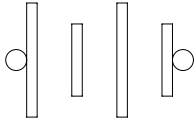
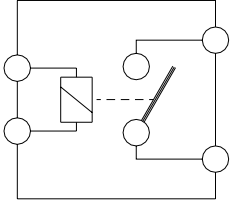
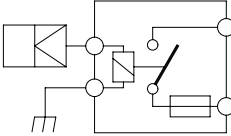
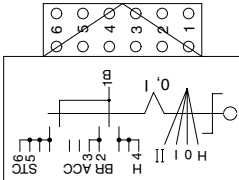
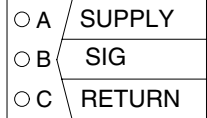
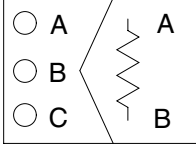
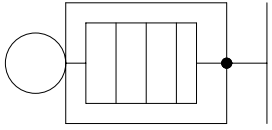
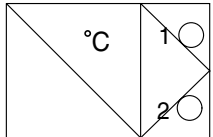
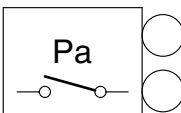
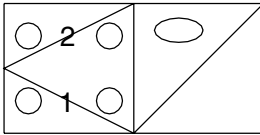
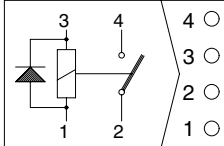
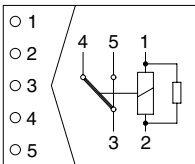
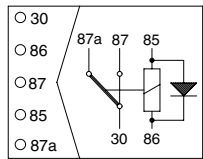
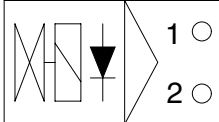

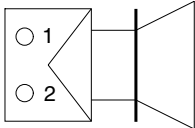
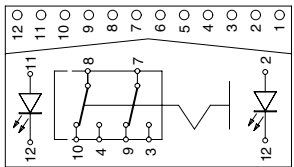
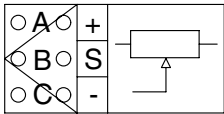
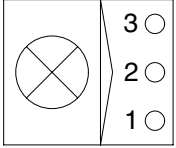
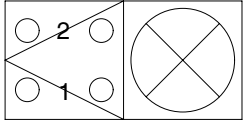
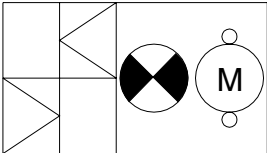
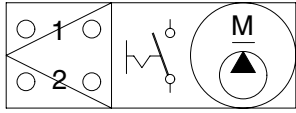
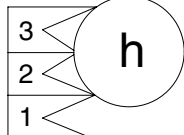
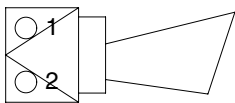


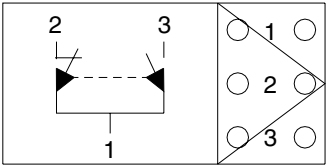
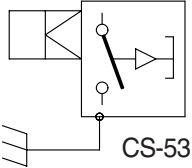
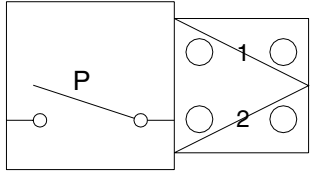
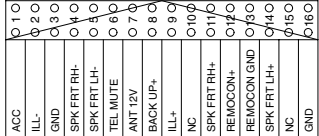
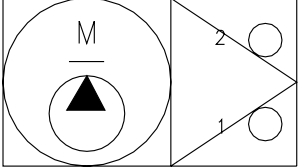
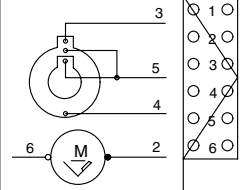
## GROUP 3 ELECTRICAL COMPONENT SPECIFICATION

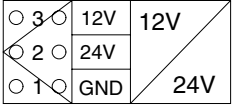
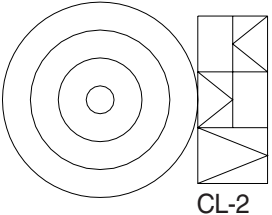
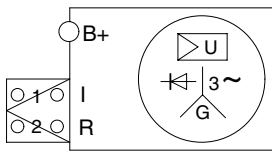
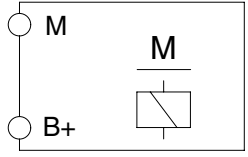
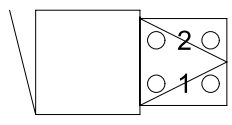
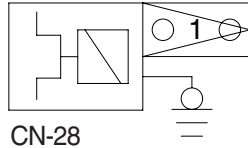
| Part name       | Symbol   | Specifications   | Check   |
|-----------------|--|--|---|
| Battery         |   | 12V × 80Ah<br>(2EA)  | ※ Check specific gravity<br>1.280 over : Over charged<br>1.280 ~ 1.250 : Normal<br>1.250 below : Recharging               |
| Battery relay   |  <p style="text-align: center;">CR-1</p>  | Rated load :<br>24V<br>100A (continuity)<br>1000A<br>(30seconds) | ※ Check coil resistance(M4 to M4)<br>Normal : About 50 Ω<br>※ Check contact<br>Normal : ∞ Ω                               |
| Glow plug relay |  <p style="text-align: center;">CR-24</p>  | 24V 200A   | ※ Check contact<br>Normal : 0.942 Ω<br>(For terminal 1-GND)   |
| Start key       |  <p style="text-align: center;">CS-2</p>  | B-BR : 24V 1A<br>B-ACC : 24V 10A<br>B-ST : 24V<br>40A            | ※ Check contact<br>OFF : ∞ Ω (for each terminal)<br>ON : 0 Ω (for terminal 1-3 and 1-2)<br>START : 0 Ω (for terminal 1-5) |
| Pressure sensor |  <p style="text-align: center;">                     ○ A SUPPLY<br/>                     ○ B SIG<br/>                     ○ C RETURN<br/>                     CD-6 CD-7 CD-24<br/>                     CD-31 CD-32 CD-35<br/>                     CD-42 CD-43 CD-44<br/>                     CD-69 CD-70 CD-71                 </p> | 8~30V  | ※ Check contact<br>Normal : 0.1 Ω   |
| Resistor        |  <p style="text-align: center;">CN-173</p>  | 4W   | ※ Check resistance<br>A-B : 120 Ω   |

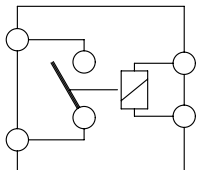
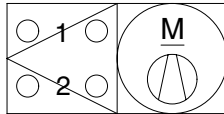
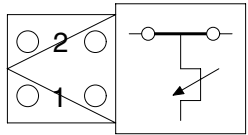
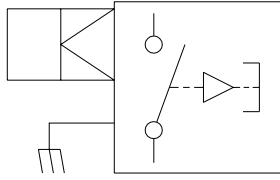
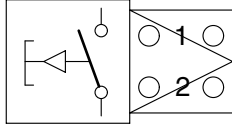
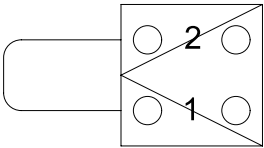
| Part name                      | Symbol  | Specifications | Check  |
|--------------------------------|---|----------------|--|
| Glow plug                      | <br>CN-80                            | 24V 200A       | ※ Check resistance<br>0.25~0.12 Ω  |
| Temperature sensor (hydraulic) | <br>CD-1                             | -              | ※ Check resistance<br>50°C : 804 Ω<br>80°C : 310 Ω<br>100°C : 180 Ω  |
| Air cleaner pressure switch    | <br>CD-10                           | (N.O TYPE)     | ※ Check contact<br>High level : ∞ Ω<br>Low level : 0 Ω   |
| Fuel sender                    | <br>CD-2                           | -              | ※ Check resistance<br>Full : 50 Ω    6/12 : 350 Ω<br>11/12 : 100 Ω    5/12 : 400 Ω<br>10/12 : 150 Ω    4/12 : 450 Ω<br>9/12 : 200 Ω    3/12 : 500 Ω<br>8/12 : 250 Ω    2/12 : 550 Ω<br>7/12 : 300 Ω    1/12 : 600 Ω<br>Empty warning : 700 Ω |
| Relay (air con blower)         |                                    | 24V 20A        | ※ Check resistance<br>Normal : About 200 Ω<br>(for terminal 1-3)<br>0 Ω<br>(for terminal 2-4)  |
| Relay                          | <br>CR-2 CR-5 CR-36<br>CR-45 CR-62 | 24V 16A        | ※ Check resistance<br>Normal : About 160 Ω<br>(for terminal 1-2)<br>0 Ω (for terminal 3-4)<br>∞ Ω (for terminal 3-5)   |

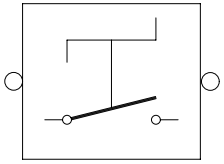
| Part name             | Symbol   | Specifications | Check  |
|-----------------------|--|----------------|--|
| Relay                 |  <p>CR-4 CR-7 CR-9<br/>CR-13 CR-35 CR-46</p>  | 24V 16A        | ※ Check resistance<br>Normal : About 160 Ω<br>(for terminal 85-86)<br>0 Ω (for terminal 30-87a)<br>∞ Ω (for terminal 30-87)  |
| Solenoid valve        |  <p>CN-66 CN-68 CN-70<br/>CN-88 CN-135 CN-140<br/>CN-149 CN-236 CN-237<br/>CN-262</p> | 24V 1A         | ※ Check resistance<br>Normal : 15~25 Ω<br>(for terminal 1-2)   |
| EPPR valve            |  <p>CN-75 CN-133 CN-238<br/>CN-239 CN-240 CN-241<br/>CN-242</p>                       | 700mA          | ※ Check resistance<br>Normal : 15~25 Ω<br>(for terminal 1-2)   |
| Speaker               |  <p>CN-23(LH)<br/>CN-24(RH)</p>   | 20W            | ※ Check resistance<br>Normal : A few Ω   |
| Switch (locking type) |  <p>CS-23 CS-50 CS-67 CS-82<br/>CS-83 CS-99 CS-100</p>                              | 24V 8A         | ※ Check contact<br>Normal<br>ON : 0 Ω (for terminal 3-7, 4-8)<br>∞ Ω (for terminal 7-9, 8-10)<br>OFF : ∞ Ω (for terminal 3-7, 4-8)<br>0 Ω (for terminal 7-9, 8-10) |
| Accel dial            |  <p>CN-142</p>  | -              | ※ Check resist<br>Normal : About 5k Ω<br>(for terminal A-C)<br>※ Check voltage<br>Normal : About 5V<br>(for terminal A-C)<br>: 2~4.5V<br>(for terminal C-B)        |

| Part name                            | Symbol   | Specifications       | Check  |
|--------------------------------------|--|----------------------|--|
| Room lamp                            |  <p>CL-1</p>                              | 24V 10W              | ※ Check disconnection<br>Normal : 1.0 Ω<br>ON : 0 Ω (For terminal 1-2)<br>∞ Ω (For terminal 1-3)<br>OFF : ∞ Ω (For terminal 1-2)<br>0 Ω (For terminal 1-3) |
| Head lamp,<br>Work lamp,<br>Cab lamp |  <p>CL-3 CL-4 CL-5<br/>CL-6 CL-8 CL-9</p> | 24V 65W<br>(H3 Type) | ※ Check disconnection<br>Normal : 1.2 Ω  |
| Beacon lamp                          |  <p>CL-7</p>                             | 21V 70W<br>(H1 Type) | ※ Check disconnection<br>Normal : A few Ω  |
| Fuel filler pump                     |  <p>CN-61</p>                           | 24V 10A<br>35 l /min | ※ Check resistance<br>Normal : 1.0 Ω   |
| Service meter                        |  <p>CN-48</p>                           | 16~32V               | ※ Check operation<br>Supply power(24V) to terminal<br>No.2 and connect terminal No.1<br>and ground   |
| Horn                                 |  <p>CN-20 CN-25</p>                     | DC22~28V<br>2A       | ※ Check operation<br>Supply power(24V) to each<br>terminal and connect ground.   |

| Part name             | Symbol   | Specifications        | Check  |
|-----------------------|--|-----------------------|--|
| Safety switch         |  <p>CS-4</p>    | 24V 15A<br>(N.C TYPE) | ※ Check contact<br>Normal : 0 Ω (for terminal 1-2)<br>∞ Ω (for terminal 1-3)<br>Operating : ∞ Ω (for terminal 1-2)<br>0 Ω (for terminal 1-3) |
| Wiper cut switch      |  <p>CS-53</p>   | 24V<br>(N.O TYPE)     | ※ Check contact<br>Normal : 0 Ω (one pin to ground)  |
| Receiver dryer        |  <p>CN-29</p>  | 24V 2.5A              | ※ Check contact<br>Normal : ∞ Ω  |
| Radio & CD/MP3 player |  <p>CN-27</p> | 24V 2A                | ※ Check voltage<br>20~25V<br>(for terminal 1-3, 3-8)   |
| Washer pump           |  <p>CN-22</p> | 24V 3.8A              | ※ Check contact<br>Normal : 10.7 Ω (for terminal 1-2)  |
| Wiper motor           |  <p>CN-21</p> | 24V 2A                | ※ Check disconnection<br>Normal : 7 Ω (for terminal 2-6)   |

| Part name         | Symbol   | Specifications     | Check   |
|-------------------|--|--------------------|---|
| DC/DC Converter   |  <p>CN-138</p>  | 12V 3A             | 24V (1-2)<br>12V (1-3)  |
| Cigar lighter     |  <p>CL-2</p>    | 24V 5A 1.4W        | ※ Check coil resistance<br>Normal : About 1M Ω<br>※ Check contact<br>Normal : ∞ Ω<br>Operating time : 5~15sec |
| Alternator        |  <p>CN-74</p>  | 24V 55A            | ※ Check contact<br>Normal : 0 Ω (for terminal B <sup>+</sup> -I)<br>Normal : 24~27.5V                         |
| Starter           |  <p>CN-45</p> | Denso<br>24V 4.5kW | ※ Check contact<br>Normal : 0.1 Ω   |
| Travel alarm      |  <p>CN-81</p> | 24V 0.5A           | ※ Check contact<br>Normal : 5.2 Ω   |
| Aircon compressor |  <p>CN-28</p> | 24V 79W            | ※ Check contact<br>Normal : 13.4 Ω  |

| Part name   | Symbol  | Specifications    | Check  |
|---|---|-------------------|--|
| Start relay   |  <p>CR-23</p>                        | 24V 300A          | ※ Check contact<br>Normal : 0.94 Ω (for terminal 1-2)  |
| Blower motor  |                                      | 24V 9.5A          | ※ Check resistance<br>Normal : 2.5 Ω (for terminal 1-2)  |
| Duct sensor (switch)                                  |                                     | 1°C OFF<br>4°C ON | ※ Check resistance<br>Normal : 0 Ω (for terminal 1-2),<br>the atmosphere temp :<br>Over 4°C                |
| Door switch   |  <p>CS-1</p>                       | 24V 2W            | ※ Check resistance<br>Normal : About 5M Ω  |
| Switch<br>(power max, one touch decal, horn, breaker) |  <p>CS-5 CS-19<br/>CS-26 CS-29</p> | 24V 6A            | ※ Check resistance<br>Normal : ∞ Ω   |
| Fusible link  |  <p>CN-60 CN-95</p>                | 60A               | ※ Check disconnection<br>normal : 0 Ω<br>(connect ring terminal and check resist between terminal 1 and 2) |

| Part name     | Symbol   | Specifications | Check   |
|---------------|--|----------------|---|
| Master switch |  <p data-bbox="491 470 571 504">CS-74</p> | 6-36V          | <p data-bbox="1018 365 1265 421">※ Check disconnection<br/>Normal : 0.1 Ω</p> |