

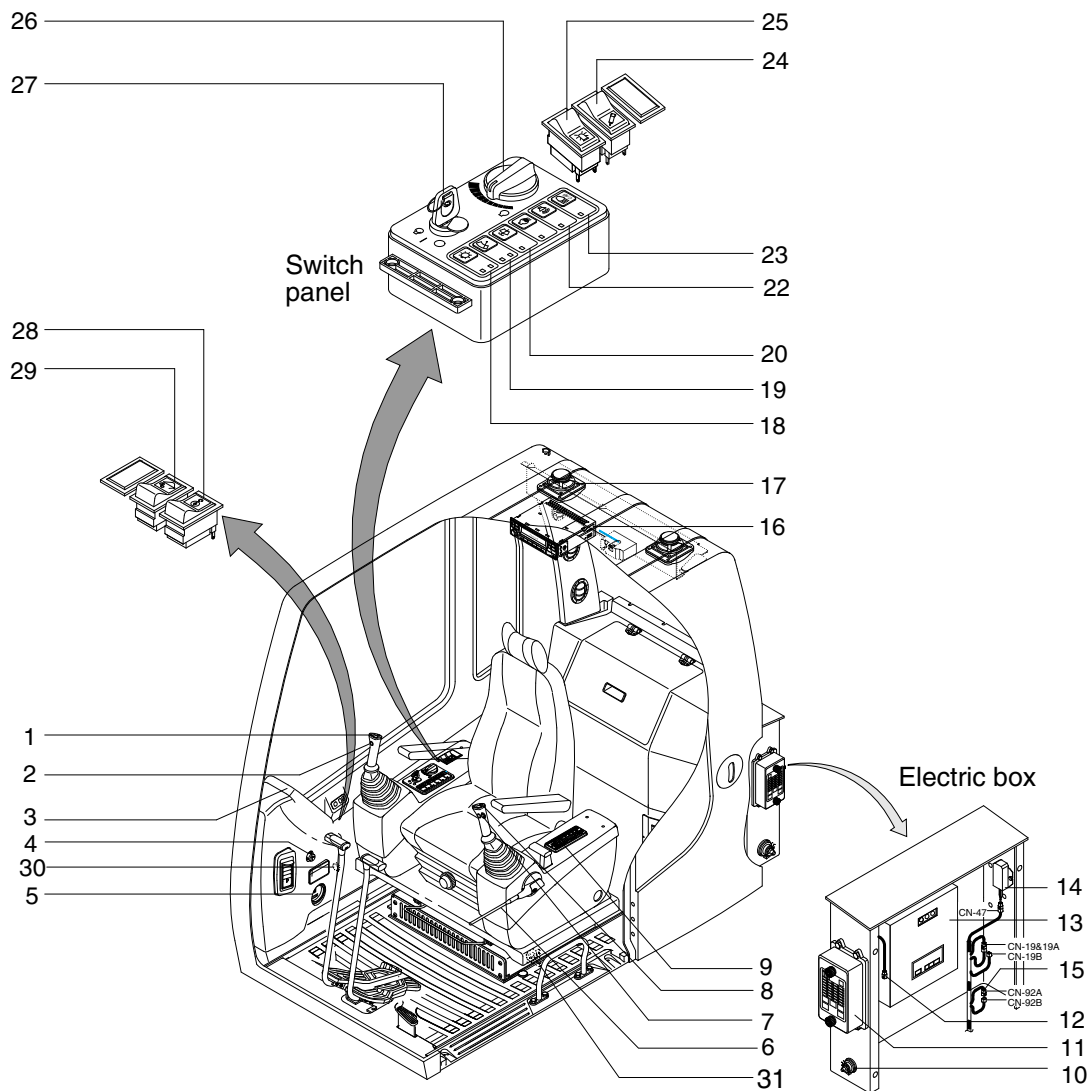
SECTION 4 ELECTRICAL SYSTEM

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SECTION 4 ELECTRICAL SYSTEM

GROUP 1 COMPONENT LOCATION

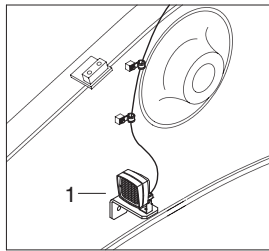
1. LOCATION 1



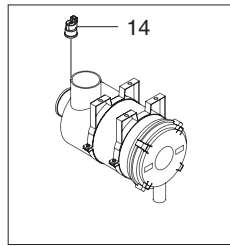
210S4EL01A

1	Horn switch	12	RS232 serial connector	23	Cab light switch
2	Breaker operation switch	13	MCU	24	Breaker selection switch
3	Cluster	14	Prolix resistor	25	Beacon switch
4	Cigar lighter	15	Emergency engine starting connector	26	Accel dial
5	Hour meter	16	Radio & USB player	27	Start switch
6	Safety lever	17	Speaker	28	Overload switch
7	Power max switch (null)	18	Main light switch	29	Quick clamp switch
8	One touch decel switch	19	Wiper switch	30	12V socket
9	Air conditioner switch	20	Washer switch	31	Emergency engine stop switch (option)
10	Master switch	22	Travel alarm switch		
11	Fuse box				

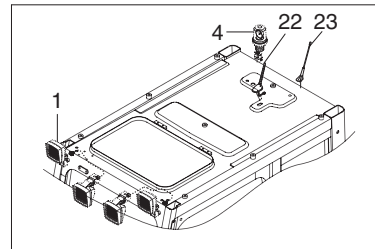
2. LOCATION 2



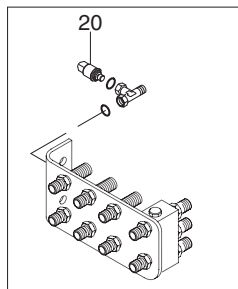
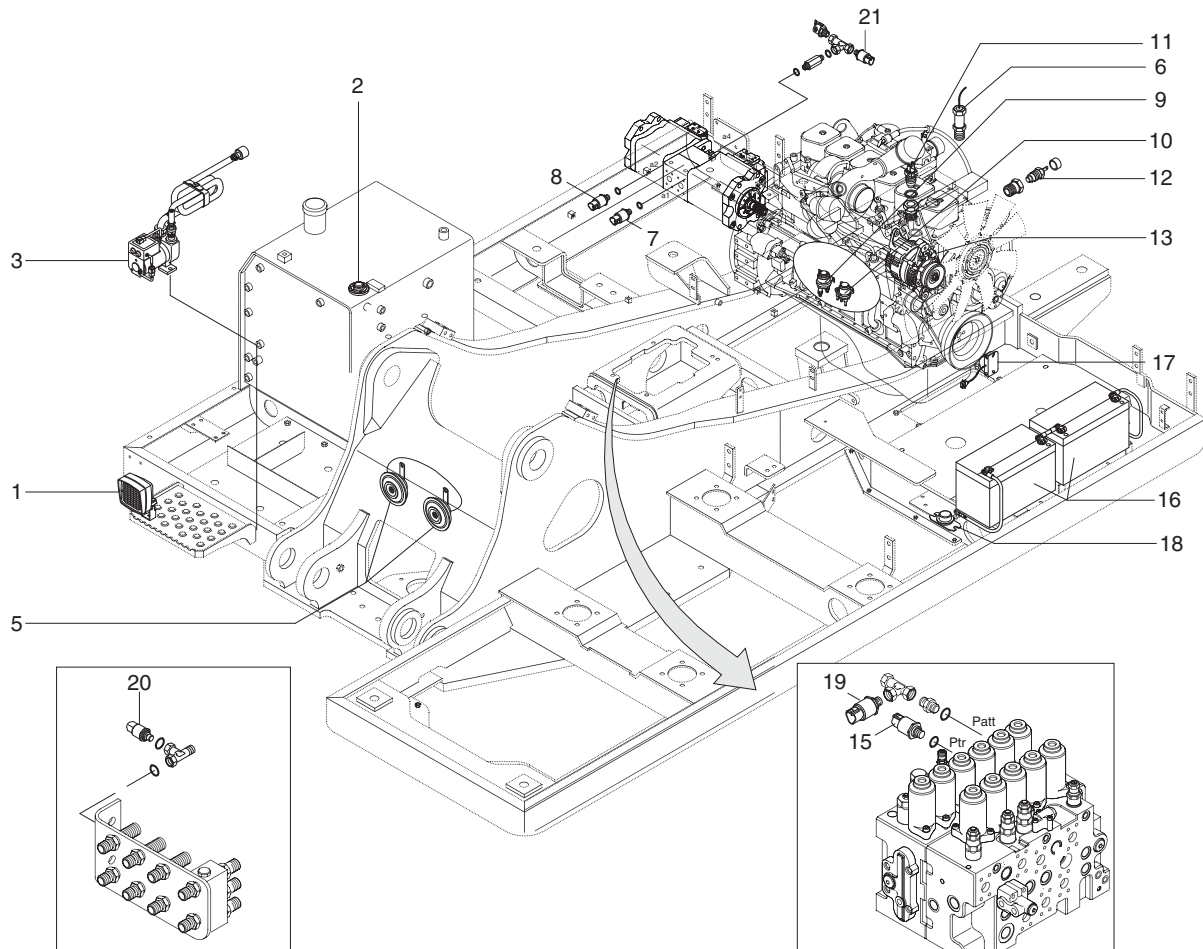
BOOM



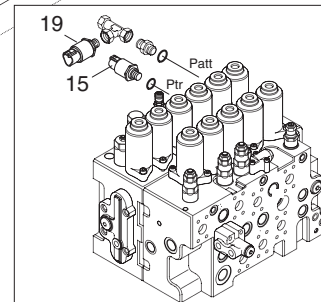
AIR CLEANER



CAB



TERMINAL ASSY



MAIN CONTROL VALVE

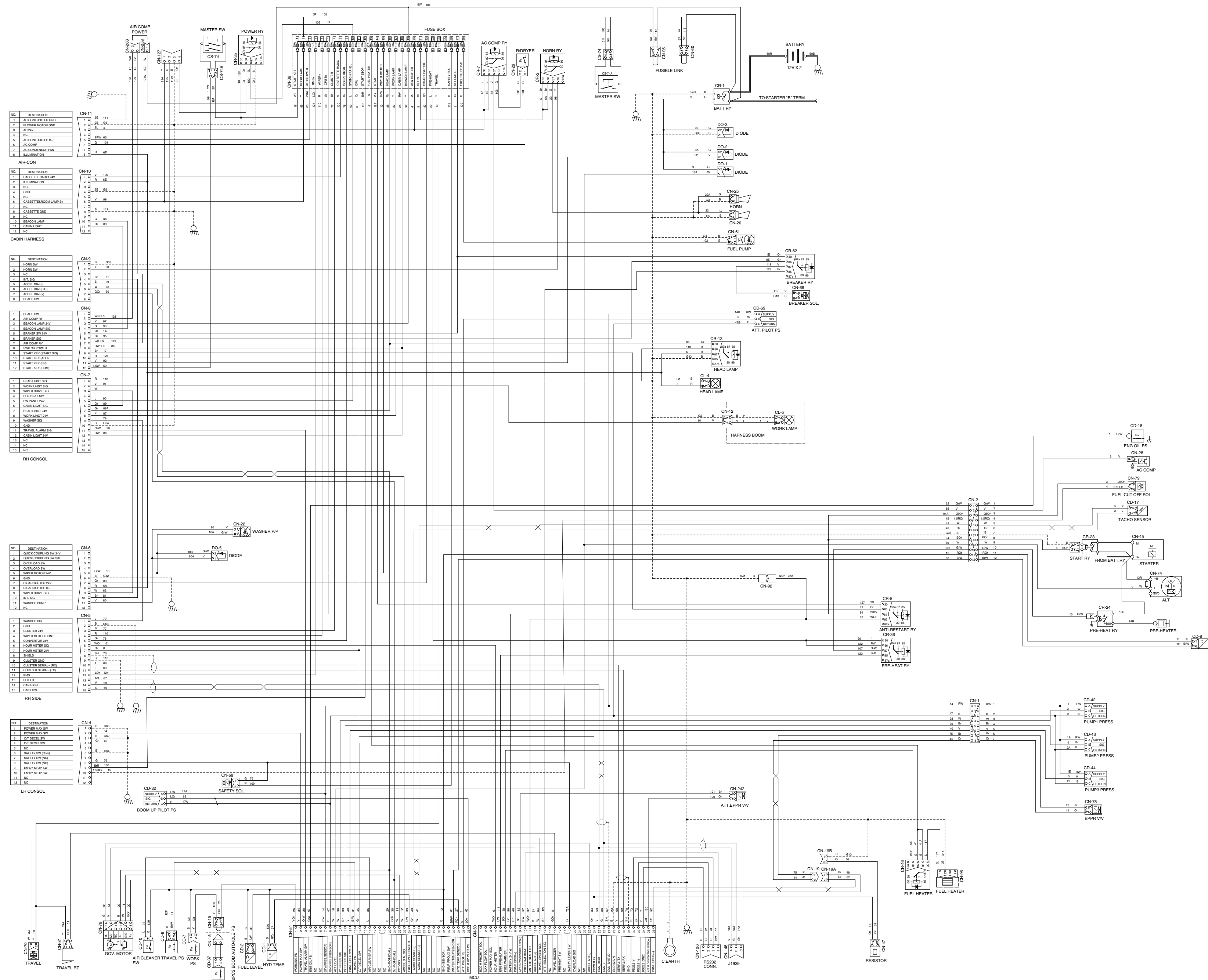
210S4EL02

- | | | |
|----------------------|-------------------------------|------------------------------|
| 1 Lamp | 9 Start relay | 17 Travel alarm buzzer |
| 2 Fuel sender | 10 Heater relay | 18 Battery relay |
| 3 Fuel filler pump | 11 Temp sender | 19 Auto idle pressure sensor |
| 4 Beacon lamp | 12 Engine oil pressure switch | 20 Boom up pressure sensor |
| 5 Horn | 13 Alternator | 21 EPPR pressure switch |
| 6 Speed sensor | 14 Air cleaner switch | 22 Integrated antenna |
| 7 P1 pressure sensor | 15 Travel pressure switch | 23 Satellite antenna |
| 8 P2 pressure sensor | 16 Battery | |

· ELECTRICAL CIRCUIT (1/2)
- MACHINE SERIAL NO. : -#05210

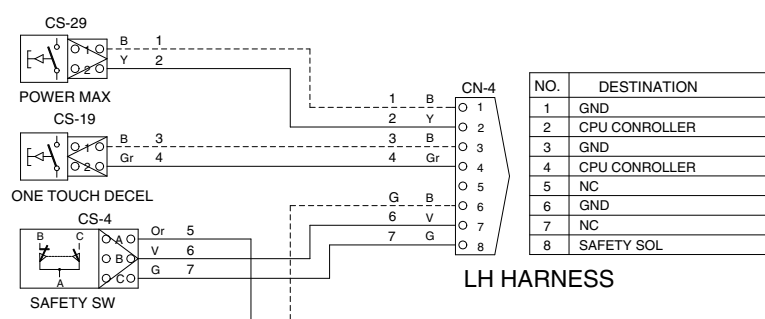
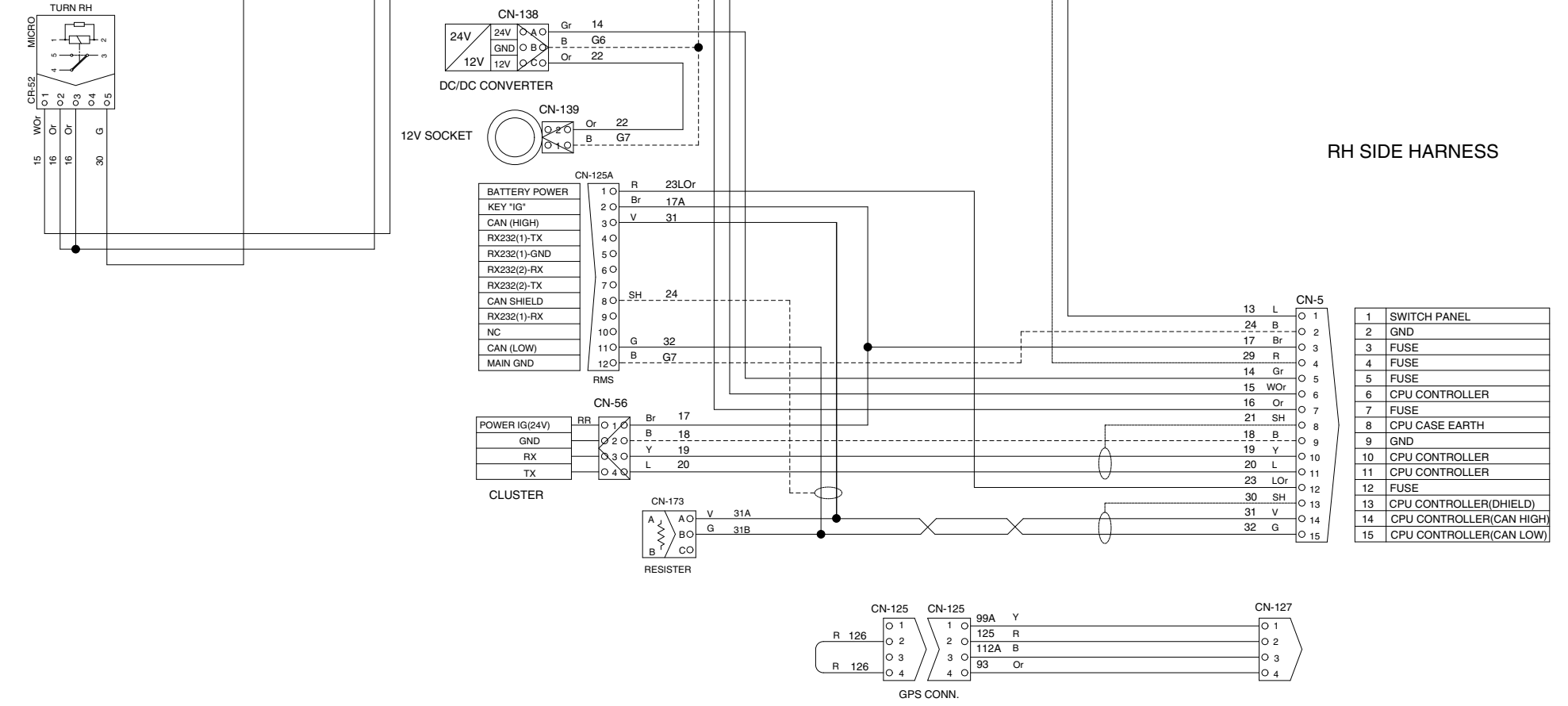
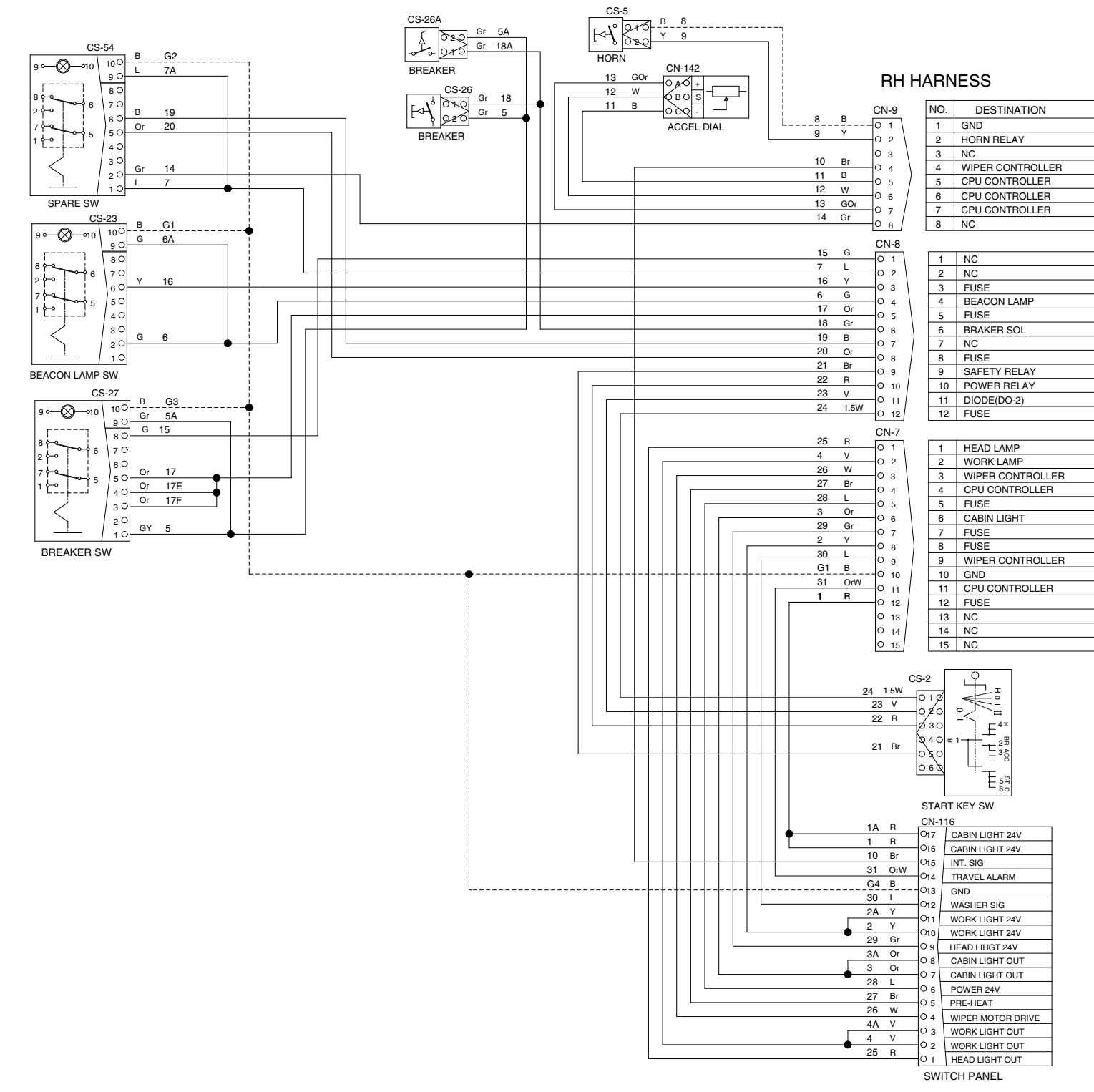
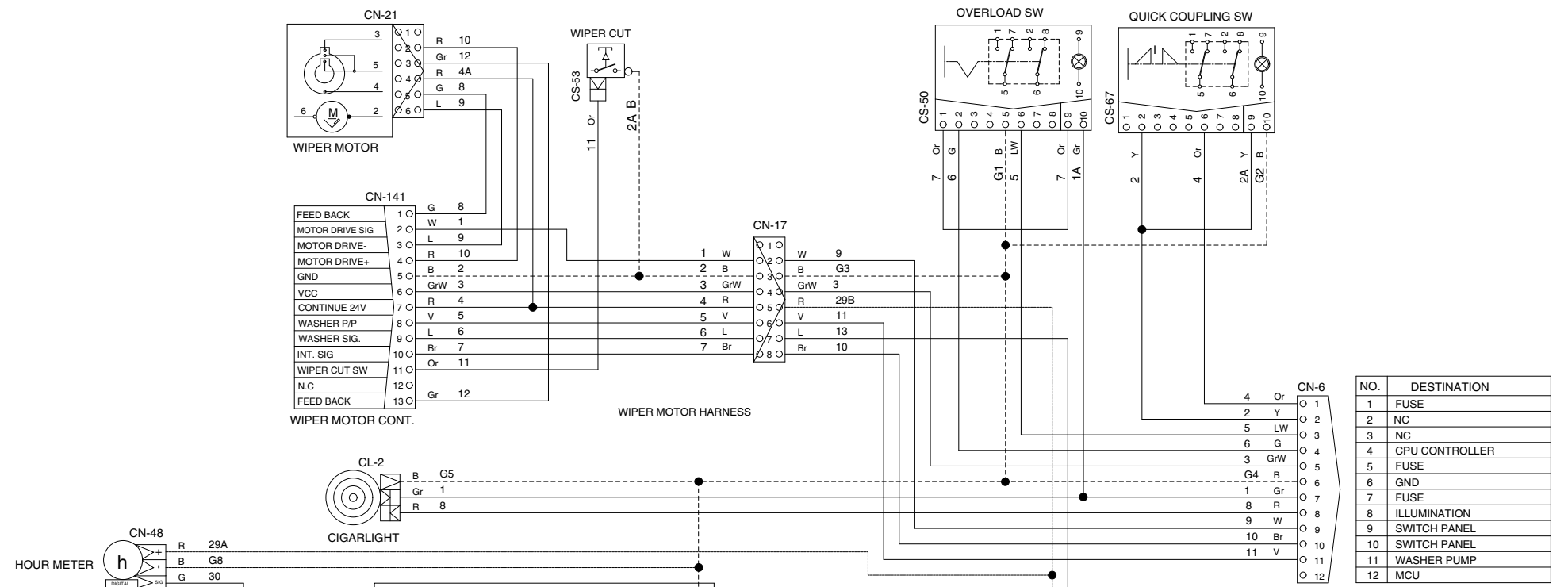
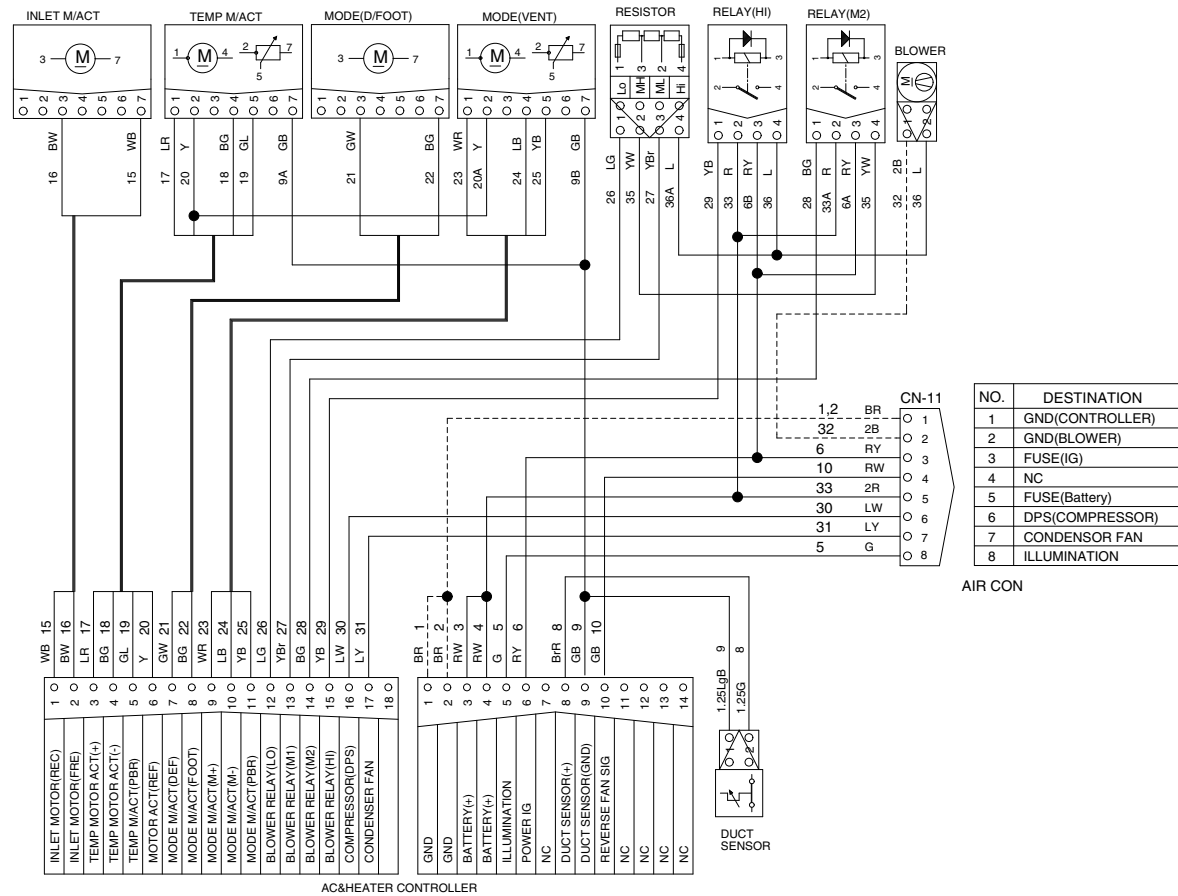


- MACHINE SERIAL NO. : #05211-

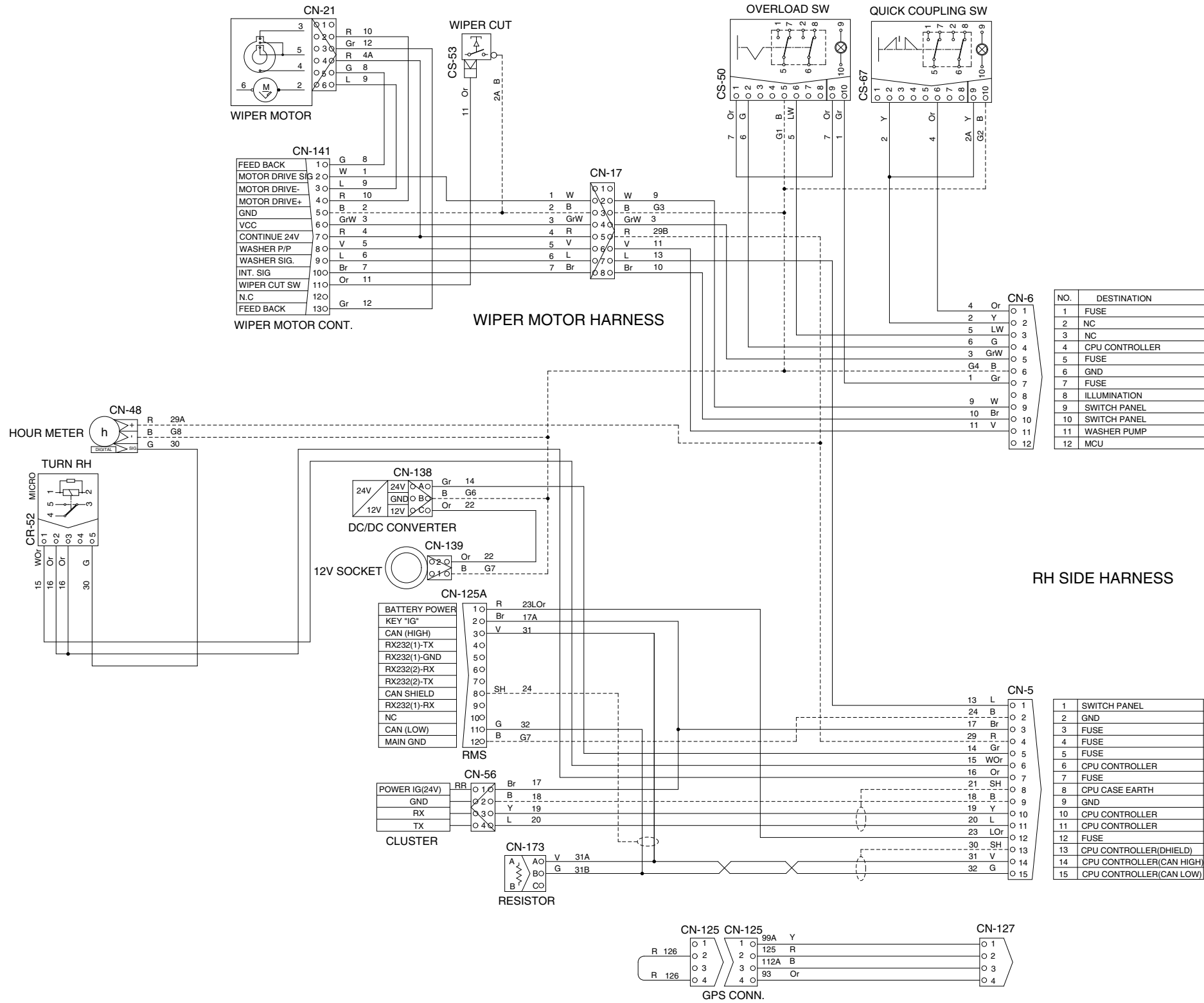
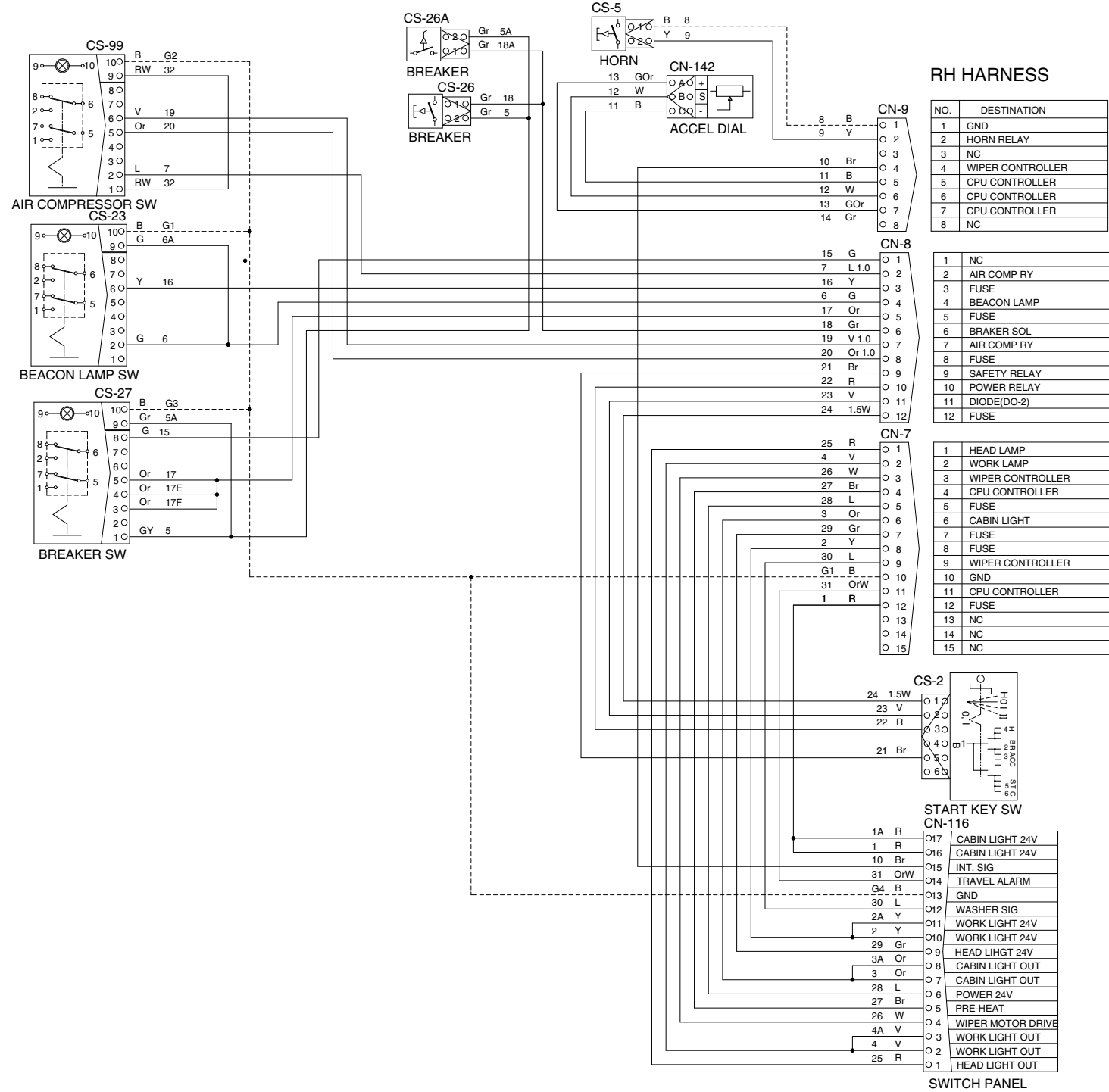
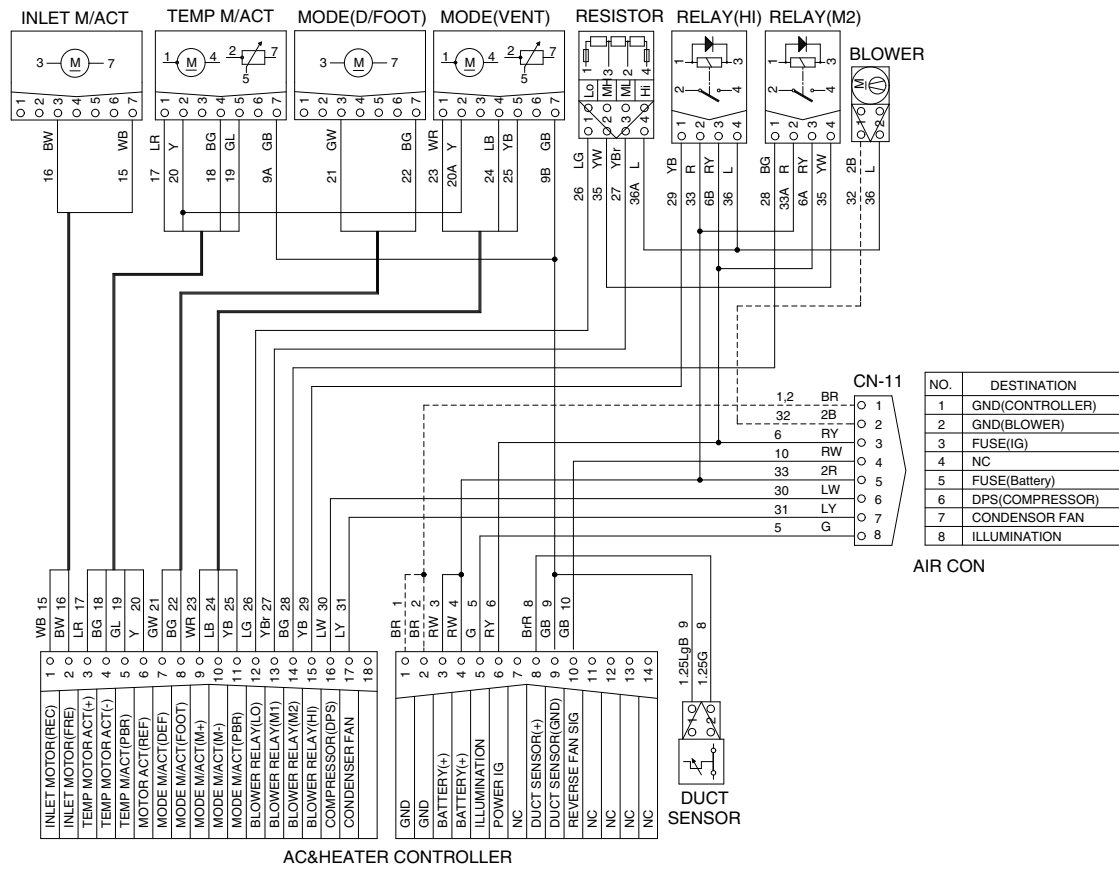


ELECTRICAL CIRCUIT (2/2)

MACHINE SERIAL NO. : #05210



- MACHINE SERIAL NO. : #05211-

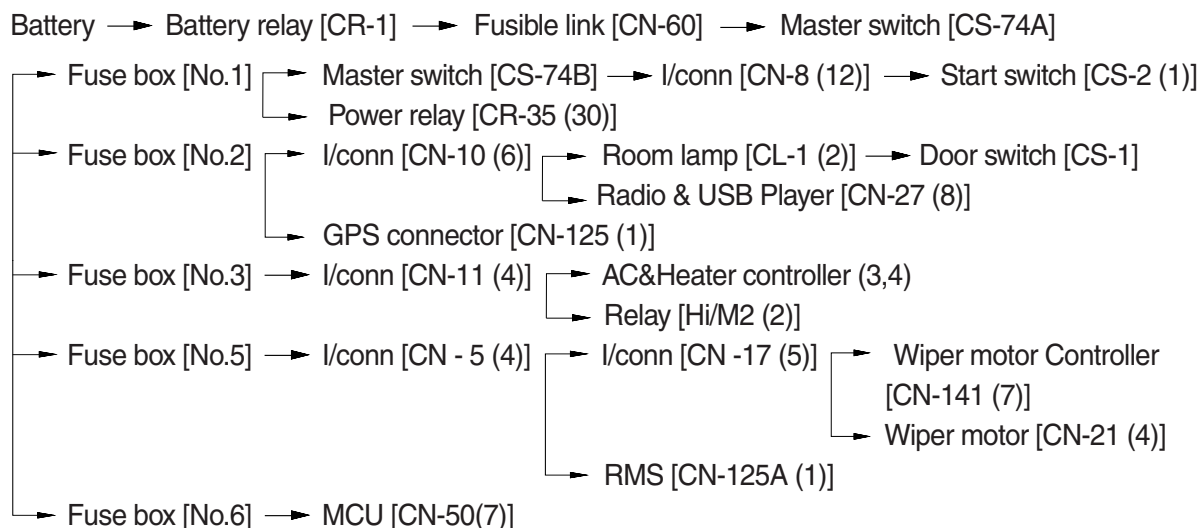


1. POWER CIRCUIT

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
STOP	OFF	① - GND (battery 1 EA)	10~12.5V
		② - GND (battery 2 EA)	20~25V
		③ - GND (battery 2 EA)	20~25V
		④ - GND (reset button)	20~25V

※ GND : Ground

※ The circuit diagram may differ from the equipment, so please check before a repair.

2. STARTING CIRCUIT

1) OPERATING FLOW

Battery(+) terminal → Battery relay [CR-1] → Fusible link [CS-60] → Master switch [CS-74A]
 → Fuse box [No.1] → Master switch [CS-74B] → I/conn [CN-8 (12)] → Start key [CS-2 (1)]

(1) When start key switch is in ON position

→ Start switch ON [CS-2 (2)] → I/conn [CN-8 (11)] → 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)] → GPS connector [CN-125 (2) → (4)]
 → Power relay [CR-35 (86) → (87)] → Fuse box [No.12]
 → I/conn [CN-2 (4)] → Fuel cut-off [CN-79 (2)]

(2) When start key switch is in START position

Start switch START [CS-2 (5)] → I/conn [CN-8 (9)] → Safety relay [CR-5 (86) → (87)]
 → I/conn [CN-3 (8)] → Start relay [CR-23 (2)] → Start motor operating
 → I/conn [CN-2 (3)] → Fuel cut off [CN-79 (1)]

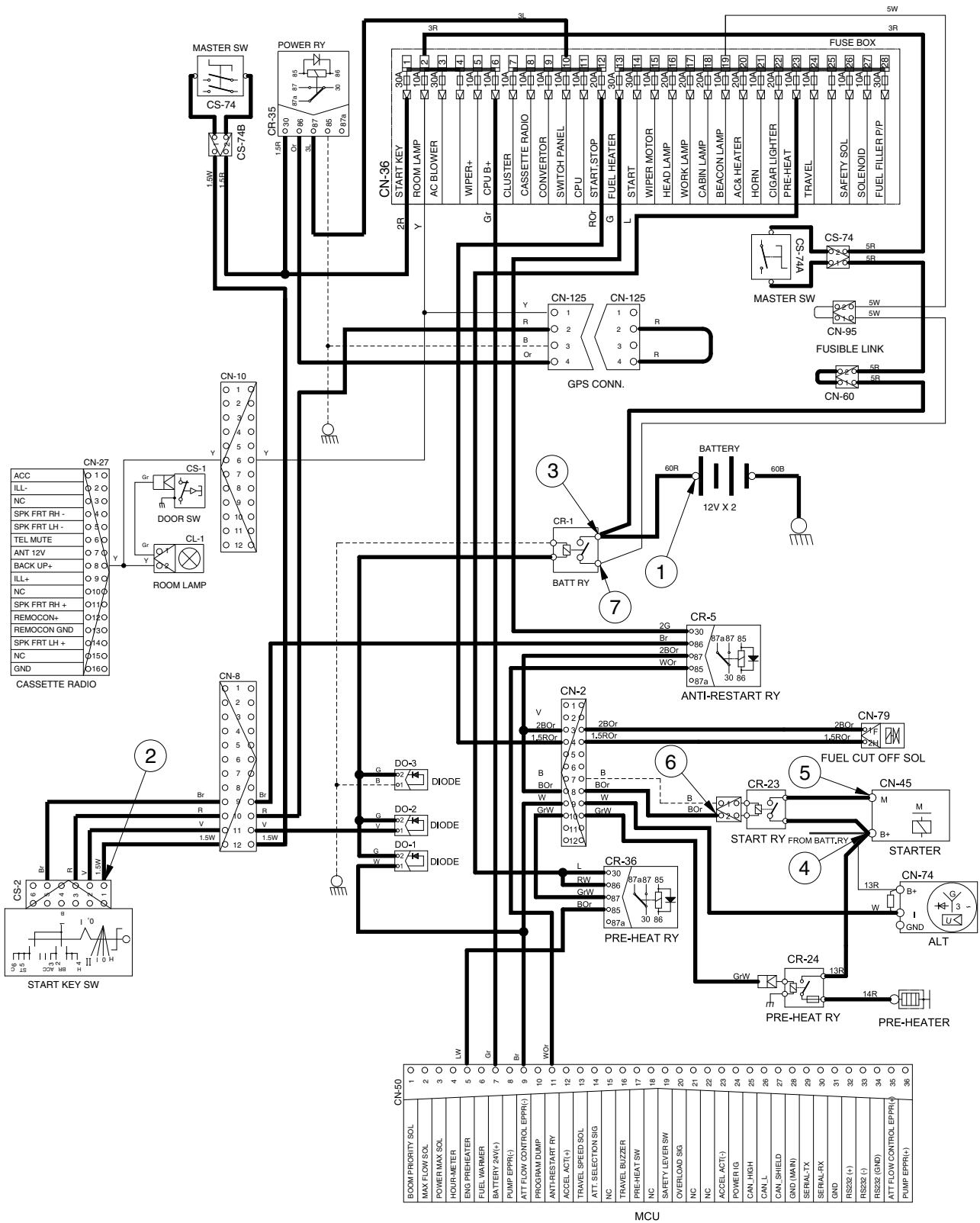
2) CHECK POINT

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

※ The circuit diagram may differ from the equipment, so please check before a repair.

STARTING CIRCUIT



210S4EL04

※ The circuit diagram may differ from the equipment, so please check before a repair.

3. CHARGING CIRCUIT

When the starter is activated and the engine is started, the operator releases the start 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 [CN-74 (I)] → I/conn [CN-2 (9)] → CPU alternator level [CN-51 (9)]

Cluster charging warning lamp(Via interface)

(2) Charging flow

Alternator "B⁺" terminal → Start motor [B⁺] → Battery relay

→ Battery(+) terminal

→ Fusible link [CN-60] → Master switch [CN-74A] → Fuse box [No.1~6]

→ Fusible link [CN-95] → Fuse box [No.13~28]

2) CHECK POINT

Engine	Start switch	Check point	Voltage
RUN	ON	① - GND (battery voltage) ② - GND (battery relay) ③ - GND (alternator B ⁺ terminal) ④ - GND (alternator I terminal) ⑤ - GND (CPU)	20~30V

※ GND : Ground

※ The circuit diagram may differ from the equipment, so please check before a repair.

※ The circuit diagram may differ from the equipment, so please check before a repair.



1) OPERATING FLOW

Fuse box (No.17) → I/conn [CN-7 (8)] → Switch panel [CN-116 (10, 11)]

Head light switch ON [CN-116 (1)] → I/conn [CN-7 (1)] → Head lamp relay [CR-13 (30) → (87)]

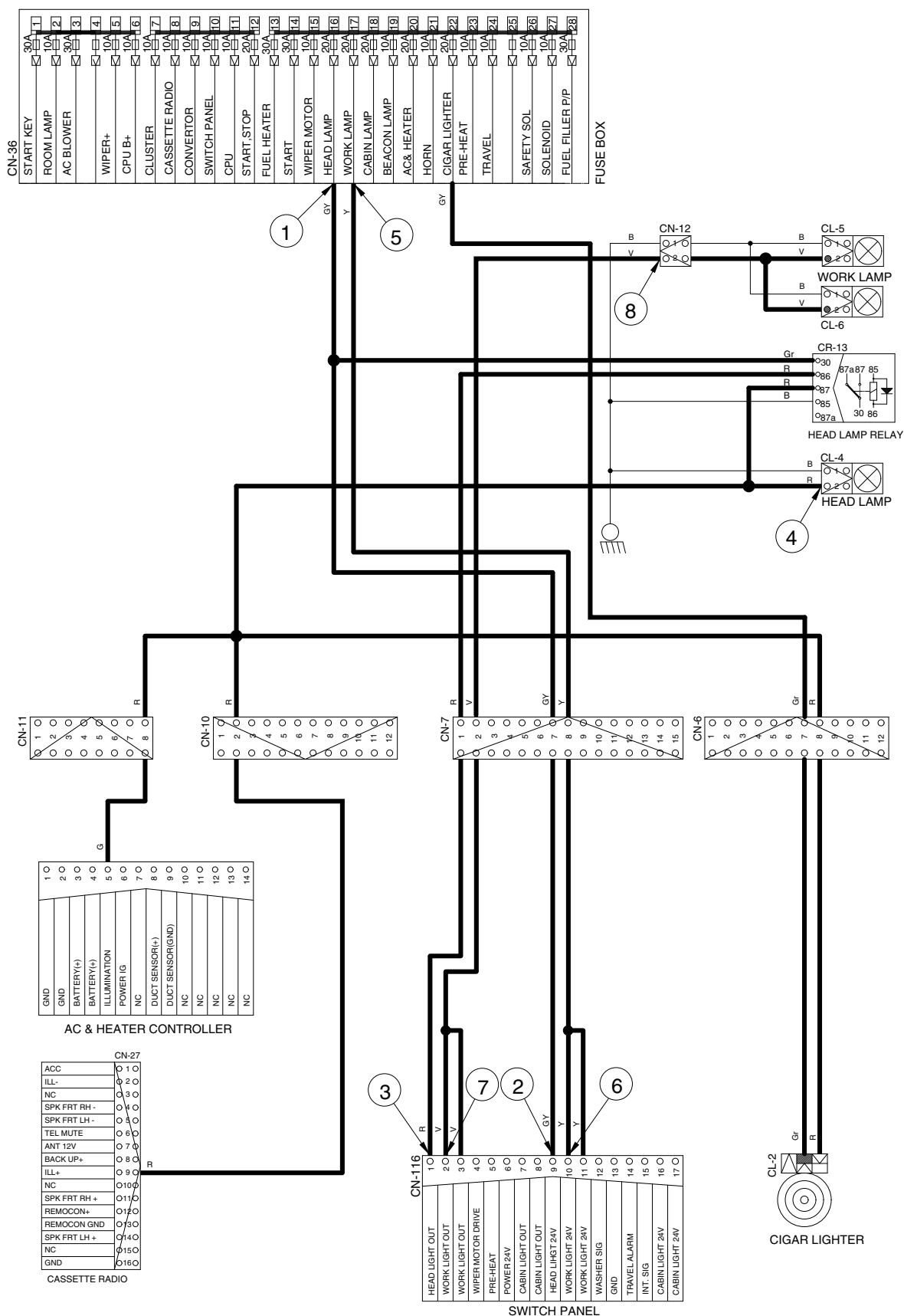
- Head light ON [CL-4 (2)] → Head lamp ON
- I/conn [CN-10 (2)] → Radio & USB player ON [CN-27 (9)]
- I/conn [CN-11 (8)] → AC & Heater controller illumination ON
- I/conn [CN-6 (8)] → Cigar lighter [CL-2]

Work light switch ON [CN-116 (2,3)] → I/conn [CN-7 (2)] → I/conn [CN-12 (2)]
→ Work light ON [CL-5 (2), CL-6 (2)]

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)	20~25V
STOP	ON	⑤ - GND (fuse box) ⑥ - GND (switch power input) ⑦ - GND (switch power output) ⑧ - GND (work light)	20~25V

※ The circuit diagram may differ from the equipment, so please check before a repair.

HEAD AND WORK LIGHT CIRCUIT



210S4EL06

※ The circuit diagram may differ from the equipment, so please check before a repair.

5. BEACON LAMP AND CAB LIGHT CIRCUIT

1) OPERATING FLOW

Fuse box (No.19) → I/conn [CN-8 (3)] → Beacon lamp switch [CS-23 (6)]

Fuse box (No.17) → I/conn [CN-7 (12)] → Switch panel [CN-116 (16, 17)]

(1) Beacon 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) Cab light switch ON

Cab light switch ON [CN-116 (7, 8)] → I/conn [CN-7 (6)] → I/conn [CN-10 (11)]
→ Cab light ON [CL-8 (2), CL-9 (2)]

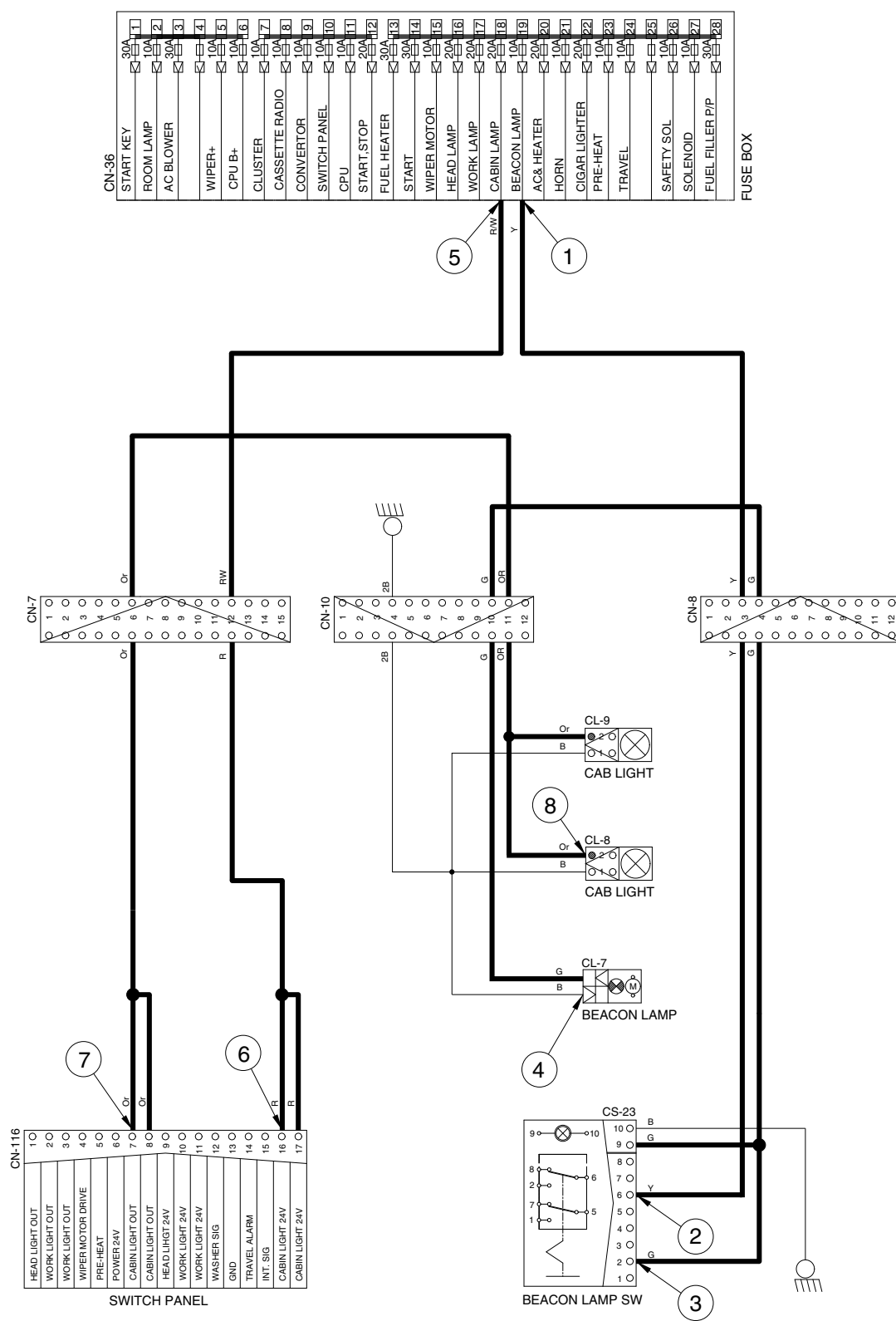
2) CHECK POINT

Engine	Start switch	Check point	Voltage
STOP	ON	① - GND (fuse box) ② - GND (switch power input) ③ - GND (switch power output) ④ - GND (beacon lamp)	20~25V
STOP	ON	⑤ - GND (fuse box) ⑥ - GND (switch power input) ⑦ - GND (switch power output) ⑧ - GND (cab light)	20~25V

※ GND : Ground

※ The circuit diagram may differ from the equipment, so please check before a repair.

BEACON LAMP AND CAB LIGHT CIRCUIT



210S4EL07

※ The circuit diagram may differ from the equipment, so please check before a repair.

6. WIPER AND WASHER CIRCUIT

1) OPERATING FLOW

(1) Key switch ON

Fuse box (No.12) → I/conn [CN-7 (5)] → Switch panel [CN-116 (6)]

Fuse box (No.5) → I/conn [CN-5(4)] → I/conn [CN-17 (5)] → Wiper motor controller [CN-141 (7)]
 → Wiper motor [CN-21 (4)]

Fuse box (No.15) → I/conn [CN-6 (5)] → I/conn [CN-17 (4)] → Wiper motor controller [CN-141 (6)]
 → Washer pump [CN-22 (2)]

(2) Wiper switch ON : 1st step (Intermittent)

Wiper switch ON [CN-116 (15)] → I/conn [CN-9 (4)] → I/conn [CN-6 (10)] → I/conn [CN-17 (8)]

Wiper motor controller [CN-141 (10) → (3)] → Wiper motor intermittently operating [CN-21 (6)]

(3) Wiper switch ON : 2nd step (Low speed)

Wiper switch ON [CN-116 (4)] → I/conn [CN-7 (3)] → I/conn [CN-6 (9)] → I/conn [CN-17 (2)]

Wiper motor controller [CN-141 (2) → (4)] → Wiper motor operating [CN-21 (2)]

(4) Washer switch ON

Washer switch ON [CN-116 (12)] → I/conn [CN-7 (9)] → I/conn [CN-5 (1)] → I/conn [CN-17 (7)]
 → Wiper motor controller [CN-141 (9) → (8)] → I/conn [CN-17 (6)] → I/conn [CN-6 (11)]

→ Washer pump [CN-22 (1)] → Washer operating

Wiper switch ON [CN-116 (4)] → I/conn [CN-7 (3)] → I/conn [CN-6 (9)] → I/conn [CN-17 (2)]

Wiper motor controller [CN-141 (2) → (4)] → Wiper motor operating [CN-21 (2)]

(5) Auto parking (when switch OFF)

Switch OFF [CN-116 (4)] → Wiper motor parking position by wiper motor controller

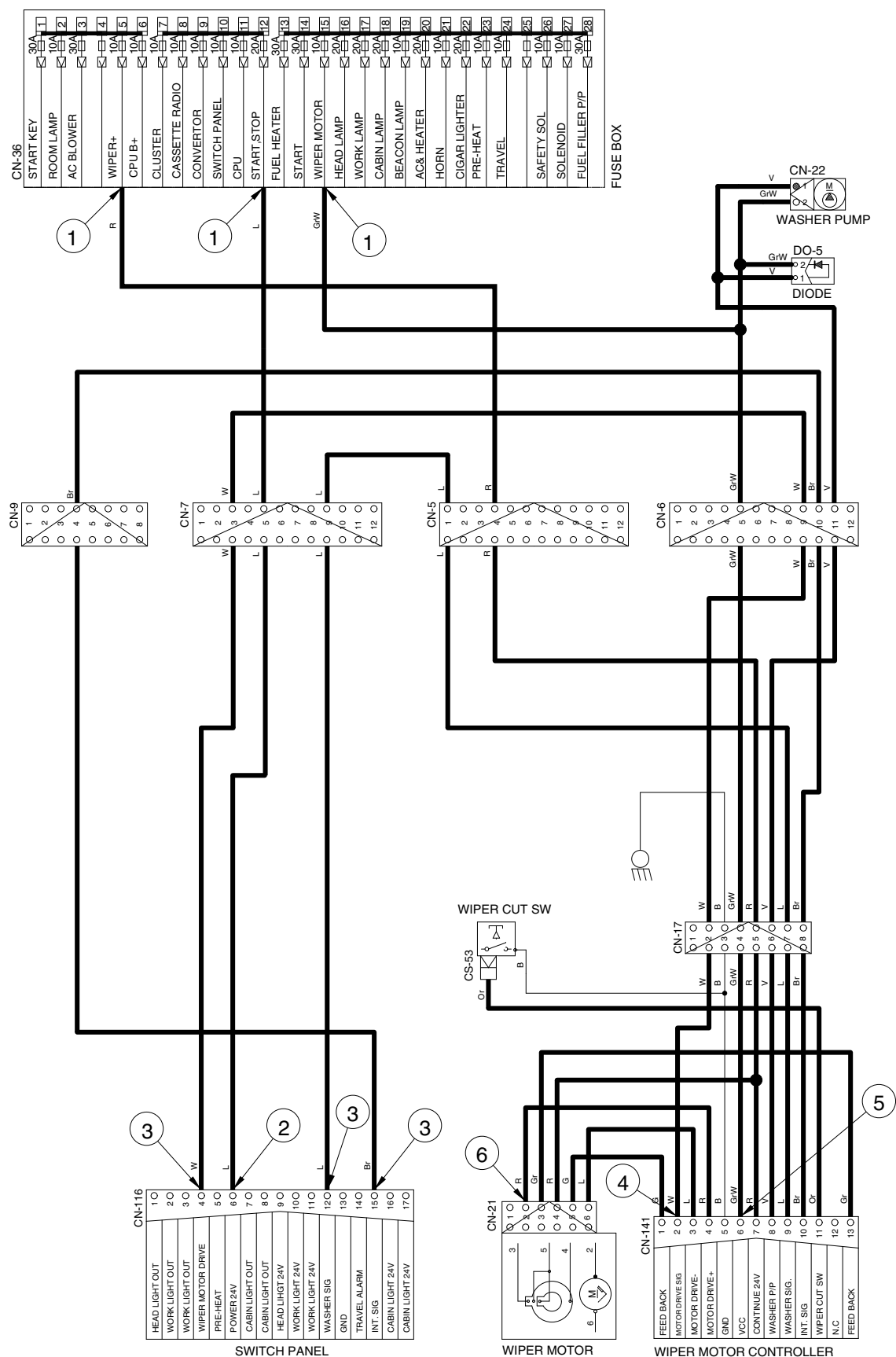
2) CHECK POINT

Engine	Start switch	Check point	Voltage
STOP	ON	① - GND (fuse box)	24V
		② - GND (switch power input)	
		③ - GND (switch power output)	0 ~ 5V
		④ - GND (wiper Power input)	
		⑤ - GND (wiper power output)	0 or 24V
		⑥ - GND (wiper motor)	

※ GND : Ground

※ The circuit diagram may differ from the equipment, so please check before a repair.

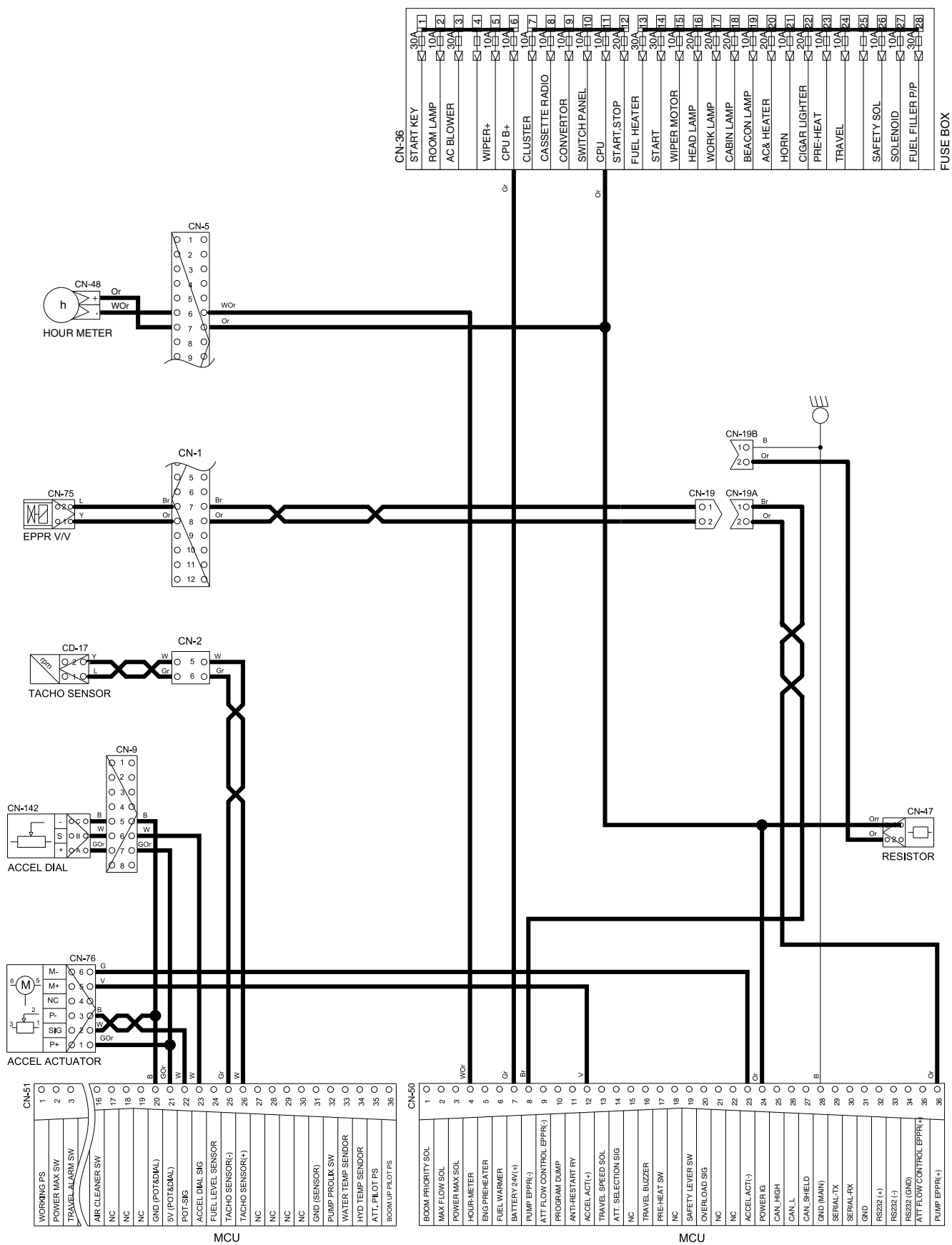
WIPER AND WASHER CIRCUIT



210S4EL08

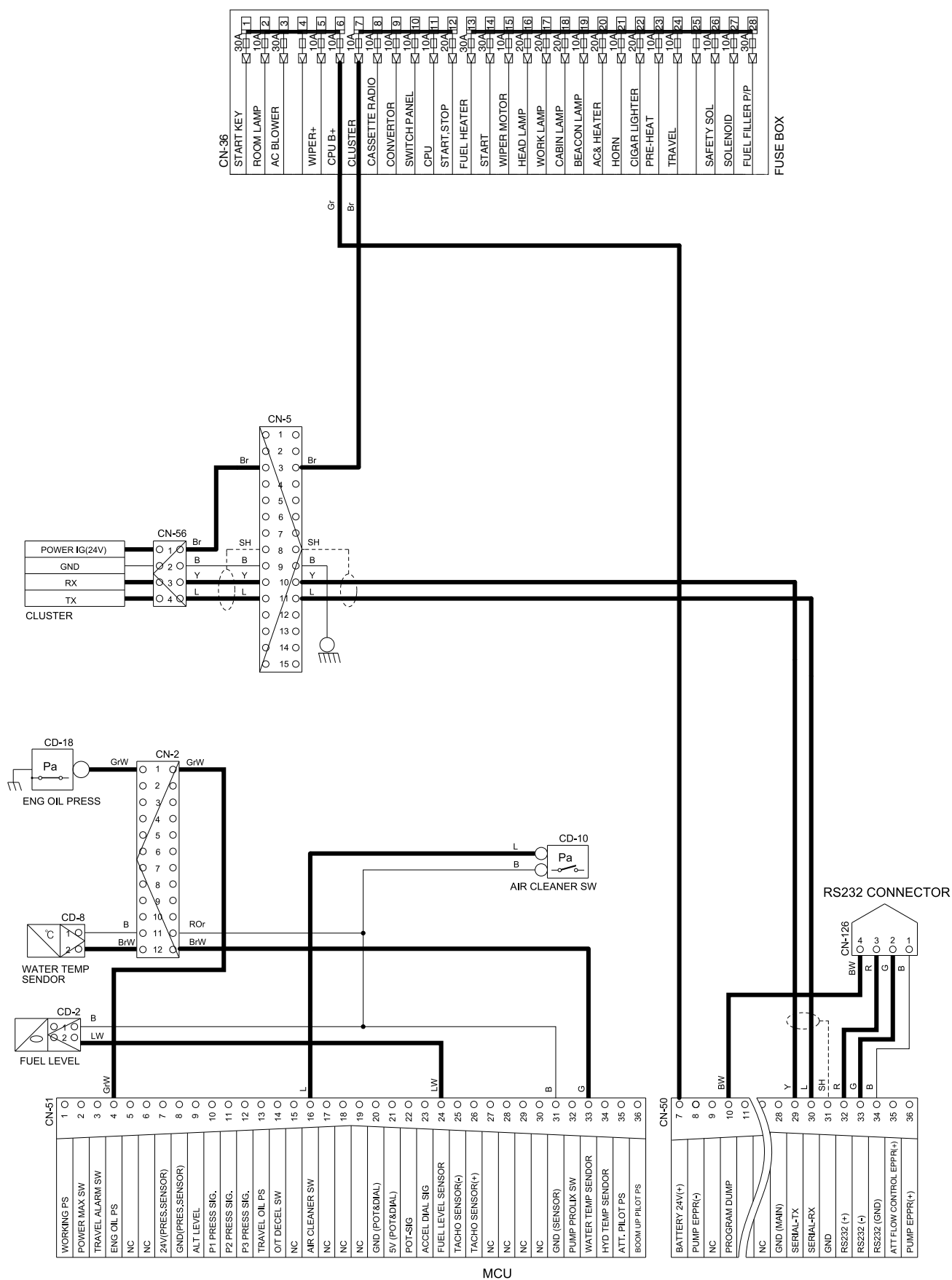
※ The circuit diagram may differ from the equipment, so please check before a repair.

CONTROLLER CIRCUIT



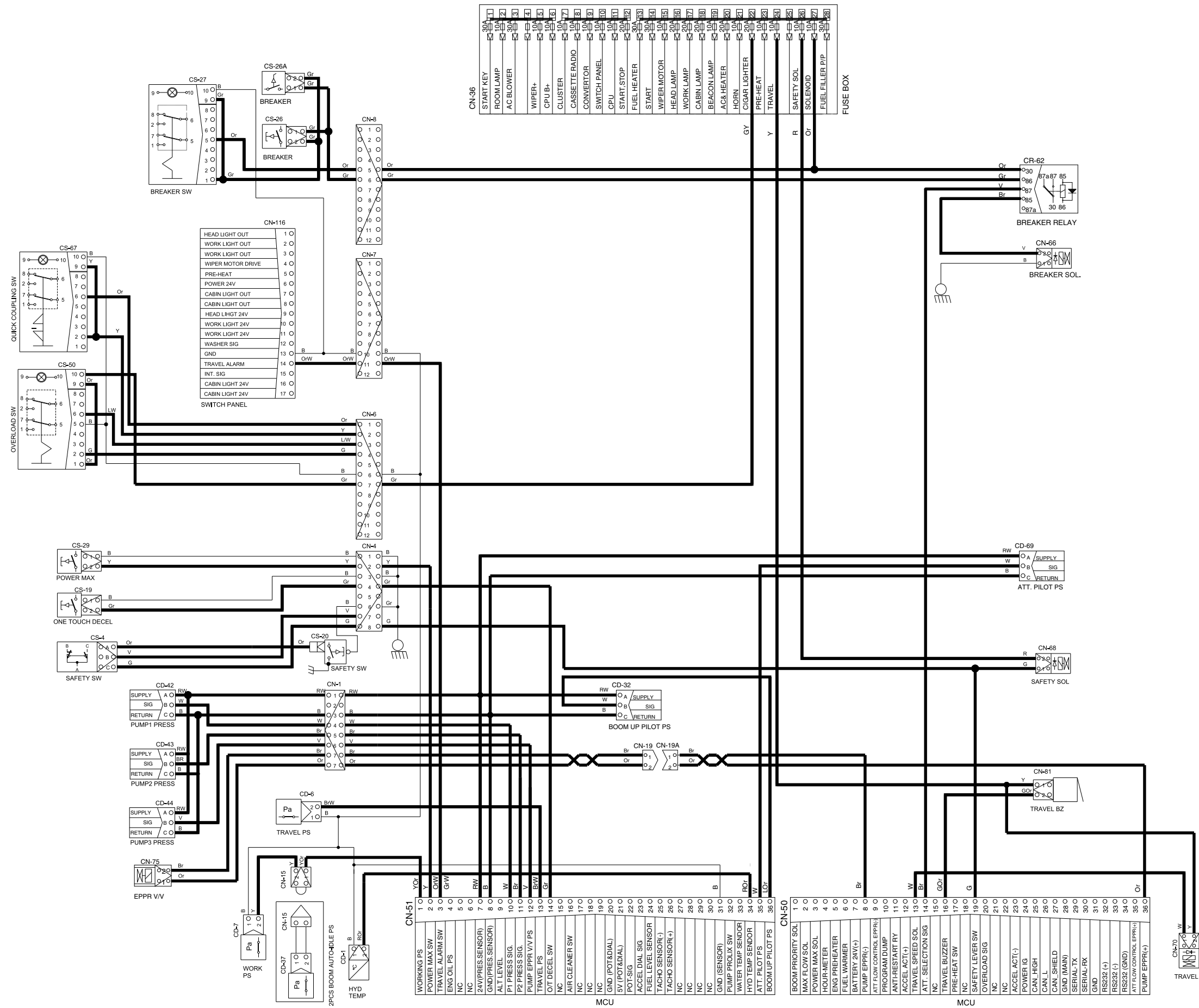
※ The circuit diagram may differ from the equipment, so please check before a repair.

MONITORING CIRCUIT



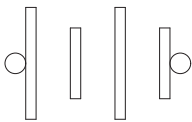
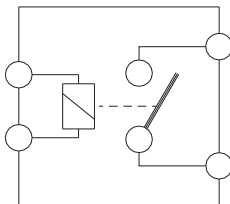
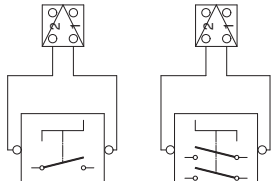
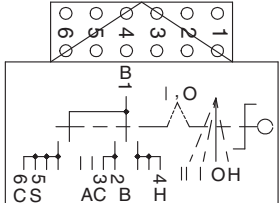
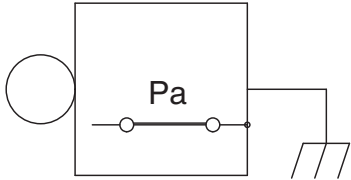
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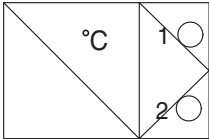
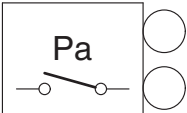
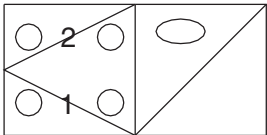
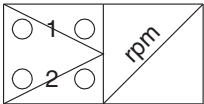
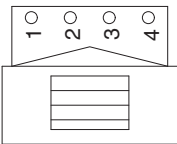
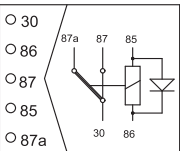
• ELECTRICAL CIRCUIT FOR HYDRAULIC

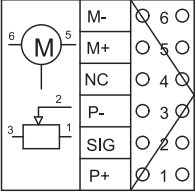
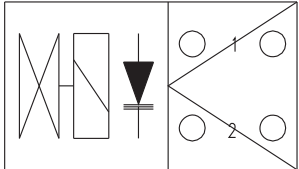
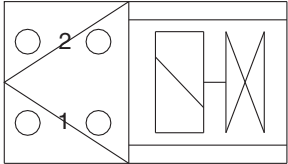
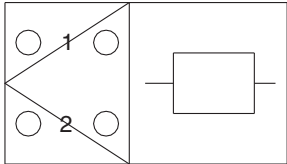
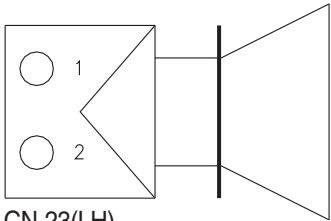
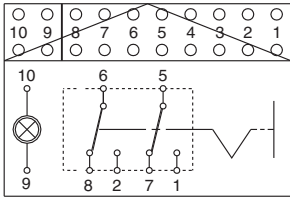


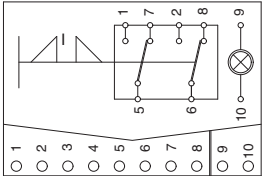
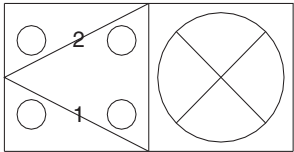
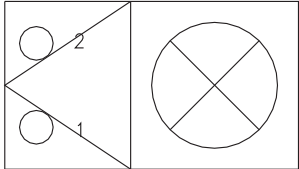
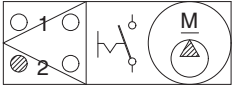
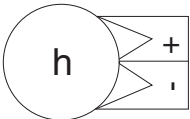
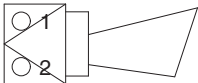
※ The circuit diagram may differ from the equipment, so please check before a repair.

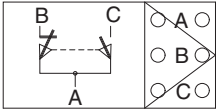
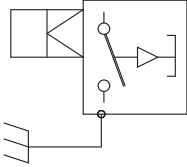
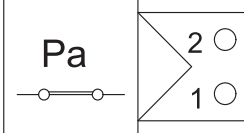
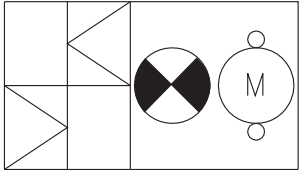
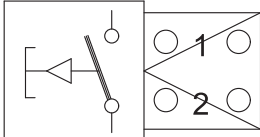
GROUP 3 ELECTRICAL COMPONENT SPECIFICATION

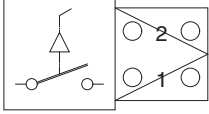
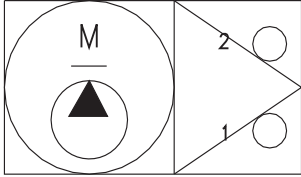
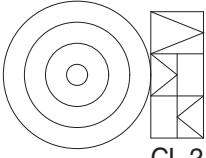
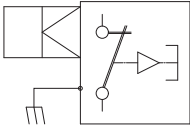
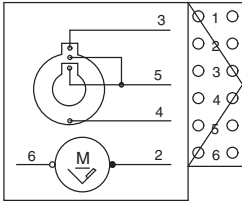
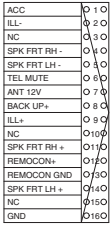
Part name	Symbol	Specification	Check
Battery		12V × 100Ah (2EA)	※ Check specific gravity 1.280 over : Over charged 1.280 ~ 1.250 : Normal 1.250 below : Recharging
Battery relay	 CR-1	Rated load : 24V 100A(continuity) 1000A(30seconds)	※ Check coil resistance (M4 to M4) Normal : About 50Ω ※ Check contact Normal : ∞Ω
Master switch	 CS-74A CS-74B	6~36V	※ Check disconnection Normal : 0.1Ω
Start switch	 CS	B-BR : 24V 1A B-ACC : 24V 10A B-ST : 24V 40A	※ Check contact OFF : ∞Ω (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)

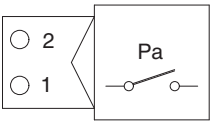
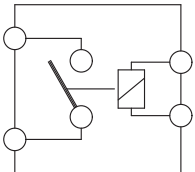
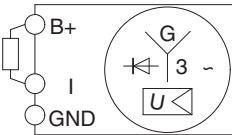
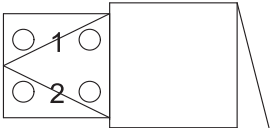
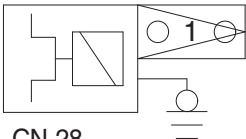
Part name	Symbol	Specification	Check
Temperature sensor (hydraulic, water)	 CD-1 CD-8	—	※ Check resistance 50 °C : 804Ω 80 °C : 310Ω 100 °C : 180Ω
Air cleaner pressure switch	 CD-10	Pressure: 635mmH ₂ O (N.O TYPE)	※ Check contact Normal : ∞ Ω
Fuel sender	 CD-2	—	※ Check resistance Full : 50Ω 6/12 : 350Ω 11/12 : 100Ω 5/12 : 400Ω 10/12 : 150Ω 4/12 : 450Ω 9/12 : 200Ω 3/12 : 500Ω 8/12 : 250Ω 2/12 : 550Ω 7/12 : 300Ω 1/12 : 600Ω Empty warning : 700Ω
Tacho sensor	 CD-17	—	※ Check resistance Normal : 300Ω (For terminal 1,2)
Fuel heater	 CN-96	-	-
Relay	 CR-2 CR-13 CR-46 CR-5 CR-35 CR-62 CR-7 CR-36	24V 16A	※ Check resistance Normal : About 160Ω (For terminal 85-86) : 0Ω (For terminal 30-87a) : ∞ Ω (For terminal 30-87)

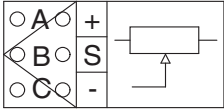
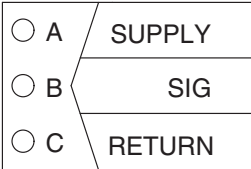
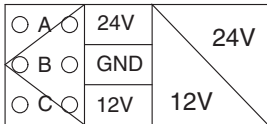
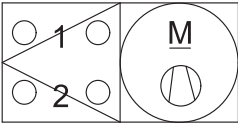
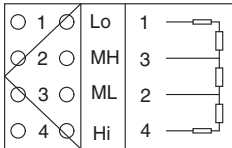
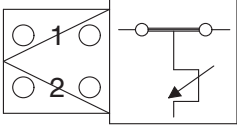
Part name	Symbol	Specification	Check
Accel actuator	 CN-76	-	※ Check resistance Normal : 1-2Ω (For terminal 5-6) 0.8-1.2kΩ (For terminal 1-3)
Solenoid valve	 CN-66 CN-68 CN-70	24V 1A	※ Check resistance Normal : 15~25Ω (For terminal 1-2)
EPPR valve	 CN-75 CN-242	700mA	※ Check resistance Normal : 18~25Ω (For terminal 1-2)
Resistor	 CN-47	50Ω 20W±5%	※ Check resistance Normal : 50Ω
Speaker	 CN-23(LH) CN-24(RH)	4Ω 20W	※ Check resistance Normal : 4Ω
Switch (Locking type)	 CS-23 CS-27 CS-50 CS-52 CS-54	24V 8A	※ Check contact Normal ON - 0Ω (For terminal 1-5,2-6) - ∞Ω (For terminal 5-7,6-8) OFF - ∞Ω (For terminal 1-5,2-6) - 0Ω (For terminal 5-7,6-8)

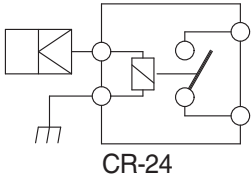
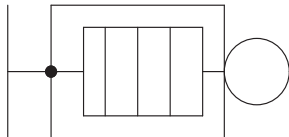
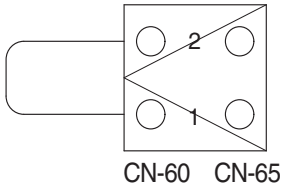
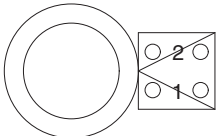
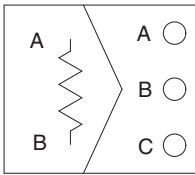
Part name	Symbol	Specification	Check
Switch (Quick clamp)	 CS-67	24V 8A	※ Check contact Normal ON - 0Ω (For terminal 1-5,2-6) - $\infty\Omega$ (For terminal 5-7,6-8) OFF - $\infty\Omega$ (For terminal 1-5,2-6) - 0Ω (For terminal 5-7,6-8)
Head lamp, Work lamp, Cab lamp	 CL-4 CL-5 CL-8 CL-9	24V 70W (H3 TYPE)	※ Check disconnection Normal : 1.2Ω
Room lamp	 CL-1	24V 10W	※ Check disconnection Normal : A few Ω
Fuel filler pump	 CN-61	24V 10A 35 ℓ /min	※ Check resistance Normal : 1.0Ω
Hour meter	 CN-48	16V ~ 32V	※ Check operation · Supply power(24V) to terminal No. 2 and connect terminal No. 1 and ground.
Horn	 CN-20 CN-25	DC 22.0 ~ 28.0V 2A	※ Check operation · Supply power(24V) to each terminal and connect ground.

Part name	Symbol	Specification	Check
Safety switch	 CS-4	24V 15A (N.C TYPE)	※ Check contact Normal : 0Ω (For terminal 1-2) : ∞Ω (For terminal 1-3) Operating : ∞Ω (For terminal 1-2) : 0Ω (For terminal 1-3)
Safety switch Wiper cut sw	 CS-20 CS-53	24V (N.O TYPE)	※ Check contact Normal : ∞Ω (one pin to ground)
Fuel cut-off Solenoid	 CN-79	24V	※ Check resistance Normal : 15~25Ω
Pressure switch (Travel, Work, 2pcs boom auto idle)	 CD-6 CD-7 CD-37	10bar (N.C type)	※ Check contact Normal : 0.1Ω
Beacon lamp	 CL-7	24V 70W	※ Check disconnection Normal : 1.1Ω
Switch (Power max, One touch decel, Breaker, Horn)	 CS-5 CS-19 CS-26 CS-29	24V 6A	※ Check contact Normal : ∞Ω

Part name	Symbol	Specification	Check
Switch (Breaker)	 CS-26A	24V 6A	※ Check contact Normal : $\infty \Omega$
Washer tank	 CN-22	24V 3.8A	※ Check contact Normal : 10.7Ω (For terminal 1-2)
Cigar lighter	 CL-2	24V 5A 1.4W	※ Check coil resistance Normal : About $1M\Omega$ ※ Check contact Normal : $\infty \Omega$ Operating time : 5~15sec
Door switch	 CS-1	24V 2W	※ Check resistance Normal : About $5M\Omega$
Wiper motor	 CN-21	24V 2A	※ Check contact Normal : 7Ω (For terminal 2-6)
Radio and USB player	 CN-27	24V 2A	※ Check voltage 20 ~ 25V (For terminal 10-14,11-14)

Part name	Symbol	Specification	Check
Receiver dryer	 CN-29	24V 2.5A	※ Check contact Normal : 0Ω
Start relay	 CR-23	24V 300A	※ Check contact Normal : 0.94Ω (For terminal 1-2)
Starter	 CN-45	Lucas 24V	※ Check contact Normal : 0.1Ω
Alternator	 CN-74	Lucas 24V 75A	※ Check contact Normal : 0Ω (For terminal B ⁺ -I) Normal : 24 ~ 27.5V
Travel alarm buzzer	 CN-81	24V 0.5A	※ Check contact Normal : 5.2Ω
Aircon compressor	 CN-28	24V 79W	※ Check contact Normal : 13.4Ω

Part name	Symbol	Specification	Check
Accel dial	 CN-142	-	※ Check resistance Normal : About 5k Ω (For terminal A-C) ※ Check valtage Normal : About 5V (For terminal A-C) : 2 ~ 4.5V (For terminal C-B)
Pressure sensor	 CD-32 CD-43 CD-69 CD-42 CD-44	8~30 V	※ Check contact Normal : 0.1 Ω
DC/DC Converter	 CN-138	12V 3A	24V(A-B) 12V(B-C)
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)
Duct sensor (Switch)		1 $^{\circ}$ C OFF 4 $^{\circ}$ C ON	※ Check resistance : 0 Ω (For terminal 1-2, the atmosphere temp : over 4 $^{\circ}$ C)

Part name	Symbol	Specification	Check
Preheater relay	 CR-24	24V 200A	※ Check contact Normal : 0.94Ω (For terminal 1-GND)
Preheater		24V 200A	※ check resistance : 0.25 ~ 0.12Ω
Fusible link	 CN-60 CN-65	60A	※Check disconnection Normal : 0Ω (Connect ring terminal and check resist between terminal 1 and 2)
Socket	 CN-139	-	-
Resistor	 CN-173	-	-

GROUP 4 CONNECTORS

1. CONNECTOR DESTINATION

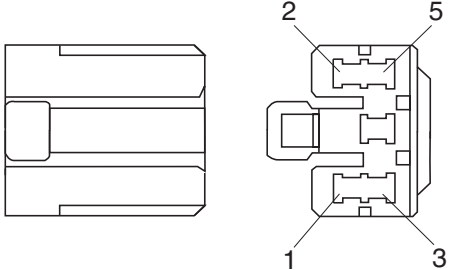
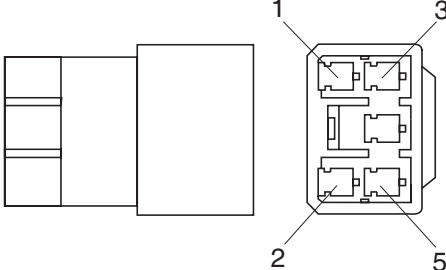
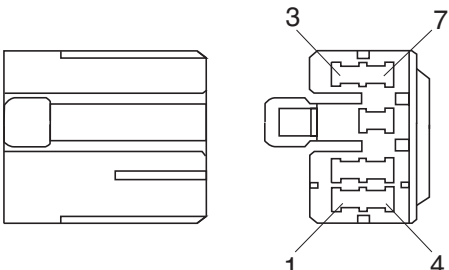
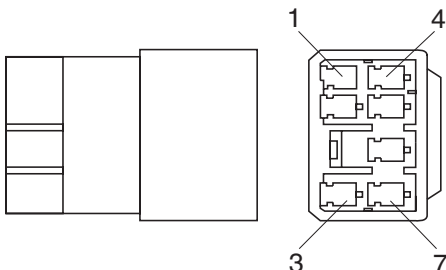
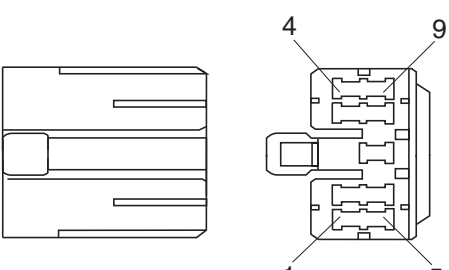
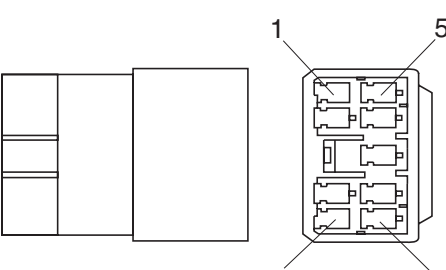
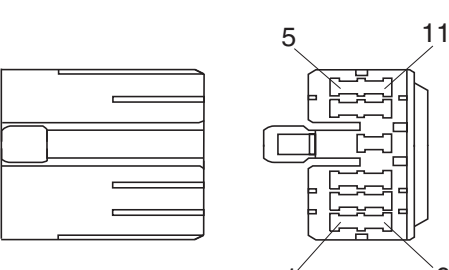
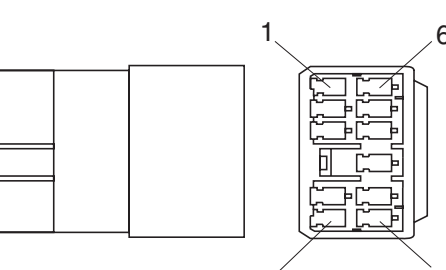
Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-1	AMP	8	I/conn (Engine rear harness-Frame harness)	S816-008002	S816-108002
CN-2	AMP	12	I/conn (Engine rear harness-Frame harness)	S816-012002	S816-112002
CN-3	DEUTSCH	8	I/conn (Engine harness)	DT06-8S	DT04-8P
CN-4	DEUTSCH	8	I/conn (Cabin LH wire harness-Frame harness)	S816-008002	S816-108002
CN-5	AMP	15	I/conn (Frame harness-RH side harness)	2-85262-1	368301-1
CN-6	AMP	12	I/conn (Frame harness-RH side harness)	S816-012002	S816-112002
CN-7	AMP	15	I/conn (Frame harness-Cabin RH wire harness)	2-85262-1	368301-1
CN-8	AMP	12	I/conn (Frame harness-Cabin RH wire harness)	S816-012002	S816-112002
CN-9	AMP	8	I/conn (Frame harness-Cabin RH wire harness)	S816-008002	S816-108002
CN-10	DEUTSCH	12	I/conn (Frame harness-Cabin harness)	DT06-12S	DT06-12P
CN-11	DEUTSCH	8	Aircon harness	DT06-8S	DT04-9P-E004
CN-12	DEUTSCH	2	Work lamp harness	DT06-2S-P012	DT04-2P-E005
CN-15	DEUTSCH	2	2pcs auto idle pressure	S814-002100	21N5-30100
CN-17	DEUTSCH	8	Wiper harness	DT06-8S	DT04-8P
CN-19	-	2	Prolix resistor	-	S816-102002
CN-19A	AMP	2	Prolix resistor	S816-002002	-
CN-19B	AMP	2	Prolix resistor	S816-002002	S816-102002
CN-20	MOLEX	2	Horn	36825-0211	-
CN-21	AMP	6	Wiper motor	925276-0	-
CN-21A	AMP	6	Wiper motor	S816-006002	-
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	36825-0211	-
CN-27	-	16	Radio & USB player	PK145-16017	PK141-16017
CN-28	MWP	1	Air-con compressor	MWP-01F-B	-
CN-29	KET	2	Receiver dryer	MG640795	-
CN-36	-	-	Fuse box	21N8-20041	-
CN-45	RING TERM	-	Start motor B ⁺	ST710246-2	-
CN-47	AMP	2	Resistor	S810-002202	S810-102202
CN-48	-	1	Hour meter	GP890469	-
CN-50	AMP	36	MCU	3441111-1	-
CN-51	AMP	36	MCU	3441111-1	-
CN-56	DEUTSCH	4	Cluster	-	DT04-4P-E004
CN-60	YAZAKI	2	Fusible link	7123-412S-50	7122-412S-50
CN-61	DEUTSCH	2	Fuel filler pump	DT06-2S-P012	-
CN-66	DEUTSCH	2	Breaker solenoid	DT06-2S-P012	DT04-2P-E004
CN-68	DEUTSCH	2	Safety solenoid	DT06-2S-P012	-

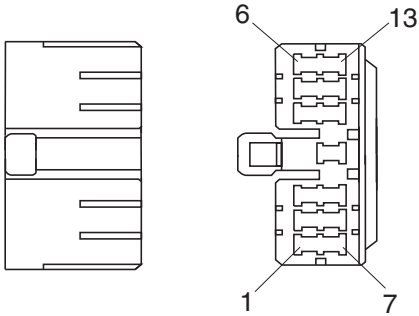
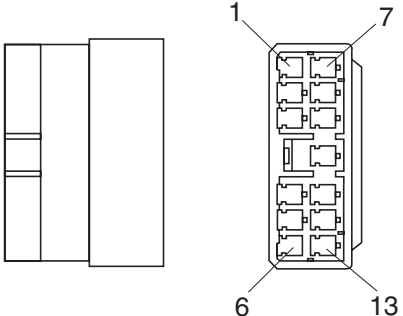
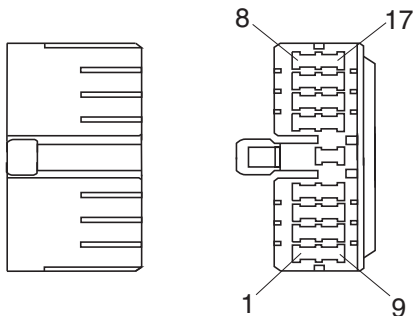
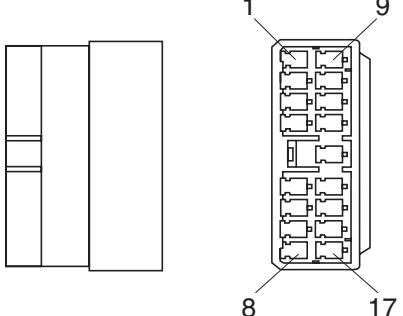
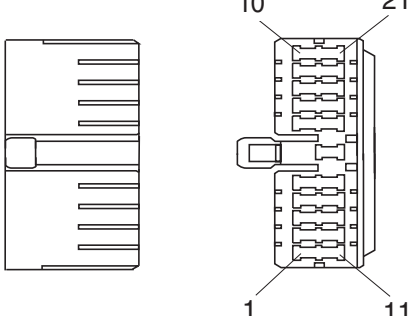
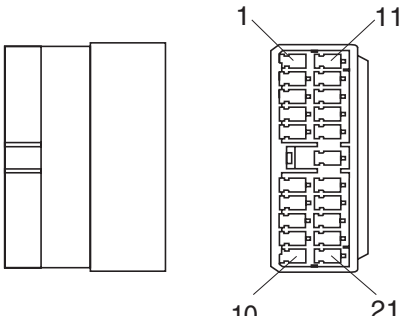
Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-70	DEUTSCH	2	Travel speed solenoid	DT06-2S-P012	-
CN-74	RING-TERM	1	Alternator	S820-408000	-
	-		Alternator	174198-2	-
CN-75	Econoseal J	2	EPPR valve	S816-002002	-
CN-76	DEUTSCH	6	DC motor	DT06-6S	-
CN-78	DEUTSCH	6	Accel actuator	DT06-6S-EP06	-
CN-79	-	3	Fuel cut-off	174198-2	-
CN-81	DEUTSCH	2	Travel alarm buzzer	DT06-2S-P012	DT04-2P-E004
CN-92	AMP	1	Safety	S814-001100	S814-101100
CN-95	KET	2	Fusible link	S813-030201	S813-130200
CN-116	PA	17	Switch panel	S811-017002	-
CN-125	-	4	GPS connector	S816-004002	S816-104002
CN-125A	DEUTSCH	12	RMS	DT06-12S-EP06	DT04-12P
CN-126	DEUTSCH	4	RS232 connector	DT06-4S-P012	DT04-4P-E004
CN-138	DEUTSCH	3	DC/DC converter	DT06-3S-P012	-
CN-139	DEUTSCH	2	12V Socket	DT06-2S	DT04-2P-E004
CN-141	AMP	13	Wiper motor controller	172498-1	-
CN-142	DEUTSCH	3	Accel dial	DT06-3S	-
CN-147	-	2	Fuel heater	15300027	-
CN-148	DEUTSCH	3	J1939 connector	DT06-3S-P012	-
CN-173	DEUTSCH	3	Resistor	DT06-3S-P012	DT04-3P-EP10
CN-242	DEUTSCH	2	Attachment EPPR	DT06-2S-P012	DT04-2P-E004
RELAY					
CR-1	RING TERM	1	Battery relay	ST710289-2	-
				ST710285-2	
CR-2	-	5	Horn relay	-	-
CR-5	-	5	Safety relay	-	-
CR-7	-	5	Ac comp relay	-	-
CR-13	-	5	Head lamp relay	SJA003526-001	2411-05100
CR-23	KET	2	Start relay	MG610320	S814-102001
CR-24	-	1	Pre-heater relay	S822-014000	-
CR-35	-	5	Power relay	-	-
CR-36	-	5	Pre-heat relay	-	-
CR-46	-	5	Fuel heater relay	SJA003526-001	2411-05100
CR-62	-	5	Breaker relay	SJA003526-001	2411-05100
SWITCH					
CS-1	SHUR	1	Door switch	S822-014004	-
CS-2	-	6	Start key switch	S814-006000	S814-106000
CS-4	DEUTSCH	3	Safety switch	DT06-3S-P012	DT04-3P
CS-5	DEUTSCH	2	Horn switch	DT06-2S	DT04-2P-E004
CS-19	DEUTSCH	2	One touch decel	DT06-2S	DT04-2P-E004

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CS-20	AMP	1	Safety switch	S822-014002	-
CS-23	SWF	10	Beacon lamp switch	SWF593757	-
CS-26	DEUTSCH	2	Breaker switch	DT06-2S-P012	DT04-2P
CS-26A	-	2	Breaker switch	S816-002002	S816-102002
CS-27	SWF	10	Breaker switch	SWF593757	-
CS-29	DEUTSCH	2	Power max switch	DT06-2S-P012	DT04-2P
CS-50	SWF	10	Overload switch	SWF593757	-
CS-52	SWF	10	Econo switch	SWF593757	-
CS-53	SHUR	1	Wiper cut switch	S822-014002	-
CS-54	SWF	10	Spare switch	SWF593757	-
CS-67	SWF	10	Quick clamp switch	SWF593757	-
CS-74A	KET	2	Master switch	MG620558	S813-130201
CS-74B	DEUTSCH	2	Master switch	DT06-2S-P012	DT04-2P-E005
CS-83	SWF	10	Beacon lamp switch	SWF 593757	-
LAMP					
CL-1	KET	2	Cabin room lamp	MG610392	-
CL-2	AMP	1	Cigar light	S822-014002	S822-114002
				S816-012002	-
CL-4	DEUTSCH	2	Head lamp	DT06-2S	DT04-2P-E004
CL-5	DEUTSCH	2	Work lamp	DT06-2S-EP06	DT04-2P
CL-7	SHUR	1	Beacon lamp	S822-014004	S822-114004
CL-8	DEUTSCH	2	Cabin light-LH	DT06-2S	DT04-2P-E005
CL-9	DEUTSCH	2	Cabin light-RH	DT06-2S	DT04-2P-E005
SENDER					
CD-1	AMP	2	Hydraulic oil temp sender	85202-1	-
CD-2	DEUTSCH	2	Fuel sender	DT06-2S-P012	-
CD-6	KET	2	Travel pressure switch	MG640795	-
CD-7	KET	2	Working pressure switch	MG640795	-
CD-8	AMP	2	Water temp sender	85202-1	-
CD-10	RING TERM	1	Air cleaner switch	ST710289-2	-
CD-17	PACKARD	2	Tacho sensor	-	S818-120221
CD-18	AMP	1	Engine oil pressure switch	174196-1	-
CD-32	DEUTSCH	3	Boom up pressure switch	DT06-3S-P012	-
CD-42	DEUTSCH	3	Pump pressure sensor 1	DT06-3S-EP06	-
CD-43	DEUTSCH	3	Pump pressure sensor 2	DT06-3S-EP06	-
CD-44	DEUTSCH	3	Pump pressure sensor 3	DT06-3S-EP06	-
CD-69	DEUTSCH	3	Attachment pilot pressure switch	DT06-3S-P012	DT04-3P-E004
DIODE					
DO-1	AMP	2	Diode	S816-002002	21EA-50550
DO-2	AMP	2	Diode	S816-002002	21EA-50550
DO-3	AMP	2	Diode	S816-002002	21EA-50550
DO-5	AMP	2	Diode	S816-002002	21EA-50550

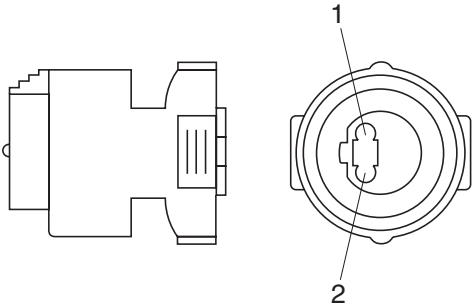
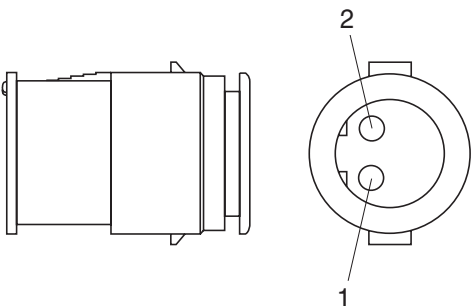
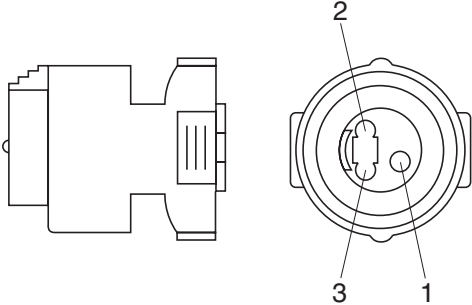
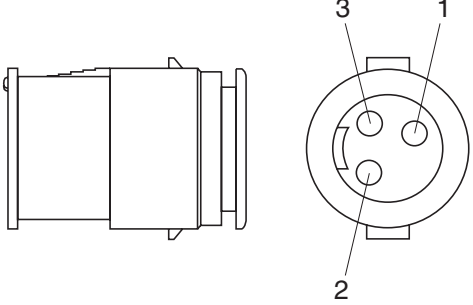
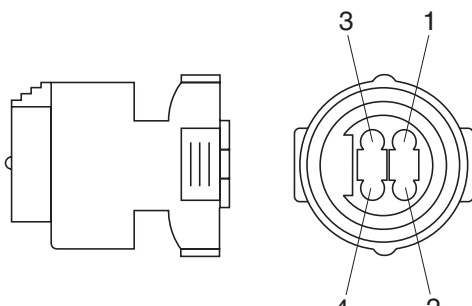
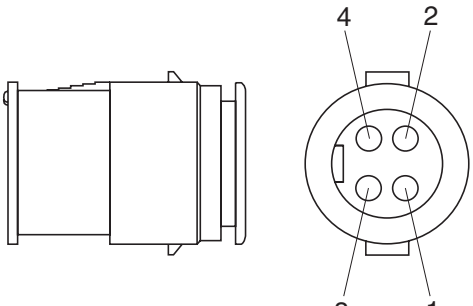
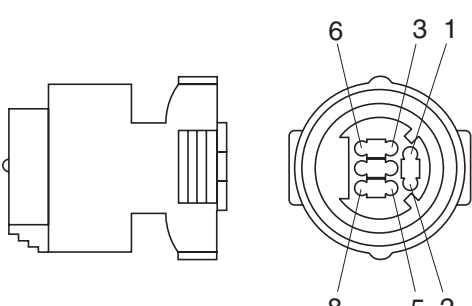
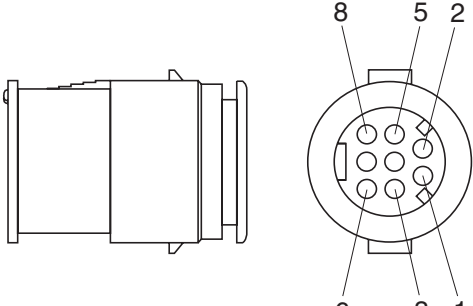
2. CONNECTION TABLE FOR CONNECTORS

1) PA TYPE CONNECTOR

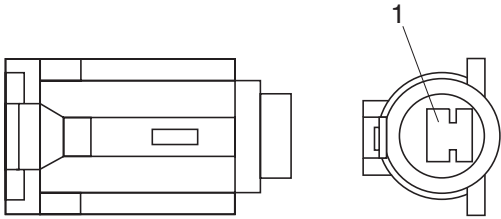
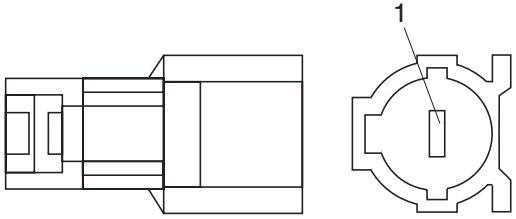
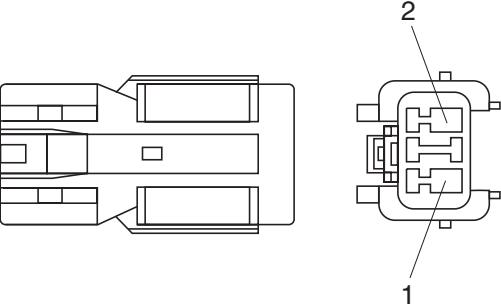
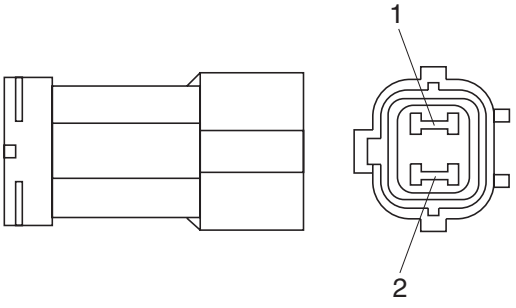
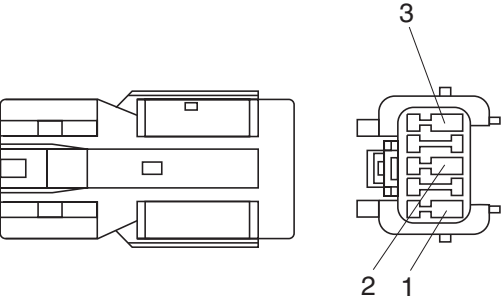
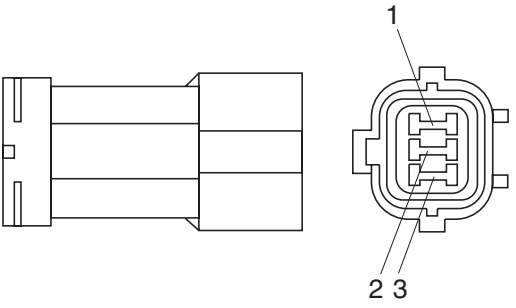
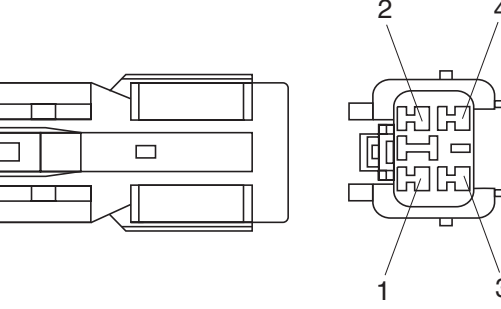
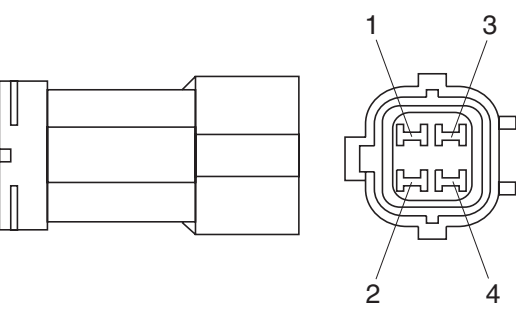
No. of pin	Receptacle connector(Female)	Plug connector(Male)
5	 S811-005002	 S811-105002
7	 S811-007002	 S811-107002
9	 S811-009002	 3S811-109002
11	 S811-011002	 S811-111002

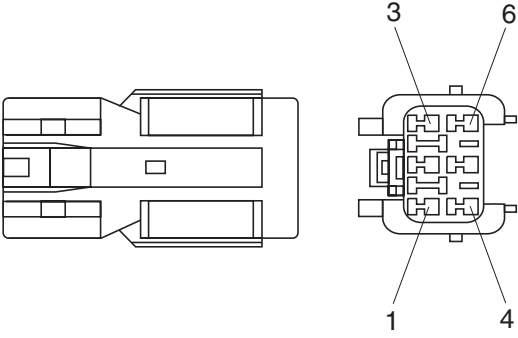
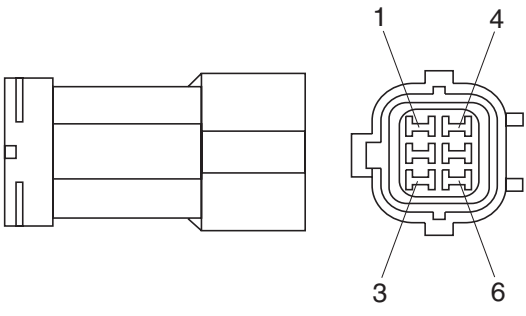
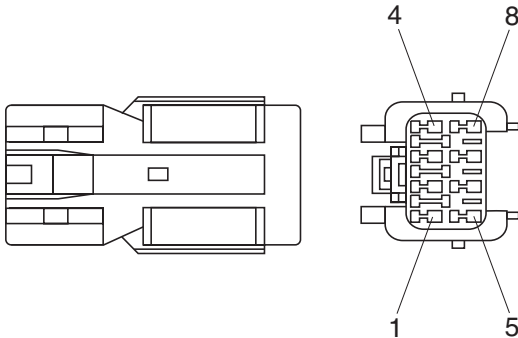
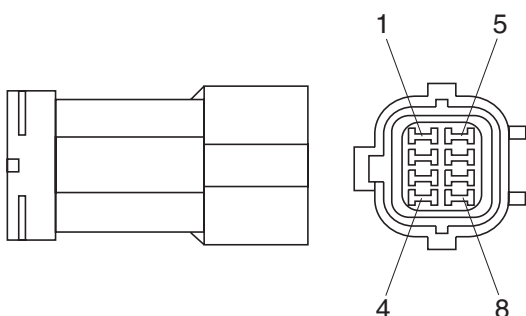
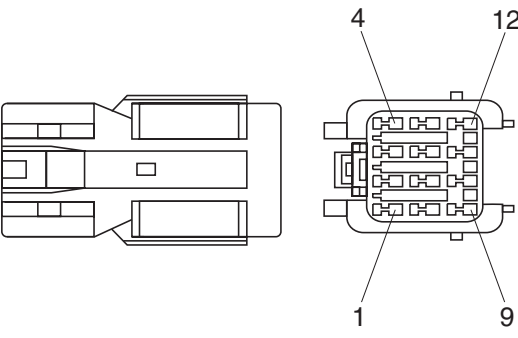
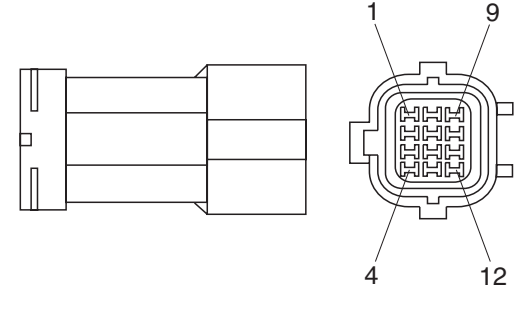
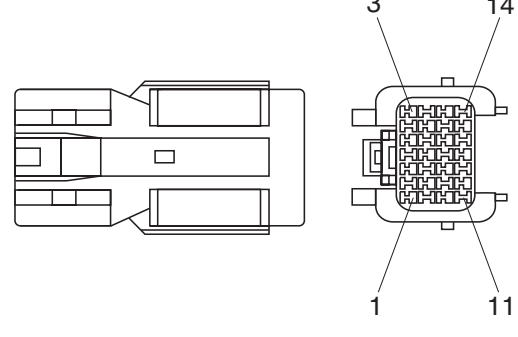
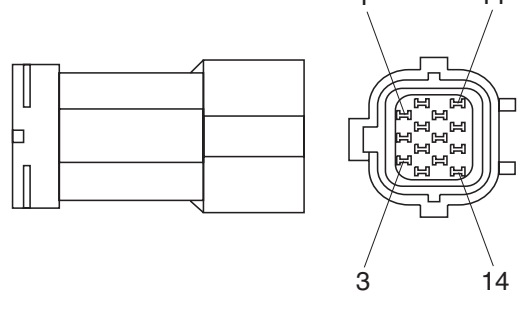
No. of pin	Receptacle connector(Female)	Plug connector(Male)
13	 S811-013002	 S811-113002
17	 S811-017002	 S811-117002
21	 S811-021002	 S811-121002

2) J TYPE CONNECTOR

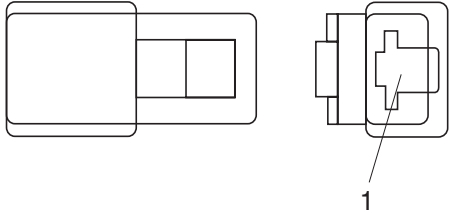
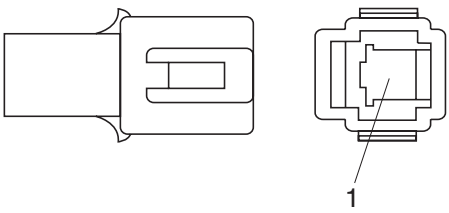
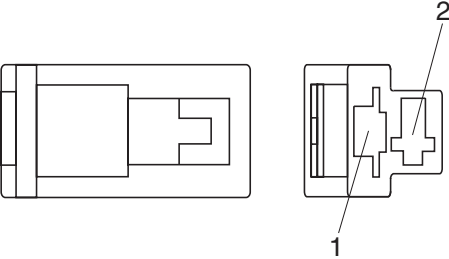
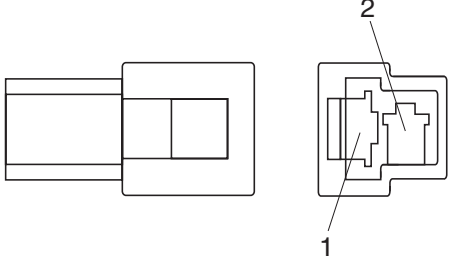
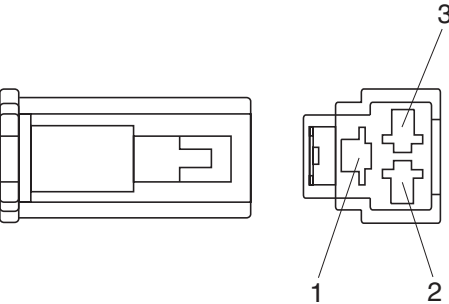
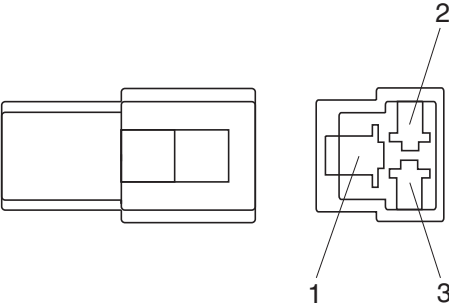
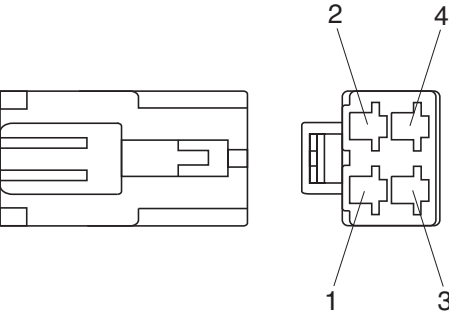
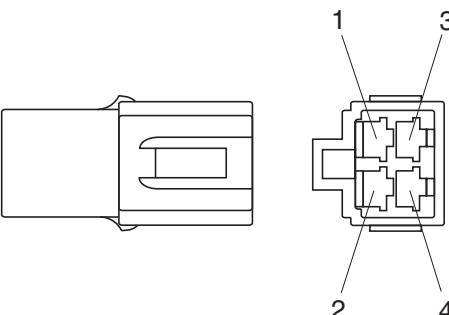
No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 S816-002001	 S816-102001
3	 S816-003001	 S816-103001
4	 S816-004001	 S816-104001
8	 S816-008001	 S816-108001

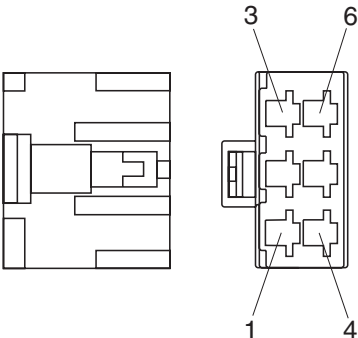
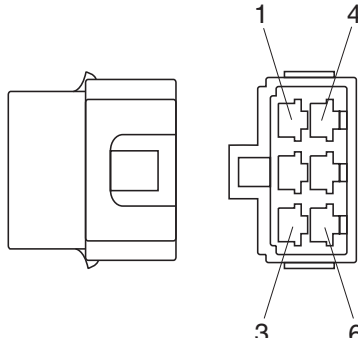
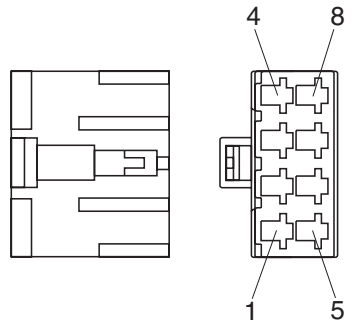
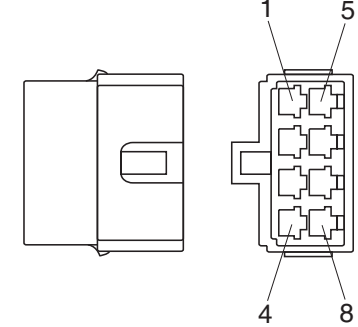
3) SWP TYPE CONNECTOR

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

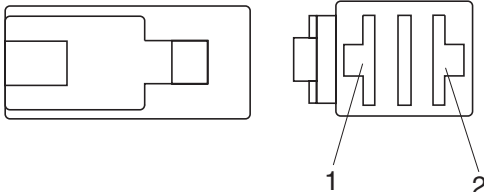
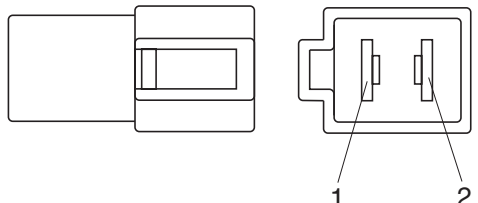
No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 S814-006000	 S814-106000
8	 S814-008000	 S814-108000
12	 S814-012000	 S814-112000
14	 S814-014000	 S814-114000

4) CN TYPE CONNECTOR

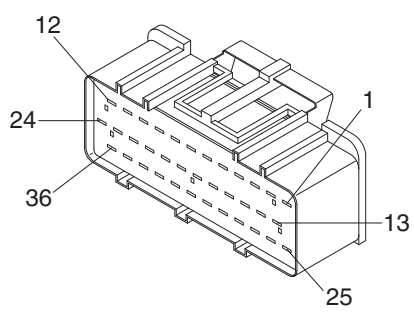
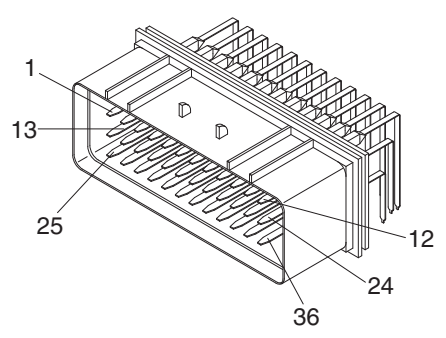
No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 S810-001202	 S810-101202
2	 S810-002202	 S810-102202
3	 S810-003202	 S810-103202
4	 S810-004202	 S810-104202

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

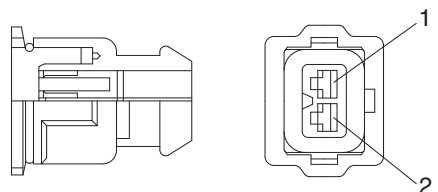
5) 375 FASTEN TYPE CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 S810-002402	 S810-102402

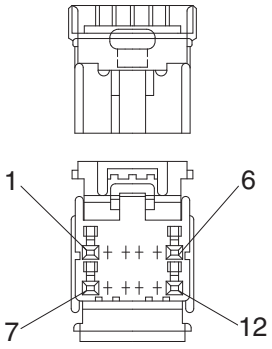
6) AMP ECONOSEAL CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
36	 344111-1	 344108-1

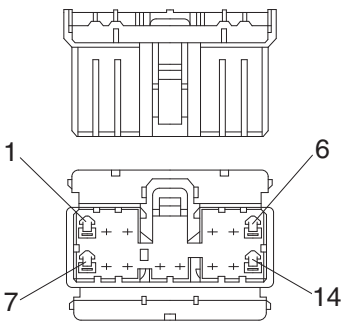
7) AMP TIMER CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 85202-1	

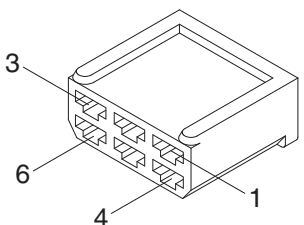
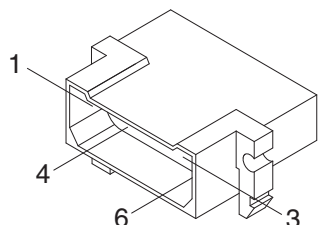
8) AMP 040 MULTILOCK CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
12	 174045-2	

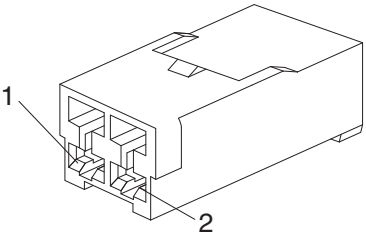
9) AMP 070 MULTILOCK CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
14	 173852	

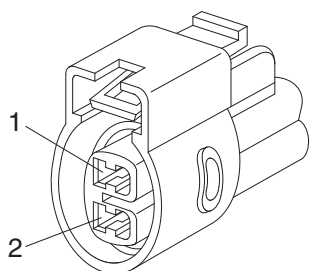
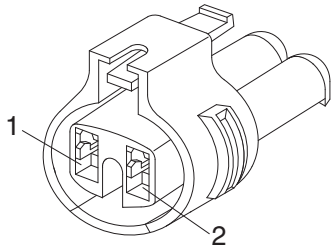
10) AMP FASTIN - FASTON CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 925276-0	 480003-9

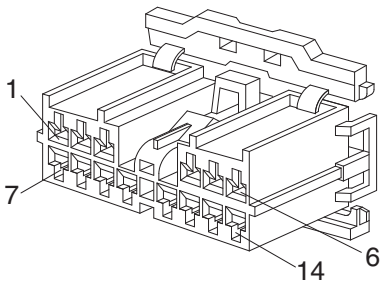
11)KET 090 CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 MG610070	

12)KET 090 WP CONNECTORS

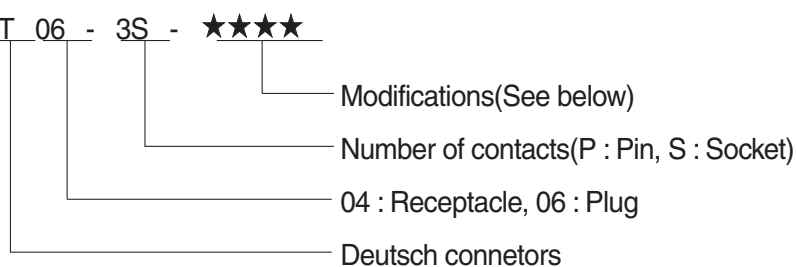
No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 MG640605	
2	 MG640795	

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

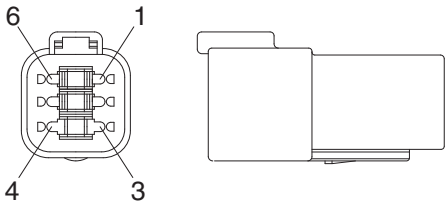
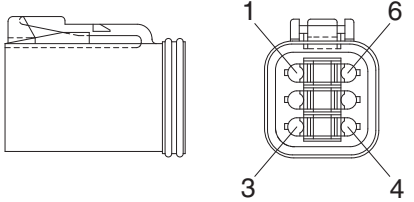
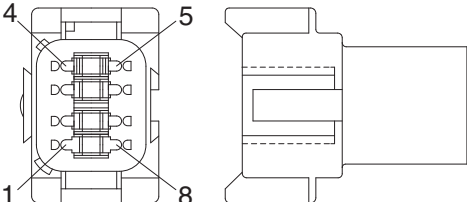
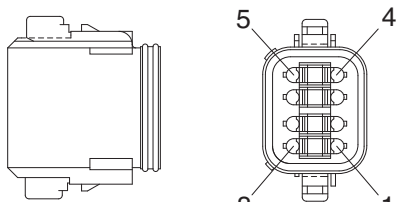
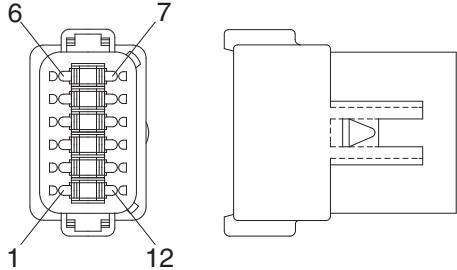
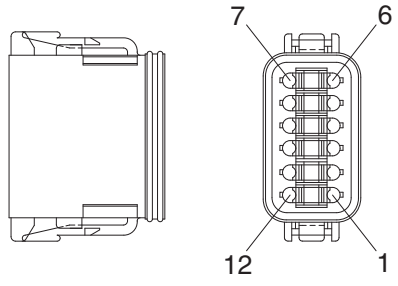
E005 : Combination - E004 & E003

EP04 : End cap

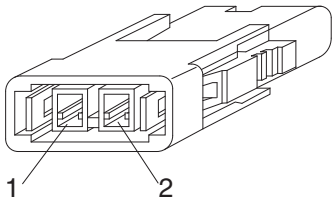
EP06 : Combination P012 & EP04

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

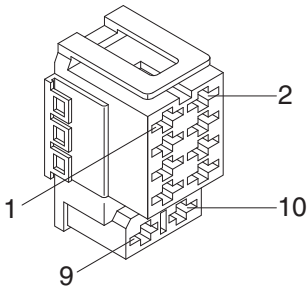
No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	DT06-2S	DT04-2P
3	DT06-3S	DT04-3P
4	DT06-4S	DT04-4P

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

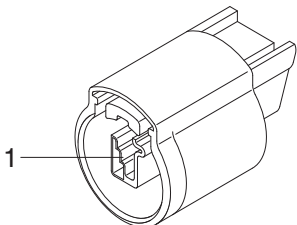
15) MOLEX 2CKTS CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 35215-0200	

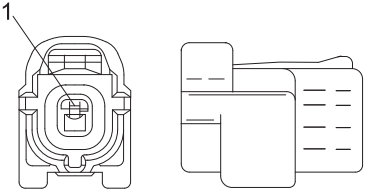
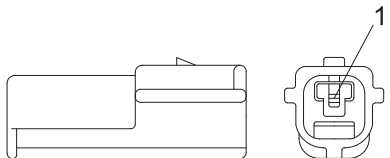
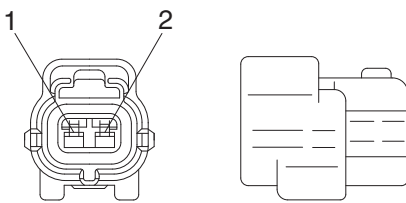
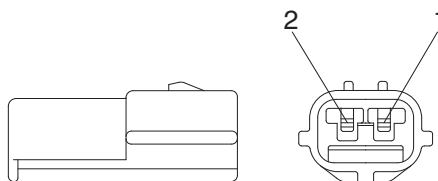
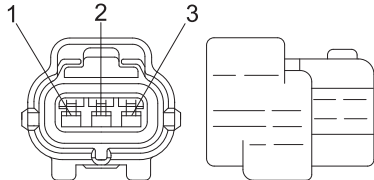
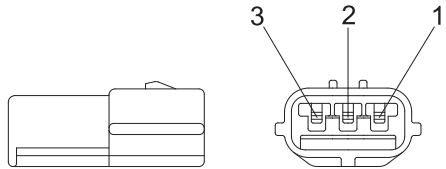
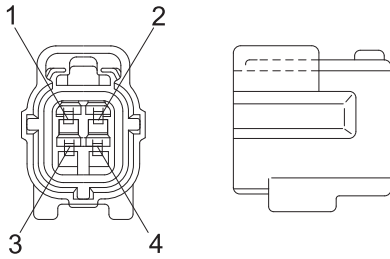
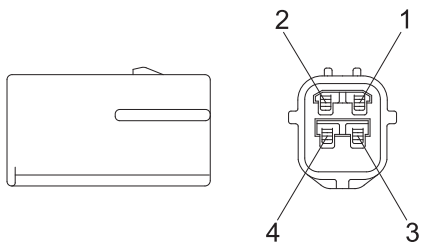
16)ITT SWF CONNECTOR

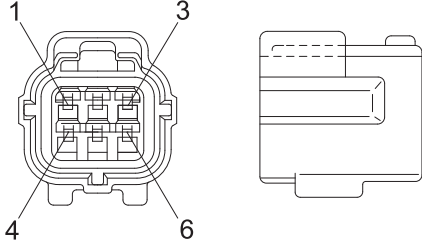
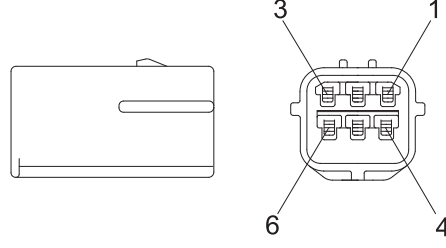
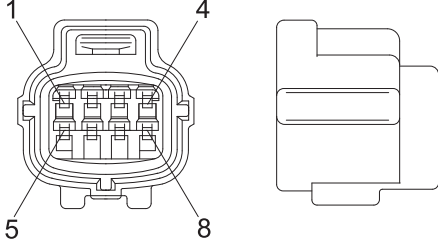
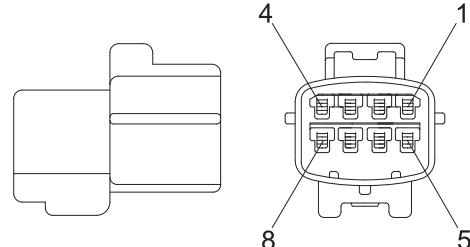
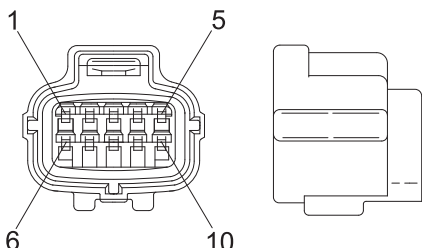
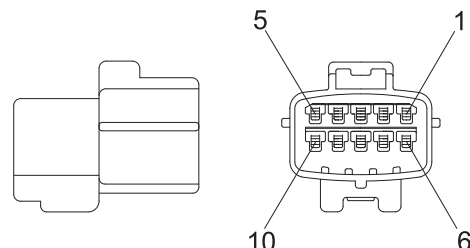
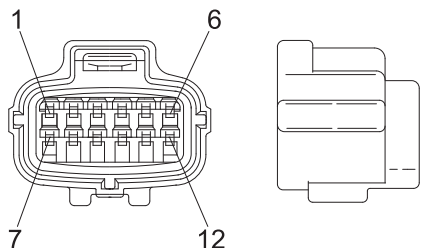
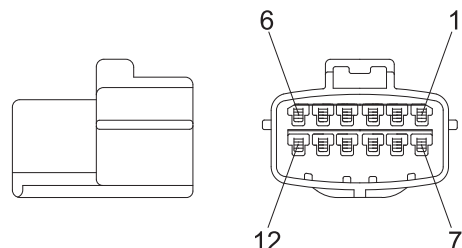
No. of pin	Receptacle connector(Female)	Plug connector(Male)
10	 SWF593757	

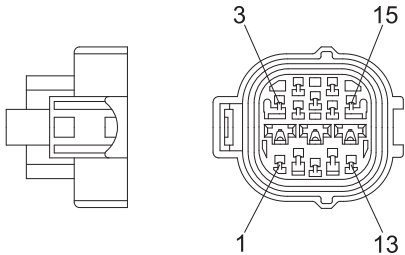
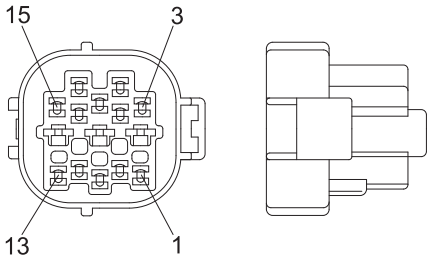
17)MWP NMWP CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 NMWP01F-B	

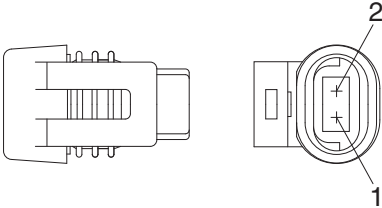
18) ECONOSEAL J TYPE CONNECTORS

No. of pin	Receptacle connector(Female)	Plug connector(Male)
1	 S816-001002	 S816-101002
2	 S816-002002	 S816-102002
3	 S816-003002	 S816-103002
4	 S816-004002	 S816-104002

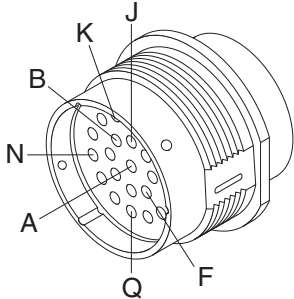
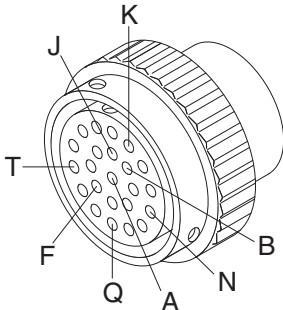
No. of pin	Receptacle connector(Female)	Plug connector(Male)
6	 S816-006002	 S816-106002
8	 S816-008002	 S816-108002
10	 S816-010002	 S816-110002
12	 S816-012002	 S816-112002

No. of pin	Receptacle connector(Female)	Plug connector(Male)
15	 368301-1	 2-85262-1

19) METRI-PACK TYPE CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
2	 12040753	

20) DEUTSCH HD30 CONNECTOR

No. of pin	Receptacle connector(Female)	Plug connector(Male)
23	 HD36-24-23SN	 HD34-24-23PN