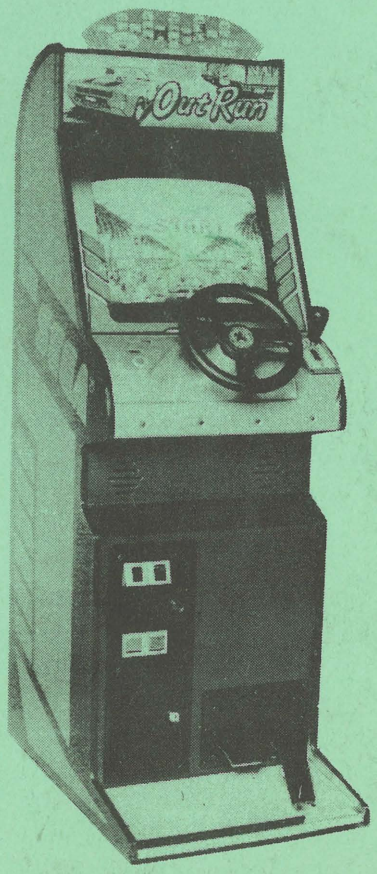
1ST PRINTING - U.K.

SEGA®

OutRun

MINI UPRIGHT

OWNER'S MANUAL



SEGA ENTERPRISES, LTD.

MANUAL NO. 90500010

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MINI UPRIGHT TYPE

SPECIFICATIONS

INSTALLATION SPACE	: 550 mm (21.7 in.) W × 830 mm (32.7 in.) D
HEIGHT	: 1650 mm (65 in.)
POWER	: 165 W
C. R. T.	: 20″
WEIGHT	: 96 kg (212 lbs.)

NOTE

o Descriptions herein contained may be subject to improvement changes without notice.

INTRODUCTION OF THE OWNER'S MANUAL

SEGA ENTERPRISES, LTD., supported by its high electronic 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 comments together with all the necessary information covering the operation in general of electronic assemblies, electromechanicals, servicing control, spare parts, etc. as regards the OUT RUN, a new SEGA product. The manual is intended for those who have knowledge of electricity and technical expertise especially in ICs, CRTs, microprocessors, etc. Carefully read so as to acquire sufficient knowledge before working on the machine. Should there be a malfunction, non-technical personnel should under no circumstance touch the interior system.

1. HANDLING PRECAUTIONS

When installing or inspecting, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.

- o Be sure to turn the power off before working on the machine.
- o To insert or pull out the plug quickly is dangerous.
- o It is necessary to make sure that the power cord or the grounding wire is not exposed on the road, etc. in a manner so as to be dangerous. Make sure that grounding connections are made safely at the position where so specified.
- o Do not use any fuse that does not meet the specified rating.
- o Make complete connections for the IC board and other connecters. Insufficient insertion is very dangerous.

Also, for the IC board circuit inspections, only the logic tone is allowed. The use of a tester is not permitted, so be careful in this regard. 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 mercnandise 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 the kits, such as the printed circuit boards, of SEGA products.



COPYRIGHT NOTICE

This SEGA product has the copyright notice as follows:

© SEGA 1986

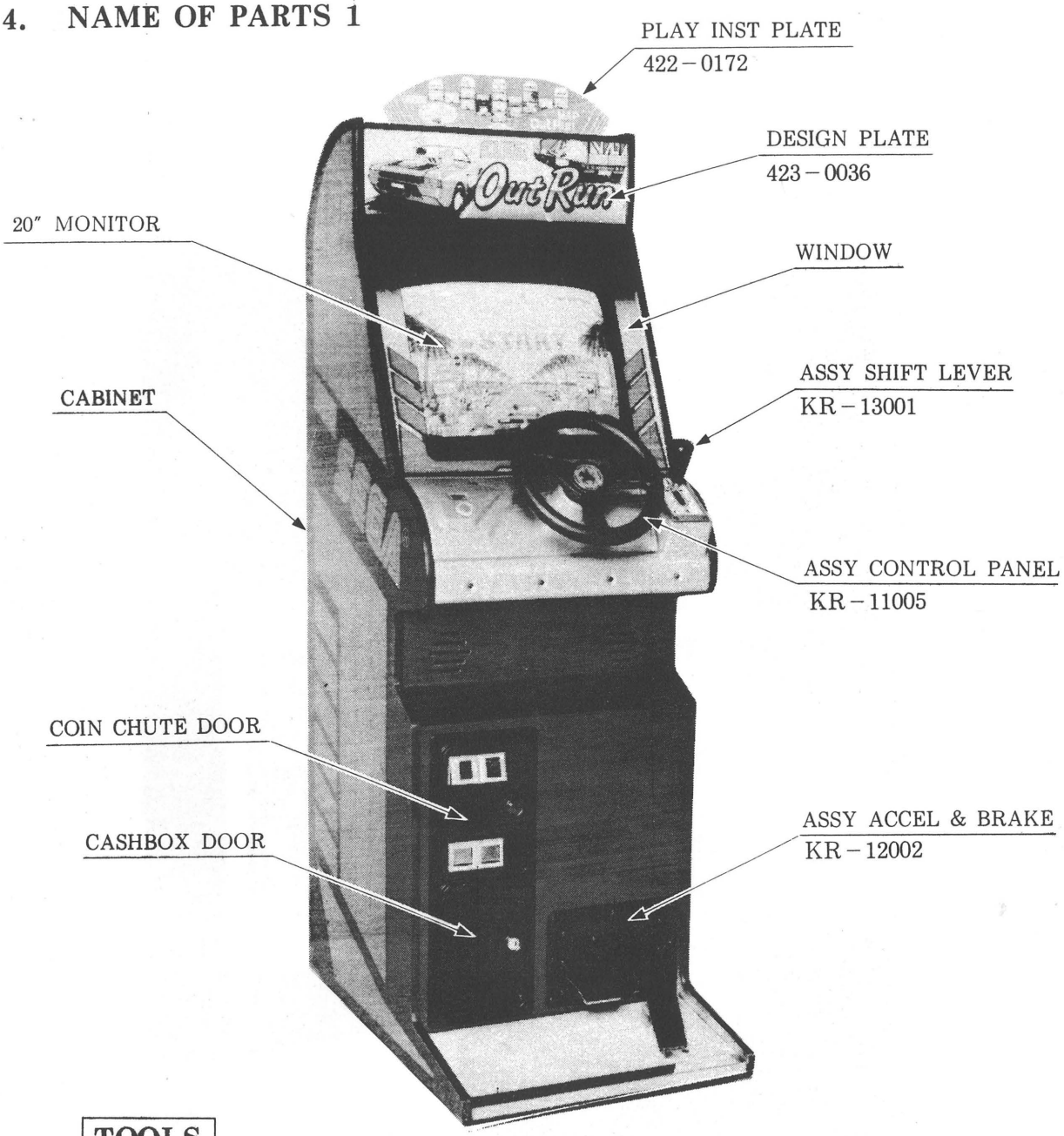
This signifies that this work was disclosed in 1986 and is the property of SEGA ENTERPRISES, LTD.

3. PRECAUTIONS CONCERNING THE PLACE OF INSTALLATION

The OUT RUN 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:

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

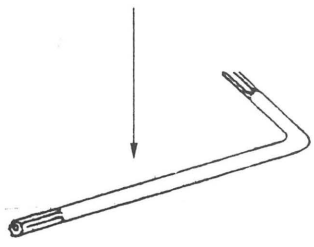
4. NAME OF PARTS 1



TOOLS

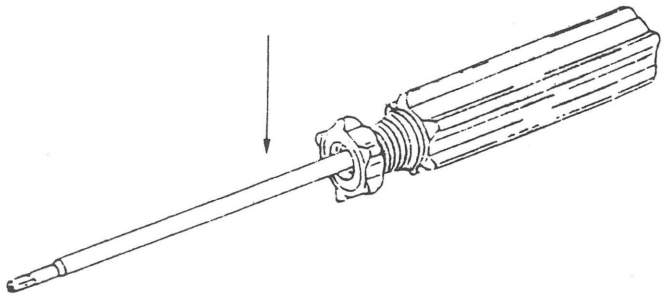
(TAMPERPROOF WRENCH)

M4 540–0006–01
M5 540–0007–01
M6 540–0015–01
M8 540–0009–01

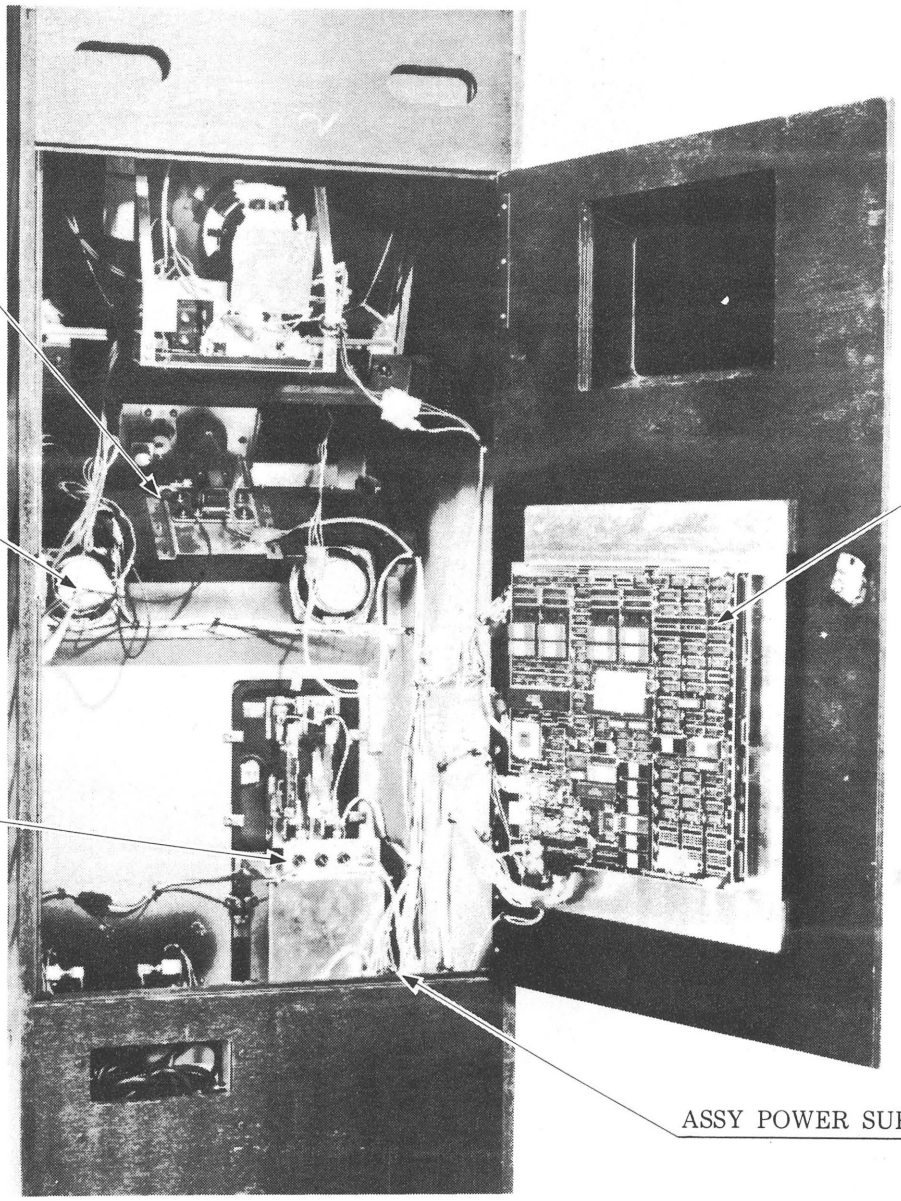


(TAMPERPROOF WRENCH)

M4 540–0018
M5 540–0017

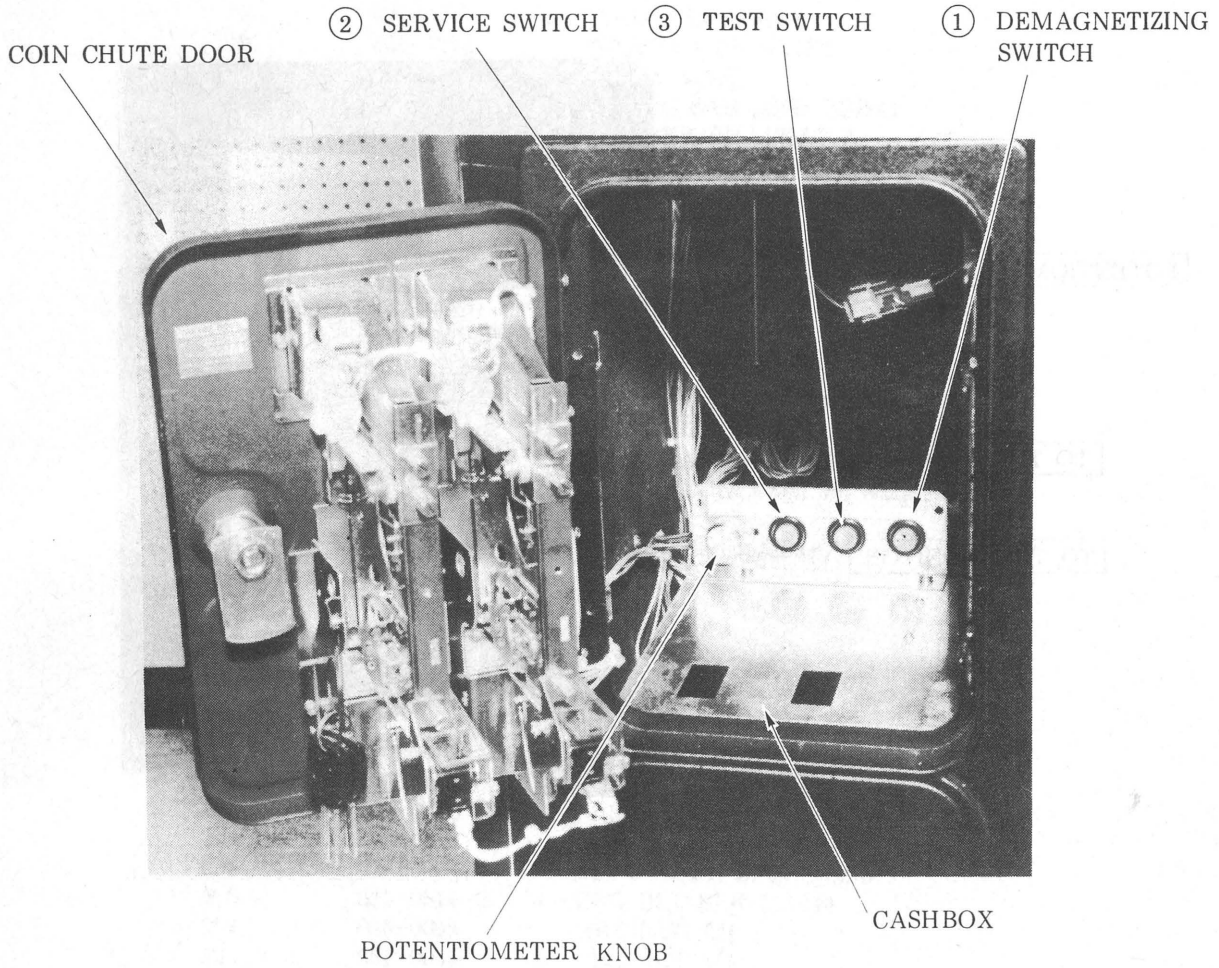


4. NAME OF PARTS 2



5. ADJUSTMENT OF THE SERVICE SWITCH

The layout as shown below can be viewed by opening the coin chute door.



OPERATING INSTRUCTIONS

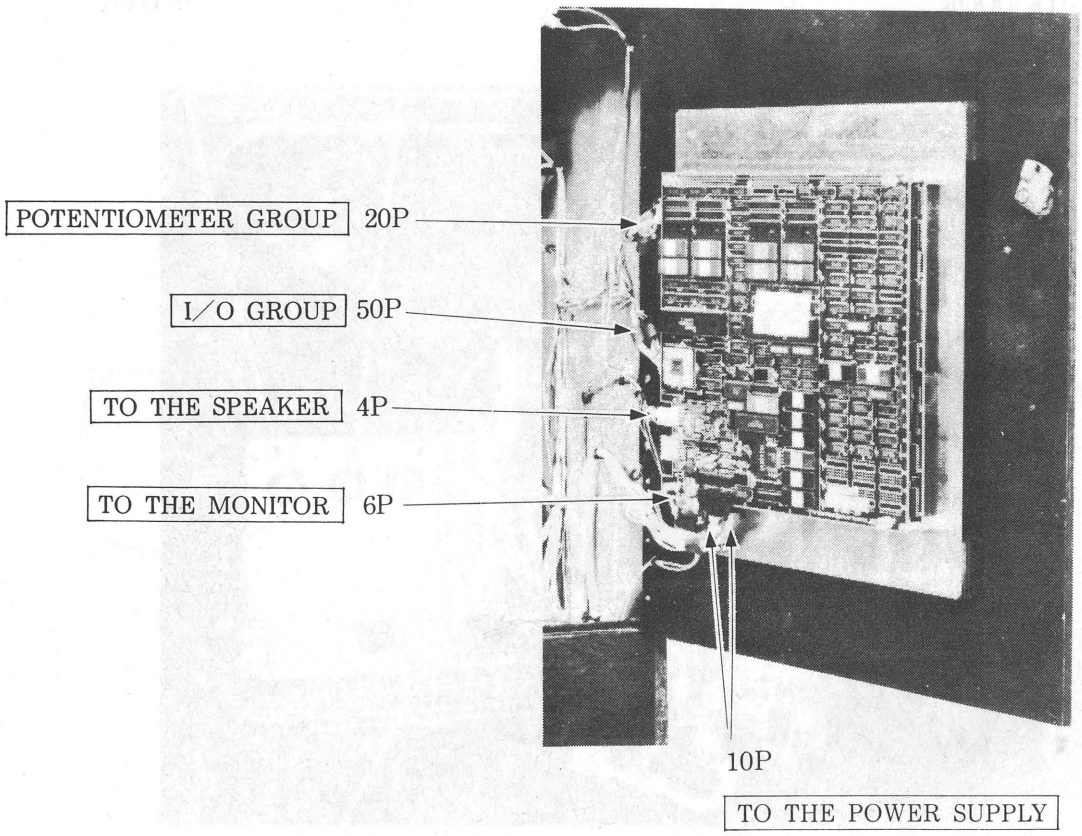
① DEMAGNETIZING SWITCH.....Used for removing the on-screen color unevenness.

② SERVICE SWITCH.....Used for the purpose of servicing and increasing the credits without registering on the meter (this allows you to check the game).

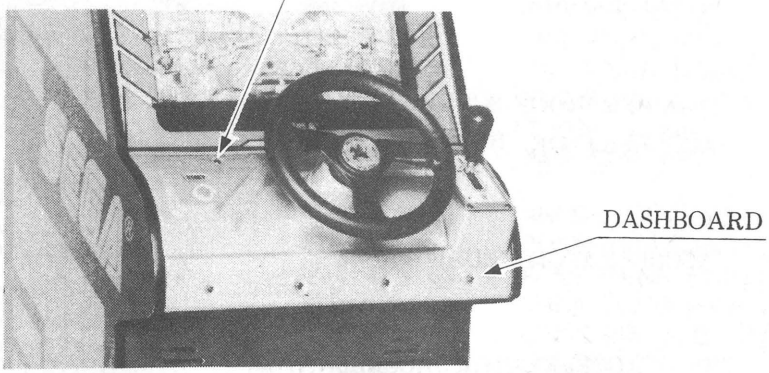
③ TEST SWITCH.....For operating this switch, see SELF-TESTING.

④ POTENTIOMETER ADJUSTMENT

. INSTRUCTION OF BOARD AND CONNECTORS

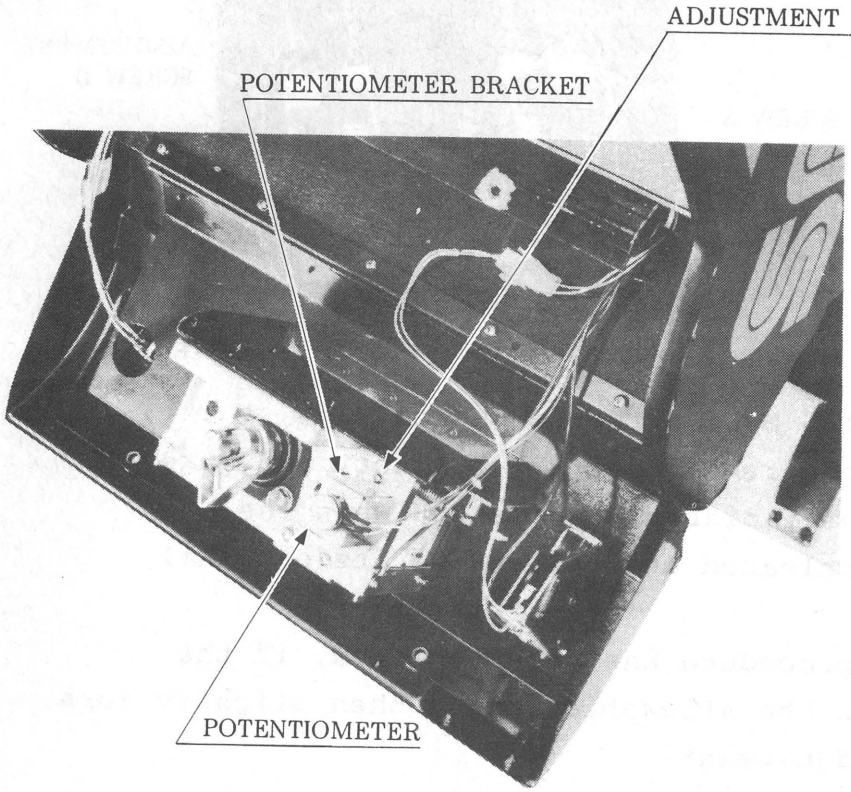


7. DISASSEMBLING AND ADJUSTING THE HANDLE UNIT



To open the dashboard, take off the 3 M6 TAMPERPROOF screws.

After doing this, spring replacements and steering adjustments can be made.



① Release the 2 adjusting screws of the potentiometer bracket and perform the necessary adjustments by changing its gear position, making sure that the variable is within the allowable extent as shown below, and then retighten the adjusting screw.

Standard value

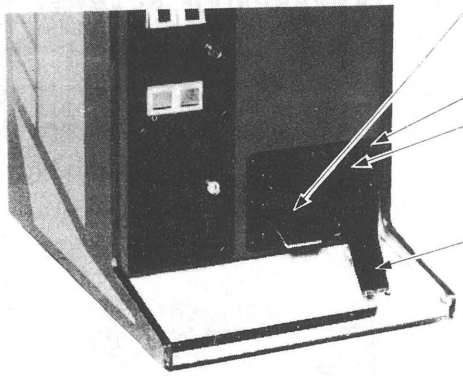
⇓

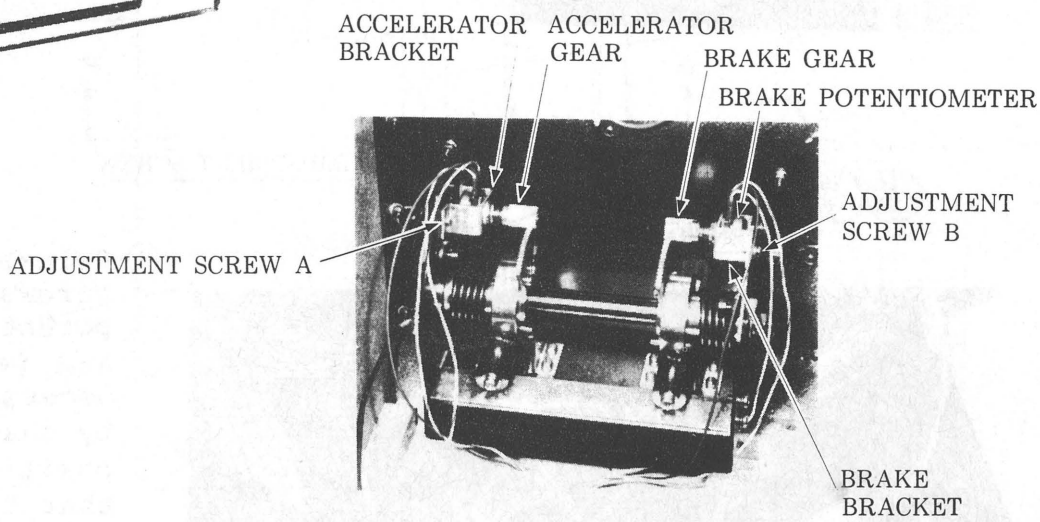
Minimum ← (33) | 7CH 7DH 7EH 7FH 80H 81H 82H 83H 84H | → Maximum (CB)

← Allowable adjustment range →

8. DISASSEMBLING AND ADJUSTING THE ACCELERATOR AND BRAKE

To remove the accelerator/brake unit, take off the 6 M5 TAMPERPROOF SCREWS.





① Display the SELF-TESTING MODE screen shown on page 15.

② Release the adjustment screws, move the bracket, and make adjustments so that the variable becomes 20H when the accelerator/brake is released and returns to its original position.

③ Even after the above procedure has been followed, if the variable is not within the allowable range, then slightly turn the gear to make an adjustment.

ACCELERATOR

Minimum (20) — Standard — Maximum (fully open) (D5)

1CH 1DH 1EH 1FH 20H 21H 22H 23H 24H →

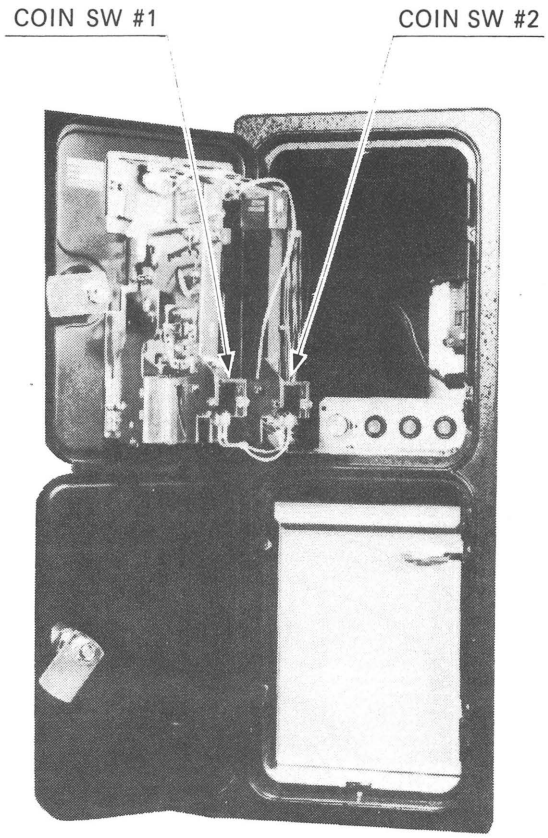
Brake (20) ← Allowable adjustment range → (CB)

9. DIP SWITCH SETTING

GAME PRICE SETTING

DIP SW A

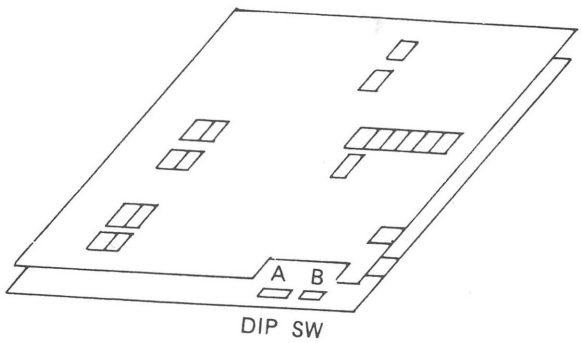
OPTION	1	2	3	4	5	6	7	8
1 COIN 1 CREDIT	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1 COIN 2 CREDITS	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
1 COIN 3 CREDITS	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
1 COIN 4 CREDITS	ON	ON	OFF	OFF	ON	ON	OFF	OFF
1 COIN 5 CREDITS	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
1 COIN 6 CREDITS	ON	OFF	ON	OFF	ON	OFF	ON	OFF
2 COINS 1 CREDIT	OFF	ON	ON	OFF	OFF	ON	ON	OFF
3 COINS 1 CREDIT	ON	ON	ON	OFF	ON	ON	ON	OFF
4 COINS 1 CREDIT	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
2 COINS 3 CREDITS	ON	OFF	OFF	ON	ON	OFF	OFF	ON
2 COINS 1 CREDIT 3 COINS 2 CREDITS 5 COINS 3 CREDITS 6 COINS 4 CREDITS	OFF	ON	OFF	ON	OFF	ON	OFF	ON
2 COINS 1 CREDIT 4 COINS 3 CREDITS	ON	ON	OFF	ON	ON	ON	OFF	ON
1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 4 CREDITS 5 COINS 6 CREDITS	OFF	OFF	ON	ON	OFF	OFF	ON	ON
1 COIN 1 CREDIT 2 COINS 2 CREDITS 3 COINS 3 CREDITS 4 COINS 5 CREDITS	ON	OFF	ON	ON	ON	OFF	ON	ON
1 COIN 1 CREDIT 2 COINS 3 CREDITS	OFF	ON	ON	ON	OFF	ON	ON	ON
FREE PLAY	ON	ON	ON	ON	ON	ON	ON	ON
	COIN SW #1				COIN SW #2			



GAME OPTION SETTING

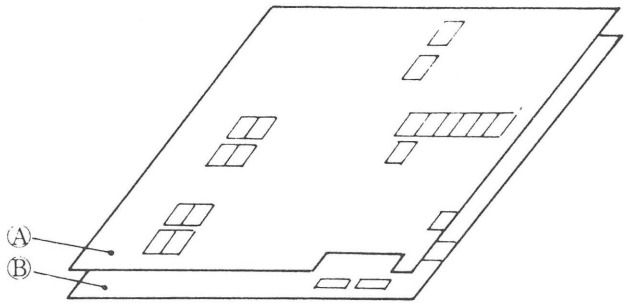
DIP SW B

OPTION		1	2	3	4	5	6	7	8
TYPE	MOVING	OFF	OFF						
	UP COCKPIT	ON	OFF						
	MINI UP	OFF	ON						
	NOT USED	ON	ON						
ADVERTISE SOUND	OFF			OFF					
	ON			ON					
NOT USED									
TIME ADJ.	NORMAL					OFF	OFF		
	EASY					ON	OFF		
	HARD					OFF	ON		
	HARDEST					ON	ON		
NUMBER OF ENEMY	NORMAL							OFF	OFF
	EASY							ON	OFF
	HARD							OFF	ON
	HARDEST							ON	ON

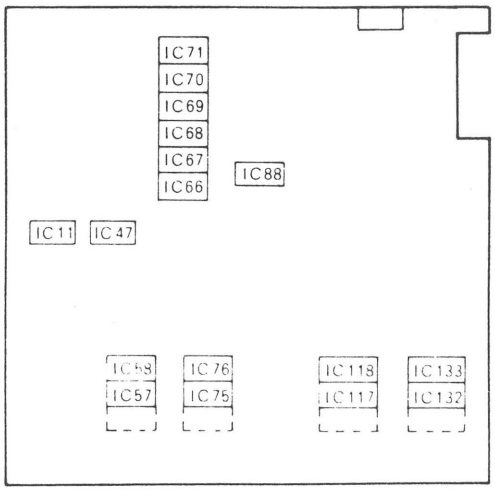


10. ERROM / ROM LOCATIONS

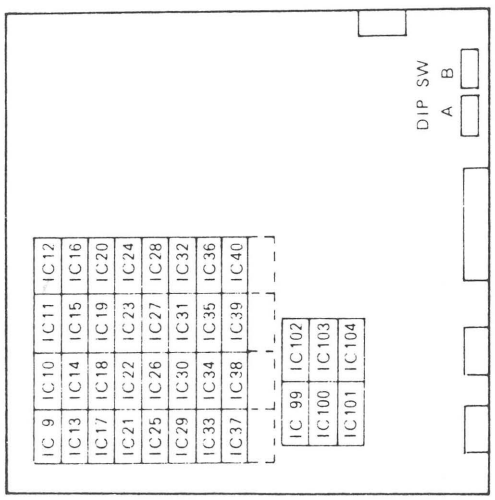
GAME BD OUT RUN
834-6065-(02 / 04)



Ⓐ CPU BD OUT RUN 837-6063-02



Ⓑ VIDEO BD OUT RUN 837-6064-01 (02)



ONE TIME ROM				
GAME BD			834-6065-01	834-6065-02
CPU BD			837-6063-01	837-6063-02
Road Character		IC 11	OPR-10185	*
		IC 47	OPR-10186	
Sub Program		IC 76	EPR-10327	EPR-10327A
		IC 75	EPR-10328	EPR-10328A
		IC 58	EPR-10329	EPR-10329A
		IC 57	EPR-10330	EPR-10330A
Main Program		IC 133	EPR-10331	EPR-10380 B
		IC 132	EPR-10332	EPR-10381 B
		IC 118	EPR-10333	EPR-10382 B
		IC 117	EPR-10334	EPR-10383 B
Sound	P	IC 88	EPR-10187	*
	Data	IC 71	OPR-10188	
		IC 70	OPR-10189	
		IC 69	OPR-10190	
		IC 68	OPR-10191	
		IC 67	OPR-10192	
		IC 66	OPR-10193	
VIDEO BD			837-6064-01	837-6064-01
Object		IC 9	OPR-10194	*
		IC 13	OPR-10195	
		IC 17	OPR-10196	
		IC 21	OPR-10197	
		IC 25	OPR-10198	
		IC 29	OPR-10199	
		IC 33	OPR-10200	
		IC 37	OPR-10201	
		IC 10	OPR-10203	
		IC 14	OPR-10204	
		IC 18	OPR-10205	
		IC 22	OPR-10206	
		IC 26	OPR-10207	
		IC 30	OPR-10208	
		IC 34	OPR-10209	
		IC 38	OPR-10210	
		IC 11	OPR-10212	
		IC 15	OPR-10213	
		IC 19	OPR-10214	
		IC 23	OPR-10215	
		IC 27	OPR-10216	
		IC 31	OPR-10217	
		IC 35	OPR-10218	
		IC 39	OPR-10219	
		IC 12	OPR-10221	
		IC 16	OPR-10222	
		IC 20	OPR-10223	
		IC 24	OPR-10224	
		IC 28	OPR-10225	
		IC 32	OPR-10226	
		IC 36	OPR-10227	
		IC 40	OPR-10228	
Scroll		IC 104	OPR-10230	
		IC 103	OPR-10231	
		IC 102	OPR-10232	
		IC 101	OPR-10266	
		IC 100	OPR-10267	
		IC 99	OPR-10268	

P : PROGRAM

MASK ROM				
GAME BD			834-6065-03	834-6065-04
CPU BD			837-6063-01	837-6063-02
Road Character		IC 11	OPR-10185	*
		IC 47	OPR-10186	
Sub Program		IC 76	EPR-10327	EPR-10327A
		IC 75	EPR-10328	EPR-10328A
		IC 58	EPR-10329	EPR-10329A
		IC 57	EPR-10330	EPR-10330A
Main Program		IC 133	EPR-10331	EPR-10380 B
		IC 132	EPR-10332	EPR-10381 B
		IC 118	EPR-10333	EPR-10382 B
		IC 117	EPR-10334	EPR-10383 B
Sound	P	IC 88	EPR-10187	*
	Data	IC 71	OPR-10188	
		IC 70	OPR-10189	
		IC 69	OPR-10190	
		IC 68	OPR-10191	
		IC 67	OPR-10192	
		IC 66	OPR-10193	
VIDEO BD			837-6064-02	837-6064-02
Object		IC 9	MPR-10371	*
		IC 13	MPR-10372	
		IC 10	MPR-10373	
		IC 14	MPR-10374	
		IC 11	MPR-10375	
		IC 15	MPR-10376	
		IC 12	MPR-10377	
		IC 16	MPR-10378	
Scroll		IC 104	OPR-10230	
		IC 103	OPR-10231	
		IC 102	OPR-10232	
		IC 101	OPR-10266	
		IC 100	OPR-10267	
		IC 99	OPR-10268	

*** SAME AS THE PREVIOUS COLUMN.**

11. SELF-TESTING

The main purposes of these tests are to check the operations of the game boards, to find the defects if any, to adjust the monitor colors properly, and to make sure the sounds are produced satisfactorily. It is also performed to indicate the assignments of the dip switches, check bookkeeping functions, etc.

KIND OF TESTS

1) Memory Test: To check the EPROM programs and the map area of the RAMs.

2) Input Test: To test the operation of the coin switch, shift lever, handle/accelerator, brake, start switch, service switch, etc.

3) Output Test: To test the operation of the lamps.

4) Motor Test: Tests in this mode are not applicable for the type.

5) Sound Test: To check the quality of the sounds produced by the PCB and the video disc, and to adjust the balance of the speakers.

6) CRT Test: To check if the colors on the monitor are displayed correctly.

7) Dip Switch Assignment: To indicate each dip switch assignment.

8) Bookkeeping: To indicate information data on average score, average play time, etc.

9) Backup RAM Clear: When the power is turned off, a backup battery system automatically takes over, thus allowing the continuous storage of all bookkeeping data. Using this item will enable you to clear said data.

10) EXIT See page 20.

1. TEST OPERATION

(1) Push the test switch and Fig. 1 will be shown on the screen.

(2) Select CONTINUE or INDIVIDUAL by using the START button.

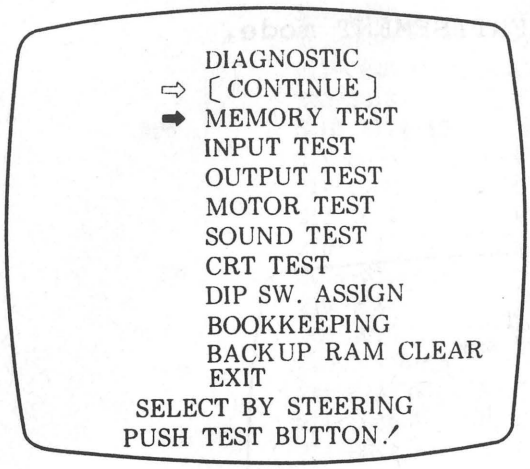


FIG. 1

(3) Move the steering to bring the arrow to the desired position.

[CONTINUE]:

o Bring the arrow sign to CONTINUE first, and move it to one of the tests to start. Push the TEST button, and the tests will be performed in order, one by one, starting from the test where the arrow was originally set to EXIT.

o If the START button is pushed when the arrow is at CONTINUE, it will change to INDIVIDUAL. Pushing it again returns it to CONTINUE.

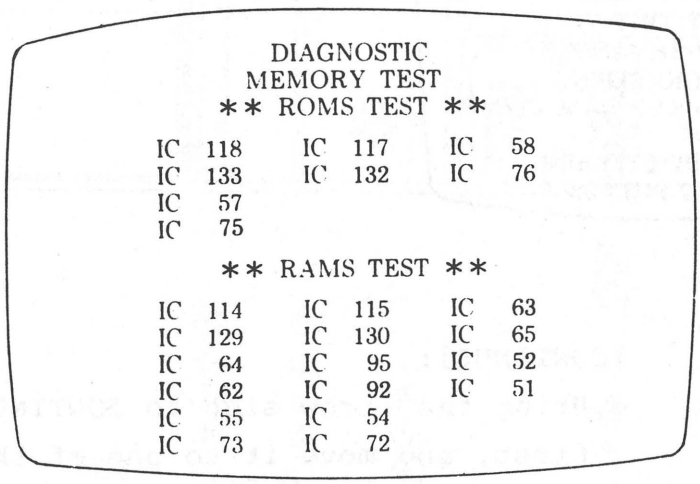
[INDIVIDUAL]:

o If the arrow is at INDIVIDUAL first and brought to a certain test which you want to conduct, only that test is performed by pushing the TEST button.

(4) When each test is finished, push the TEST button. In the case of CONTINUE, push the TEST button, and it will automatically go into the following test. If the TEST button is pushed in the case of INDIVIDUAL, FIG. 1 is shown. If you want to end the test mode at this time, bring the arrow to EXIT and push the TEST button again, and it will return to the ADVERTISEMENT mode.

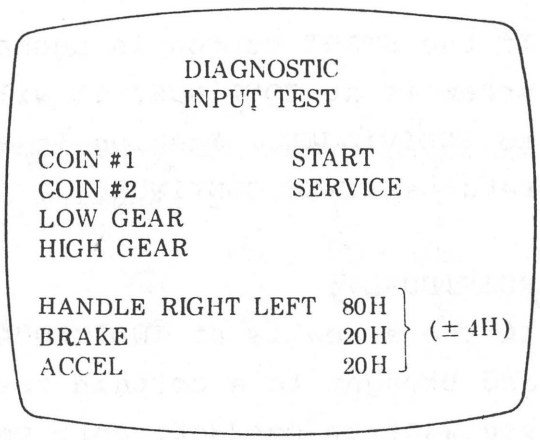
2. TEST ITEMS

(1) Memory Test:



Indication of "GOOD" following the IC No. means the IC is all right. Push the TEST button to proceed to the following test item:

(2) Input Test



← HANDLE →

7CH 7DH 7EH 7FH [80H] 81H 82H 83H 84H

Standard value

← ACCELERATOR→

1CH 1DH 1EH 1FH [20H] 21H 22H 23H 24H

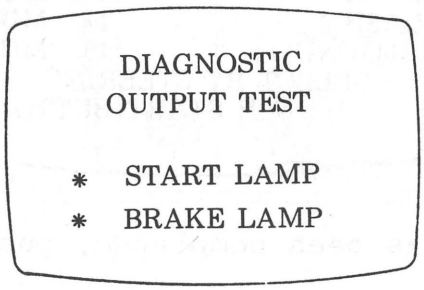
Standard value

o Operate the dip switches. When "ON" is indicated at the right side of the corresponding item on the screen, it is OK.

o If the data value increases when pressure is applied to the accelerator's or brake's pedal, it tests out satisfactorily.

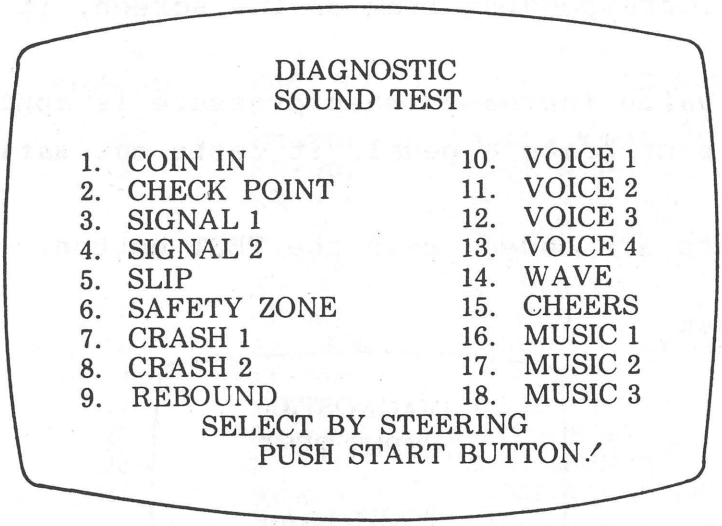
o When the tests are ended, push the TEST button.

(3) Output Test



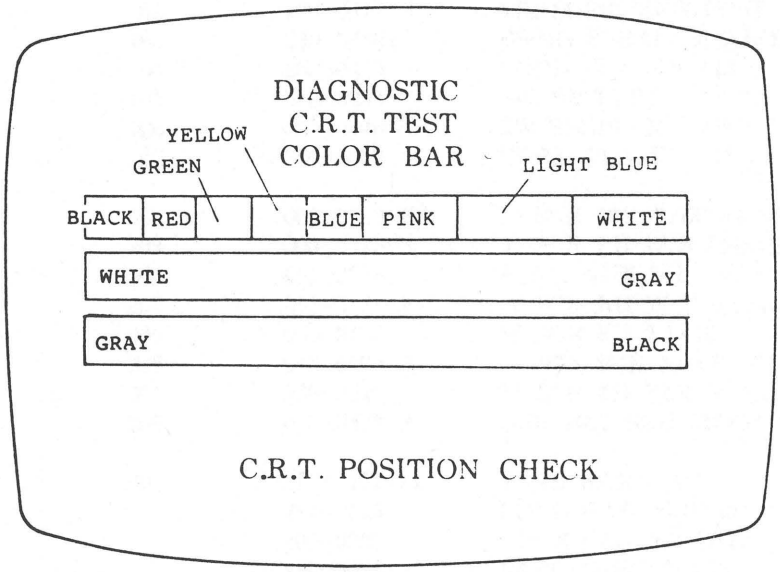
If the start LAMP lights up, it is functioning properly. Push the TEST button when the testing has been completed.

(4) Sound test



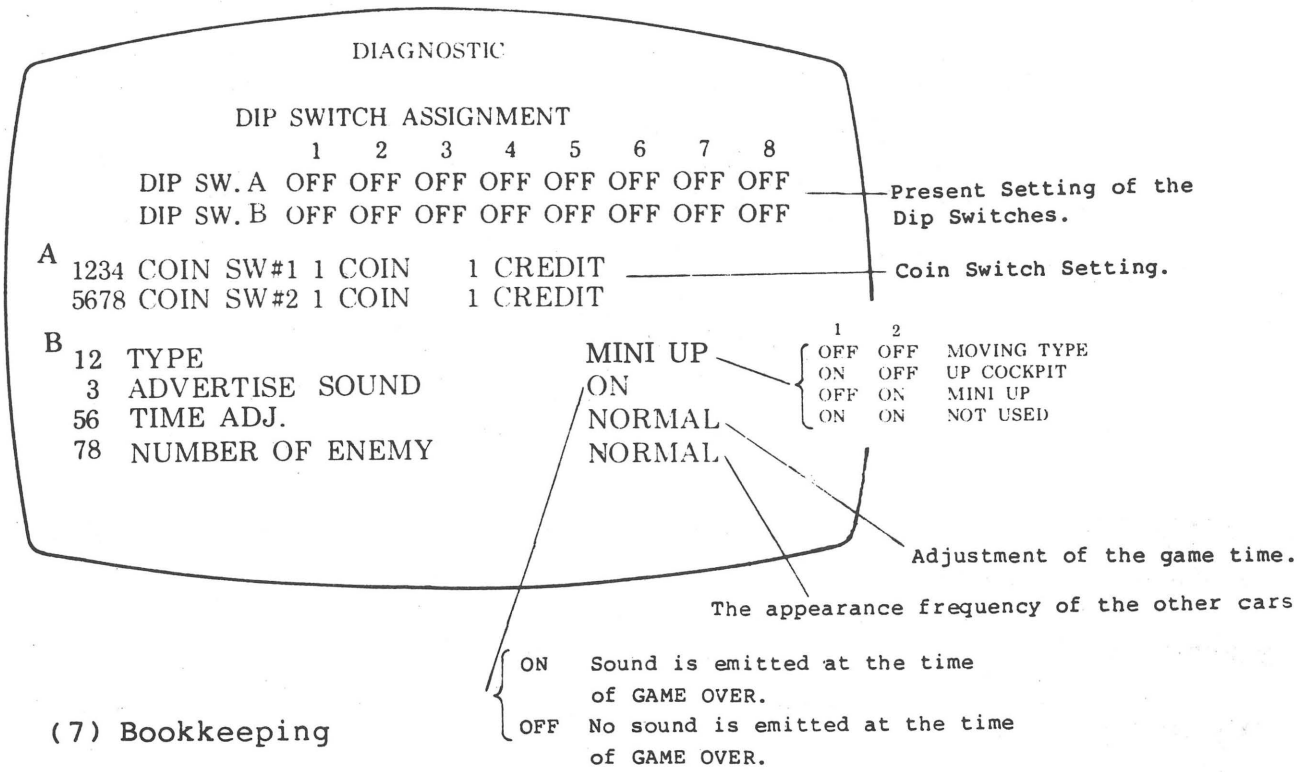
When the test has been completed, push the TEST button.

(5) C.R.T. Test

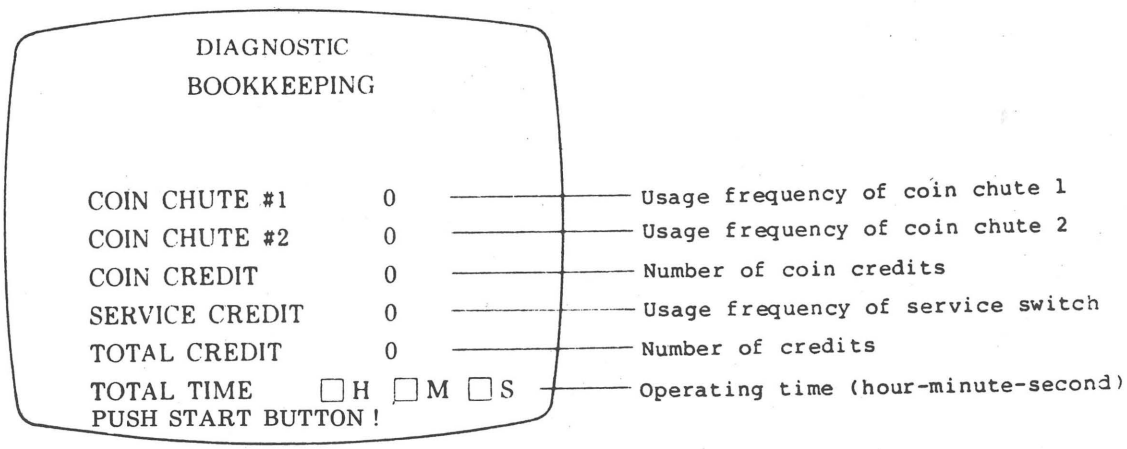


When the test has been completed, push the TEST button.

(6) DIP SWITCH ASSIGNMENTS

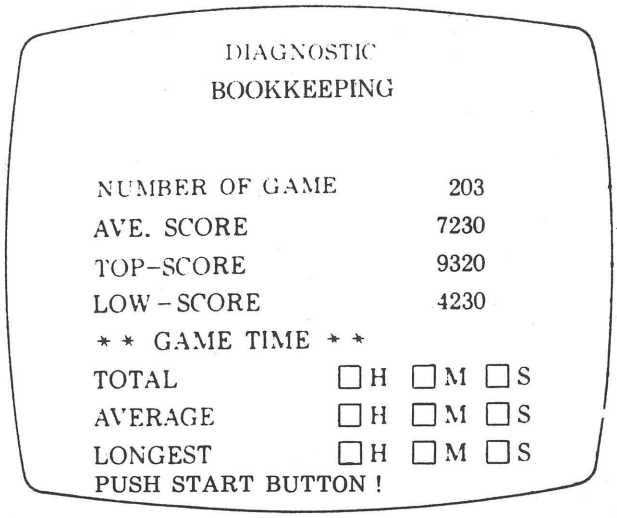


(7) Bookkeeping



* Only the data that falls within the range of up to 999H 59M 59S can be memorized.

The above screen indication is for testing.
When the tests are finished, push the START button and the following will be shown:

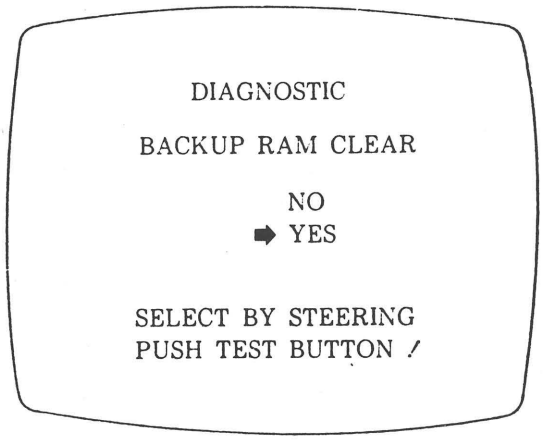


Every time the START button is pressed, the bookkeeping test display is repeated.

o When the tests are ended, push the TEST button.

(8) Backup RAM Clear:

To clear the data, bring the arrow to "YES" and push the TEST button.



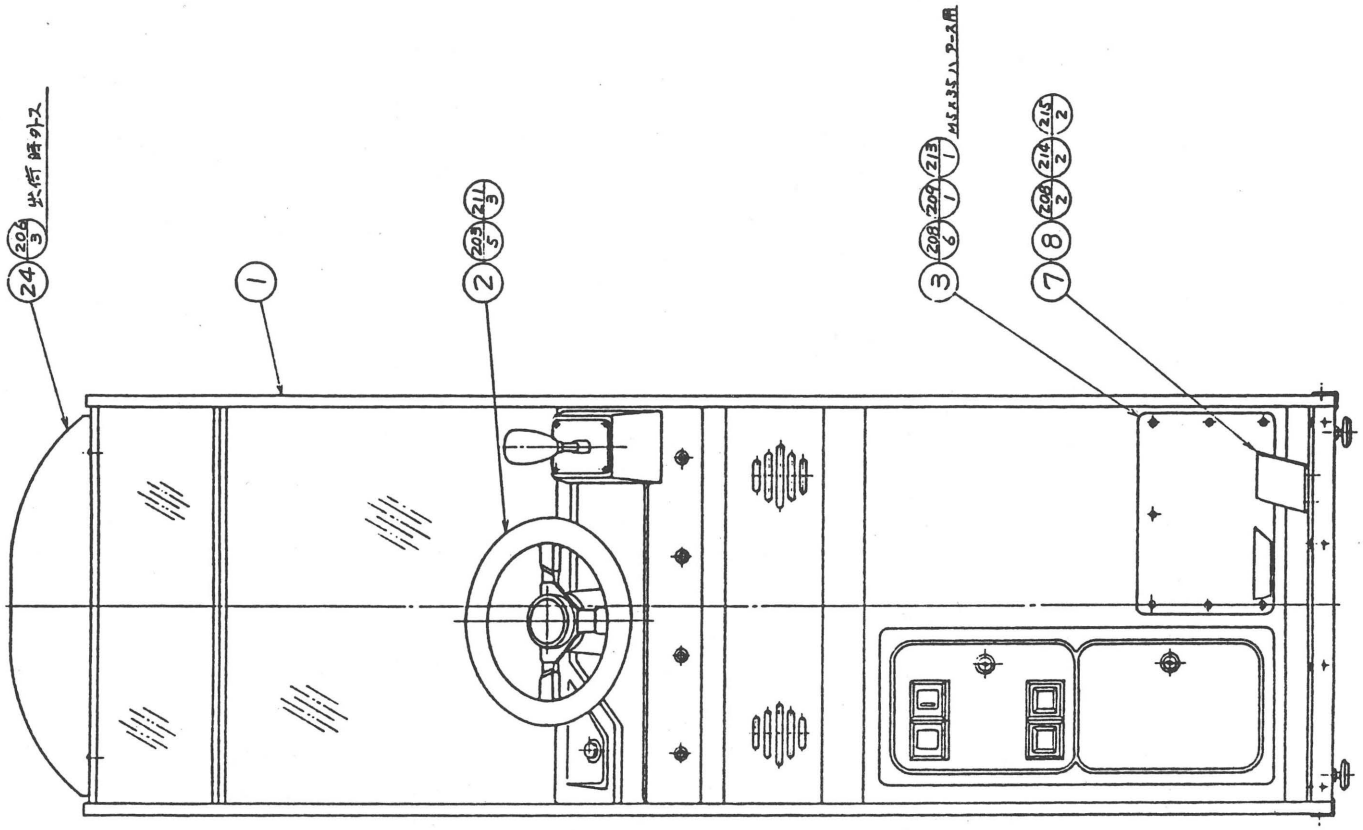
When the test is finished, push the TEST button to end the test (in the case of "INDIVIDUAL," however, the test mode returns to Fig. 1 first).

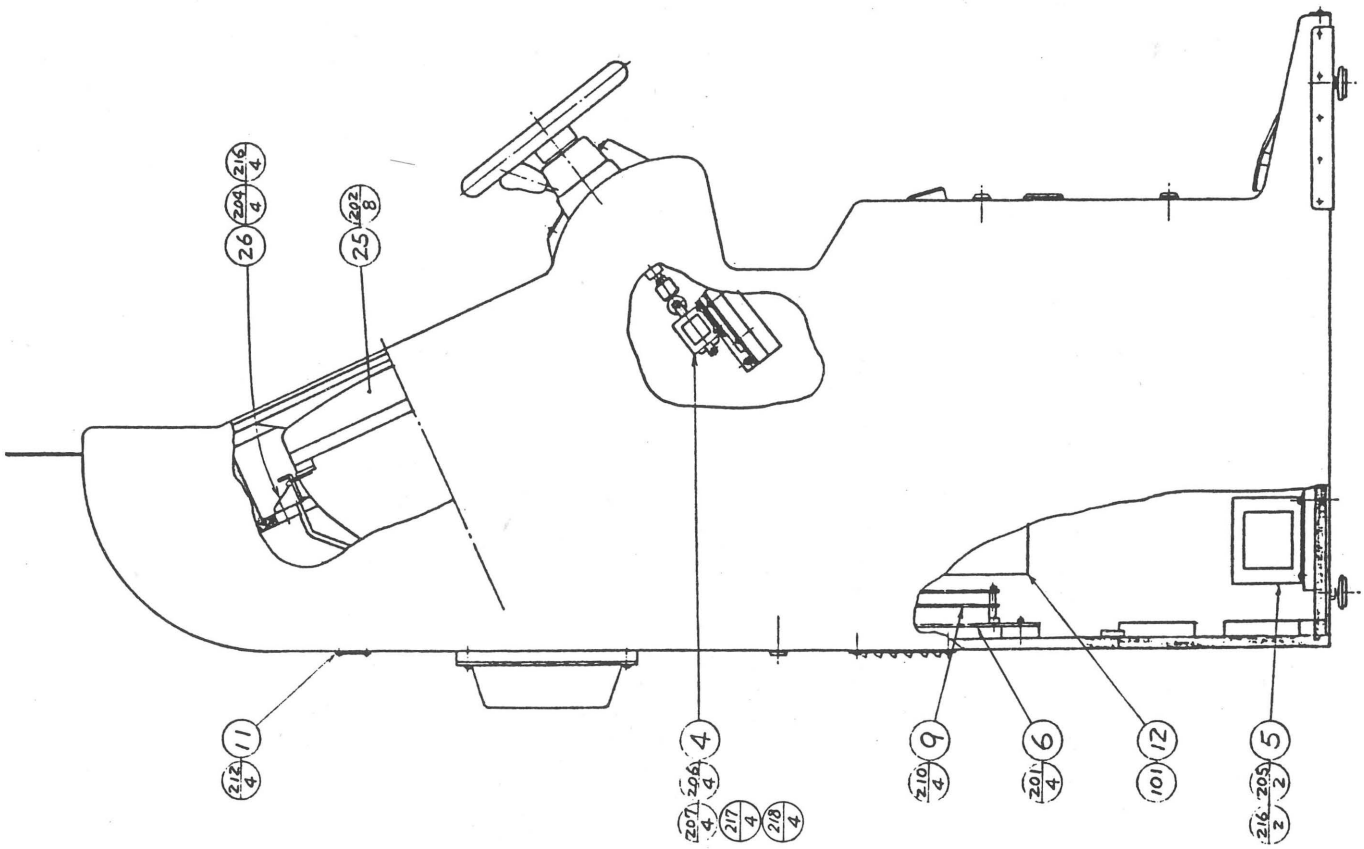
(9) EXIT

In the state as shown in Fig. 1, operate the steering to bring the arrow to EXIT and push the TEST button. The self-testing will then end and return to the ADVERTISEMENT mode.

12. PARTS LIST

① TOP ASSY OUT RUN MINI U/R (KR-00005) (D-1/2)



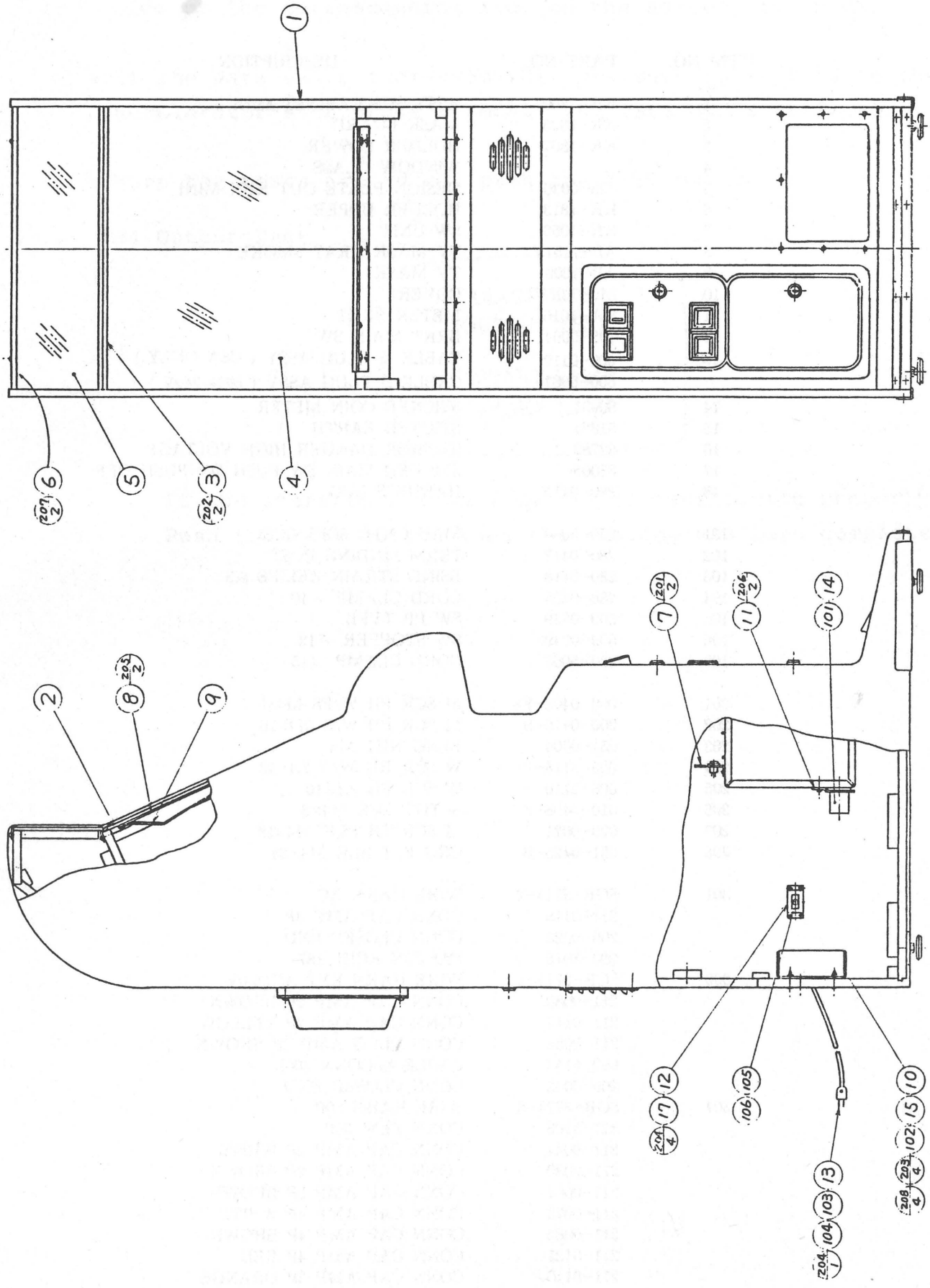


① TOP ASSY OUT RUN MINI U/R (KR-00005) (D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	KR-10005	ASSY CABINET MINI U/R
2	KR-11005	ASSY CONT PANEL MINI
3	KR-12002	ASSY ACCEL & BRAKE U/R
4	KR-0015	ASSY SOLENOID
5		ASSY PWR SPLY MINI U/R LOCAL
6	KR-0013	SHIELD BASE
7	KR-1071	ACCEL & BRAKE PEDAL
8	KR-1073	SHAFT
9	834-6065-02,04	GAME BD OUT RUN
10	81979	STICKER SERVICE INSTR
11	80027XY	NAMEPLATE ELEC SPEC
12	421-6412	ADJUST INSTR SHEET OUT RUN
13	421-5800-45	ORIGINAL SEAL OUT RUN
14		OWNER'S MANUAL OUT RUN MINI U/R
15	80207Y	STICKER SEGA INFORMATION
16	82789	STICKER DANGER HIGH VOLTAGE
	932-05	SEGA OUT RUN MINI U/R
17	83602	STICKER SERIAL NO. INFORMATION
18	80198Y	STICKER POSSESSION
19	83618X	STICKER BUSINESS INFORMATION
20	SGB-1035X	KEY BAG
21	SGM-2675	POLYETHYLENE BAG 240×370
22	SGM-1964	POLYETHYLENE COVER 650×1500×850
		DENOMINATION SHEET
		DENOMINATION SHEET
24	422-0172-01	PLAY INSTR PLATE OUT RUN MINI U/R
25		ASSY CLR DSPL 20 TYPE
26		
	KR-1111X	EXT SPRING
	220-5130	* VOL CONT B-5K OHM
	540-0006-01	WRENCH FOR TAMP SCR M4
	540-0007-01	WRENCH FOR TAMP SCR M5
	540-0015-01	WRENCH FOR TAMP TYPE M6
101	601-0769	STAPLE MAX #3
201	000-0414-S	M SCR PH W/S M4×14
202	000-0510-S	M SCR PH W/S M5×10
203	000-0516-FS	M SCR PH W/FS M5×16
204	000-0520-S	M SCR PH W/S M5×20
205	000-0530	M SCR PH M5×30
206	005-3113-F	W SCR PH W/F 3.1×13
207	030-0520	HEX BOLT M5×20
208	008-0520	TMP PRF SCR TH M5×20
209	008-0535	TMP PRF SCR TH M5×35
210	010-0310-F	S-TITE SCR PH W/F M3×10
211	029-0092	TMP PRF SCR BH M6×14
212	046-0001	SCR NAIL THH 1.5×16
213	051-0005	FLG NUT M5
214	060-0006	FLT WSHR M6
215	065-0004	E RING 4mm
216	069-0001	FLT WSHR 5.5-20×1.6
217	060-0005	FLT WSHR M5
218	061-0005	SPR WSHR M5
217	060-0005	FLT WASHER M5
218	061-0005	SPRING WASHER M5

* Note : VOL CONT refers to the Potentiometer.

② ASSY CABINET MINI U/R (KR-10005) (D-1/3)



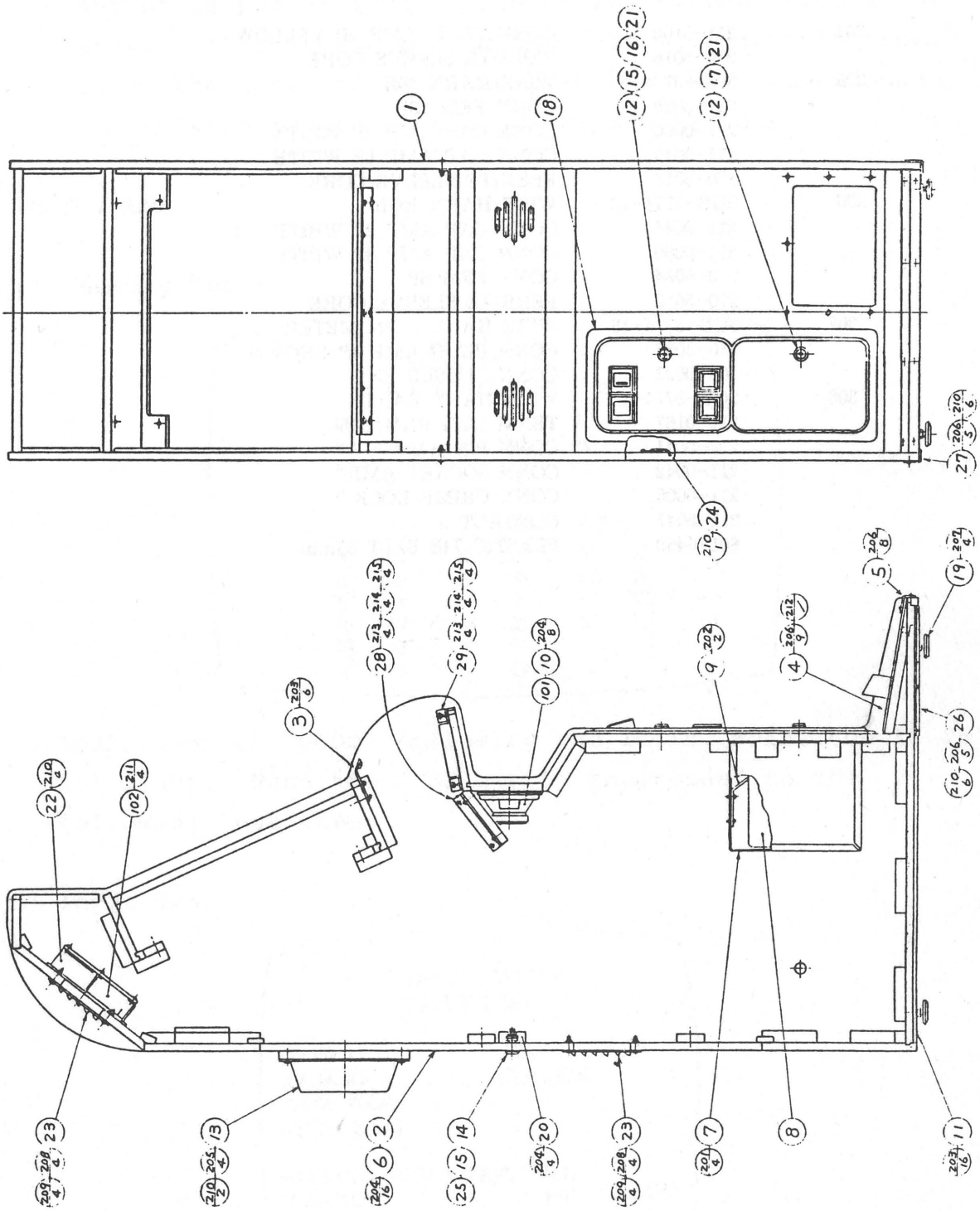
② ASSY CABINET MINI U/R (KR-10005) (D-2/3)

ITEM NO.	PART NO.	DESCRIPTION
1	KR-1800	ASSY SUB CABINET MINI
2	KR-1806	MASK BOARD
3	KR-1807	HOLDER LOWER
4		WINDOW GLASS
5	423-0036	DESIGN PLATE OUT RUN MINI
6	KR-1813	HOLDER UPPER
7	KR-1059	SW UNIT
8	AB-1151Y	TV MASK GRAY SMOKE
9	AB-1206	TV MASK
10	MO-1215Y	COVER
11	RA-1016	METER BRKT
12	105-0064	BRKT MAIN SW
13	600-0110	CABLE & PLUG ASSY (USA ONLY)
	600-5007	CABLE & PLUG ASSY (200~240V)
14	80931	STICKER COIN METER
15	81881	STICKER EARTH
16	82789	STICKER DANGER HIGH VOLTAGE
17	83005	STICKER MAIN SW PUSH ON PUSH OFF
18	280-0419	HARNESS LUG
101	220-5064	MAG CNTR 6DIG DC5V
102	280-0417	TERM BINDING POST
103	280-0418	BSING STRAIN RELIFE 8.3
104	280-0425	CORD CLAMP ⌀10
105	509-0039	SW PB TYPE
106	509-0049	SW STOPPER ⌀12
107	280-5008	CORD CLAMP ⌀15
201	000-0408-FS	M SCR PH W/FS M4×8
202	000-0416-S	M SCR PH W/S M4×16
203	051-0004	FLNG NUT M4
204	005-3113-F	W SCR RH W/F 3.1×13
205	006-3110	W SCR FH 3.1×10
206	010-0408-F	S-TITE SCR M4×8
207	029-0021	M SCR TH BLK M4×18
208	031-0425-B	CRG BLT BLK M4×25
301	SGB-3774-2	WIRE HARN AC
	211-0118	CONN CAP AMP 3P
	209-0023	CONN CLOSED END
	280-5015	FASTON RCPT 187
303	SGB-3774-5	WIRE HARN EXT AC 100V
	211-0080	CONN CAP AMP 2P BROWN
	211-0117	CONN CAP AMP 2P YELLOW
	211-0085	CONN PLUG AMP 2P BROWN
	600-5133	CABLE & CONN 300L
	209-0032	CONN CLOSED END
304	SGB-3774-8	WIRE HARN 50P
	211-5105	CONN FEM 50P
	211-0044	CONN CAP AMP 2P WHITE
	211-0080	CONN CAP AMP 2P BROWN
	211-0081	CONN CAP AMP 3P BROWN
	211-0072	CONN CAP AMP 4P WHITE
	211-0082	CONN CAP AMP 4P BROWN
	211-0121	CONN CAP AMP 4P RED
	211-0116	CONN CAP AMP 2P ORANGE

② ASSY CABINET MINI U/R (KR-10005) (D-3/3)

ITEM NO.	PART NO.	DESCRIPTION
304	211-0102	CONN PLUG AMP 4P YELLOW
	270-5016	FERRITE SLEEVE CORE
305	SGB-3774-9	WIRE HARN 20P
	211-5088	CONN FEM 20P
	211-0060	CONN CAP AMP 3P WHITE
	211-0046	CONN CAP AMP 6P WHITE
	270-5016	FERRITE SLEEVE CORE
306	SGB-3774-10	WIRE HARN RGB
	211-0044	CONN CAP AMP 2P WHITE
	211-0060	CONN CAP AMP 3P WHITE
	212-5034	CONN FEM 6P
	270-5016	FERRITE SLEEVE CORE
307	SGB-3774-13	WIRE HARN COIN METER
	210-0087	CONN PLUG AMP 4P BROWN
	209-0023	CONN CLOSED END
308	SGB-3774-15	WIRE HARN EARTH
	211-0167	TERM LUG RND 1D5
	211-0041	CONN PIN AMP
	211-0042	CONN SOCKET AMP
	211-0005	CONN CRIMP LOCK
	211-5047	CONTACT
	601-0460	PLASTIC TIE BELT 85mm

③ ASSY SUBCABINET MINI U/R (KR-1800) (D-1/3)



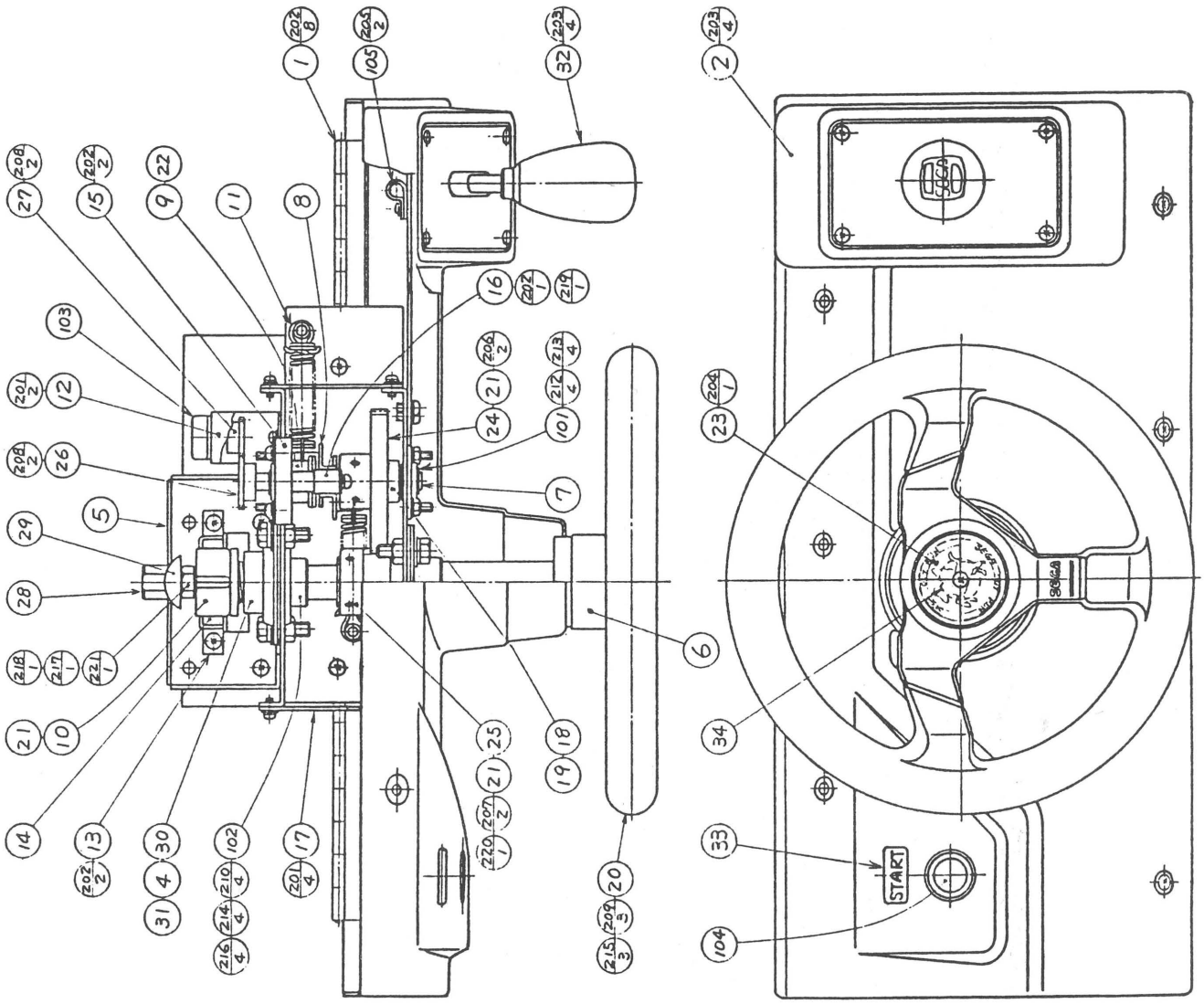
③ ASSY SUBCABINET MINI U/R (KR-1800) (D-2/3)

ITEM NO.	PART NO.	DESCRIPTION
1	KR-1801	WOODEN CABINET MINI U/R
2	KR-1802	BACK DOOR
3	KR-1803	BRACKET
4	KR-1804	FLOOR MAT
5	KR-1805	SUPPORTER
6	TA-1010	HINGE 148
7	RA-1007	COVER CASHBOX
8	RA-1008	CASHBOX
9	RA-1009	LOCK BRACKET
10	AN-1107	GUARD PLATE
11	TI-1079	LEG ADJUSTER BRKT
12	DP-1167	TNG LKG
13	MO-1053	COVER
14	117-0062	PLATE LOCK RETAINER
15		
16		
17		
19	601-0455	LEG ADJUSTER
20	105-5038	STOPPER
21	HN-1050	SPACER RING
22	MO-1008	FAN BRACKET A
23	PT-0342	AIR VENT
24	109-0045	KEY HOLDER
25	DP-1148X	LKG TNG
26	KR-1810	PROTECTOR A
27	KR-1810	PROTECTOR B
28	KR-1811	BRACKET A
29	KR-1812	BRACKET B
101		SPEAKER 8 OHM ⌀120
102		AXIAL FLOW FAN AC
201	000-0406-S	M SCR PH W/S M4×6
202	000-0408-S	M SCR PH W/S M4×8
203	000-0520-S	M SCR PH W/S M5×20
204	005-3516-F	W SCR RH W/F 3.5×16
205	008-0416	TMP PRF SCR TH M4×16
206	046-0001	SCR NAIL TH STAINLESS 1.5×16
207	059-0007	HEX NUT 3/8-16
208	031-0425-B	CRG BLT BLK M4×25
209	051-0004	FLG NUT M4
210	005-3113-F	W SCR RH W/F 3.1×13
211	000-0310-FS	M SCR PH W/FS M3×10
212	244-098	DOUBLE FACE TAPE 10mm×50m/ROLL
213	000-0516-S	M SCR PH W/S M5×16
214	031-0525-B	CRG BLT BLK M5×25
215	051-0005	FLG NUT M5

③ ASSY SUBCABINET MINI U/R (KR-1800) (D-3/3)

ITEM NO.	PART NO.	DESCRIPTION
301	SGB-3774-6	WIRE HARN SPKR
	211-0087	CONN PLUG AMP 4P BROWN
302	SGB-3774-14	WIRE HARN COIN SW
	211-0073	CONN PLUG AMP 4P WHITE
303	SGB-3774-4	WIRE HARN FAN MOTOR
	211-0085	CONN PLUG AMP 2P BROWN
	211-0041	CONN PIN AMP
	280-5015	FASTON RCPT 187
	280-5016	FASTON RCPT 205
	601-0460	PLASTIC TIE BELT 85mm
	280-0419	HARNESS LUG

④ ASSY CONTROL PANEL MINI U/R (KR-11005) (D-1/3)



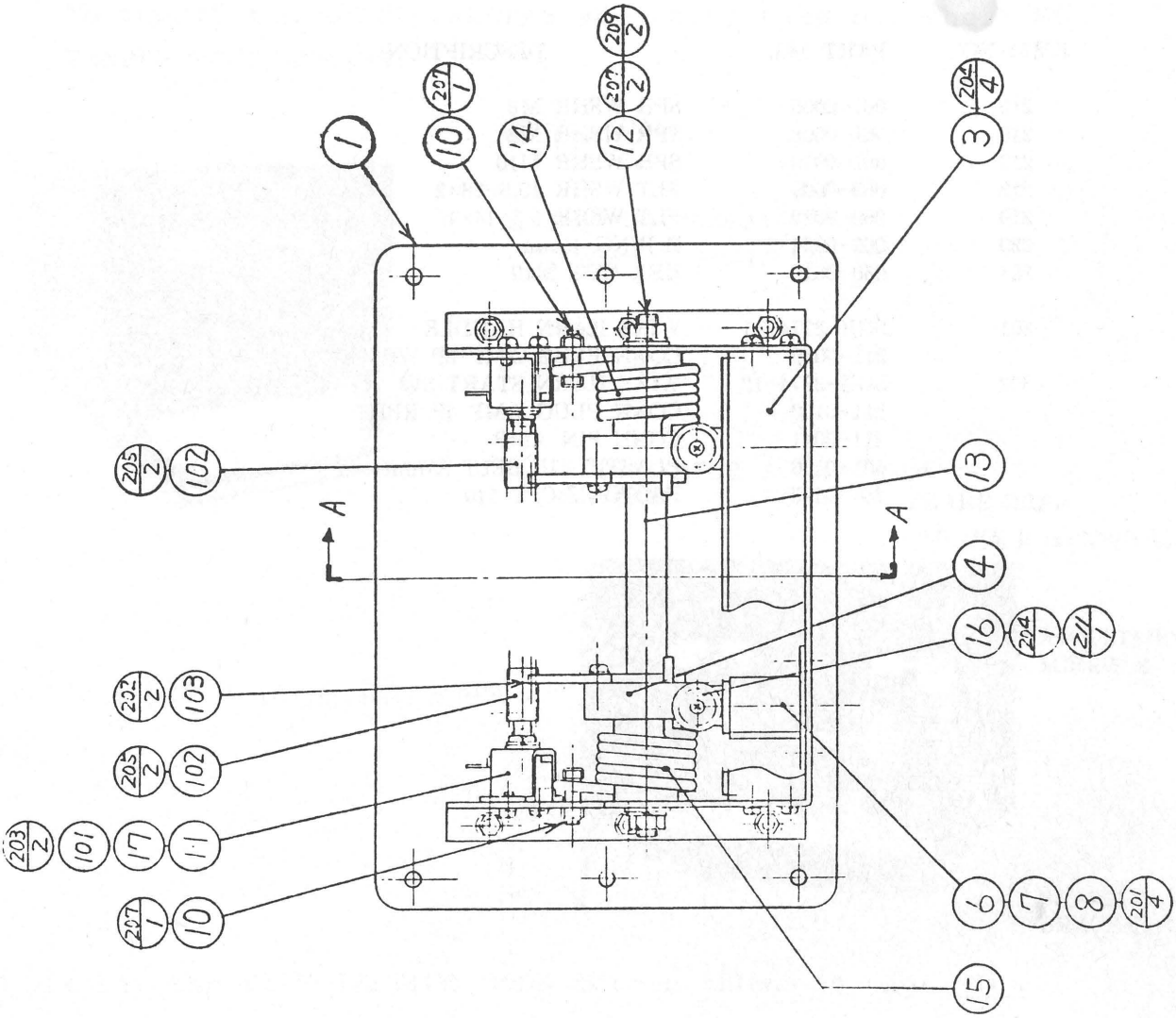
④ ASSY CONTROL PANEL MINI U/R (KR-11005) (D-2/3)

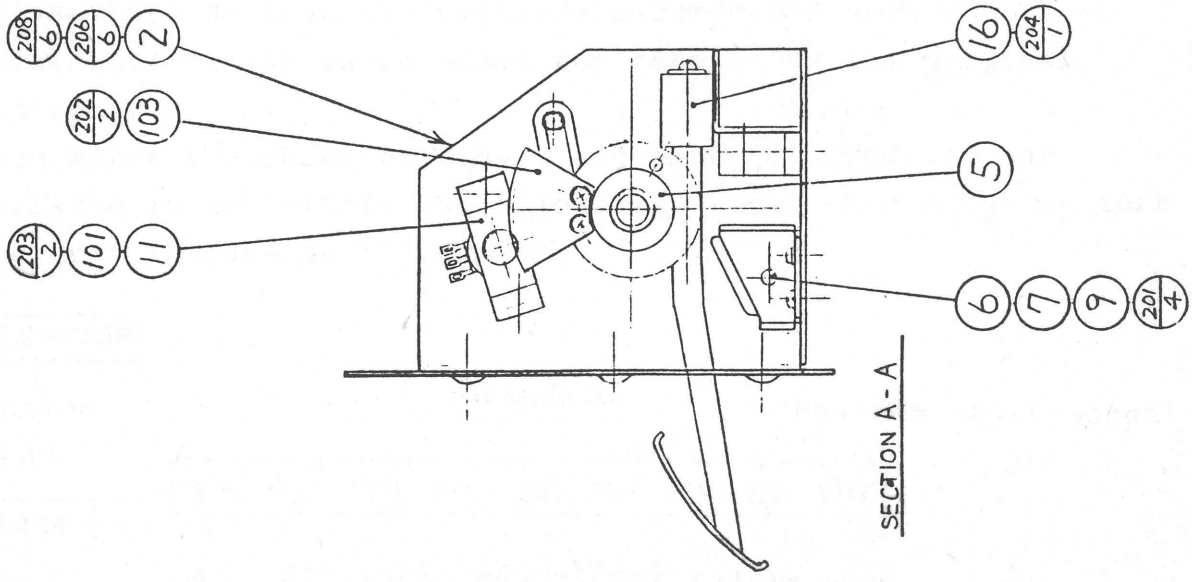
ITEM NO.	PART NO.	DESCRIPTION
1	KR-1166	CONTROL PANEL BASE
2	KR-1168	CONTROL PANEL
4	KR-1170	COMPRESSION SPRING
5	KR-1105X	HANDLE BASE
6	KR-1106X	STEERING WHEEL SHAFT
7	KR-1107	SHAFT
8	KR-1108	ARM PLATE
9	KR-1109X	ARM BAR
10	KR-1110Y	STEERING WHEEL STOPPER
11	KR-1111X	EXTENSION SPRING
12	KR-1112	VOLUME BRACKET
13	KR-1113	BUMPER BRACKET
14	KR-1114	BUMPER
15	KR-1115	STOPPER
16	KR-1116	RUBBER STOPPER
17	KR-1117	PLATE
18	KR-1119	COLLAR B
19	KR-1120	SPACER A
20	KR-1121X	STEERING HANDLE ∅270
21	KR-1122	KEY A
22	KR-1123	KEY B
23	KR-1125X	HANDLE EMBLEM
24	KR-1126	GEAR A
25	KR-1127	GEAR B
26	KR-1128	GEAR C
27	KR-1129	GEAR D
28	KR-1136	CAP NUT
29	KR-1137	STOPPER WASHER
30	KR-1138	STOPPER COLLAR
31	KR-1139	SPACER WASHER B
32	KR-13001	ASSY SHIFT LEVER S
33	117-5133	START PLATE
34	KR-1165	SPACER
101	100-5015	BEARING ∅10
102	100-5035	BEARING ∅20
103	220-5130	VOL CONT B-5K OHM
104	509-5053	PUSH BTN SWIT GREEN W/LAMP
105	280-0248	CLAMP CORD PLASTIC ID 8mm
106	280-0425	CORD CLAMP ∅10
201	000-0408-FS	M SCR PH W/FS M4×8
202	000-0510-FS	M SCR PH W/FS M5×10
203	008-0410	TMP PRF SCR TH M4×10
204	008-0425	TMP PRF SCR TH M4×25
205	010-0308-F	S-TITE SCR PH W/F M3×8
206	028-0007	SET SCR HEX SKT CP UNBR M4×10
207	028-0010	SET SCR HEX SKT CP M5×8
208	028-0014	SET SCR HEX SKT CP UNBR M4×4
209	029-0078	TMP PRF SCR BH M6×14
210	030-0825	HEX BLT M8×25
212	054-0005	U NUT M5
213	060-0005	FLT WSHR M5
214	060-0008	FLT WSHR M8

④ ASSY CONTROL PANEL MINI U/R (KR-11005) (D-3/3)

ITEM NO.	PART NO.	DESCRIPTION
215	061-0006	SPR WSHR M6
216	061-0008	SPR WSHR M8
217	061-0010	SPR WSHR M10
218	069-0009	FLT WSHR 10.5-28×2
219	069-0022	FLT WSHR 5.5-14×1
220	069-0054	E RING 15mm
221	050-0010	HEX NUT M10
301	SGB-3774-11	WIRE HARN HANDLE
	211-0059	CONN PLUG AMP 3P WHITE
302	SGB-3774-12	WIRE HARN START SW
	211-0100	CONN PLUG AMP 4P RED
	211-0041	CONN PIN AMP
	601-0460	PLASTIC TIE BELT 85mm
	280-0472	FASTON RCPT 110

⑤ ASSY ACCEL & BRAKE U/R (KR-12002) (D-1/2)

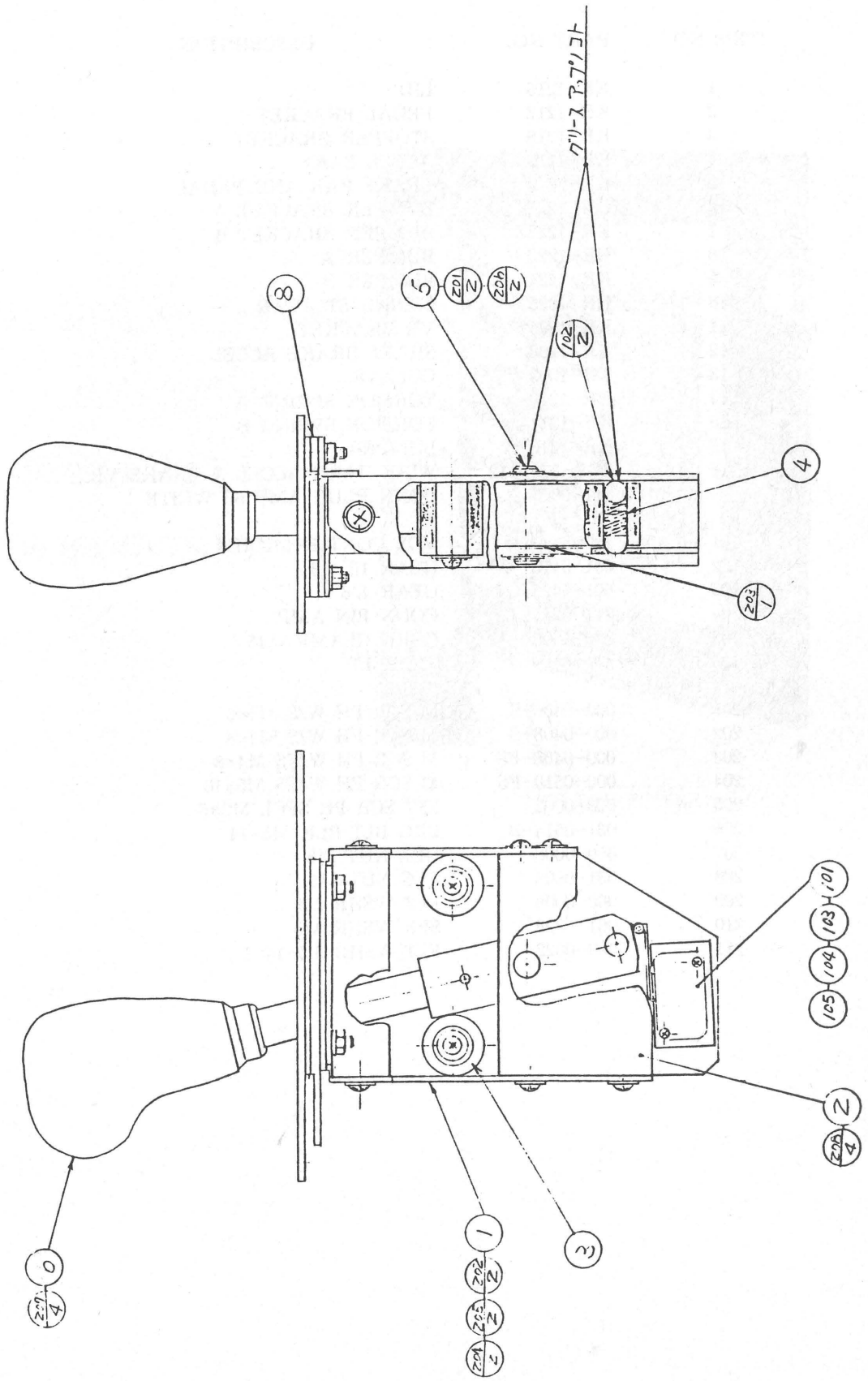




⑤ ASSY ACCEL & BRAKE U/R (KR-12002) (D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	KR-1216	LID
2	KR-1217	PEDAL BRACKET
3	KR-1218	STOPPER BRACKET
4	KR-1219	ACCEL BAR
5	KR-1220	BRAKE BAR AND PEDAL
6	KR-1221	BUMPER BRACKET A
7	KR-1222X	BUMPER BRACKET B
8	KR-1223	BUMPER A
9	KR-1224	BUMPER B
10	KR-1225	SPRING STOPPER
11	KR-1205	VR BRACKET
12	KR-1208	SHAFT BRAKE ACCEL
13	KR-1209	COLLAR
14	KR-1210	TORSION SPRING A
15	KR-1211	TORSION SPRING B
16	KR-1213	BUMPER
18	SGB-3751-12	WIRE HARN ACCEL & BRAKE VR
	211-0045	CONN PLUG AMP 6P WHITE
101	220-5130	VOL CONT B-5KOHM
102	601-5410	GEAR 15 ⌀6
103	601-5423	GEAR 1/6
104	211-0041	CONN PIN AMP
105	280-5008	CORD CLAMP ⌀15
106	601-0460	TIE BELT
201	000-0406-S	M SCR PH W/S M4×6
202	000-0408-S	M SCR PH W/S M4×8
203	000-0408-FS	M SCR PH W/FS M4×8
204	000-0510-FS	M SCR PH W/FS M5×10
205	028-0002	SET SCR PH SPCL M3×6
206	031-0514-B	CRG BLT BLK M5×14
207	050-0008	HEX NUT M8
208	051-0005	FLG NUT M5
209	060-0008	FLT WSHR M8
210	061-0008	SPR WSHR M8
211	069-0022	FLT WSHR 5.5-14×1

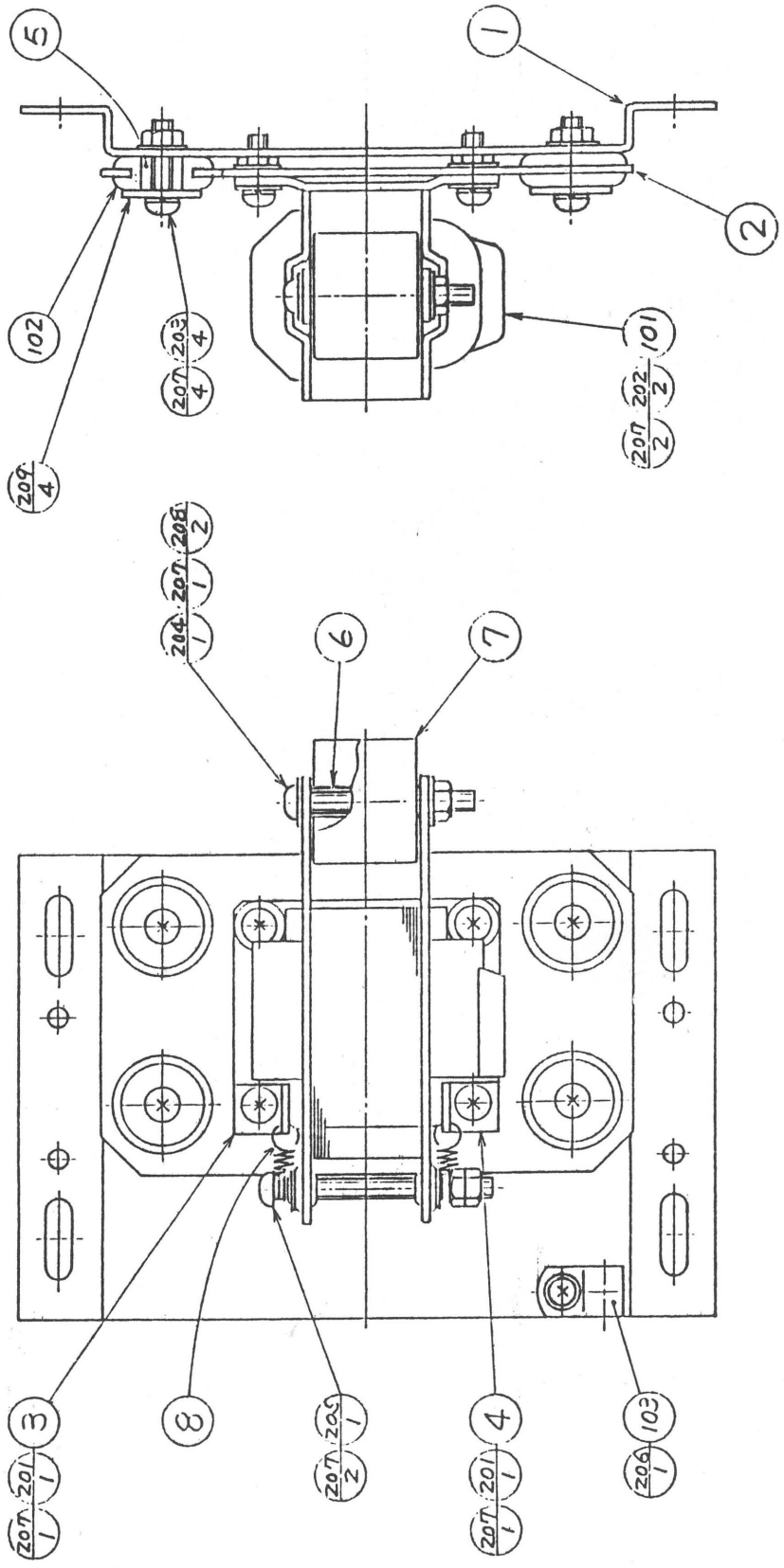
⑥ ASSY SHIFT LEVERS (KR−13001) (D−1/2)



⑥ ASSY SHIFT LEVERS (KR-13001) (D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	KR-1312	SHIFT BRACKET B
2	KR-1314	COVER BRACKET B
3	KR-1303	STOPPER
4	KR-1320	COMPRESSION SPRING
5	KR-1304	SHAFT
6	KR-1315	SUB ASSY SHIFT LEVER
7	SGB-3740-5	WIRE HARN SHIFT SW
	211-0043	CONN PLUG AMP 2P WHITE
	280-5015	FASTON RCPT 187
8	KR-1316	SPACER
9	KR-1318	MOUNT BRACKET
101	211-0041	CONN PIN AMP
102	101-5004	STEEL BALL ∅8.7312
103	509-5088	SW MICRO TYPE
104	310-0012	PAPER INSULATOR
105	117-0141	LOCK PLATE
201	069-0005	FLT WSHR SPECIAL 8.3-14.3×0.5
202	000-0408-FS	M SCR PH W/FS M4×8
203	069-0049	NYLON WASHER SPECIAL 8.5-14×1
204	000-0316	M SCR PH M3×16
205	069-0007	FLT WSHR 4.4-16×1.6
206	065-0006	E RING 6mm
207	054-0004	M4 U NUT
208	010-0408-F	S-TITE SCR PH W/F M4×8

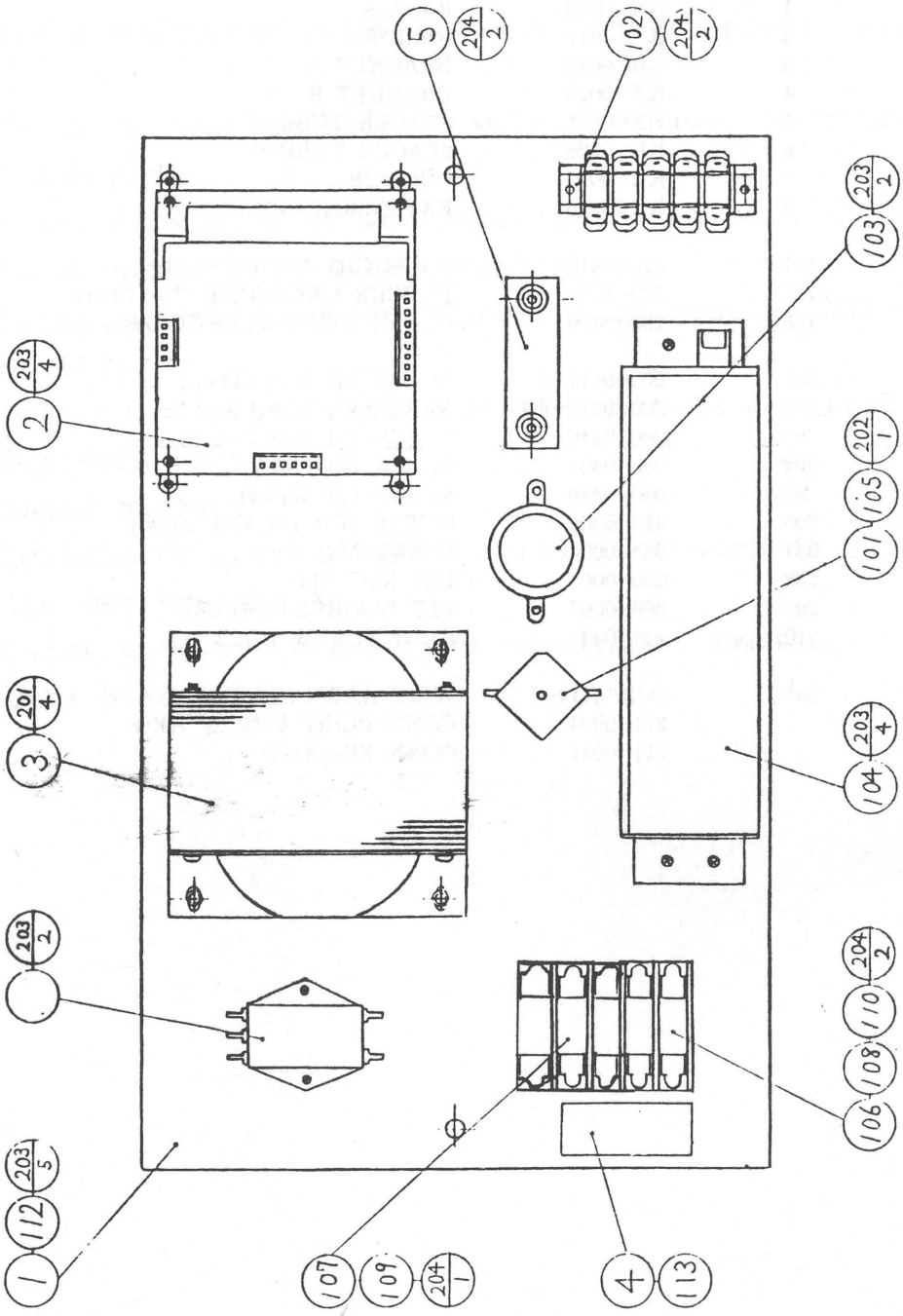
⑦ ASSY SOLENOID (KR−0015) (D−1/2)



⑦ ASSY SOLENOID (KR-0015) (D-2/2)

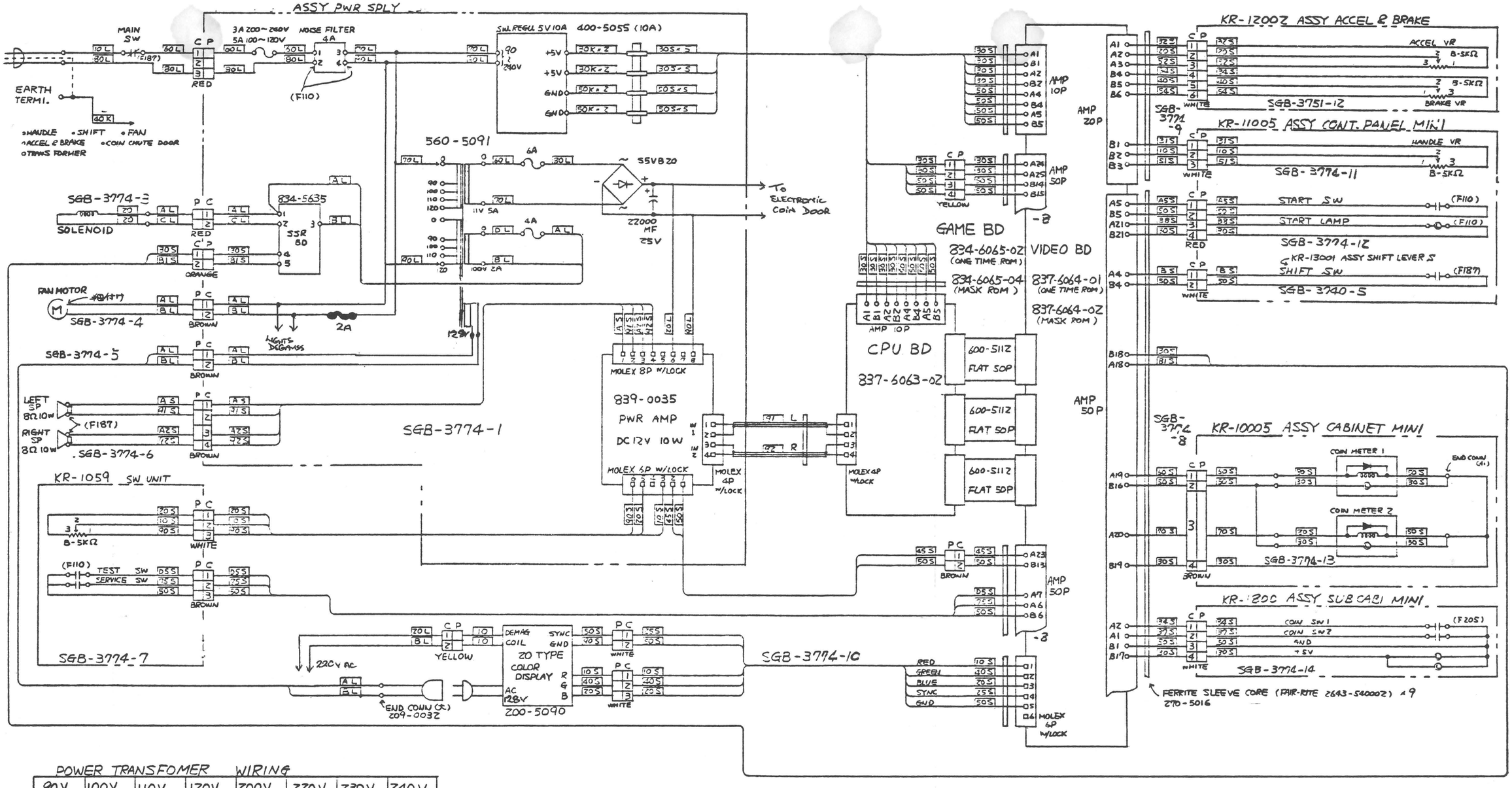
ITEM NO.	PART NO.	DESCRIPTION
1	KR-0016	BASE A
2	KR-0017	BASE B
3	KR-0018	BRACKET A
4	KR-0019	BRACKET B
5	KR-0025	SPACER TUBE A
6	KR-0026	SPACER TUBE B
7	KR-0027	BUMPER
8	KR-0028	EXTENSION SPRING
101	124-5013	SOLENOID AC 100V 1.5kg
102	280-5078	RUBBER GROMMET ∅8×∅14×8
103	280-0400	CLAMP CORD PLASTIC 5mm I.D.
201	000-0412-S	M SCR PH W/S M4×12
202	000-0412-FS	M SCR PH W/FS M4×12
203	000-0416-S	M SCR PH W/S M4×16
204	000-0435	M SCR PH M4×35
205	000-0440	M SCR PH M4×40
206	010-0308-F	S-TITE SCR PH W/F M3×8
207	054-0004	U NUT M4
208	060-0004	FLT NUT M4
209	069-0007	FLT WSHR 4.4-16×1.6
210	244-044	GLUE SCREW LOCK
301	SGB-3774-3	WIRE HARN SOLENOID
	211-0094	CONN PLUG AMP 2P RED
	211-0041	CONN PIN AMP

⑧ ASSY PWR SPLY MINI U/R LOCAL (D-1/2)

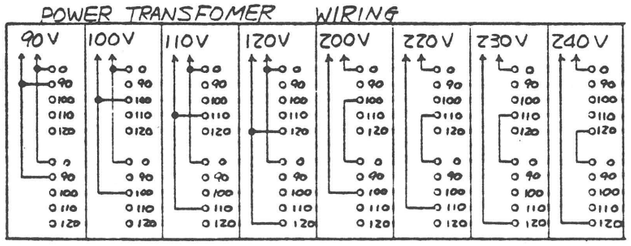


⑧ ASSY PWR SPLY MINI U/R LOCAL (D-2/2)

ITEM NO.	PART NO.	DESCRIPTION
1	HN-4004	BASE
2	839-0035	PWR AMP DC 12V 10W
3		PWR XFMR 90-240V 100V 2A 11V 5A
4	421-6503	STICKER FUSE INSTR
5	834-5635	ASSY SSR BOARD
101	117-0184	TERMINAL PLATE IL 4P
102	117-5131	TERMINAL PLATE 5P
103	150-0265	CAP E 22000MF 25V C-TYPE
104	400-5055	SW REGU 90-240V 5V 10A
105	481-0157	DIODE BRIDGE S5VB20
106	514-0064	FU HLDR 2P W/COVER
107	514-0065	FU HLDR 1P W/COVER
108	514-0040	FU 4A 6.4×30mm
109	514-0034	FU 5A 6.4×30mm
110	514-0031	FU 6A 6.4×30mm
111	601-0429	NOISE FILTR AC 250V 4A
112	280-0419	HARNESS LUG
113	601-0769	STAPLE MAX #3
114	601-0460	PLASTIC TIE BELT 85mm
201	000-0414-FS	M SCR PH W/FS M4×14
202	005-3110	W SCR RH 3.1×10
203	005-3113-F	W SCR RH W/F 3.1×13
204	005-3120	W SCR RH 3.1×20
301	SGB-3774-1	WIRE HARN PWR SPLY
	211-0097	CONN PLUG AMP 3P RED
	211-0080	CONN CAP AMP 2P BROWN
	211-0082	CONN CAP AMP 4P BROWN
	211-0060	CONN CAP AMP 3P WHITE
	211-0123	CONN CAP AMP 4P YELLOW
	211-0115	CONN CAP AMP 2P RED
	211-0095	CONN PLUG AMP 2P ORANGE
	211-0085	CONN PLUG AMP 2P BROWN
	211-5076	CONN FEM 4P
	212-5034	CONN FEM 6P
	212-5067	CONN FEM 8P
	212-5101	CONN FEM 10P
	270-5016	FERRITE SLEEVE CORE
302	211-0167	TERMINAL LUG ROUND ID5
303	211-0041	CONN PIN AMP
304	211-0042	CONN SOCKET AMP
305	211-0005	CONN CRIMP LOCK
306	211-5047	CONTACT
307	280-5015	FASTON RCRT 187
308	280-0472	FASTON RCRT 110



POWER TRANSFOMER WIRING



13. WIRING DIAGRAM

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