

MECHANIZED

ATTACK



OPERATION & SERVICE MANUAL

ELECTROCOIN

SNK

PRECAUTIONS TO BE OBSERVED WHEN INSTALLING MACHINE

THIS VIDEO GAME IS FOR INDOOR USE ONLY.
WHEN INSTALLING AVOID PLACES MENTIONED BELOW

1. PLACES SUBJECT TO CONDENSATION DUE TO HUMIDITY.
2. IN THE PROXIMITY OF AN INDOOR SWIMMING POOL OR SHOWER.
3. PLACES SUBJECT TO DIRECT SUNLIGHT.
4. VICINITY OF HIGHLY INFLAMMABLE/VOLATILE CHEMICALS.
5. UNEVEN SURFACES.
6. VICINITY OF FIRE EXITS AND FIRE EXTINGUISHERS.
7. DUSTY ATMOSPHERE.

INSTALLATION

IT IS IMPORTANT TO AVOID ROUGH HANDLING OF THIS MACHINE AS CERTAIN PARTS ARE FRAGILE.

UPON REMOVAL OF THE SHIPPING CARTON EXAMINE THE EXTERIOR OF THE CABINET FOR DENTS, CHIPS OR BROKEN PARTS.

ACCESS TO THE APPLIANCE SHOULD ONLY BE MADE BY QUALIFIED PERSONNEL FOR ANY PURPOSE.

INSPECT THE INTERIOR OF THE CABINET AS FOLLOWS:

A) CHECK THAT ALL THE PLUG IN CONNECTORS ARE FIRMLY SEATED i.e. THE EDGE CONNECTOR ON THE CPU BOARD. IF ANY CONNECTORS ARE FOUND UNPLUGGED IT IS IMPORTANT WHEN RE-PLUGGING NOT TO FORCE THE CONNECTORS TOGETHER. AS SOME MAY BE KEYED AND ONLY GO ON IN THE PROPER ORIENTATION.

B) CHECK THAT ALL PLUG-IN INTEGRATED CIRCUITS AND SUB BOARDS ON THE GAME PCB ARE FIRMLY SEATED IN THEIR SOCKETS.

C) CHECK ALL SUB ASSEMBLIES SUCH AS THE POWER SUPPLY FOR SECURE MOUNTING.

ENSURE THE MAINS SUPPLY IS CORRECT FOR OPERATION OF THE MACHINE, AND THAT THE SUPPLY HAS A GOOD EARTH CONNECTION.

SAFETY/MAINTENANCE

THIS VIDEO GAME REQUIRES CERTAIN MAINTENANCE TO KEEP IT IN GOOD WORKING ORDER.

IT IS ADVISED THAT THE SITE MANAGER CHECKS THE SERVICEABILITY OF THE MACHINE DAILY.

WARNING

HIGH VOLTAGES EXIST WITHIN THE MACHINE SO IT IS ADVISABLE THAT ONLY QUALIFIED SKILLED PERSONNEL SHOULD TOUCH ANY INTERNAL PARTS OF THE MACHINE. THE HIGH VOLTAGES PRESENT MAY CAUSE SHOCK OR EVEN FATALITY WITH MISUSE. ALWAYS TURN THE MACHINE OFF BEFORE COMMENCING ANY WORK.

HIGH VOLTAGES MAY EXIST IN ANY MONITOR UNIT, EVEN WITH THE POWER DISCONNECTED. USE EXTREME CAUTION AND DO NOT TOUCH ELECTRICAL PARTS, OR THE YOKE WITH YOUR HANDS OR WITH METAL OBJECTS HELD IN YOUR HANDS. INFORMATION ON THE MONITOR FUSES ARE CONTAINED IN THE MONITOR MANUAL SUPPLIED WITH THIS MACHINE.

CAUTION

DO NOT USE FUSES OTHER THAN THOSE SPECIFIED, FOR THE CONTINUED PROTECTION OF YOUR GAME.

NEVER CONNECT OR DISCONNECT ANY CONNECTORS OF THE PCB, OR RESET THE DIP SWITCH SETTINGS WHILE THE POWER IS ON.

REGULARLY CLEAN THE OUTSIDE OF THE CABINET. DO NOT DRY WIPE ANY OF THE ACRYLIC PANELS, BECAUSE ANY DUST CAN SCRATCH THE SURFACE AND RESULT IN FOGGING THE PLASTIC. ACRYLIC SURFACES MAY BE CLEANED WITH ANY NON-ABRASIVE HOUSEHOLD CLEANER.

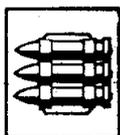
HOW TO PLAY

BASIC OPERATIONS

PULL TRIGGER FOR SINGLE SHOTS OR HOLD DOWN THE TRIGGER FOR CONTINUOUS FIRING OF THE GUN. USE THE BUTTON ON THE SIDE OF THE GUN TO LAUNCH YOUR GRENADES AND ROCKET BOMBS.

DURING THE GAME CERTAIN BONUS ITEMS WILL APPEAR, TO OBTAIN THESE SHOOT AT THEM. YOU CAN DESTROY THE ENEMIES WEAPONS BY SHOOTING THEM BEFORE THEY REACH THE BOTTOM OF THE SCREEN.

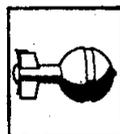
BONUS ITEMS



BULLET MAGAZINE - RESTORES 32 BULLETS



GRENADE - WIDE RANGE OF DAMAGE



ROCKET BOMB - WIPEOUT ALL ENEMIES ON SCREEN. USE SPARINGLY



FIRST AID BOX - RECOVERS PART OF HERO'S DAMAGE



BULLET PROOF JACKET - PROTECTS HERO FROM 1/2 ENEMY DAMAGE



ENERGY POTION - COMPLETELY RECOVERS HERO'S DAMAGE

"MECHANIZED. ATTACK"

DIP SW NO. 1

ITEM	CONTENTS	1	2	3	4	5	6	7	8
COIN 3, 4 OPTION	WITHOUT	OFF							
	WITH	ON							
CONTINUE	WITH		OFF						
	WITHOUT		ON						
NUMBER OF MAGAZINE	6/3			OFF	OFF				
	5/2			ON	OFF				
	7/4			OFF	ON				
	8/5			ON	ON				
PLAY PRICING COIN 1 (COIN 3)	1 COIN 1 PLAY					OFF	OFF		
	2 COIN 1 PLAY					ON	OFF		
	3 COIN 1 PLAY					OFF	ON		
	4 COIN 1 PLAY					ON	ON		
PLAY PRICING COIN 2 (COIN 4)	1 COIN 1 PLAY							OFF	OFF
	1 COIN 2 PLAY							ON	OFF
	1 COIN 3 PLAY							OFF	ON
	1 COIN 4 PLAY							ON	ON

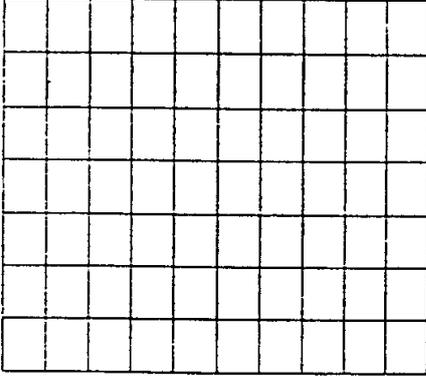
DIP SW NO. 2

ITEMS	CONTENTS	1	2	3	4	5	6	7	8
LEVEL OF DIFFICULTY	2 NORMAL(STANDARD)	OFF	OFF						
	1 EASY	ON	OFF						
	3 HARD	OFF	ON						
	4 DIFFICULT	ON	ON						
ATTRACTION SOUND	WITH SOUND			OFF	OFF				
	WITHOUT SOUND			ON	OFF				
NEVER FINISH	NEVER FINISH			OFF	ON				
MONITOR SETTING	STOP VIDEO DISPLAY			ON	ON				
TEST MODE	NORMAL GAME								OFF
	TEST PROGRAM								ON

DISPLAY TEST MODE

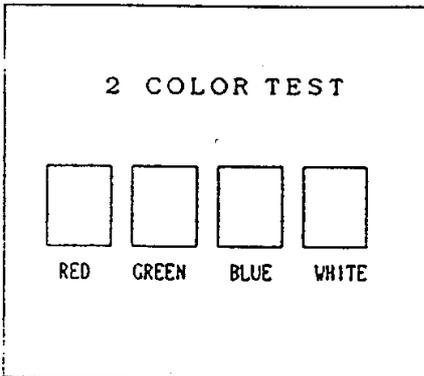
- A) RAM & ROM are automatically self checked whenever power is applied.
 When the P.C. Board is checked, please set up Bit 8 of Dip Switch 2 "ON" position at the time of turning on the power for display test.
 Please switch off Bit 8 of Dip Switch 2 "OFF" position and then reapply the power to return to game play mode.

B) PICTURE 1 CROSS-HATCH



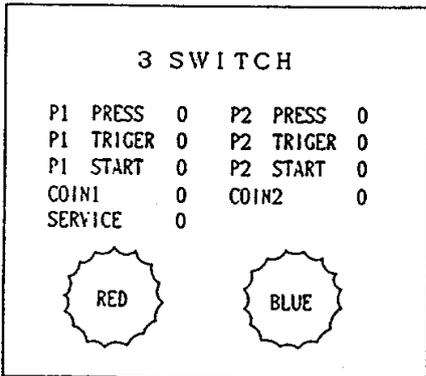
Adjust the monitor for a square pattern throughout the display and on the edge of the monitor.

C) PICTURE 2 COLOR TEST



Assure that the correct colors are properly wired to the monitor.

D) PICTURE 3 LEVER & BUTTON TEST

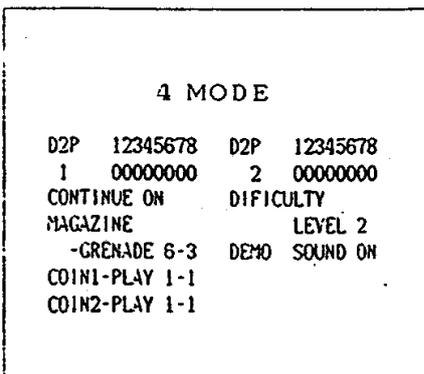


When a trigger or button turns on, '0' on the monitor will change to '1'.

Make sure the figure of '0' changes to '1' of "COIN" either pressing the service switch or inserting coins.

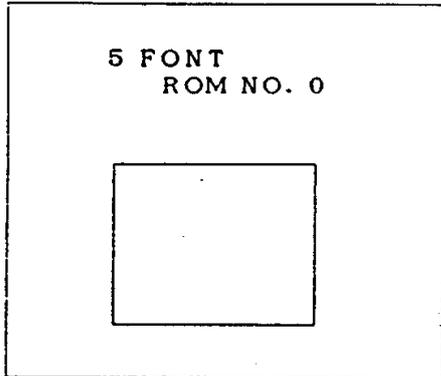
The shot mark for each 1p side (red) and 2p side (blue) moves according to the direction of gun head.

E) PICTURE 4 MODE CHECK



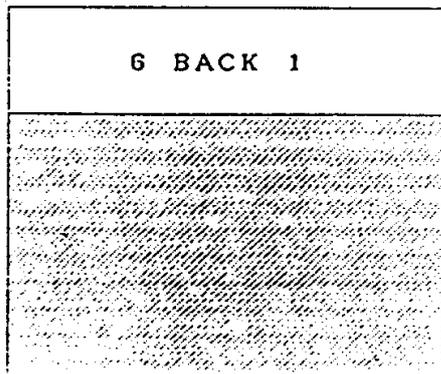
Set up the Dip Switch at your choice per the Dip Switch Setting List.

F) PICTURE 5 FONT 1



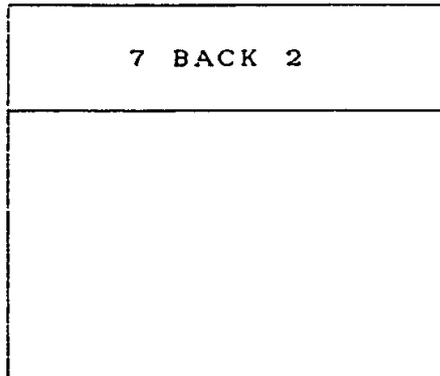
Confirm that the characters are displayed on the monitor.

G) PICTURE 6 FONT 2



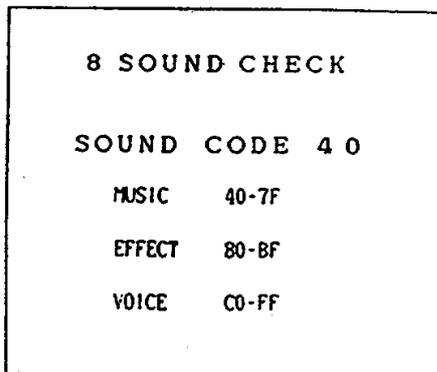
Confirm that the characters are displayed on the monitor.

H) PICTURE 7 BACK 1



Confirm that the characters are displayed on the monitor.

I) PICTURE 8 SOUND TEST



Set up the sound code ("?") to 41-7F or 81-BF by moving the Joy-Stick, or by pressing the fire button at C0-FF. Set the sound code to OE and press the fire button to stop the sound.

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GUN CONNECTORS

PIN	FUNCTION
1	PHOTO SENSOR
2	GROUND
3	+12V
4	-12V
5	GROUND
6	TRIGGER
7	GROUND
8	PUSH SW
9	GROUND
10	START SW
11	SOLENIOD +
12	SOLENIOD -
13	EARTH

PLAYER ONE AND PLAYER TWO PINOUTS ARE THE SAME.

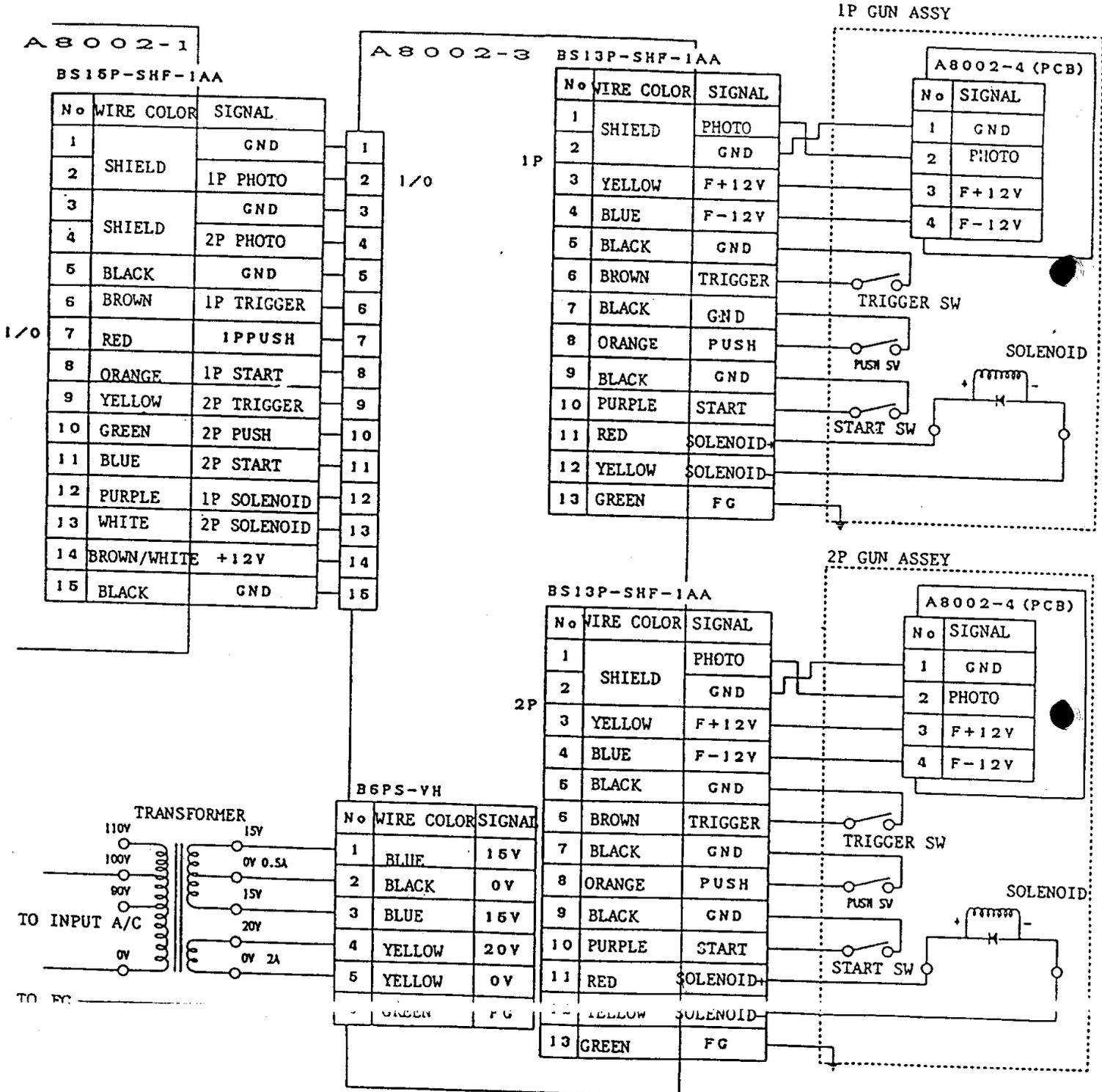
EDGE CONNECTOR

BLK	GROUND	A 1	GROUND	BLK
BLK	GROUND	B 2	GROUND	BLK
BLK	GROUND	C 3	GROUND	BLK
PNK	+5V	D 4	+5V	PNK
PNK	+5V	E 5	+5V	PNK
PNK	+5V	F 6	+5V	PNK
ORG	+12V	H 7	+12V	ORG
GRY/WHT	SPEAKER-	J 8	SPEAKER+	GRY/BLK
WHT/YEL	METER B	K 9	METER A	WHT/ORG
		L 10		
YEL/BLK	COIN B	M 11	COIN A	ORG/BLK
GRY/BLU	SERVICE SW	N 12	TEST SW	BLU/RED
BLK/BLU	COIN D	P 13	COIN C	BLU/BLK
		R 14		
GRN	VIDEO GREEN	S 15	VIDEO RED	RED
WHT	VIDEO SYNC	T 16	Video Blue	BLU
BLK	GROUND	U 17	GROUND	BLK
BLK	GROUND	V 18	GROUND	BLK

BOARD SUPPLY CONNECTOR

1. 15V	4. 20V
2. 0V	5. 0V
3. 15V	6. F/G

HARNESS DRAWINGS OF I/O CONNECTOR



PINOUT INFORMATION

<u>PIN COLOUR</u>	<u>FUNCTION</u>
1. YEL\BLK	10p MICROSWITCH OR N.P.N OPEN COLLECTOR INPUT.
2. NIC	10p MICROSWITCH OR N.P.N. OPEN COLLECTOR INPUT.
3. WHT\BLU	10p PNP INPUT (MS 111\SENTINEL)
4. NIC	20p INPUT (MICROSWITCH)
5. WHT\GRN	20p INPUT (MS 111\SENTINEL)
6. NIC	50p INPUT (MICROSWITCH)
7. WHT\BLK	50p INPUT (MS 111\SENTINEL)
8. NIC	£1 INPUT (MICROSWITCH)
9. WHT\YEL	£1 INPUT (MS 111\SENTINEL)
10. BLU\BLK	0 VOLTS (10p INHIBIT)
11. BLU\YEL	0 VOLTS (20p INHIBIT)
12. BLU\ORG	0 VOLTS (50p INHIBIT)
13. BLU\WHT	0 VOLTS (£1 INHIBIT)
14. BLACK	0 VOLTS
15. BLACK	0 VOLTS
16. NIC	0 VOLTS
17. NIC	0 VOLTS
18. ORANGE	+ 12v DC
19. ORANGE	+ 12v DC
20. ORANGE	+ 12v DC
21. BLU\VIO	- POSITIVE COMMON FOR MS111\SENTINEL
22. WHT\RED	METER OUTPUT (NPN OPEN COLLECTOR)
23. ORG\BLK	CREDIT OUTPUT (NPN OPEN COLLECTOR)
24. NIC	0 VOLTS

NOTES:-

- 1) Use 0 volts for negative common if plugging into MS 125 seperator unit.
- 2) Ensure that there is no coin meter connected across any input, eg. via a microswitch or an adaptor card.

NOTE: On most unigame adaptors pin 10 is linked to pin 24, and pin 11 is linked to pin 25, these links should be removed completely. Then short pin 11 to pin 12 on the adaptor card. This then uses the output from the credit board meter drive.

- 3) The meter will always total cash in 10p units regardless of any credit setting.
- 4) More than one coin mech may be fed into the PCB.

e.g. A) S10 (up to four)
 B) S10 X MS 111
 C) S10 X MS 125
 D) S10 X Sentinel

- 5) Most credit boards are supplied with a standard credit loom.
 (Part No 16315) fitted with a male 6 way amp mate 'N' lock connector.

Pinouts are shown below.

<u>PIN COLOUR</u>	<u>FUNCTION</u>
1. ORANGE	+12v DC SUPPLY
2. PINK	+5v DC (LAMP SUPPLY)
3. NIC	
4. WHT\RED	TO COIN METER
5. BLACK	0v DC
6. ORG\BLK	COIN INPUT TO GAME PCB.

DIP SWITCH SETTINGS V-2

<u>FUNCTION</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
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<u>Bonus Games</u>	Not used							
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None	on	on						
For every 50p	off	on						
For every £1	on	off						
For every £2	off	off						

1 Pulse per credit	on							
2 Pulses per credit	off							

Price per play

10p	on	on	on			
20p	off	on	on			
30p	on	off	on			
40p	off	off	on			
50p	on	on	off			
60p	off	on	off			
£1	on	off	off			
£2	off	off	off			

Please Note:- A bonus game will only be awarded if the game price of play is less than the bonus value set. Also if a mixture of coins are inserted, the time interval between coins inserted must be of less than 5 seconds for the bonus to be awarded.

EXAMPLES OF SETTINGS (FOR £1 INSERTED).

Price of Play	Bonus Games	Credits	Bonus	Total
10p	off	10	None	10
10p	For every 50p	10	2	12
10p	For every £1	10	1	11
20p	off	5	None	5
20p	For every 50p	5	2	7
20p	For every £1	5	1	6
30p	off	3	None	3
30p	For every 50p	3	2	5
30p	For every £1	3	1	4
40p	off	2	None	3
40p	For every 50p	2	2	4
40p	For every £1	2	1	3
50p	off	2	None	2
50p	For every £1	2	1	3

SNK

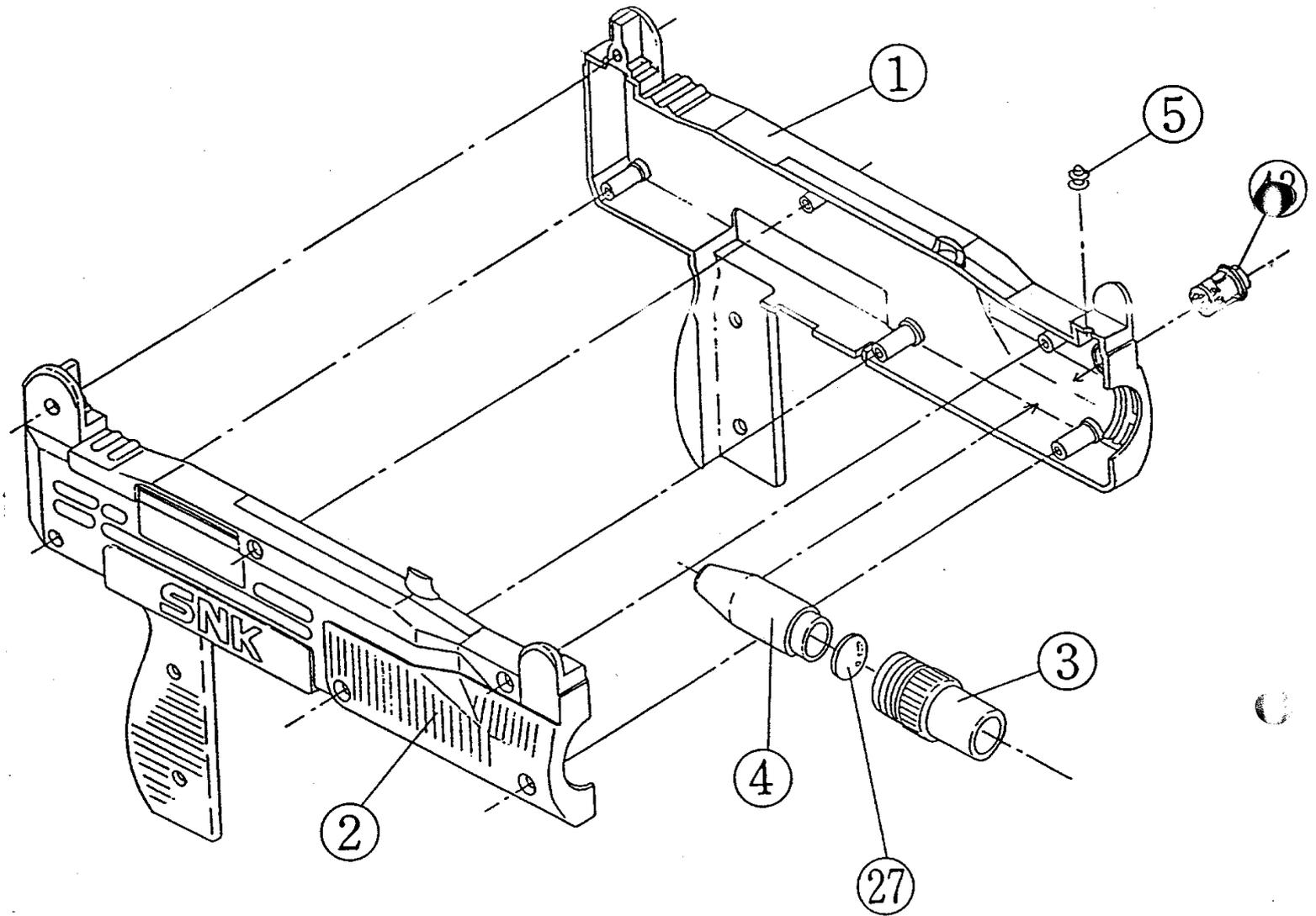
MECHANIZED

ATTACK

GUN ASSEMBLY

PARTS CATALOGUE

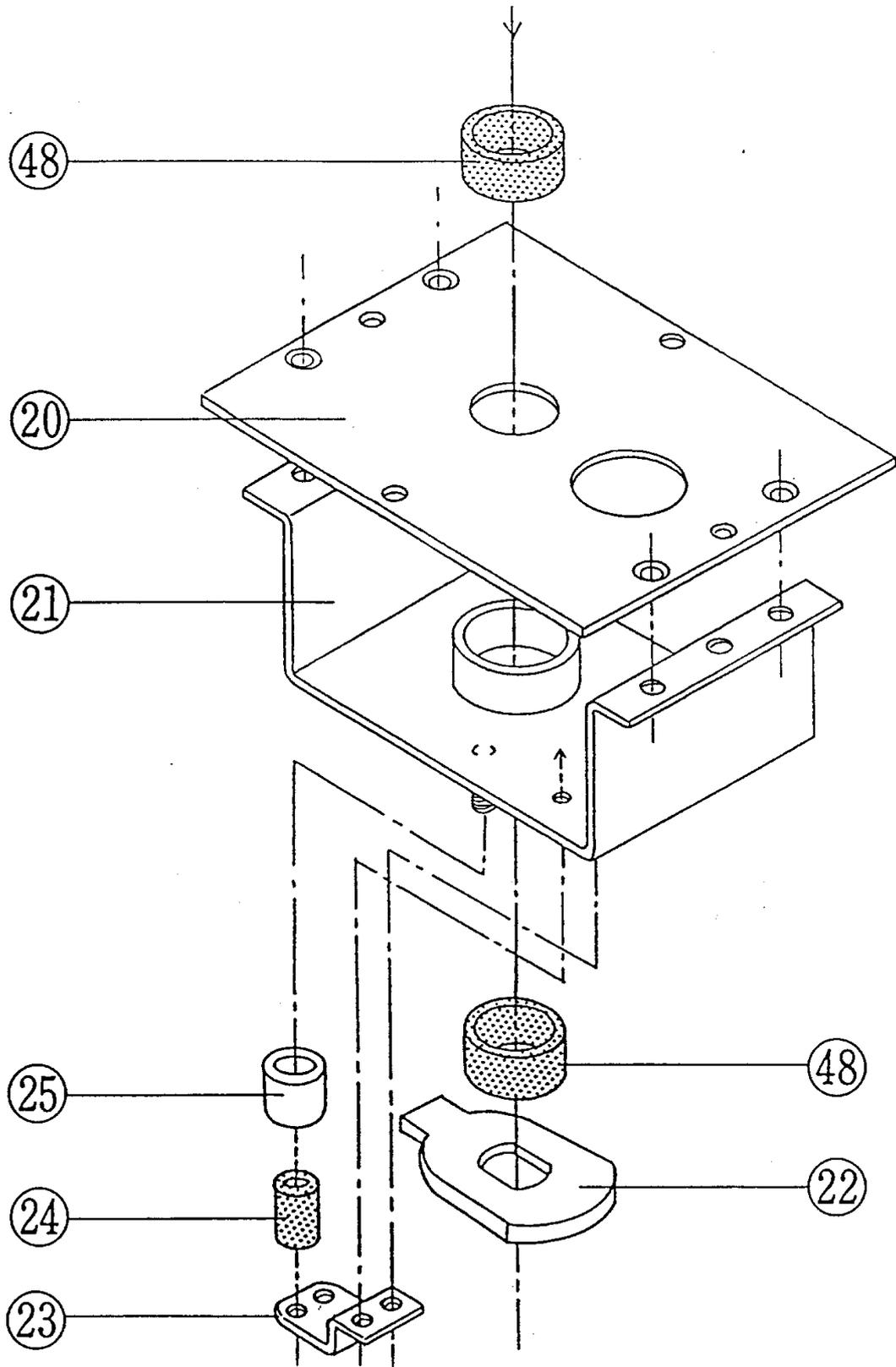
GUN HOUSING ASSY



GUN HOUSING ASSY

ITEM	PART NO	DESCRIPTION
1	A8002-001	GUN HOUSING L
2	A8002-002	GUN HOUSING R
3	A8002-003	BARREL A
4	A8002-004	BARREL B
5	A8002-005	SIGHT
27	A8002-027	LENS
43	A8002-043	PUSH BUTTON (DS-802)

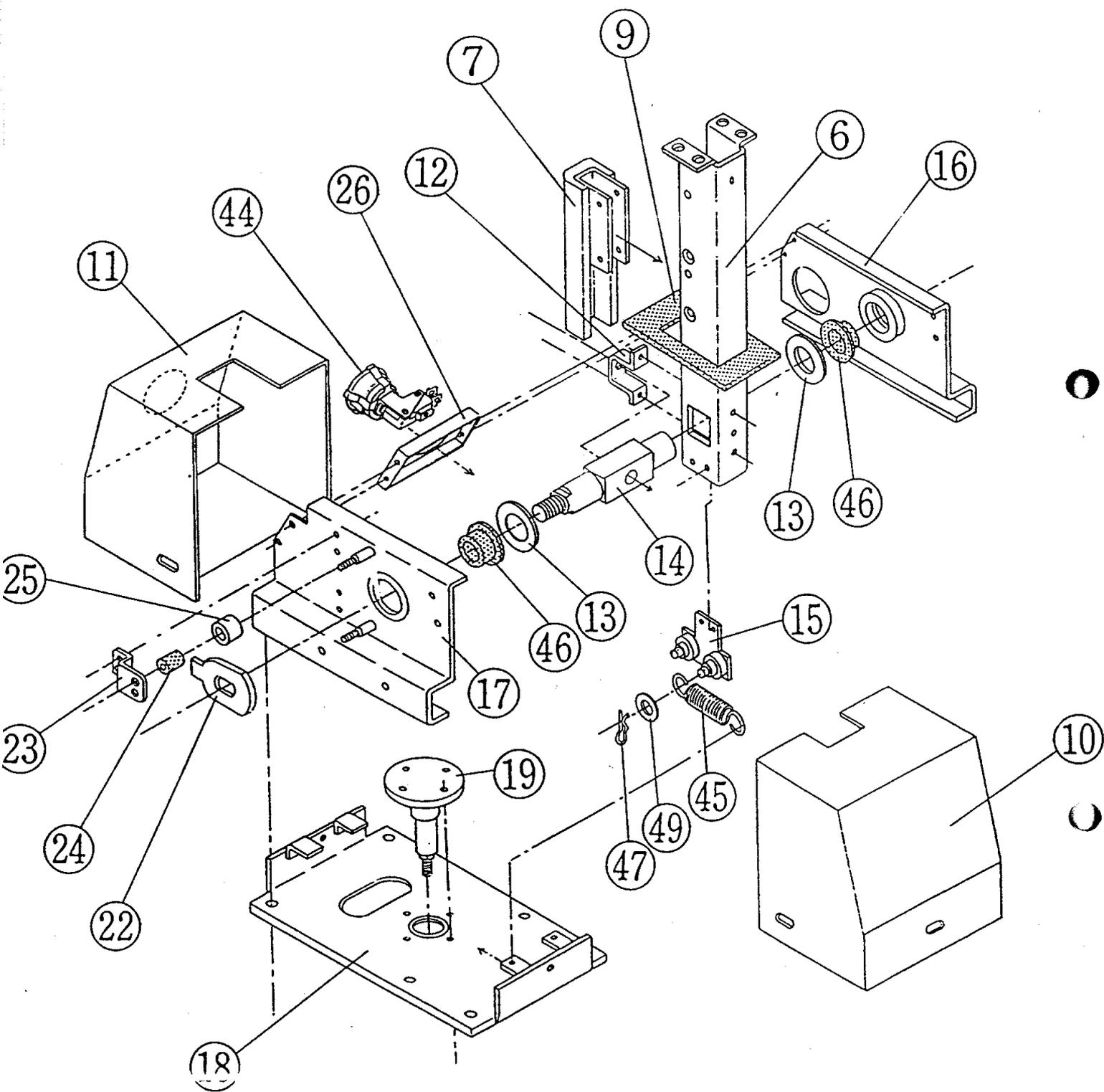
UNDER BASE ASSY



UNDER BASE ASSY

ITEM PART NO	DESCRIPTION
20 A8002-020	UP BASE
21 A8002-021	UNDER BASE
22 A8002-022	CAM
23 A8002-023	STOPPER SUPPORT
24 A8002-024	STOPPER COVER
25 A8002-025	OUTER STOPPER
48 A8002-048	BUSH (80B-1815)

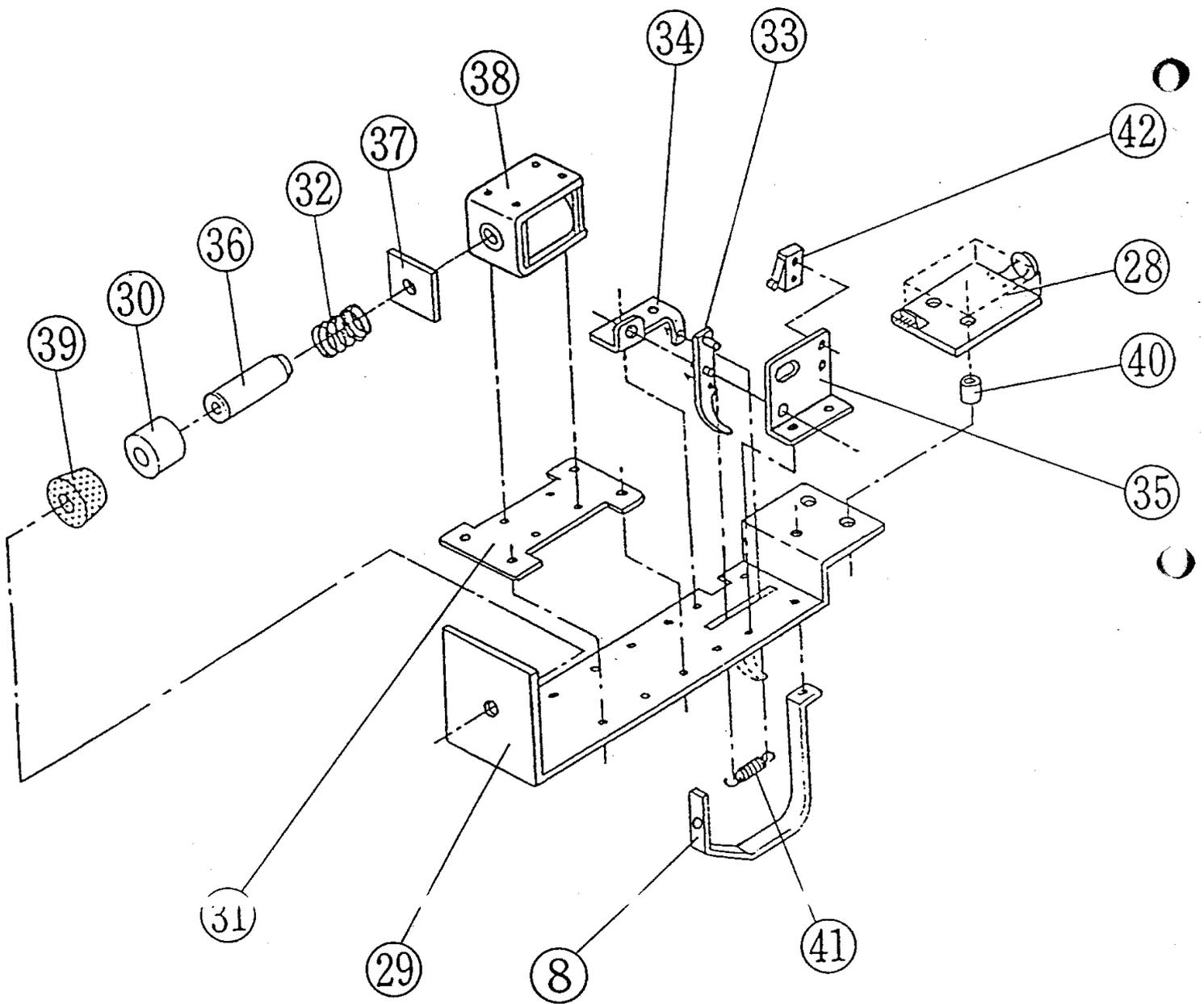
BASE ASSY



BASE ASSY

ITEM	PART NO	DESCRIPTION
6	A8002-006	GRIP FRAME A
7	A8002-007	GRIP FRAME B
9	A8002-009	GUN MASK
10	A8002-010	CASE A
11	A8002-011	CASE B
12	A8002-012	SUB SHAFT STOPPER
13	A8002-013	SHAFT SPACER
14	A8002-014	SUB SHAFT
15	A8002-015	SPRING HOOK
16	A8002-016	SIDE BRACKET R
17	A8002-017	SIDE BRACKET L
18	A8002-018	BOX BASE
19	A8002-019	MAIN SHAFT
22	A800S-022	CAM
23	A8002-023	STOPPER SUPPORT
24	A8002-024	STOPPE COVER
25	A8002-025	OUTER STOPPER
26	A8002-026	BUTTON BRACKET
44	A8002-044	PUSH BOTTON L-R (SS-1DR-MB)
45	A8002-045	RETURN SPRING (6765)
46	A8002-046	FRANGE BUSH (80F-1512)

MECH ASSY



MECH ASSY

ITEM PART NO	DESCRIPTION
8 A8002-008	TRIGGER COVER
28 *A8002- 4	SENSOR PCB
29 A8002-029	MECHA BASE
30 A8002-030	WEIGHT
31 A8002-031	SOLENOID BASE
32 A8002-032	WEIGHT SPRING
33 A8002-033	TRIGGER
34 A8002-034	TRIGGER BASE L
35 A8002-035	TRIGGER BASE R
36 A8002-036	SOLENOID AMATEUR
37 A8002-037	STOPPER SHEET
38 A8002-038	SOLENOID (SD12AA-12-OOT)
39 A8002-039	RUBBER LEG (C-30-RK3215)
40 A8002-040	SPACER
41 A8002-041	TRIGGER SPRING (6611)
42 A8002-042	MICRO SWITCH (SS-5GLS)

ELECTROCOIN AUTOMATICS LTD

AFTER SALES & SERVICE DEPARTMENT - CARDIFF.

We would like to take this opportunity to introduce you to the NEW service department at Electrocoin Automatics - CARDIFF.

Normal working hours - 0800 - 16.30 Mondays - Fridays

Telephone number 0222 373059 - (This telephone number is now exclusive to Electrocoin After Sales).

After Hours\Weekends\Emergencies - we can now be contacted on the following telephone number - 0836 536195.

For the following enquiries please contact:

Spares Enquiries - Phil Hayes-Pugh or Gary Scoble

Technical Information - Ian Colley

Workshop Manager - Mike Callan

Spares & Repairs Accounts - Julie Tipper

N.B.

Electrocoin Automatics at Cardiff are responsible for U.K. manufactured machines and all FAMOUS GAMES products.

To ensure a fast and efficient service prompt return of faulty parts is essential.

Hoping you will avail yourselves of the facilities offered by the After Sales department and assuring you of our continued best attention at all times.

PHIL HAYES-PUGH
After Sales Manager.