

# GROUP 10 ELECTRICAL SYSTEMS

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## SECTION 10-A ELECTRICAL SPECIFICATIONS

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### 10-1 BATTERY SPECIFICATIONS

Make	Delco-Remy
Model	562
Location Under Hood	L.F. Fender Skirt
Terminal Grounded	Negative
Voltage	12
Capacity—Wet (Amp. Hrs. @ 20 Hr. Rate)	70
Number of Cells & Plates/Cell	6,11
Specific Gravity, Full Charge @ 80° F.	1.260 to 1.280
Bench Charging Rate, Start	5 Amps.
Bench Charging Rate, Finish	2 Amps.
Separators	Porous Rubber
Case	Hard Rubber

### 10-2 GENERATING SYSTEM SPECIFICATIONS

#### a. Generator

Make and Type	Delco-Remy, Shunt
Number	1102066
Location, Side of Engine	Right
Drive and Rotation (Viewing Drive End)	Fan Belt, Clockwise
Speed Ratio, Generator to Engine	2.4 to 1
Brush Spring Tension, ounces	26-32
Field Current Draw (Amps.) @ 80°F at 12 Volts	1.69 to 1.79
Max. Stall Current (Amps.) @ 80°F at 12 Volts	90
Bench Test (Amps) Hot at 14 Volts and 2600 Generator RPM	35

#### b. Generator Regulator

Make	Delco-Remy
Number	1119168
Cutout Relay Closing Voltage	11.8 to 13.5
Adjust to	12.8
Cutout Relay Opening Current	Reverse or Discharge
Cutout Relay Air Gap Points Closed	.020"
Cutout Relay Contact Point Opening	.020"
Current Regulator Air Gap, Points Just Touching	.075"
Current Regulator Setting, Amps. HOT, @ Approx. 1500 Eng. RPM	32-38, Adjust to 35
Voltage Regulator Air Gap, Points Just Touching	.075"
Voltage Regulator Setting, HOT, @ Approx. 1500 Eng. RPM	
Volts @ 8-10 Amps	14 to 15
Adjust to	14.5

## 10-3 CRANKING (STARTER) SYSTEM SPECIFICATIONS

## a. Cranking Motor

Make .....	Delco-Remy
Number .....	1107667
Location, Side of Engine .....	Left
Type of Shift .....	Mechanical—Electrically Controlled
Shift Actuation .....	Solenoid
Shift Operation .....	Accelerator Pedal
Type of Drive .....	Overrunning Clutch
Rotation, Viewing Drive End .....	Clockwise
Gear Ratio, Motor to Engine .....	18.4 to 1
No. Teeth on Ring Gear and Drive Pinion .....	166, 9
Cranking Speed, Engine RPM	
No Load Test	
Amperes .....	65 to 100
Volts .....	10.6
R.P.M. ....	3600 to 5100
Locked Armature Test	
Amperes .....	300 to 360
Volt .....	3.5
Brush Spring Tension—Ounces .....	35 min.
Armature End Play .....	.005" to .050"
Pinion Clearance in Cranking Position .....	.010" to .140"

## b. Solenoid Switch and Relay

Make .....	Delco-Remy
Solenoid Switch Number .....	1119919
Current Draw of Solenoid Windings @ 80°F.	
Hold-in Winding, Amps. @ 10 Volts .....	10-12
Both Windings in Parallel, Amps. @ 10 Volts .....	40-45
Voltage Required for Solenoid Switch Pull-In @ 80°F .....	7.2 Max.
Relay Number .....	1116921
Relay Adjustments	
Air Gap—Points Closed .....	.011"
Point Opening .....	.020"-.030"
Closing Voltage .....	3.8 to 5.0
Adjust to .....	4.4
Sealing Voltage, Max. Above Closing Voltage .....	.2
Opening Voltage, Min. ....	.6

## 10-4 IGNITION SYSTEM SPECIFICATIONS

## a. Ignition Coil and Resistor

Make .....	Delco-Remy
Coil Number .....	1115100
Coil Resistance (Ohms) @ 80°F.	
Primary .....	1.2 to 1.4
Secondary .....	6500 to 9500
Resistor Number .....	1931614
Resistance, Ohms @ 75°F. ....	1.40 to 1.62

## b. Spark Plugs

Make and Model .....	AC 44
Thread and Shell Hex. Sizes .....	14MM, $\frac{13}{16}$ "
Gap at Points .....	.030"-.035"
Terminal Nut Length .....	$\frac{3}{8}$ "
Tightening Torque (ft. lbs.) .....	25

## c. Distributor

Make .....	Delco-Remy
Number .....	*1110870
Drive .....	From Camshaft
Rotation, Top View .....	Clockwise
Timing, Before U.D.C. ....	5 Degrees
Spark Advance—Crankshaft Degrees	
Vacuum, Max. ....	18-21
Centrifugal, Max. ....	24-29
Vacuum Control Number .....	1116106
Vacuum Advance Test, Distributor Degrees	
At 6.5" to 8.5" of Vacuum .....	Start Advance
At 12" to 14" of Vacuum for Full Advance .....	9-10.5 Degrees

\* On Canadian production 40-60 series only.

Centrifugal Advance Test, Distributor Degrees and RPM ( $\frac{1}{2}$ Engine RPM)	
At 475 RPM.....	.5 to 2.0
At 1150 RPM.....	6 to 8
At 1875 RPM.....	12 to 14.5
Contact Point Opening.....	.0125" to .0175"
Contact Point Dwell Angle.....	28° to 32°
Adjust to.....	30°
Breaker Arm Spring Tension, at Side of Point, Ounces.....	19 to 23
Condenser Make and Capacity (Microfarads).....	Delco-Remy, .18 to .23

## 10-5 LIGHTING SYSTEM SPECIFICATIONS

### a. Lamps, Switches, Wiring

Headlamp Make and Type.....	Guide, T-3 Sealed Beam
Headlamp Lens Diameter.....	6 $\frac{1}{16}$ "
Tail, Stop, Parking, Signal Lamps, Make.....	Guide
Lighting Switch, Make.....	Delco-Remy
Wiring Circuit Type.....	Single Wire
Wiring Circuit Protection, for Head, Tail, Parking, License, Instrument Lights.....	Thermo Circuit Breaker
Thermo Circuit Breaker Location.....	On Lighting Switch
Thermo Circuit Breaker Calibration @ 70°F.	
Stay Closed Indefinitely @ Amps.....	22
Open in $\frac{1}{2}$ to 4 Minutes @ Amps.....	30

### b. Fuses and Circuit Breakers

NOTE: Unless otherwise specified, all fuses are mounted on fuse block under cowl. Head, tail, parking, license and instrument light circuits are protected by thermal circuit breaker on light switch.

Air Conditioner Clutch Control.....	5 Amp. AGC
Clock.....	1 Amp. AGC
Direction Signal and Stop Light.....	10 Amp. AGC
Dome and Trunk Compartment Light.....	20 Amp. SFE
Heater, Defroster, and Air Conditioner Blower.....	20 Amp. SFE
Parking Brake Warning and Back-Up Light.....	10 Amp. AGC
Radio.....	7.5 Amp. AGC
Speedometer Warning Buzzer.....	1 Amp. AGC
Antenna Motor.....	15 Amp. AGC
Location.....	In Wiring Connector Near Switch
Cigar Lighter.....	Special
Location.....	In Back of Lighter
Glove Box Light.....	2 Amp. AGC
Location.....	In Wiring Connector
Power Top System.....	Auto. Reset Circuit Breaker on Cowl
Power Window and Seat System.....	Auto. Reset Circuit Breaker on Cowl plus Auto. Reset Circuit Breaker in Each Motor

### c. Lamp Bulbs

Back-Up.....	1073; 32 CP
Clock.....	57; 2 CP
Dome.....	1004; 15 CP
Direction Signal Indicator.....	57; 2 CP
Dynaflow Selector Dial.....	53; 1 CP
Glove Box.....	57X; 2 CP
Headlamp Beam Indicator.....	53; 1 CP
Headlamp Sealed Beam Unit.....	5400; 40-50 Watt
Heater or Air Conditioner Control Dial.....	57; 2 CP
Ignition Switch.....	53; 1 CP
Instrument Dials.....	57; 2 CP
License Plate, Rear.....	67; 3 CP
Light Switch Bezel.....	57; 2 CP
Parking Brake Warning Signal.....	89; 6 CP
Parking and Dir. Signal, Front.....	1034; 32-4 CP
Radio Dial.....	1891; 2 CP
Stop and Direction Signal, Rear.....	1073; 32 CP
Tail and Parking, Rear.....	67; 3 CP
Trunk Compartment.....	89; 6 CP

## 10-6 SIGNAL SYSTEMS SPECIFICATIONS

Stop Light Switch—Type .....	Hydraulic
Stop Light Switch Location .....	Brake Master Cyl.
Direction Signal Switch—Make .....	Delco-Remy
Direction Signal Flasher—Make .....	Tungsol
Lamp Bulbs—Mazda No. and Power .....	See Par. 10-5, c
Direction Signal and Stop Light Fuse .....	See Par. 10-5, b
Horn—Make and Type .....	Delco-Remy, Vibrator
Horn Number, High Note (L.H.) .....	9000402
Low Note (R.H.) .....	9000401
Horn Amperage Draw at 11.5 Volts	
High Note (L.H.) .....	8.0 to 10.0
Low Note (R.H.) .....	8.0 to 10.0
Horn Relay Number .....	1116920
Horn Relay Adjustment	
Closing Voltage .....	5.0 to 9.5
Adjust to .....	6.5
Speed Warning Buzzer Number .....	1116937
Point Opening .....	.020-.025"
Amperage Draw @ 13.5-14.5 Volts .....	.04-.06