	CB-005	Klingon Credit Board	1
11	CE15631	Wire Harness, VTS	1
12	CE15646	Wire Harness, Volume SW	1

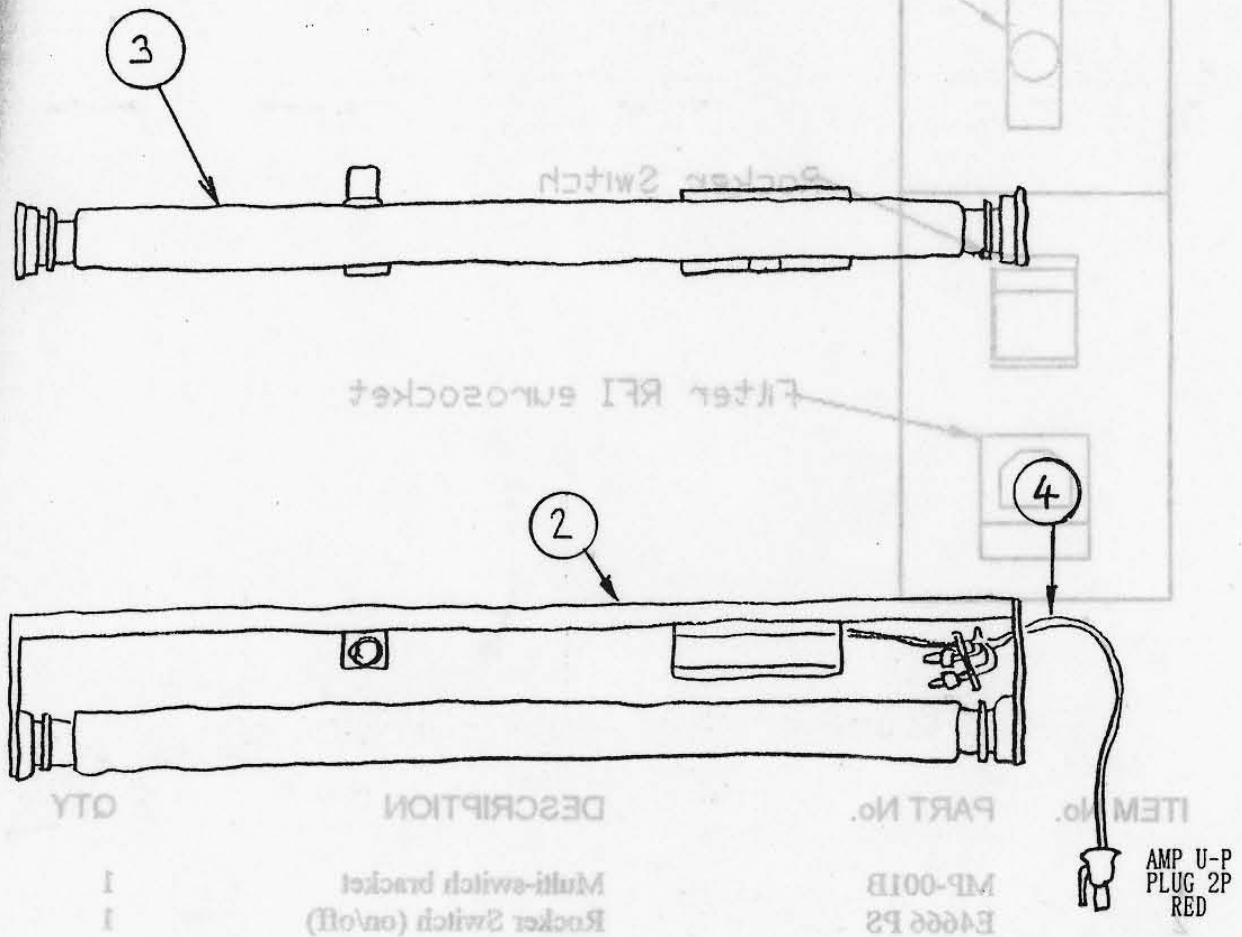


⑦ AC UNIT ASSY



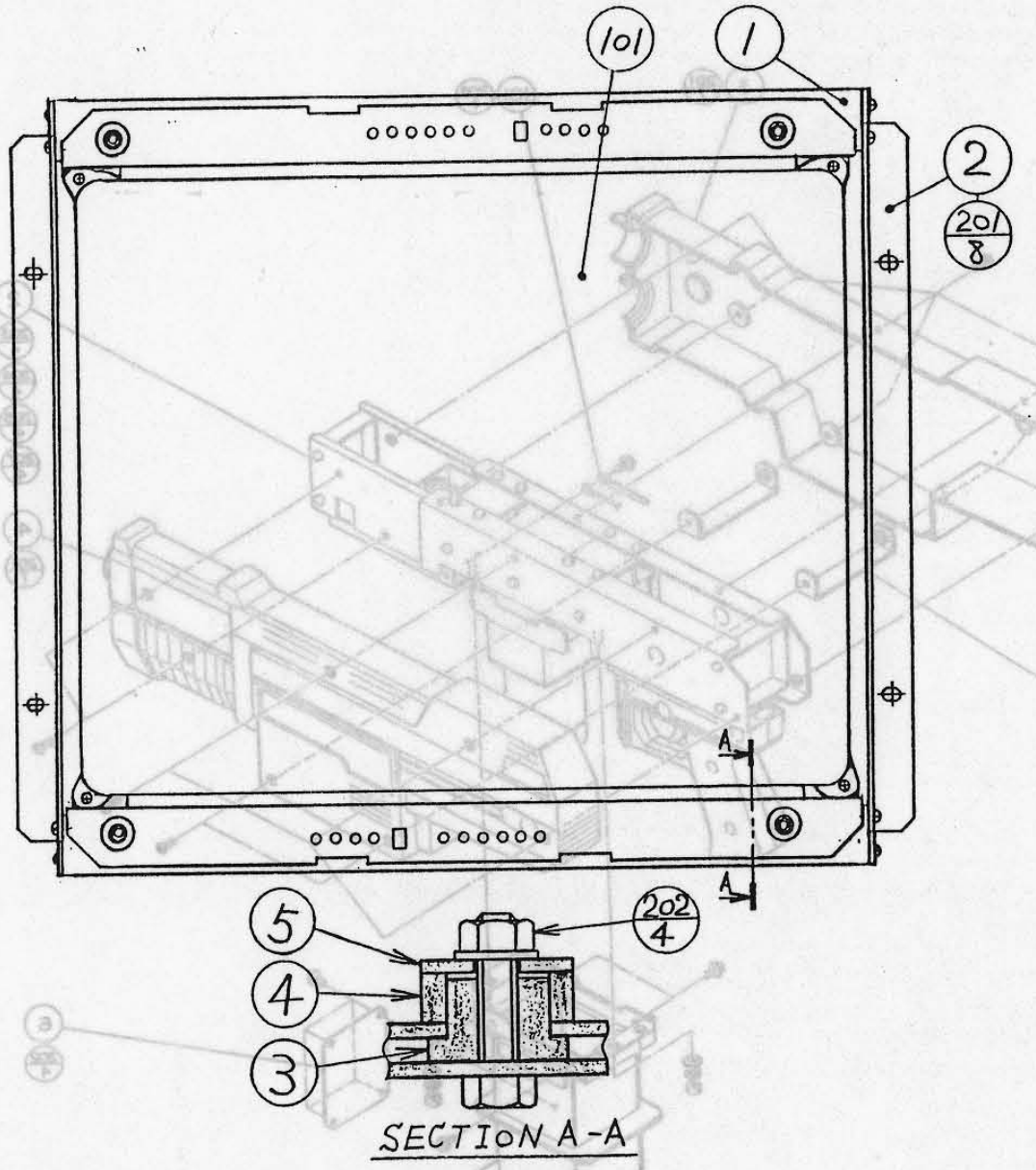
ITEM No.	PART No.	DESCRIPTION	QTY
1	MP-001B	Multi-switch bracket	1
2	E4666 PS	Rocker Switch (on/off)	1
3	E5018 PS	"Cherry" Switch	1
4	E1415 PS	Filter RFI Eurosocket	1
5	E1043 PS	Fuse, 4A 20mm	1
6	CE15014	Wiring Harness, Multi-sw brk	1

⑧ FL UNIT



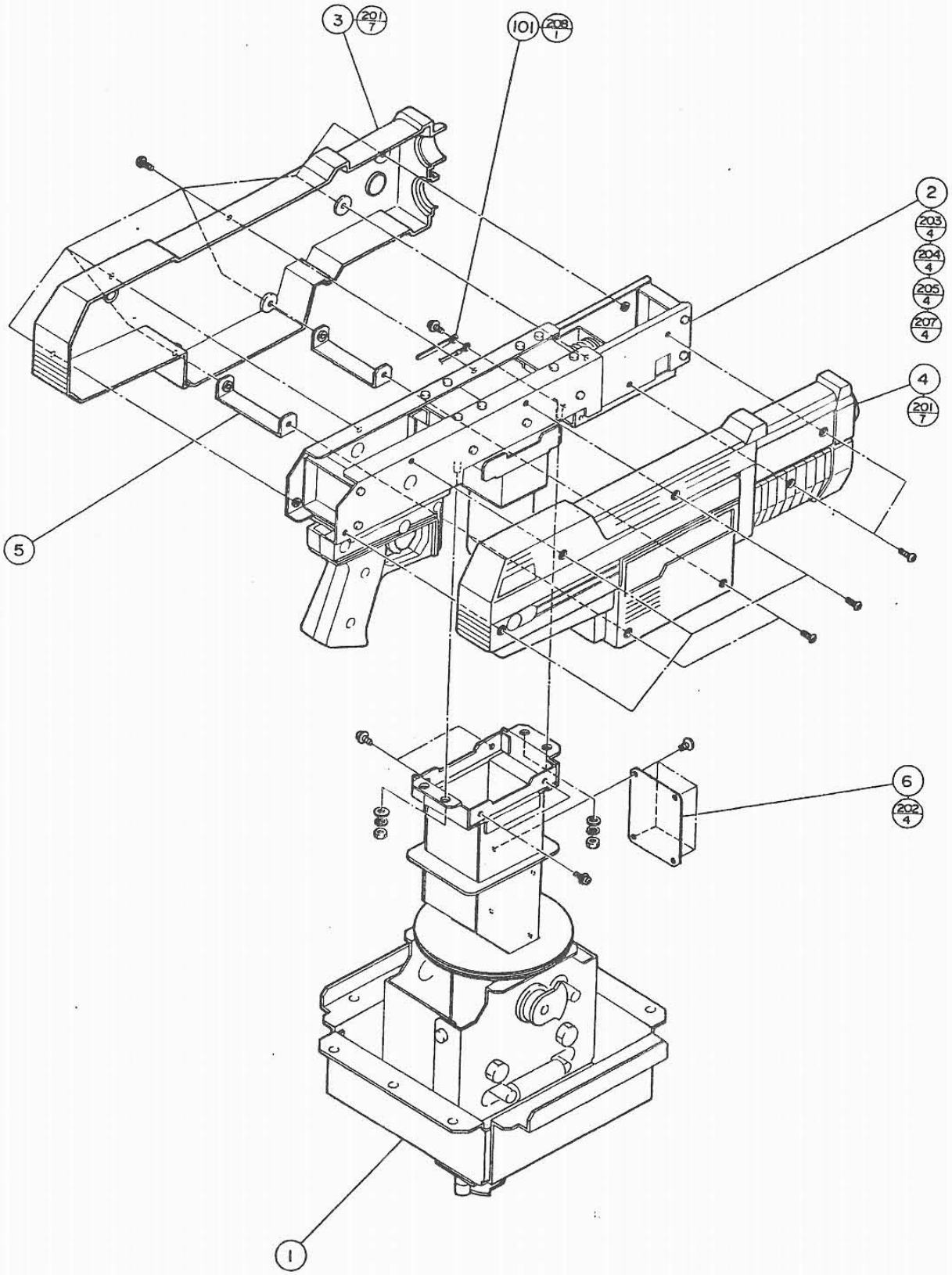
ITEM No.	PART No.	DESCRIPTION	QTY
1	P.O.C	Wooden Panel	1
2	E5025	FL Lighting Tray, 15W	1
3	E3017	Flourescent Tube, 15W 18" White	1
4	CE15629	FL interface	1

⑨ ASSY MONITOR 29 (AIN-1025) Not applicable to UK built machines



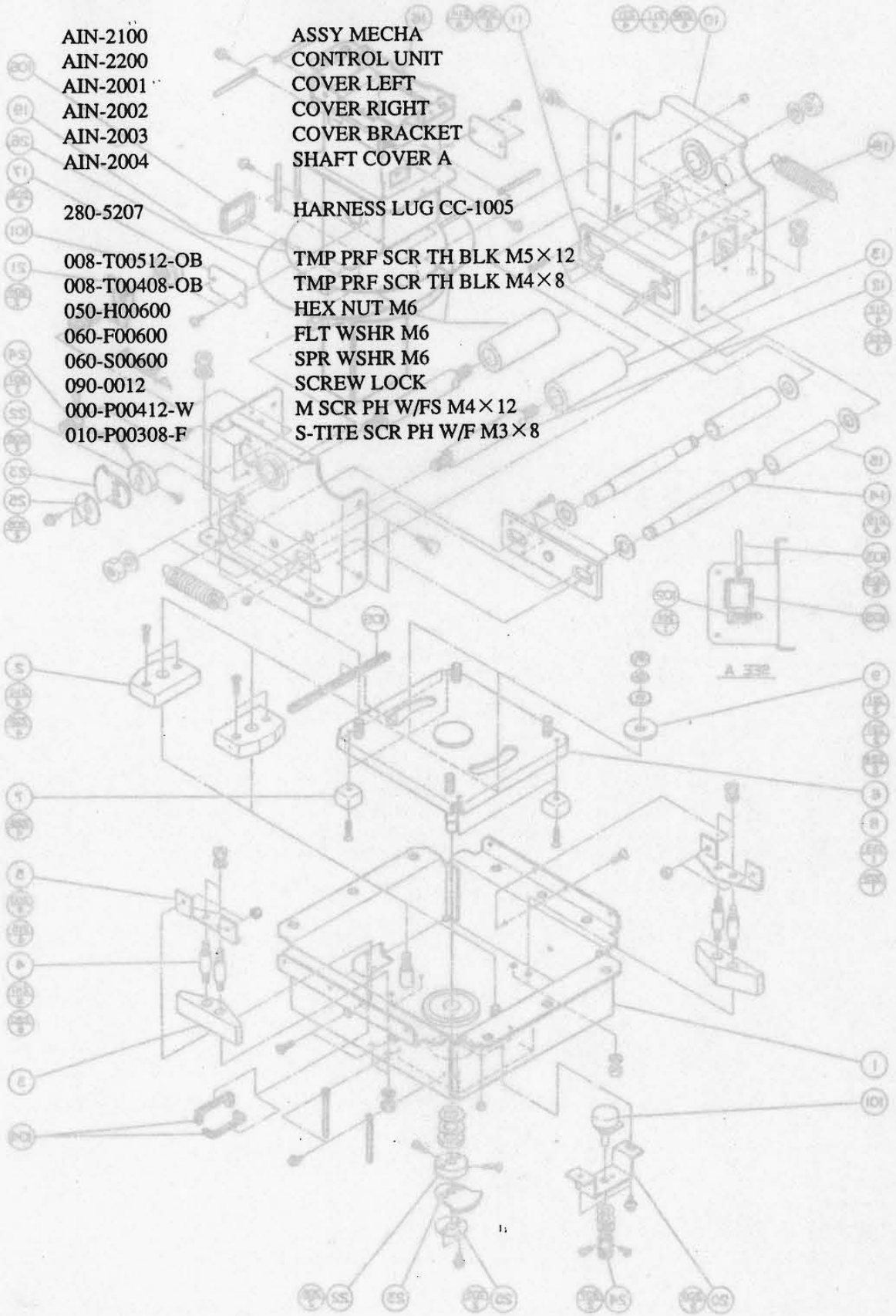
ITEM NO.	PART NO.	DESCRIPTION
1	AIN-1026	MONITOR BRKT A
2	AIN-1027	MONITOR BRKT B
3	280-5112	BUSH FOR TV
4	280-5113	COLLAR FOR TV
5	280-5114	SPACER 6.4-25×2
101	200-5242-15-03	ASSY CLR DSPL 29 TYPE 15K 100V
201	000-P00512-W	M SCR PH W/FS M5×12
202	050-F00600	FLG NUT M6

⑩ ASSY CONTROLLER (AIN-2000) (D-1/2)

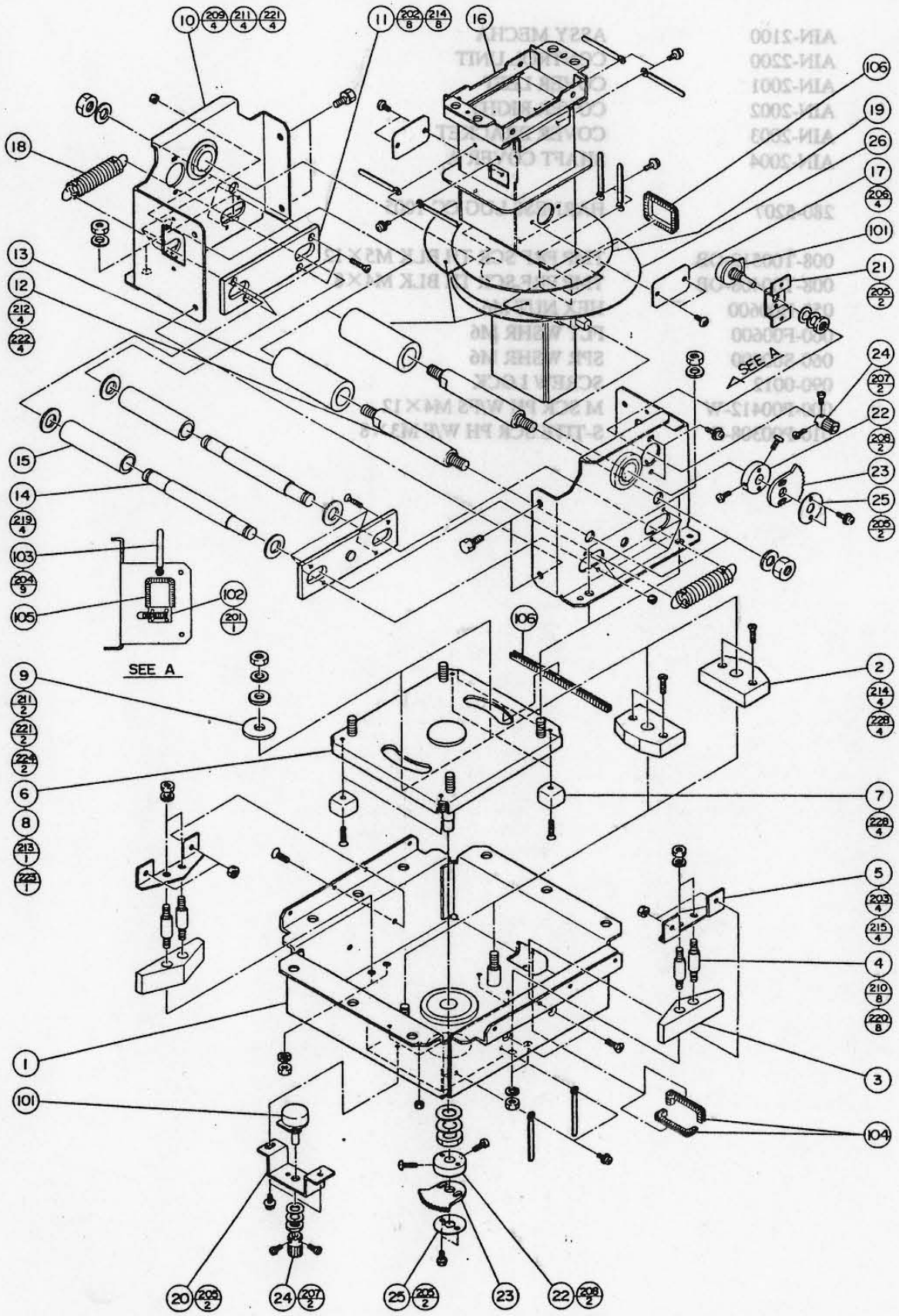


⑩ ASSY CONTROLLER (AIN-2000)

ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2100	ASSY MECHA
2	AIN-2200	CONTROL UNIT
3	AIN-2001	COVER LEFT
4	AIN-2002	COVER RIGHT
5	AIN-2003	COVER BRACKET
6	AIN-2004	SHAFT COVER A
101	280-5207	HARNESS LUG CC-1005
201	008-T00512-OB	TMP PRF SCR TH BLK M5×12
202	008-T00408-OB	TMP PRF SCR TH BLK M4×8
203	050-H00600	HEX NUT M6
204	060-F00600	FLT WSHR M6
205	060-S00600	SPR WSHR M6
206	090-0012	SCREW LOCK
207	000-P00412-W	M SCR PH W/FS M4×12
208	010-P00308-F	S-TITE SCR PH W/F M3×8



⑪ ASSY MECHA (AIN-2100) (D-1/3)



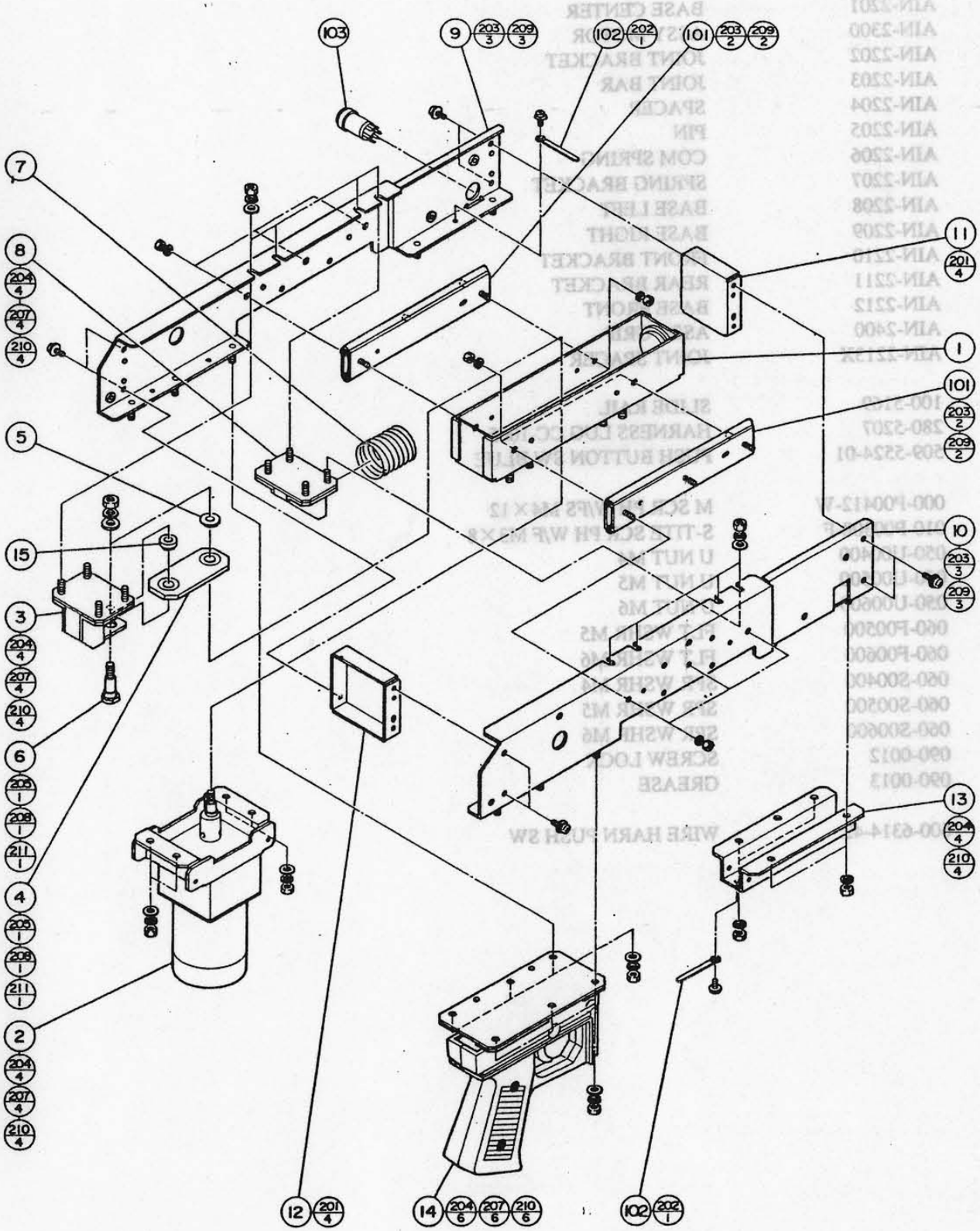
⑪ ASSY MECHA (AIN-2100) (D-2/3)

ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2101	MECHA BASE
2	AIN-2102	SPACER BLOCK A
3	AIN-2103	STOPPER
4	AIN-2104	STOPPER STAY
5	AIN-2105	STOPPER BRACKET
6	AIN-2106	SWING BASE
7	AIN-2107	SPACER BLOCK B
8	AIN-2108	RING
9	AIN-2109	RING SPACER
10	AIN-2110	SWING BRACKET
11	AIN-2111	SLIDE PLATE
12	AIN-2112	STAY
13	AIN-2113	RUBBER
14	AIN-2114	SLIDE SHAFT
15	AIN-2115	BUMPER
16	AIN-2116	CONTROLLER SHAFT
17	AIN-2117	SHAFT COVER B
18	AIN-2118	EXT SPRING
19	AIN-2119	HOLE COVER A
20	AIN-2120	VR BRKT LOWER
21	GLC-2107	VR BRKT
22	GUN-2629	GUIDE RING 140°
23	601-6005	ADJUST GEAR
24	601-5410	GEAR 15 ϕ 6
25	GLC-2122	GEAR PLATE
26	AIN-2121	HOLE COVER B
101	220-5130	VOL CONT B-5K OHM
101	220-5373	VOL CONT B-5K OHM
102	280-5008	CORD CLAMP ϕ 15
103	280-5207	HARNESS LUG CC-1005
104	601-5962-59	BUSH 3.2T
105	601-5962-90	BUSH 3.2T
106	601-5962-110	BUSH 3.2T
107	310-5029-F20	SUMITUBE F F20MM
201	000-F00308	M SCR FH M3×8
202	000-F00416	M SCR FH M4×16
203	000-F00512	M SCR FH M5×12
204	000-P00408-W	M SCR PH W/FS M4×8
205	000-P00412-W	M SCR PH W/FS M4×12
206	008-T00408-OB	TMP PRF SCR TH BLK M4×8
207	028-P00308-F	SET SCR PH FLAT P M3×8
208	028-P00416-P	SET SCR PH CUP P M4×16
209	030-000612-S	HEX BLT W/S M6×12
210	050-H00600	HEX NUT M6
211	050-H00800	HEX NUT M8
212	050-H01000	HEX NUT M10
213	050-H01400	HEX NUT M14
214	050-U00400	U NUT M4
215	050-U00500	U NUT M5
219	060-F01200	FLT WSHR M12

⑪ ASSY MECHA (AIN-2100) (D-3/3)

ITEM NO.	PART NO.	DESCRIPTION
220	060-S00600	SPR WSHR M6
221	060-S00800	SPR WSHR M8
222	060-S01000	FLT WSHR M10
223	060-S01400	SPR WSHR M14
224	069-000022-OB	FLT WSHR BLK 8.5-25×1.6
225	090-0002	GLUE, CEMEDINE No.3000RS
226	090-0012	SCREW LOCK
227	090-0013	GREASE
228	000-F00420	M SCR FH M4×20
301	CE 15580	WIRE HARN L/R
302	CE15581	WIRE HARN UP/DN
303	CE15582	WIRE HANR EXT SHOT 1
304	CE15583	WIRE HARN EXT SHOT 2
305	CE15584	WIRE HARN EXT MOTOR
306	CE15589	WIRE HARN EARTH MECHA
307	CE15590	WIRE HARN EARTH SHAFT

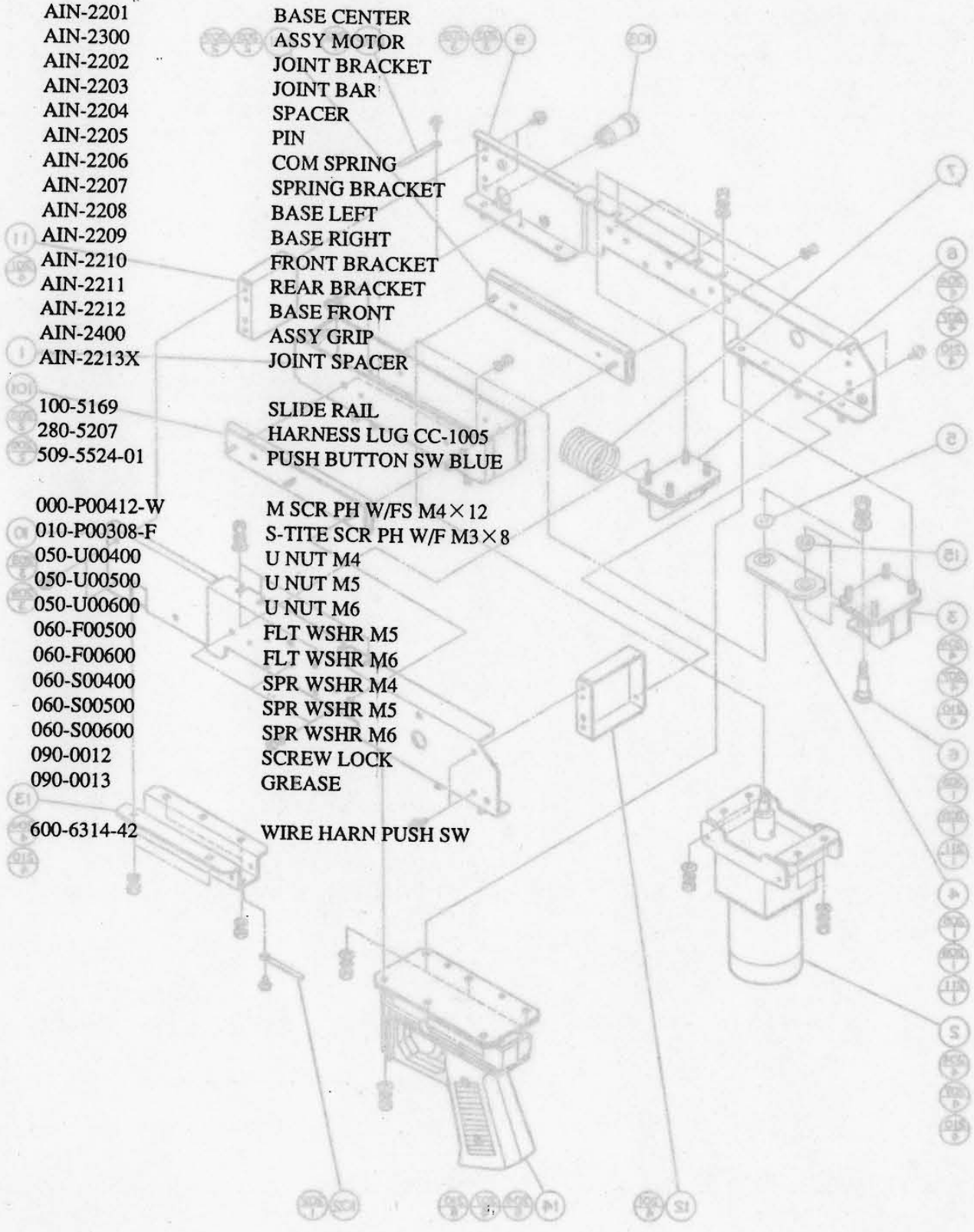
⑫ CONTROL UNIT (AIN-2200) (D-1/2)



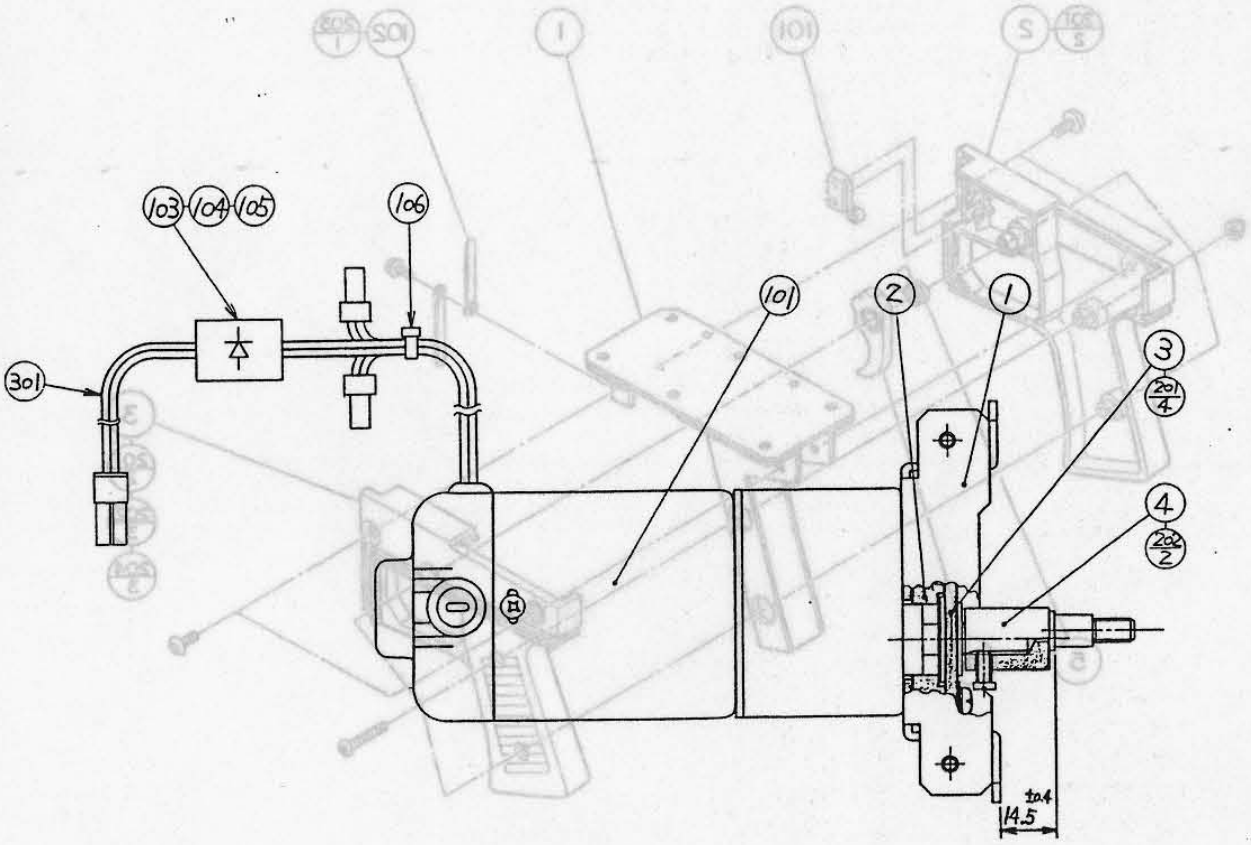
⑫ CONTROL UNIT (AIN-2200)

(D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2201	BASE CENTER
2	AIN-2300	ASSY MOTOR
3	AIN-2202	JOINT BRACKET
4	AIN-2203	JOINT BAR
5	AIN-2204	SPACER
6	AIN-2205	PIN
7	AIN-2206	COM SPRING
8	AIN-2207	SPRING BRACKET
9	AIN-2208	BASE LEFT
10	AIN-2209	BASE RIGHT
11	AIN-2210	FRONT BRACKET
12	AIN-2211	REAR BRACKET
13	AIN-2212	BASE FRONT
14	AIN-2400	ASSY GRIP
15	AIN-2213X	JOINT SPACER
101	100-5169	SLIDE RAIL
102	280-5207	HARNESS LUG CC-1005
103	509-5524-01	PUSH BUTTON SW BLUE
201	000-P00412-W	M SCR PH W/FS M4×12
202	010-P00308-F	S-TITE SCR PH W/F M3×8
203	050-U00400	U NUT M4
204	050-U00500	U NUT M5
205	050-U00600	U NUT M6
207	060-F00500	FLT WSHR M5
208	060-F00600	FLT WSHR M6
209	060-S00400	SPR WSHR M4
210	060-S00500	SPR WSHR M5
211	060-S00600	SPR WSHR M6
212	090-0012	SCREW LOCK
213	090-0013	GREASE
301	600-6314-42	WIRE HARN PUSH SW

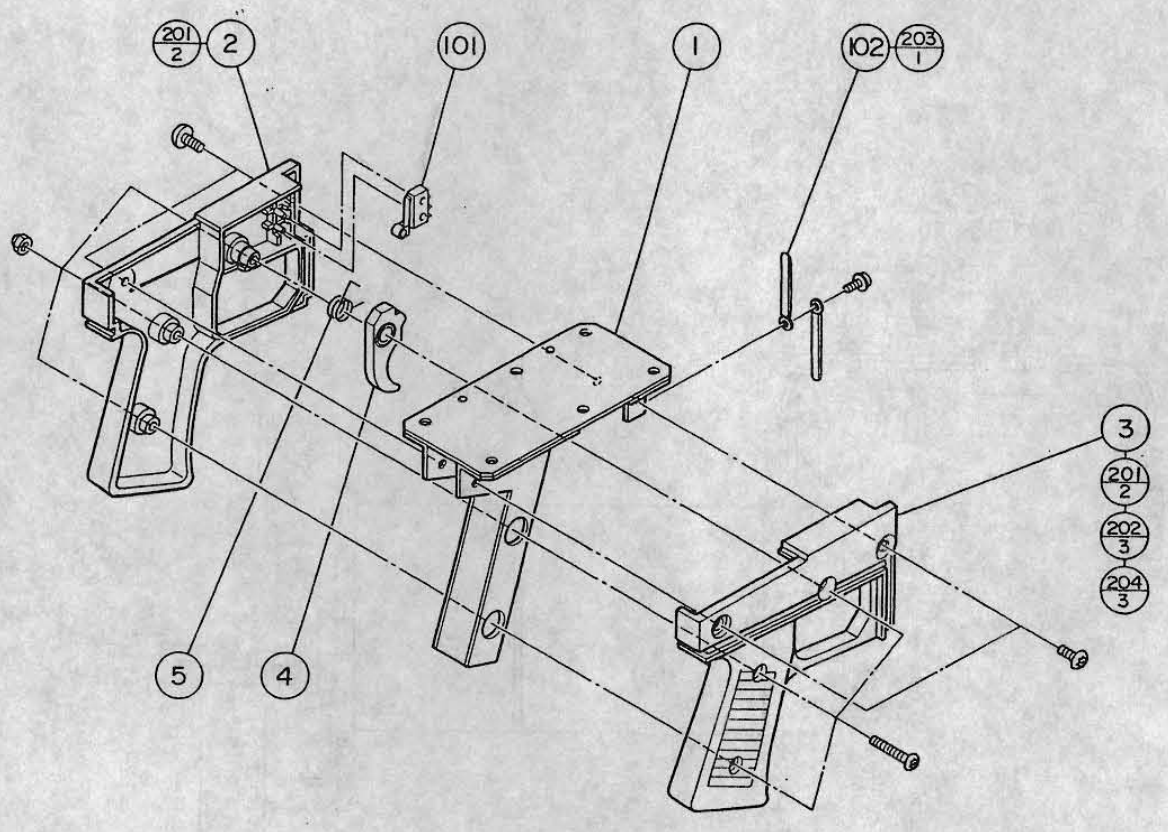


⑬ ASSY MOTOR (AIN-2300)



ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2301	MOTOR BRACKET
2	AIN-2302	MOTOR SPACER
3	AIN-2303	MOTOR PLATE
4	AIN-2304	CAM
101	350-5276	MOTOR DC24V 716rpm
103	481-0027	DIODE SIB01-02
104	211-5409	AMP SPARK SUPPRESSOR CONN
105	211-5410	CONTACT
106	601-0460	PLASTIC TIE BELT 100mm
201	000-P00420-W	M SCR PH W/FS M4×20
202	028-C00408-P	SET SCR CH CUP P M4×8
203	090-0012	SCREW LOCK
301	600-6314-43	WIRE HARN MOTOR

⑭ ASSY GRIP (AIN-2400)

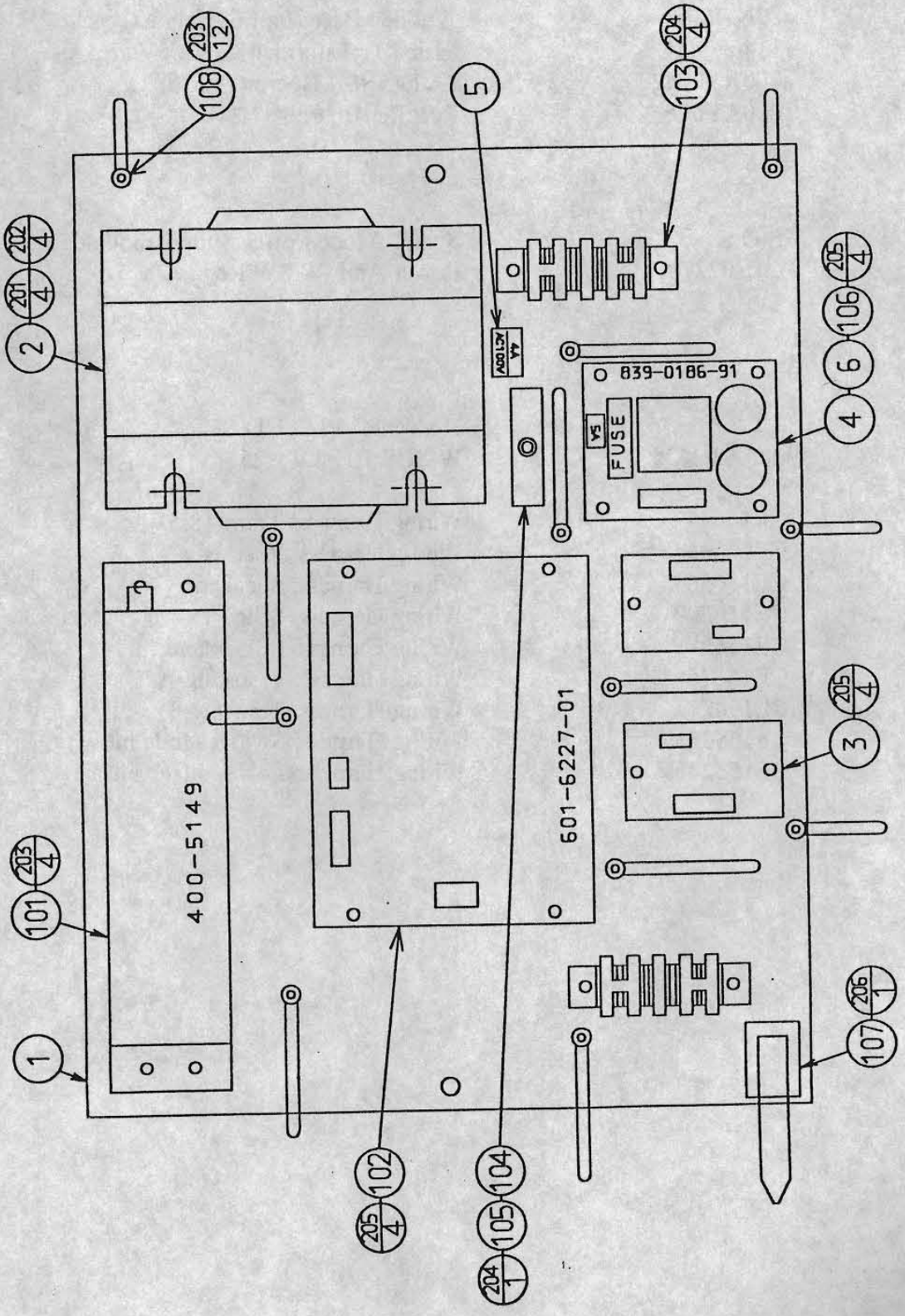


ITEM NO.	PART NO.	DESCRIPTION
1	AIN-2401	GRIP BASE
2	AIN-2402	GRIP LEFT
3	AIN-2403	GRIP RIGHT
4	AIN-2404	LEVER
5	AIN-2405	TORSION SPRING
101	509-5080	SW MICRO TYPE
102	280-5207	HARNESS LUG CC-1005
103	310-5029-D10	SUMITUBE F D10MM
201	008-T00512-OB	TMP PRF SCR TH BLK M5×12
202	AIN-2406	TMP PRF SCR PH BLK M5×25
203	010-P00308-F	S-TITE SCR PH W/F M3×8
204	050-C00500-3B	CAP NUT TYPE3 BLK M5
205	090-0070	GREASE 248 (SOLVEST 248)
301	600-6314-41	WIRE HARN MICRO SW

⑮ ASSY PWR SPLY (AIN-4000)

(D-1/2)

Components and layout will differ on UK machines



⑮ ASSY PWR SPLY (AIN-4000) (D-2/2)

ITEM No.	PART No.	DESCRIPTION
1	AIN-4001	Wooden Base (Part of Cabinet)
2	1146	Mains Transformer 2 x 18.5V @ 5A
3	000AY004	2A DC SSR Board (2 ccts)
4	000AY005	Rectifier Board DC 24V
5		
6		
101	E0507	Switch Mode Power Supply module
102	601-6227-01	Power Amp W/SW Regu 12V 5A
201		
202		
203		
204		No.8 x ½" FLG HD SCR
205	005-R02725	W SCR RH 2.7 x 25
301	CE15634	Wiring Harness, Trans 18.5V
302	CE15635	Wiring Harness, Rect. BD
303	CE15636	Wiring Harness, Speaker
304	CE15620	Wiring Harness, SSR BD
305	CE15628	Wiring Harness, PSU Mains int.
306	CE15626	Wiring Harness, Trans int. A
307	CE15627	Wiring Harness, Trans int. B
308	CE15625	Wiring Harness, Switch Mode int.
309	CE15624	Wiring Harness, Low Voltage int.

18. WIRE COLOR CODE TABLE

THE WIRE COLOR CODE is as follows :

A	PINK
B	SKY BLUE
C	BROWN
D	PURPLE
E	LIGHT GREEN

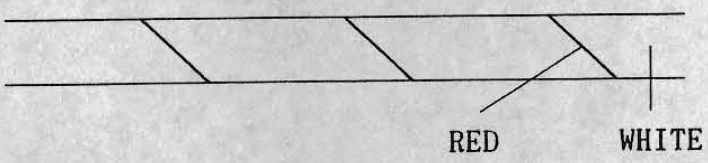
Wires other than those of any of the above 5 single colors will be displayed by 2 alphanumeric characters.

1	RED
2	BLUE
3	YELLOW
4	GREEN
5	WHITE
7	ORANGE
8	BLACK
9	GRAY

If the right-hand side numeral of the code is 0, then the wire will be of a single color shown by the left-hand side numeral (see the above).

Note 1 : If the right-hand side alphnumeric is not 0, that particular wire has a spiral color code. The left-hand side character shows the base color and the right-hand side one, the spiral color.

< Example > 51 …… WHITE / RED



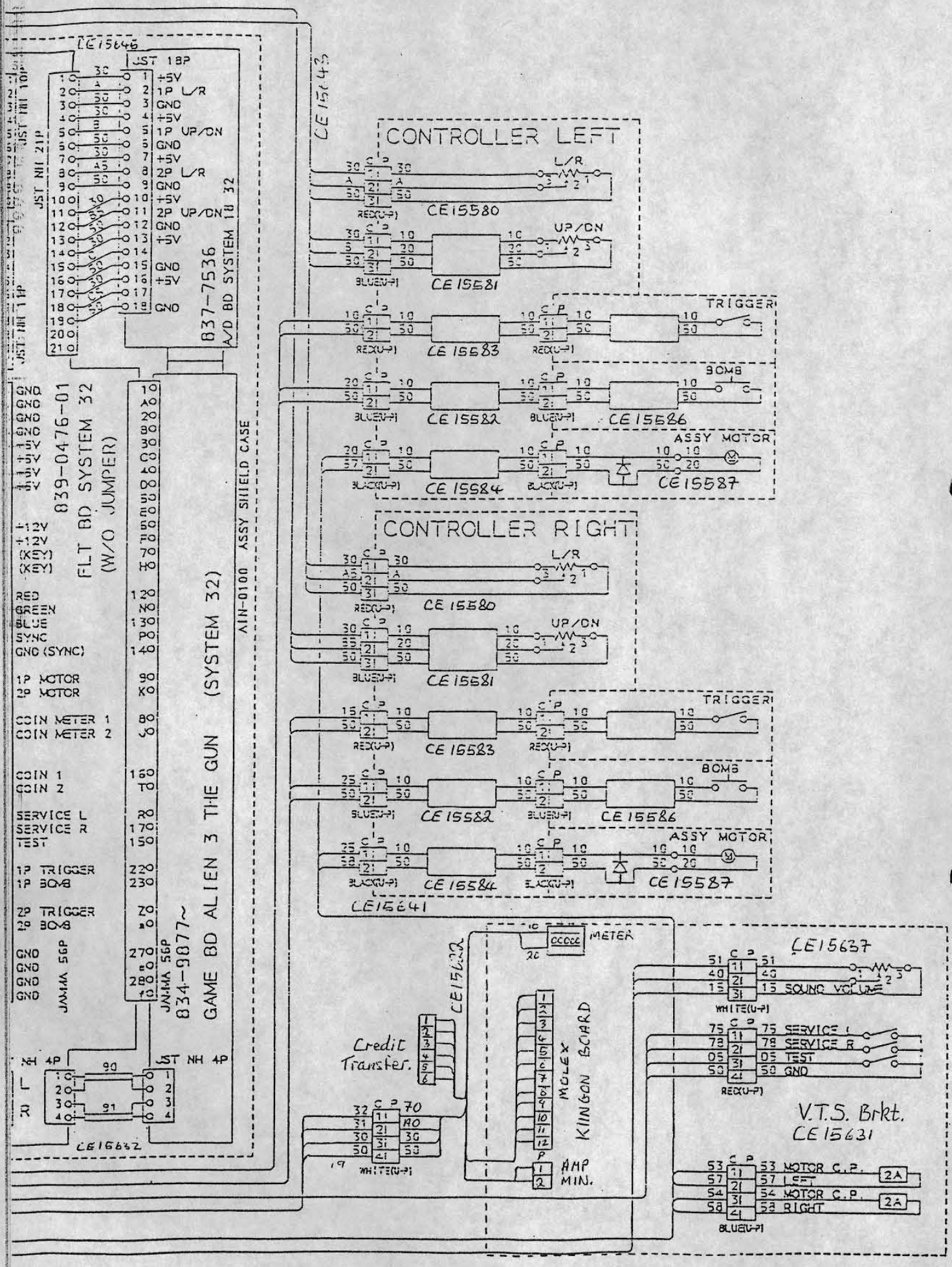
Note 1 : The character following the wire color code indicates the size of the wire.

K : AWG 18, UL 1015

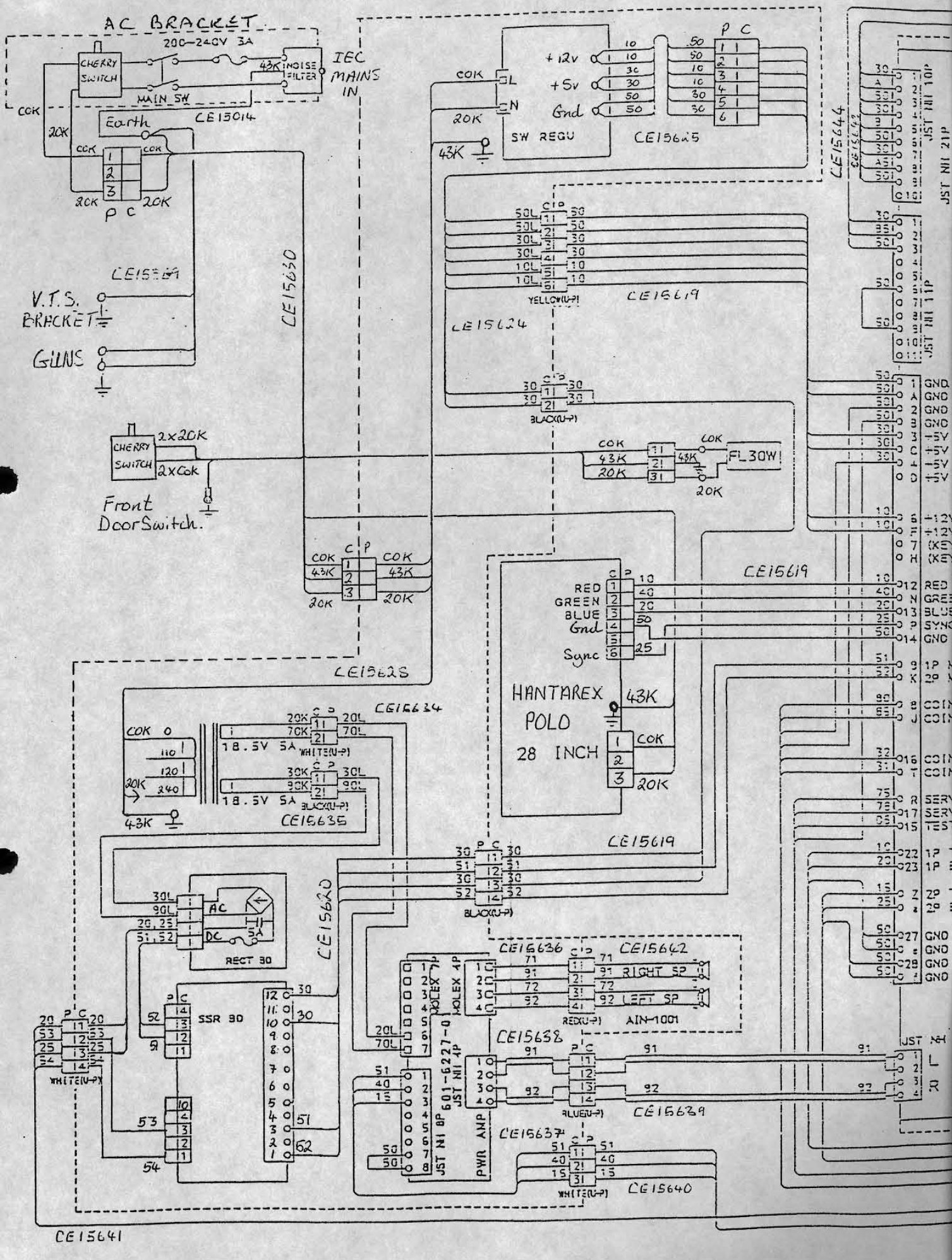
L : AWG 20, UL 1007

None: AWG 22, UL 1007

Wire colours may differ on UK machines



19. WIRING DIAGRAM


AC BRACKET
200-240V 3A
CHERRY SWITCH
43K
NOISE FILTER
IEC MAINS IN
MAIN SW
COK
20K
Earth
CE15014
P C
CE15630
V.T.S. BRACKET
GUNS
CHERRY SWITCH
2x20K
2xCOK
Front DoorSwitch.
+12v
+5v
Gnd
SW REGU
CE15625
CE15644
CE15619
YELLOW(U-P)
CE15624
BLACK(U-P)
FL 30W
RED
GREEN
BLUE
Gnd
Sync
HANTAREX
POLO
28 INCH
43K
CE15628
CE16634
18.5V 5A
WHITE(U-P)
CE15635
AC
DC
5A
RECT 30
CE15620
SSR 30
CE16636
CE15642
RIGHT SP
LEFT SP
REDU-P)
AIN-1001
CE15638
CE15639
BLUE(U-P)
CE15637
PWR AMP
JST NI 8P
601-6227-0
MOLEX 4P
CE15640
WHITE(U-P)
CE15641
JST NI 10P
JST NI 21P
JST NI 11P
GND
+5V
+12V
RED
GREEN
BLUE
SYNC
COIN
SERV
TEST
1P
2P