



SPECIFICATIONS

MULTIFUNCTION SWITCH

| Items | Specifications |
|-------------------------------------|--|
| Rated voltage | DC 12 V |
| Operating temperature range | -30°C ~ +80°C (-22 ~ +176°F) |
| Rated load | High : 1A (Relay load) |
| Dimmer & passing switch | Low : 1A (Relay load) |
| Lighting switch | Passing : 1A (Relay load) |
| Turn signal & lane change switch | Lighting : 1A (Relay load) |
| Front fog lamp switch | 6.6±0.5A (Lamp load) |
| Wiper & mist switch | 1A (Relay load) |
| Washer switch | Low, High : 4.5A (Motor load) |
| Variable intermittent volume switch | Intermittent : 0.22±0.05A (Relay load) |
| Horn switch | Lock : Max. 28A (Motor load) |
| Rear wiper & washer switch (5doors) | Mist : 4.5A (Motor load) |
| | 4A (Motor load) |
| | Max. 25mA |
| | 1A (Relay load) |
| | Rear wiper : 200mA (Relay load) |
| | Rear washer : 4A (Motor load) |

INSTRUMENTS AND WARNING SYSTEM

| Warning lamps | Bulb wattage (W) | Color |
|----------------------|--------------------------|-------------|
| Illumination | 3.4W (4EA) 1.4W (3EA) | White green |
| High beam | 1.4 | Blue |
| Low fuel | 1.4 | Amber |
| Turn signal (LH, RH) | 1.4 | Green |
| Battery (charge) | 1.4 | Red |
| Oil pressure | 1.4 | Red |
| Air bag | 1.4 | Red |
| Parking brake | 1.4 | Red |
| Seat belt | 1.4 | Red |
| Check engine | 1.4 | Amber |
| ABS | 1.4 | Amber |
| Door ajar | 1.4 | Red |

| | | |
|----------------|-----|-------|
| Trunk lid open | 1.4 | Amber |
| Immobilizer | 1.4 | Amber |
| OD OFF | 1.4 | Amber |
| HOLD | 1.4 | Amber |
| Front fog lamp | 1.4 | Green |
| Cruise | 1.4 | Green |
| TCS | 1.4 | Amber |
| TCS OFF | 1.4 | Amber |
| P.N.D.3.2.L | 1.4 | Green |
| R | 1.4 | Amber |

INDICATORS AND GAUGE

| Items | Specifications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------------|-------|-------|----------------|-----------------|-----------|------------------|-----------|------------------|-----------------|-----------|------|-----------------|---------|------|------|------|----------|------------------|------|------|------|------|------|----------------|----|----|----|----|----|-----|-----|--------|-----------------|------|------|------|------|------|------|------|-------|
| Speedometer Type Input spec. Indication Standard values | <ul style="list-style-type: none"> o Cross-coil type o Hall IC type : 4 pulses/rev. o Km/h : 637rpm x 4 pulses/rev. indicates 60Km/h o MPH : 1026 rpm x 4 pulses/rev. indicates 60MPH <table border="1"> <tr> <td>Velocity (km/h)</td> <td>20</td> <td>40</td> <td>60</td> <td>80</td> <td>100</td> </tr> <tr> <td>Tolerance (km/h)</td> <td>±2.4</td> <td>±2.4</td> <td>±2.4</td> <td>±2.7</td> <td>±2.7</td> </tr> <tr> <td>Velocity (km/h)</td> <td>120</td> <td>140</td> <td>160</td> <td>180</td> <td>200</td> </tr> <tr> <td>Tolerance (km/h)</td> <td>±3.2</td> <td>±3.2</td> <td>±3.7</td> <td>±3.7</td> <td>±4.0</td> </tr> </table> <table border="1"> <tr> <td>Velocity (MPH)</td> <td>10</td> <td>20</td> <td>40</td> <td>60</td> <td>80</td> <td>100</td> <td>120</td> <td>Remark</td> </tr> <tr> <td>Tolerance (MPH)</td> <td>±1.5</td> <td>±1.5</td> <td>±1.5</td> <td>±1.7</td> <td>±2.0</td> <td>±2.3</td> <td>±2.5</td> <td>U.S.A</td> </tr> </table> <ul style="list-style-type: none"> o Tap the speedometer to prevent hysteresis effects during inspection. | Velocity (km/h) | 20 | 40 | 60 | 80 | 100 | Tolerance (km/h) | ±2.4 | ±2.4 | ±2.4 | ±2.7 | ±2.7 | Velocity (km/h) | 120 | 140 | 160 | 180 | 200 | Tolerance (km/h) | ±3.2 | ±3.2 | ±3.7 | ±3.7 | ±4.0 | Velocity (MPH) | 10 | 20 | 40 | 60 | 80 | 100 | 120 | Remark | Tolerance (MPH) | ±1.5 | ±1.5 | ±1.5 | ±1.7 | ±2.0 | ±2.3 | ±2.5 | U.S.A |
| Velocity (km/h) | 20 | 40 | 60 | 80 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tolerance (km/h) | ±2.4 | ±2.4 | ±2.4 | ±2.7 | ±2.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Velocity (km/h) | 120 | 140 | 160 | 180 | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tolerance (km/h) | ±3.2 | ±3.2 | ±3.7 | ±3.7 | ±4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Velocity (MPH) | 10 | 20 | 40 | 60 | 80 | 100 | 120 | Remark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tolerance (MPH) | ±1.5 | ±1.5 | ±1.5 | ±1.7 | ±2.0 | ±2.3 | ±2.5 | U.S.A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tachometer Type Standard values | <ul style="list-style-type: none"> o Cross-coil type (4cyl : 2pulses/rev) <table border="1"> <tr> <td>Revolution (RPM)</td> <td>1,000</td> <td>2,000</td> <td>3,000</td> <td>4,000</td> <td>5,000</td> <td>6,000</td> <td>7,000</td> <td>Remark</td> </tr> <tr> <td>Tolerance (RPM)</td> <td>±100</td> <td>±125</td> <td>±150</td> <td>±150</td> <td>±150</td> <td>±180</td> <td>±210</td> <td>Gasoline</td> </tr> </table> <ul style="list-style-type: none"> o Tap the tachometer to prevent hysteresis effects during inspection. | Revolution (RPM) | 1,000 | 2,000 | 3,000 | 4,000 | 5,000 | 6,000 | 7,000 | Remark | Tolerance (RPM) | ±100 | ±125 | ±150 | ±150 | ±150 | ±180 | ±210 | Gasoline | | | | | | | | | | | | | | | | | | | | | | | | |
| Revolution (RPM) | 1,000 | 2,000 | 3,000 | 4,000 | 5,000 | 6,000 | 7,000 | Remark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tolerance (RPM) | ±100 | ±125 | ±150 | ±150 | ±150 | ±180 | ±210 | Gasoline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fuel gauge Type Standard values | <ul style="list-style-type: none"> o Cross-coil type <table border="1"> <thead> <tr> <th rowspan="2">Level</th> <th colspan="2">Gauge</th> </tr> <tr> <th>Resistance (Ω)</th> <th>Gauge angle (°)</th> </tr> </thead> <tbody> <tr> <td>E (Empty)</td> <td>184</td> <td>-45 ± 2.4</td> </tr> <tr> <td>Low fuel warning</td> <td>170</td> <td>-41 ± 2.5</td> </tr> <tr> <td>1/2</td> <td>66</td> <td>0 ± 2.4</td> </tr> </tbody> </table> | Level | Gauge | | Resistance (Ω) | Gauge angle (°) | E (Empty) | 184 | -45 ± 2.4 | Low fuel warning | 170 | -41 ± 2.5 | 1/2 | 66 | 0 ± 2.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Level | Gauge | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Resistance (Ω) | Gauge angle (°) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E (Empty) | 184 | -45 ± 2.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low fuel warning | 170 | -41 ± 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/2 | 66 | 0 ± 2.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|--|--------------------------------|-----------|----------------|
| Temperature gauge Type Standard values | 1/2 | 66 | 0 ± 2.4 |
| | F (Full) | 15 | 45 ± 2.4 |
| | o Inspection order : E → F → E | | |
| o Cross-coil type | | | |
| Temperature | | Angle (°) | Resistance (Ω) |
| 60°C | | -43 ± 2.4 | 128 |
| 85°C | | -7 ± 2.4 | 53.8 |
| 110°C | | -7 ± 2.4 | 25.8 |
| 125°C | | 40 ± 2.4 | 17.1 |
| Red zone (over 125°C) | | 45 ± 2.4 | 16.9 |
| o Inspection order : OFF → C → H | | | |

LIGHTING SYSTEM

| Items | Bulb wattage (W) |
|-------------------------------|--|
| Head lamp | 55W /55W (High / Low beam) |
| Front turn signal lamp | 27W |
| Front position lamp | 5W |
| Front fog lamp | 5W |
| Rear combination lamps | 8W / 27W |
| Tail/stop lamp | 16W |
| Back up lamp | 27W |
| Turn signal lamp | |
| Side marker lamp | 5W |
| Luggage lamp | 5W |
| Room lamp | 10W |
| Center high mounted stop lamp | 4 Door : 27W (Bulb type), 3.56W (LED) 5 Door : 2.6W (LED) |
| Map lamp | 10W x 2 |
| License plate lamp | 5W |

AUDIO

| Items | H220 (H240) | H260 (H290) |
|----------------|-----------------------------|----------------------|
| Rated output | Max. 20W x 2 (Max. 20W x 4) | Max. 20W x 4 |
| Load impedance | 4 x 4 | 4 x 4 |
| Band | AM/FM, LW/MW/FM | AM/FM, LW/MW/FM |
| Tuning type | PLL Synthesized type | PLL Synthesized type |

| | | |
|---------------------------|------------------------------|------------------------------|
| Dark current | Max. 2mA | Max. 3.8mA |
| Frequency range / Channel | AM : 530 ~ 1710KHZ/10 KHZ | AM : 530 ~ 1710KHZ/10 KHZ |
| | FM : 87.9 ~ 107.9MHZ/200 KHZ | FM : 87.9 ~ 107.9 MHZ/200KHZ |

WINDSHIELD WIPER AND WASHER

| Items | Specifications |
|--|---|
| Windshield wiper motor Speed/current at 10kg-cm load test (1.0 Nm, 0.7 lb-ft) Speed/current at 40kg-cm load test (4.0 Nm, 2.9 lb-ft) Torque when locking | Low : 44~52 rpm/3.5A or less High : 66~80 rpm/4.5A or less Low : 39~47 rpm/7.0A or less High : 57~69 rpm/9.0A or less Low : 28N.m/24A or less High : 23N.m/28A or less |
| Windshield washer motor Motor type Pump type Current Discharge pressure Flow rate Overload capacity (Continuous operation) With water Racing | DC ferrite magnet Centrifugal type Max. 6.7A Min. 1.6kgf/cm ² Min. 1,500cc/min. Max. 60 sec. Max. 20 sec. |
| Rear wiper motor (5 doors) Speed/current at no load test Speed/current at 10 kg-cm load test (1.0 N.m, 0.7 lb.ft) Torque when locking Wiping angle | 40~56 rpm/Max. 2.0A 40~52 rpm/Max. 3.5A Min. 100 kgf.cm/Max.9A 90° ± 3° |