

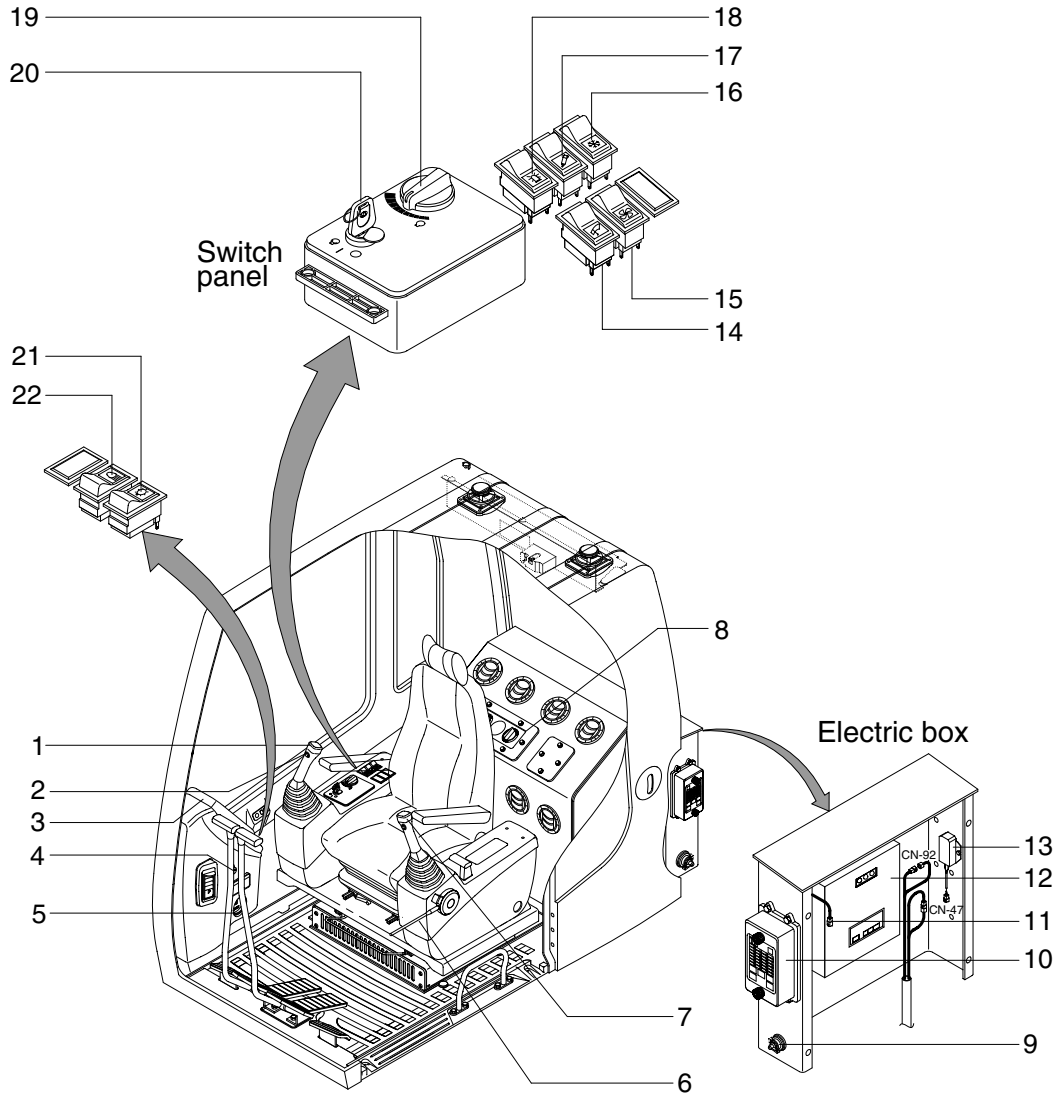
SECTION 4 ELECTRICAL SYSTEM

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SECTION 4 ELECTRICAL SYSTEM

GROUP 1 COMPONENT LOCATION

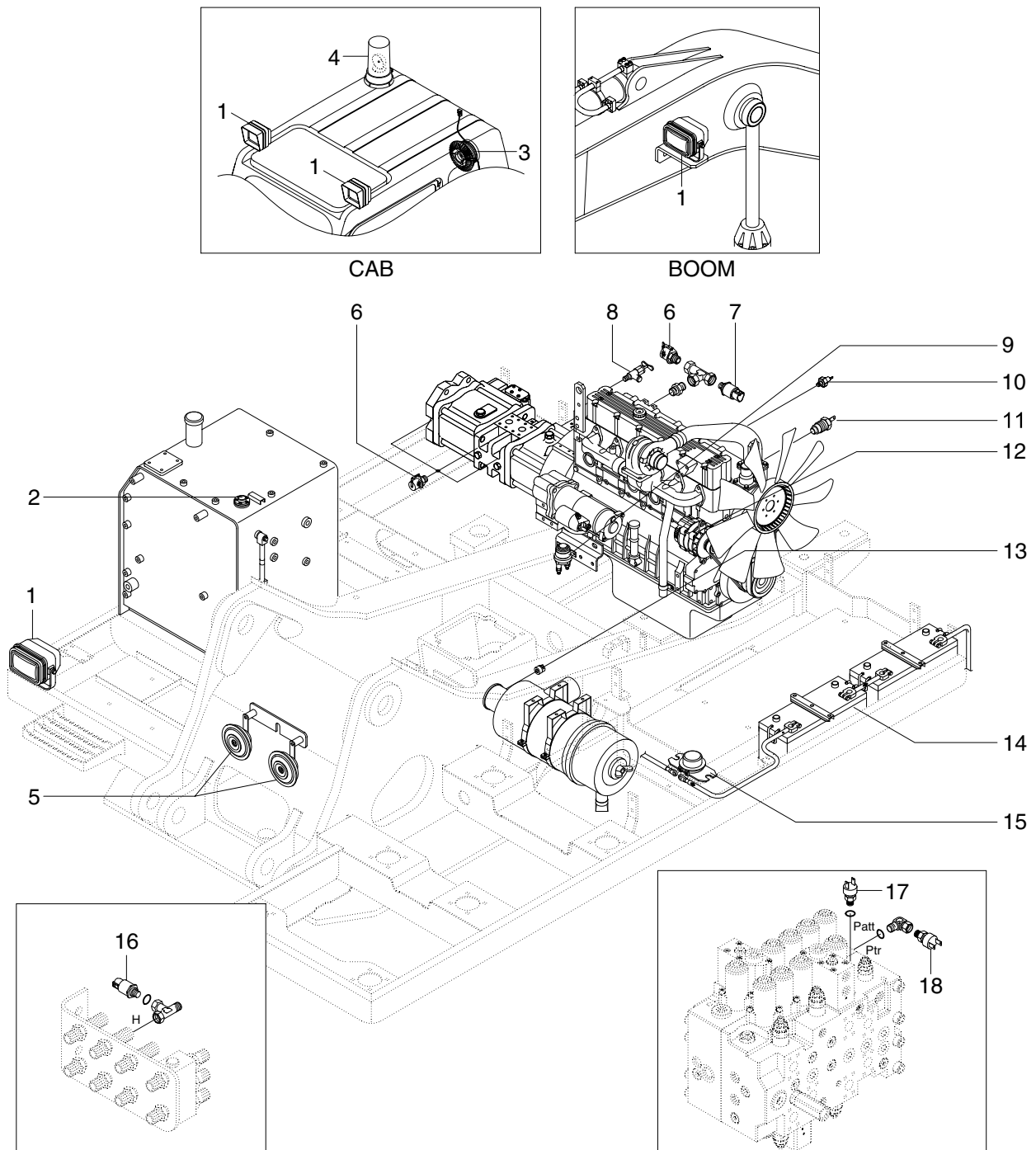
1. LOCATION 1



2107V4EL01

- | | | | | | |
|---|----------------------------|----|-------------------------|----|--------------------------|
| 1 | Horn switch | 9 | Master switch | 17 | Breaker selection switch |
| 2 | Breaker operation switch | 10 | Fuse box | 18 | Beacon switch |
| 3 | Cluster | 11 | RS232 serial connector | 19 | Accel dial switch |
| 4 | Power socket | 12 | CPU controller | 20 | Start switch |
| 5 | Hour meter | 13 | Prolix resistor | 21 | Main light switch |
| 6 | Safety lever | 14 | Wiper and washer switch | 22 | Cab light switch |
| 7 | One touch decel switch | 15 | Fan switch | | |
| 8 | Air conditioner controller | 16 | Air conditioner switch | | |

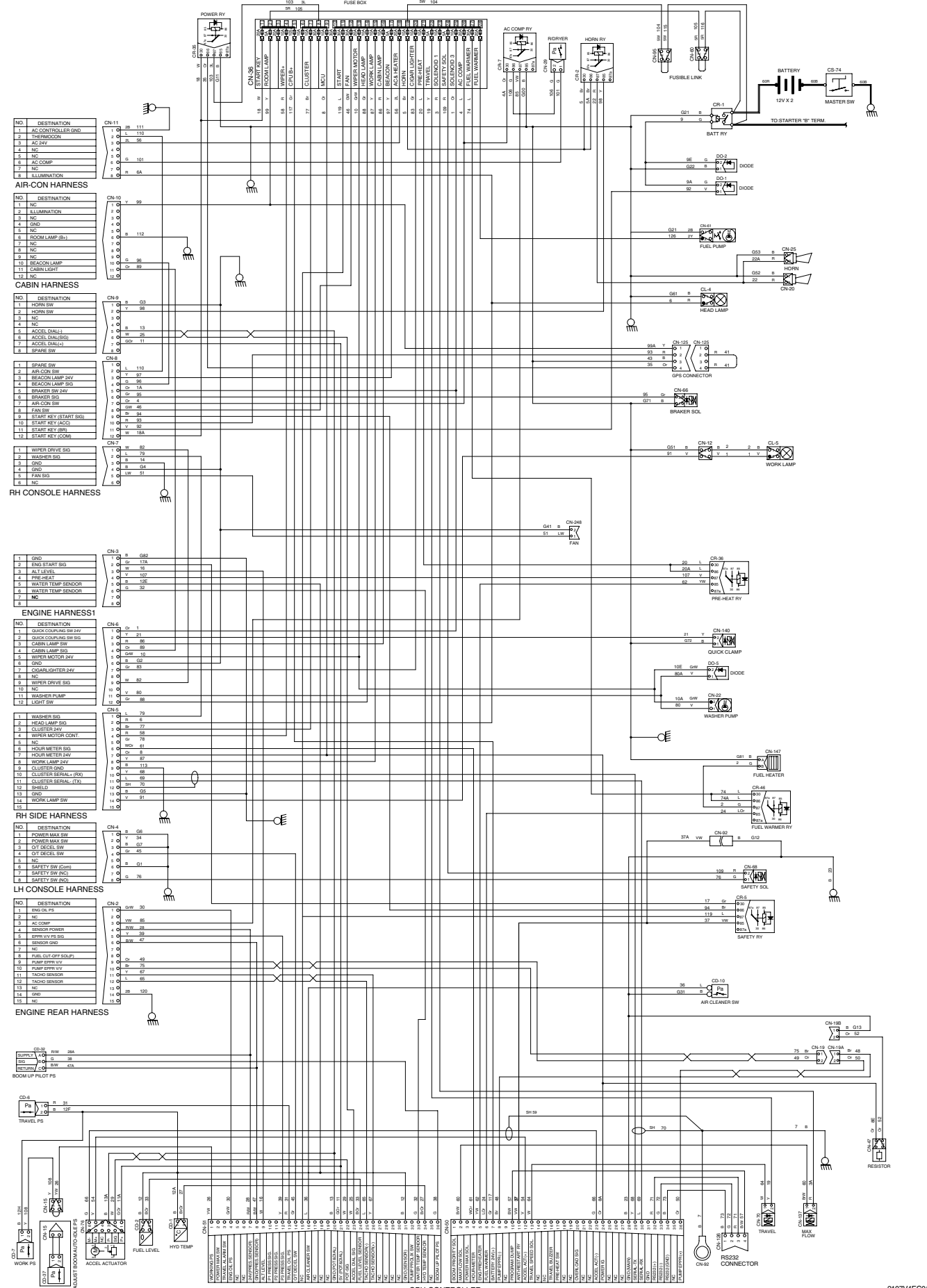
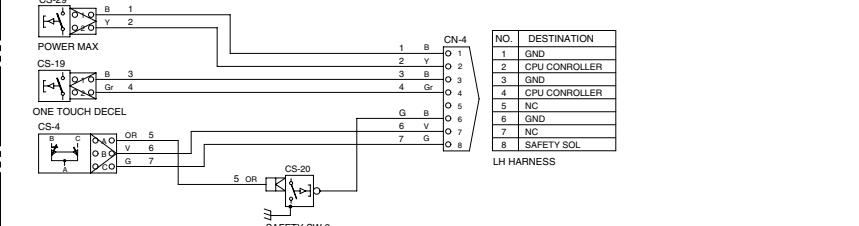
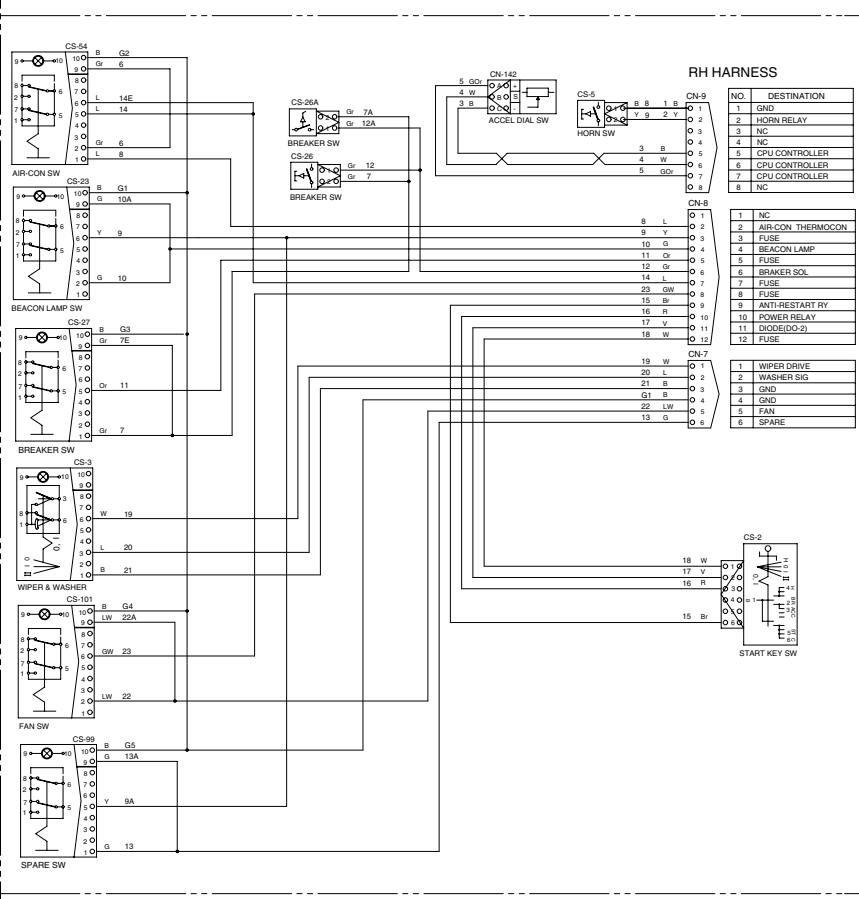
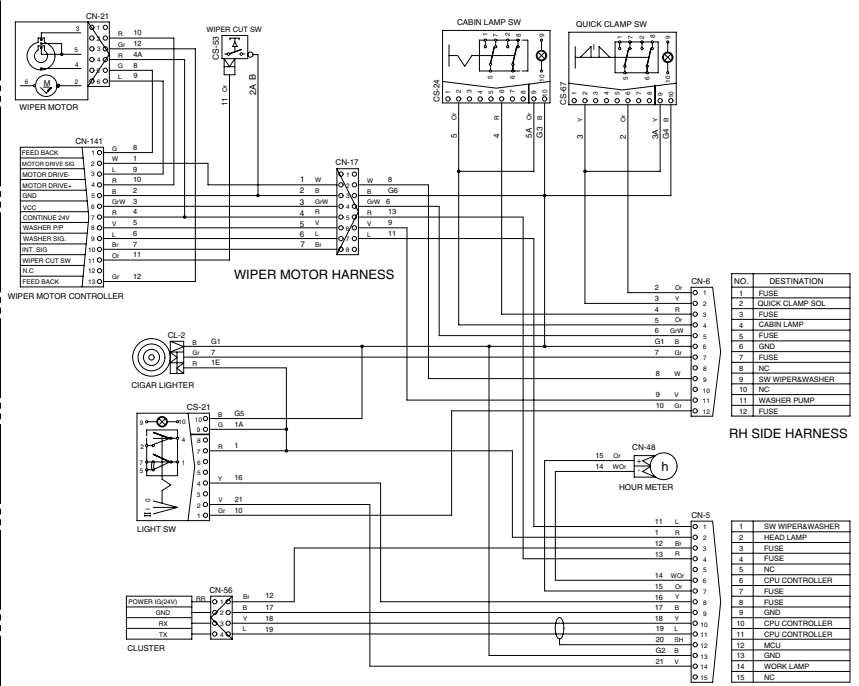
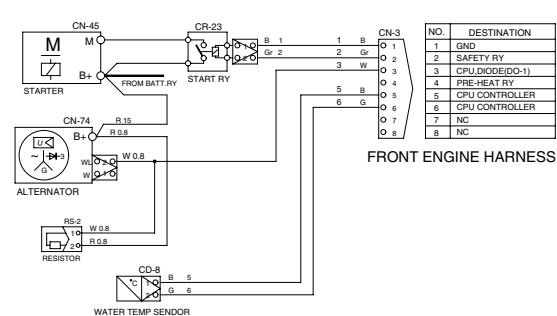
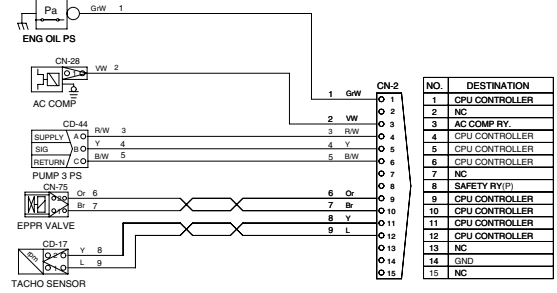
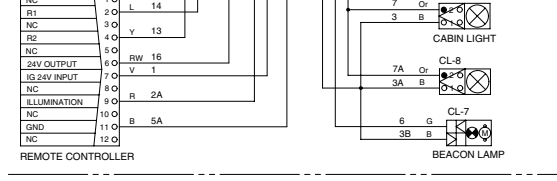
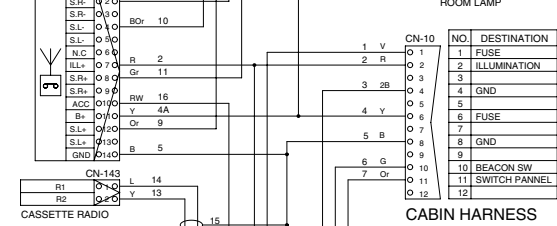
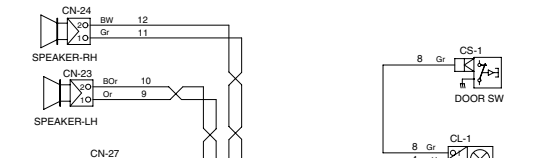
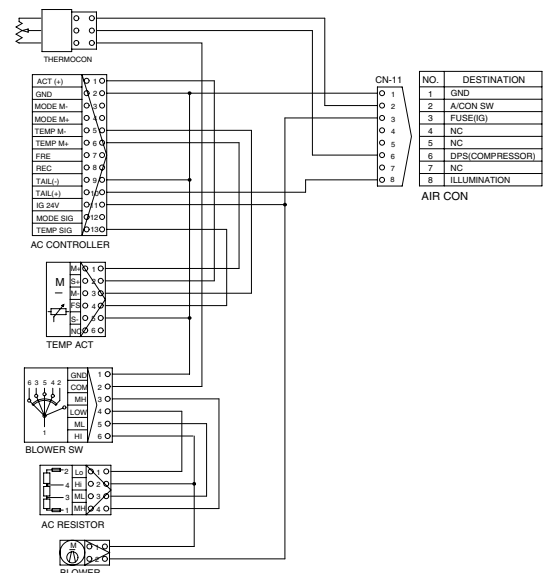
2. LOCATION 2



2107V4EL02

- | | | | | | |
|---|----------------|----|----------------------------|----|----------------------------|
| 1 | Lamp | 7 | EPPR pressure sender | 13 | Air cleaner switch |
| 2 | Fuel sender | 8 | Heater valve | 14 | Battery |
| 3 | Fan | 9 | Start relay | 15 | Battery relay |
| 4 | Beacon lamp | 10 | Engine oil pressure switch | 16 | Boom up pressure sender |
| 5 | Horn | 11 | Temp sender | 17 | Attachment pressure sender |
| 6 | Screw coupling | 12 | Alternator | 18 | Travel pressure sender |

GROUP 2 ELECTRICAL CIRCUIT

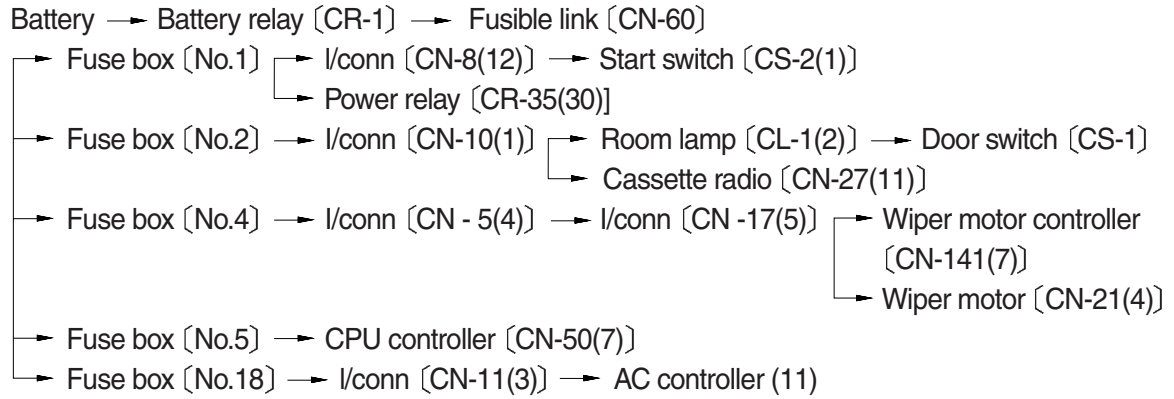


1. POWER CIRCUIT

The negative terminal of battery is grounded to the machine chassis through master switch.

When the start switch is in the OFF position, the current flows from the positive battery terminal as shown below.

1) OPERATING FLOW



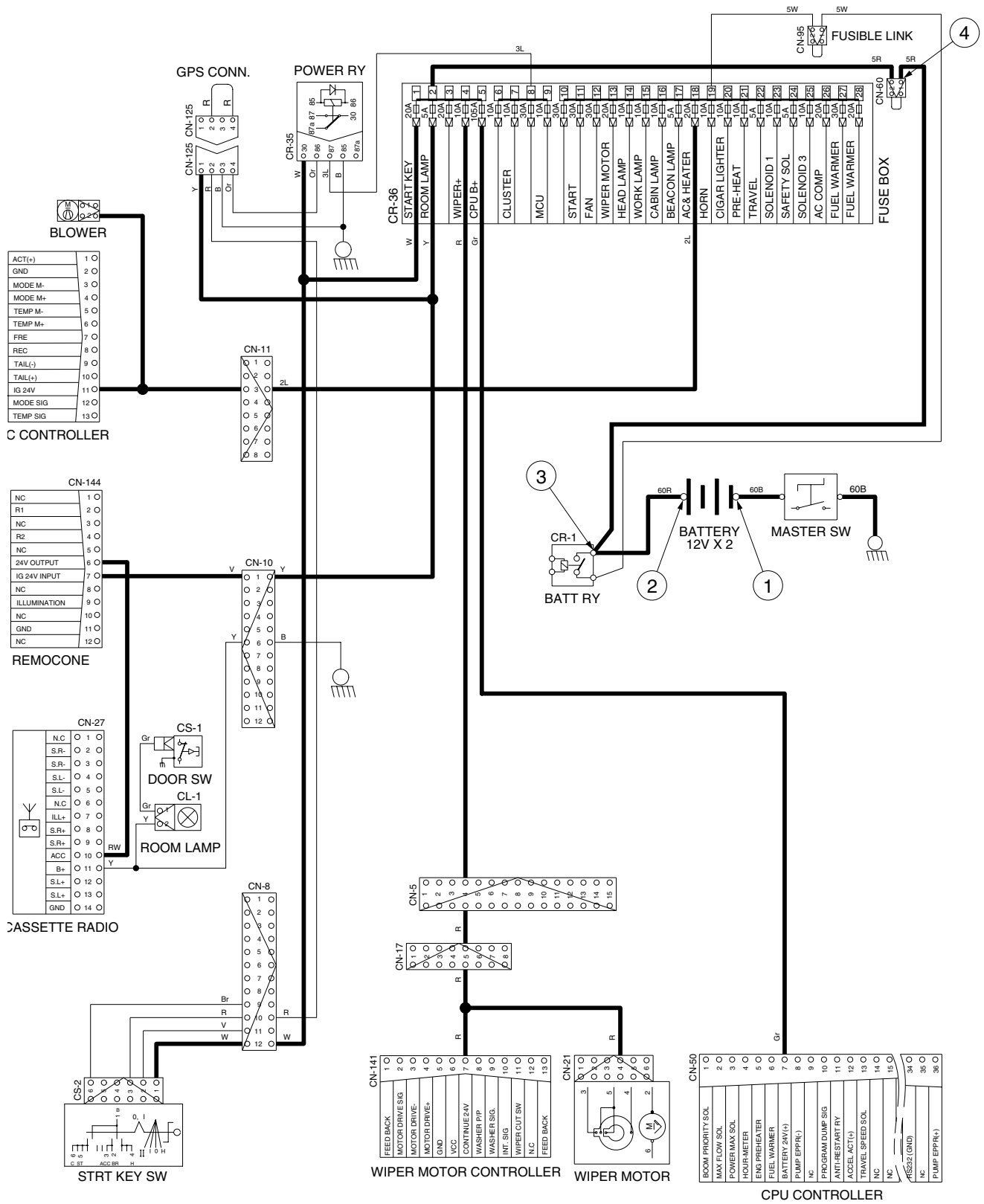
※ I/conn : Intermediate connector

2) CHECK POINT

Engine	Start switch	Check point	Voltage
OFF	OFF	① - GND (Battery 1EA) ② - GND (Battery 2EA) ③ - GND (Battery 2EA) ④ - GND (Fusible link)	10~12.5V 20~25V 20~25V 20~25V

※ GND : Ground

POWER CIRCUIT



2. STARTING CIRCUIT

1) OPERATING FLOW

Battery(+) terminal → Battery relay[CR-1] → Fusible link[CN-60] → Fuse box [No.1]
 → I/conn [CN-8(12)] → Start key [CS-2(1)]

※ Start switch : ON

→ Start switch ON [CS-2(2)] → I/conn [CN-8(11)] → Diode[DO-2] →
 Battery relay [CR-1]:Battery relay operating(All power is supplied with the electric component)
 → Start switch ON [CS-2(3)] → I/conn [CN-8(10)] → Power relay [CR-35(86)→(87)]
 → Fuse box [No.11] → Safety relay [CR-5(87)]

※ Start switch : START

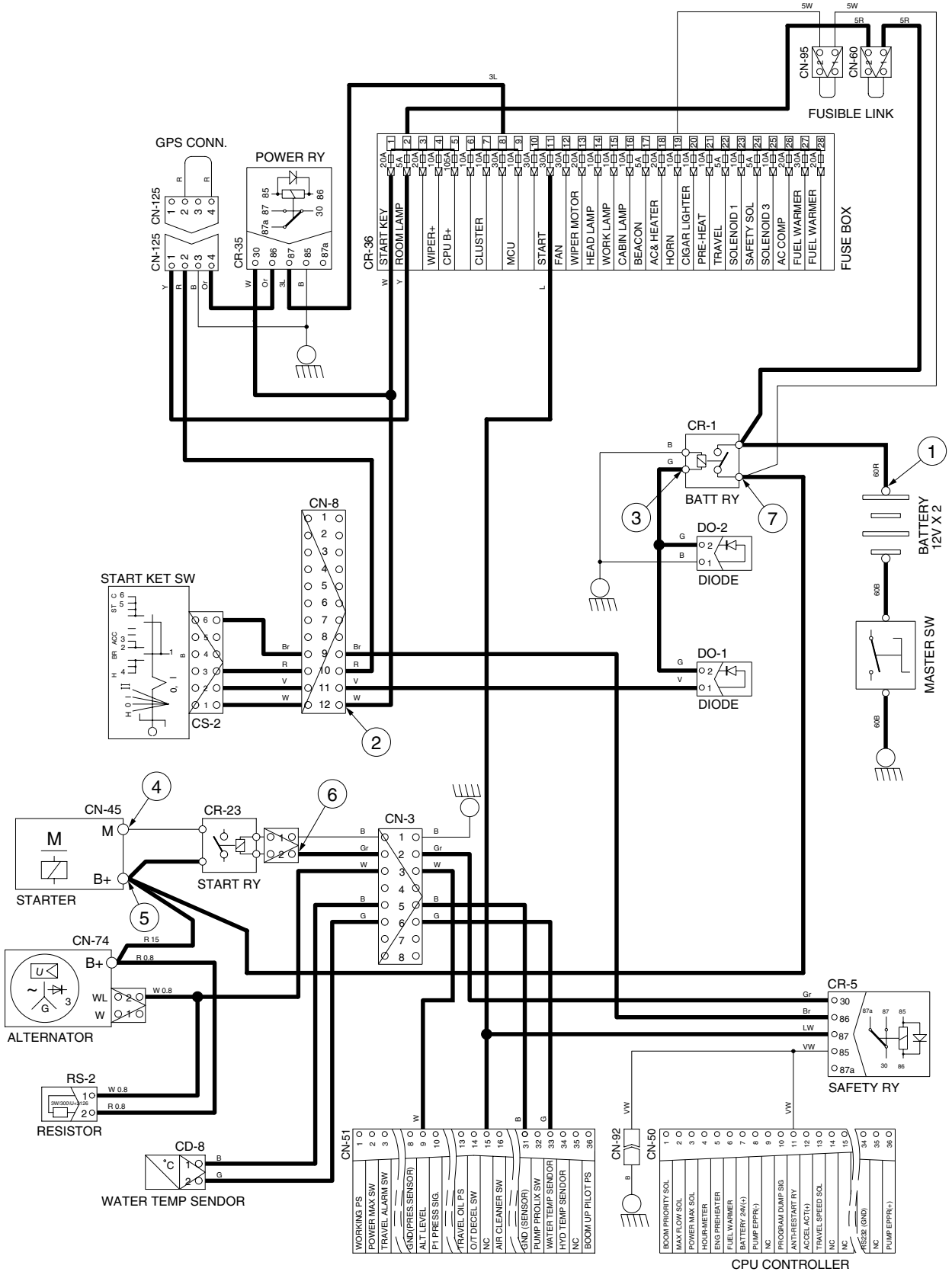
Start switch START[CS-2(6)] → I/conn[CN-8(9)] → Safety relay [CR-5(86) → (30)]
 → I/conn [CN-3(2)] → Start relay [CR-23]

2) CHECK POINT

Engine	Start switch	Check point	Voltage
Operating	Start	① - GND (Battery) ② - GND (Start key) ③ - GND (Battery relay M4) ④ - GND (Starter B) ⑤ - GND (Starter M) ⑥ - GND (Start relay) ⑦ - GND (Battery relay M8)	20 ~ 25V

※ GND : Ground

STARTING CIRCUIT



3. CHARGING CIRCUIT

When the starter is activated and the engine is started, the operator releases the key switch to the ON position.

Charging current generated by operating alternator flows into the battery through the Battery relay [CR-1].

The current also flows from alternator to each electrical component and controller through the fuse box.

1) OPERATING FLOW

(1) Warning flow

Alternator "2" terminal → I/conn [CN-3(3)] → CPU Controller [CN-51(9)] → Cluster warning lamp (via serial interface)

(2) Charging flow

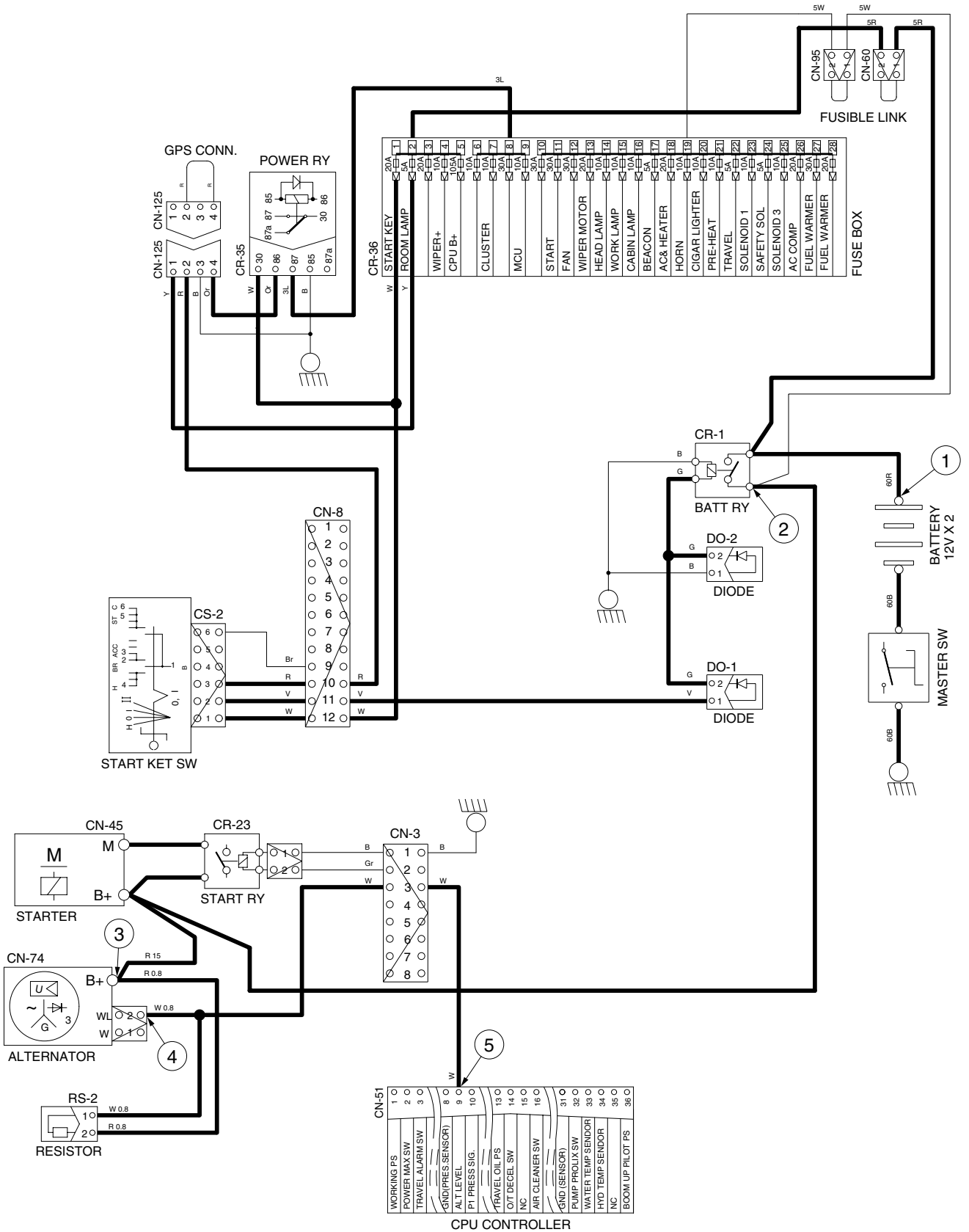
Alternator "B+" terminal → Battery relay(M8) → Battery(+) terminal
 → Fusible link[CN-60] → Fuse box

2) CHECK POINT

Engine	Start switch	Check point	Voltage
ON	ON	① - GND (Battery voltage) ② - GND (Battery relay) ③ - GND (Alternator B terminal) ④ - GND (Alternator I terminal) ⑤ - GND (CPU controller)	20 ~ 275V

※ GND : Ground

CHARGING CIRCUIT



2107V4EC06

4. HEAD LAMP CIRCUIT

1) OPERATING FLOW

Fuse box (No.14) → I/conn [CN-6(12)] → CS-21(1)

※ When light switch ON

Light switch [CS-21(7)]

└─ I/conn[CN-5(2)] → Head lamp ON [CL-4(2)] : Head lamp ON

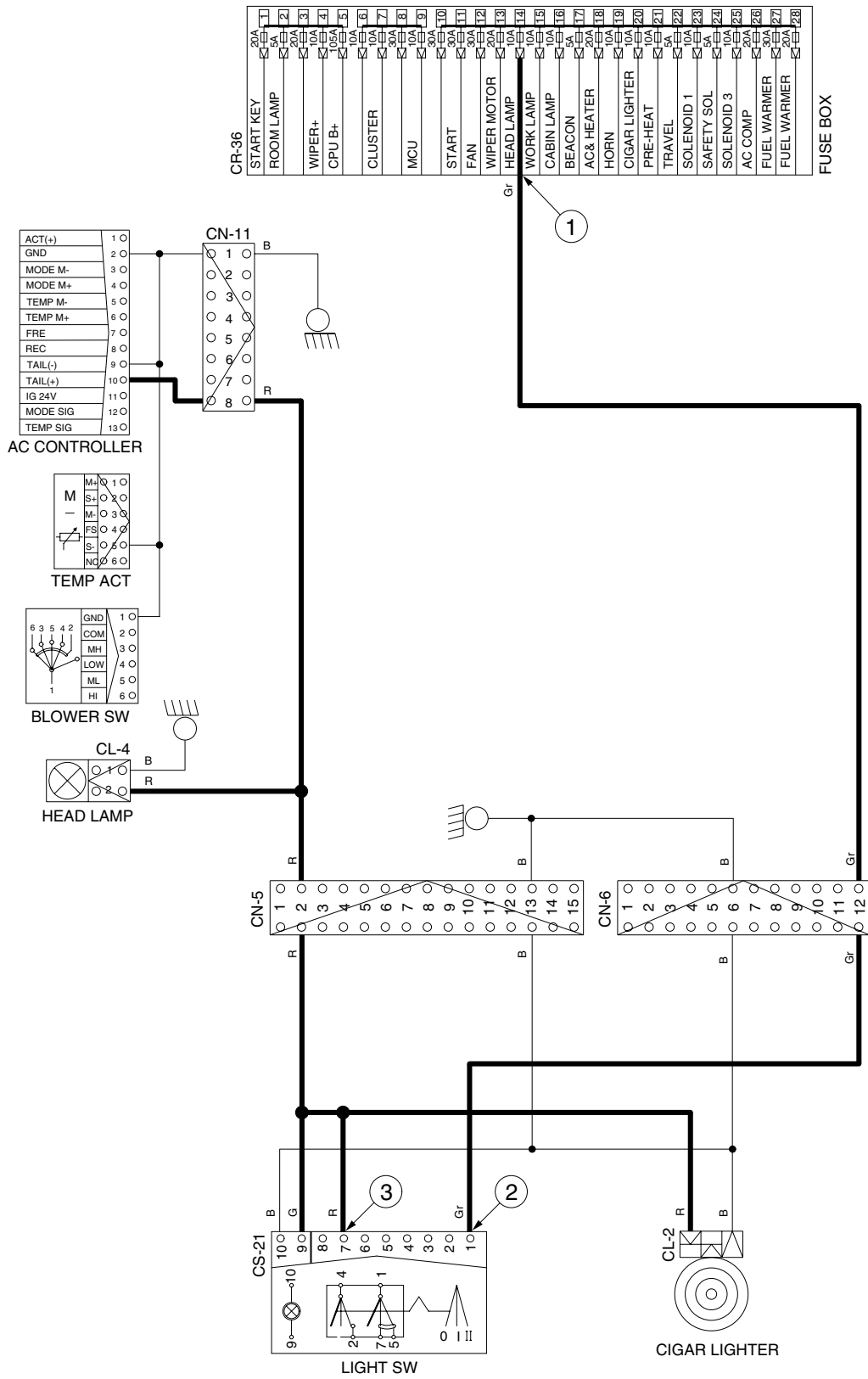
└─ Switch indicator lamp ON [CS-21(9)] → Cigar lighter [CL-2]

2) CHECK POINT

Engine	Key switch	Check point	Voltage
STOP	ON	① - GND (Fuse box) ② - GND (Switch power input) ③ - GND (Switch power output)	20~25V

※ GND : Ground

HEAD LAMP CIRCUIT



5. WORK LAMP CIRCUIT

1) OPERATING FLOW

Fuse box (No.15) → I/conn [CN-5(8)] → Light switch [CS-21(4)]

※ **When work light switch ON**

Work lamp switch ON [CS-21(2)] → I/conn [CN-5(14)] → I/conn [CN-12(1)]

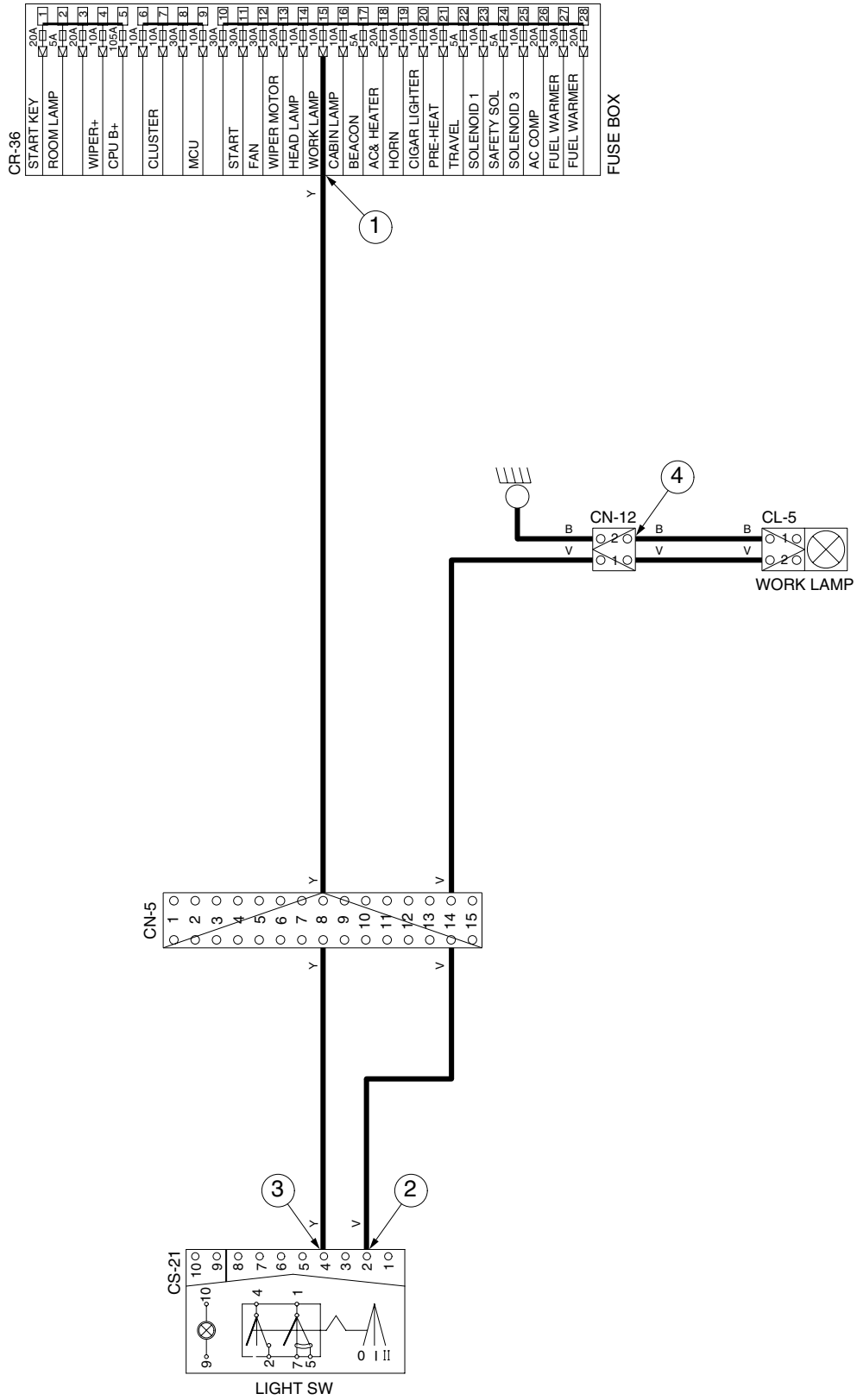
→ Work lamp ON [CL-5(2)]

2) CHECK POINT

Engine	Start switch	Check point	Voltage
STOP	ON	① - GND (Fuse box) ② - GND (Switch power input) ③ - GND (Switch power output) ④ - GND (Work lamp)	20~25V

※ GND : Ground

WORK LAMP CIRCUIT



6. CAB LAMP CIRCUIT

1) OPERATING FLOW

Fuse box (No.16) → I/conn [CN-6(3)] → Cabin lamp switch[CS-24(6)]

※ When Lamp switch ON

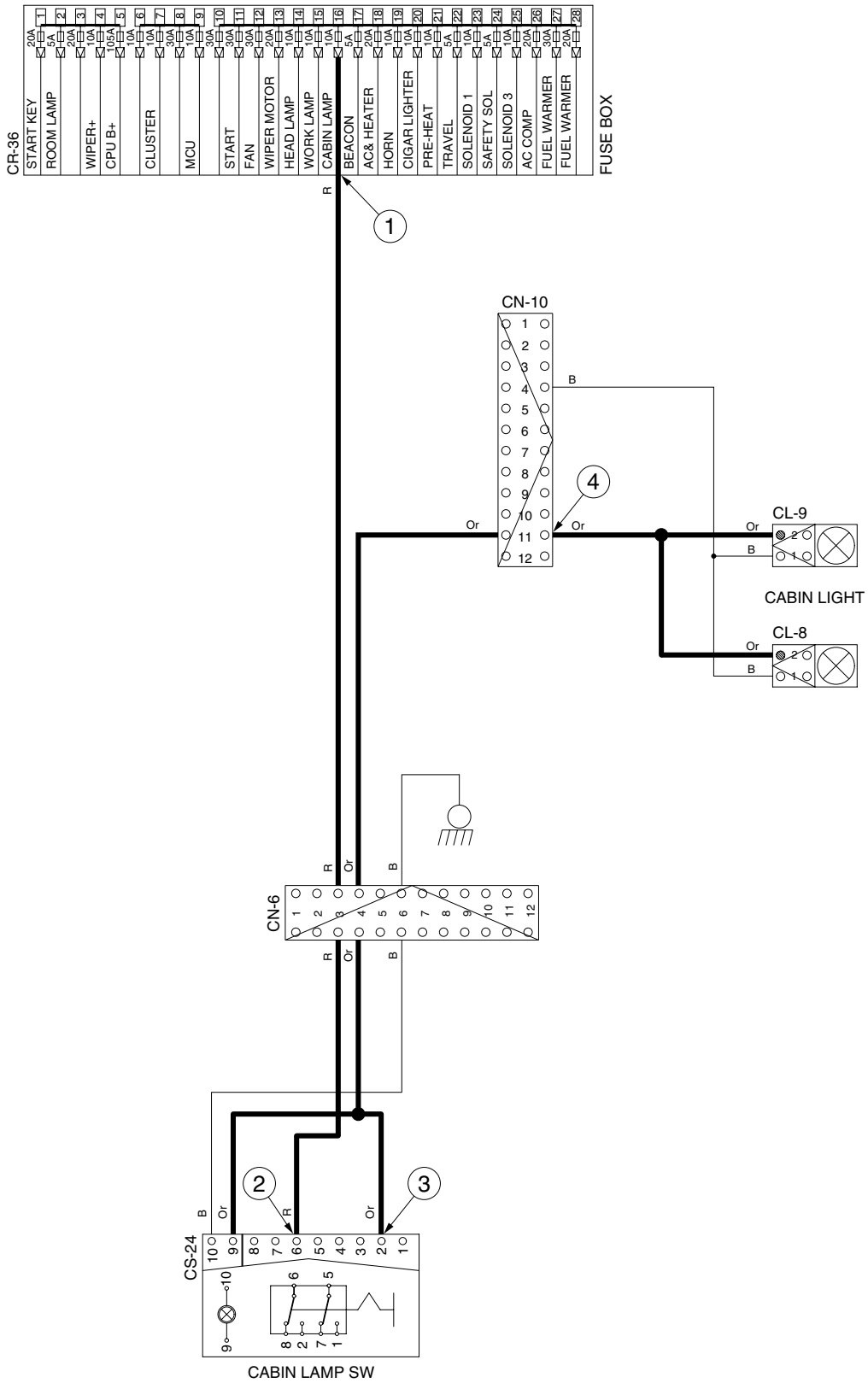
Lamp switch ON [CS-24(2)] → Switch indicator lamp ON [CS-24(9)]
Lamp switch ON [CS-24(2)] → I/conn [CN-6(4)] → I/conn [CN-10(11)] → Cab light ON [CL-8(2), CL-9(2)]

2) CHECK POINT

Engine	Start switch	Check point	Voltage
STOP	ON	① - GND (Fuse box) ② - GND (Switch power input) ③ - GND (Switch power output) ④ - GND (Cab lamp)	20 ~ 25V

※ GND : Ground

CAB LAMP CIRCUIT



7. BEACON LAMP CIRCUIT

1) OPERATING FLOW

Fuse box (No.17) → I/conn [CN-8(3)] → Beacon lamp switch [CS-23(6)]

※ When beacom lamp switch ON

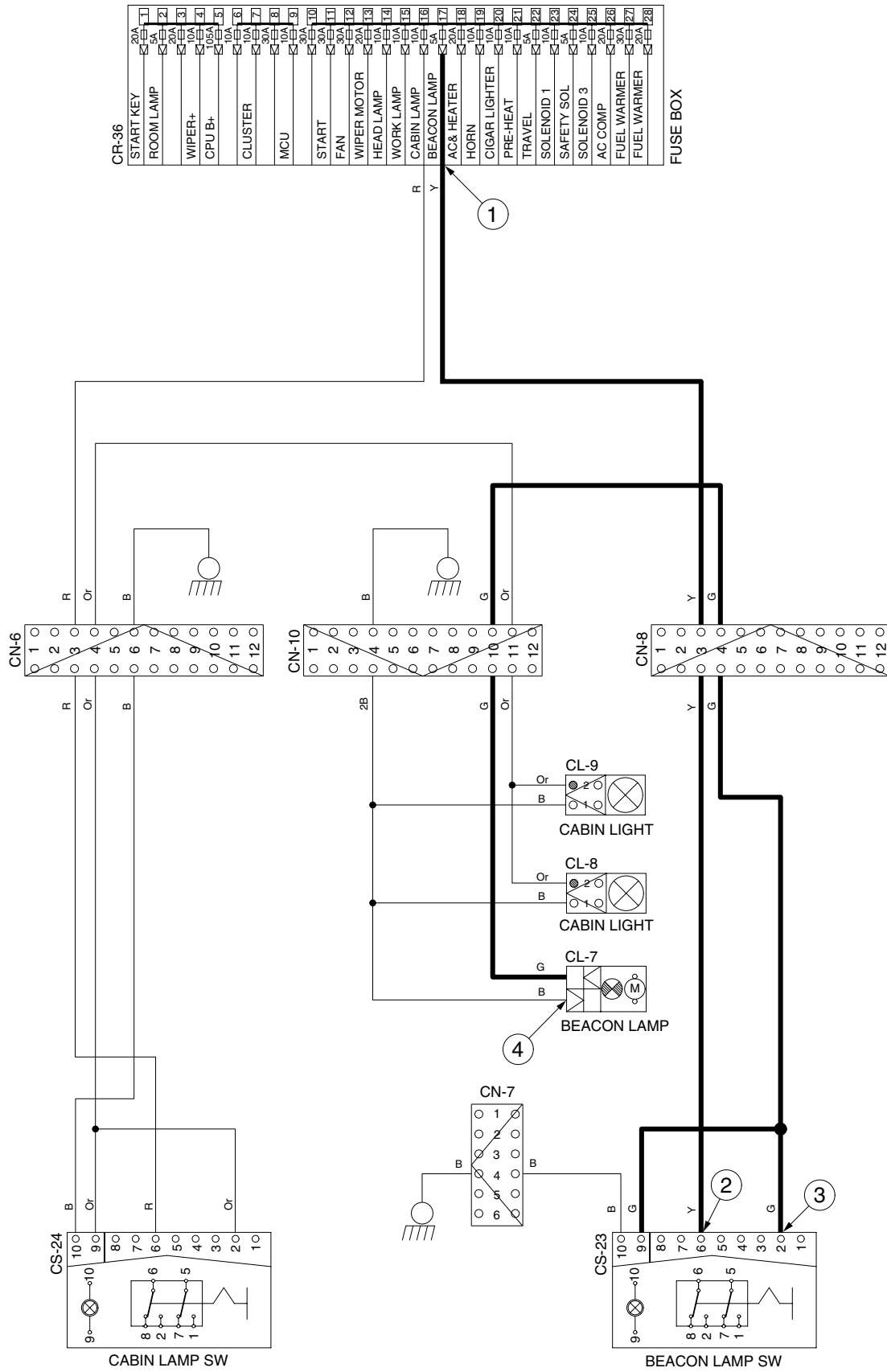
Beacon lamp switch ON [CS-23(2)] → Switch Indicator lamp ON [CS-23(9)]
→ I/conn [CN-8(4)] → I/conn [CN-10(10)]
→ Beacon lamp ON [CL-7]

2) CHECK POINT

Engine	Start switch	Check point	Voltage
STOP	ON	① - GND(Fuse box) ② - GND(Switch power input) ③ - GND(Switch power output) ④ - GND(Beacon lamp)	20~25V

※ GND : Ground

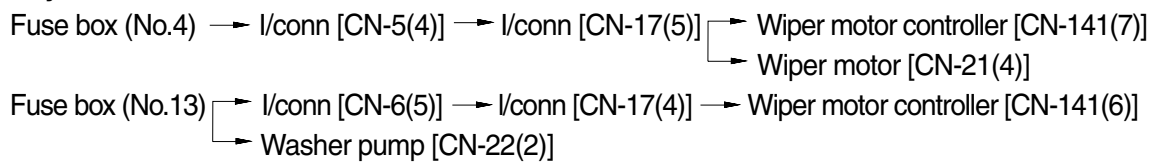
BEACON LAMP CIRCUIT



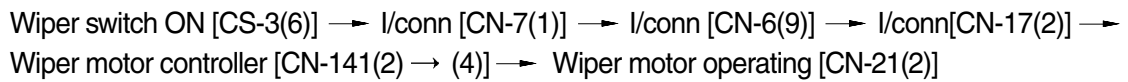
8. WIPER AND WASHER CIRCUIT

1) OPERATING FLOW

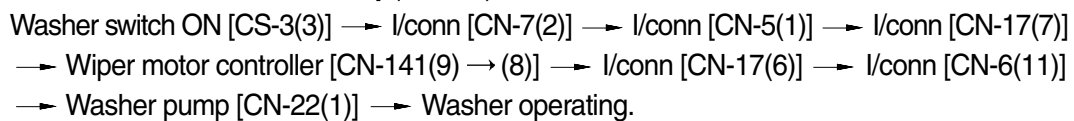
(1) Key switch ON



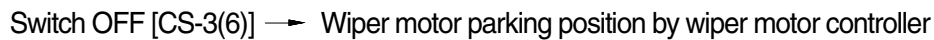
(2) Wiper switch ON : 1st step



(3) Washer switch ON : 2nd step(washer)



(4) Auto parking(When switch OFF)

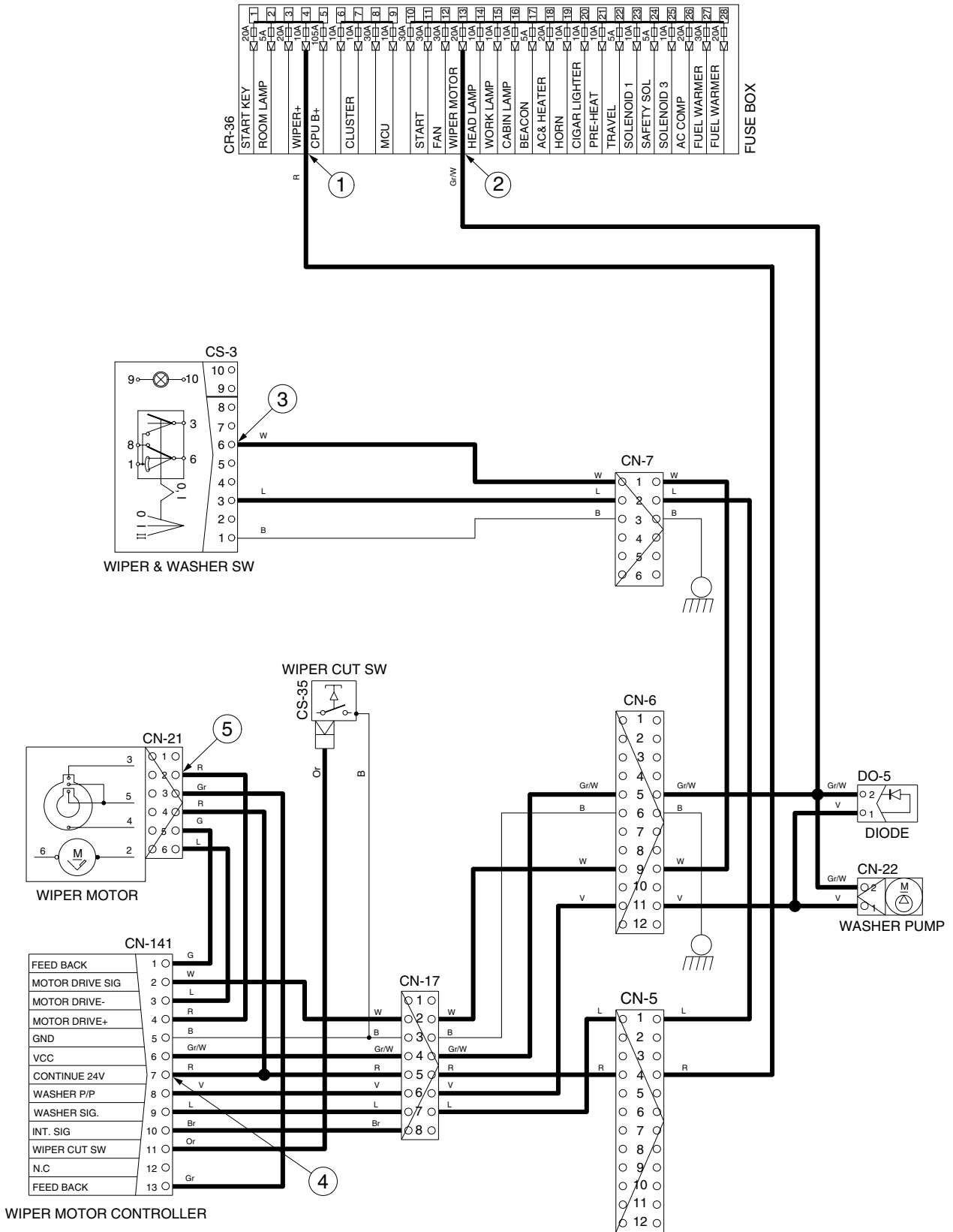


2) CHECK POINT

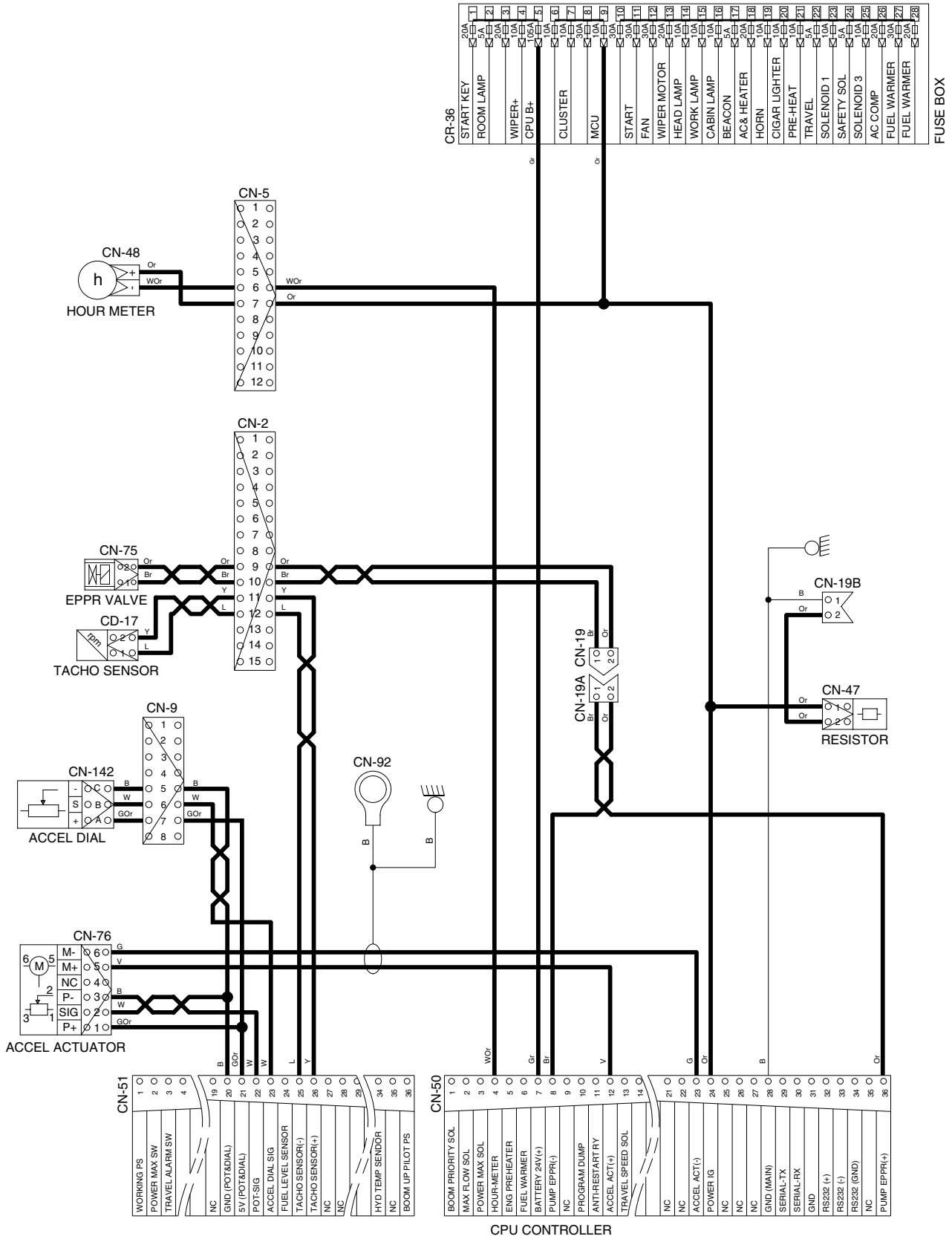
Engine	Start switch	Check point	Voltage
STOP	ON	① - GND(Fuse box) ② - GND(Switch power output) ③ - GND(Wiper Power input) ④ - GND(Wiper power output) ⑤ - GND(Wiper motor)	20~25V

※ GND : Ground

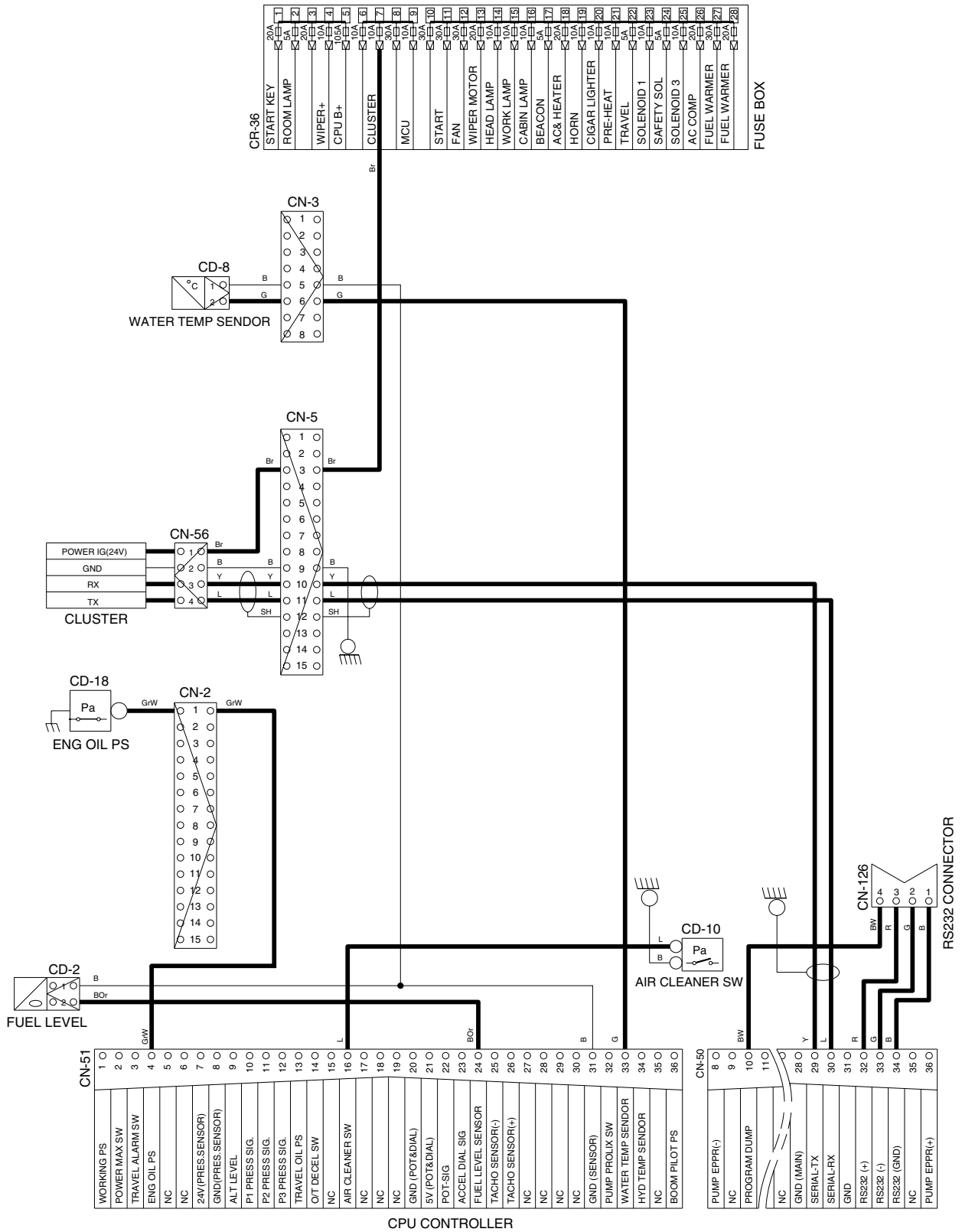
WIPER AND WASHER CIRCUIT



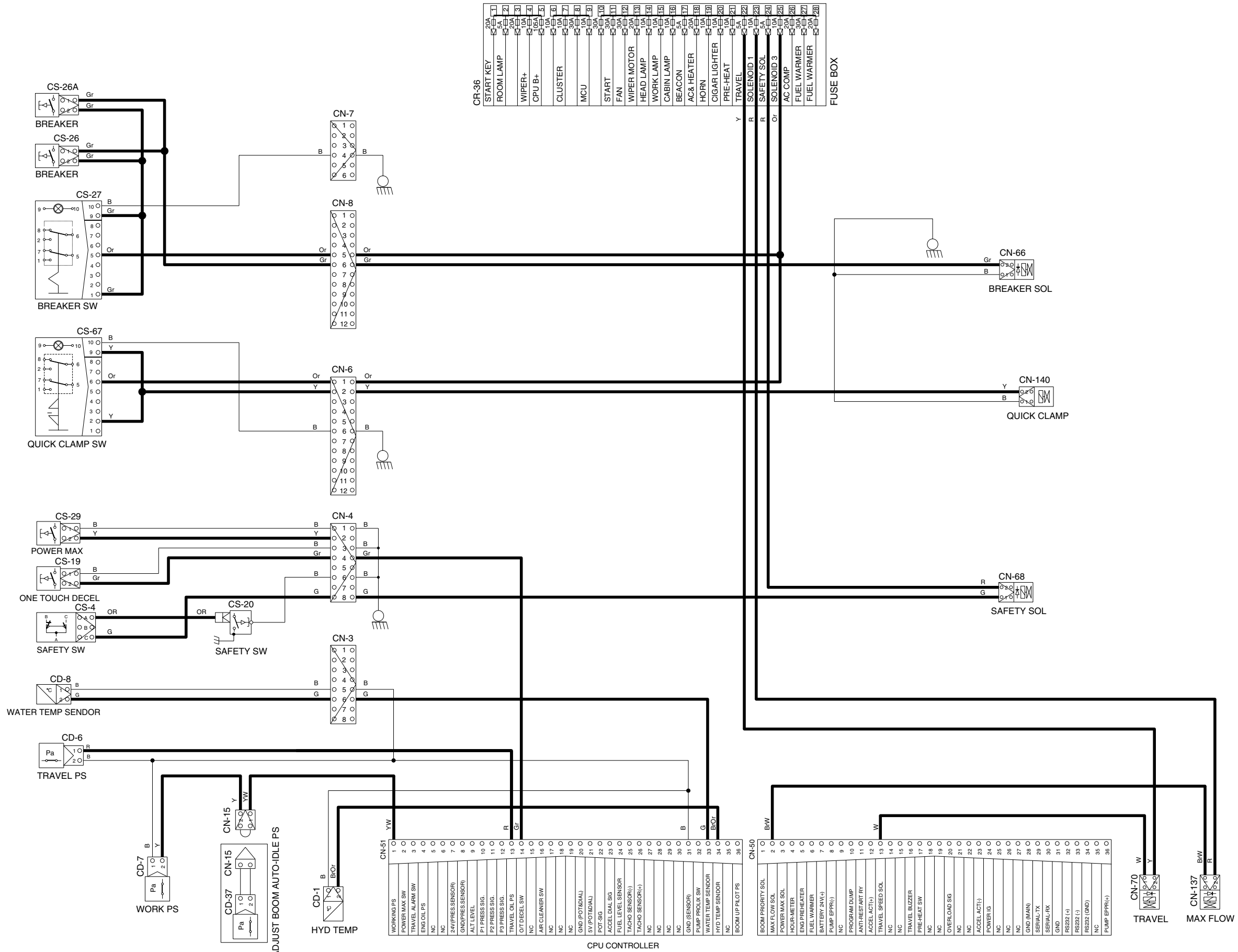
CONTROLLER CIRCUIT



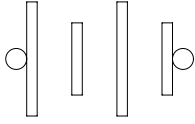
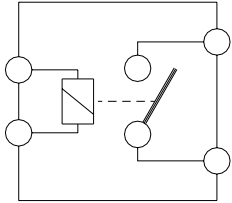
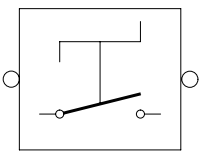
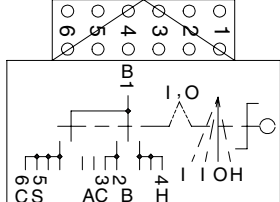
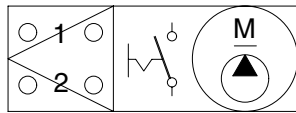
MONITORING CIRCUIT

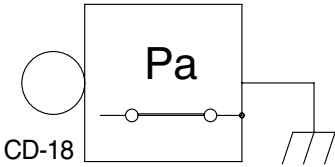
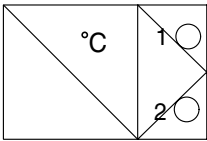
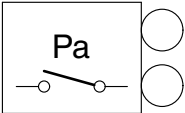
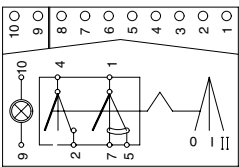
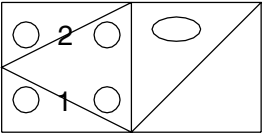
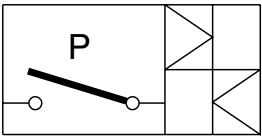


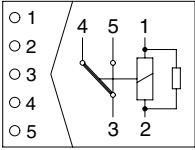
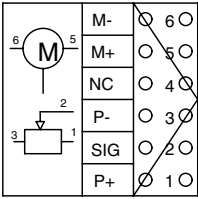
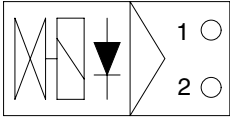
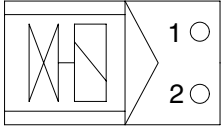
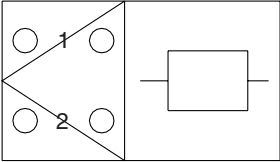
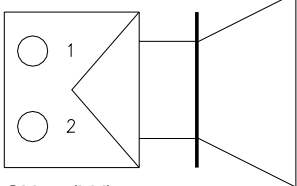
ELECTRIC CIRCUIT FOR HYDRAULIC

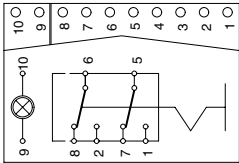
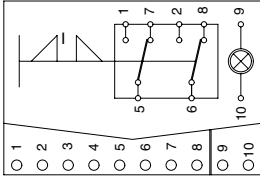
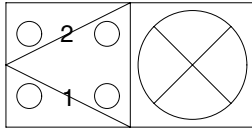
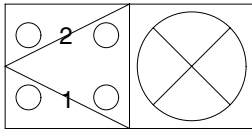
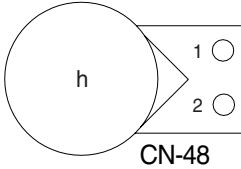
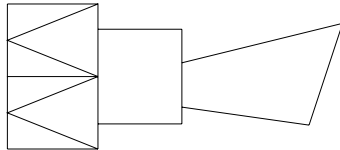


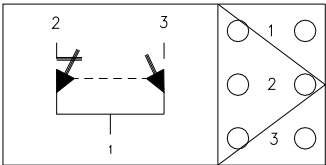
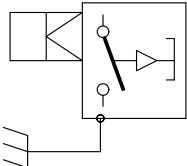
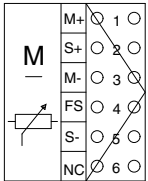
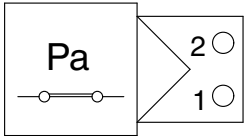
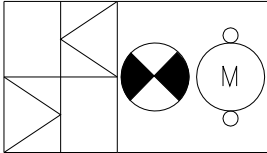
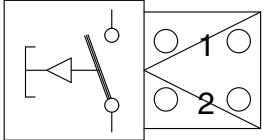
GROUP 3 ELECTRICAL COMPONENT SPECIFICATION

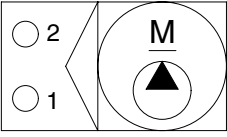
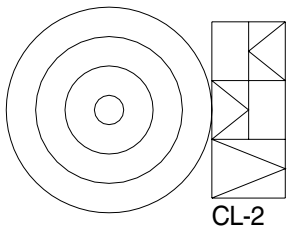
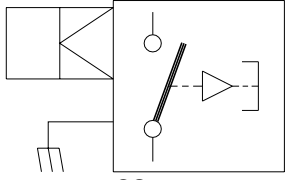
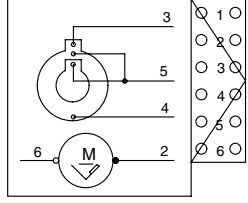
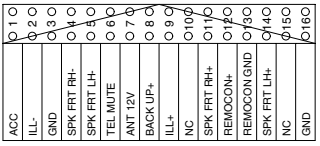
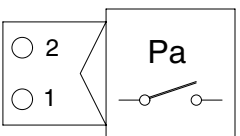
Part name	Symbol	Specification	Check
Battery		12V × 100Ah (2EA)	※ Check specific gravity 1.280 over : Over charged 1.280 ~ 1.250 : Normal 1.250 below : Recharging
Battery relay	 <p style="text-align: center;">CR-1</p>	Rated load : 24V 100A(continuity) 1000A(30seconds)	※ Check coil resistance (M4 to M4) Normal : About 50 Ω ※ Check contact Normal : ∞ Ω
Master switch	 <p style="text-align: center;">CS-74</p>	6~36V	※ Check disconnection Normal : 0.1 Ω
Start key	 <p style="text-align: center;">CS-2</p>	B-BR : 24V 1A B-ACC : 24V 10A B-ST : 24V 40A	※ Check contact OFF : ∞ Ω (For each terminal) ON : 0 Ω (For terminal 1-3 and 1-2) START : 0 Ω (For terminal 1-5)
Fuel filler pump	 <p style="text-align: center;">CN-61</p>	24V 10A 35 l /min	※ Check contact Normal : 1.0 Ω

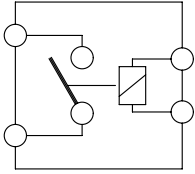
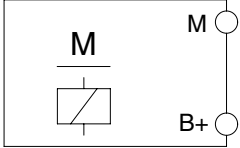
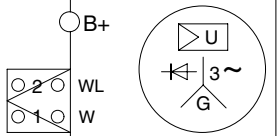
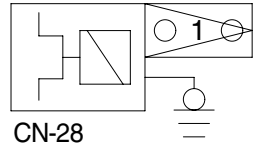
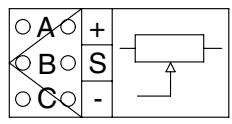
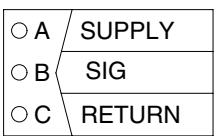
Part name	Symbol	Specification	Check
Pressure switch (engine oil)	 <p>CD-18</p>	0.5 kgf/cm ² (N.C TYPE)	※ Check resistance Normal : 0 Ω (CLOSE)
Temperature sensor (hydraulic)	 <p>CD-1</p>	-	※ Check resistance 50° C : 804 Ω 80° C : 310 Ω 100° C : 180 Ω
Air cleaner pressure switch	 <p>CD-10</p>	Pressure: 635mmH ₂ O (N.O TYPE)	※ Check contact Normal : ∞ Ω
Switch (locking type)	 <p>CS-21</p>	24V 8A	※ Check contact ON : 0 Ω (For terminal 1-5, 2-4) OFF : ∞ Ω (For terminal 1-5, 2-4)
Fuel level sender	 <p>CD-2</p>	-	※ Check resistance Full : 50 Ω 6/12 : 350 Ω 11/12 : 100 Ω 5/12 : 400 Ω 10/12 : 150 Ω 4/12 : 450 Ω 9/12 : 200 Ω 3/12 : 500 Ω 8/12 : 250 Ω 2/12 : 550 Ω 7/12 : 300 Ω 1/12 : 600 Ω Empty warning : 700 Ω
Tacho sensor	 <p>CD-17</p>	-	※ Check resistance Normal : 300 Ω (For terminal 1,2)

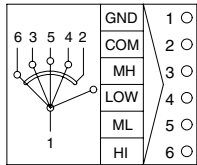
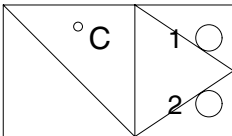
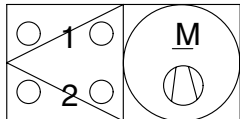
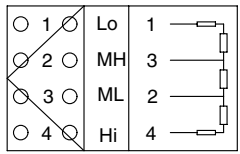
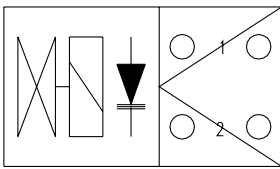
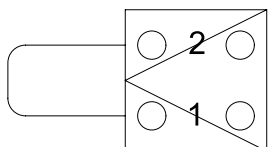
Part name	Symbol	Specification	Check
Relay (Horn, Safety, Ac comp, Power, Preheat, Fuel warmer)	 CR-2 CR-5 CR-7 CR-35 CR-36 CR-46	24V 16A0	※ Check resistance Normal : About 160 Ω (For terminal 85-86) : 0 Ω (For terminal 30-87a) : ∞ Ω (For terminal 30-87)
Accel actuator	 CN-76	-	※ Check resistance Normal : 1-2 Ω (For terminal 5-6) 0.8-1.2kΩ (For terminal 1-3)
Solenoid valve	 CN-66 CN-68 CN-70 CN-137	24V 1A	※ Check resistance Normal : 15~25 Ω (For terminal 1-2)
EPPR valve	 CN-75	700mA	※ Check resistance Normal : 18~25 Ω (For terminal 1-2)
Resistor	 CN-47	50 Ω 20W± 5%	※ Check resistance Normal : 50 Ω
Speaker	 CN-23(LH) CN-24(RH)	4 Ω 20W	※ Check resistance Normal : 4 Ω

Part name	Symbol	Specification	Check
Switch (locking type)	 <p>CS-23 CS-24 CS-27 CS-54 CS-99 CS-101</p>	24V 8A	※ Check contact Normal ON - 0 Ω (For terminal 1-5,2-6) - ∞ Ω (For terminal 5-7,6-8) OFF - ∞ Ω (For terminal 1-5,2-6) - 0 Ω (For terminal 5-7,6-8)
Switch (quick clamp)	 <p>CS-67</p>	24V 8A	※ Check contact Normal ON - 0 Ω (For terminal 1-5,2-6) - ∞ Ω (For terminal 5-7,6-8) OFF - ∞ Ω (For terminal 1-5,2-6) - 0 Ω (For terminal 5-7,6-8)
Head lamp, Work lamp, Cab lamp	 <p>CL-4 CL-5 CL-8 CL-9</p>	24V 70W (H3 TYPE)	※ Check disconnection Normal : 1.2 Ω
Room lamp	 <p>CL-1</p>	24V 10W	※ Check disconnection Normal : A few Ω
Hour meter	 <p>CN-48</p>	16V ~ 32V	※ Check operation · Supply power(24V) to terminal No. 2 and connect terminal No. 1 and ground.
Horn	 <p>CN-20 CN-25</p>	DC 22.0 ~ 28.0V 2A	※ Check operation · Supply power(24V) to each terminal and connect ground.

Part name	Symbol	Specification	Check
Safety switch 1	 <p>CS-4</p>	24V 15A (N.C TYPE)	※ Check contact Normal : 0 Ω (For terminal 1-2) : ∞ Ω (For terminal 1-3) Operating : ∞ Ω (For terminal 1-2) : 0 Ω (For terminal 1-3)
Safety switch 2 Wiper cut sw	 <p>CS-20 CS-53</p>	24V (N.C TYPE)	※ Check contact Normal : 0 Ω (one pin to ground)
Temp actuator		9~16V 300mA max	-
Pressure switch (travel, work, adjust boom auto idle)	 <p>CD-6 CD-7 CD-37</p>	10bar (N.C type)	※ Check contact Normal : 0.1 Ω
Beacon lamp	 <p>CL-7</p>	24V 70W	※ Check disconnection Normal : 1.1 Ω
Switch (power max, one touch decel, breaker, horn)	 <p>CS-5 CS-19 CS-26 CS-26A CS-29</p>	24V 6A	※ Check contact Normal : ∞ Ω

Part name	Symbol	Specification	Check
Washer tank	 <p>CN-22</p>	24V 3.8A	※ Check contact Normal : 10.7 Ω (For terminal 1-2)
Cigar lighter	 <p>CL-2</p>	24V 5A 1.4W	※ Check coil resistance Normal : About 1MΩ ※ Check contact Normal : ∞ Ω Operating time : 5~15sec
Door switch	 <p>CS-1</p>	24V 2W	※ Check resistance Normal : About 5MΩ
Wiper motor	 <p>CN-21</p>	24V 2A	※ Check contact Normal : 7 Ω (For terminal 2-6)
Cassette radio	 <p>CN-27</p>	24V 2A	※ Check voltage 20 ~ 25V (For terminal 10-14,11-14)
Receiver dryer	 <p>CN-29</p>	24V 2.5A	※ Check contact Normal : 0 Ω

Part name	Symbol	Specification	Check
Start relay	 <p>CR-23</p>	24V 300A	※ Check contact Normal : 0.94 Ω (For terminal 1-2)
Starter	 <p>CN-45</p>	Lucas 4.5KW, 24V	※ Check contact Normal : 0.1 Ω
Alternator	 <p>CN-74</p>	24V 55A	※ Check contact Normal : 0 Ω (For terminal B ⊕1) Normal : 24 ~ 27.5V
Aircon compressor	 <p>CN-28</p>	24V 79W	※ Check contact Normal : 13.4 Ω
Accel dial switch	 <p>CN-142</p>	-	※ Check resistance Normal : About 5kΩ (For terminal A-C) ※ Check voltage Normal : About 5V (For terminal A-C) : 2 ~ 4.5V (For terminal C-B)
Pressure sensor (boom up, EPPR valve)	 <p>CD-32 CD-44</p>	8~30V	※ Check contact Normal : 0.1 Ω

Part name	Symbol	Specification	Check
Blower switch	 <p>CS-58</p>	-	※ Check resistance Low : 0 Ω (For terminal 1-4) ML : 0 Ω (For terminal 1-5) MH : 0 Ω (For terminal 1-3) MI : 0 Ω (For terminal 1-6) COM : 0 Ω (For terminal 1-2)
Temperature sensor (coolant)	 <p>CD-08</p>	-	※ Check resistance 50°C : 800 Ω 80°C : 310 Ω 100°C : 180 Ω
Blower motor		24V 9.5A	※ Check resistance 2.5 Ω (For terminal 1-2)
Aircon resistor		-	※ Check resistance 1.12 Ω (For terminal 4-2) 2.07 Ω (For terminal 2-3) 3.17 Ω (For terminal 3-1)
Quick clamp	 <p>CN-140</p>	24V 6A	※ Check contact Normal : 28.9MΩ (For terminal 1-2)
Fusible link	 <p>CN-60 CN-95</p>	60A	※ Check disconnection Normal : 0 Ω (Connect ring terminal and check resist between terminal 1 and 2)

GROUP 4 CONNECTORS

1. CONNECTOR DESTINATION

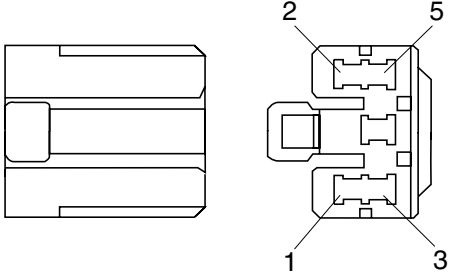
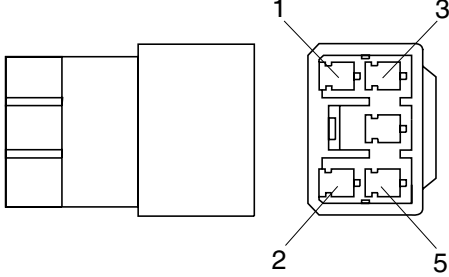
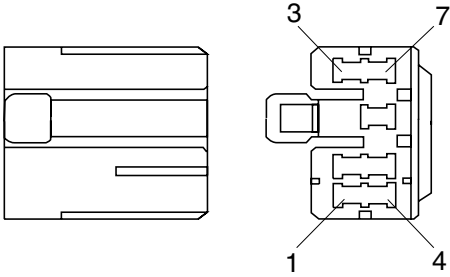
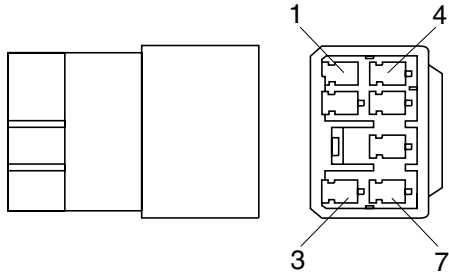
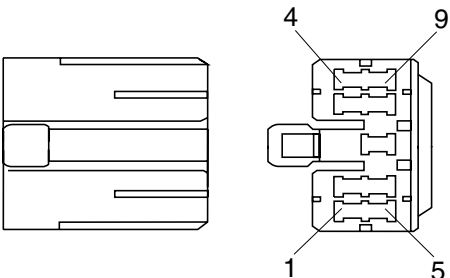
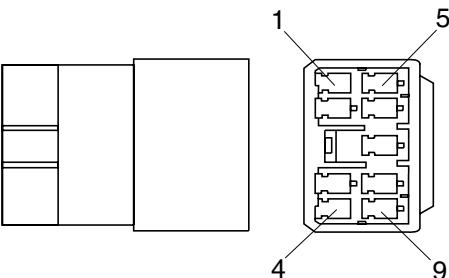
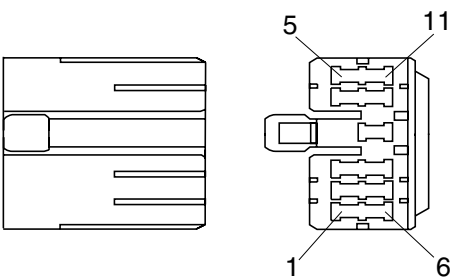
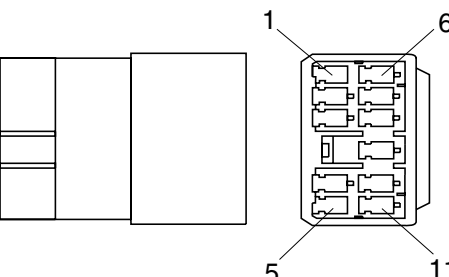
Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-2	AMP	15	Engine rear harness	2-85262-1	368301-1
CN-3	AMP	8	Engine harness	S816-008002	S816-108002
CN-4	AMP	8	Cabin LH wire harness	S816-008002	S816-108002
CN-5	AMP	15	RH side harness	2-85262-1	-
CN-6	AMP	12	RH side harness	S816-012002	S816-112002
CN-7	AMP	6	Cabin RH console harness	S816-006002	S816-106002
CN-8	AMP	12	Cabin RH console harness	S816-012002	S816-112002
CN-9	AMP	8	Cabin RH console harness	S816-008002	S816-108002
CN-10	DEUTSCH	12	Frame harness	DT06-12S	DT04-12P
CN-11	DEUTSCH	8	Aircon harness	DT06-8S	DT04-08P
CN-12	DEUTSCH	2	Work lamp harness	DT06-2S	DT04-2P-E005
CN-15	KET	2	Adjust boom auto idle pressure	S814-002100	S814-102100
CN-17	DEUTSCH	8	Wiper harness	DT06-8S	DT04-8P
CN-20	MOLEX	2	Horn	35215-0200	-
CN-21	AMP	6	Wiper motor	925276-0	-
CN-22	KET	2	Washer tank	MG640605	-
CN-23	KET	2	LH speaker	MG610070	-
CN-24	KET	2	RH speaker	MG610070	-
CN-25	MOLEX	2	Horn	35215-0200	-
CN-27	AMP	14	Cassette radio	173852	-
CN-28	MWP	1	Air-con compressor	NMWP01F-B	-
CN-29	KET	2	Receiver dryer	HG640795	-
CN-36	DEUTSCH	3	Fuse box	21N8-20191	-
CN-45	RING TERM	-	Start motor B ⁺	ST710264-2	-
CN-47	AMP	2	Resistor	S810-002202	S810-102202
CN-48	AMP	2	Hour meter	S810-002202	-
CN-50	AMP	36	CPU controller	3441110	-
CN-51	AMP	36	CPU controller	3441110	-
CN-56	DEUTSCH	4	Cluster	-	DT04-4P
CN-60	YAZAKI	2	Fusible link	7123-412S-50	7122-412S-50
CN-66	DEUTSCH	2	Breaker solenoid	DT06-2S-EP06	DT04-2P-E005
CN-68	DEUTSCH	2	Safety solenoid	DT06-2S-EP06	DT04-2P-E005
CN-70	DEUTSCH	2	Travel speed solenoid	DT06-2S-EP06	DT04-2P-E005
CN-74	RING-TERM	1	Alternator "1" term	S820-408000	-
CN-75	Econoseal J	2	EPPR valve	S816-002002	-
CN-76	DEUTSCH	6	Accel actuator	DT06-6S	-
CN-92	AMP	1	Safety	S814-001100	S814-101100
CN-95	KET	2	Fusible link	S813-030201	S813-130200

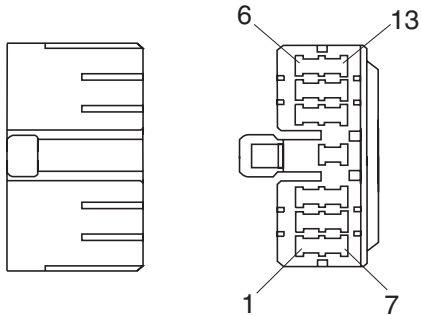
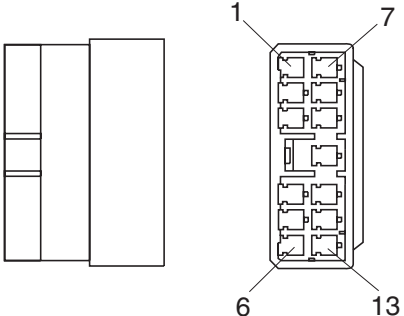
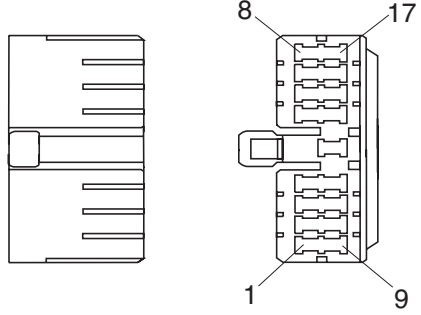
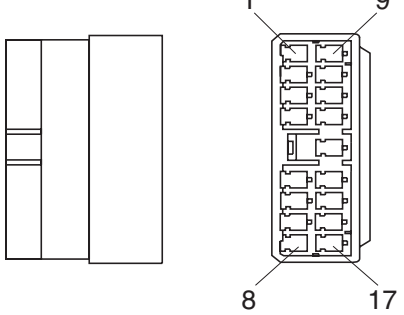
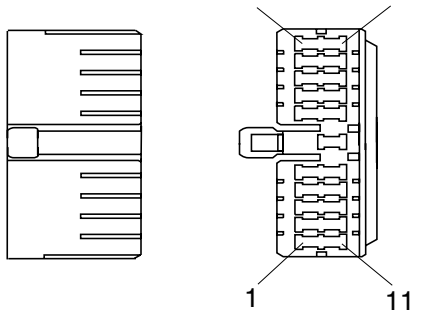
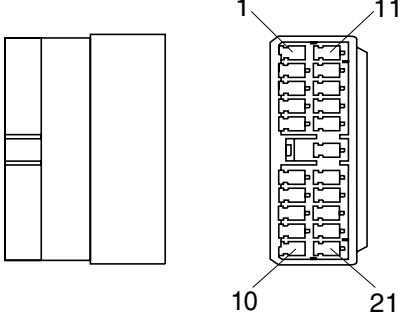
Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-125	Econoseal J	4	GPS connector	S816-004002	S816-104002
CN-126	DEUTSCH	4	RS232 connector	DT06-4S	DT04-4P-E004
CN-137	DEUTSCH	2	Max flow solenoid valve	DT06-2S-EP06	DT04-2P-E005
CN-140	DEUTSCH	2	Quick clamp solenoid	DT06-2S-EP06	DT04-2P-E005
CN-141	AMP	13	Wiper motor control unit	172498-1	-
CN-142	DEUTSCH	3	Accel dial	DT06-3S	-
CN-143	KET	14	Cassette radio(with remocon)	MG610406	-
CN-144	AMP	12	Remocon-cassette radio	174045-2	-
CN-147	-	2	Fuel heater	1530-0027	-
CN-248	-	2	Fan	-	S816-102002
RELAY					
CR-1	RING TERM	1	Battery relay	S820-104002	-
CR-2	-	5	Horn relay	-	-
CR-5	-	5	Safety relay	-	-
CR-7	-	5	Ac comp relay	-	-
CR-23	KET	2	Start relay	S814-002001	S814-102001
CR-35	-	5	Power relay	-	-
CR-36	-	5	Pre-heat relay	-	-
CR-46	-	5	Fuel warmer relay	-	-
SWITCH					
CS-1	SHUR	1	Door switch	S822-014004	-
CS-2	-	6	Start key switch	S814-006000	S814-106000
CS-3	SWF	10	Wiper switch	SWF593757	-
CS-4	DEUTSCH	3	Safety switch	DT06-3S	DT04-3P
CS-5	DEUTSCH	2	Horn switch	DT06-2S	DT04-2P
CS-19	DEUTSCH	2	One touch decel	DT06-2S	DT04-2P
CS-20	AMP	1	Safety switch	S822-014002	-
CS-21	SWF	10	Lamp switch	SWF593757	-
CS-23	SWF	10	Beacon lamp switch	SWF593757	-
CS-24	SWF	10	Cabin lamp switch	SWF593757	-
CS-26	DEUTSCH	2	Breaker switch	DT06-2S	DT04-2P
CS-27	SWF	10	Breaker switch	SWF593757	-
CS-53	SHUR	1	Wiper cut switch	S822-014002	-
CS-54	SWF	10	Aircon switch	SWF593757	-
CS-58	AMP	6	Blower switch	S810-006202	-
CS-67	SWF	10	Quick clamp switch	SWF593757	-
CS-74	AMP	2	Master switch	S813-030201	-
CS-99	SWF	10	Spare switch	SWF593757	-
CS-101	SWF	10	Fan switch	SWF593757	-

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
LAMP					
CL-1	KET	2	Cabin room lamp	MG610406	-
CL-2	AMP	1	Cigar lighter	S822-014002	-
CL-4	DEUTSCH	2	Head lamp	DT06-2S	DT04-2P
CL-5	DEUTSCH	2	Work lamp	DT06-2S	DT04-2P
CL-7	SHUR	1	Beacon lamp	S822-014004	S822-114004
CL-8	DEUTSCH	2	Cabin light-LH	DT06-2S	DT04-2P
CL-9	DEUTSCH	2	Cabin light-RH	DT06-2S	DT04-2P
SENDER					
CD-1	AMP	2	Hydraulic oil temp sender	85202-1	-
CD-2	DEUTSCH	2	Fuel level sender	DT06-2S	DT04-2P
CD-6	KET	3	Travel pressure switch	MG640795	-
CD-7	KET	3	Working pressure switch	MG640795	-
CD-8	AMP	2	Water temp sender	85202-1	-
CD-10	RING TERM	1	Air cleaner pressure switch	S820-104002	-
CD-17	-	2	Tacho sensor	-	S818-120221
CD-18	RING TERM	1	Engine oil pressure switch	S820-104000	-
CD-32	Econoseal J	3	Boom up sensor	S816-003002	S816-103002
CD-37	KET	3	Adjust boom auto idle pressure switch	MG640795	-
CD-44	Econoseal J	3	Pump pressure 3	S816-003002	S816-103002
DIODE					
DO-1	AMP	2	-	21EA-50550	-
DO-2	AMP	2	-	21EA-50550	-
DO-5	AMP	2	-	21EA-50550	-

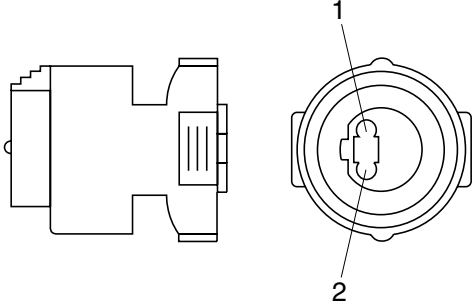
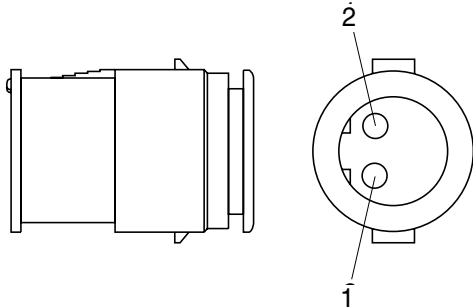
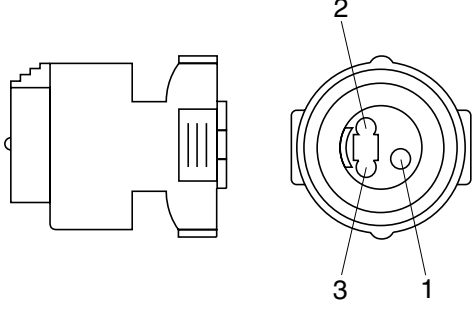
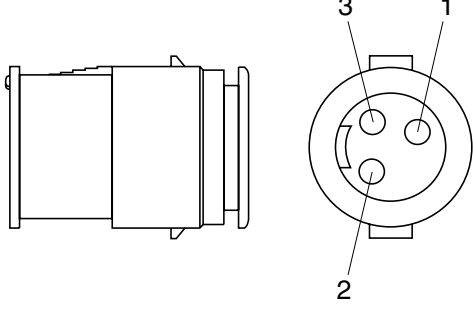
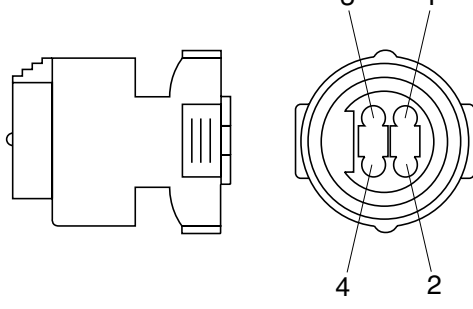
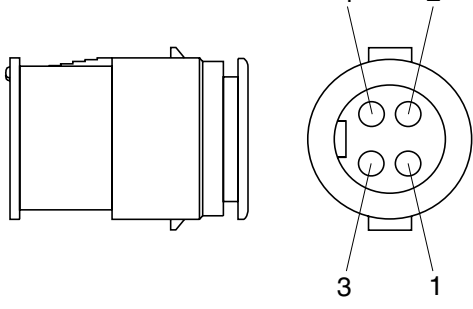
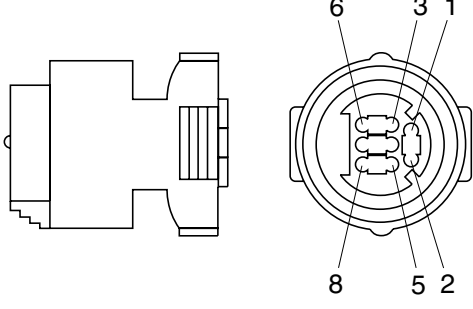
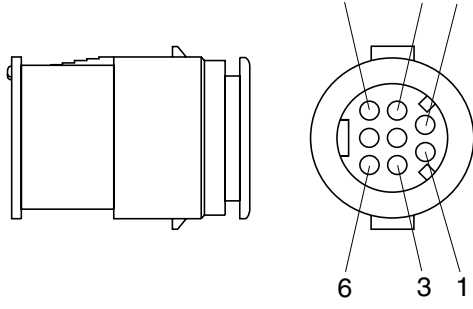
2. CONNECTION TABLE FOR CONNECTORS

1) PA TYPE CONNECTOR

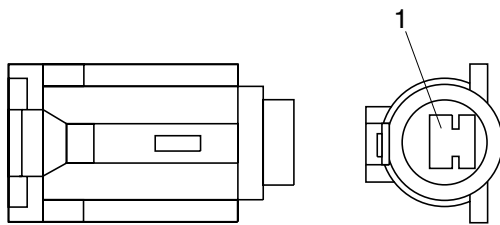
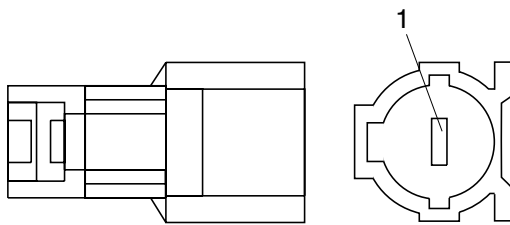
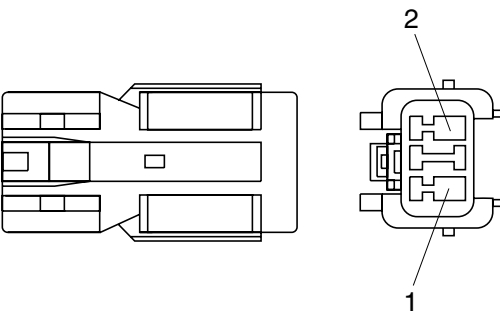
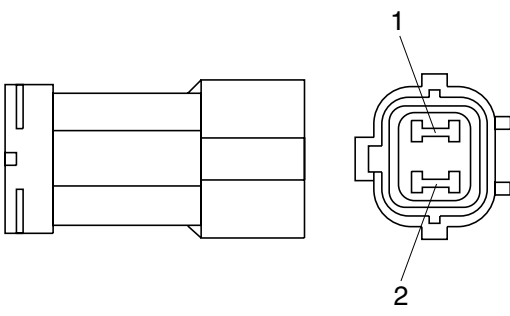
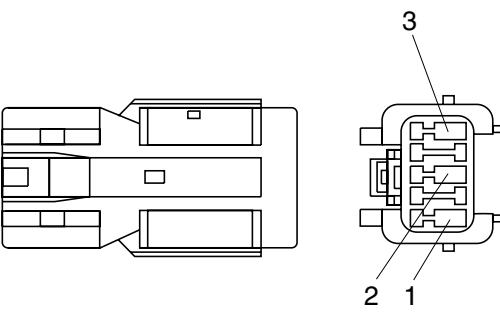
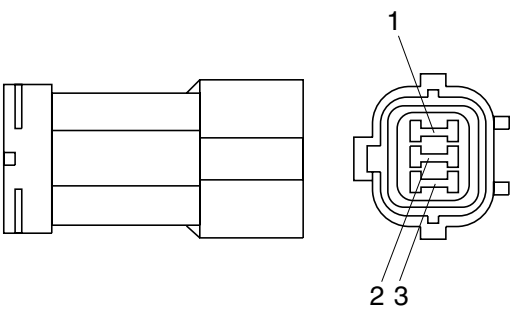
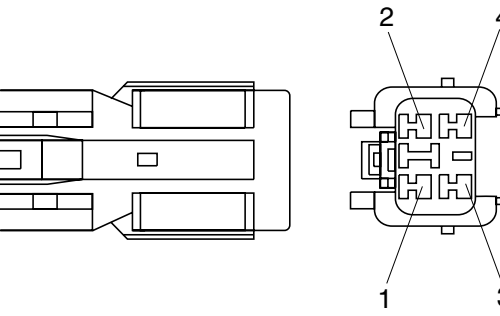
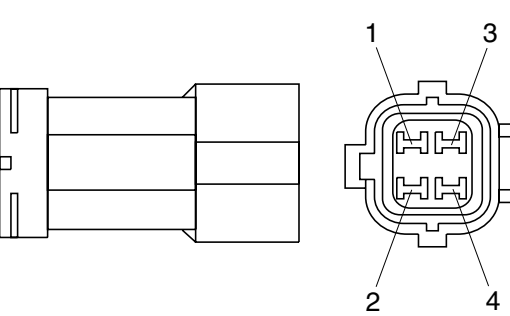
No. of pin	Receptacle connector(Female)	Plug connector(Male)
5	 <p style="text-align: center;">S811-005002</p>	 <p style="text-align: center;">S811-105002</p>
7	 <p style="text-align: center;">S811-007002</p>	 <p style="text-align: center;">S811-107002</p>
9	 <p style="text-align: center;">S811-009002</p>	 <p style="text-align: center;">3S811-109002</p>
11	 <p style="text-align: center;">S811-011002</p>	 <p style="text-align: center;">S811-111002</p>

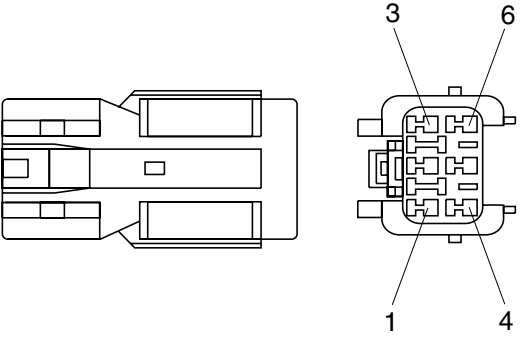
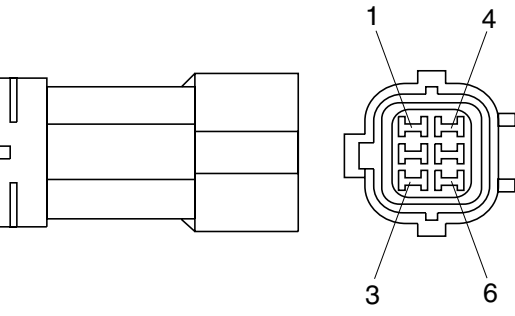
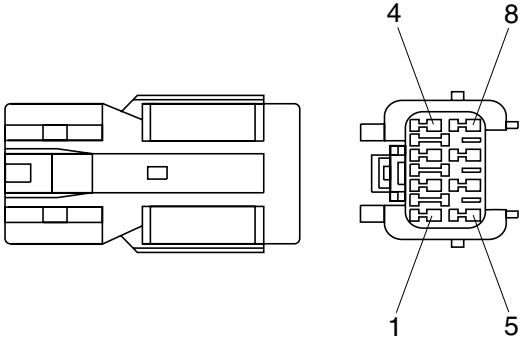
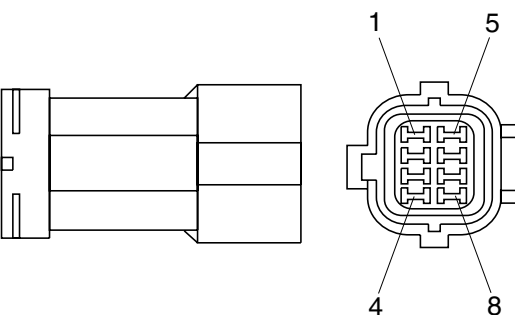
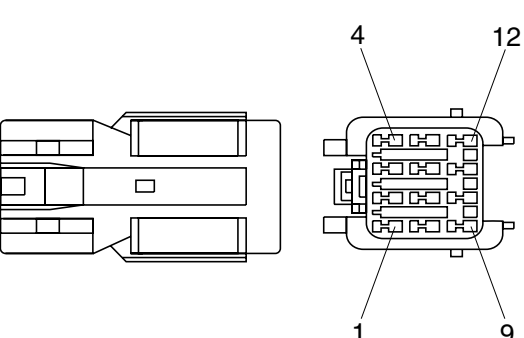
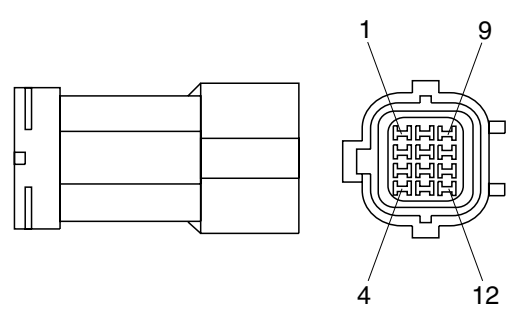
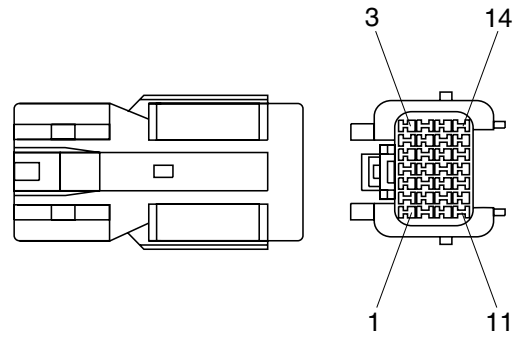
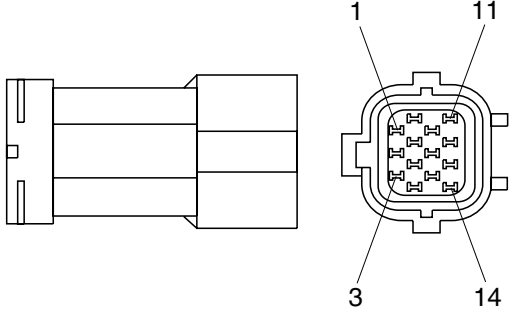
No. of pin	Receptacle connector(Female)	Plug connector(Male)
13	 <p data-bbox="691 629 839 658">S811-013002</p>	 <p data-bbox="1246 629 1394 658">S811-113002</p>
17	 <p data-bbox="691 1039 839 1068">S811-017002</p>	 <p data-bbox="1246 1039 1394 1068">S811-117002</p>
21	 <p data-bbox="691 1444 839 1473">S811-021002</p>	 <p data-bbox="1246 1444 1394 1473">S811-121002</p>

2) J TYPE CONNECTOR

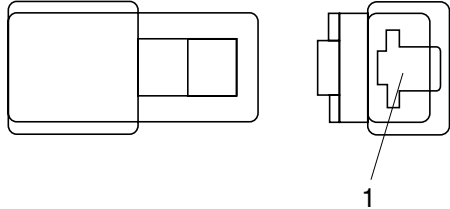
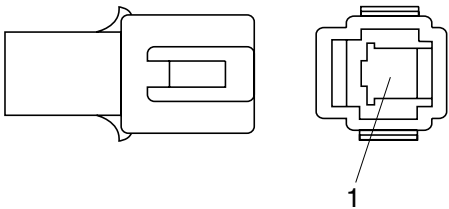
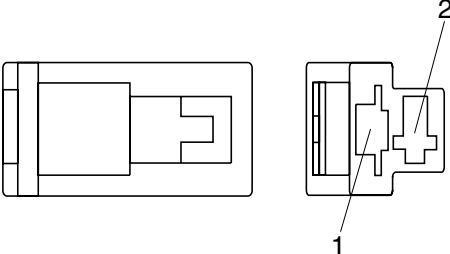
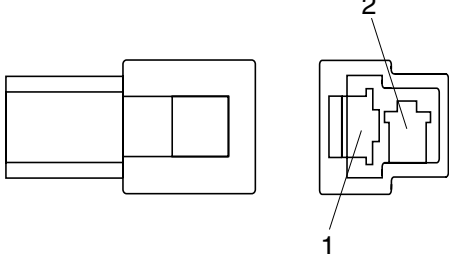
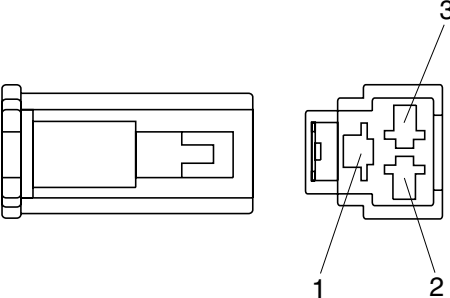
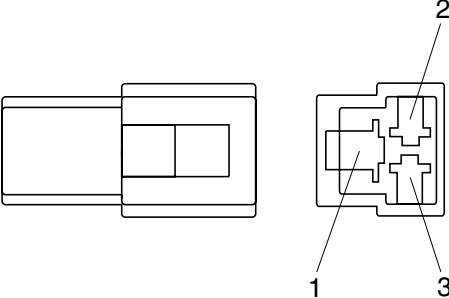
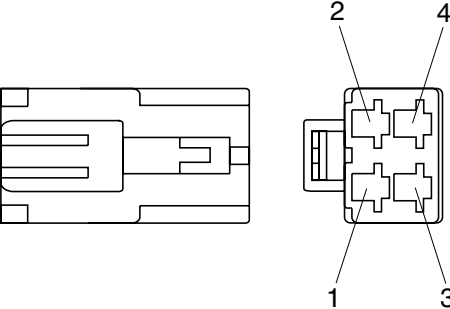
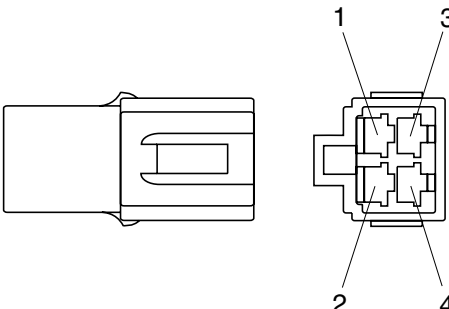
No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p style="text-align: center;">S816-002001</p>	 <p style="text-align: center;">S816-102001</p>
3	 <p style="text-align: center;">S816-003001</p>	 <p style="text-align: center;">S816-103001</p>
4	 <p style="text-align: center;">S816-004001</p>	 <p style="text-align: center;">S816-104001</p>
8	 <p style="text-align: center;">S816-008001</p>	 <p style="text-align: center;">S816-108001</p>

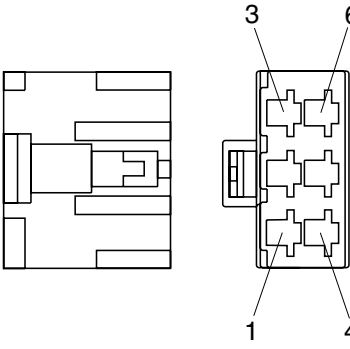
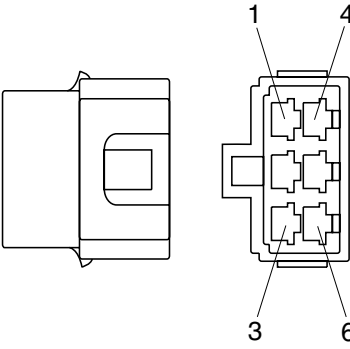
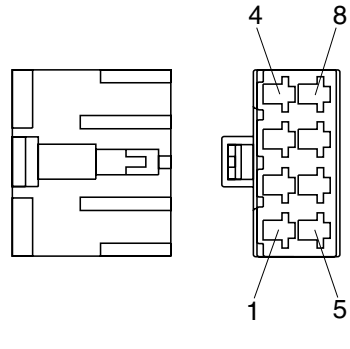
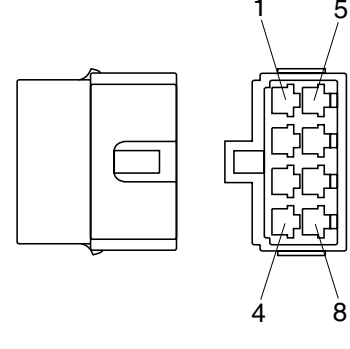
3) SWP TYPE CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 <p data-bbox="686 672 837 705">S814-001000</p>	 <p data-bbox="1244 672 1396 705">S814-101000</p>
2	 <p data-bbox="686 1075 837 1108">S814-002000</p>	 <p data-bbox="1244 1075 1396 1108">S814-102000</p>
3	 <p data-bbox="686 1478 837 1512">S814-003000</p>	 <p data-bbox="1244 1478 1396 1512">S814-103000</p>
4	 <p data-bbox="686 1881 837 1915">S814-004000</p>	 <p data-bbox="1244 1881 1396 1915">S814-104000</p>

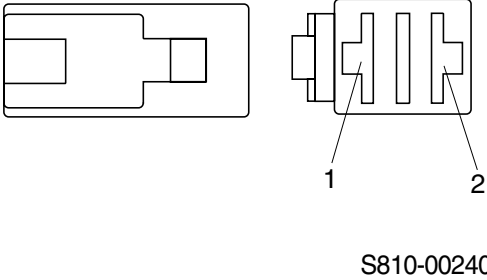
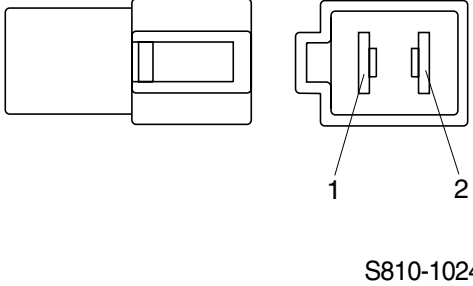
No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 <p data-bbox="686 627 837 660">S814-006000</p>	 <p data-bbox="1244 627 1396 660">S814-106000</p>
8	 <p data-bbox="686 1030 837 1064">S814-008000</p>	 <p data-bbox="1244 1030 1396 1064">S814-108000</p>
12	 <p data-bbox="686 1438 837 1471">S814-012000</p>	 <p data-bbox="1244 1438 1396 1471">S814-112000</p>
14	 <p data-bbox="686 1845 837 1879">S814-014000</p>	 <p data-bbox="1244 1845 1396 1879">S814-114000</p>

4) CN TYPE CONNECTOR

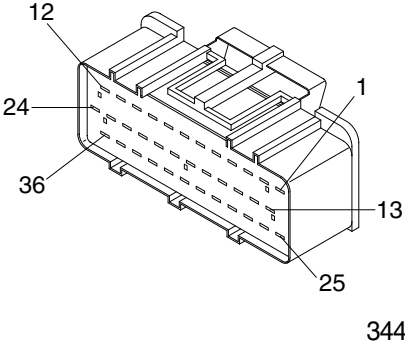
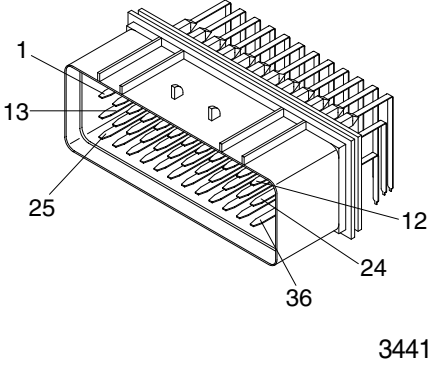
No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 <p data-bbox="689 676 837 705">S810-001202</p>	 <p data-bbox="1243 676 1391 705">S810-101202</p>
2	 <p data-bbox="689 1079 837 1108">S810-002202</p>	 <p data-bbox="1243 1079 1391 1108">S810-102202</p>
3	 <p data-bbox="689 1489 837 1518">S810-003202</p>	 <p data-bbox="1243 1489 1391 1518">S810-103202</p>
4	 <p data-bbox="689 1899 837 1928">S810-004202</p>	 <p data-bbox="1243 1899 1391 1928">S810-104202</p>

No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 <p data-bbox="686 627 837 660">S810-006202</p>	 <p data-bbox="1244 627 1396 660">S810-106202</p>
8	 <p data-bbox="686 1041 837 1075">S810-008202</p>	 <p data-bbox="1244 1041 1396 1075">S810-108202</p>

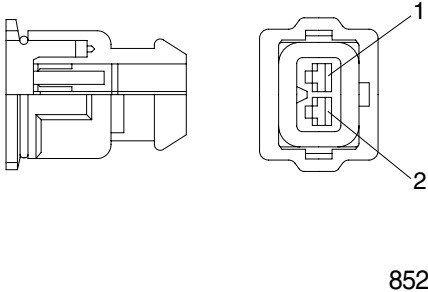
5) 375 FASTEN TYPE CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p style="text-align: center;">S810-002402</p>	 <p style="text-align: center;">S810-102402</p>

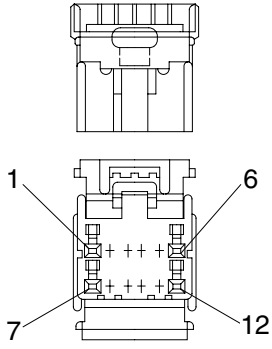
6) AMP ECONOSEAL CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
36	 <p style="text-align: center;">344111-1</p>	 <p style="text-align: center;">344108-1</p>

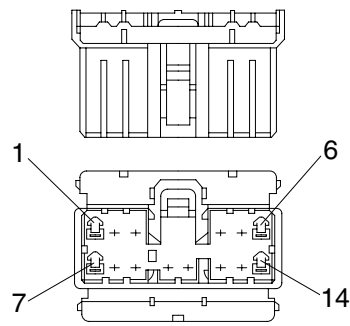
7) AMP TIMER CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p style="text-align: center;">85202-1</p>	

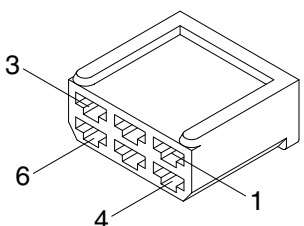
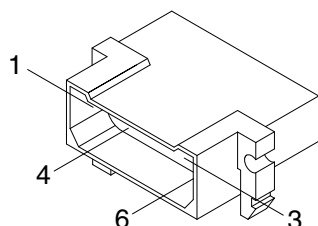
8) AMP 040 MULTILOCK CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
12	 <p style="text-align: right;">174045-2</p>	

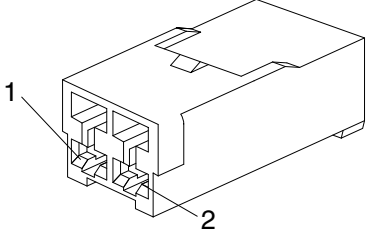
9) AMP 070 MULTILOCK CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
14	 <p style="text-align: right;">173852</p>	

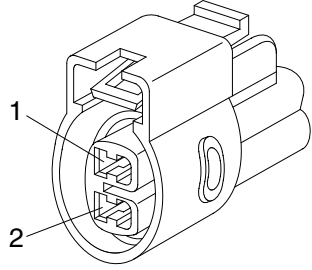
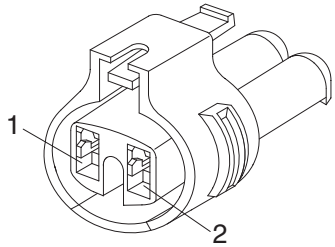
10) AMP FASTIN - FASTON CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 <p style="text-align: right;">925276-0</p>	 <p style="text-align: right;">480003-9</p>

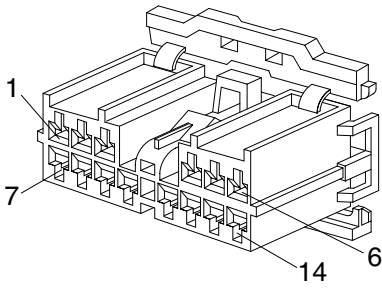
11)KET 090 CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p style="text-align: right;">MG610070</p>	

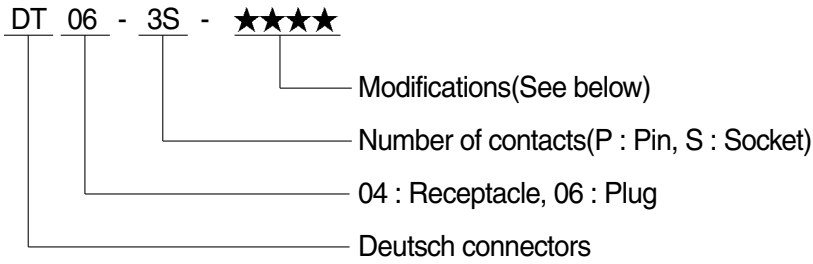
12)KET 090 WP CONNECTORS

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p style="text-align: right;">MG640605</p>	
2	 <p style="text-align: right;">MG640795</p>	

13)KET SDL CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
14	 <p>MG610406</p>	

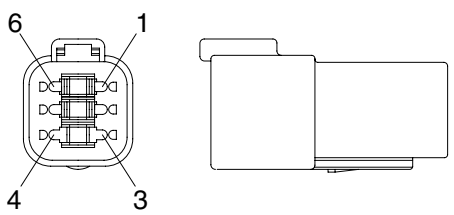
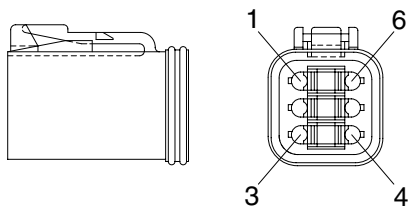
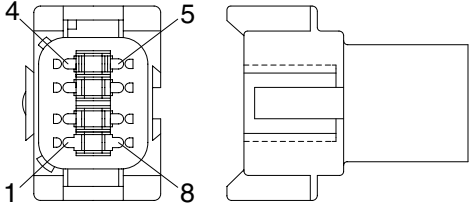
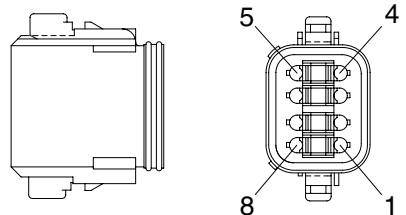
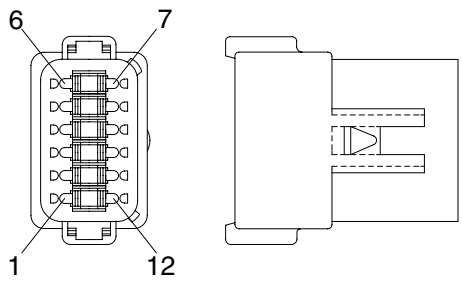
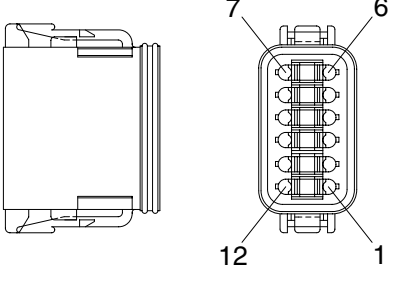
14) DEUTSCH DT CONNECTORS



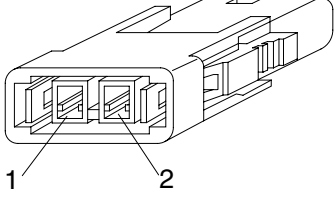
※ Modification

- E003 : Standard end cap - gray
- E004 : Color of connector to be black
- E005 : Combination - E004 & E003
- EP04 : End cap
- EP06 : Combination P012 & EP04
- P012 : Front seal enhancement - connectors color to black for 2, 3, 4 & 6pin

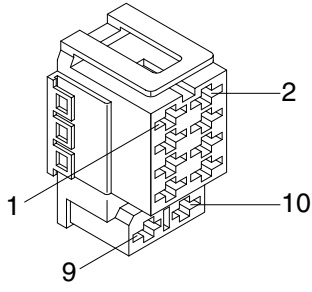
No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	<p style="text-align: right;">DT06-2S</p>	<p style="text-align: right;">DT04-2P</p>
3	<p style="text-align: right;">DT06-3S</p>	<p style="text-align: right;">DT04-3P</p>
4	<p style="text-align: right;">DT06-4S</p>	<p style="text-align: right;">DT04-4P</p>

No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 <p style="text-align: right;">DT06-6S</p>	 <p style="text-align: right;">DT04-6P</p>
8	 <p style="text-align: right;">DT06-8S</p>	 <p style="text-align: right;">DT04-8P</p>
12	 <p style="text-align: right;">DT06-12S</p>	 <p style="text-align: right;">DT04-12P</p>

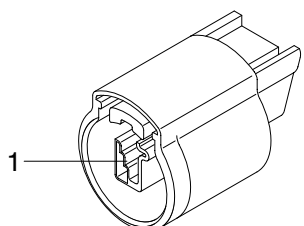
15) MOLEX 2CKTS CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p data-bbox="705 676 837 705">35215-0200</p>	

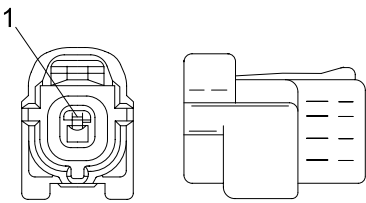
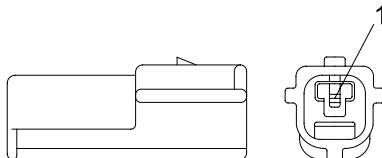
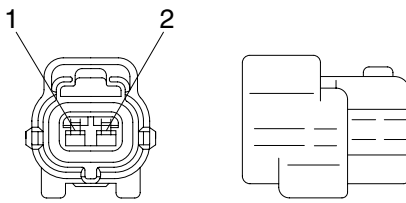
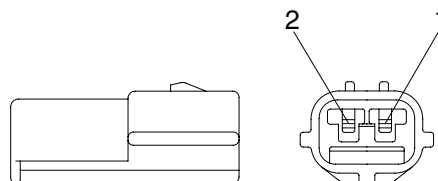
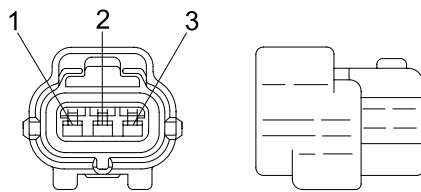
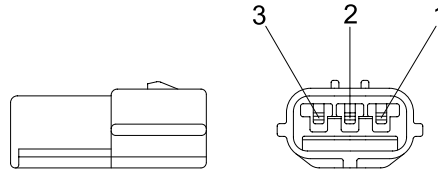
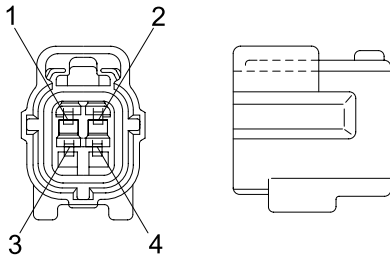
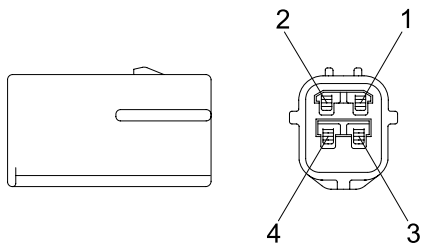
16)ITT SWF CONNECTOR

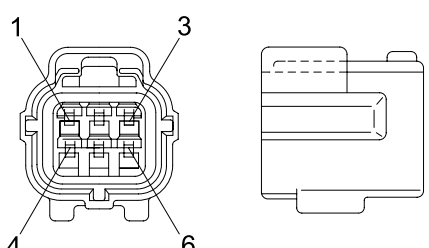
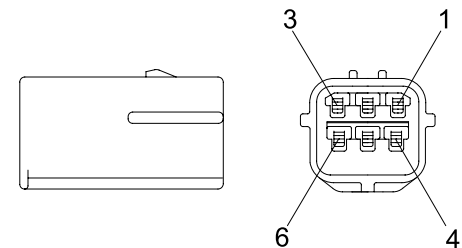
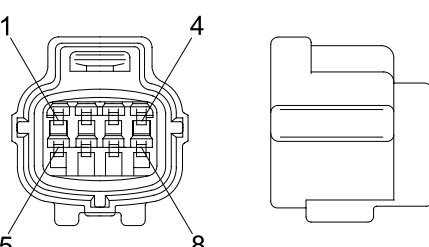
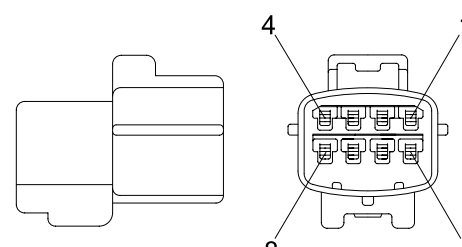
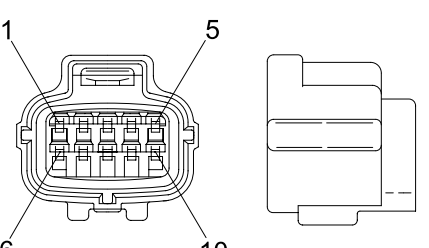
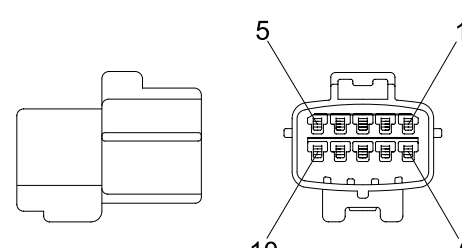
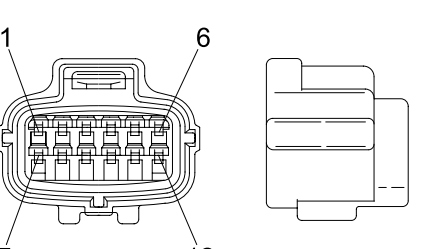
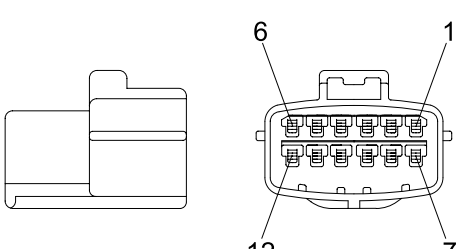
No. of pin	Receptacle connector(Female)	Plug connector(Male)
10	 <p data-bbox="699 1281 837 1310">SWF593757</p>	

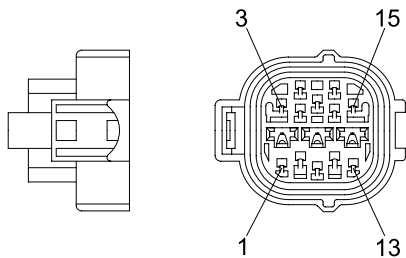
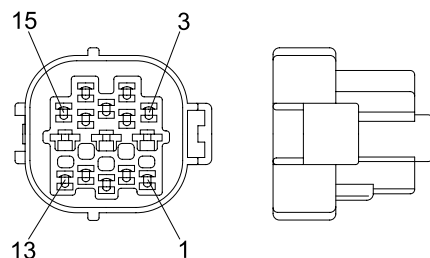
17)MWP NMWP CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 <p data-bbox="689 1886 837 1915">NMWP01F-B</p>	

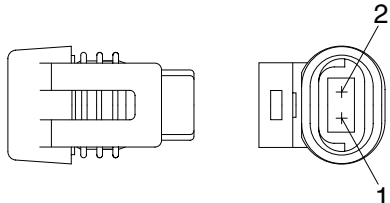
18)ECONOSEAL J TYPE CONNECTORS

No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 <p style="text-align: center;">S816-001002</p>	 <p style="text-align: center;">S816-101002</p>
2	 <p style="text-align: center;">S816-002002</p>	 <p style="text-align: center;">S816-102002</p>
3	 <p style="text-align: center;">S816-003002</p>	 <p style="text-align: center;">S816-103002</p>
4	 <p style="text-align: center;">S816-004002</p>	 <p style="text-align: center;">S816-104002</p>

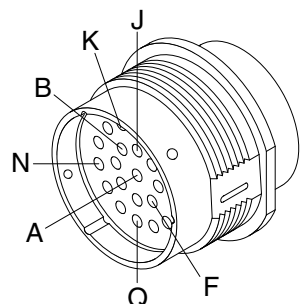
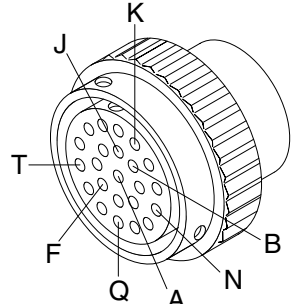
No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 <p style="text-align: center;">S816-006002</p>	 <p style="text-align: center;">S816-106002</p>
8	 <p style="text-align: center;">S816-008002</p>	 <p style="text-align: center;">S816-108002</p>
10	 <p style="text-align: center;">S816-010002</p>	 <p style="text-align: center;">S816-110002</p>
12	 <p style="text-align: center;">S816-012002</p>	 <p style="text-align: center;">S816-112002</p>

No. of pin	Receptacle connector(Female)	Plug connector(Male)
15	 <p data-bbox="730 629 836 658">368301-1</p>	 <p data-bbox="1278 629 1383 658">2-85262-1</p>

19) METRI-PACK TYPE CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 <p data-bbox="730 1234 836 1263">12040753</p>	

20) DEUTSCH HD30 CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
23	 <p data-bbox="667 1839 836 1868">HD36-24-23SN</p>	 <p data-bbox="1220 1839 1390 1868">HD34-24-23PN</p>