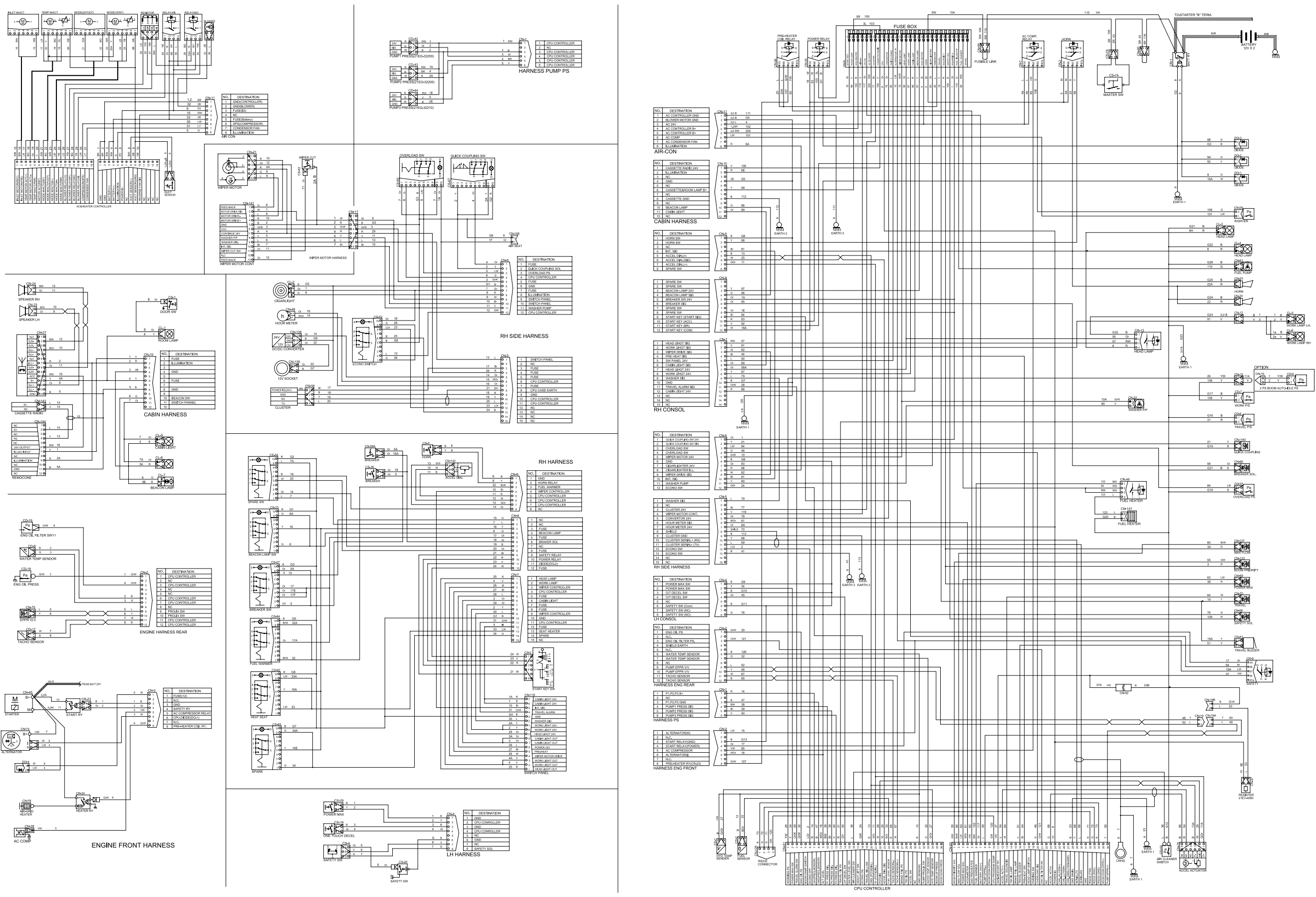


**GROUP 2 ELECTRICAL CIRCUIT**



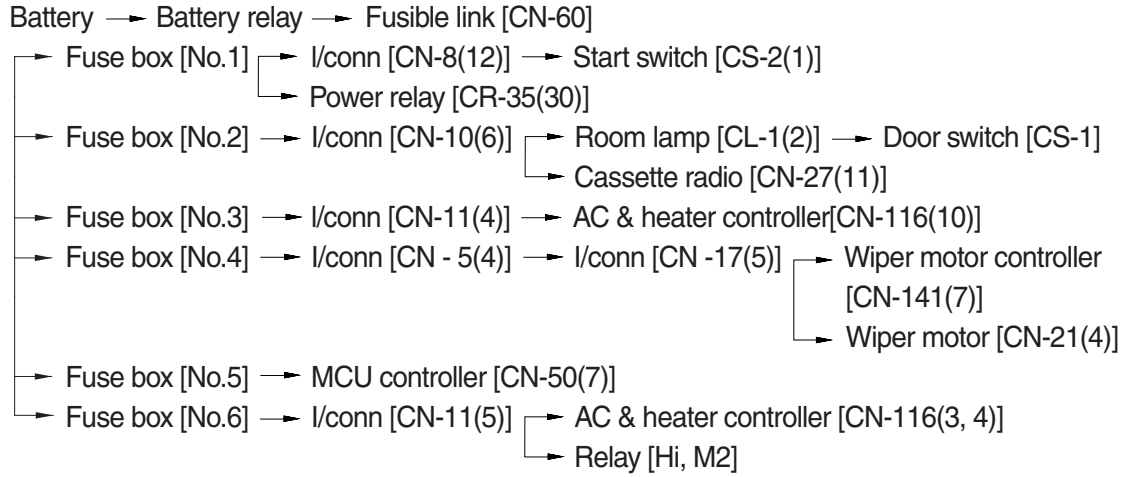


## 1. POWER CIRCUIT

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



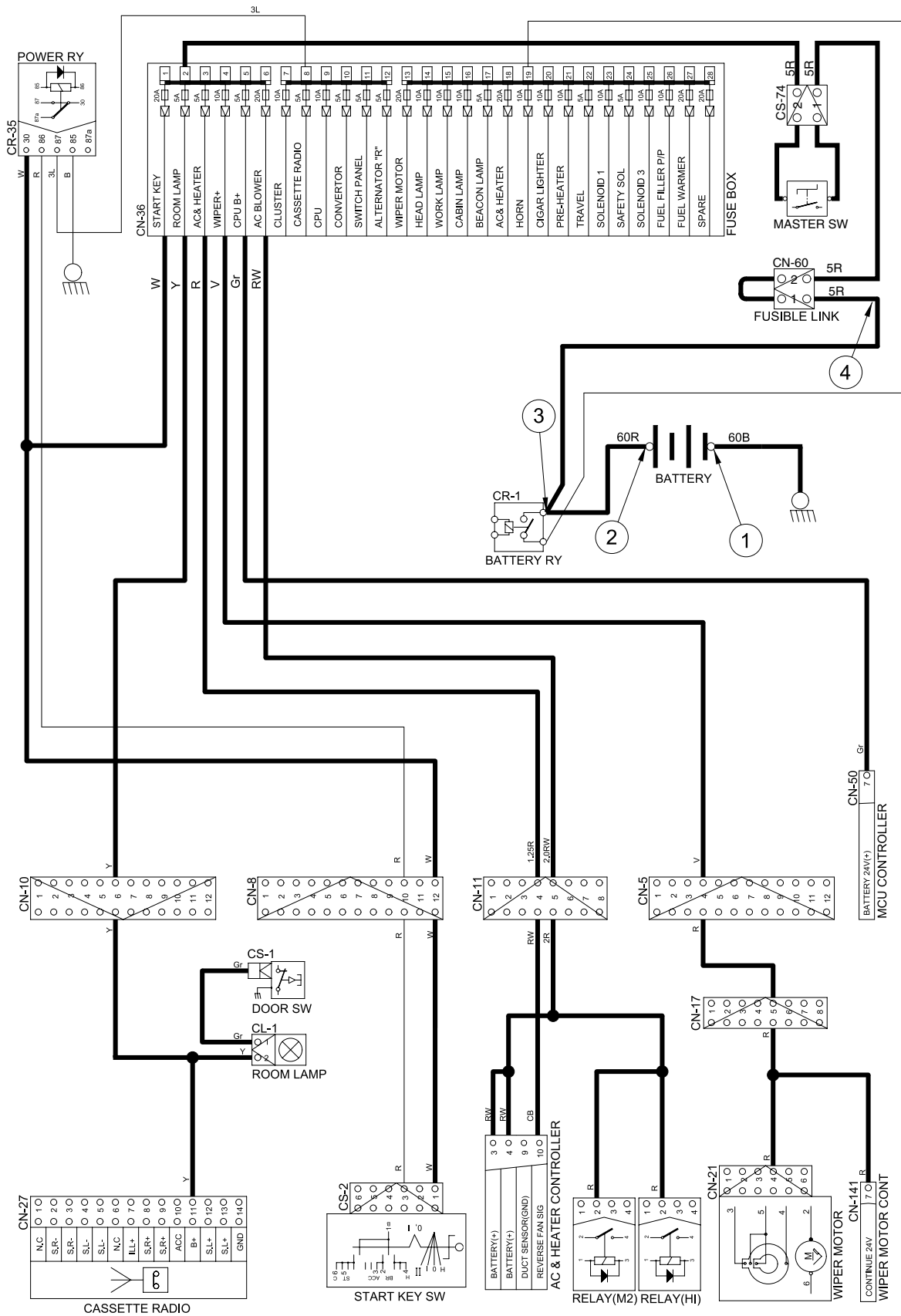
※ I/conn : Intermediate connector

### 2) CHECK POINT

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

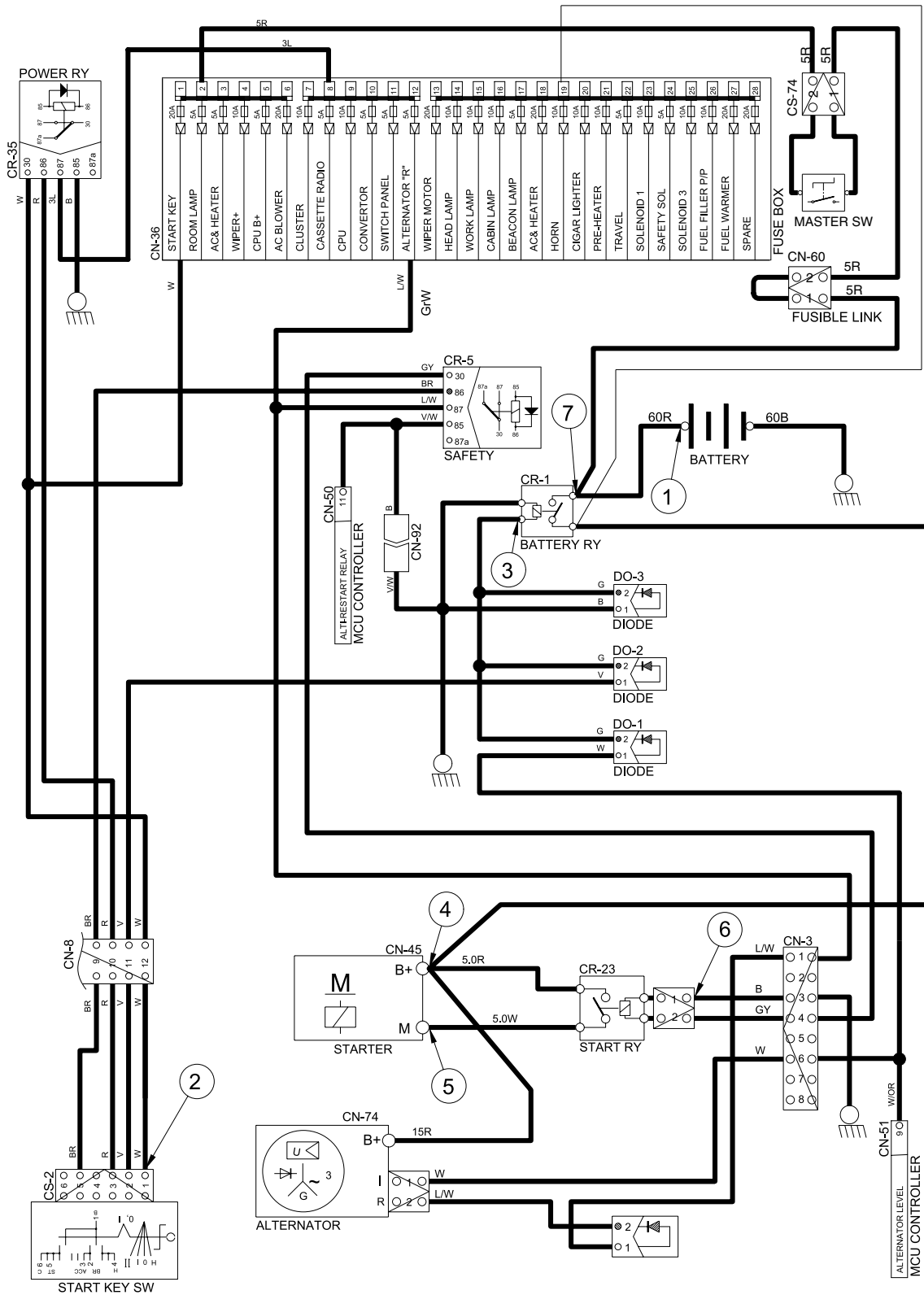
※ GND : Ground

# POWER CIRCUIT





# STARTING CIRCUIT



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### 3. CHARGING CIRCUIT

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

Charging current generated by operating alternator flows into the battery through the battery relay (CR-1).

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

#### 1) OPERATING FLOW

##### (1) Warning flow

Alternator "I" terminal → I/conn [CN-3(3)] → MCU alternator level [CN-51(9)]  
Cluster charging warning lamp(Via serial interface)

##### (2) Charging flow

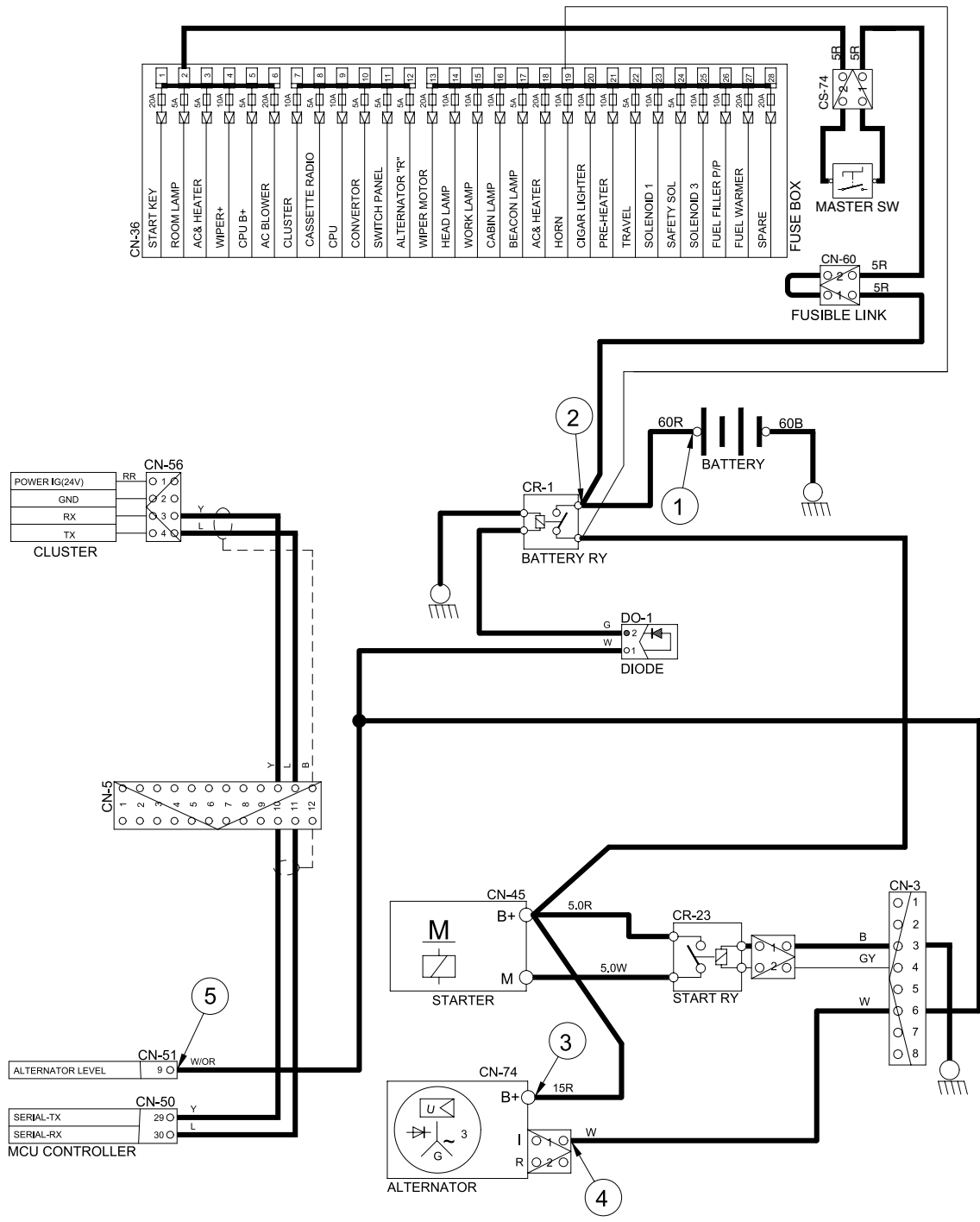
Alternator "B+" terminal → Battery relay(M8) → Battery(+) terminal  
→ Fusible link [CN-60] → Fuse box

#### 2) CHECK POINT

Engine	Start switch	Check point	Voltage
Run	ON	① - GND(Battery voltage) ② - GND(Battery relay) ③ - GND(Alternator B <sup>+</sup> terminal) ④ - GND(Alternator I terminal) ⑤ - GND(MCU)	20~30V

※ GND : Ground

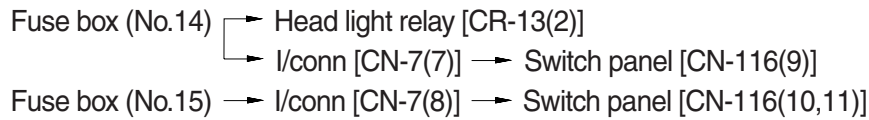
# CHARGING CIRCUIT



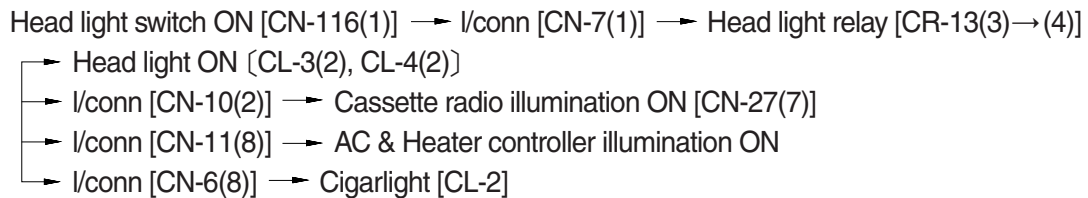


## 4. HEAD AND WORK LIGHT CIRCUIT

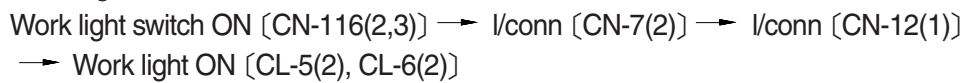
### 1) OPERATING FLOW



#### (1) Head light switch ON



#### (2) Work light switch ON

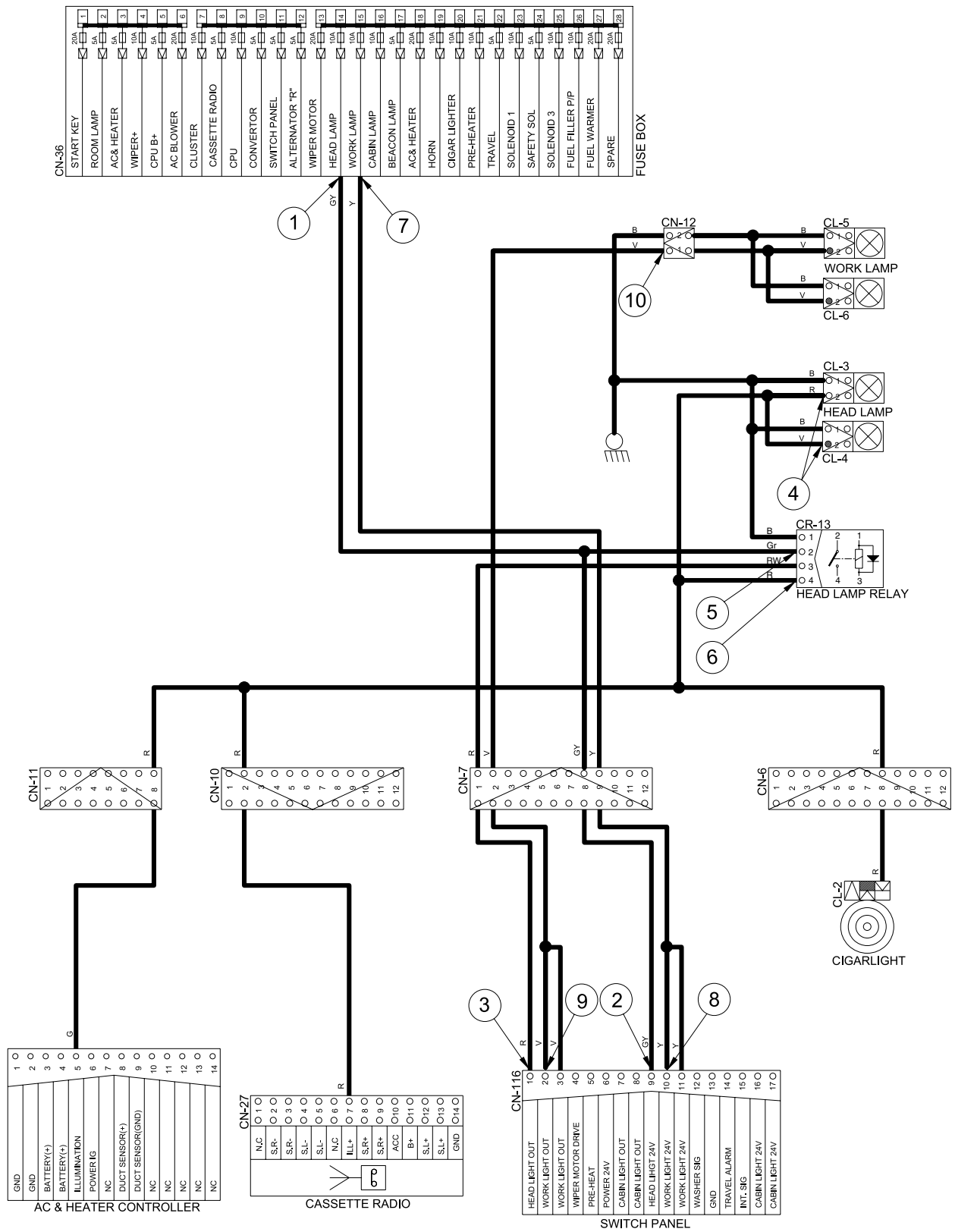


### 2) CHECK POINT

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(Head light relay input) ⑥ - GND(Head light relay output)	20~25V
STOP	ON	⑦ - GND(Fuse box) ⑧ - GND(Switch power input) ⑨ - GND(Switch power output) ⑩ - GND(Work light)	20~25V

※ GND : Ground

# HEAD AND WORK LIGHT CIRCUIT



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## 5. BEACON LAMP AND CAB LIGHT CIRCUIT

### 1) OPERATING FLOW

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

Fuse box (No.16) → 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)]

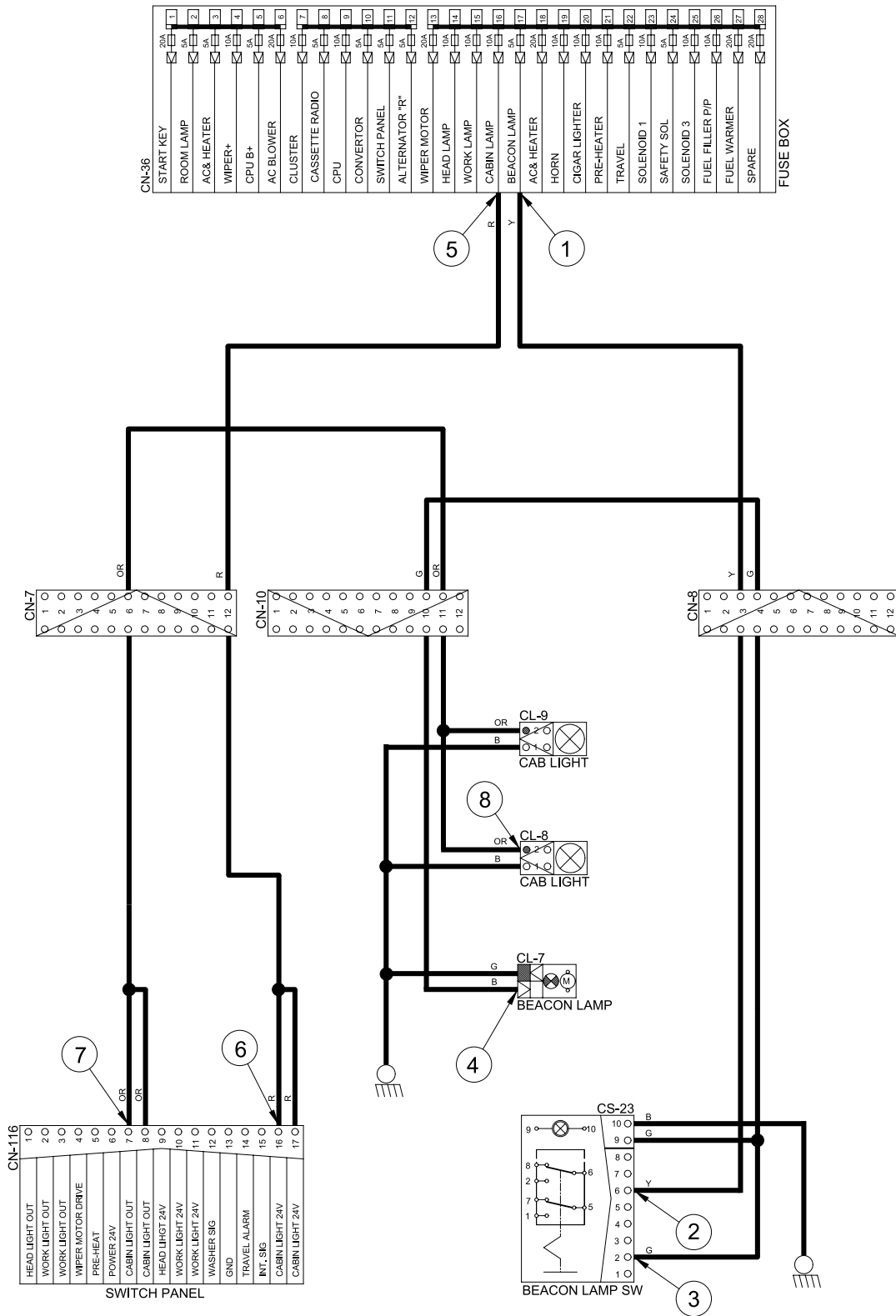
→ Cab light ON [CL-8(2), CL-9(2)]

### 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

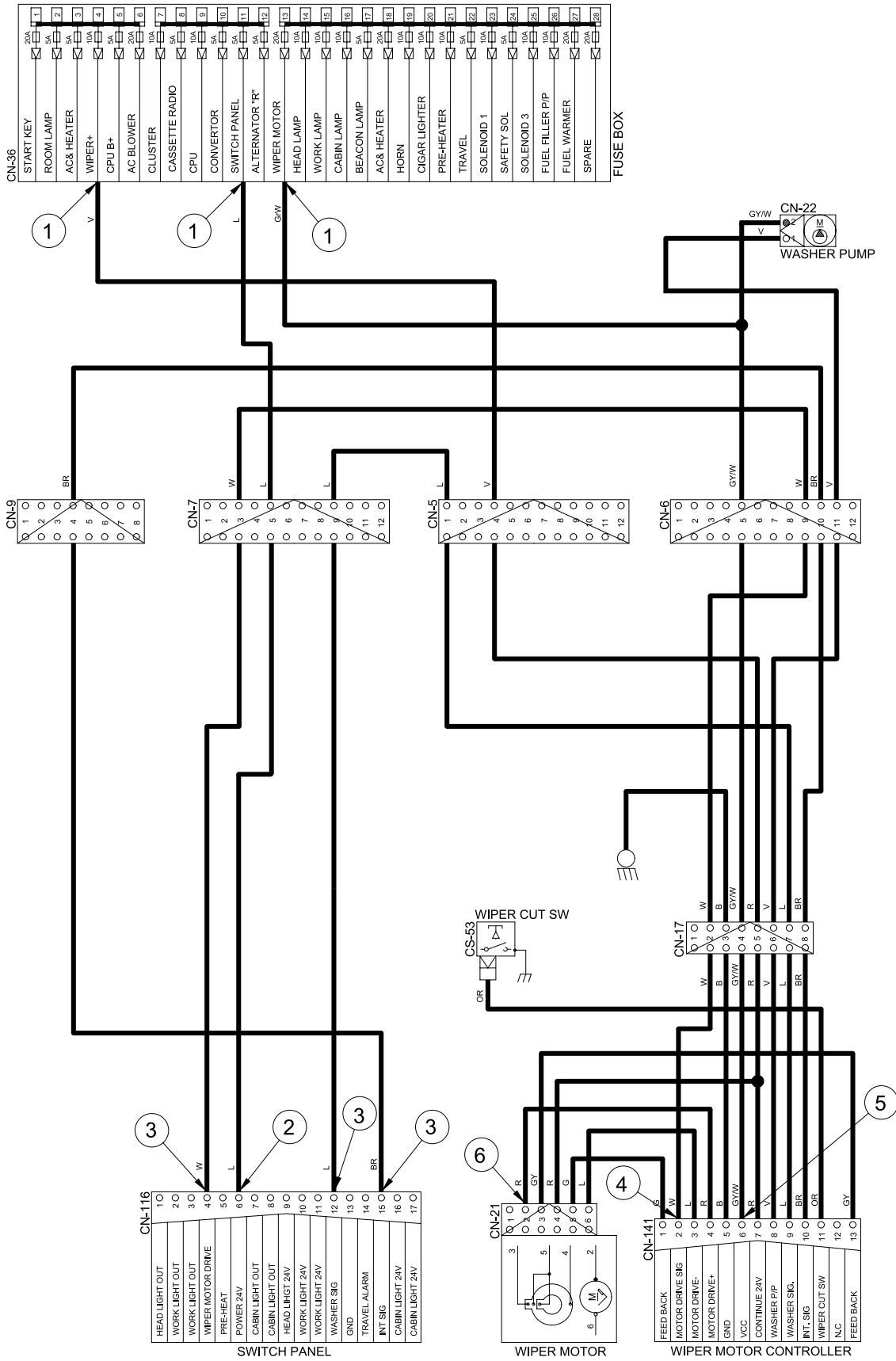
# BEACON LAMP AND CAB LIGHT CIRCUIT



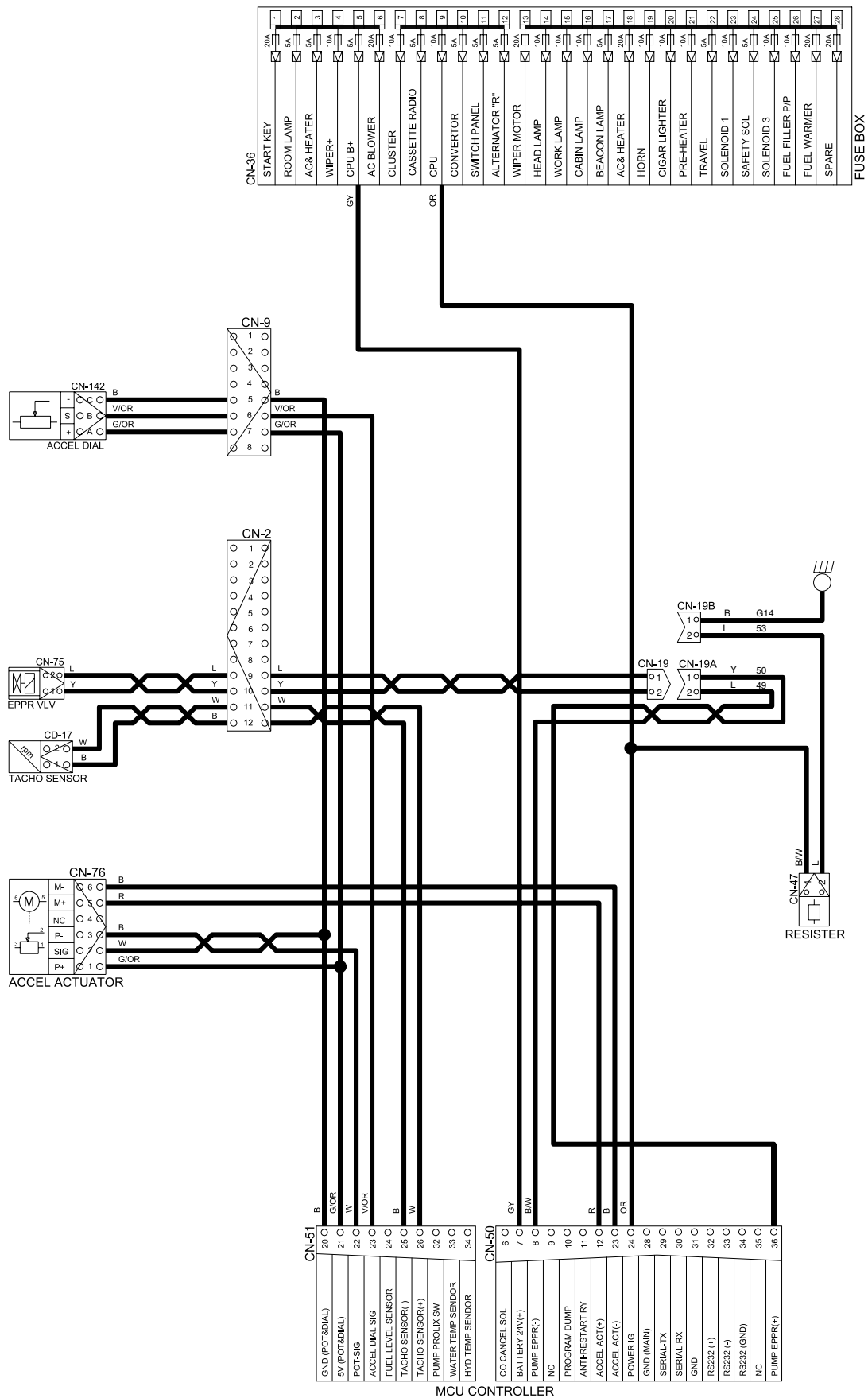
37007A4EL09



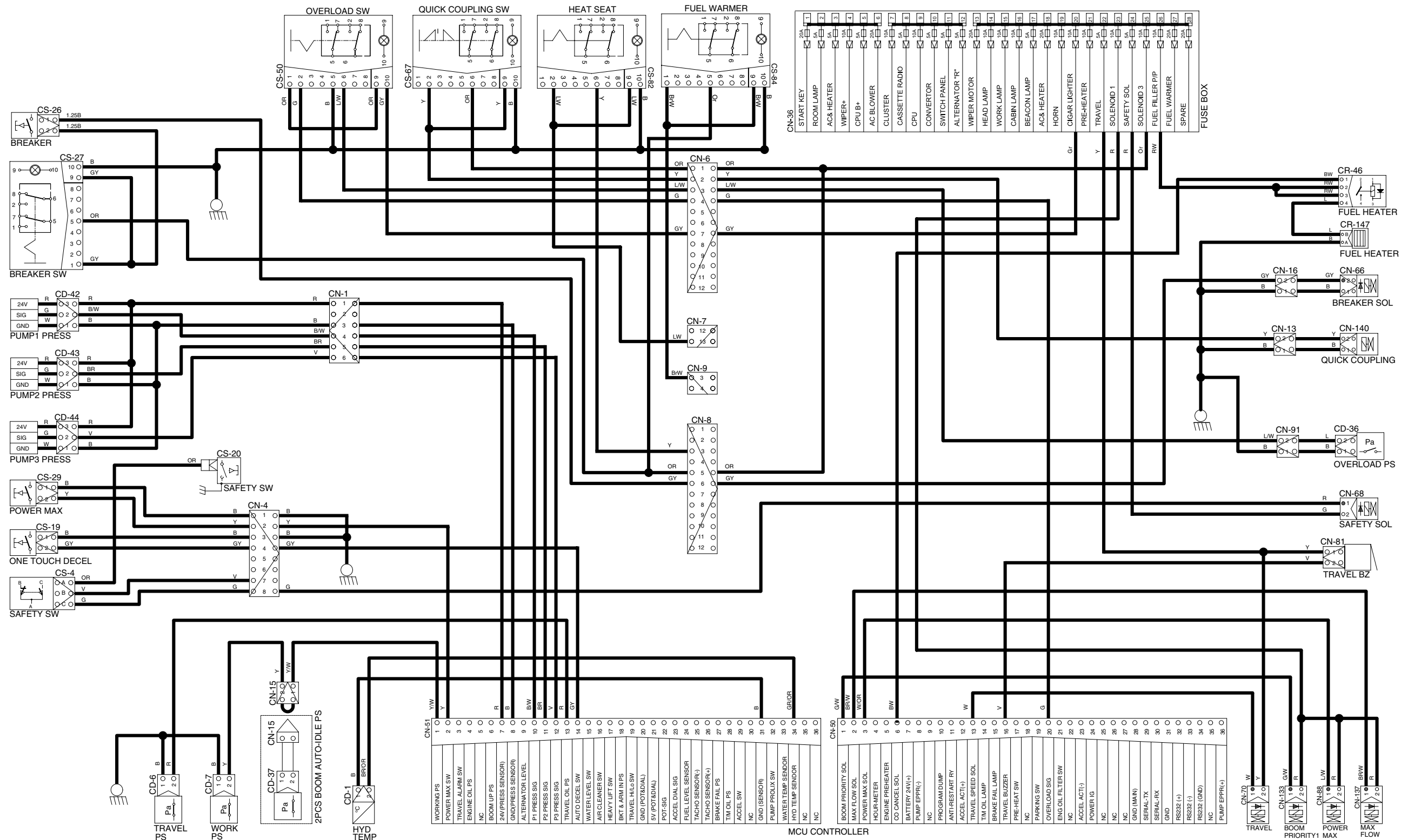
# WIPER AND WASHER CIRCUIT



# CONTROLLER CIRCUIT



# ELECTRIC CIRCUIT FOR HYDRAULIC





# MONITORING CIRCUIT

