

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	1980558
Location Under Hood	R.F. Fender Skirt
Terminal Grounded	Negative
Voltage	12
Capacity - Wet (Amp. Hrs. @ 20 Hr. Rate)	61
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
Dimensions	10 1/4" x 6 13/16" x 8 27/32" High

10-2 GENERATING SYSTEM SPECIFICATIONS

a. Generator

Make and Type	Delco Remy, Delcotron
Location, Side of Engine	Right
Drive and Rotation (Viewing Drive End)	Fan Belt, Clockwise

	V-6 Engine	V-8 Engine	All Air Condition
Number	1100705	1100691	1100710
Speed Ratio, Generator to Engine	2.34 to 1	2.34 to 1	2.67 to 1
Field Current Draw (Amps.) @ 80° F and 12 Volts	2.2 to 2.6	2.2 to 2.6	2.2 to 2.6
Bench Test at 14 Volts (Amps. Cold @ Generator RPM).	37 @ 6500	42 @ 6500	55 @ 6500
Current Output @ 500 Engine RPM	10 Amps. Min.	10 Amps. Min.	10 Amps. Min.
Current Output @ 1500 Engine RPM	30 Amps. Min.	30 Amps. Min.	40 Amps. Min.
Belt Tension.	80 Lbs.	80 Lbs.	80 Lbs.

10-2 SPECIFICATIONS**ELECTRICAL SYSTEMS****b. Generator Regulator**

Make and Type	Delco-Remy, Double Contact
Number	1119515
Field Relay Air Gap	.015"
Field Relay Closing Voltage	2.3 to 3.7
Voltage Regulator Air Gap, Lower Points Just Touching	.060"
Voltage Regulator Upper Contact Point Opening	.014"
Voltage Regulator Upper Contact Setting @ 2000 Eng. RPM (After 15 Min. Warm-Up @ 1500 Eng. RPM)	See Figure 10-21
Voltage Regulator Lower Contact Setting (Step Voltage)	.1 to .3 Below Upper Setting

c. Police Car Generator

Make and Type	Delco-Remy, Delcotron
Number	1117765
Location, Side of Engine	Right
Drive and Rotation (Viewing Drive End)	Fan Belt, Clockwise
Speed Ratio, Generator to Engine	2.46 to 1
Field Current Draw (Amps) @ 80° F. and 12 Volts	3.7 to 4.4
Bench Test at 14 Volts (Amps. Cold @ Generator RPM)	62 @ 6500
Current Output @ 500 Engine RPM	20 Amps. Min.
Current Output @ 1500 Engine RPM	50 Amps. Min.
Belt Tension	80 lbs.

d. Police Car Generator Regulator

Make and Type	Delco-Remy, Transistor
Number	1116368
Point Gap and Air Gap	None, No Moving Parts
Voltage Setting @ 1500 Engine RPM	14 ± .3 Volts

10-3 CRANKING (STARTER) SYSTEM SPECIFICATIONS**a. Cranking Motor**

	V-6 Engine	V-8 Engine
Make	Delco-Remy	Delco-Remy
Number	1107260	1107306
Location, Side of Engine	Right	Right
Type of Shift	Mechanical	Mechanical
Shift Actuation	Solenoid	Solenoid
Shift Operation	Ignition Switch	Ignition Switch
Type of Drive	Overrunning Clutch	Overrunning Clutch
Rotation, Viewing Drive End	Clockwise	Clockwise
Gear Ratio, Motor to Engine	17.8 to 1	17.8 to 1
No. Teeth on Ring Gear and Drive Pinion	160, 9	160, 9
Cranking Speed, Engine RPM (at Operating Temperature)	160 Approx.	160 Approx.
No Load Test		
Amperes	58 to 80	65 to 100
Volts	10.6	10.6
RPM	6750 to 10500	3600 to 5100
Locked Armature Test		
Amperes	280 to 320	300 to 360
Volt	4.0	3.5
Brush Spring Tension - Ounces	35 min.	35 min.
Armature End Play	.005" to .050"	.005" to .050"
Pinion Clearance in Cranking Position	.010" to .140"	.010" to .140"

b. Solenoid Switch

	V-6 Engine	V-8 Engine
Make	Delco-Remy	Delco-Remy
Solenoid Switch Number	1114304	1114341
Current Draw of Solenoid Winding @ 80° F.		
Hold-In Winding, Amps, @ 10 Volts	10.5 - 12.5	10.5 - 12.5
Both Windings in Parallel, Amps @ 10 Volts	42 - 49	42 - 49

10-4 IGNITION SYSTEM SPECIFICATIONS**a. Ignition Coil and Resistor**

Make	Delco-Remy
Coil Number (Less Bracket)	1115087
Current Draw, Amperes @ 12½ Volts	
Engine Stopped	3.8
Engine Idling	2.3
Coil Resistance (Ohms) @ 80° F.	
Primary	1.28 to 1.42
Secondary	7200 to 9500
Resistance Wire	Part of Wiring Harness
Resistance, Ohms @ 80° F.	1.80 ± .05

b. Spark Plugs

Make and Model for Normal Operation	AC 44S
Make and Model for High Speed Operation	AC 42COM
Thread and Shell Hex. Sizes	14MM, 13/16"
Gap at Points	.035"
Terminal Nut Length	3/8"
Tightening Torque in ft. lbs.	30

c. Distributor

Make	Delco-Remy
Drive	From Camshaft
Rotation, Top View	Clockwise
Contact Point Opening	.016"
Contact Point Dwell Angle	30° ± 1°
Dwell Variation	3° Max.
Breaker Arm Spring Tension, at Side of Point, Ounces	19 to 23
Condenser Make and Capacity (Microfarads)	Delco-Remy, .18 to .23

	V-6	V-8
Timing, Before U.D.C. (with Vacuum Hose Disconnected and Engine at Idle)	5°	2 1/2°
Firing Order	1-6-5-4-3-2	1-8-4-3-6-5-7-2
Number (Less Cap)	1110322	1111083
Vacuum Control Number	1116210	1116210
Vacuum Advance, Crankshaft Degrees and Inches of Vacuum		
Start Advance, @ Inches of Vacuum	6 to 8	6 to 8
Maximum Advance, Degrees @ Inches of Vacuum	14° @ 16	14° @ 16
Centrifugal Advance, Crankshaft Degrees and RPM		
Start Advance @ RPM	700 to 950	550 to 750
Medium Advance, Degrees @ RPM	14° to 18° @ 1800	12° to 16° @ 1400
Maximum Advance, Degrees @ RPM	24° to 28° @ 4200	30° to 34° @ 4600

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

Headlamp Make and Type	Guide, Dual T-3 Sealed Beam
Headlamp Lens Diameter	5 3/4"
Tail, Stop, Parking, Signal Lamps, Make	Guide
Lighting Switch, Make	Delco-Remy
Wiring Circuit Type	Single Wire
Wiring Circuit Protection for Head and Front Parking Lights	Thermo Circuit Breaker
Thermo Circuit Breaker Location	In Lighting Switch
Thermo Circuit Breaker Calibration @ 75°F.	
Stay Closed Indefinitely @ Amps.	15
Open Within 60 Seconds @ Amps.	26

10-4 SPECIFICATIONS**ELECTRICAL SYSTEMS****b. Fuses and Circuit Breakers**

Used For	Ampere Rating	Length
Back-Up, Stop, Turn Signal and Signal Indicator Lights	15	1 1/4"
Blower for Heater - Air Conditioner, and Air Conditioner Compressor Clutch	30	1 1/4"
Dome Light, Trunk Light and Cigar Lighter	15	7/8"
Panel Lights and Rheostat	3	1 1/4"
Radio and Dial Light	7.5	1 1/4"
Tail, License and Glove Box Lights, Panel Light Fuse and Clock	10	5/8"
Transmission Shift Solenoids, Wiper and Washer Motor	25	1 1/4"
Rear Window Defroster	5	1 1/4"
Location	In Line	
Headlights and Front Parking Lights	15 Amp. Circuit Breaker	In Light Switch
Location		

Unless otherwise noted, all fuses are in a fuse block located above the driver's left toe.

c. Light Bulbs

Location	Bulb No.	Candlepower
Ash Tray	1445	.5
Automatic Transmission Control Dial	1893	2
Back-Up	1156	32
Courtesy Light, Instrument Panel	89	6
Courtesy Light, Rear Seat Area	90	6
Dome, Center Roof	211	15
Glove Box	1893	2
Headlight High Beam Indicator	194	2
Headlight, 5 3/4" Dia. Type 1 (Inner)	4001	37.5 watts
Headlight, 5 3/4" Dia. Type 2 (Outer)	4002-L	37.5-55 watts
Heater-Air Conditioner Control Dial	1893	2
Indicator Lights (Oil, Temp. and Gen.)	194	2
Instrument Cluster Dials	194	2
License	97	4
Parking Light Warning	1816	3
Radio Dial	1881	2
Trunk	89	6
Turn Signal and Parking, Front	1157A	32-4
Turn Signal, Tail and Stop	1157	32-4
Turn Signal Indicator	194	2

10-6 SIGNAL SYSTEMS SPECIFICATIONS

Stop Light Switch, Type	Mechanical
Stop Light Switch, Location	Pedal Mounting Bracket
Turn Signal Switch, Make	Boyne or Delco-Remy
Turn Signal Flasher, Make	Tung-Sol
Location	Fuse Block
Type for 2-32 CP Lamp Load	224
Type for 3-32 CP Lamp Load	323
Flash Rate, Cycles per Minute	60 to 120
Lamp Bulbs - No. and Candle Power	See Par. 10-5, c
Direction Signal and Stop Light Fuse	See Par. 10-5, b
Horn - Make and Type	Delco-Remy, Solenoid
Horn Number, Low Note	9000491
High Note	9000492
Horn Amperage Draw at 12 volts (Either Horn)	4.5 to 5.5
Horn Relay and Junction Block Number	9779867
Horn Relay Closing Voltage	3.0 to 9.0