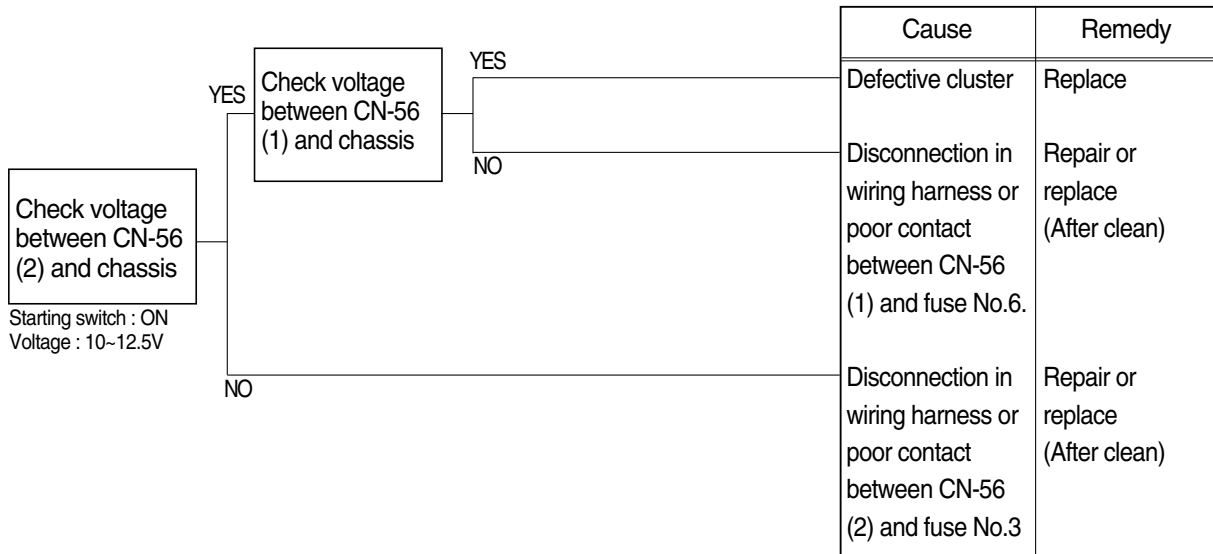


GROUP 3 ELECTRICAL SYSTEM

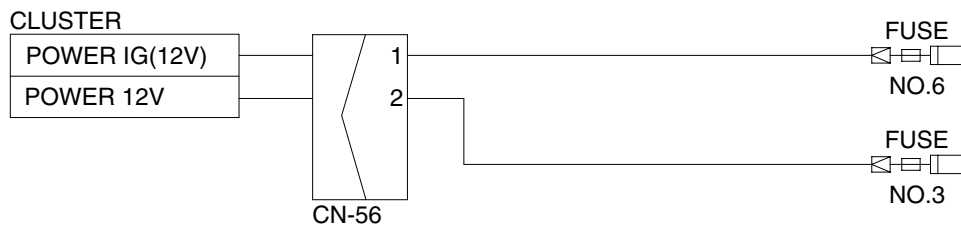
1. WHEN STARTING SWITCH IS TURNED ON, MONITOR PANEL DISPLAY DOES NOT APPEAR

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.3 and No.6.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check voltage

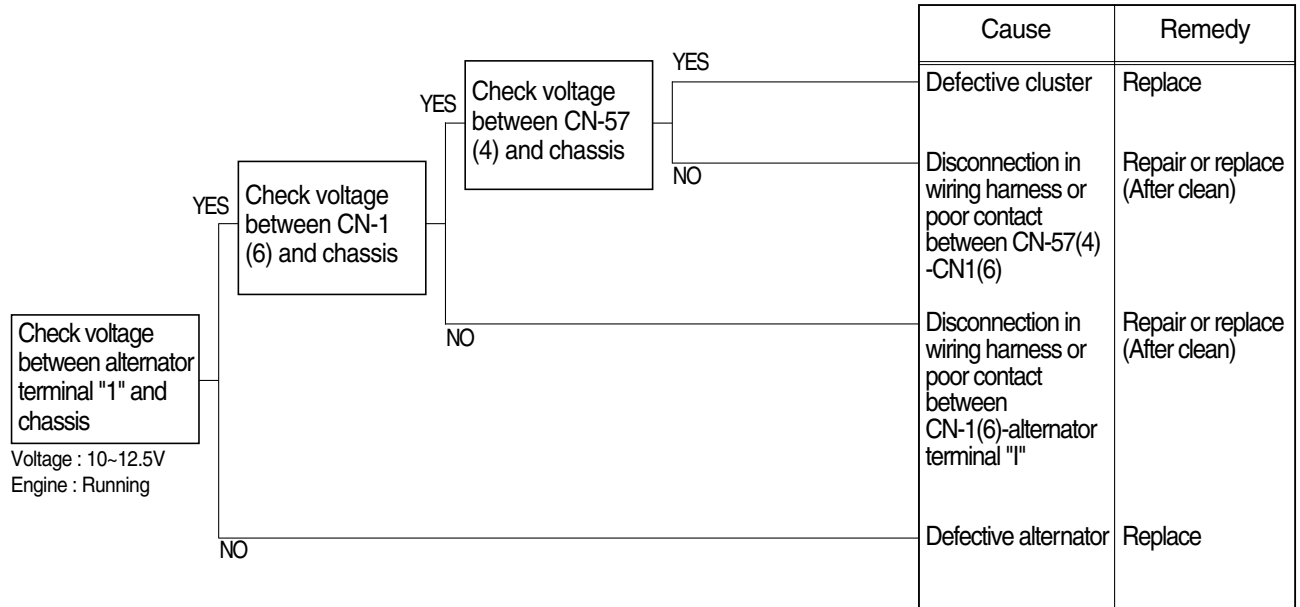
YES	10 ~ 12.5V
NO	0V



55W75TS10

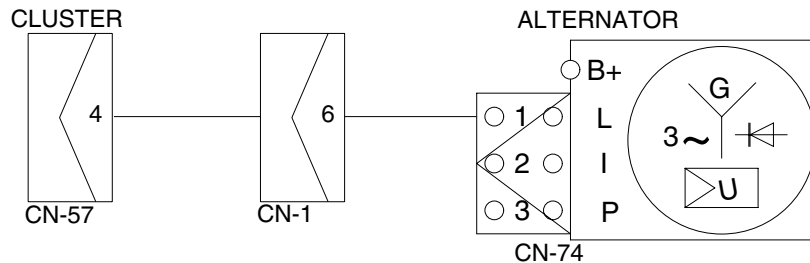
2. BATTERY CHARGING WARNING LAMP LIGHTS UP(Starting switch : ON)

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check voltage

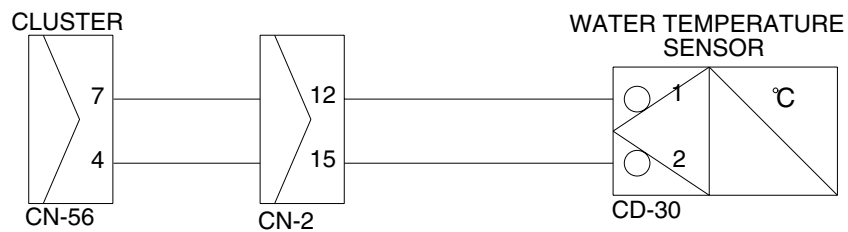
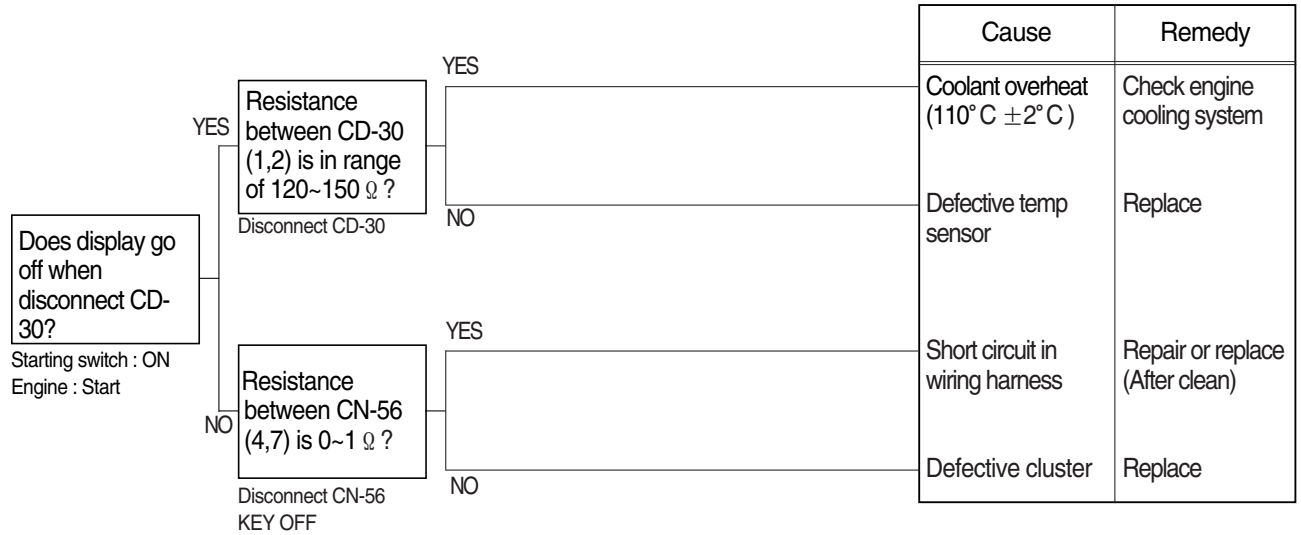
YES	10 ~ 12.5V
NO	0V



R5575TS11

3. WHEN COOLANT OVERHEAT WARNING LAMP LIGHTS UP(Engine is started)

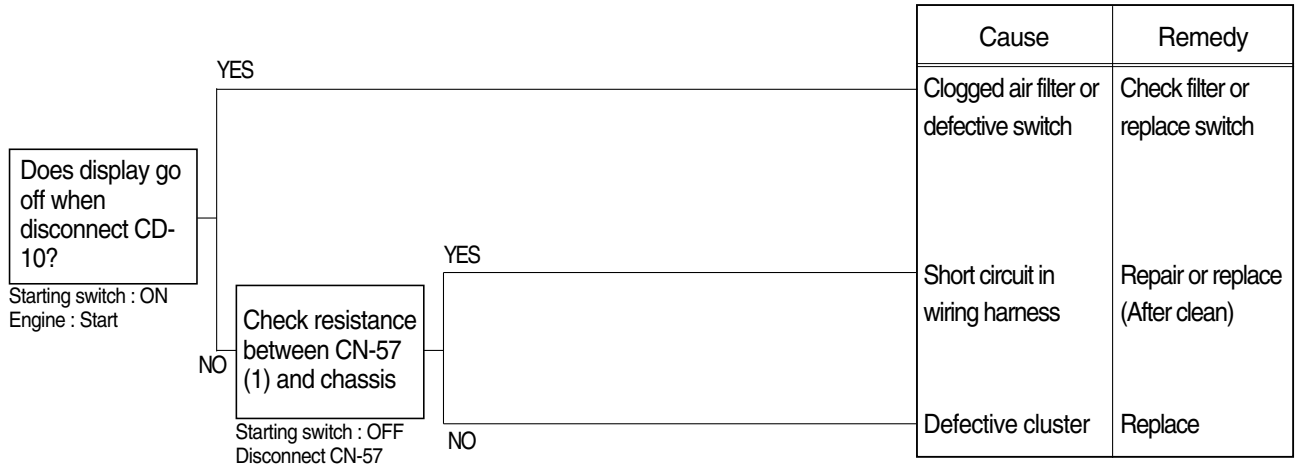
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



R5575TS12

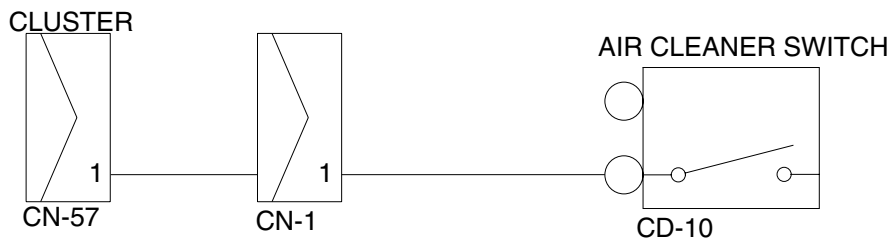
4. WHEN AIR CLEANER WARNING LAMP LIGHTS UP (Engine is started)

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check resistance

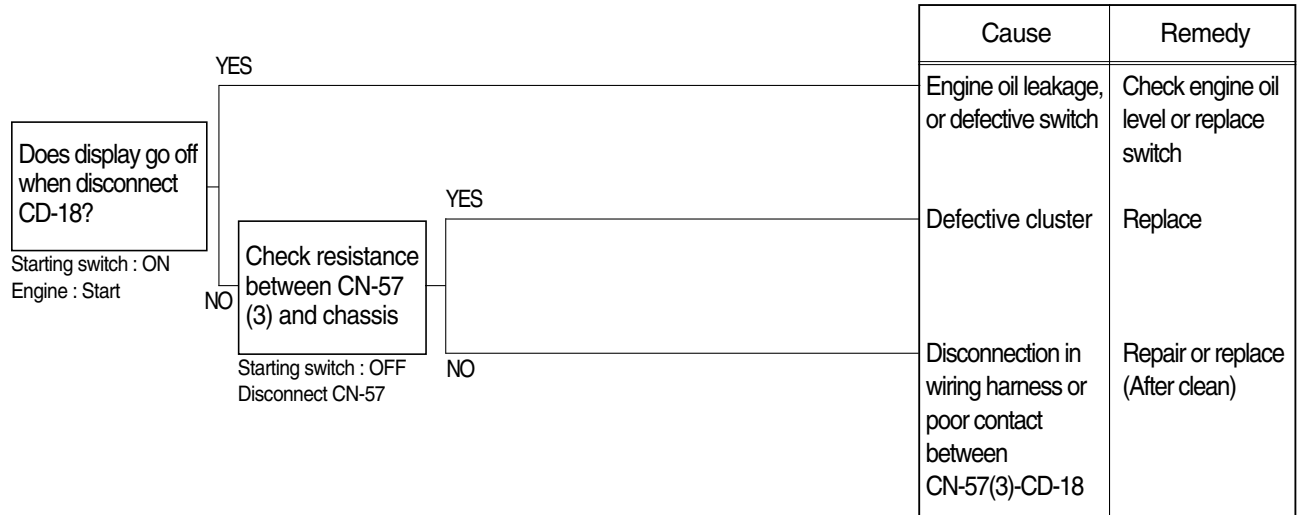
YES	MAX 1Ω
NO	MIN 1M Ω



R5575TS13

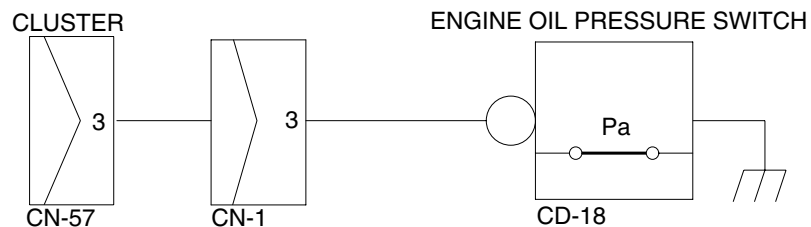
5. WHEN ENGINE OIL PRESSURE WARNING LAMP LIGHTS UP (Engine is started)

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check resistance

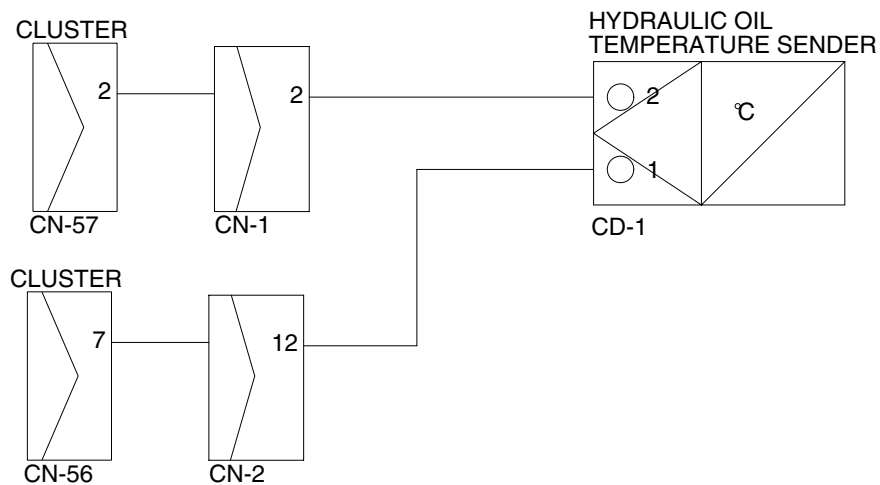
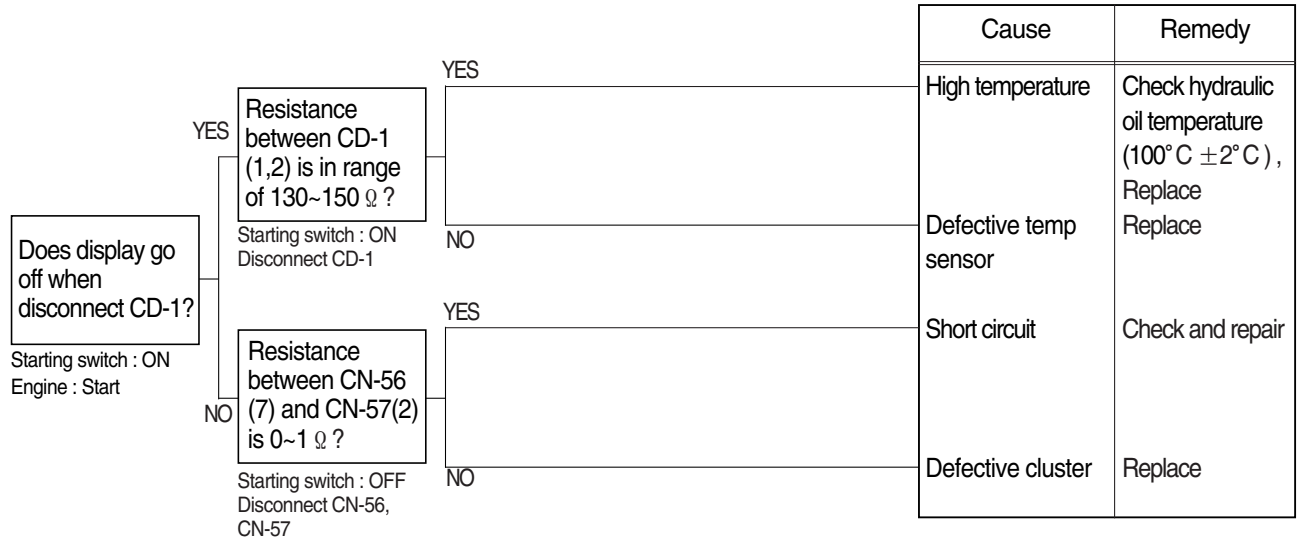
YES	MAX 1Ω
NO	MIN 1MΩ



R5575TS14

6. WHEN HYDRAULIC OIL TEMPERATURE WARNING LAMP LIGHTS UP(Engine is started)

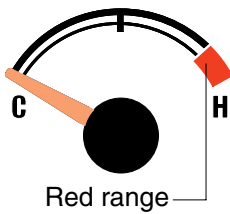
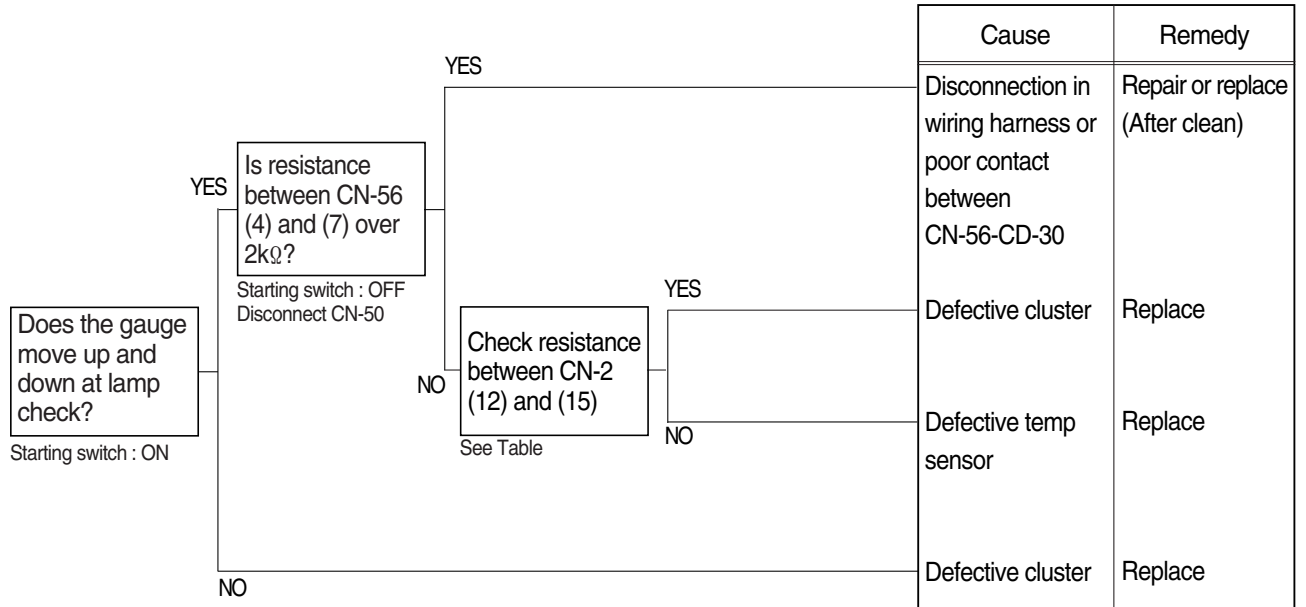
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



R5575TS15

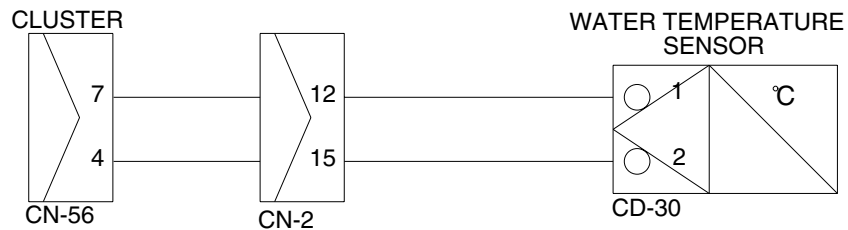
7. WHEN COOLANT TEMPERATURE GAUGE DOES NOT OPERATE

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check Table

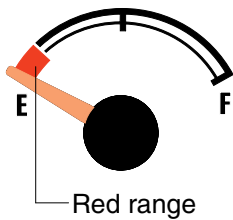
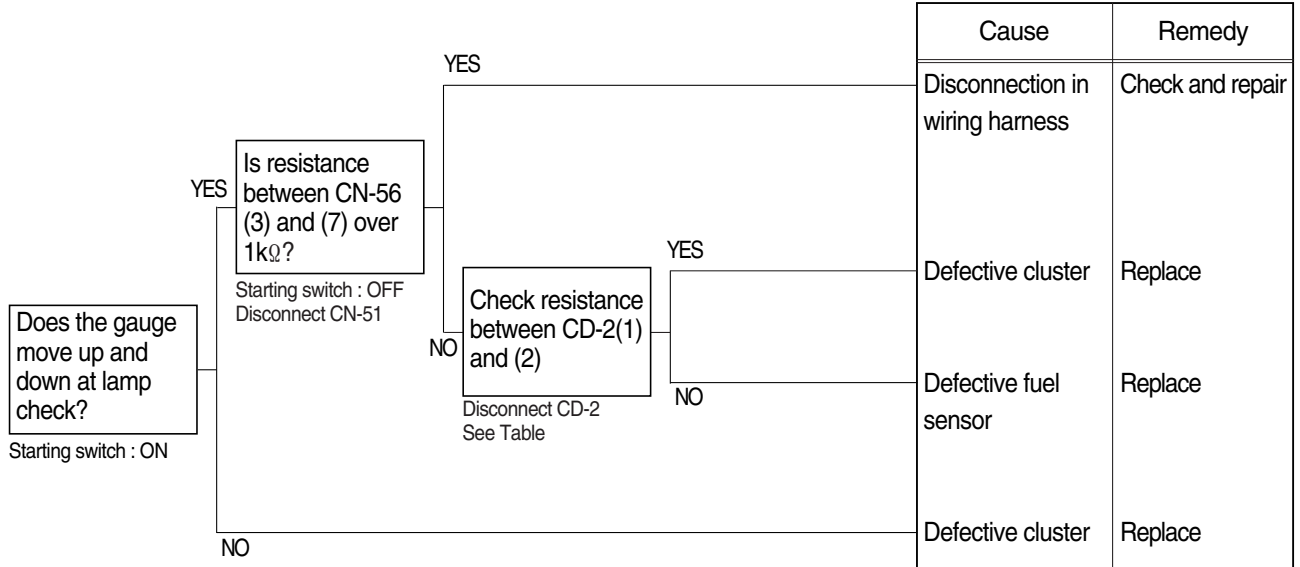
Temperature	40°C	85~110°C	115°C (Red range)
Item			
Unit Resistance(Ω)	1170~	270~130	~124
Tolerance(%)	±5	-8~0	±5



R5575TS12

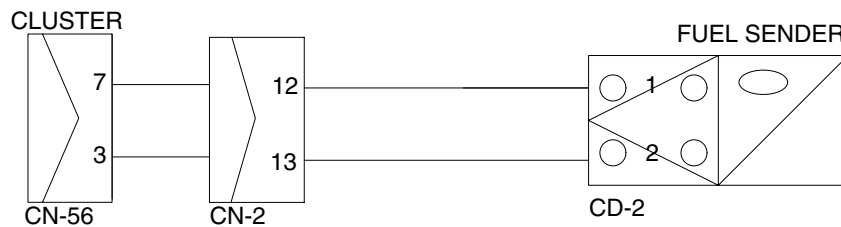
8. WHEN FUEL GAUGE DOES NOT OPERATE(Check warning lamp ON/OFF)

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Check Table

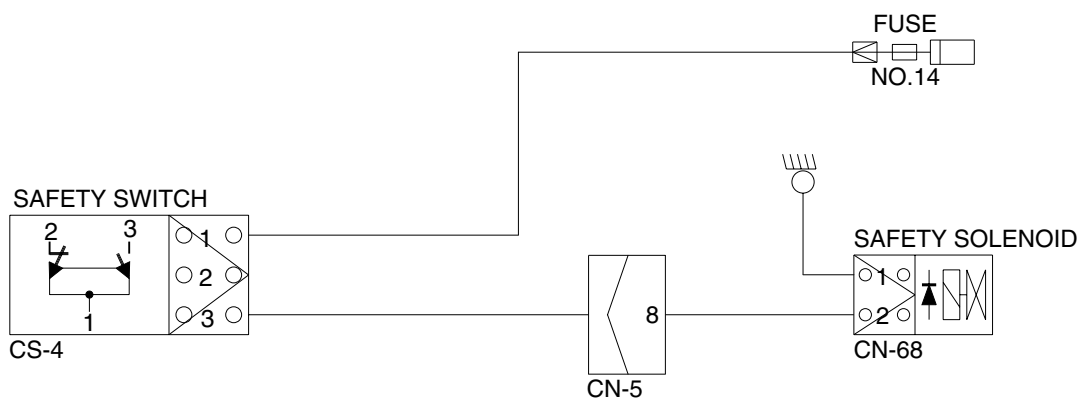
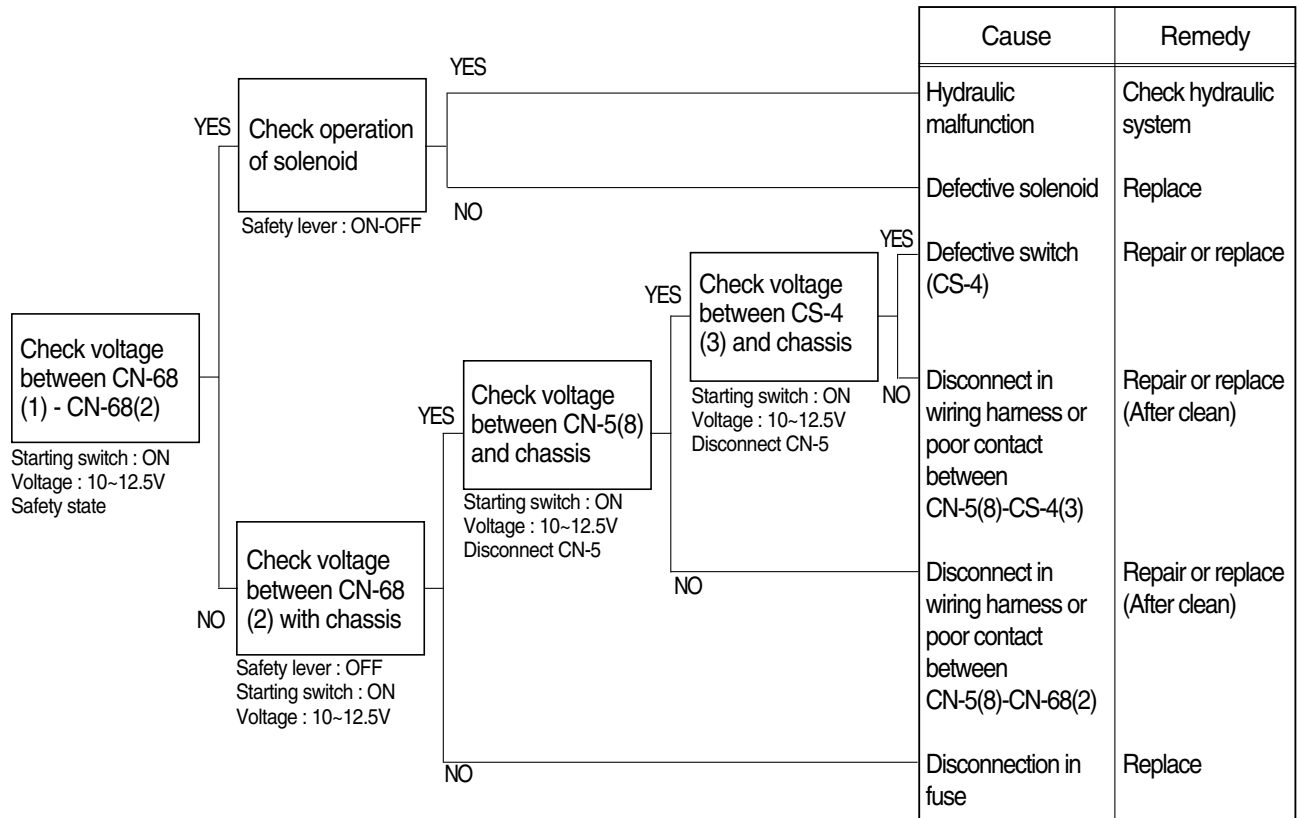
Item \ Level	Empty	1/2	Full
Unit Resistance(Ω)	700	300	~100
Tolerance(%)	±5	±8	±5



R5575TS16

9. WHEN SAFETY SOLENOID DOES NOT OPERATE

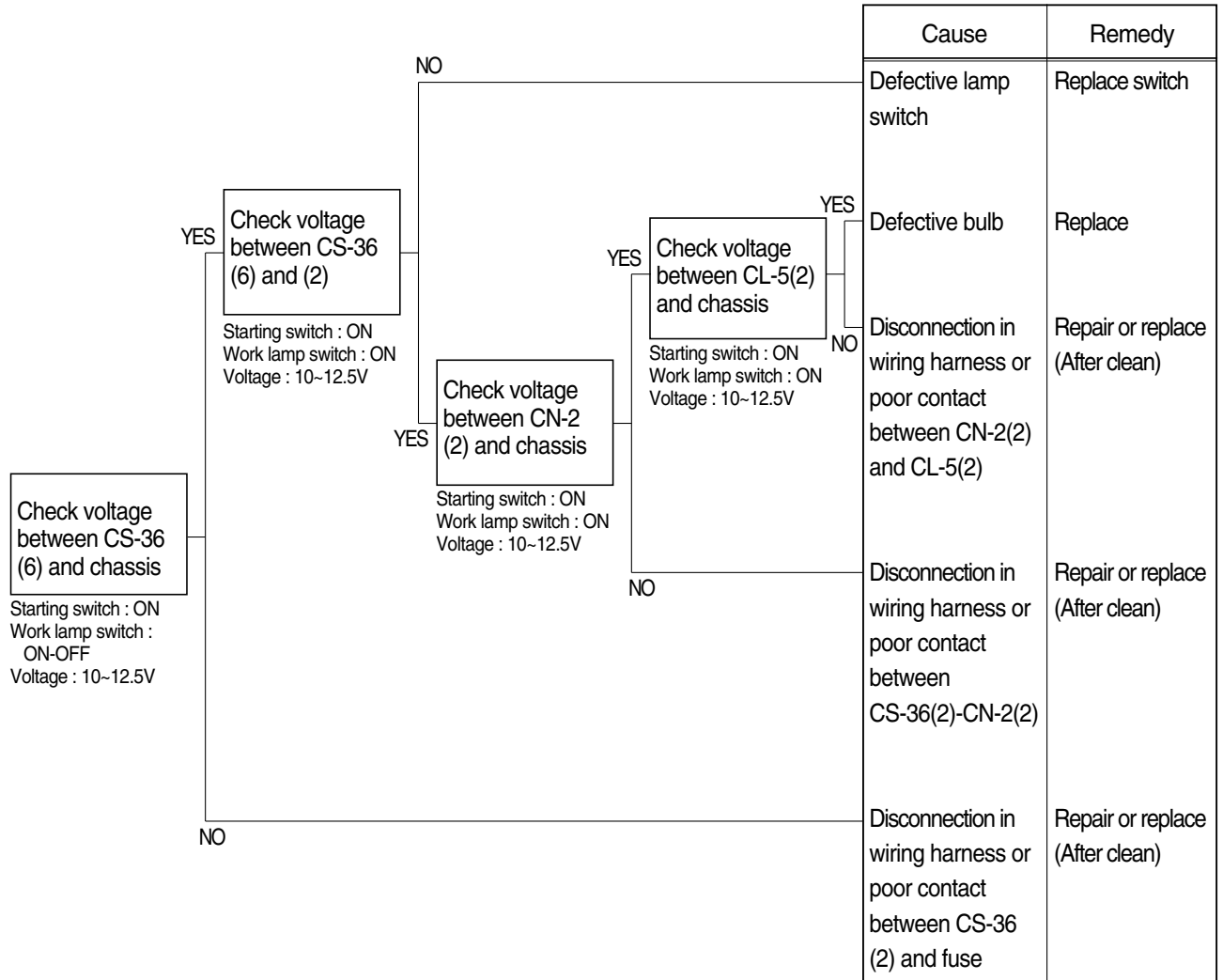
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.14.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



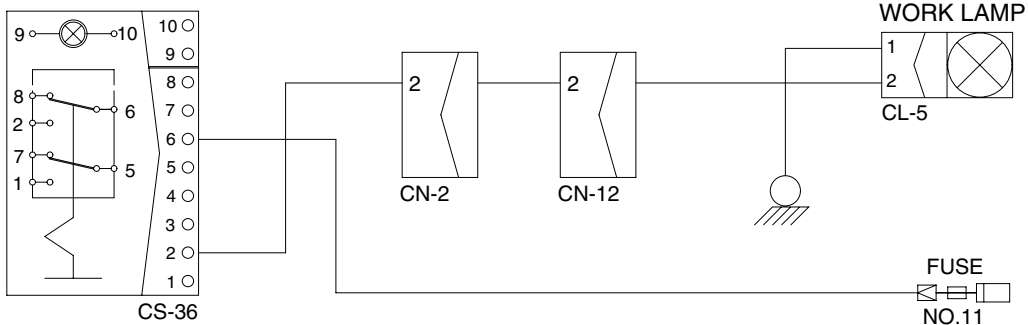
55W75TS17

10. WHEN STARTING SWITCH IS TURNED ON, WORK LAMP DOES NOT LIGHTS UP

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.11.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



WORK LAMP SW

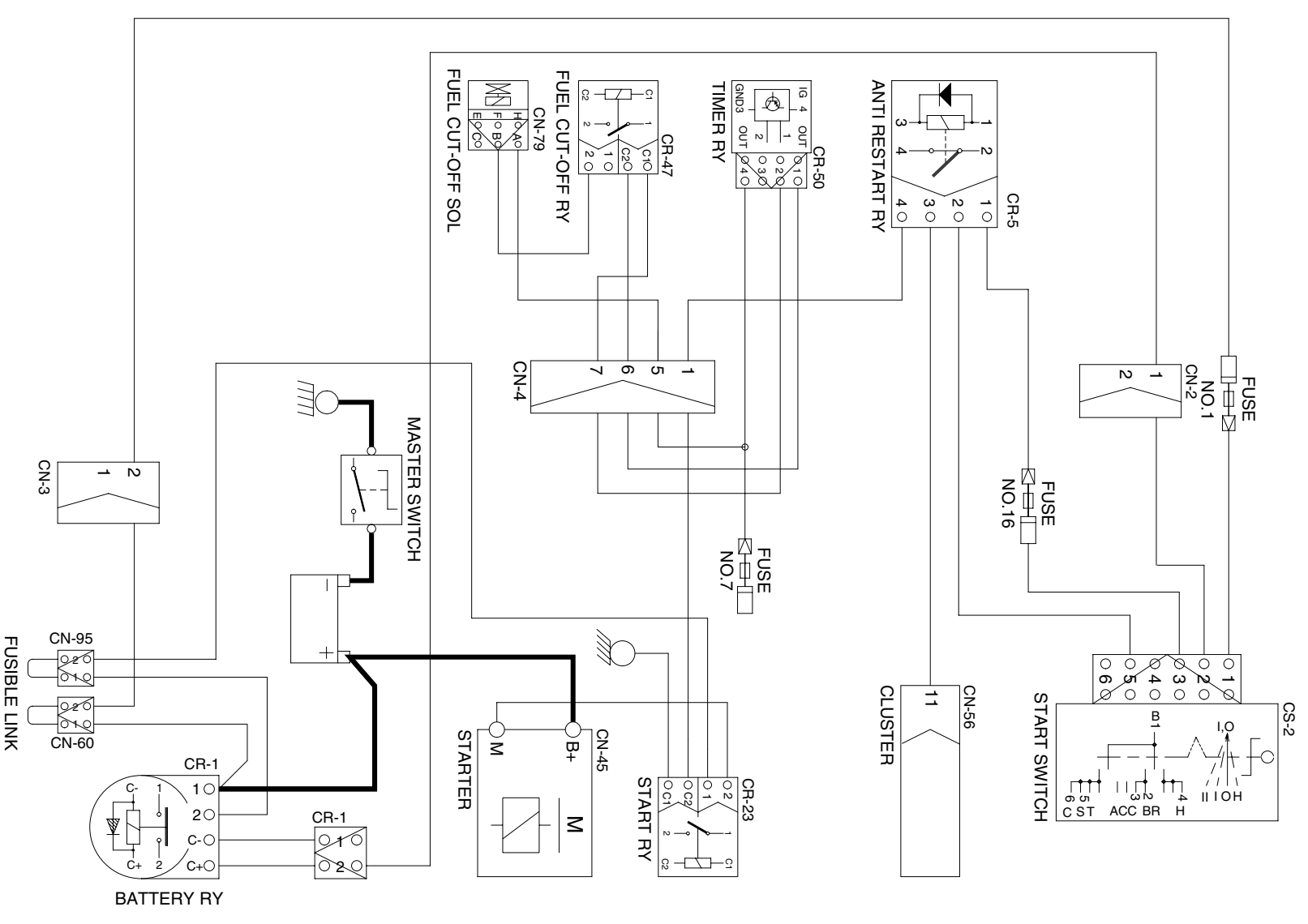


55W75TS23

11. WHEN ENGINE DOES NOT START

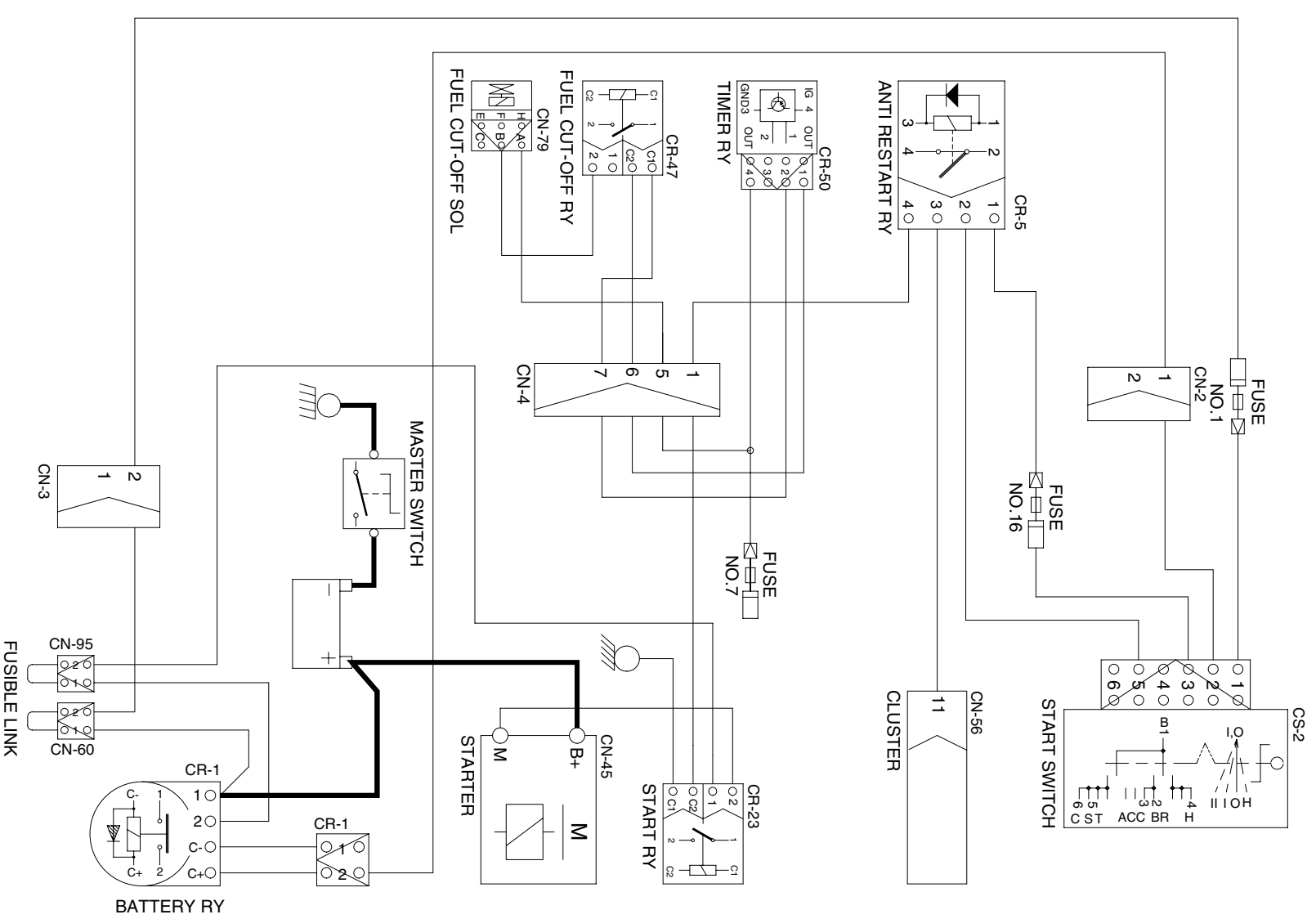
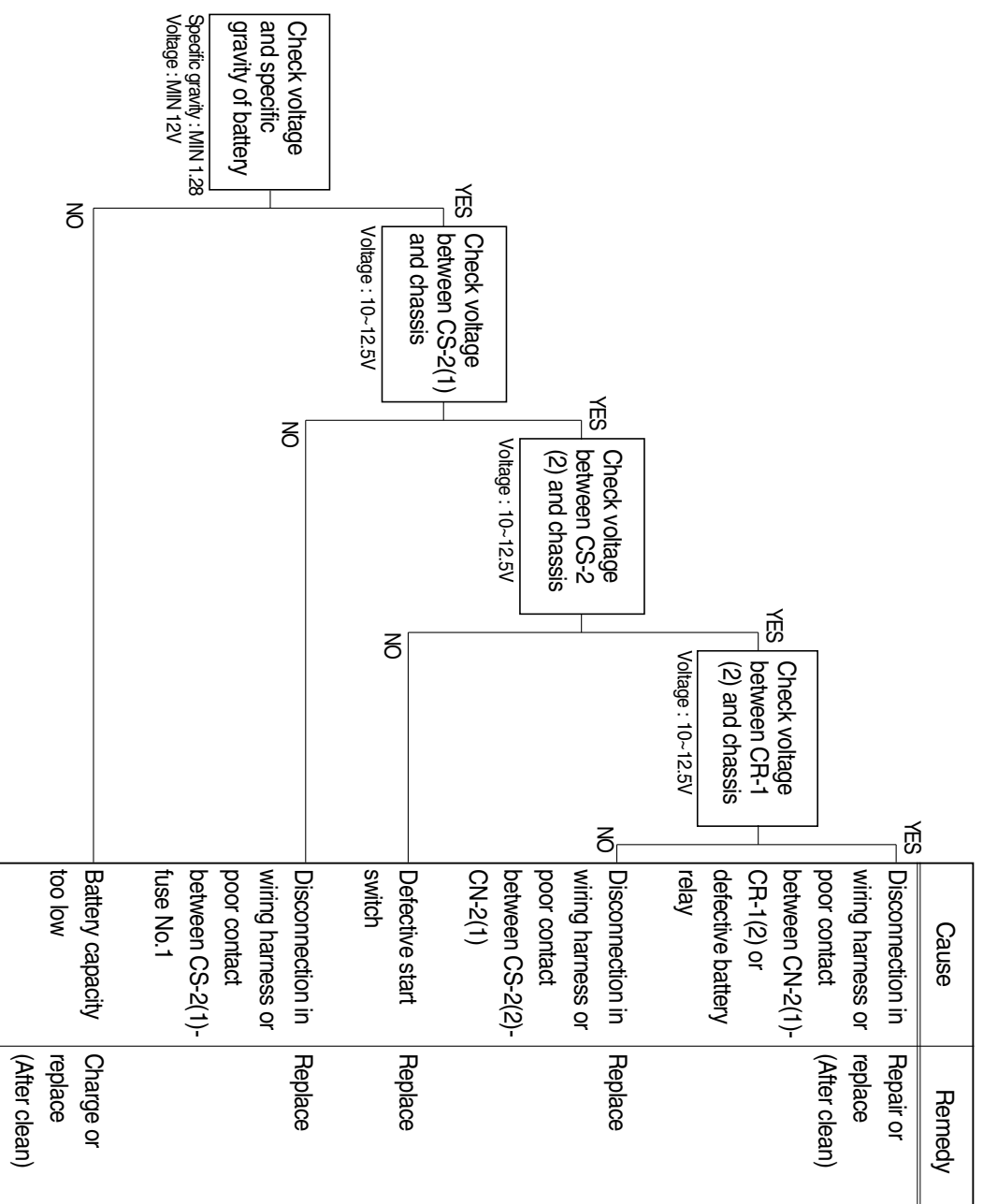
- Check supply of the power at engine stop solenoid while starting switch is ON.
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.

<p>Check operation of start motor</p> <p>Starting switch : START</p>	YES	<p>Defective battery</p> <p>Check engine system charge or replace(After checking specific gravity of battery)</p>	<p>Remedy</p>									
	NO			<p>Check operation of start relay</p> <p>Starting switch : START</p>	<p>Defective magnet of start motor</p> <p>Replace</p>							
	YES			<p>Check voltage between starter magnet coil and chassis</p> <p>Starting switch : START</p> <p>SPEC : 10~12.5V</p>		<p>Defective start relay</p> <p>Replace</p>						
	NO			<p>Check operation of start safety relay</p> <p>Starting switch : ON</p>			<p>Defective relay</p> <p>Replace</p>					
	YES			<p>Check voltage between CR-5(1) and chassis</p> <p>Starting switch : START</p> <p>Spec : 10~12.5V</p>				<p>Disconnection in wiring harness or poor contact between CR-5 (4) and CN-4(1)</p> <p>Repair or replace (After clean)</p>				
	NO			<p>Check voltage between CR-5(4) and chassis</p> <p>Starting switch : ON</p>					<p>Defective relay</p> <p>Replace</p>			
	YES			<p>Check voltage between CR-23 and chassis</p> <p>Starting switch : ON</p>						<p>Disconnection in wiring harness or poor contact between CR-5(4)-CR-23(2)</p> <p>Repair or replace (After clean)</p>		
	NO			<p>Check voltage between CN-79 and chassis</p> <p>Starting switch : ON</p> <p>Spec : 10~12.5V</p>							<p>Defective fuel cut-off solenoid</p> <p>Replace</p>	
	YES			<p>Check voltage between CN-79 and chassis</p> <p>Starting switch : ON</p>								<p>Disconnection in wiring harness or poor contact between CN-79 and CR-47(2)</p> <p>Repair or replace (After clean)</p>
	NO			<p>Check voltage between CN-79 and chassis</p> <p>Starting switch : ON</p> <p>Spec : 10~12.5V</p>								



12. WHEN STARTING SWITCH ON DOES NOT OPERATE

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and master switch ON.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



14. WHEN STARTING SWITCH IS TURNED ON, HEAD LAMP DOES NOT LIGHTS UP

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.10.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.

Step	Check voltage	Startling switch : ON Head lamp switch : ON Multifunc switch : LOW Voltage : 12V	Startling switch : ON Head lamp switch : ON Voltage : 12V	Startling switch : ON Head lamp switch : ON Multifunc switch : LOW Voltage : 12V	Startling switch : ON Head lamp switch : ON Voltage : 12V	Startling switch : ON Head lamp switch : ON Multifunc switch : LOW Voltage : 12V	Cause	Remedy
1	Check voltage	NO	NO	NO	NO	NO	Disconnection in wiring harness or defective fuse	Repair or replace (After clean)
2	Check voltage	YES	NO	NO	NO	NO	Defective CS-21 switch	Replace
3	Check voltage	YES	YES	NO	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
4	Check voltage	YES	YES	YES	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
5	Check voltage	YES	YES	YES	YES	YES	Disconnection in wiring harness	Repair or replace (After clean)
6	Check voltage	YES	YES	NO	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
7	Check voltage	YES	YES	YES	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
8	Check voltage	YES	YES	YES	YES	YES	Disconnection in wiring harness	Repair or replace (After clean)
9	Check voltage	YES	YES	NO	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
10	Check voltage	YES	YES	YES	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
11	Check voltage	YES	YES	YES	YES	YES	Disconnection in wiring harness	Repair or replace (After clean)
12	Check voltage	YES	YES	NO	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)
13	Check voltage	YES	YES	YES	YES	YES	Defective head lamp bulb	Replace
14	Check voltage	YES	YES	NO	NO	NO	Disconnection in wiring harness	Repair or replace (After clean)

