ELECTROCOIN AUTOMATICS LTD

UPRIGHT

SERVICE MANUAL



TAITO CORPORATION

PART NO 64056

WGP MANUAL

SPECIFICATIONS:

1. Power Supply	240/220VAC (HANTAREX US250 P.S.U)
2. Power Consumption	140w
3. Play Pricing	Adjustable on Dip switches
4. TV Monitors	20" Hantarex 9000E colour monitor
5. Dimensions	Width : 632mm
	Depth : 765mm
	Height : 1635mm
6 Weight	Approximately: 140kg

* The specifications and appearance may be changed for improvement.

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Adjustments of Colour Video Monitor, (Refer to Hantarex Manual)

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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.

PLAY INSTRUCTIONS

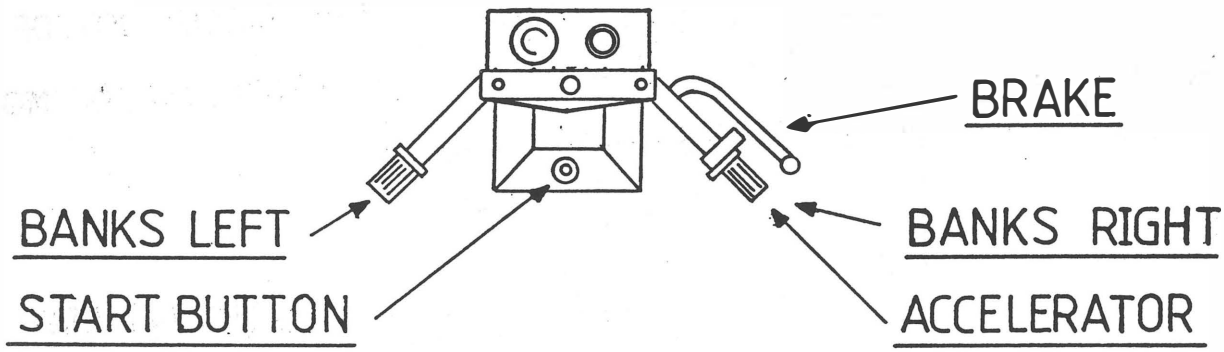
GAME RULES

This game is a sprint race (over three laps). In each lap a limit position is set and if the players motorcycle laps within this limit position the player can continue to the next circuit.

The limit position is checked from Start to Finish (line) in each lap.

If the player is ranked lower than the limit position, the game ends.

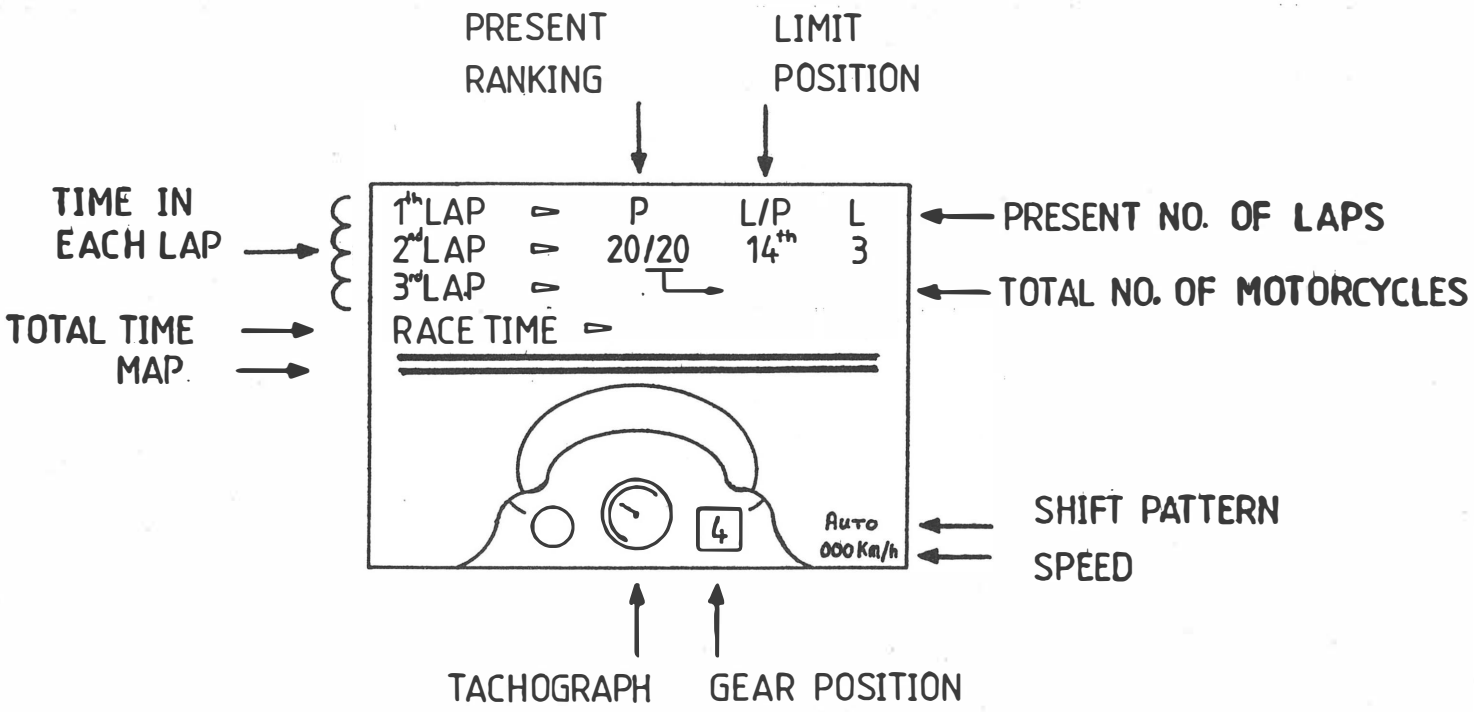
CONTROLS



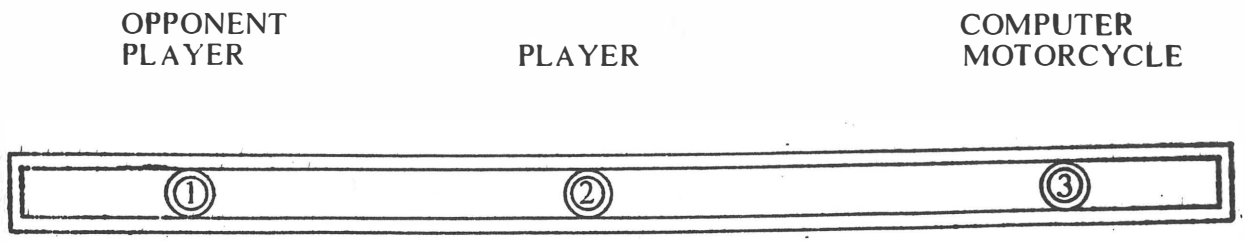
COMMUNICATION PLAY

More than one machine (up to 8) may be connected together via a communication line. This enables players to compete against eachother on linked machines.
By inserting coins into any of the machines and pressing the Start button the shift pattern select mode appears, whilst the other machines remain showing the coin entry sreen, during the following 20 seconds by inserting more coins and pressing the start button another play can join in.

EXPLANATION OF SCREEN



MAP



Going round from one end to the other end of the map.

With the colour and the No's of the markers on the map, the player, the opponent player and the computer motorcycle can be recognised.

AFTER LOCATION TEST

1 The number of courses will be 8 in total.

ROUND	LOCATION	CIRCUIT
1	JAPAN	SUZUKA CIRCUIT
2	AUSTRALIA	PHILIP ISLAND
3	U.S.A	LAGUNA - SECA
4	WEST GERMANY	HOKENHEIM
5	THE NETHERLANDS	ASSEN
6	FRANCE	BUGGATTI
7	ENGLAND	DONNINGTON
8	BELGIUM	SPA FRANCOCHAMPS

2 COMMUNICATION PLAY

Upto 8 machines can play in communication mode.

3 FEATURE OBJECTS

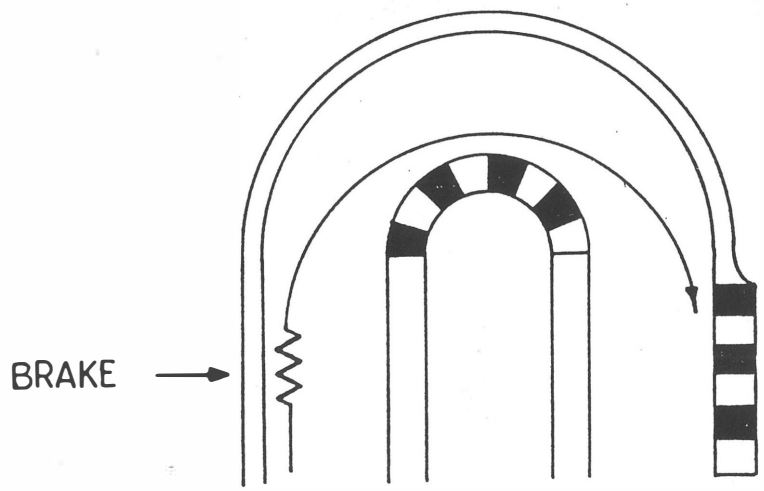
In each course there will be rain fall, tunnel-like forest and floating clouds etc, wii appear.

HOW TO WIN

1 KEEP THE ACCELERATION UNDER CONTROL

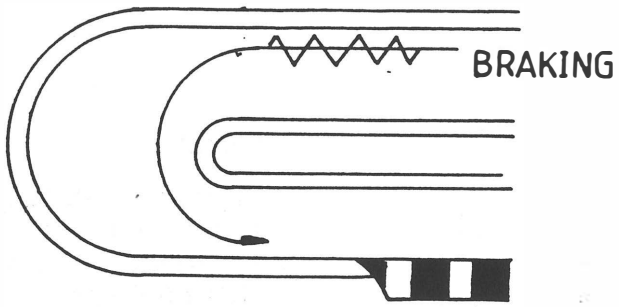
The racing time can be shortened by keeping the acceleration down.
In this screen the red lined part is the rev. counter (11,000 - 14,000 rpm).
The gear change can be made manually or automatically.
If the rev. counter exceeds 15000 rpm the power will fade,

2 BASIC CORNERING



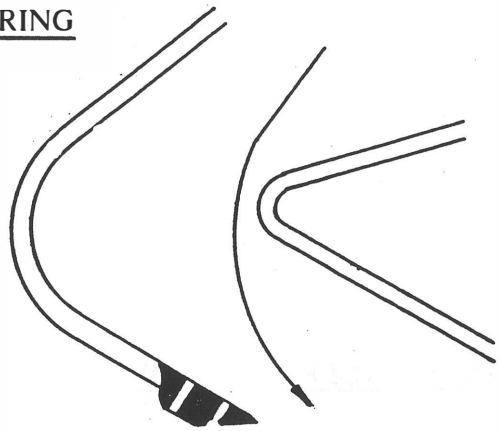
The basic cornering technique is:-
i Brake early.
ii Corner towards inside edge of guide stones.
iii Straighten up, and accelerate.

3 HAIRPIN BEND (SHORTEN'S THE TIME)



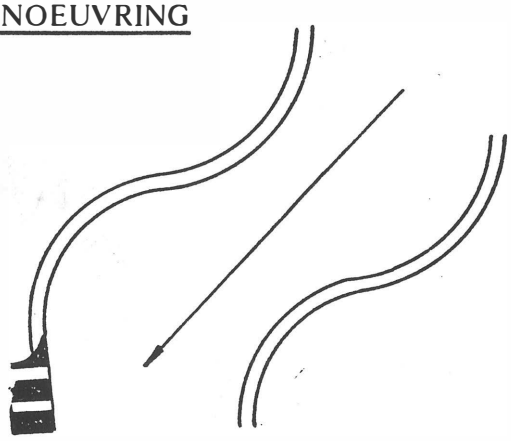
i A hairpin bend can be taken by banking the motorycle whilst braking.
ii If the player banks the motorcycle too early, the motorcycle will run off course.
iii The Acceleration control can be used for the above method.

4 HIGH SPEED CORNERING



i Approaching the near inside as early as possible, will result in high speed back stretch.

5 STRAIGHT LINE MANOEUVRING



i If you can keep as straight as possible without using your brake, the course record is yours.

TEST MODE

1. Power Off - Change DIP SW A position 3 to ON (located on main PCB).
2. Power On - The screen changes to the Test Mode.
3. Select the test items by moving the arrow (<----) with the Steering Mechanism and then pressing the Start Button.

TEST MODE SCREEN AND TEST ITEMS

I/O TEST SCREEN	I/O TEST
TO CHANGE THE SCREEN, TURN THE STEERING MECH AND PRESS THE START BUTTON.	COIN A: OFF SERVICE: OFF START: OFF SHIFT UP: OFF HANDLE: +1 START LAMP: OFF VENTILATION: OFF COIN B: OFF TILT : OFF BRAKE: OFF SHIFT DOWN: OFF -N/A ACCEL: +1 BRAKE LAMP: OFF N/A

	8	7	6	5	4	3	2	1
DIP SW A	H	H	H	H	H	L	H	H
B	H	H	H	L	H	H	H	H

SOUND 0 0
RAM OK!
ROM OK!

CONTENTS OF TEST

1. When the screen is changed to the I/O test mode the cross hatch is displayed.
2. Adjust the screen colours, and position of picture on screen
3. Press Start button to continue test.
4. The function of each switch can be checked.
   If any defective switch is found, replace it with a new one.

NOTE: If the values of the Steering Mech and accelerator are more than +1 ~-1 at the zero position, adjustment can be made using the central control potentiometers (5kohm) located inside the right hand side of the coin door.

The Steering should move from 0 to 64.
The Accelerator should move from 0 to 180 approx.
The Brake should move from 0 to 48.

Service switch tests vibration motor.

LAN TEST SCREEN	LAN TEST MODE
TO CHANGE THE SCREEN, PRESS THE START BUTTON	ID1 ID2 ID3 ID4 - OK OK OK ID5 ID6 ID7 ID8 NG NG NG NG H9 ID NUMBER 1 TOTAL LINKED MACHINES 5

CONTENTS OF TEST

1. This LAN test is to test whether the communications function between the cabinets work normally. (When cabinets are joined by communication cables).
   NOTE;- This check should be done in the ID1 cabinet.

2. 'O.K.' The communication function works normally.

3. 'N.G.' Check for bad connection between the communication cable and the Lan PCB. N.G. is also displayd on the ID number of unused cabinet(s).

4. TOTAL LINKED MACHINES 5 means that 5 machines are presently connected to the communication game.

Motor Test (only for Dx model)	MOTOR TEST
TO CHANGE THE SCREEN PRESS START BUTTON	Left Limit = Off Right Limit = Off Center: ON Moving data: 1000

CONTENTS OF TEST

1. This 'Motor Test' is for the movable 'Dx' model only, therefore this test is not used for the upright model.

2. After checking the Test Mode, switch of the power adjust DIP SW A position 3 to OFF and switch back ON. The screen should now be in game mode.

SETTINGS OF DIP SWITCH - A

SETTINGS	POSITIONS	1	2	3	4	5	6	7	8
CABINET TYPE	C/P + U/R DX	OFF ON							
WIND	NO N/A ON YES UPRIGHT		OFF ON						
TEST MODE	NORMAL GAME TEST MODE			OFF ON					
ATTRACT SOUND	WITH WITHOUT				OFF ON				
PLAY PRICING COIN A	1 COIN - 1 PLAY 2 COINS - 1 PLAY 3 COINS - 1 PLAY 4 COINS - 1 PLAY					OFF ON OFF ON	OFF ON ON		
PLAY PRICING COIN B	1 COIN - 2 PLAYS 1 COIN - 3 PLAYS 1 COIN - 4 PLAYS 1 COIN - 6 PLAYS							OFF ON OFF ON	OFF ON ON

SETTINGS OF DIP SWITCH - B

SETTINGS	POSITIONS	1	2	3	4	5	6	7	8
GAME DIFFICULTY	RANK - B(NORMAL) RANK - A(EASY) RANK - C(HARD) RANK - D(VERY HARD)	OFF ON OFF ON	OFF ON ON						
FACTORY SET	NOT IN USE			OFF	OFF				
LINK PLAY	SINGLE PLAY LINK					OFF ON			
YOUR ID NUMBER	# 1 # 2 # 3 # 4 # 5 # 6 # 7 # 8						OFF ON OFF ON OFF ON OFF ON	OFF OFF ON ON OFF OFF ON ON	OFF OFF OFF OFF ON ON ON ON

PART No 12164 ELECTRONIC CREDIT BOARD

PINOUT INFORMATION

PIN	COLOUR		FUNCTION
1.	YEL/BLK	10p	MICROSWITCH OR N.P.N OPEN COLLECTOR INPUT.
2.	N\C	10p	MICROSWITCH OR N.P.N. OPEN COLLECTOR INPUT.
3.	WHT/BLU	10p	PNP INPUT (MS 111/SENTINEL)
4.	N/C	20p	INPUT (MICROSWITCH)
5.	WHT/GRN	20p	INPUT (MS 111/SENTINEL)
6.	N/C	50p	INPUT (MICROSWITCH)
7.	WHT/BLK	50p	INPUT (MS 111/SENTINEL)
8.	N/C	£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.	N/C	0	VOLTS
17.	N/C	0	KEYWAY
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.	N/C	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.
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 16684) fitted with a male 6 way amp mate 'N' lock connector.

Pinouts are shown below.

PIN	COLOUR	FUNCTION
1.	ORANGE	+12v DC SUPPLY
2.	PINK	+5v DC (LAMP SUPPLY)
3.	N/C	
4.	WHT/RED	TO COIN METER
5.	BLACK	Ov DC
6.	ORG/BLK	COIN INPUT TO GAME PCB.

DIP SWITCH SETTINGS V-2

FUNCTION	1	2	3	4	5	6	7	8
Bonus Games		Not used						
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

22 WAY EDGE CONNECTOR

CONNECTOR A			LOGIC PCB	
			KEYWAY PIN 7, H	
BLK/RED	GND	1 A	GND	BLK/YEL
BLK	GND	2 B	GND	BLK
PNK	+5v	3 C	+5v	PNK
PNK	+5v	4 D	+5v	PNK
VIO	-5v	5 E		
RED/BLK	+13v	6 F		
	KEYWAY	7 H	KEYWAY	
GRY/WHT	L. SPEAKER	8 J	L. SPEAKER	WHT/GRY
GRY/BLK	R. SPEAKER	9 K	R. SPEAKER	BLK/GRY
ORG/BLK	COIN A	10 L	COIN B	YEL/BLK
		11 M		
WHT/ORG	METER A	12 N	METER B	WHT/YEL
RED/ORG	SERVICE SW	13 P		
GRN/BLK	START SW	14 R	START LAMP	YEL/VIO
		15 S		
		16 T		
BRN/PNK	ADJ 2 (accelerator)	17 U	+24v	GRY
BRN/YEL	ADJ 1 (steering)	18 V	DRIVE	BLK/WHT
ORG/BLU	HANDLE	19 W		
YEL/BLU	ACCEL	20 X	BRAKE	BLU/YEL
BLK	GND	21 Y	GND	BLK
BLK/GRN	GND	22 Z	GND	BLK/GRN

CONNECTOR B — COMMUNICATION PCB

5 WAY JST N/H SERIES 0.1" PITCH

1	+5v	PNK
2	+5v	PNK
3	GND	BLK
4	GND	BLK
5	GND	BLK

CONNECTOR C — VIDEO PCB

12 WAY MOLEX 0.156" PITCH KEYWAY 10

1	GND	BLK
2	GND	BLK
3	GND	BLK
4	GND	BLK
5	GND	BLK
6		
7	+5v	PNK
8	+5v	PNK
9	+5v	PNK
10	KEYWAY	
11	+5v	PNK
12	+5v	PNK

CONNECTOR D — VIDEO PCB

5 WAY ST N/H SERIES 0.1" PITCH

5	VIDEO RED	RED
4	VIDEO GRN	GRN
3	VIDEO BLU	BLU
2	V-SYNC	WHT
1	VIDEO GND	BLK/BLU

CONNECTOR F — P.S.U

9 WAY AMP M+L PLUG MALE PINS

1	+5v	PNK
2	+5v	PNK
3		
4	GND	BLK/YEL & BLK/RED
5	GND	BLK/GRN
6	GND	BLK
7	GND	BLK/PNK
8	+12v	ORG
9	-5v	VIO

CONNECTOR G — MONITOR SUPPLY

4 WAY AMP M+L PLUG MALE PINS

1	0v	BRN
2	135v	RED
3	0v	ORG
4	220v	YEL

CONNECTOR H — CONNECTOR BOX

9 WAY AMP M+L PLUG FEMALE PINS

1	+13v	RED/BLK
2	+13v	RED/BLK
3		
4		
5		
6		
7	GND	BLK/PNK
8	+24v	GRY
9	+24v	GRY

CONNECTOR I — VIDEO/MON

12 WAY AMP M+L PLUG (RED) FEMALE PINS

1	VIDEO GND	BLK/BLU
2		
3	VIDEO BLU	BLU
4	V-SYNC	WHT
5	VIDEO RED	RED
6	VIDEO GRN	GRN
7	0v	BRN
8		
9	220v	YEL
10	135v	RED
11		
12	0v	ORG

CONNECTOR J

9 WAY AMP MINI M+L SOCKET

1	START SW	GRN/BLK
2	GND	BLK
3	HANDLE	ORG/BLU
4	+5v	PNK
5	START LAMP	VIO/YEL
6	+13v	RED/BLK
7	+24v	GRY
8	DRIVE	BLK/WHT
9	EARTH	GRN/YEL

STEERING MECH

6 WAY AMP M + L SOCKET

1	GND	BLK
2	BRAKE	BLU/YEL
3	+5v	PNK
4	GND	BLK
5	ACCEL	YEL/BLU
6	+5v	PNK

CONNECTOR K

SPEAKER LEFT

.187 FASTONS

1	L/H/S SPEAKER (+)	GRY/WHT
2	L/H/S SPEAKER (-)	WHT/GRY

CONNECTOR L

SPEAKER RIGHT

.187 FASTONS

1	R/H/S SPEAKER (+)	GRY/BLK
2	R/H/S SPEAKER (-)	BLK/GRY

CONNECTOR M

COIN DOOR

3 WAY AMP M+L SOCKET MALE PINS

1	+5v	PNK
2	CREDIT BD	WHT/RED
3	METER A	WHT/ORG
4	METER B	WHT/YEL (tied back)

CONNECTOR P

SERVICE SW

MINI PUSH BUTTON

1	SERVICE SW	ORG/RED
2	GND	BLK

CONNECTOR R — VOL 1

FIT 100 ohm POT

1	L/H/S SPEAKER (+)	GRY/WHT
2	CENTER	WHT/GRY
3	L/H/S SPEAKER (-)	WHT/GRY

CONNECTOR S — VOL 2

FIT 100 ohm POT

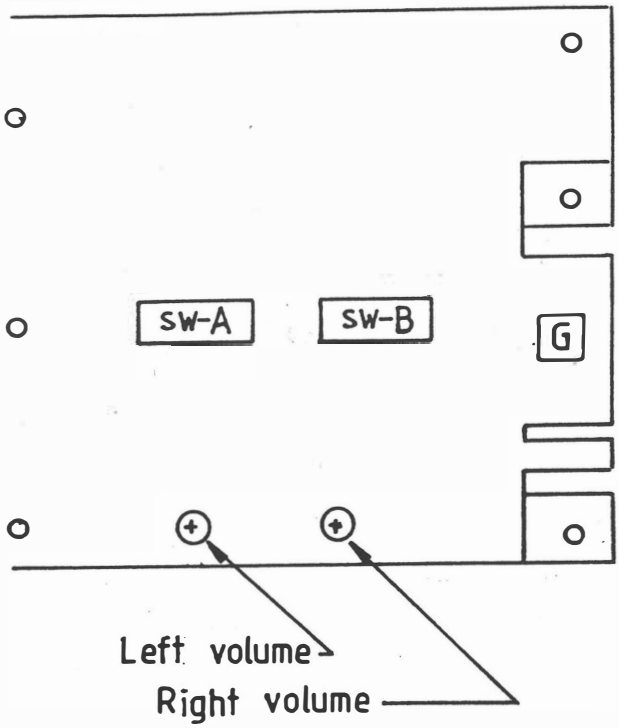
1	R/H/S SPEAKER (+)	GRY/BLK
2	CENTER	BLK/GRY
3	R/H/S SPEAKER (-)	BLK/GRY

CONNECTOR T and V — ADJUST 1and 2 ACCEL and HANDLE

FIT SK ohm POT

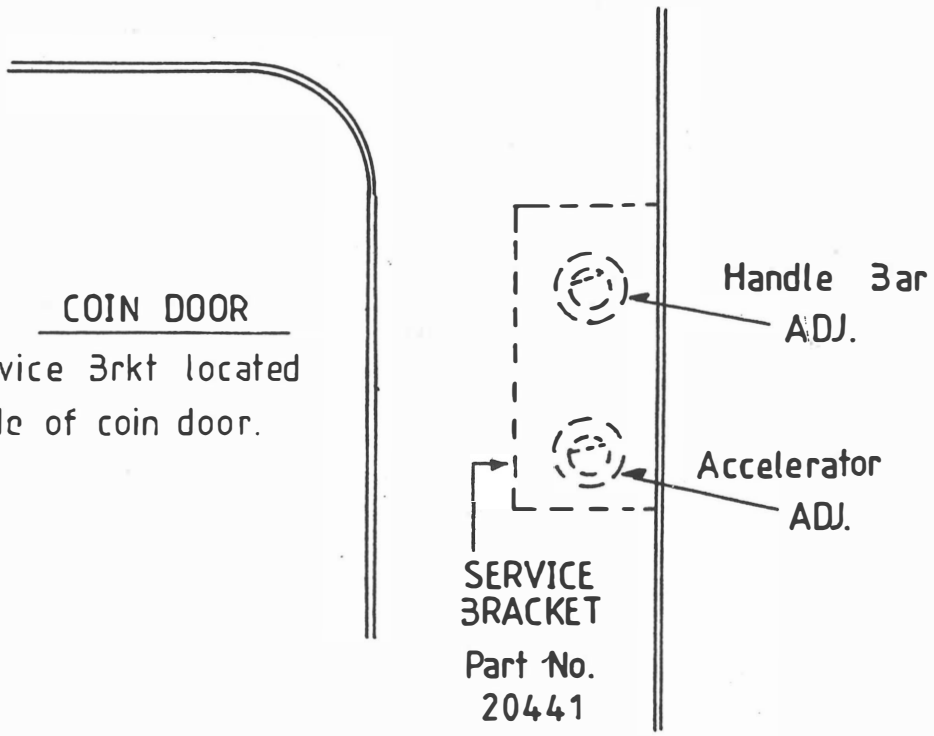
1	ADJ GND	BLK
2	ADJ CENTER	BRN/YEL / BRN/PNK
3	ADJ +5v	PNK

LOCATION of DIP SWs on PC3



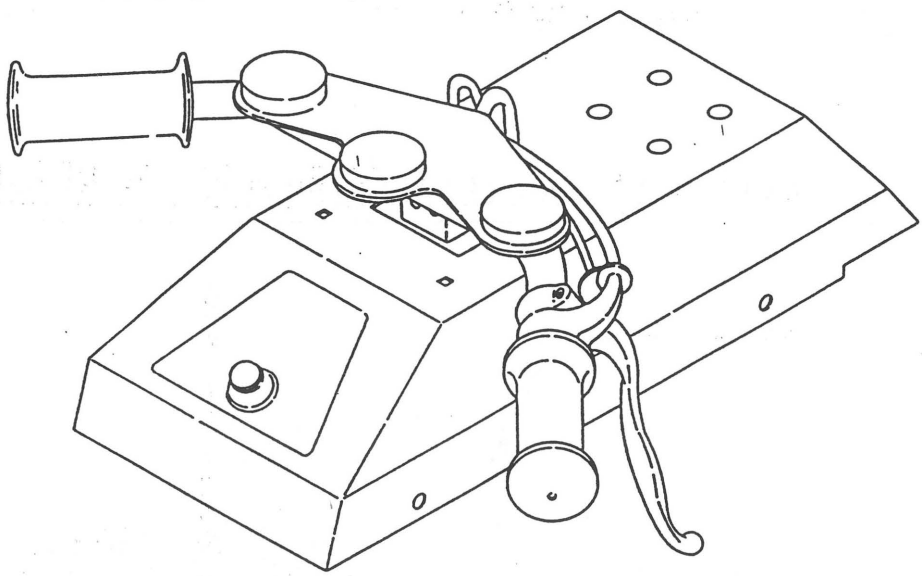
G connector- AMP 22P

LOCATION OF HANDLE/ACCELERATOR ADJUSTMENT



WGP

HANDLE KIT



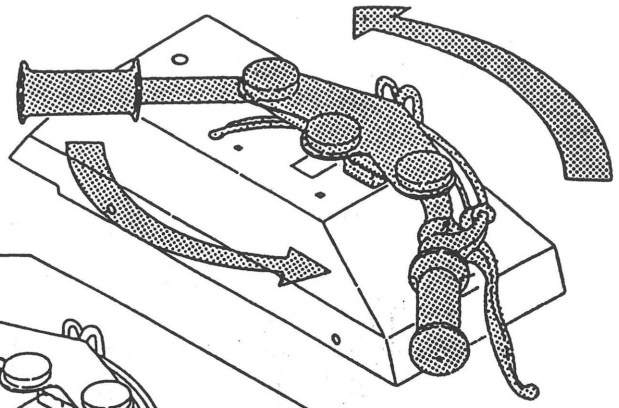
PARTS CATALOGUE

HANDLE

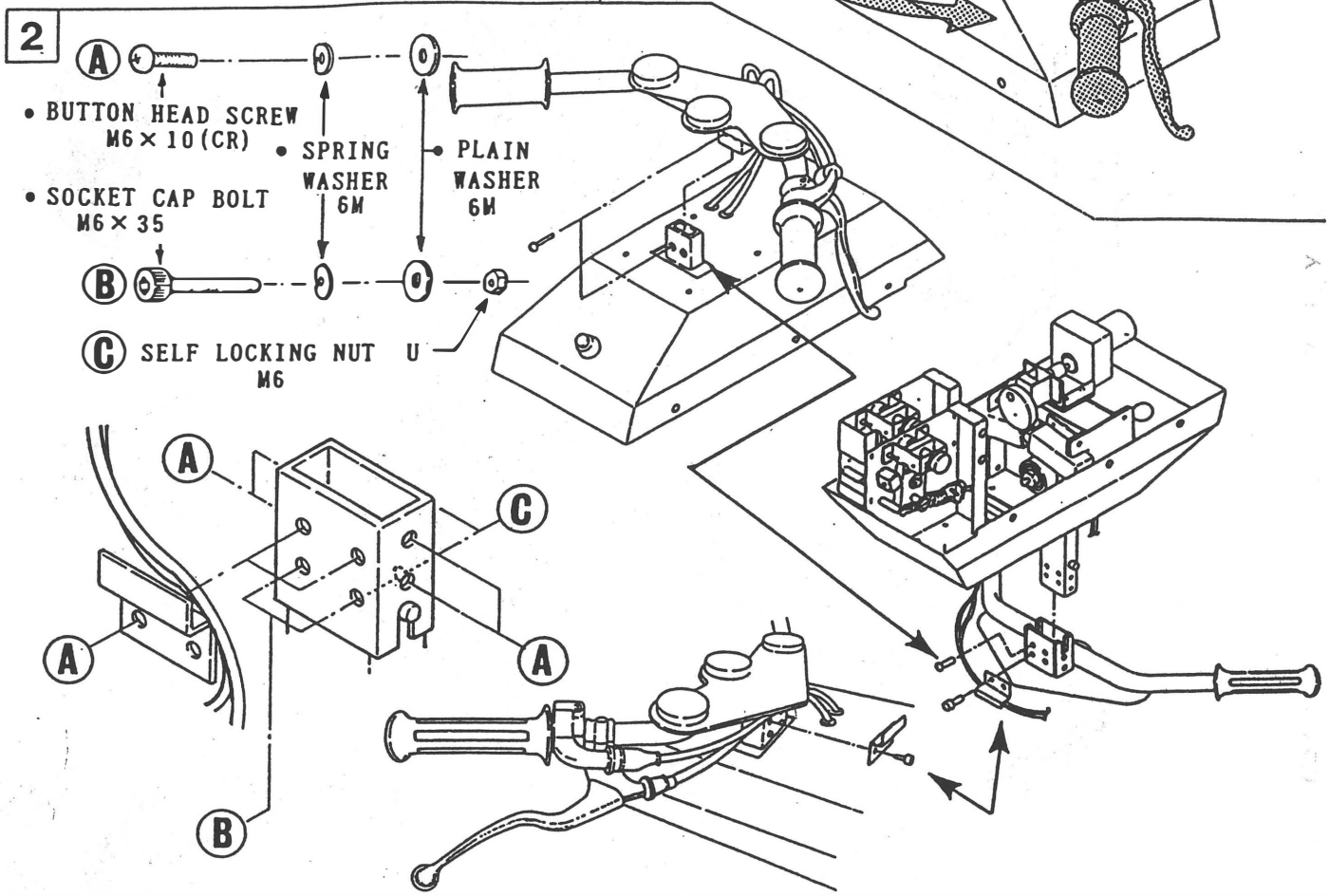
W.. G. P.

HANDLE KIT

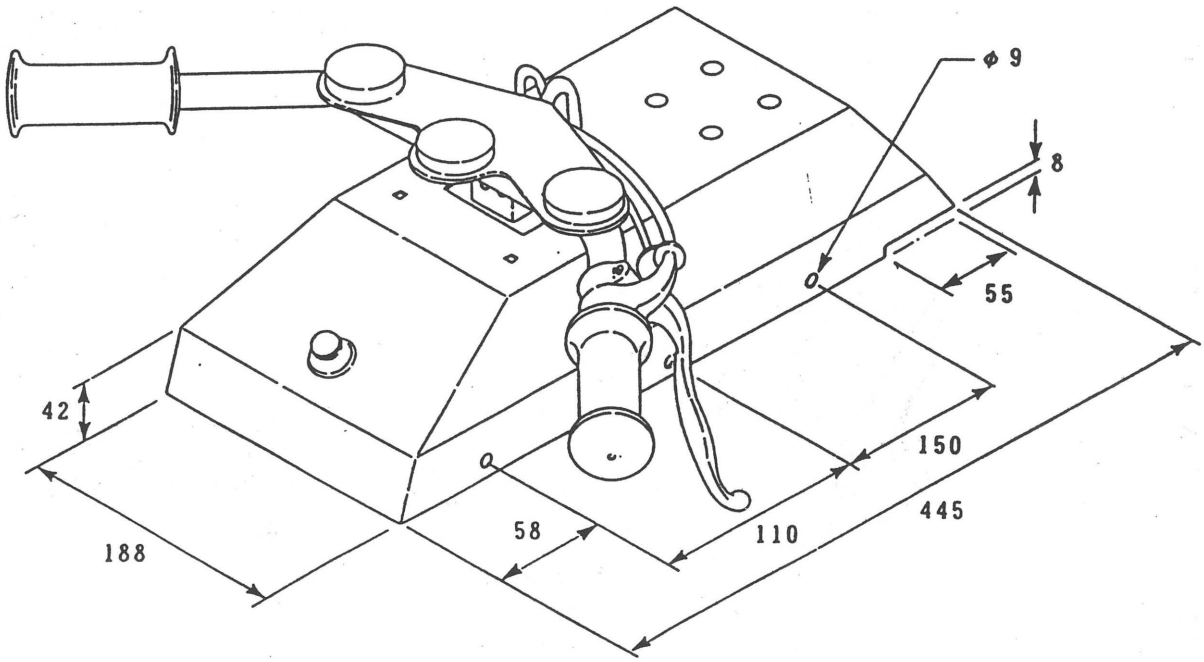
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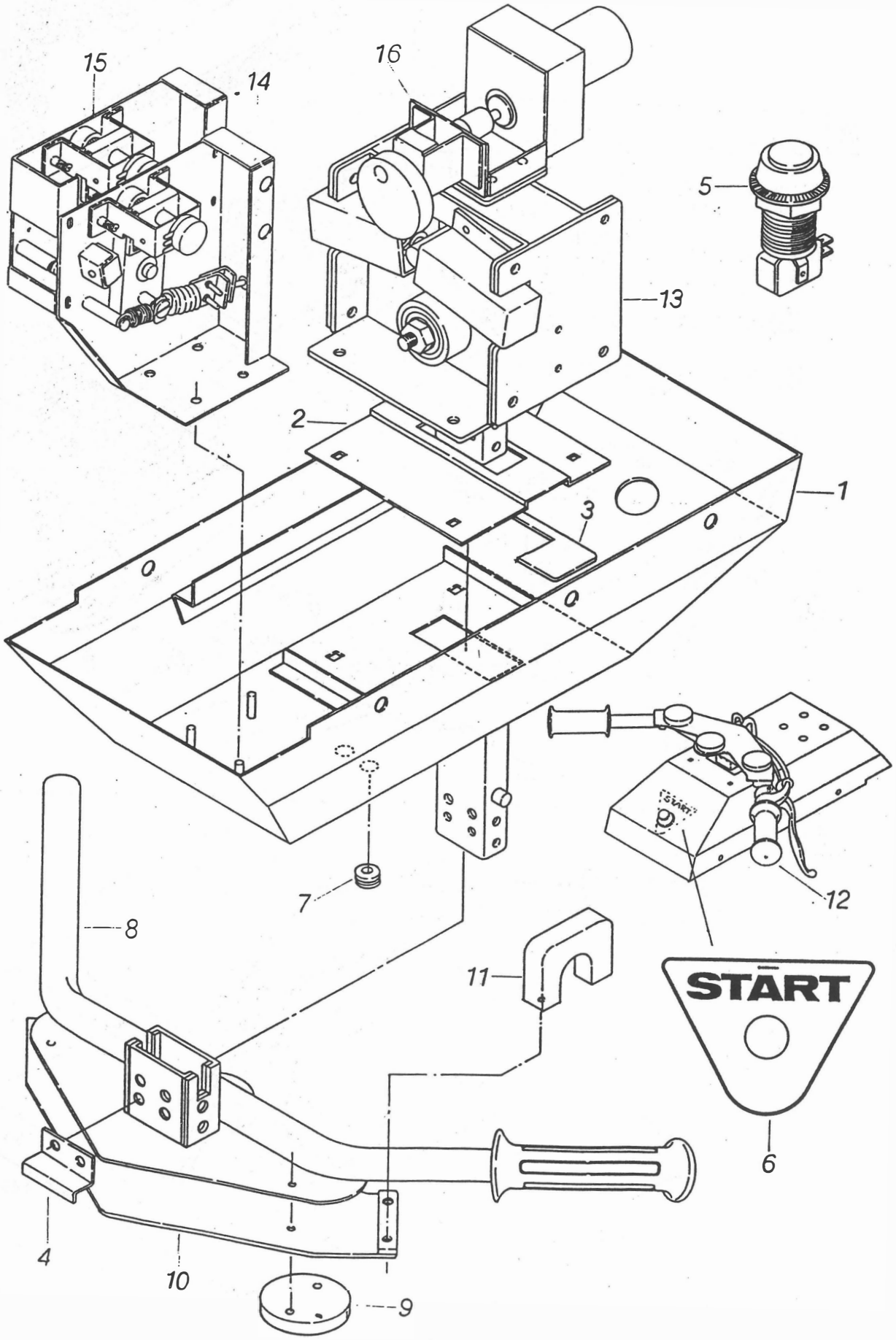
2



3

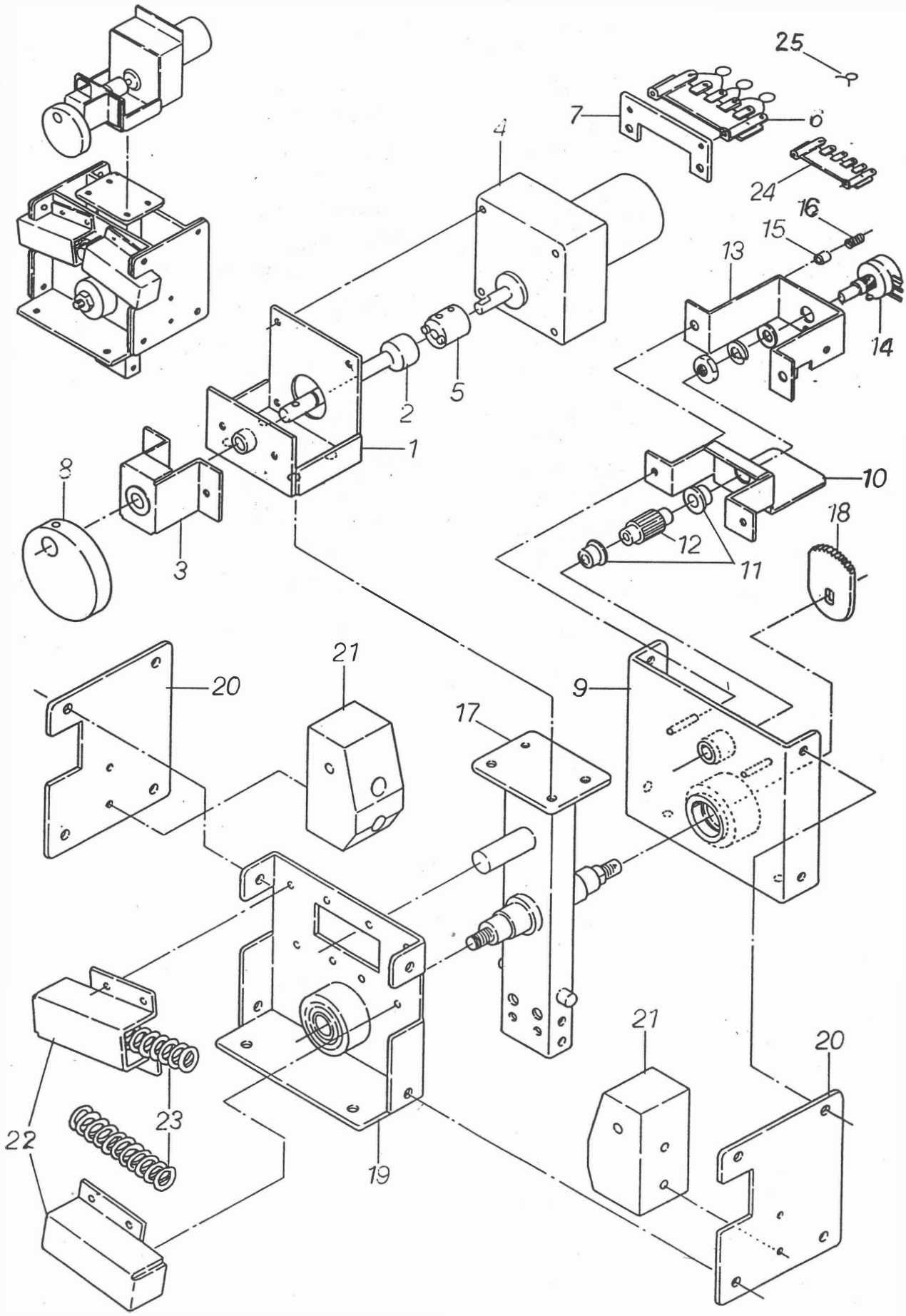


● HANDLE CONTROL ASSY



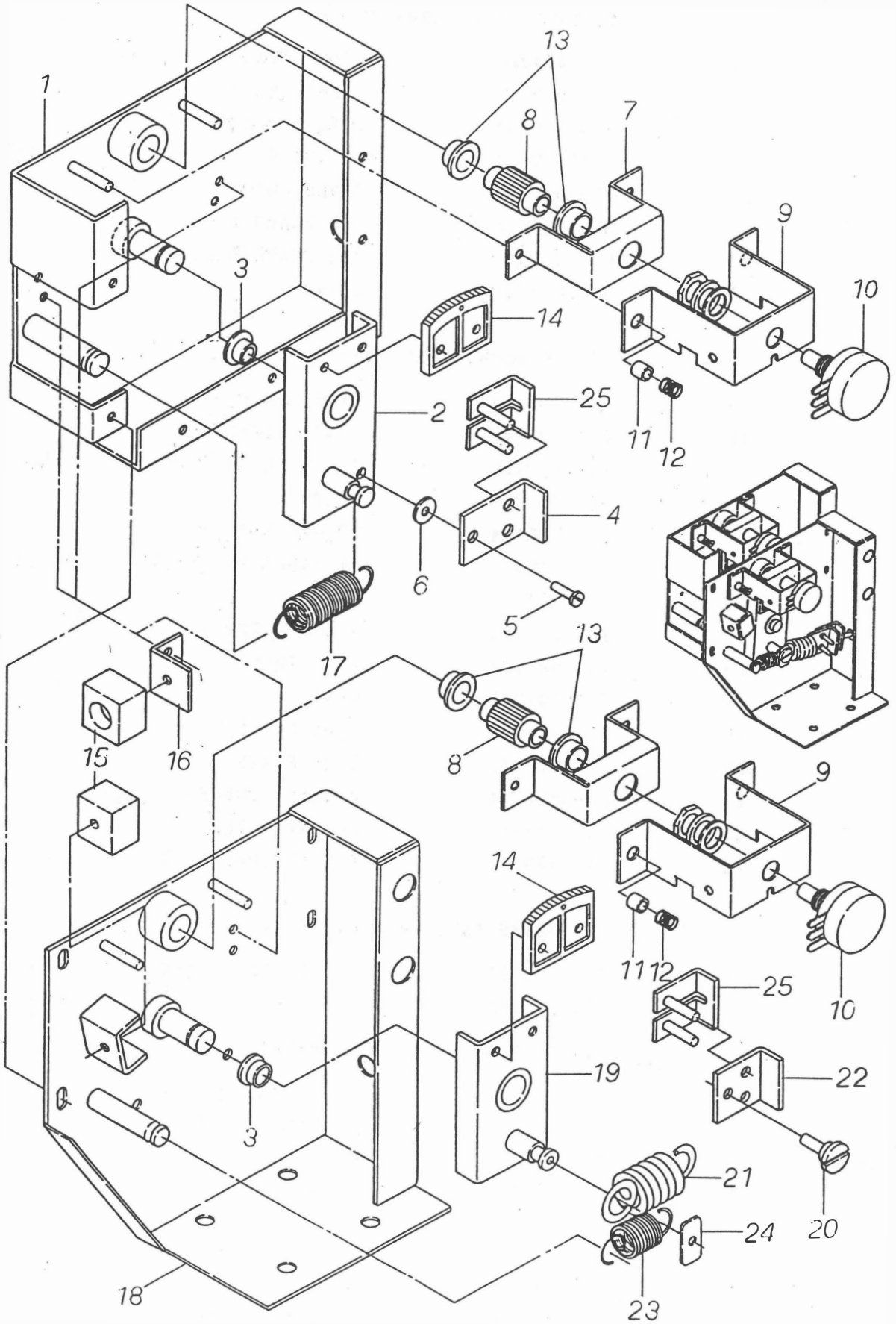
ITEM	PARTS No.	DESCRIPTION	
	HANDLE CONTROL ASSY (M90 02112A)		
1	E30 07998A	BASE COVER	
2	E30 07688A	MASK PLATE	
3	F90 02272A	HANDLE MASK	
4	E30 07764A	WIRE BRACKET	
5	C02 00257A	PUSH SWITCH	BL2
6	G15 00455A	START STICKER	NG-79-G
7	F20 00008A	GROMMET	
8	E90 00593A	HANDLE BASE	(HANDLE ASSY)
9	E10 01049A	CENTER SHAFT	(HANDLE ASSY)
10	E30 08042A	HANDLE PLATE	
11	E10 01070A	PIPE SUPPORT	
12	M01 00154A	HANDLE ASSY	
13	M01 00160A	HANDLE MECHA ASSY	
14	M01 00159A	BRAKE MECHA ASSY	
15	M01 00158A	ACCEL MECHA ASSY	
16	M01 00151A	VIBRATOR ASSY	
	L30 00403A	K HARNESS	

● VIBRATOR ASSY & HANDLE MECHA ASSY



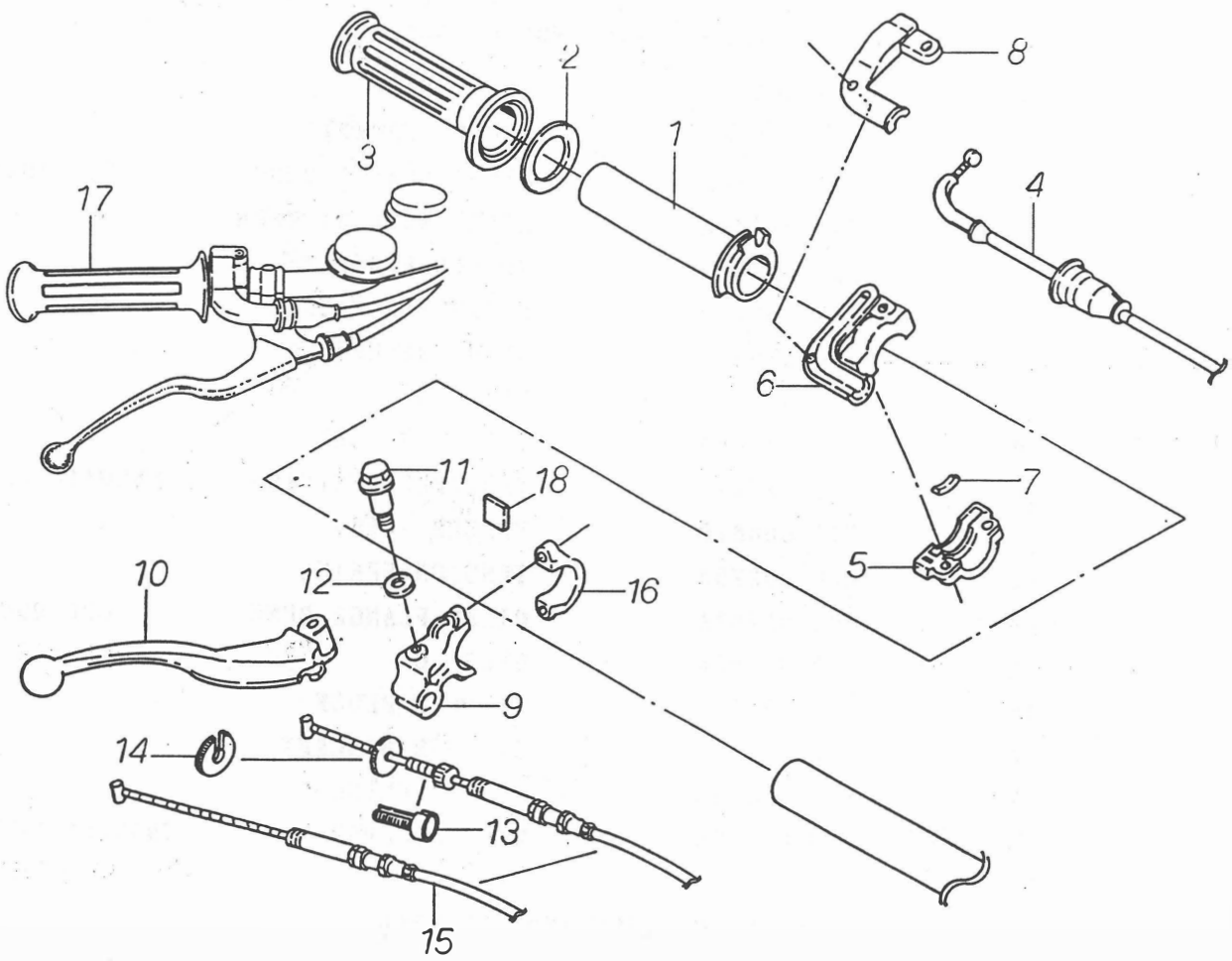
ITEM	PARTS No.	DESCRIPTION	
	VIBRATOR ASSY (M01 00151A)		
1	E30 07698A	MOTOR BRACEKT A	
2	E10 01051A	CRANK SHAFT	
3	E30 07699A	MOTOR BRACKET B	
4	C12 00281A	DC MOTOR	DME38S6HF PB6HF6
5	E10 01052A	CRANK JOINT	
6	M90 01955A	LAG BOARD ASSY	
7	E30 07827A	LAG BOARD BRACKET	
8	E10 01043A	WEIGHT	L=15
	HANDLE MECHA ASSY (M01 00160A)		
9	E90 00594A	SIDE BRACKET L	
10	E30 07684A	GEAR BRACKET B	
11	F90 01798A	OILES FLANGE BUSH	80F-0905
12	E70 00133A	GEAR B	
13	E30 07685A	VOLUME BRACKET	
14	A21 02541A	VARIABLE RESISTOR	EWSWI1L F20E53 B-5K
15	E10 00881B	SPACER - 5L	
16	E40 00275A	TENSION SPRING	
17	E90 00596A	MAIN SHAFT	
18	E70 00132B	GEAR A	
19	E90 00595A	SIDE BRACKET R	
20	E30 07687A	SIDE PLATE	
21	F90 02271A	HANDLE STOPPER RUBBER	
22	E30 07686A	SPRING COVER	
23	E40 00339A	HANDLE SPRING B	
	LAG BOARD ASSY (M90 01955OA)		
24	C06 00211A	L-TYPE LAG BOARD	2L-4P L-590
25	A12 00293A	CAP CERAMIC	5V-1000P
	L90 01984A	MB HARNESS	

● ACCEL MECHA ASSY & BRAKE MECHA ASSY

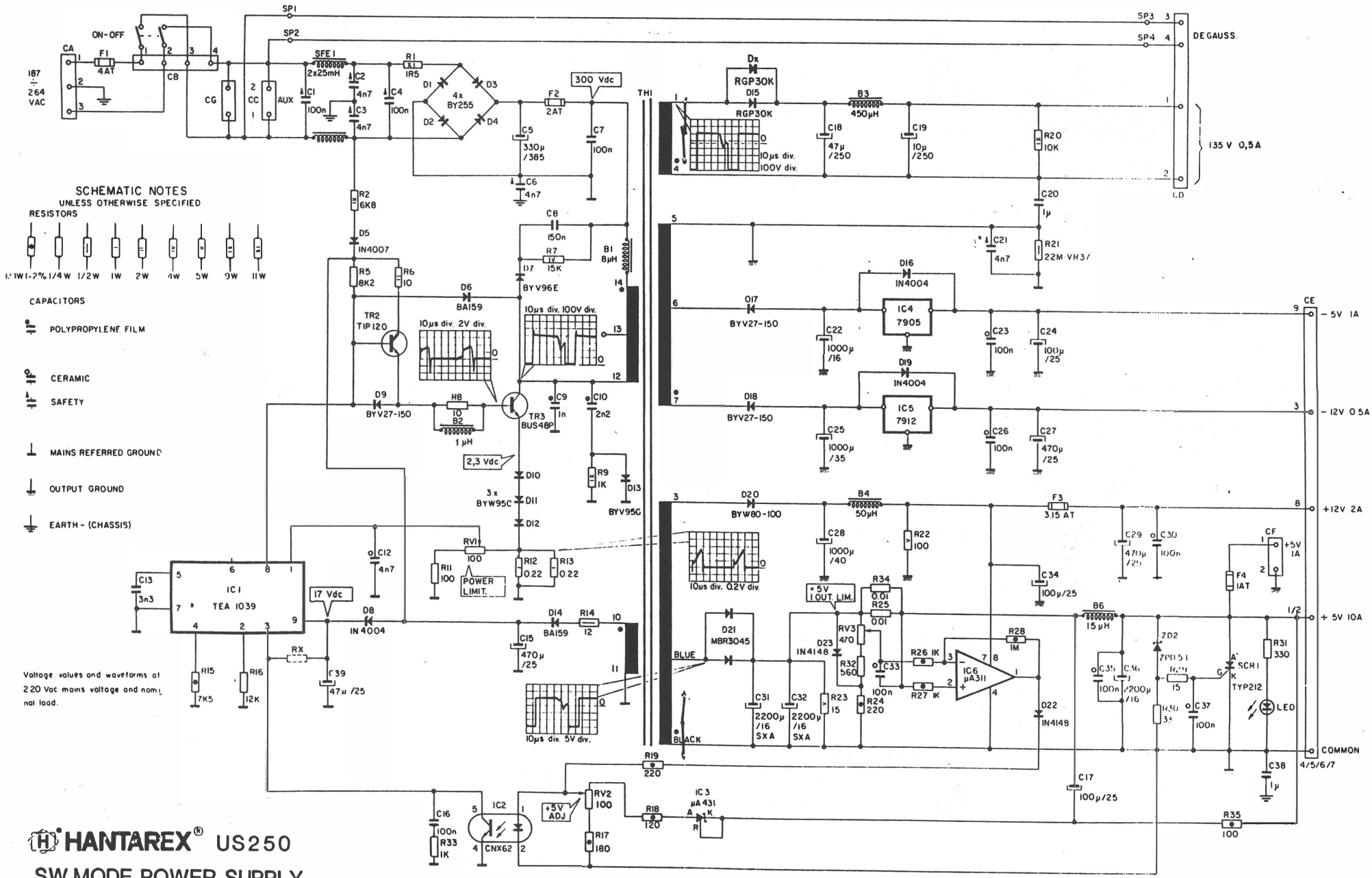


ITEM	PARTS No.	DESCRIPTION	
	ACCEL MECHA ASSY (M01 00158A)		
1	E90 00618A	ACCEL BASE	
2	E90 00598A	ACCEL BRACKET	
3	F90 00934A	OILES FLANGE BUSH	80F-1012
4	E30 07694A	ACCEL WIRE STOPPER	
5	E10 00822A	SHOULDER SCREW	
6	E30 05515A	STAINLESS WASHER	
7	E30 07691A	GEAR BRACKET A	
8	E70 00133A	GEAR B	
9	E30 07685A	VOLUME BRACKET	
10	A21 02541A	VARIABLE RESISTOR	EWSW11L F20E53 B-5K
11	E10 00881B	SPACER - 5L	
12	E40 00275A	TENSION SPRING	
13	F90 01787A	OILES FLANGE BUSH	80F-0905
14	E70 00152A	GEAR C	
15	F90 02276A	STOPPER BLOCK	
16	E30 07692A	STOPPER BRACKET	
17	E40 00328A	ACCEL SPRING	
25	E30 07695A	WIRE STOPPER	(HANDLE COTNROL ASSY)
	BRAKE MECHA ASSY (M01 00159A)		
18	E90 00617A	BRAKE BASE	
19	E90 00600A	BRAKE BRACKET	
20	E10 01050A	SHOULDER SCREW	
21	E40 00330A	WIRE SPRING	
22	E30 07696A	BRAKE WIRE STOPPER	
23	E40 00329A	BRAKE SPRING	
24	E30 07697A	SPRING SUPPORT	
25	E30 07695A	WIRE STOPPER	(HANDLE CONTROL ASSY)
3	F90 00934A	OILES FLANGE BUSH	80F-1012
7	E30 07691A	GEAR BRACKET A	
8	E70 00133A	GEAR B	
9	E30 07685A	VOLUME BRACKET	
10	A21 02541A	VARIABLE RESISTOR	EWSW11L F20E53 B-5K
11	E10 00881B	SPACER - 5L	
12	E40 00275A	TENSION SPRING	
13	F90 01787A	OILES FLANGE BUSH	80F-0905
14	E70 00152A	GEAR C	
15	F90 02276A	STOPPER BLOCK	
16	E30 07692A	STOPPER BRACKET	

● HANDLE ASSY



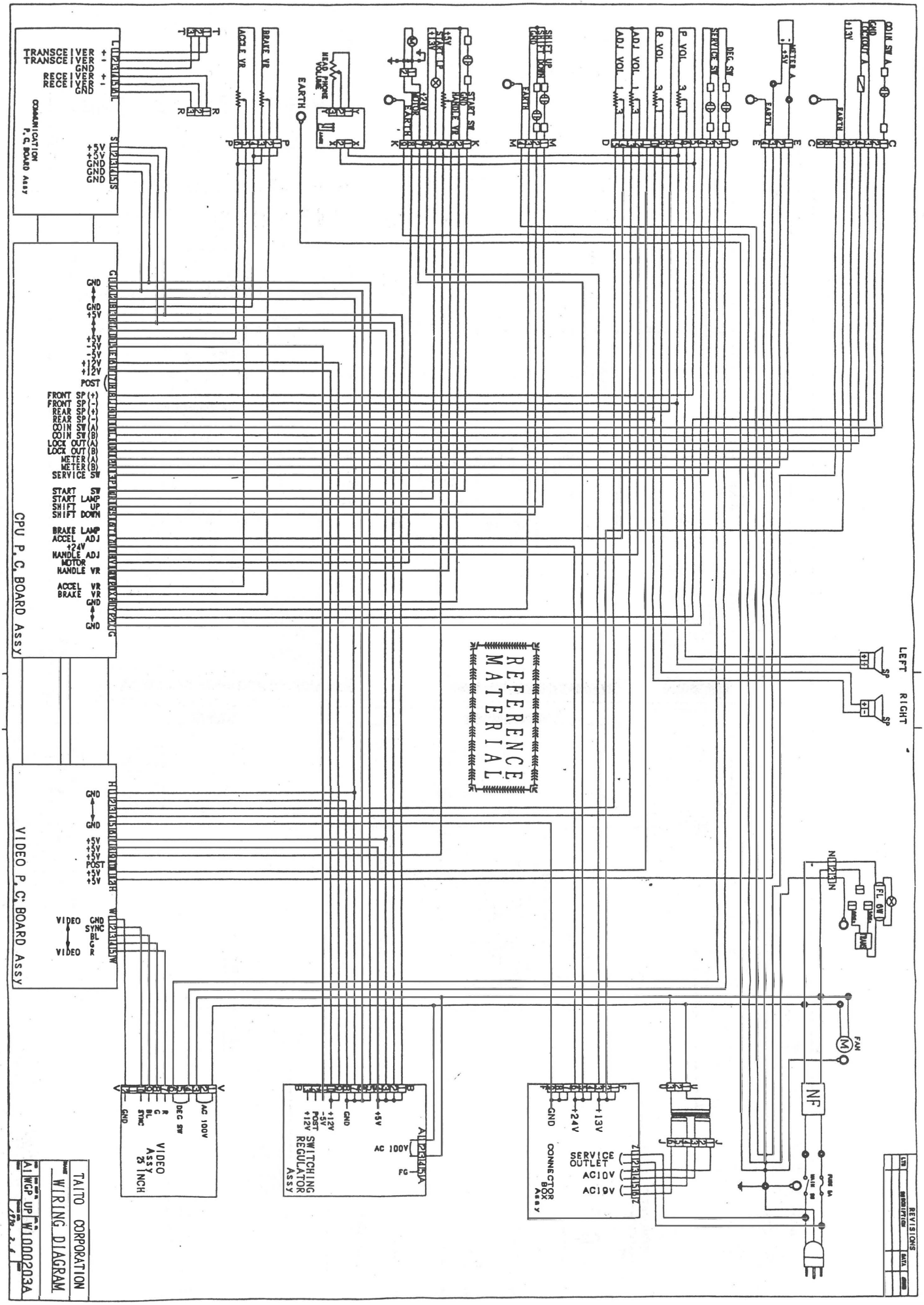
ITEM	PARTS No.	DESCRIPTION	
	HANDLE ASSY (M01 00154A)		
1	F90 02300A	TUBE THROTTLE GUIDE	434-26243-12
2	F90 02301A	RINK LEAF	47X-26249-00
3	F90 02302A	GRIP RUBBER R	2N3-26242-00
4	H90 00286A	THROTTLE WIRE UNIT	
5	E50 60373A	CAP GRIP LOW	493-26282-00-98
6	E50 60372A	CAP GRIP HI	38V-26281-00-98
7	F90 02298A	ACCEL STOPPER	
8	F90 02299A	CAP WIRE	38V-2628H-00
9	E50 60375A	HOLDER LEVER 2	38V-82912-00
10	E50 60376A	LEVER 2	23X-83922-00
11	E50 60377A	BOLT	90109-06797
12	E50 60380A	WASHER PLATE	90201-08083
13	E50 60378A	ADJUST BOLT	90123-08083
14	E50 60379A	ADJUST NUT	90179-08316
15	H90 00287A	FRONT BRAKE WIRE UNIT	38V-82913-00
16	E50 60374A	HOLDER LEVER 1	38B-83921-00
17	F90 02303A	GRIP RUBBER L	2N3-26241-00
18	F90 02351A	LEVER STOPPER	



HANTAREX® US250

SW.MODE POWER SUPPLY

SCHEMATIC DIAGRAM 28/10/86


REFERENCE MATERIAL
CPU P.C.BOARD Assy
VIDEO P.C.BOARD Assy
TAITO CORPORATION
WIRING DIAGRAM
A1WGP UP W1000203A
LEFT
RIGHT
SP
FAN
NF
SERVICE OUTLET
AC 100V
AC 10V
AC 9V
SWITCHING REGULATOR Assy
CONNECTOR BOX Assy
VIDEO Assy 25 INCH
COMMUNICATION P.C.BOARD Assy
EARTH
REVISIONS

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ELECTROCOIN AFTERSALES & SERVICE LTD

The above company has been formed as part of the Electrocoin Automatics Group at the Cardiff factory to provide the AfterSales Service necessary to support the variety of machines manufactured by Electrocoin Automatics Ltd. The company will be responsible for servicing both Spares and Technical requirements for all U.K. manufactured Electrocoin machines, all "Famous Games" products, and all Board Games distributed by Electrocoin Ltd.

Normal working hours are Monday to Friday 08.00 to 17.30
and Saturday morning 08.00 to 12.30.

AfterSales & Service Tel No: 0222 373059 during working hours,
0836 536195 after hours/weekends.
Please contact the following staff for:-

PARTS ENQUIRIES	- GARY SCOBLE
TECHNICAL INFORMATION	- IAN COLLEY
ACCOUNTS ENQUIRIES	- JULIE TIPPER
WORKSHOP MANAGER	- MIKE CALLAN
CREDIT CONTROLLER	- IAN HEPPENSTALL

PLEASE REMEMBER, TO HELP US HELP YOU, PROMPT RETURN OF FAULTY PARTS IS ESSENTIAL.

Assuring you of the best attention at all times.

Jeff Langley

JEFF LANGLEY
General Manager

ELECTROCOIN AFTERSALES & SERVICE LTD.