

GROUP 10 ELECTRICAL SYSTEMS

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SECTION 10-A ELECTRICAL SPECIFICATIONS

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SERVICE BULLETIN REFERENCE

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10-1 BATTERY SPECIFICATIONS

Items

Make

Number

Location Under Hood

Terminal Grounded

Voltage

Capacity—Wet (Amp. Hrs. @ 20 Hr. Rate)

Number of Cells & Plates/Cell

Specific Gravity, Full Charge @ 80° F.

Bench Charging Rate, Start

Bench Charging Rate, Finish

All Series

Delco-Remy
3 KM 60 W
L.F. Fender Skirt
Negative
12
60
6, 9
1.260 to 1.280
4 Amps.
(1 Amp./Pos. Plate)
½ Amp./Pos. Plate

10-2 GENERATING SYSTEM SPECIFICATIONS

a. Generator

Items

Make & Type

Model, Regular

With Air Conditioning

Location, Side of Engine

Drive and Rotation (Drive End)

Speed Ratio, Generator to Engine

Brush Spring Tension, ounces

Max. Charging Capacity (Amps.) HOT, At 14 Volts and 2300 RPM

Field Current Draw (Amps.) @ 80° F., At 12 Volts

Max. Stall Current (Amps.) @ 80° F., At 12 Volts

All Series

Delco-Remy, Shunt
1102008
1102006
Right
Fan Belt, Clockwise
2.17 to 1
24—32
30
1.48 to 1.62
80

b. Generator Regulator

Make	Delco-Remy
Model	1118825
Cutout Relay Closing Voltage	11.8 to 13.6
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, At Approx. 2000 Eng. RPM	27—33
Adjust to	30
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**

Items	All Series
Make	Delco-Remy
Model	1107621
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	20 to 1
No. Teeth on Ring Gear and Drive Pinion	180, 9
Cranking Speed, RPM	160
No Load Test	
Amperes	95
Volts	10.2
R.P.M.	4000
Lock Torque Test—	
Amperes	470
Volts	5.1
Torque—Lbs. Ft.	12
Brush Spring Tension—Ounces	24 to 36
Armature End Play .....	.005"—.050"
Pinion Clearance in Cranking position .....	.010" to .050"
Shift Lever Return Spring Tension—	
Start of Travel, Lbs.	20
End of Travel, Lbs.	40

b. Solenoid Switch and Relay

Current Draw of Solenoid Windings @ 80° F.—	
Hold-in Winding, Amps. @ 10 Volts	18-20
Both Windings in Parallel, Amps. @ 10 Volts	72—76
Solenoid Relay Adjustments	
Air Gap—Points Closed .....	.011" min.
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 & Resistor**

Items	All Series
Make	Delco-Remy
Model	1115082
Coil Resistance (Ohms) @ 75° F.	
Primary	1.2 to 1.4
Secondary	6500 to 9500
Resistor Number	1927809
Resistance, Ohms @ 75° F.	1.40 to 1.65

b. Spark Plugs

Make and Model	AC, 44-5
Thread and Shell Hex. Sizes	14MM, 1 $\frac{1}{8}$ "
Gap at Points .....	.030"—.035"
Terminal Nut Length	$\frac{1}{4}$ "

c. Distributor

Make	Delco-Remy
Model	1110849
Drive	From Camshaft
Rotation, Top View	Clockwise
Timing, Before U.D.C., Full Advance	5 Degrees
Spark Control Advance—Flywheel Degrees—	
Vacuum, Max.	18—21
Centrifugal	22—27
Vacuum Advance Test, Distributor Degrees—	
At 6.5" to 8.5" (Hg) of Vacuum	
At 12" to 14" (Hg) of Vacuum	Start Travel
Centrifugal Advance Test, Distributor Degrees and RPM	9—10.5
(½ Engine RPM)	
At 300 RPM	0 to .6
At 850 RPM	6 to 8
At 1750 RPM	11 to 13.5
Contact Point Opening .....	.0125" to .0175"
Breaker Arm Spring Tension, at Side of Point, Ounces	19 to 23
Breaker Base Plate Tension, Ounces	15 max.
Condenser Make and Capacity (Microfarads)	Delco-Remy, .18 to .23

10-5 LIGHTING SYSTEM SPECIFICATIONS**a. Lamps, Switches, Wiring**

Items	All Series
Headlamp Make and Type	Guide, Sealed Beam
Headlamp Lens Diameter	6 ¹¹ / ₁₆ "
Tail, Stop, Parking, Signal Lamps, Make	Guide
Lighting Switch, Make	Delco-Remy
Wiring Circuit Type	Single Wire
Wiring Circuit Protection, for Head, Parking Tail, License, Map, 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 ½ to 4 Minutes @ Amps	30

b. Lighting and Other Circuit Fuses

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

Items	All Series
Back-Up Light	9 Amp. SFE
Dome and Luggage Compt. Light	20 Amp. SFE
Electric Clock	2 Amp. AGA
Heater and Defroster	9 Amp. SFE
Parking Brake Warning Signal	9 Amp. SFE
Stop and Direction Signal Lights	9 Amp. SFE
Cigar Lighter	Special
Location	In Back of Lighter
Glove Box Light	2 Amp. AGA
Location	In Wiring Connector
Radio	7.5 Amp. Special
Location	End of "A" Lead at Set
Antenna Motor	15 Amp. AGA
Location	In Wiring Connector Near Switch
Air Conditioner Feed	20 Amp. AGA
Location	In Wiring Connector Near Controls
Air Conditioner Tempt. Control	2 Amp. AGA
Location	In Wiring Connector Near Controls
Hydro-Lectric Power System	Auto. Reset Circuit Breaker on Dash
Electric Top Control	Auto. Reset Circuit Breaker on Dash
Electric Window and Seat Control	Auto. Reset Control in Motors, plus Auto. Reset Circuit Breaker on Dash

c. Lamp Bulbs

	Mazda No. and Power
Headlamp Sealed Beam Unit	40-50 Watt
Headlamp Beam Indicator	53; 1 CP
Parking and Front Dir. Signal	1034; 32-4 CP
Direction Signal, Rear (also Tail and Stop)	1034; 32-4 CP

Direction Signal Indicator.....	53; 1 CP
License Plate Lamp.....	67; 3 CP
Tail and Stop Lamps.....	1034; 32-4 CP
Instrument Lights.....	57; 2 CP
Map Light.....	89; 6 CP
Dome Lamp.....	1004; 15 CP
Trunk Compartment.....	89; 6 CP
Clock Light.....	57X; 2 CP
Glove Box.....	57; 2 CP
Radio Dial Light.....	57; 2 CP
Back-Up Light.....	1073; 32 CP
Parking Brake Warning Signal, Series 50-70.....	89; 6 CP
Series 40-60.....	57; 2 CP
Dynaflow Speed Ratio Dial.....	57; 2 CP

10-6 SIGNAL SYSTEMS SPECIFICATIONS

Items	All Series
Stop Light Switch—Type.....	Hydraulic
Stop Light Switch Location.....	Brake Pipe Distrib. Fitting
Direction Signal Switch—Make.....	Delco-Remy
Direction Signal Flasher—Make.....	Tungsol
Lamp Bulbs—Mazda No. and Power.....	See Par. 10-5, c
Stop and Signal Light Fuse.....	See Par. 10-5, b
Horn—Make and Type.....	Delco-Remy, Vibrator
Horn Model, High Note (L.H.).....	1999756
Low Note (R.H.).....	1999755
Horn Amperage Draw.....	
High Note (L.H.).....	9.5 Min. @ 12V.
Low Note (R.H.).....	10.5 Min. @ 12V.
Horn Relay—Make and Model.....	1116781
Horn Relay Adjustment—	
Air Gap.....	.014"
Contact Point Opening.....	.027"
Closing Voltage.....	5.5 to 7.5
Adjust to.....	6.5