

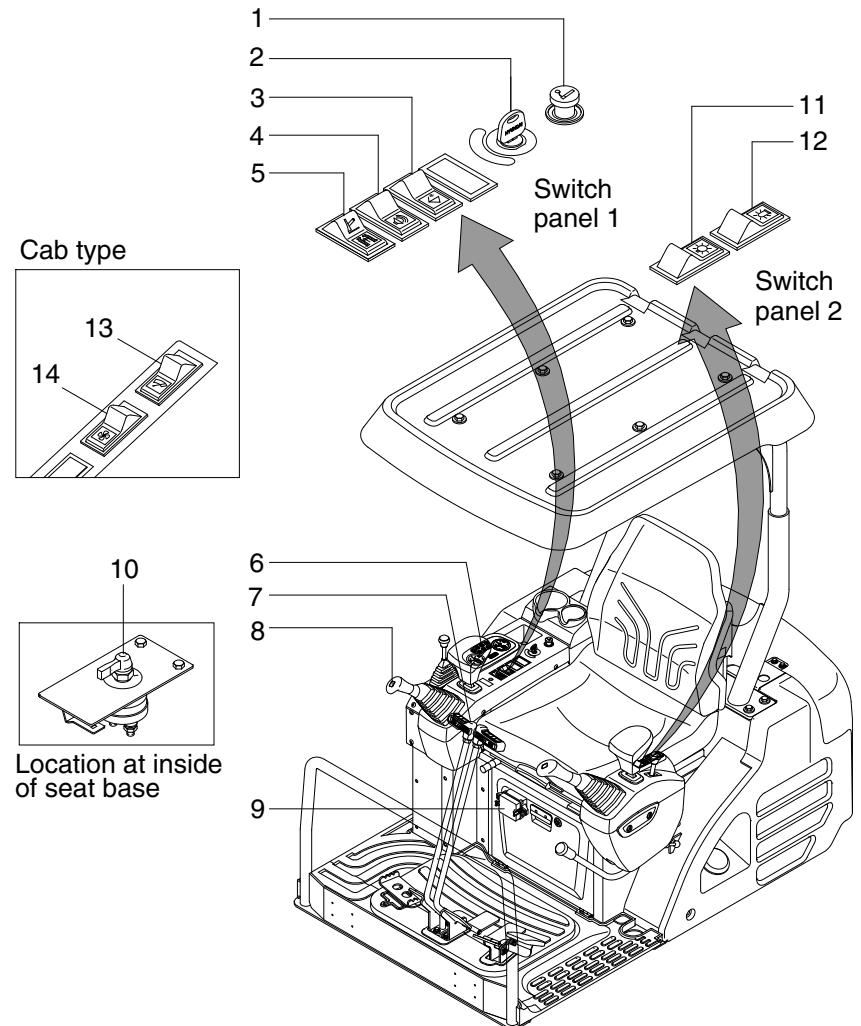
SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location	4-1
Group 2 Monitoring system	4-3
Group 3 Electrical Circuit	4-7
Group 4 Electrical Component Specification	4-19
Group 5 Connectors	4-25

SECTION 4 ELECTRICAL SYSTEM

GROUP 1 COMPONENT LOCATION

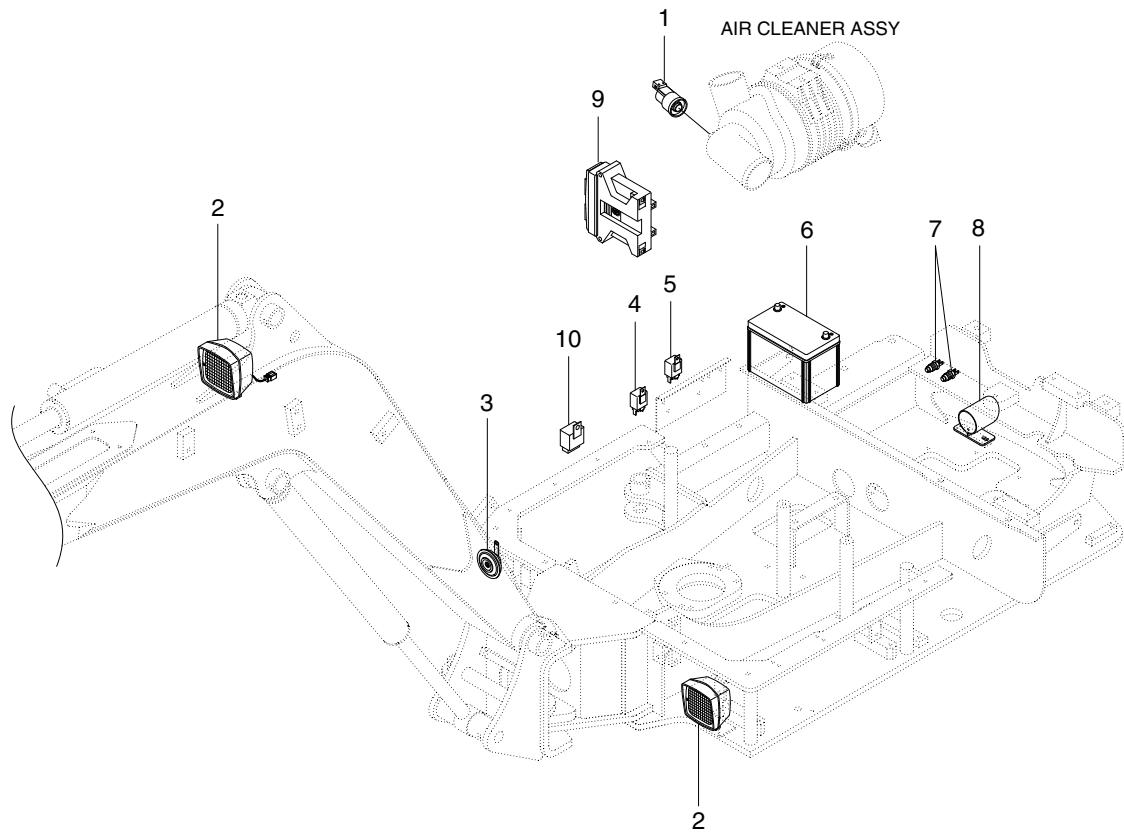
1. LOCATION 1



1894EL02

- | | | |
|-----------------------------|-------------------------------|------------------------------|
| 1 Cigar light | 6 Cluster | 11 Main light switch |
| 2 Start switch | 7 Travel speed control switch | 12 Beacon switch |
| 3 Quick clamp switch (opt) | 8 Horn switch | 13 Washer/wiper switch (cab) |
| 4 Travel alarm switch (opt) | 9 Fuse box | 14 Heater switch |
| 5 Select switch | 10 Master switch | |

2. LOCATION 2



1694EL01

- | | | | | | |
|---|-----------------------------|---|--------------------------|----|----------------|
| 1 | Air cleaner pressure switch | 5 | Power relay | 9 | Controller |
| 2 | Work lamp | 6 | Battery | 10 | Warning buzzer |
| 3 | Horn | 7 | Water temperature sender | | |
| 4 | Relay | 8 | Travel alarm buzzer | | |

GROUP 2 MONITORING SYSTEM

1. OUTLINE

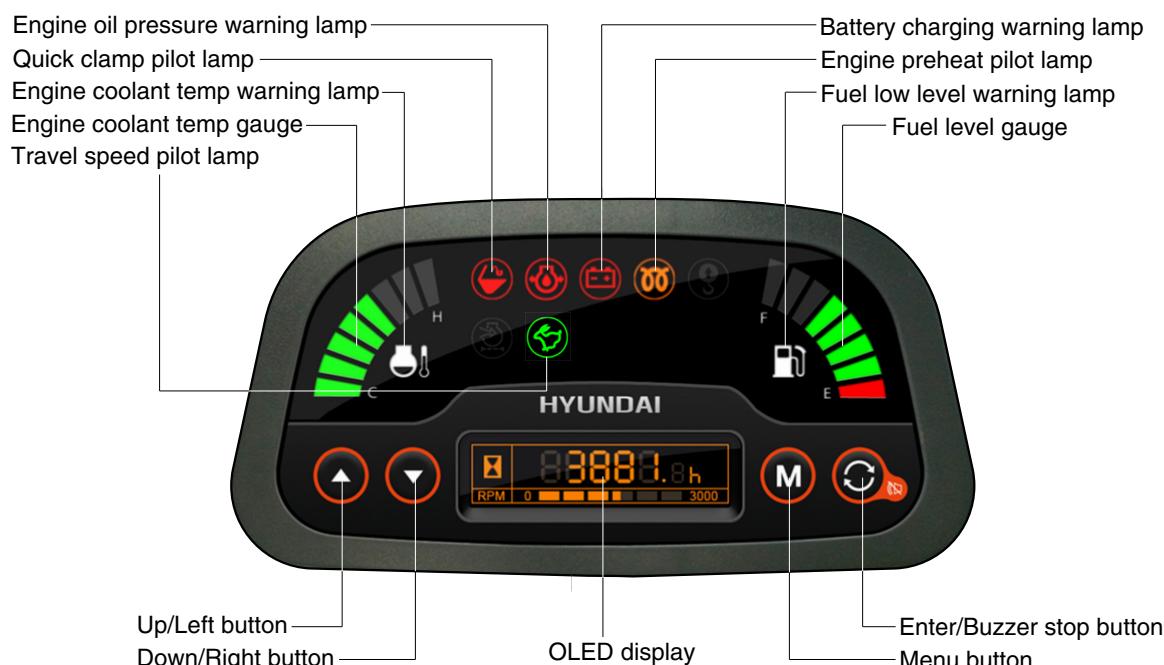
Monitoring system consists of the monitor part and switch part.

The monitor part gives warnings when any abnormality occurs in the machine and informs the condition of the machine.

Various select switches are built into the monitor panel, which act as the control portion of the machine control system.

2. CLUSTER

1) MONITOR PANEL



17Z9A3CD03B

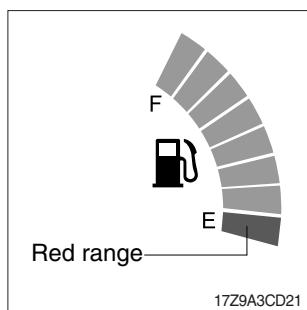
2) GAUGES AND DISPLAYS

(1) Service meter



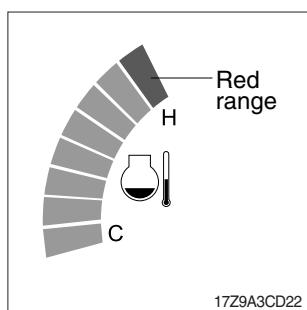
- ① This meter shows the total operation hours of the machine.
- ② Always ensure the operating condition of the meter during the machine operation.
Inspect and service the machine based on hours as indicated in chapter 6, maintenance.

(2) Fuel gauge



- ① This gauge indicates the amount of fuel in the fuel tank.
- ② Fill the fuel when the red range or warning lamp ON.
※ If the gauge illuminates the red range or warning lamp ON even though the machine is on the normal condition, check the electric device as that can be caused by the poor connection of electricity or sensor.

(3) Engine coolant temperature gauge



- ① This indicates the temperature of coolant.
 - Red range : Above 115°C (239°F)
- ② When the red range pointed or warning lamp ON, engine do not abruptly stop but run it at medium speed to allow it to cool gradually, then stop it.
Check the radiator and engine.
※ If the engine is stopped without cooled down running, the temperature of engine parts will rise suddenly, this could cause severe engine trouble.

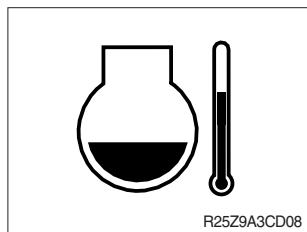
3) WARNING AND PILOT LAMPS

(1) Fuel low level warning lamp



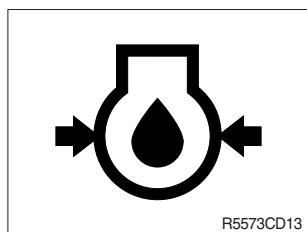
- ① This lamp blinks and buzzer sounds when the level of fuel is low.
- ② Fill the fuel immediately when the lamp blinks.

(2) Engine coolant temperature warning lamp



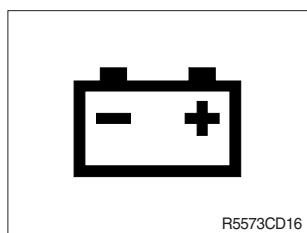
- ① This lamp blinks and buzzer sounds when the temperature of coolant is over the normal temperature 115°C (239°F).
- ② Check the cooling system when the lamp blinks.

(3) Engine oil pressure warning lamp



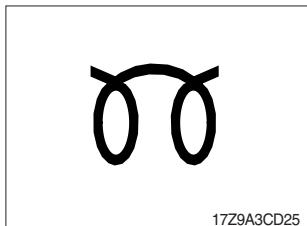
- ① This lamp blinks and buzzer sounds after starting the engine because of the low oil pressure.
- ② If the lamp blinks during engine operation, shut OFF engine immediately. Check oil level.

(4) Battery charging warning lamp



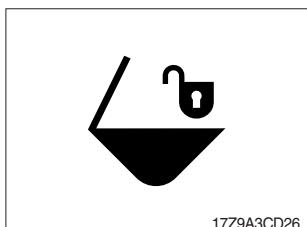
- ① This lamp blinks and buzzer sounds when the starting switch is ON, it is turned OFF after starting the engine.
- ② Check the battery charging circuit when this lamp blinks during engine operation.

(5) Engine preheat pilot lamp



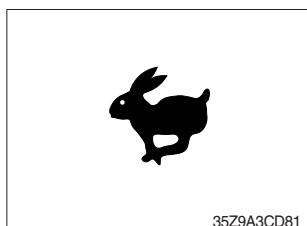
- ① When the start switch turn to HEAT position, pilot lamp comes ON.
- ② Refer to the page 4-4 for details.

(6) Quick clamp lock pilot lamp



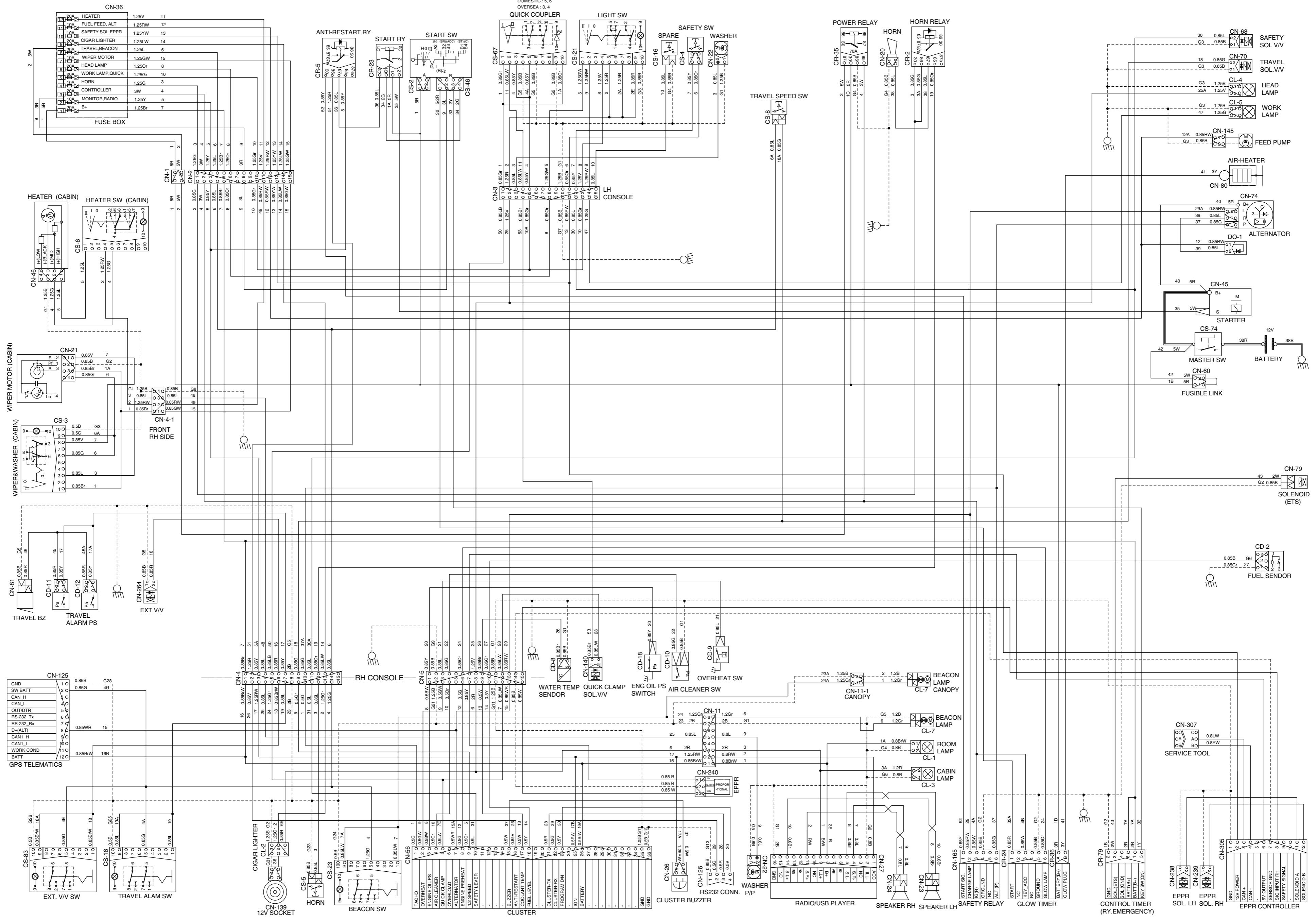
- ① When the quick clamp switch turned ON, this lamp turn ON and the buzzer sounds.
- ② This lamp turned OFF and the buzzer stop when the quick clamp switch turned OFF.

(7) Travel speed pilot lamp

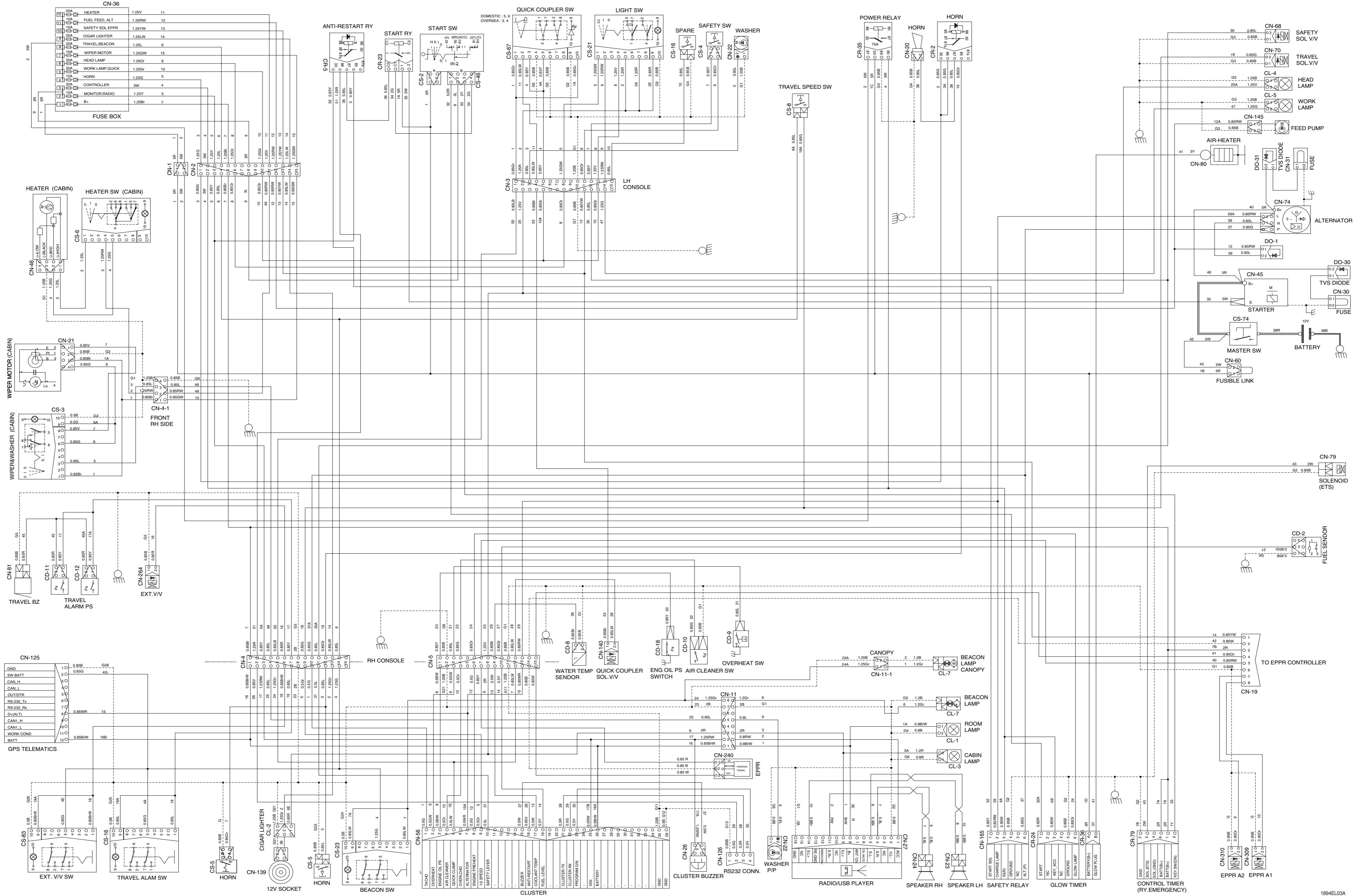


- ① When this lamp turned ON, the machine travel high speed.
- ② Refer to the travel speed control switch in page 3-9 of operator's manual for details.

GROUP 3 ELECTRICAL CIRCUIT (machine serial No.: ~0379)



ELECTRICAL CIRCUIT (machine serial No.: #0380~)



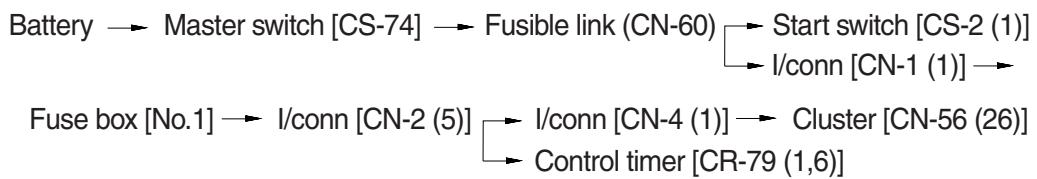
MEMORANDUM

1. POWER CIRCUIT

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

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

1) OPERATING FLOW



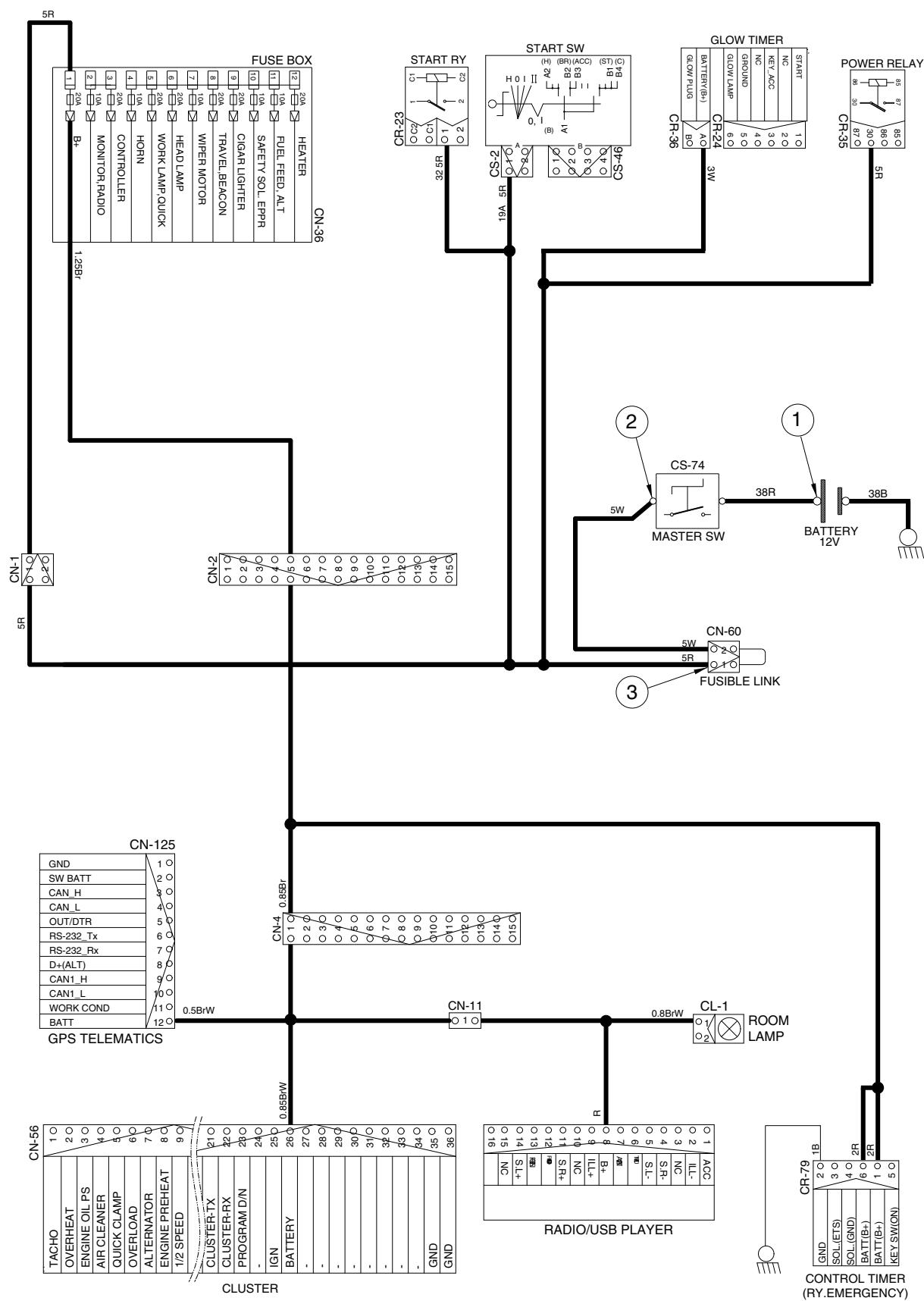
※ I/conn : Intermediate connector

2) CHECK POINT

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

※ GND : Ground

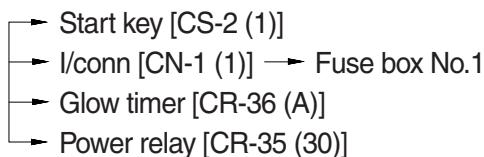
POWER CIRCUIT



2. STARTING CIRCUIT

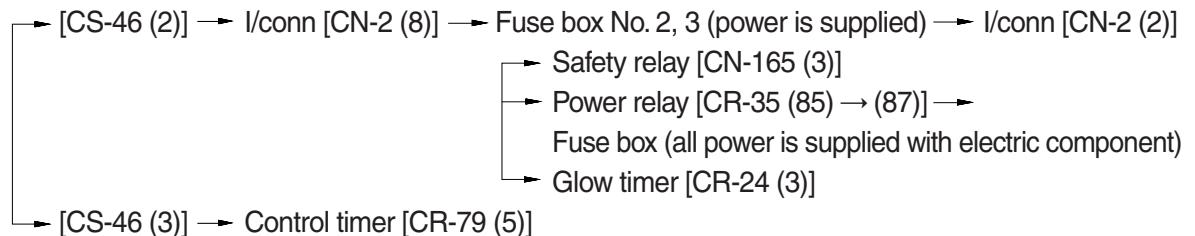
1) OPERATING FLOW

Battery(+) terminal → Master switch [CS-74] → Fusible link [CN-60]



* Start switch : ON

Start switch ON



* Start switch : START

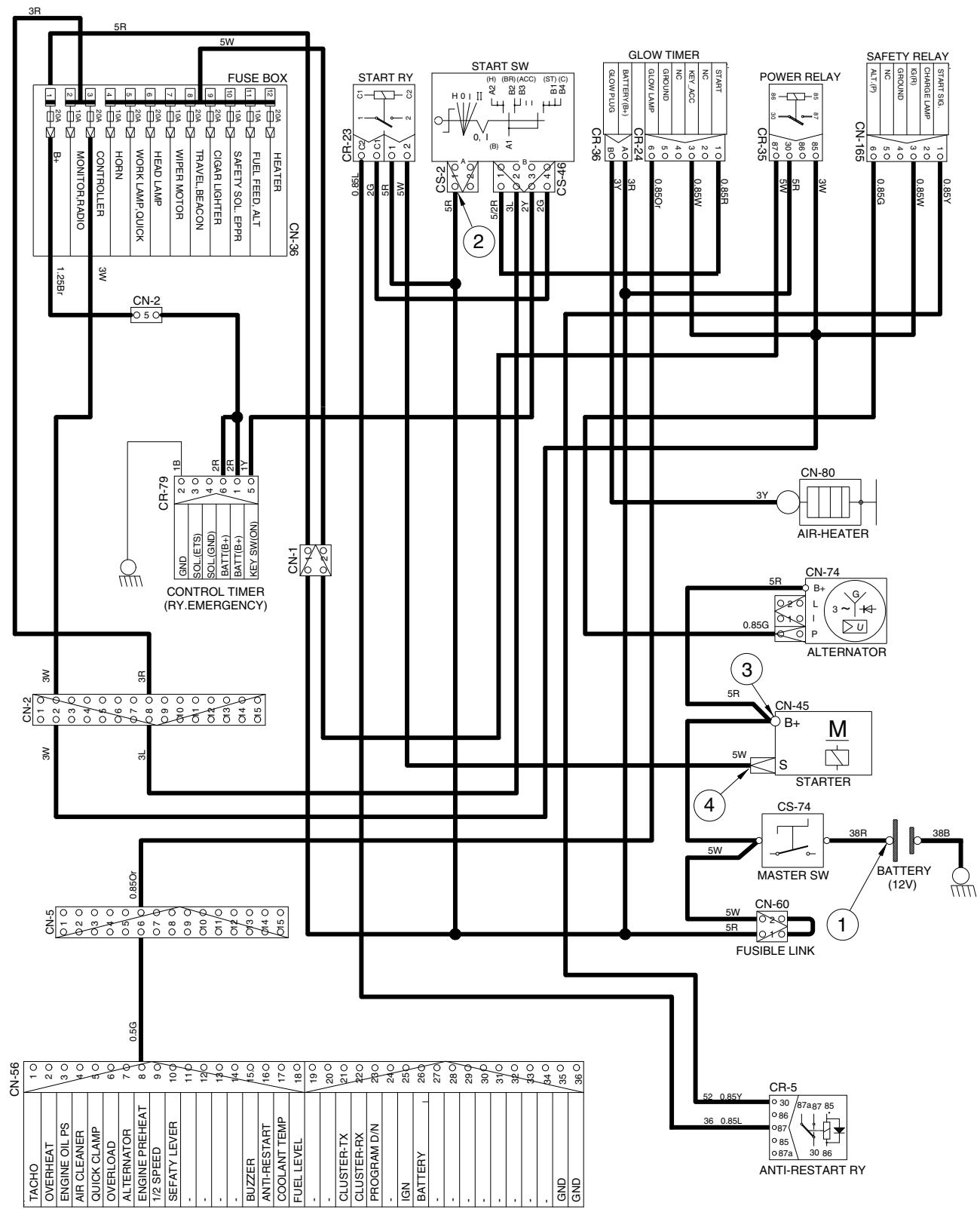
Start switch START [CS-46 (4)] → Start relay [CR-23 (C1) → (2)] → Starter [CN-45 (S)] → Start motor operating

2) CHECK POINT

Engine	Start switch	Check point	Voltage
Operating	Start	① - GND (Battery) ② - GND (Start key) ③ - GND (Starter B ⁺) ④ - GND (Starter S)	10~12.5 V

* 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.

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

1) OPERATING FLOW

(1) Warning flow



(2) Charging flow

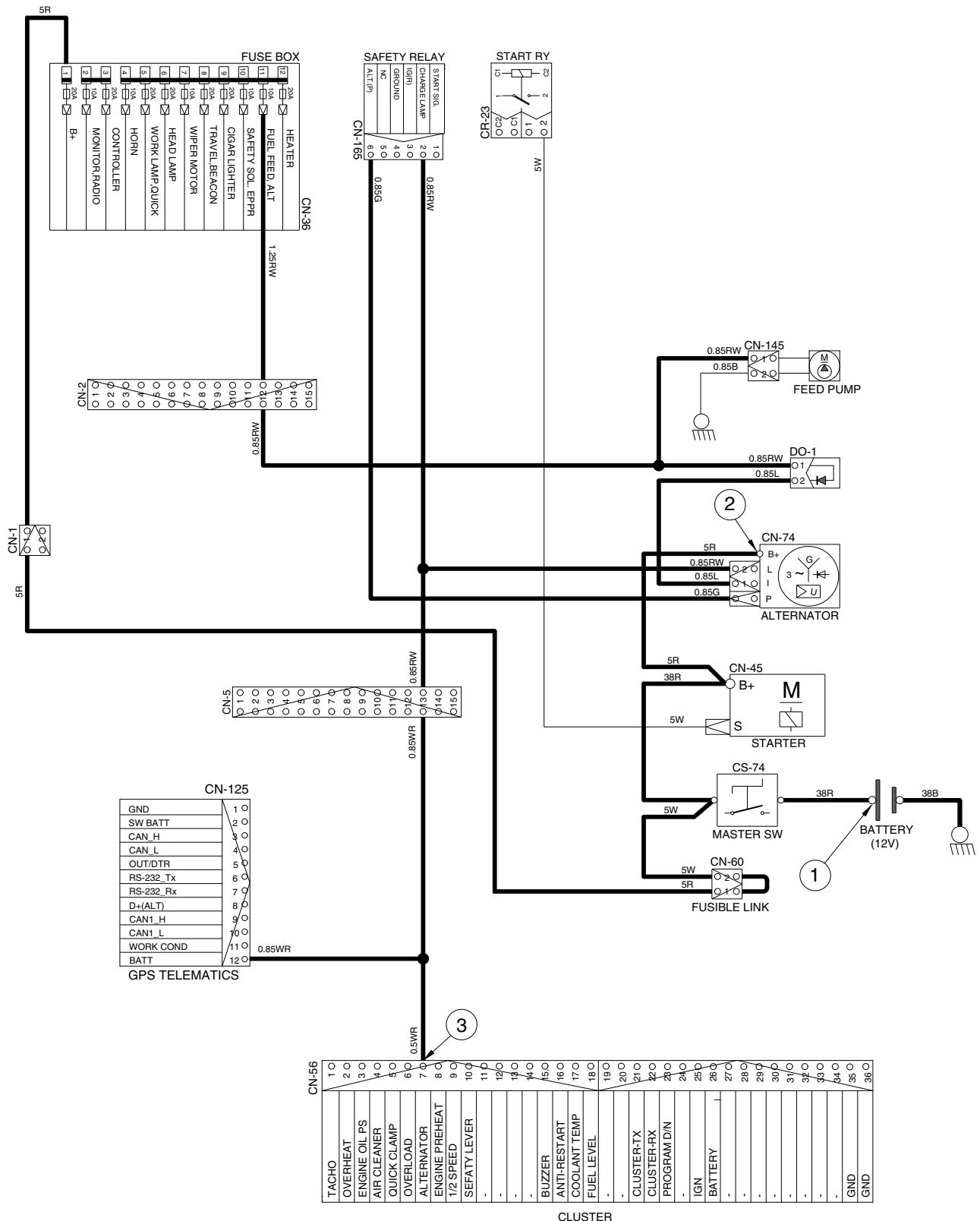
Alternator "B⁺" terminal → Battery(+) terminal

2) CHECK POINT

Engine	Start switch	Check point	Voltage
ON	ON	① - GND (Battery voltage) ② - GND (Alternator B ⁺ terminal) ③ - GND (Cluster)	10~12.5 V

※ GND : Ground

CHARGING CIRCUIT



1894EL06

4. HEAD AND WORK LIGHT CIRCUIT

1) OPERATING FLOW

Fuse box (No.6) → I/conn [CN-2 (6)] → I/conn [CN-3 (8)] → Light switch [CS-21 (1)]
 Fuse box (No.5) → I/conn [CN-2 (10)] → I/conn [CN-3 (13)] → Light switch [CS-21 (4)]

(1) Main light switch ON : 1st step

Cabin light switch ON [CS-21 (5,7)] → I/conn [CN-3 (2)] → I/conn [CN-5 (8)]
 → Head light ON [CL-4(1)]

(2) Main light switch ON : 2nd step

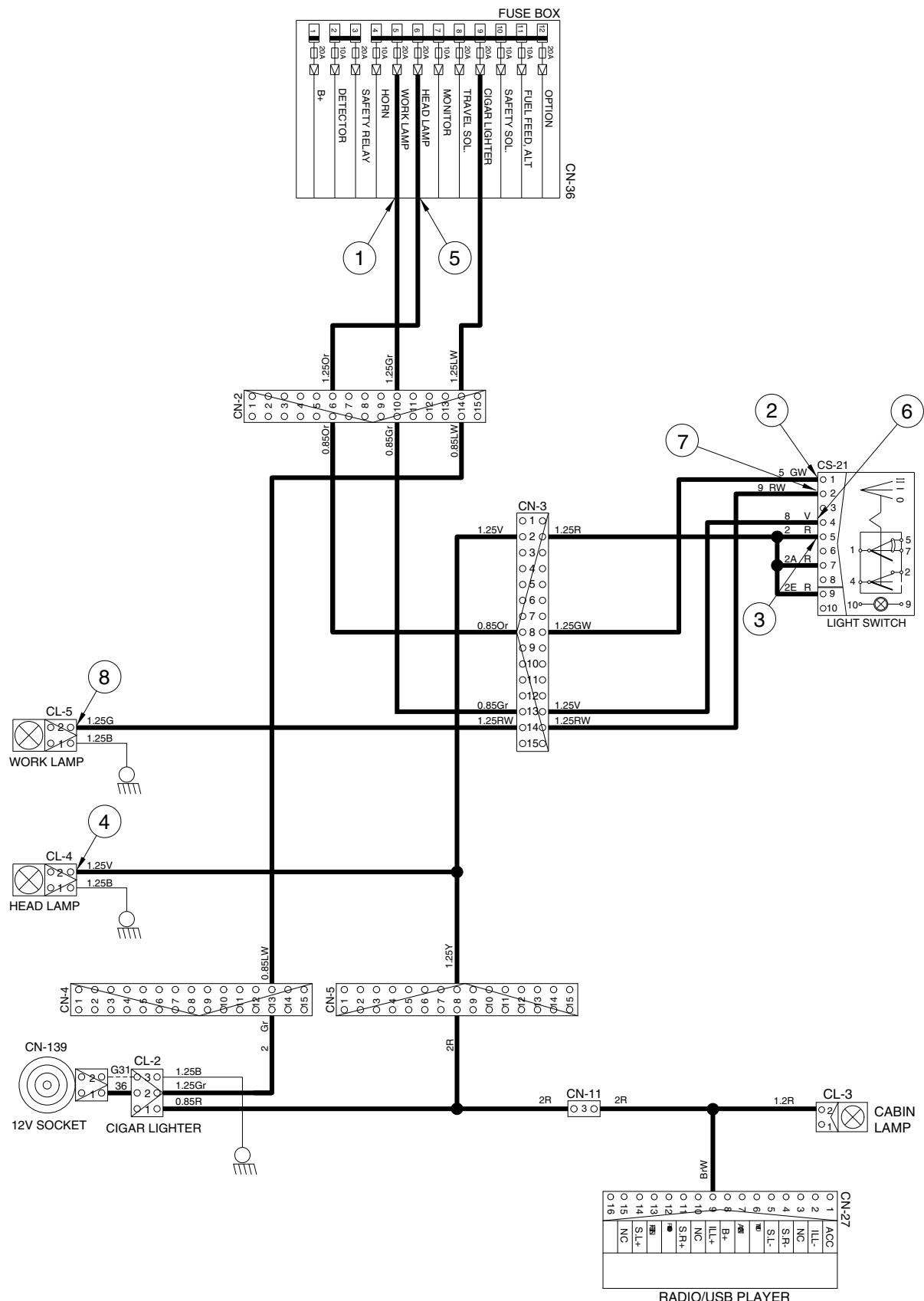
Work light switch ON [CS-21 (2)] → I/conn [CN-3 (14)] → Work light ON [CL-5 (2)]

2) CHECK POINT

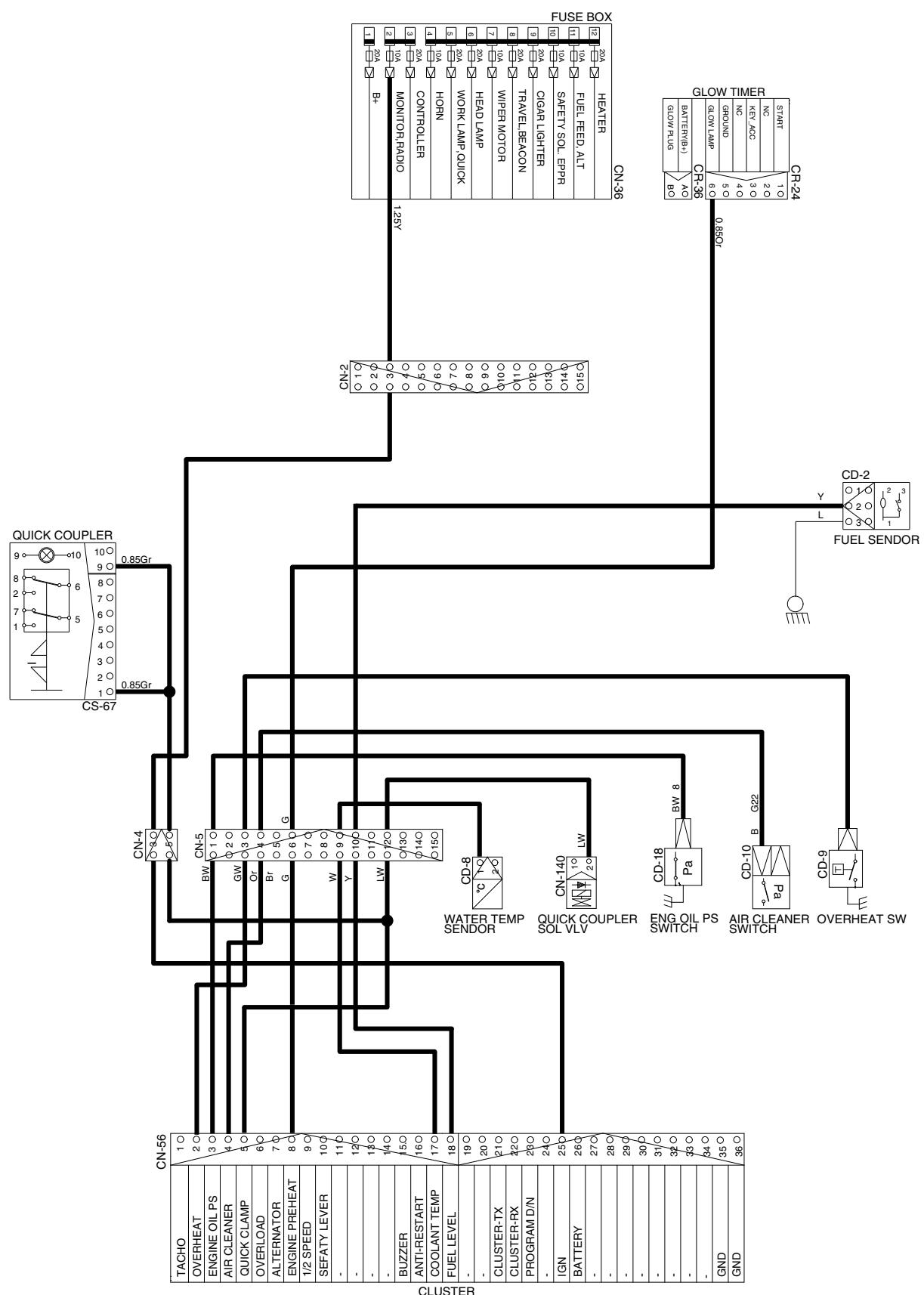
Engine	Start switch	Check point	Voltage
STOP	ON	① - GND (Fuse box) ② - GND (Switch power input) ③ - GND (Switch power output) ④ - GND (Head light) ⑤ - GND (Fuse box) ⑥ - GND (Switch power input) ⑦ - GND (Switch power output) ⑧ - GND (Work light)	10~12.5 V

* GND : Ground

WORK LAMP CIRCUIT

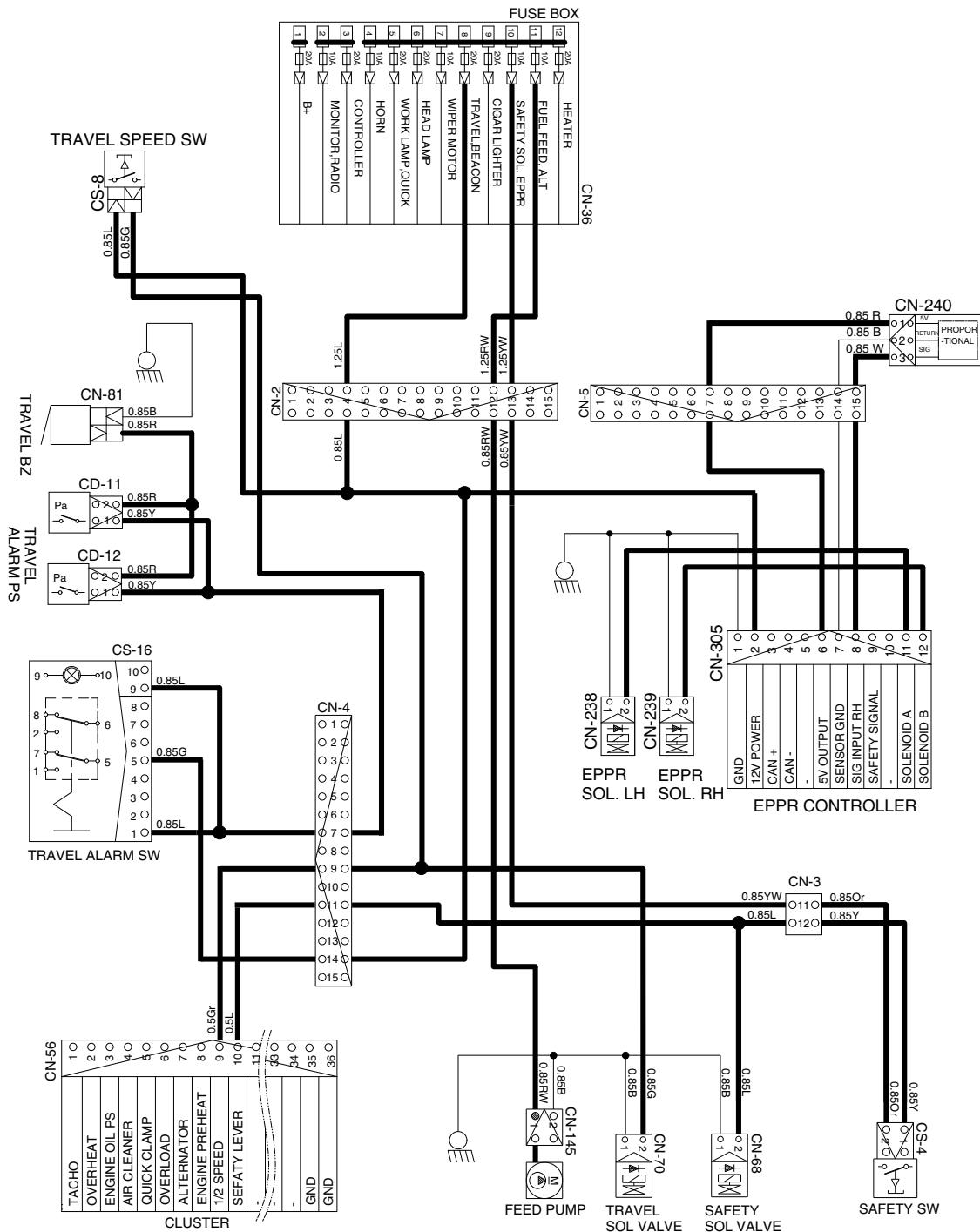


MONITORING CIRCUIT



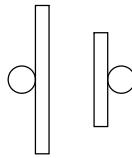
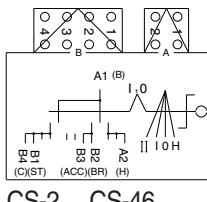
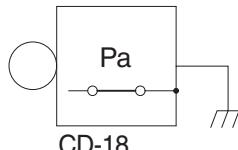
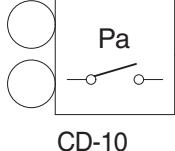
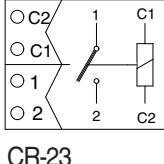
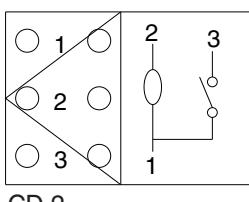
1894EL08

ELECTRIC CIRCUIT FOR HYDRAULIC

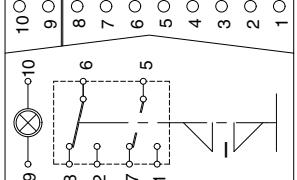
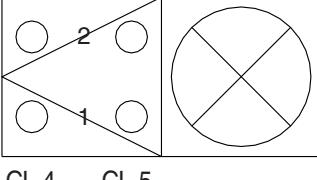
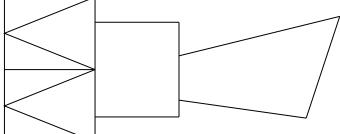
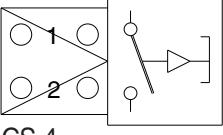
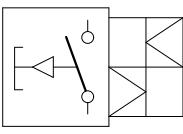
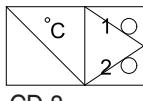


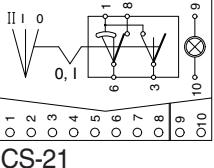
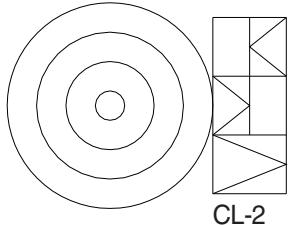
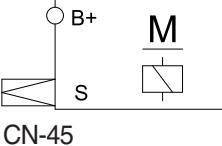
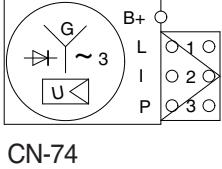
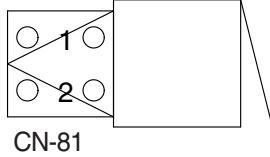
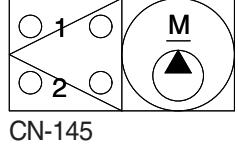
1894EL09

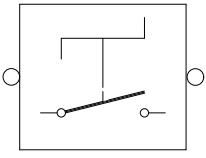
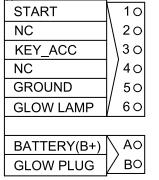
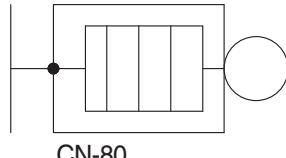
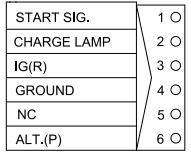
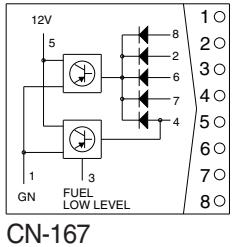
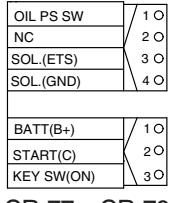
GROUP 4 ELECTRICAL COMPONENT SPECIFICATION

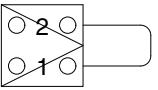
Part name	Symbol	Specification	Check
Battery		12V × 58Ah (5h rating)	※ Check specific gravity 1.280 over : Over charged 1.280 ~ 1.250 : Normal 1.250 below : Recharging
Start key	 CS-2 CS-46	12V	※ Check contact OFF : $\infty \Omega$ (for each terminal) ON : 0Ω (for terminal 1-3 and 1-2) START : 0Ω (for terminal 1-5)
Pressure switch (for engine oil)	 CD-18	0.5 kgf/cm ² (N.C TYPE)	※ Check resistance Normal : 0Ω (CLOSE)
Air cleaner pressure switch	 CD-10	Pressure: 635 mmH ₂ O (N.O TYPE)	※ Check contact Normal : $\infty \Omega$
Relay	 CR-23	12V 60A	※ Rated coil current $1.2 \pm 0.3A$
Fuel sender	 CD-2	-	※ Check resistance Full : 30Ω Low : 100Ω Empty warning : 200Ω

Part name	Symbol	Specification	Check
Relay	 CR-2	12V 20A	※ Check resistance Normal : About 200 Ω (for terminal 1-3) : 0 Ω (for terminal 2-4)
Relay	 CR-35	12V 70A	※ Rated coil current 1.2 ± 0.3 A
Solenoid valve	 CN-70 CN-68 CN-140 CN-258	12V 1A	※ Check resistance Normal : 15~25 Ω (for terminal 1-2)
Solenoid valve (engine stop)	 CN-79	12V	※ Coil resistance : 1.8 Ω
Switch (looking type)	 CS-8 CS-16 CS-23 CS-83	12V 16A	※ Check contact Normal OFF - ∞ Ω (for terminal 1-5,2-6) - 0 Ω (for terminal 5-7,6-8)
Pressure switch	 CD-11 CD-12	10bar (N.C type)	※ Check contact Normal : 0.1 Ω

Part name	Symbol	Specification	Check
Quick clamp switch	 CS-67	12V 16A	※ Check contact Normal OFF - $\infty \Omega$ (For terminal 1-5,2-6) - 0Ω (For terminal 5-7,6-8)
Lamp	 CL-4 CL-5	12V 55W (H3 TYPE)	※ Check disconnection Normal : 1.2Ω
Horn	 CN-20	12V 6A	$132 \pm 5 \text{ dB}$
Safety switch	 CS-4	Micro 12V 15A	※ Check contact Normal : 0Ω Operating : $\infty \Omega$
Horn switch	 CS-5 CS-16	12V 10A	※ Check contact Normal : 0Ω
Water temp sender	 CD-8	-	※ Check contact $50^\circ\text{C} : 0.748\sim0.904 \Omega$ $67^\circ\text{C} : 0.538\sim0.650 \Omega$ $102^\circ\text{C} : 0.185\sim0.167 \Omega$ $110^\circ\text{C} : 0.143\sim0.130 \Omega$ $135^\circ\text{C} : 0.076\sim0.100 \Omega$

Part name	Symbol	Specification	Check
Light switch	 CS-21	12V 16A	※ Check contact Normal : $\infty \Omega$
Cigar lighter	 CL-2	12V 10A 1.4W	※ Check coil resistance Normal : About $1M \Omega$ ※ Check contact Normal : $\infty \Omega$ Operating time : 5~15sec
Starter	 CN-45	12V 1.7kW	※ Check contact Normal : 0.1Ω
Alternator	 CN-74	12V 40A	※ Check contact Normal : 0Ω (For terminal B ⁺ -1) Normal : 10 ~ 12.5V
Travel alarm	 CN-81	12V	-
Fuel feed pump	 CN-145	12V	-

Part name	Symbol	Specification	Check
Master switch	 CS-74	12V 1000A	-
Glow timer	 CR-24, CR-36	12V	-
Air-heater	 CN-80	12V 42A 500W	-
Safety relay	 CN-165	12V 1400rpm/ Alternator	* Contact capacity : Rush : 100A Steady-State : 50A (30sec)
Detector	 CN-167	12V	-
Control time relay	 CR-77 CR-79	12V	-

Part name	Symbol	Specification	Check
Fusible link	 CN-60	27A	※ Check coil resistance Normal : $3.26m\Omega/m$

GROUP 5 CONNECTORS

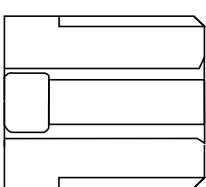
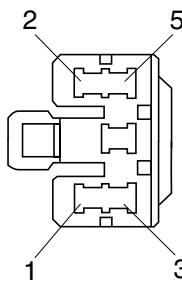
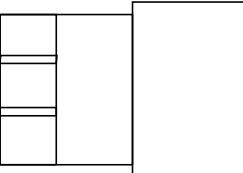
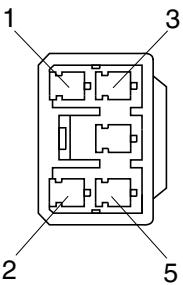
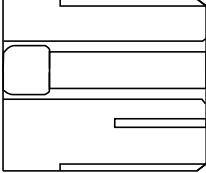
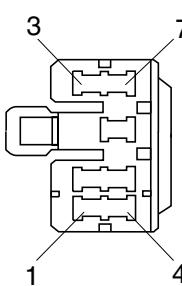
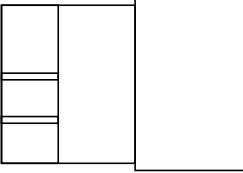
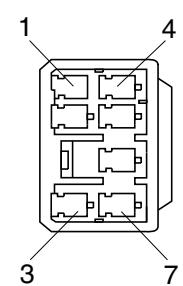
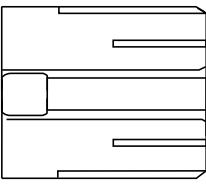
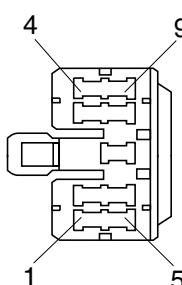
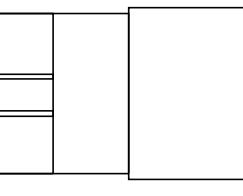
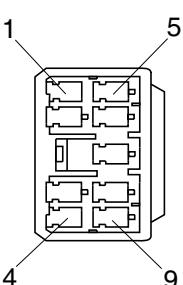
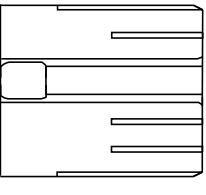
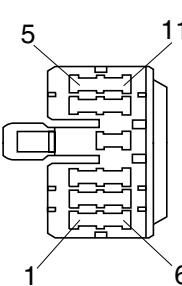
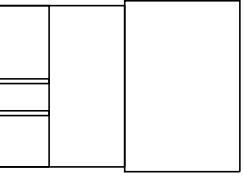
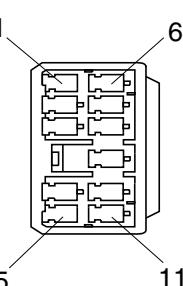
1. CONNECTOR DESTINATION

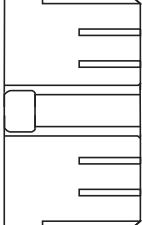
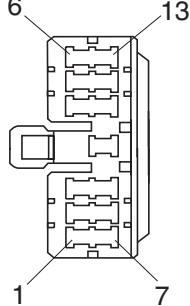
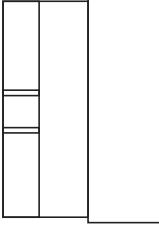
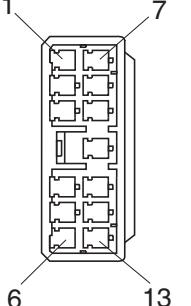
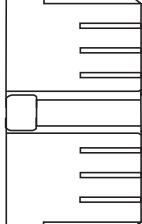
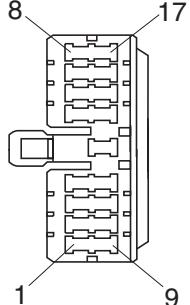
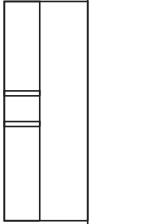
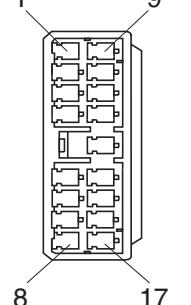
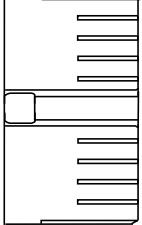
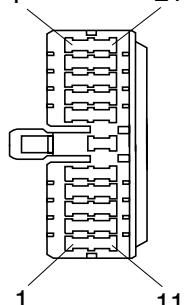
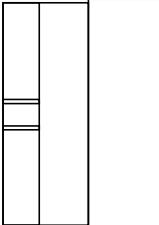
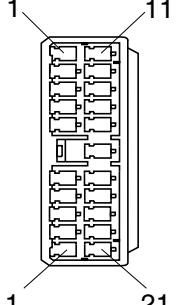
Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-1	AMP	2	I/conn (RH console harness-main harness)	S813-030200	S813-130200
CN-2	AMP	15	I/conn (Main harness-RH console harness)	2-85262-1	368301-1
CN-3	AMP	15	I/conn (Main harness-LH console harness)	2-85262-1	368301-1
CN-4	AMP	4	I/conn (FR RH side harness-main harness)	S810-004202	S810-104202
CN-5	AMP	2	I/conn (Relay harness-main harness)	S813-030201	S813-130201
CN-20	DEUTSCH	2	Horn	DT06-2S-P012	-
CN-36	-	-	Fuse box body	F12890010	-
CN-45	RING TERM	1	Starter	ST710258-2	-
	KET	1	Starter	MG630591	-
CN-48	AMP	3	Hour meter	S810-003202	
CN-56	AMP	17	Cluster	172500-1	-
CN-60	AMP	2	Fusible link	-	S831-130200
CN-68	DEUTSCH	2	Safety solenoid	DT06-2S-P012	-
CN-70	DEUTSCH	2	Travel HI-LO solenoid	DT06-2S-P012	-
CN-74	AMP	2	Alternator	174298-1	-
	-	1		7123-2115	-
	RING TERM	1		S820-305002	-
CN-79	-	1	Fuel cut-off solenoid	S822-014000	-
CN-80	RING TERM	1	Pre heater	GP110021	-
CN-81	SWP	1	Travel buzzer	S822-014000	S822-114000
CN-140	DEUTSCH	2	Quick clamp	DT06-2S-EP06	DT04-2P-E005
CN-145	AMP	2	Fuel feed pump	174198-1	-
CN-165	KET	6	Safety relay	MG610049	-
CN-167	KET	8	Detector	S810-008202	-
CN-258	CN-258	1	Extension valve	DT06-2S-P012	-
CN-264	DEUTSCH	2	Extension solenoid valve	DT06-2S-P012	-
LAMP					
CL-2	AMP	3	Cigar light	S810-003202	-
CL-4	DEUTSCH	2	Head lamp	DT06-2S-P012	DT04-2P-E004
CL-5	DEUTSCH	2	Work lamp	DT06-2S-P012	DT04-2P-E004
RELAY					
CR-2	AMP	4	Horn relay	S810-004202	-
CR-23	KET	2	Start relay	MG610043	-
	YAZAKI			S810-001302	
CR-24	SUMITOMO	6	Safety relay	6195-0021	-
CR-35	KET	4	Power relay	MG612017-5	-

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CR-36	SUMITOMO	2	Safety relay	6195-0060	-
CR-77	KET	4	Control timer	MG620046	-
CR-79	KET	3	Control timer	MG620044	-
SENSOR					
CD-2	AMP	3	Fuel sender	S816-003002	-
CD-8	AMP	2	Water temp sender	85202-1	-
CD-9	AMP	1	Water temp switch	172320-2	-
CD-10	-	1	Air cleaner	S823-025212	-
CD-11	KET	2	Travel pressure switch	MG640795	-
CD-12	KET	2	Travel pressure switch	MG640795	-
CD-18	-	1	Engine oil pressure	172320-2	-
DO-1	-	2	Diode	S816-002002	21EA-50570
DO-6	-	2	Diode	S816-002002	21EA-50550
SWITCH					
CS-2	-	2	Start key switch	S813-030201	-
CS-4	AMP	3	Safety switch	-	S814-102001
CS-5	-	1	Horn switch	S822-014002	-
	-	1		-	S822-114002
CS-8	-	1	Travel speed switch	S822-014000	S822114000
CS-16	-	10	Travel alarm switch	250-10PRG	-
CS-21	-	10	Light switch	250-10PRG	-
CS-23	SWF	10	Spare	593757	-
CS-46	KET	4	Start switch	MG651926	-
CS-67	SWF	10	Quick clamp switch	593757	-
CS-74	RING TERM	1	Battery (+)	ST710287-2	-
CS-83	-	10	Extension valve switch	250-10PRG	-

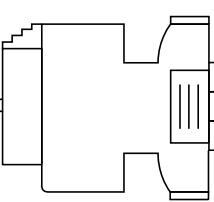
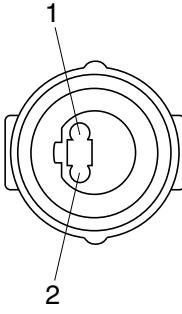
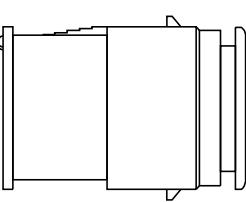
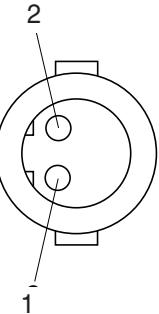
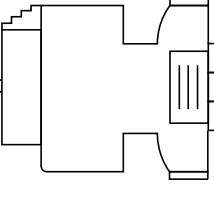
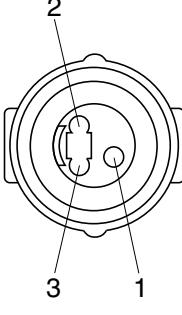
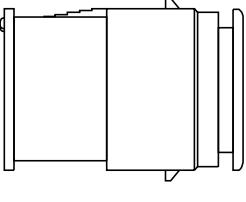
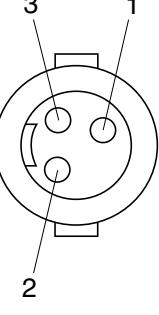
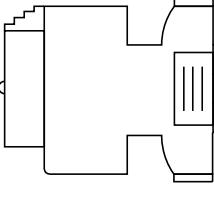
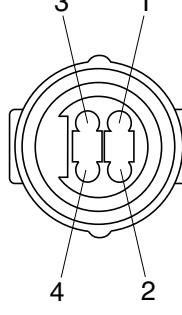
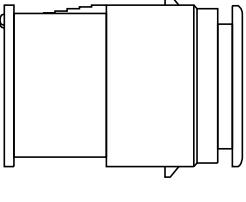
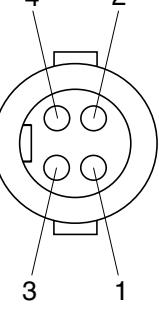
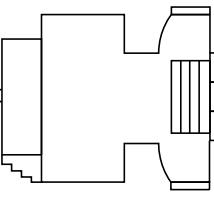
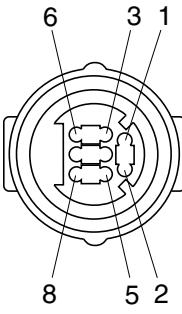
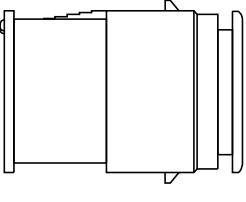
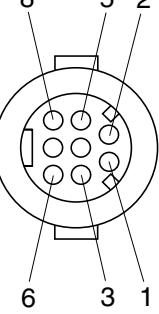
2. CONNECTION TABLE FOR CONNECTORS

1) PA TYPE CONNECTOR

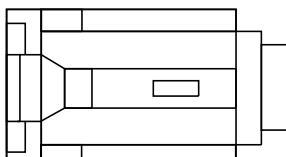
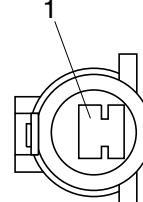
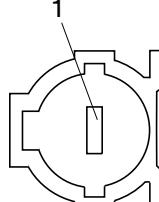
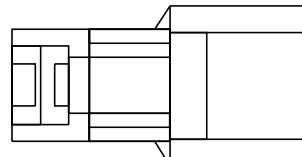
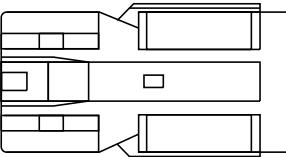
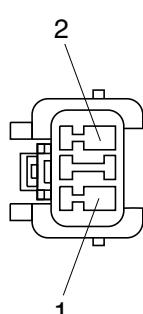
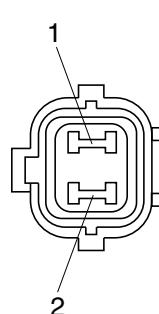
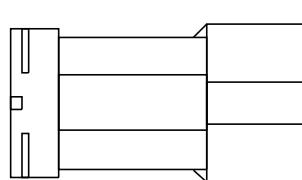
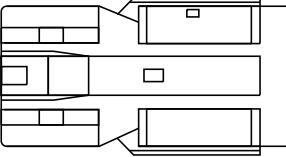
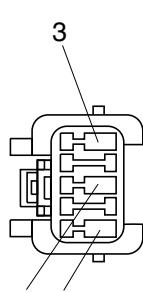
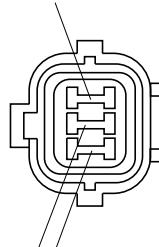
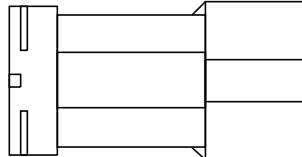
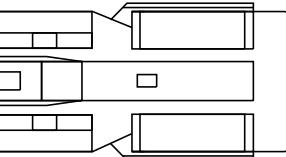
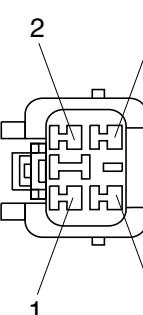
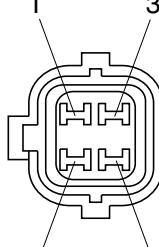
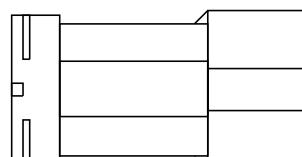
No. of pin	Receptacle connector (female)	Plug connector (male)
5	 	 
7	 	 
9	 	 
11	 	 

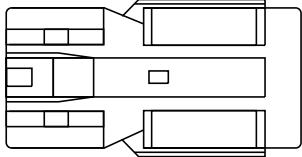
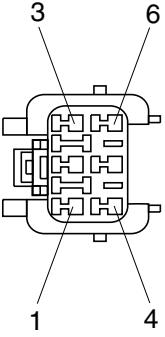
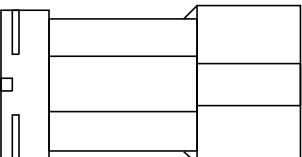
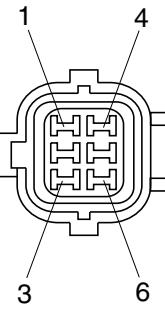
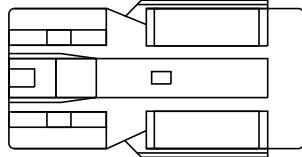
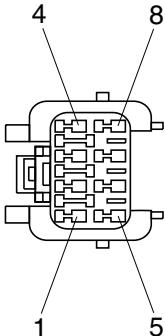
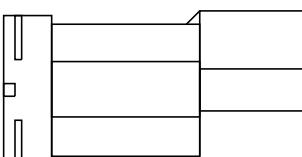
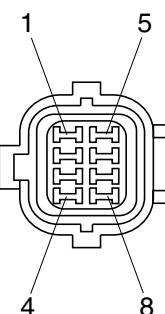
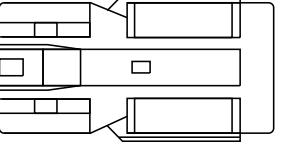
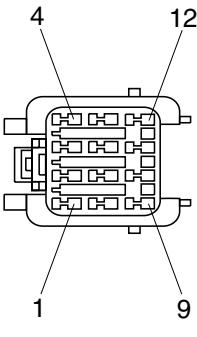
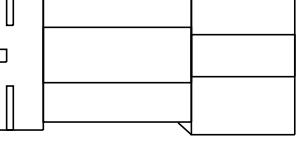
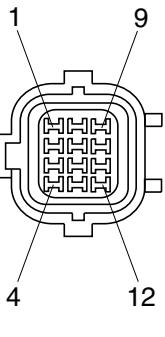
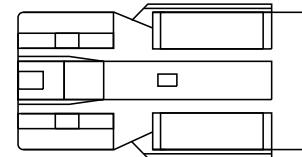
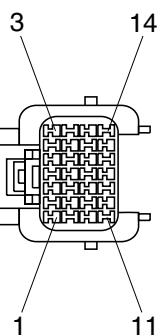
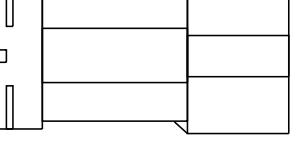
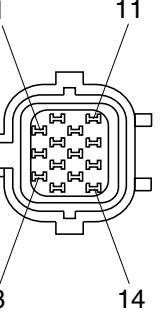
No. of pin	Receptacle connector (female)	Plug connector (male)
13	  S811-013002	  S811-113002
17	  S811-017002	  S811-117002
21	  S811-021002	  S811-121002

2) J TYPE CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
2	  S816-002001	  S816-102001
3	  S816-003001	  S816-103001
4	  S816-004001	  S816-104001
8	  S816-008001	  S816-108001

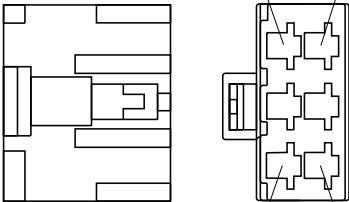
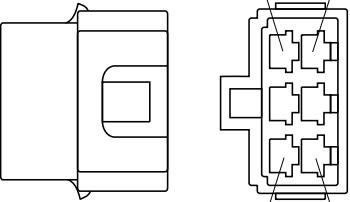
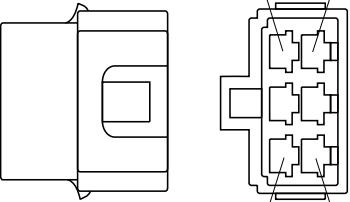
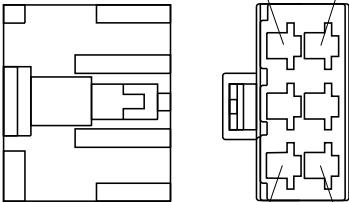
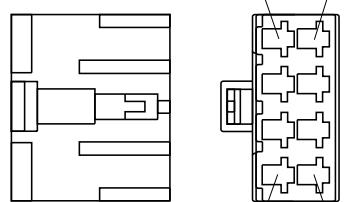
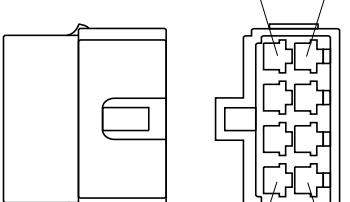
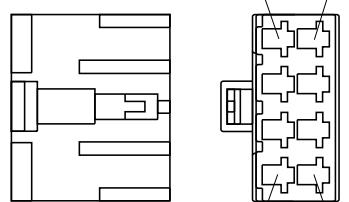
3) SWP TYPE CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
1	  S814-001000	  S814-101000
2	  S814-002000	  S814-102000
3	  S814-003000	  S814-103000
4	  S814-004000	  S814-104000

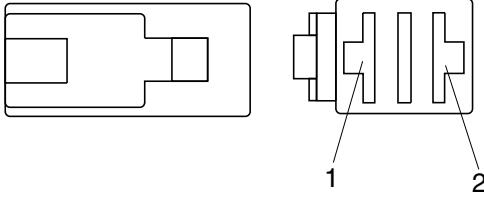
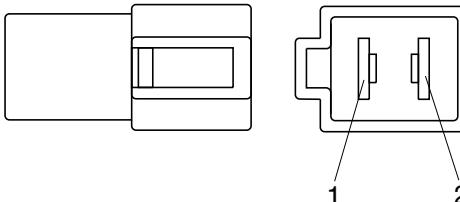
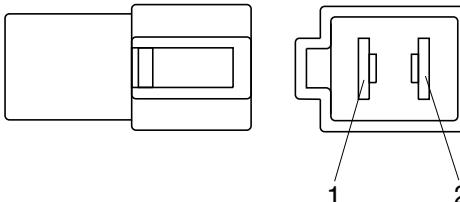
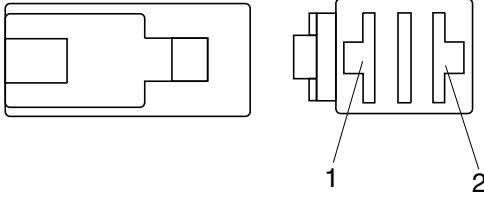
No. of pin	Receptacle connector (female)	Plug connector (male)
6	  S814-006000	  S814-106000
8	  S814-008000	  S814-108000
12	  S814-012000	  S814-112000
14	  S814-014000	  S814-114000

4) CN TYPE CONNECTOR

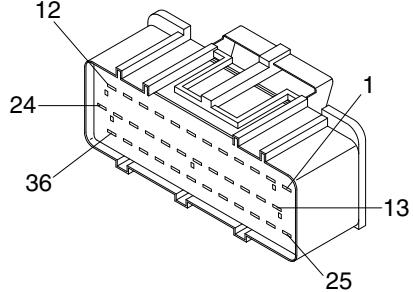
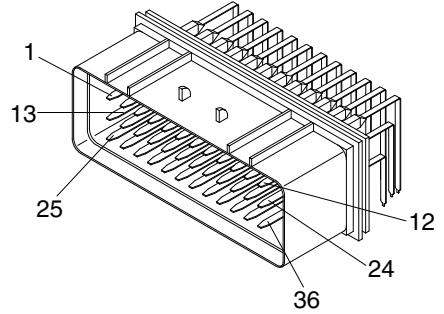
No. of pin	Receptacle connector (female)	Plug connector (male)
1	 S810-001202	 S810-101202
2	 S810-002202	 S810-102202
3	 S810-003202	 S810-103202
4	 S810-004202	 S810-104202

No. of pin	Receptacle connector (female)	Plug connector (male)
6	  S810-006202	  S810-106202
8	 S810-008202	  S810-108202

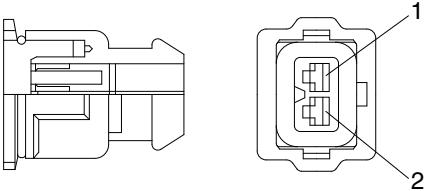
5) 375 FASTEN TYPE CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
2	  S810-002402	  S810-102402

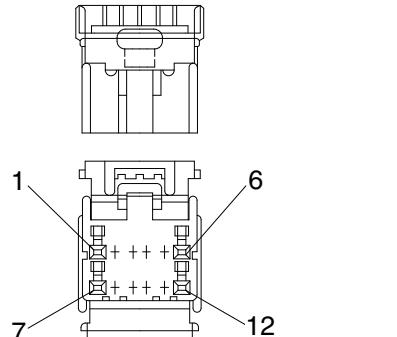
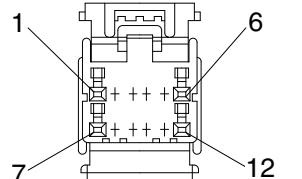
6) AMP ECONOSEAL CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
36	 344111-1	 344108-1

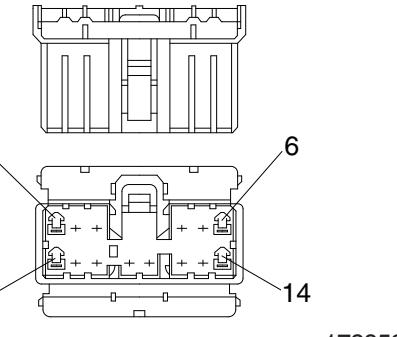
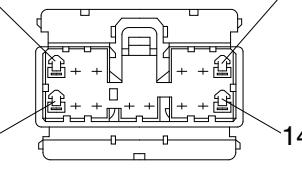
7) AMP TIMER CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
2	 85202-1	

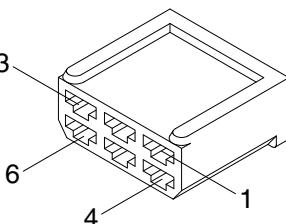
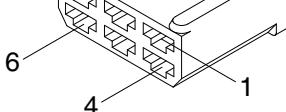
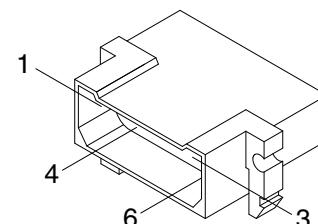
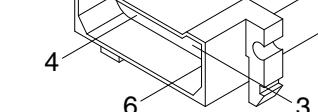
8) AMP 040 MULTILOCK CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
12	  174045-2	

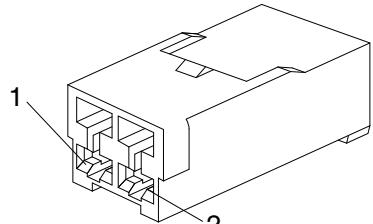
9) AMP 070 MULTILOCK CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
14	  173852	

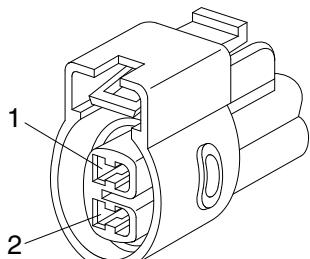
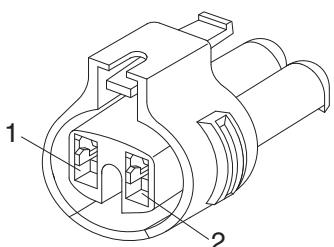
10) AMP FASTIN - FASTON CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
6	  925276-0	  480003-9

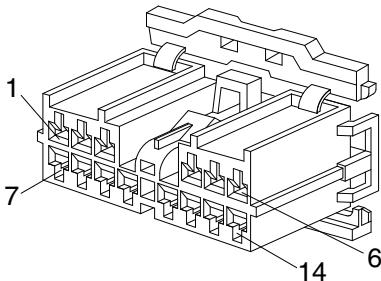
11) KET 090 CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
2	 MG610070	

12) KET 090 WP CONNECTORS

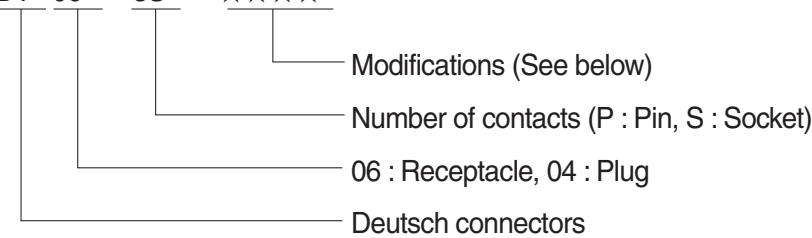
No. of pin	Receptacle connector (female)	Plug connector (male)
2	 MG640605	
2	 MG640795	

13) KET SDL CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
14	 MG610406	

14) DEUTSCH DT CONNECTORS

DT 06 - 3S - ★★★★



* Modification

E003 : Standard end cap - gray

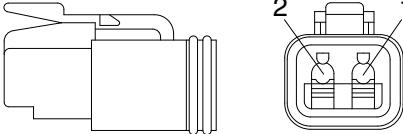
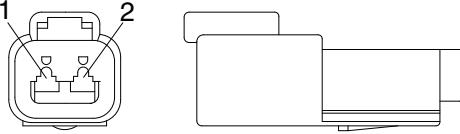
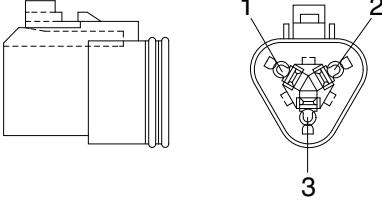
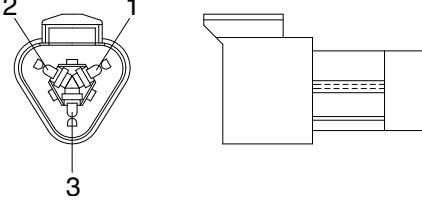
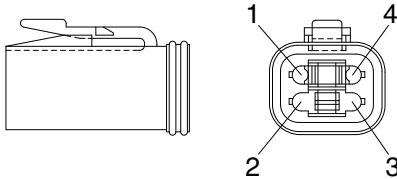
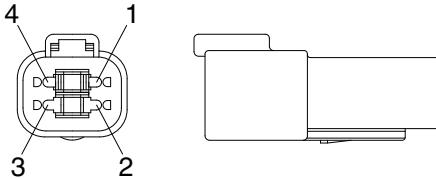
E004 : Color of connector to be black

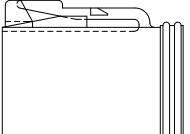
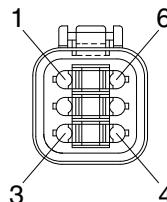
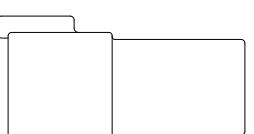
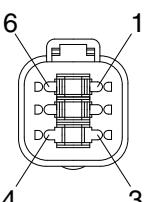
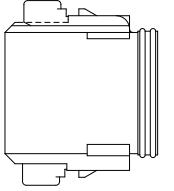
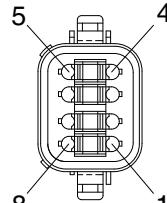
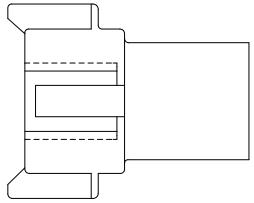
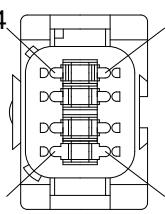
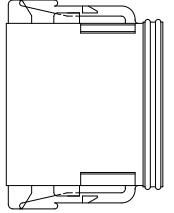
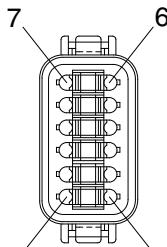
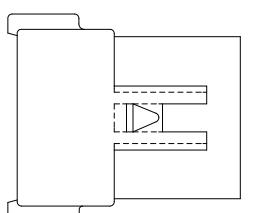
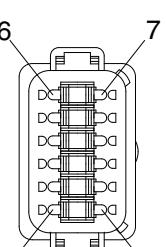
E005 : Combination - E004 & E003

EP04 : End cap

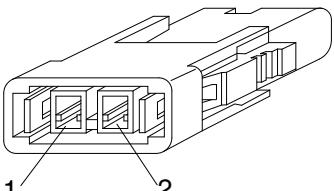
EP06 : Combination P012 & EP04

P012 : Front seal enhancement - connectors color to black for 2, 3, 4 & 6pin

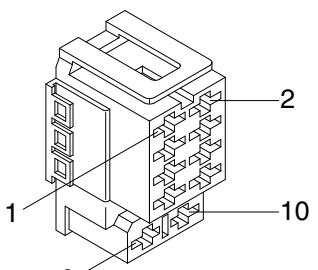
No. of pin	Receptacle connector (female)	Plug connector (male)
2	 DT06-2S	 DT04-2P
3	 DT06-3S	 DT04-3P
4	 DT06-4S	 DT04-4P

No. of pin	Receptacle connector (female)	Plug connector (male)
6	  DT06-6S	  DT04-6P
8	  DT06-8S	  DT04-8P
12	  DT06-12S	  DT04-12P

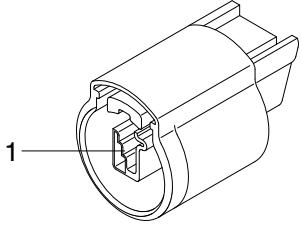
15) MOLEX 2CKTS CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
2	 35215-0200	

16) ITT SWF CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
10	 SWF593757	

17) MWP NMWP CONNECTOR

No. of pin	Receptacle connector (female)	Plug connector (male)
1	 NMWP01F-B	