KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK200SR

SK200SRLC

S5YB0101E

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SHOP MANUAL SK200SR SK200SRLC

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SPECIFICATION

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ATTACHMENT DIMENSION

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3.4 DETAIL DIMENSIONAL DRAWING OF BOSS SECTION

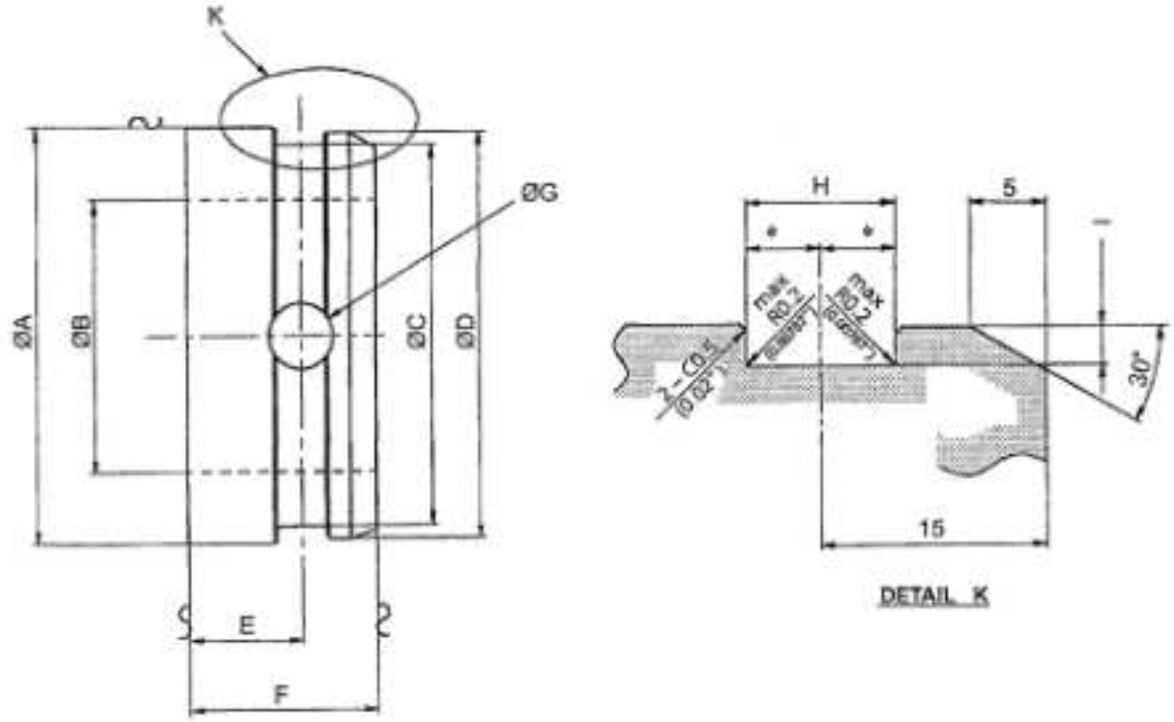


Fig. 3-3 Dimension of boss section

Table 3-4 Unit : mm (ft-in)

Type of bucket	Capacity of bucket m^3 (cu·yd)	Part No. of bucket	Part No. of boss	ØA	ØB	ØC	ØD	E	F	ØG	H	I
Hoe bucket	[STD] 0.75 (0.98)	YB61B00007F1	2418P26833	114.3 (4.50")	84 (3.31")	105.5 (4.15")	111.5 (4.39")	27 (1.06")	42 (1.65")	17 (0.669")	13 (0.512")	3.0 (0.118")

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(3) Separate four O rings (39) from guide (17).
(4) Remove four U packings (37) from cover (15), using a scriber.

4. Disassembling the reducing valve section (See Fig.4-4.)

(1) Separate three socket plugs (24) from body (5).
: 5mm

(2) Separate O ring (41) from socket plug (24).
(3) Remove four reducing valve spool assemblies from body (5).
(4) Remove stopper (6) from the reducing valve spool assy.
(5) Remove four springs (7); parallel pins (32), O rings (38), (40) from body (5).

5. Disassembling the reducing valve spool assy (See Fig.4-5.)

- The outer diameter of reducing valve spool (4) is finished with a small clearance against the hole of body (5). Therefore, put a copper plate on the mouthpiece of the vise at disassembly so as not to score the outer diameter. Note that the spool is deformed if the vise is tightened too much.

(1) Fix spool (4) in a vise (Put a copper plate against the mouthpiece.) and loosen four socket flange bolts (27).
: 3mm

(2) Draw out socket flange bolt (27), sleeve (18), spring (8), shims (10), (11) and washer (29) from spool (4), in that order.

- On that occasion, mate the disassembled parts with mating parts as sets.

6. Disassembling the shuttle (See Fig.4-6.)

- The shuttle is unseparable basically as seat (2) is fixed with adhesive agent (Locktite #262.).

(1) Remove two socket plugs (25) from body (5).
: 6mm

(2) Remove two seats (2) from body (5).
: 5mm

- On that occasion, the Locktite comes off. Remove it including that adhered to the neighboring area of the screw.

(3) Draw out two balls (36) from body (5) by attracting the balls to a magnet.

- Balls (33), (35) are for circuit plugs and press fitted to body (5). Therefore, they are not separable.

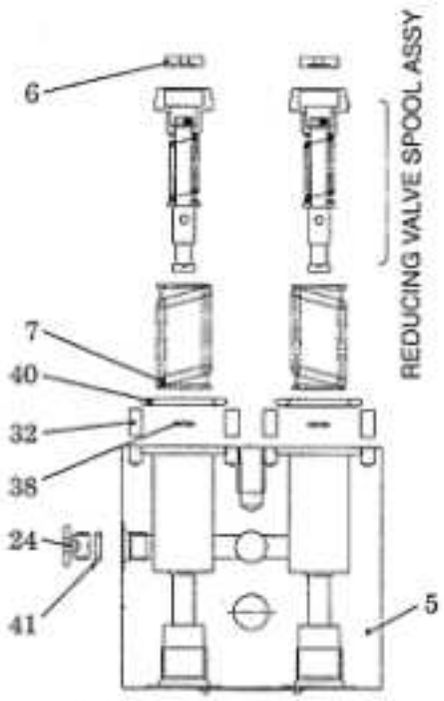


Fig. 4-4 Disassembling the reducing valve

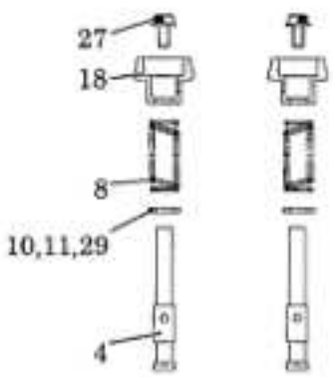


Fig. 4-5 Disassembling the reducing spool assy

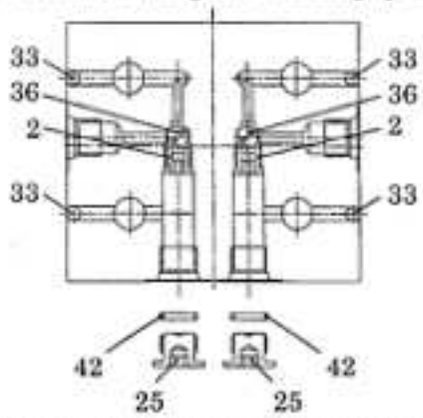


Fig. 4-6 Disassembling the shuttle

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UNSTABLE LOW IDLING



Continued on the next page

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WIRE NO	WIRE COLOR	WIRE SIZE	FROM	CONNECTION	TO	FUNCTION
1A	RY	AVSS0.75sq	CN-15F		CN-2F	MECHATRO CONTROLLER → FUSE BOX
1B	RY	AVSS0.75sq	CN-15F	DOUBLE SPLICE	CN-42F	MECHATRO CONTROLLER → RESISTOR
1C	RY	AVSS0.75sq	CN-2F		CN-42F	FUSE BOX → RESISTOR
2A	WY	AVSS0.75sq	CN-36F		CN-2F	15PAF-J/B → FUSE BOX
2B	WY	AVSS0.75sq	CN-37F		CN-26F	15PAF-J/B → WIPER MOTOR RELAY
2C	WY	AVSS0.75sq	CN-38F		CN-25F	15PAF-J/B → WASHER MOTOR RELAY
2D	WY	AVSS0.75sq	CN-39F		CN-31F	15PAF-J/B → TRAVEL ALARM REALY
3	RL	AVSS0.75sq	CN-76M		CN-1M	CIGARETTE LIGHTER → FUSE BOX
4A	OL	AVSS0.75sq	CN-72F		CN-1M	J/C-GRAY → FUSE BOX
4B	OL	AVSS0.75sq	CN-72F		CN-76M	J/C-GRAY → TO STO FRONT CAB
4C	OL	AVSS0.75sq	CN-72F		CN-3M	J/C-GRAY → TO INST L
5A	WG	AVSS0.75sq	CN-36F		CN-1M	15PAF-J/B → FUSE BOX
5B	WG	AVSS0.75sq	CN-37F		CN-23F	15PAF-J/B → HORN RELAY
5C	WG	AVSS0.75sq	CN-38F		CN-23F	15PAF-J/B → HORN RELAY
7	YG	AVSS0.75sq	CN-15F		CN-1M	MECHATRO CONTROLLER → FUSE BOX
9A	YB	AVSS0.75sq	CN-36F		CN-1M	15PAF-J/B → FUSE BOX
9C	YB	AVSS0.75sq	CN-38F		CN-77F	15PAF-J/B → ROOM LIGHT
9D	YB	AVSS0.75sq	CN-39F		CN-76M	15PAF-J/B → CONVERTER
9E	YB	AVSS0.75sq	CN-40F		CN-3M	15PAF-J/B → TO INST L
10	WV	AVSS1.25sq	CN-4M		CN-1M	KEY SW. → FUSE BOX
11A	R	AVSS0.75sq	CN-22F	DOUBLE SPLICE	CN-1M	CAB WORK LIGHT RELAY (→ FUSE BOX
11B	R	AVSS1.25sq	CN-22F	DOUBLE SPLICE	CN-22F	CAB WORK LIGHT RELAY (→ CAB WORK LIGHT RELAY)
11C	R	AVSS0.75sq	CN-10F		CN-22F	FUEL PUMP → CAB WORK LIGHT RELAY)
12A	RG	AVSS1.25sq	CN-31F	DOUBLE SPLICE	CN-1M	TRAVEL ALARM REALY → FUSE BOX
12B	RG	AVSS0.75sq	CN-31F		CN-74F	TRAVEL ALARM REALY → FLASHER RELAY
13A	W	AVSS0.75sq	CN-36F		CN-1M	15PAF-J/B → FUSE BOX
13C	W	AVSS0.75sq	CN-38F		CN-76M	15PAF-J/B → CLUSTER GAUGE
14A	RB	AVSS1.25sq	CN-72F		CN-1M	J/C-GRAY → FUSE BOX
14B	RB	AVSS0.75sq	CN-72F		CN-26F	J/C-GRAY → WIPER MOTOR REALY
14F	RB	AVSS0.75sq	CN-72F		CN-21F	J/C-GRAY → ROOF WIPER SW.
14G	RB	AVSS0.75sq	CN-72F		CN-25F	J/C-GRAY → WASHER MOTOR RELAY
15	WB	AVSS0.75sq	CN-3M		CN-1M	LEVER LOCK SW. → FUSE BOX
16A	RW	AVSS1.25sq	CN-36F		CN-1M	15PAF-J/B → FUSE BOX
16B	RW	AVSS1.25sq	CN-37F		CN-24F	15PAF-J/B → WORK LIGHT RELAY
16C	RW	AVSS0.75sq	CN-38F		CN-24F	15PAF-J/B → WORK LIGHT RELAY
17	WL	AVSS0.75sq	CN-34F		CN-1M	RESISTOR → FUSE BOX
18	WG	AVSS1.25sq	CN-3M		CN-1M	AIR CONDITIONER AMP. → FUSE BOX
19	RL	AVSS0.75sq	CN-3M		CN-1M	AIR CONDITIONER AMP. → FUSE BOX
20	WR	AVSS0.75sq	CN-29F		CN-1M	POWER RESERVE → FUSE BOX
50	L	AVSS1.25sq	CN-4M		CN-2F	KEY SW. → FUSE BOX
51	W	AVS2sq	CN-10F		CN-2F	BATTERY RELAY → FUSE BOX
52	R	AVS5sq	CN-70M		CN-2F	BATTERY RELAY → FUSE BOX
53	Y	AVS5sq	CN-70M		CN-2F	BATTERY RELAY → FUSE BOX
60A	GrL	AVSS0.75sq	CN-36F		CN-12F	15PAF-J/B → MECHATRO CONTROLLER
60B	GrL	AVSS0.75sq	CN-37F		CN-32F	15PAF-J/B → DIODE
60C	GrL	AVSS0.75sq	CN-38F		CN-4M	15PAF-J/B → KEY SW.
60D	GrL	AVSS0.75sq	CN-39F		CN-33F	15PAF-J/B → DIODE
61A	BrY	AVSS0.75sq	CN-36F		CN-12F	15PAF-J/B → MECHATRO CONTROLLER
61B	BrY	AVSS0.75sq	CN-37F		CN-32F	15PAF-J/B → DIODE
61C	BrY	AVSS0.75sq	CN-38F		CN-32F	15PAF-J/B → DIODE
61D	BrY	AVSS0.75sq	CN-39F		CN-4M	15PAF-J/B → KEY SW.

WIRE NO	WIRE COLOR	WIRE SIZE	FROM	CONNECTION	TO	FUNCTION
62A	GrB	AVSS0.75sq	CN-36F		CN-4M	15PAF-J/B → KEY SW.
62B	GrB	AVSS0.75sq	CN-37F		CN-32F	15PAF-J/B → DIODE
62C	GrB	AVSS0.75sq	CN-38F		CN-10F	15PAF-J/B → GLOW RELAY
62D	GrB	AVSS0.75sq	CN-39F		CN-67F	15PAF-J/B → DIODE
63	WY	AVSS0.75sq	CN-4M		CN-10F	KEY SW. → SAFETY RELAY
64A	GW	AVSS0.75sq	CN-36F		CN-33F	15PAF-J/B → DIODE
64B	GW	AVSS0.75sq	CN-37F		CN-10F	15PAF-J/B → BATTERY RELAY
64C	GW	AVSS0.75sq	CN-38F		CN-33F	15PAF-J/B → DIODE
80	LY	AVSS0.75sq	CN-21F		CN-26F	WIPER MOTOR → WIPER MOTOR RELAY
81	BrB	AVSS0.75sq	CN-21F		CN-26F	WIPER MOTOR → WIPER MOTOR RELAY
82	GO	AVSS0.75sq	CN-25F		CN-10F	WASHER MOTOR RELAY → WINDOW WASHER MOTOR
83A	WL	AVSS0.75sq	CN-23F		CN-36F	HORN RELAY → 15PAF-J/B
83B	WL	AVSS0.75sq	CN-10F		CN-37F	HORN → 15PAF-J/B
83C	WL	AVSS0.75sq	CN-10F		CN-38F	HORN → 15PAF-J/B
84A	WB	AVSS0.75sq	CN-3M		CN-36F	HORN SW. → 15PAF-J/B
84B	WB	AVSS0.75sq	CN-23F		CN-37F	CONTROL CUT LIMIT SW. → 15PAF-J/B
84C	WB	AVSS0.75sq	CN-4M		CN-38F	HORN SW. → 15PAF-J/B
85A	WB	AVSS1.25sq	CN-36F		CN-24F	15PAF-J/B → WORK LIGHT RELAY
85B	WB	AVSS0.75sq	CN-37F		CN-10F	15PAF-J/B → BOOM WORKING LIGHT LEFT
85C	WB	AVSS0.75sq	CN-38F		CN-10F	15PAF-J/B → WORKING LIGHT RIGHT
85D	WB	AVSS0.75sq	CN-39F		CN-3M	15PAF-J/B → AIR CONDITIONER ASSY.
85E	WB	AVSS0.75sq	CN-40F		CN-4M	15PAF-J/B → SWITCH ASSY
86	OW	AVSS0.75sq	CN-500F		CN-10F	TIMER RELAY → OPERATING LEVER LOCK SOL.
87A	WL	AVSS0.75sq	CN-500F	DOUBLE SPLICE	CN-17F	TIMER RELAY → MECHATRO CONTROLLER
87B	WL	AVSS0.75sq	CN-500F		CN-3M	TIMER RELAY → LEVER LOCK SW.
88	LR	AVSS0.75sq	CN-19F		CN-3M	SPEAKER RIGHT → TUNER
89	OB	AVSS0.75sq	CN-19F		CN-3M	SPEAKER RIGHT → TUNER
90	LW	AVSS0.75sq	CN-28F		CN-3M	SPEAKER LEFT → TUNER
91	Br	AVSS0.75sq	CN-28F		CN-3M	SPEAKER LEFT → TUNER
92	BP	AVSS0.75sq	CN-3M		CN-10F	A/C RELAY → RECEIVER DRIER
179	L	AVSS1.25sq	F-4		CN-22F	CAB WORKING LIGHT (OPT) → CAB WORK LIGHT RELAY)
180	OL	AVSS0.75sq	CN-26F		CN-43M	WIPER MOTOR RELAY → WIPER MOTOR INTER LOCK SW.
181	R	MVVS0.75sq 4 CORES SHIELD	CN-3M		CN-3M	AIR CONDITIONER AMP. → AIR CONDITIONER SW.
184	B		CN-3M		CN-3M	AIR CONDITIONER AMP. → AIR CONDITIONER SW.
608	G		CN-3M		CN-3M	AIR CONDITIONER AMP. → AIR CONDITIONER SW.
609	W		CN-3M		CN-3M	AIR CONDITIONER AMP. → AIR CONDITIONER SW.
SH2	Gr		CN-3M		CN-3M	SHIELD
185	LY	AVSS0.75sq	CN-22F		CN-4M	CAB WORK LIGHT RELAY (→ CAB WORK LIGHT SW.
206	PG	AVSS0.75sq	CN-31F		CN-10F	TRAVEL ALARM REALY → TRAVEL ALARM
207	PB	AVSS0.75sq	CN-76M		CN-3M	CONVERTER → SOCKET
208	PW	AVSS0.75sq	CN-76M		CN-3M	CONVERTER → SOCKET
209	LY	AVSS0.75sq	CN-74F		CN-10F	FLASHER RELAY → SWING FLASHER RIGHT
210	Le	AVSS0.75sq	CN-74F		CN-10F	FLASHER RELAY → SWING FLASHER LEFT
500	LsR	AVSS0.75sq	CN-11F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) BUCKET SENSING
501	LsW	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) BUCKET SWAP
502	LsY	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) BOOM ASSIST
503	LO	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) BOOM LOWERING
504	PW	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) ARM IN
505	PL	AVSS0.75sq	CN-11F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) ARM OUT
506	V	AVSS0.75sq	CN-11F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) SWING RIGHT
507	VW	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) SWING LEFT
508	VY	AVSS0.75sq	CN-11F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) TRAVEL RIGHT

WIRE NO	WIRE COLOR	WIRE SIZE	FROM	CONNECTION	TO	FUNCTION
509	Sb	AVSS0.75sq	CN-11F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) TRAVEL LEFT
510	GO	AVSS0.75sq	CN-13F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) OPT. I-1
511	LeY	AVSS0.75sq	CN-13F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) OPT. I-2
512	LeR	AVSS0.75sq	CN-12F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) OPT. I-3
513	VG	AVSS0.75sq	CN-12F		CN-251M	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) OPT. I-4
514	VY	AVSS0.75sq	CN-12F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) PUMP P1
515	Sb	AVSS0.75sq	CN-12F		CN-10F	MECHATRO CONTROLLER → PEDAL SENSOR (LOW) PUMP P2
530	P	AVSS0.75sq	CN-11F		CN-4M	MECHATRO CONTROLLER → ACCEL POTENTIO
534	B	MVVS0.75sq 2 CORES SHIELD	CN-12F		CN-10F	MECHATRO CONTROLLER → ENG. REVOLUTION SENSOR
535	W		CN-12F		CN-10F	MECHATRO CONTROLLER → ENG. REVOLUTION SENSOR
SH3	Gr		CN-12F		CN-10F	SHIELD
536	BrR	AVSS0.75sq	CN-76M		CN-10F	CLUSTER GAUGE → FUEL SENSOR
537	YR	AVSS0.75sq	CN-76M		CN-10F	CLUSTER GAUGE → COOLANT THERMO SENSOR
550	O	AVSS0.75sq	CN-14F		CN-10F	MECHATRO CONTROLLER → ENG. OIL PRESS SW.
551	BrL	AVSS0.75sq	CN-14F		CN-10F	MECHATRO CONTROLLER → AIR FILTER RESTRICTION SW.
552	GB	AVSS0.75sq	CN-14F		CN-10F	MECHATRO CONTROLLER → ENG. WATER TEMP SW.
553A	BrB	AVSS0.75sq	CN-14F	DOUBLE SPLICE	CN-42F	MECHATRO CONTROLLER → RESISTOR
553B	BrB	AVSS0.75sq	CN-10F		CN-42F	FUEL SENSOR → RESISTOR
555	LB	AVSS0.75sq	CN-17F		CN-3M	MECHATRO CONTROLLER → DISPOSE SW.
556	LO	AVSS0.75sq	CN-12F		CN-71M	MECHATRO CONTROLLER → MAINTENANCE CONNECTOR
557	Gr	AVSS0.75sq	CN-17F		CN-3M	MECHATRO CONTROLLER → TO INST L
558	YV	AVSS0.75sq	CN-14F		CN-35F	MECHATRO CONTROLLER → FLOW CONTROLLER
559	PL	AVSS0.75sq	CN-12F		CN-251M	MECHATRO CONTROLLER → TWO-SPEED SELECT SW.
560	V	AVSS0.75sq	CN-11F		CN-10F	MECHATRO CONTROLLER → STEPPING MOTOR
561	Le	AVSS0.75sq	CN-12F		CN-27F	MECHATRO CONTROLLER → SWING PARKING RELEASE SW.
563	PL	AVSS0.75sq	CN-14F		CN-3M	MECHATRO CONTROLLER → DOUBLE SHIFT SELECT SW.
567	GR	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → POWER BOOST SW
568	GO	AVSS0.75sq	CN-16F		CN-76M	MECHATRO CONTROLLER → HEAVY LIFT SW.
584	VY	AVSS0.75sq	CN-14F		CN-10F	MECHATRO CONTROLLER → HYD. FLUID TEMP SW.
585	VG	AVSS0.75sq	CN-17F		CN-4M	MECHATRO CONTROLLER → TO INST R
600	R	MVVS0.5sq 3 CORES SHIELD	CN-14F		CN-76M	MECHATRO CONTROLLER → CLUSTER GAUGE
601	W		CN-14F		CN-76M	MECHATRO CONTROLLER → CLUSTER GAUGE
602	B		CN-14F		CN-76M	MECHATRO CONTROLLER → CLUSTER GAUGE
SH4	Gr		CN-14F		CN-76M	SHIELD
603	LsR	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → SWITCH ASSY
604	LG	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → SWITCH ASSY
605	VG	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → SWITCH ASSY
606	BrW	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → SWITCH ASSY
607	GW	AVSS0.75sq	CN-14F		CN-4M	MECHATRO CONTROLLER → SWITCH ASSY

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