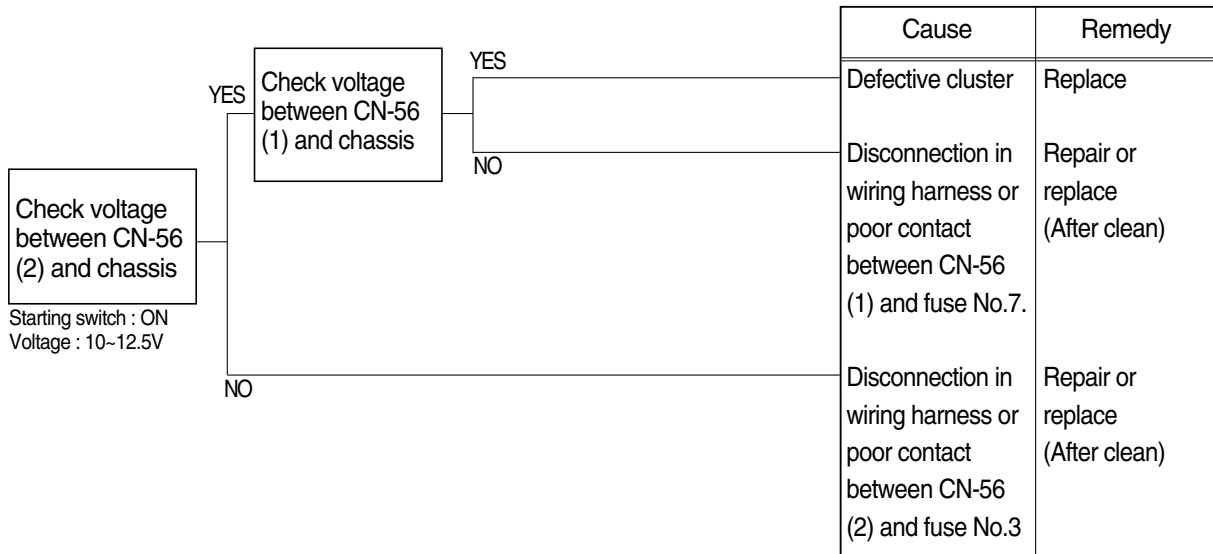


GROUP 3 ELECTRICAL SYSTEM

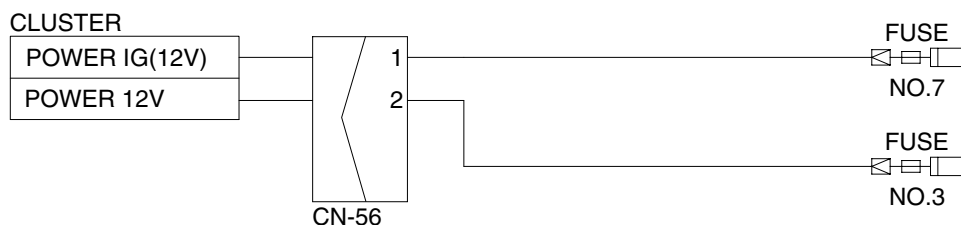
1. WHEN STARTING SWITCH IS TURNED ON, MONITOR PANEL DISPLAY DOES NOT APPEAR

- 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

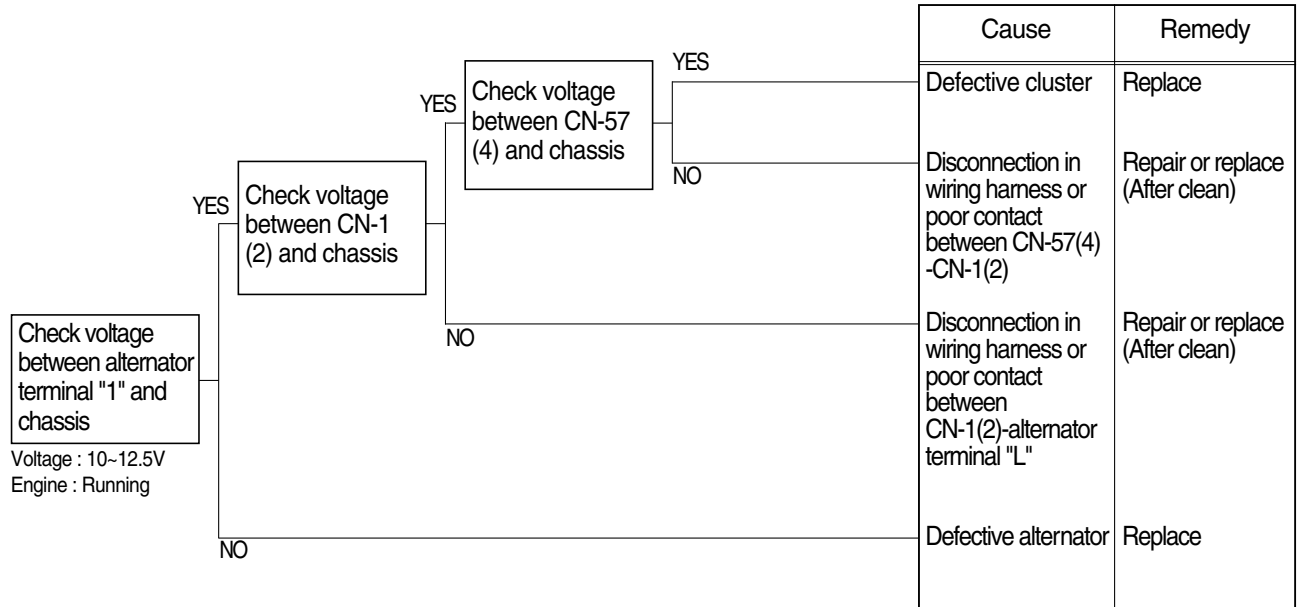
YES	10 ~ 12.5V
NO	0V



55W7A5TS10

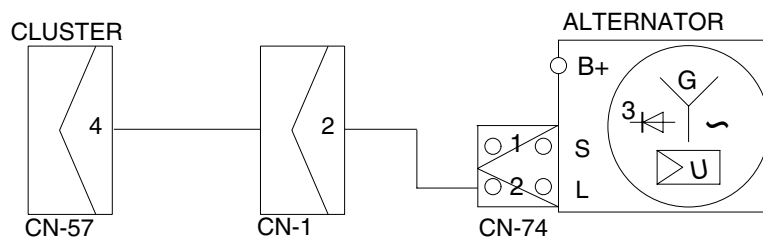
2. BATTERY CHARGING WARNING LAMP LIGHTS UP(Starting switch : ON)

- 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

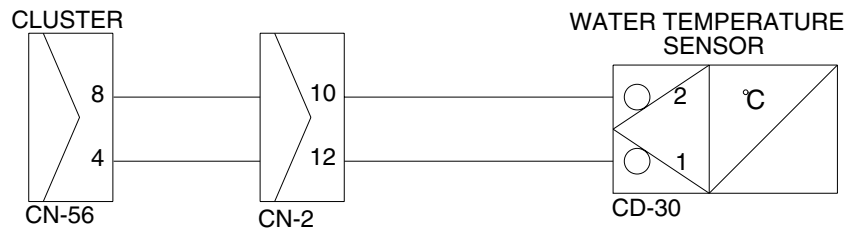
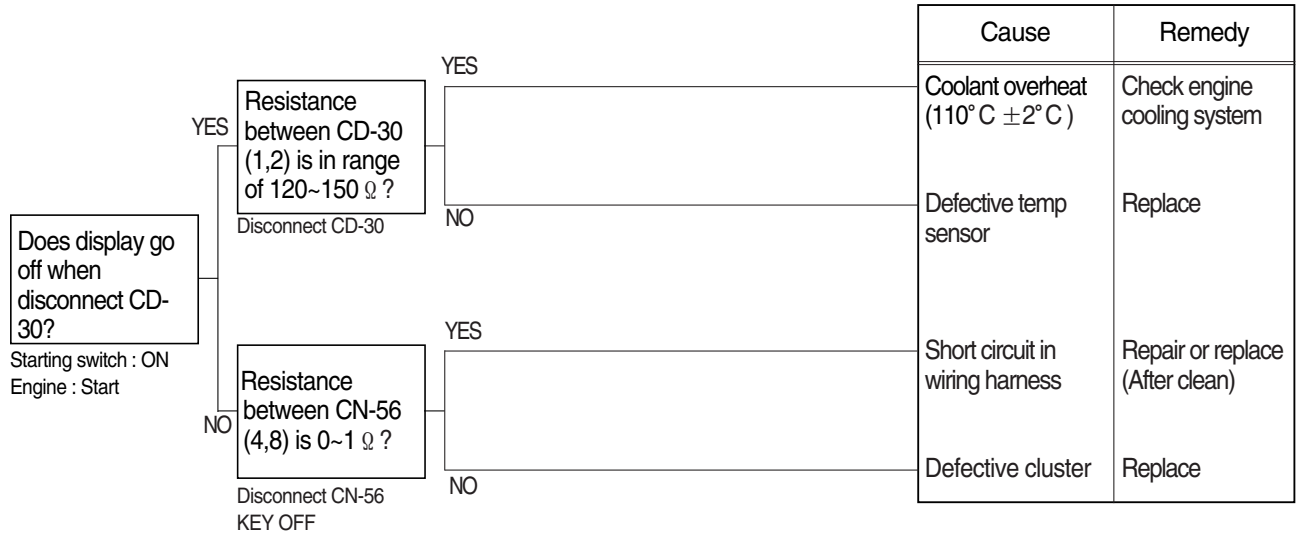
YES	10 ~ 12.5V
NO	0V



55W7A5TS11

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

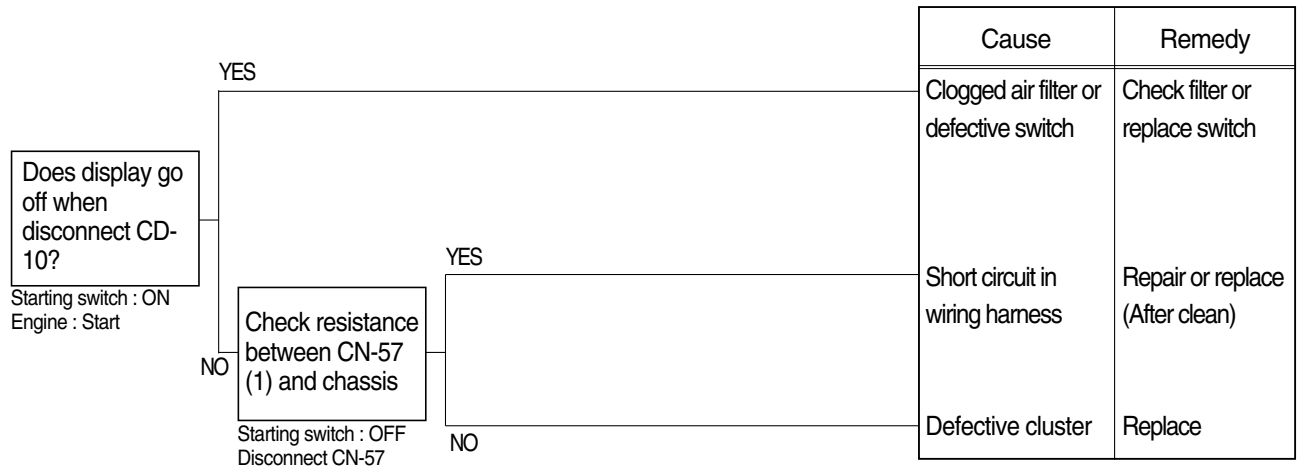
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



55W7A5TS12

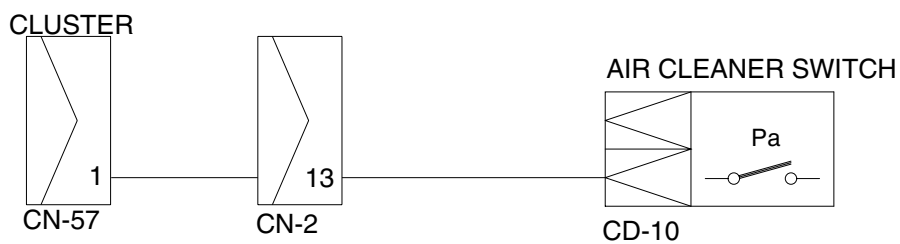
4. WHEN AIR CLEANER WARNING LAMP LIGHTS UP (Engine is started)

- 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

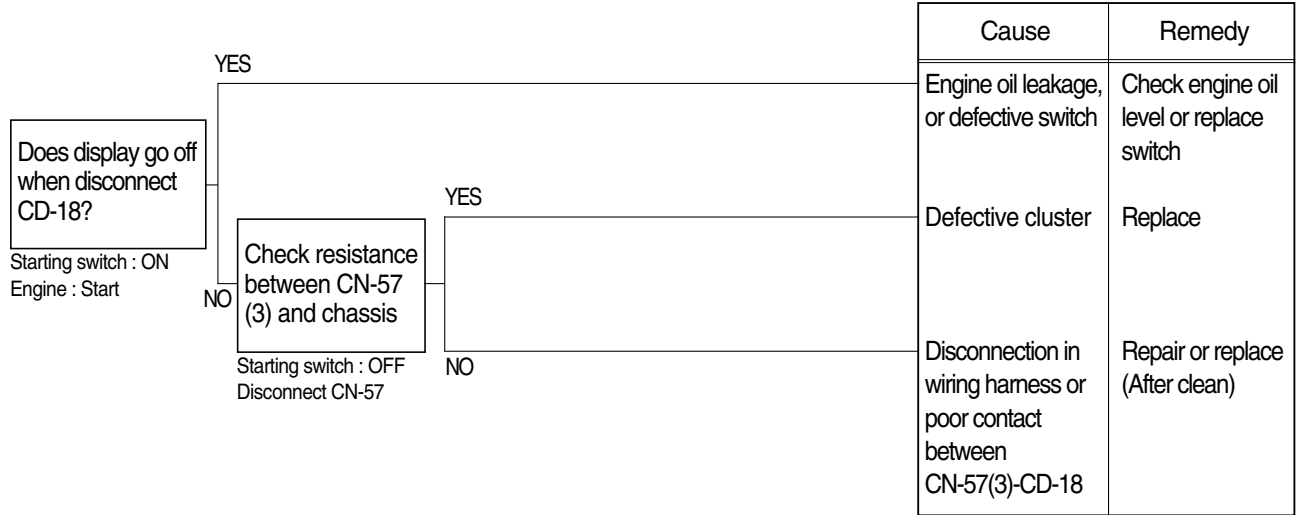
YES	MAX 1Ω
NO	MIN 1M Ω



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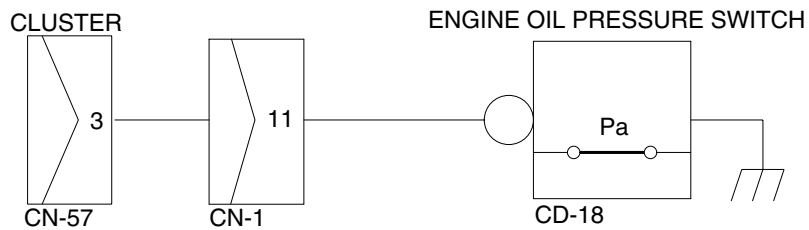
5. WHEN ENGINE OIL PRESSURE WARNING LAMP LIGHTS UP (Engine is started)

- 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.



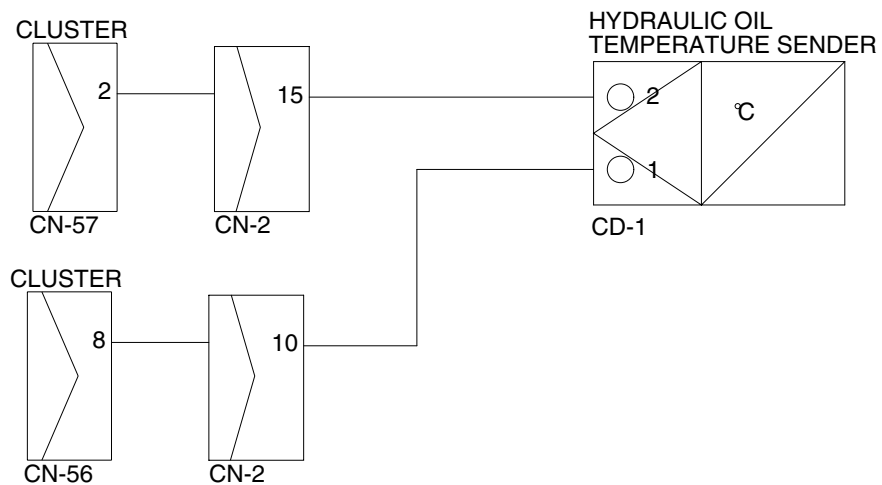
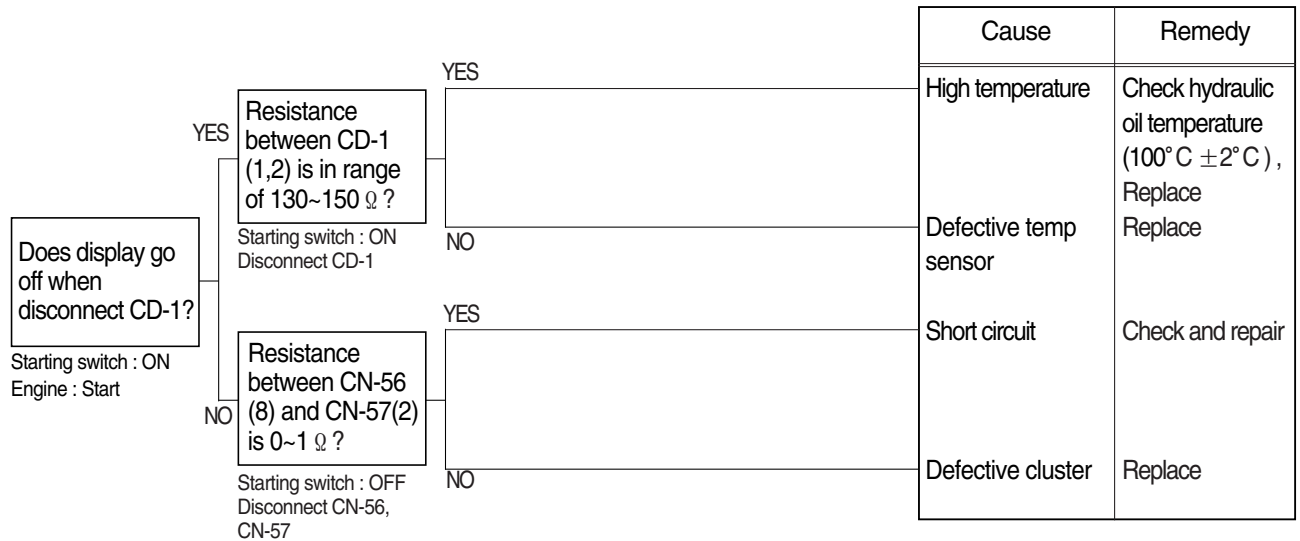
Check resistance

YES	MAX 1Ω
NO	MIN 1MΩ



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

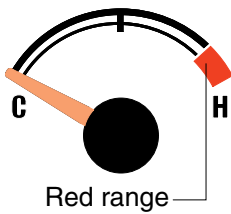
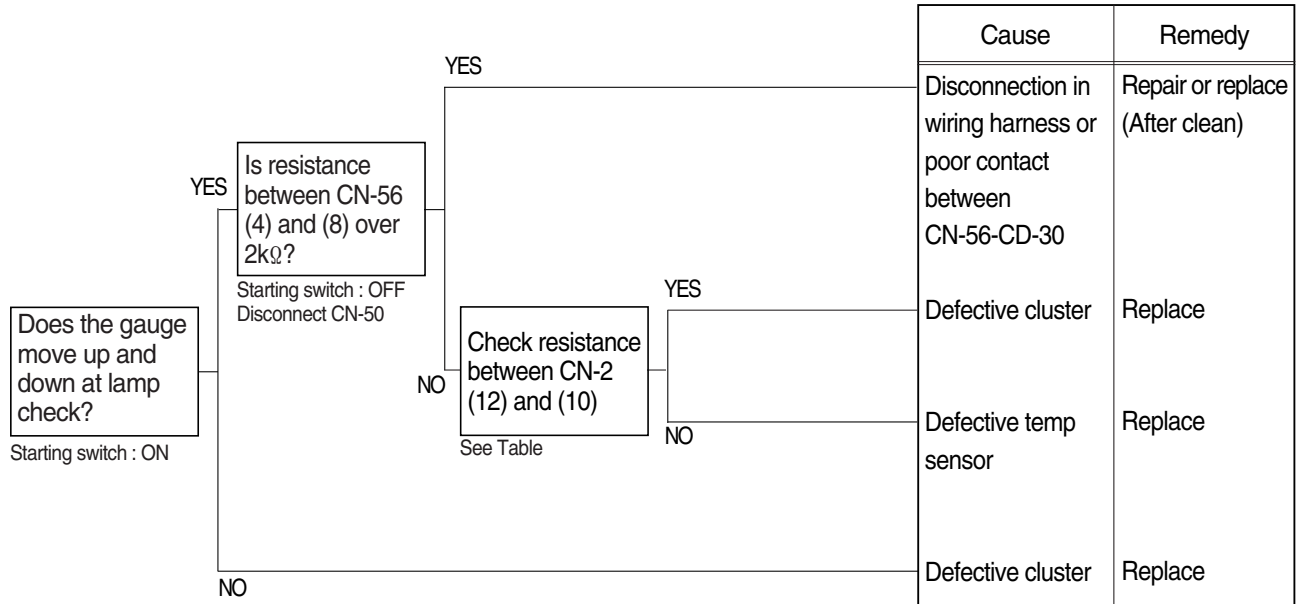
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



55W7A5TS15

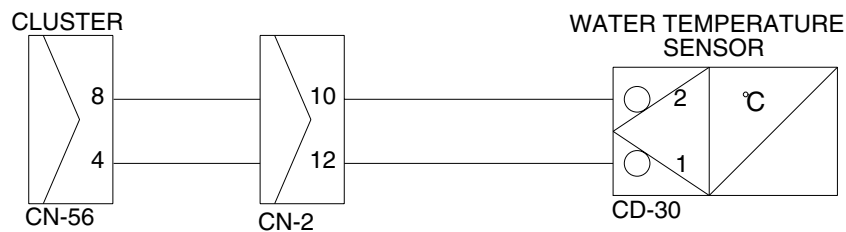
7. WHEN COOLANT TEMPERATURE GAUGE DOES NOT OPERATE

- 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

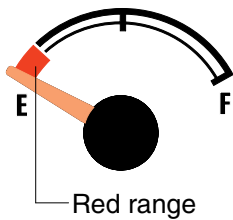
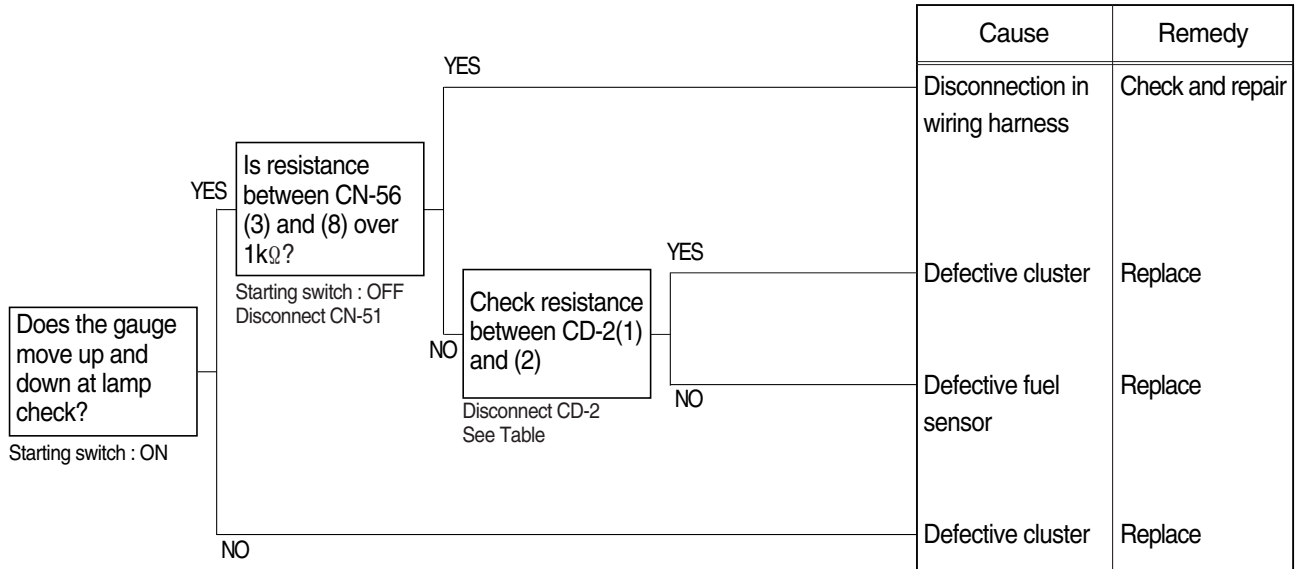
Temperature	40°C	85~110°C	115°C (Red range)
Item			
Unit Resistance(Ω)	1170~	270~130	~124
Tolerance(%)	± 5	-8~0	± 5



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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

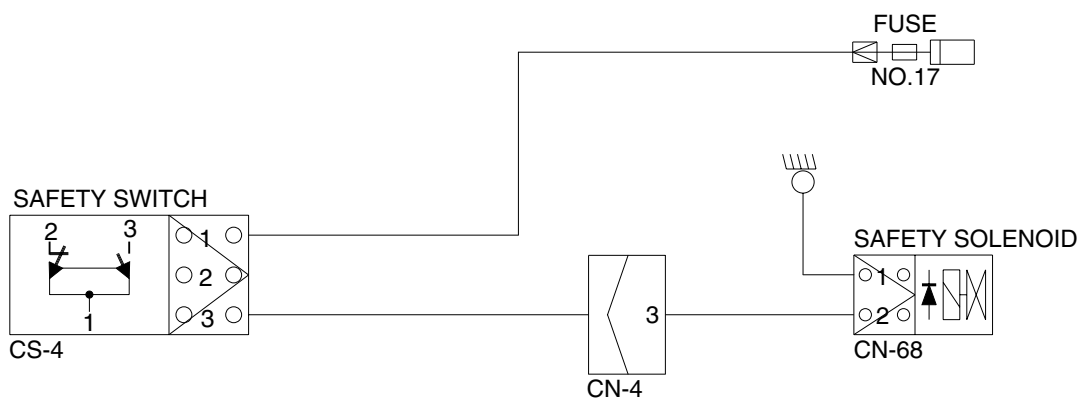
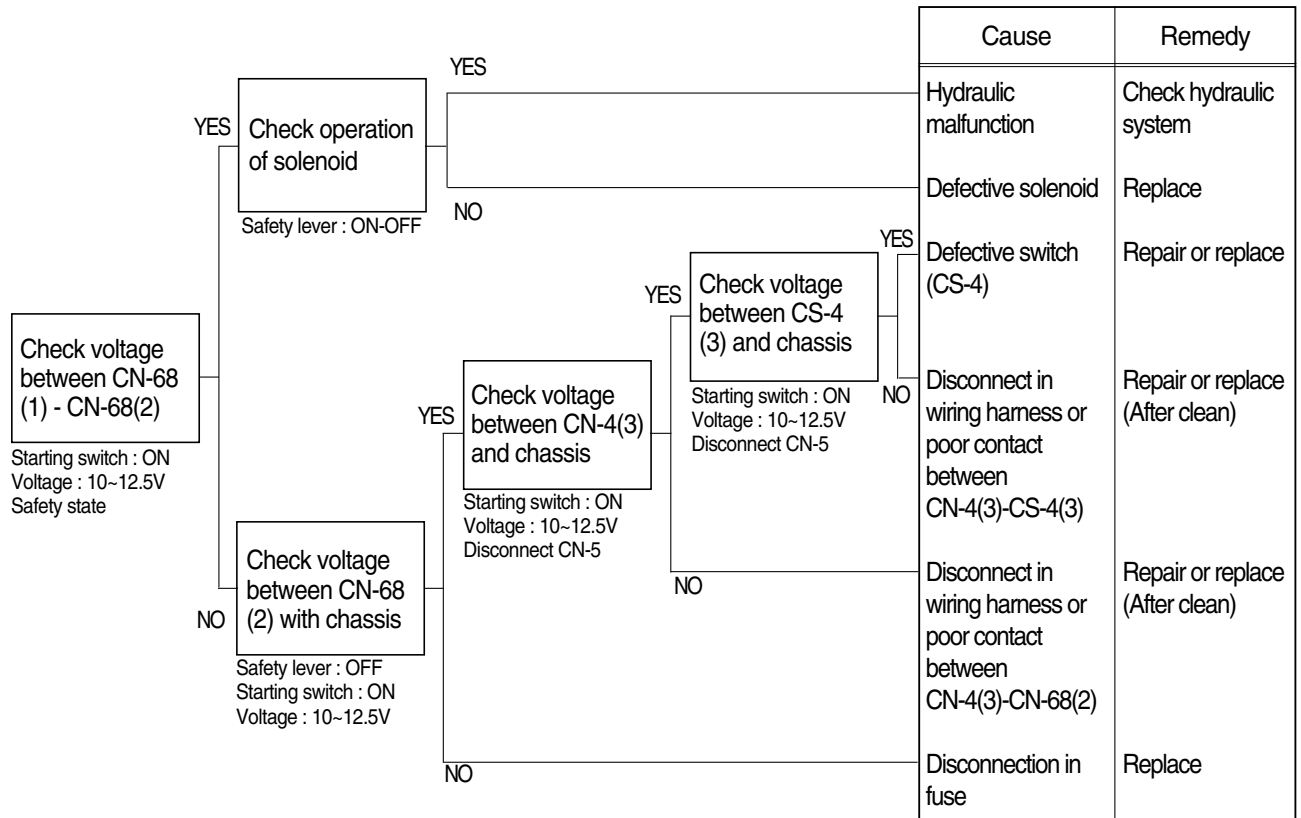
Item \ Level	Empty	1/2	Full
Unit Resistance(Ω)	700	300	~100
Tolerance(%)	±5	±8	±5



55W7A5TS16

9. WHEN SAFETY SOLENOID DOES NOT OPERATE

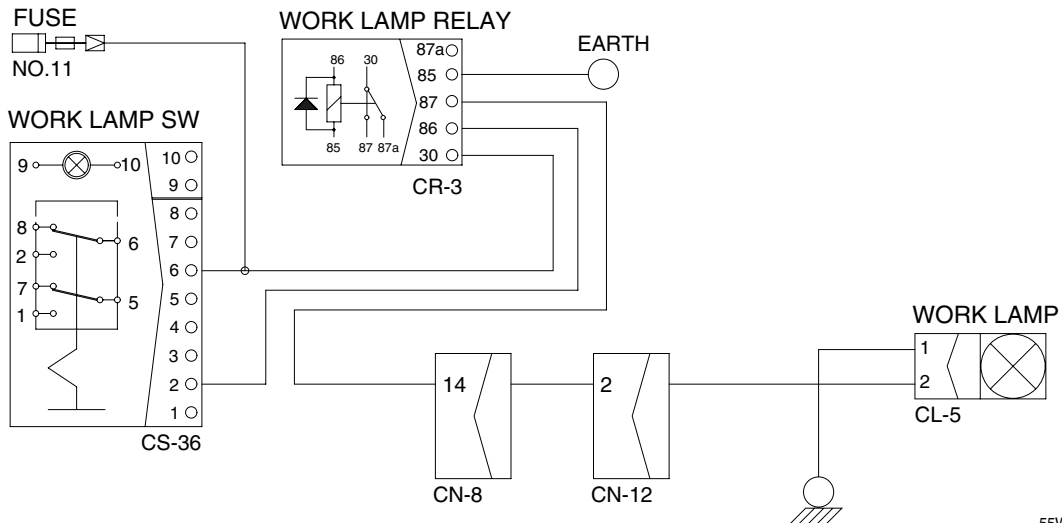
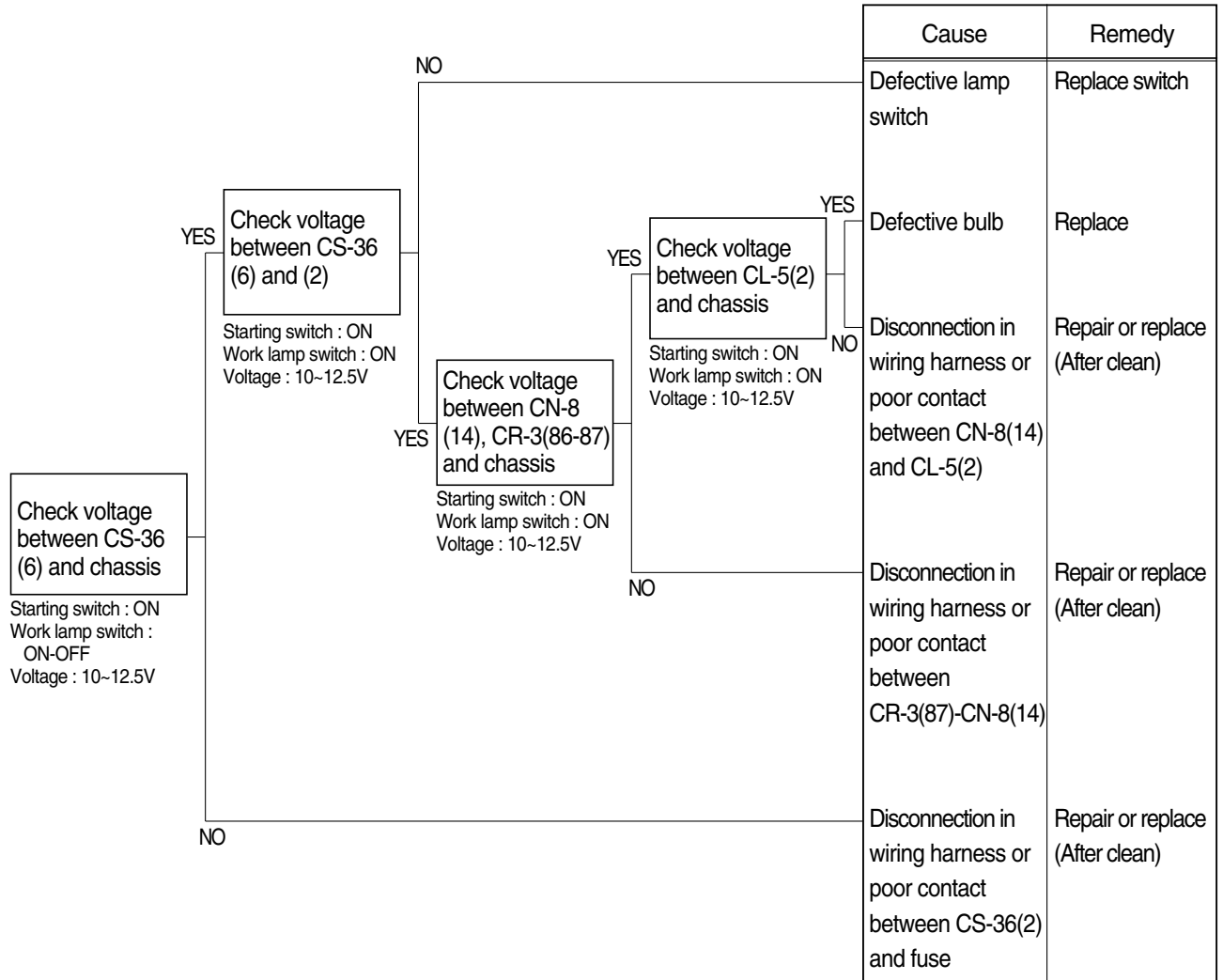
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.14.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



55W7A5TS17

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

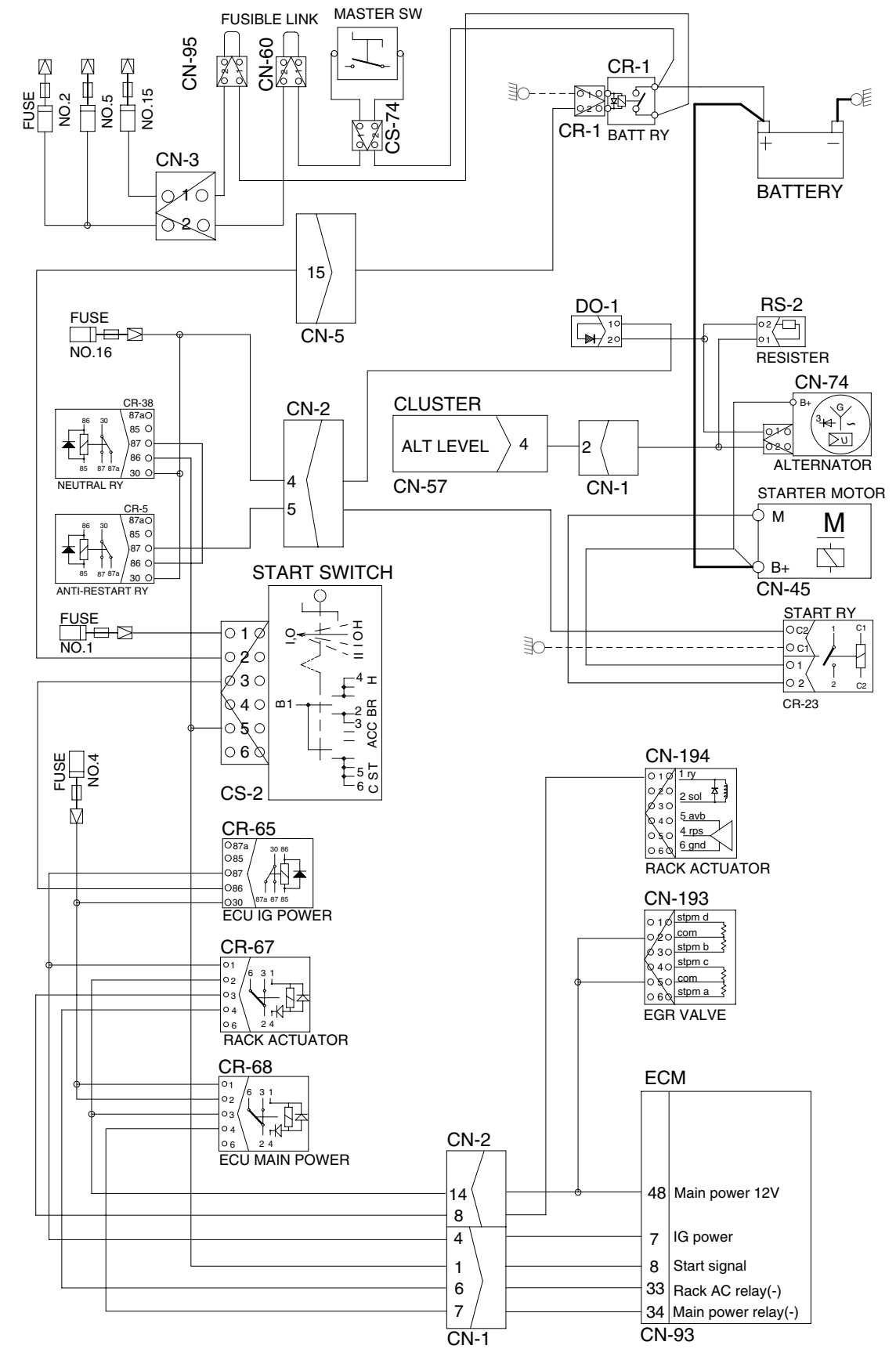
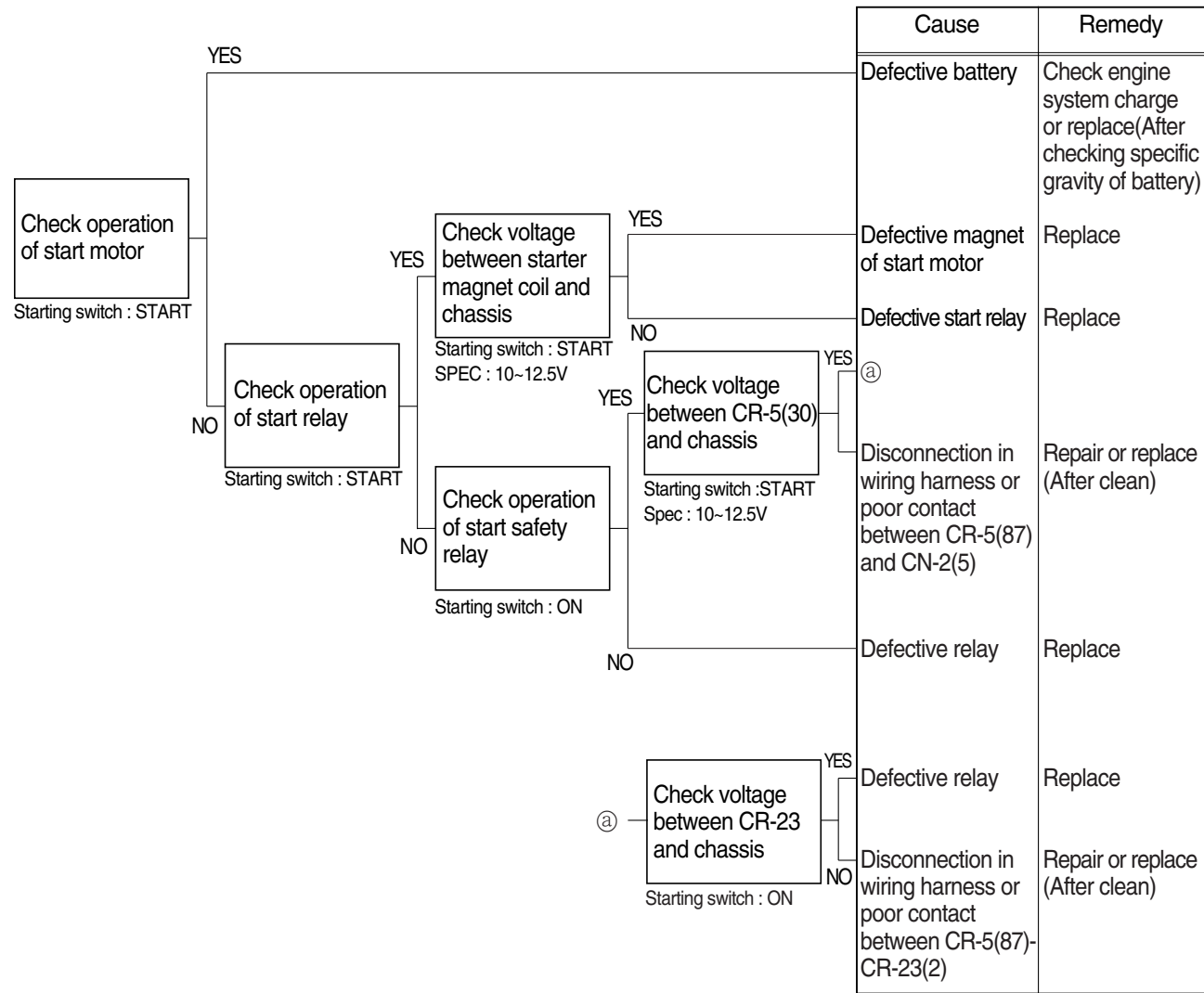
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.11.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



55W7A5TS23

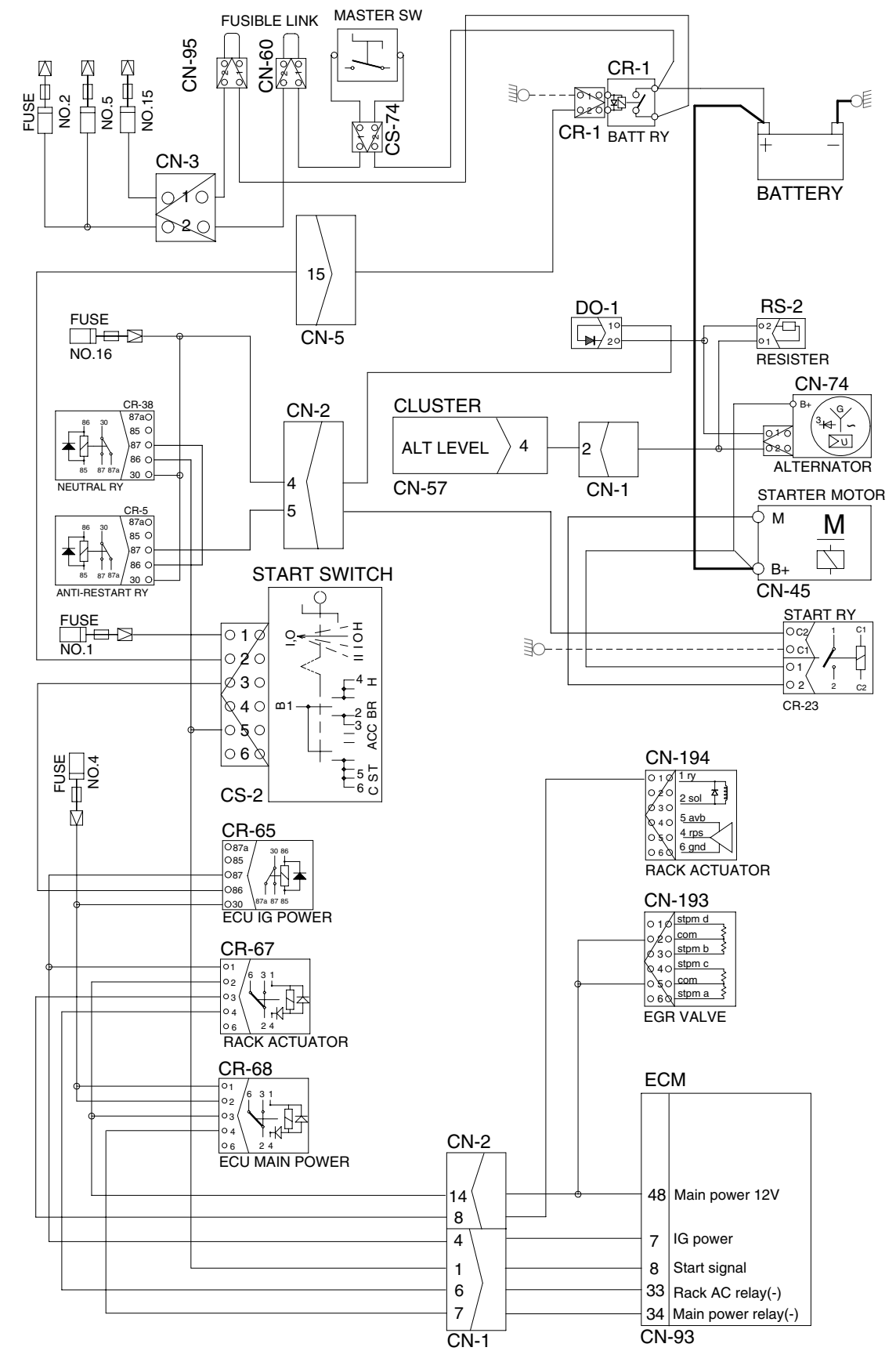
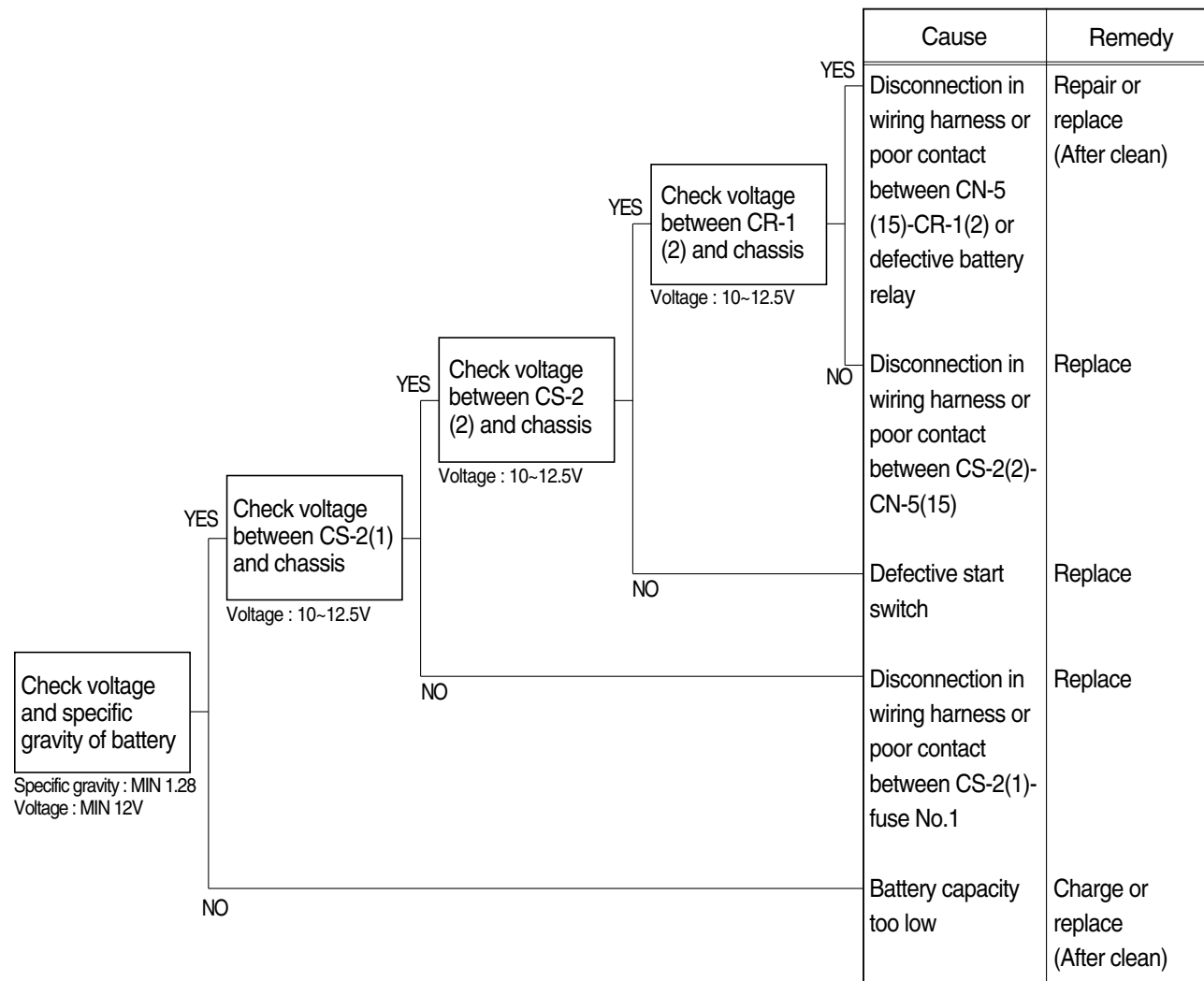
11. WHEN ENGINE DOES NOT START

- 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.



12. WHEN STARTING SWITCH ON DOES NOT OPERATE

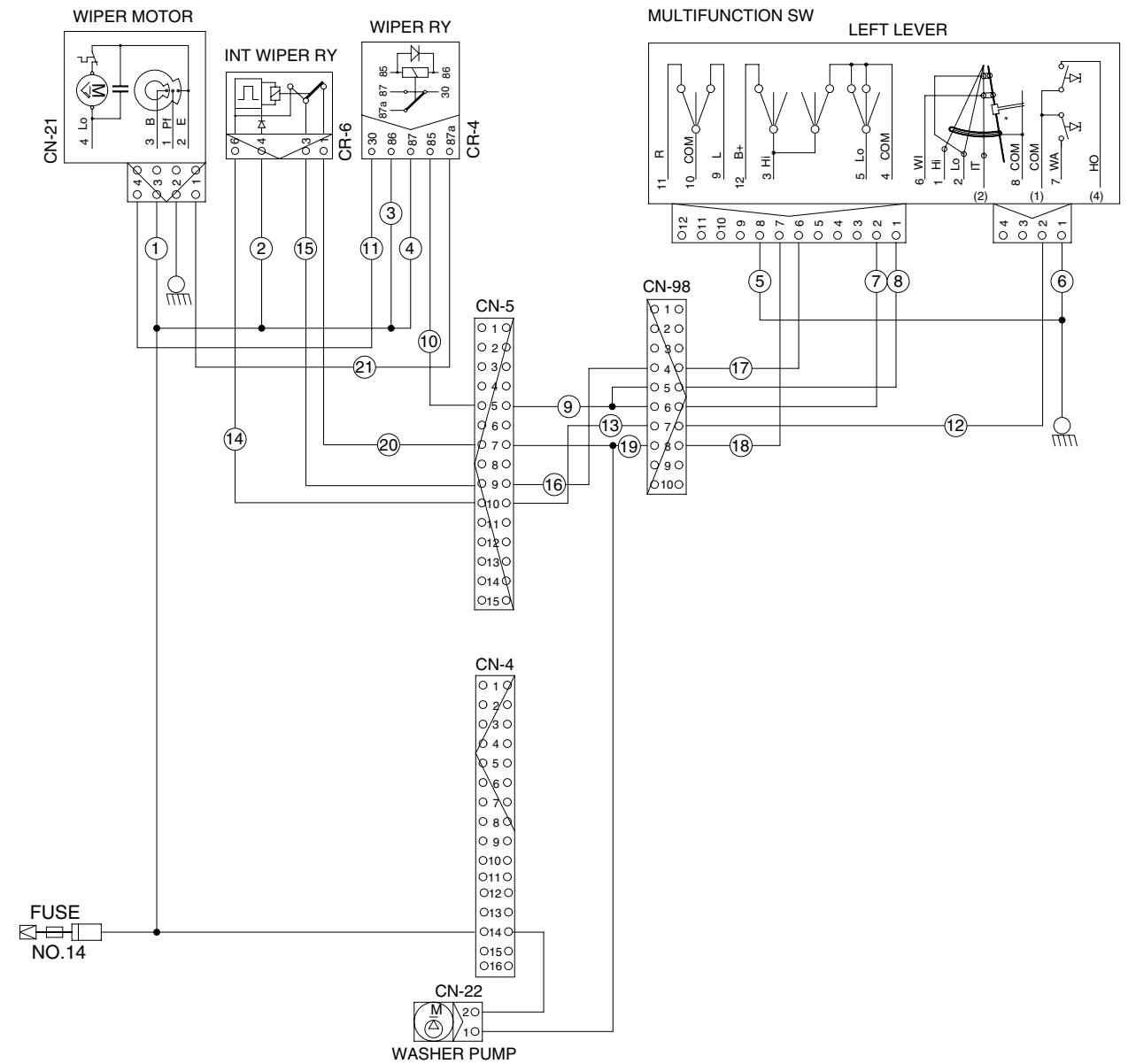
- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and master switch ON.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



13. WHEN STARTING SWITCH IS TURNED ON, WIPER MOTOR 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 the fuse No.8 is not blown out.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.

		Cause	Remedy	
Check voltage ① ② ③ ④ Starting switch : ON Wiper switch : OFF Voltage : 12V	NO(Open)	Disconnection in wiring harness or defective fuse	Repair or replace (After clean)	
	YES(12V)	⑤ ⑥	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑦ ⑧ Starting switch : ON Wiper switch : Lo or Hi Voltage : 12V	NO(Open)	⑦ ⑧	Defective multifunction switch	Replace
	YES(0V)	⑨	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑨ Starting switch : ON Wiper switch : Lo or Hi Voltage : 12V	NO	⑩	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑩	Disconnection in wiring harness	Repair or replace (After clean)
	YES(0V)	⑪	Defective wiper motor	Replace
Check voltage ⑫ Starting switch : ON Wiper switch : INT Voltage : 12V	NO(Open)	⑫	Defective multifunction switch	Replace
	YES(0V)	⑬	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑭	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑬ Starting switch : ON Wiper switch : INT Voltage : 12V	NO(Open)	⑮	Defective Int wiper relay	Replace
	YES(0V) periodically	⑮	Defective multifunction switch	Replace
	YES	⑯	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑯ Starting switch : ON Washer switch : ON Voltage : 12V	NO(Open)	⑯	Defective multifunction switch	Replace
	YES(0V) periodically	⑰	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑰	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑱ Starting switch : ON Washer switch : ON Voltage : 12V	NO(Open)	⑱	Disconnection in wiring harness	Repair or replace (After clean)
	YES(0V)	⑲	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑲	Disconnection in wiring harness	Repair or replace (After clean)
Check voltage ⑲ Starting switch : ON Washer switch : ON Voltage : 12V	NO(Open)	⑲	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑲	Disconnection in wiring harness	Repair or replace (After clean)
	YES	⑲	Defective Int relay	Replace



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.

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

