1964 PONTIAC TEMPEST  V8 ENGINES

IGNITION COIL
DELCO — 1115187
PRI. RES. 1.81-2.01 OHMS @ 80°F
SEC. RES. 7200-9500 OHMS @ 80°F
TEST SET LINE 8
IGNITION CURRENT
ENGINE STOPPED 3.5A — IDLING 2.1A

BALLAST RESISTOR
LOOM 1.32 OHMS @ 80°F

CONDENSER CAPACITY
.18-.23 MFD

SPARK PLUGS
AC 455
GAP — .035"
TORQUE — 20-25 FT./LBS.

IDLE SPEED
STAND. TRANS. 580-600
AUTO. TRANS. (DR) 480-500
HOT IDLE COMPENSATOR CLOSED
W/AIR COND. OFF
STAND. TRANS. 640-660
AUTO. TRANS. (DR) 540-560
HOT IDLE COMPENSATOR CLOSED

IGNITION TIMING
STAND. TRANS. 6° BTDC @ IDLE RPM
AUTO. TRANS. 6° BTDC @ IDLE RPM
DIST. VAC. LINE DISCONNECTED AND PLUGGED
IGNITION ADVANCE
AT 2500 ENGINE RPM
TOTAL 28'-32'
CENT. ONLY 18'-22'

DISTRIBUTOR

Delco 1111052
Rotation CC
Spring Tension 19-23 Oz.
Dwell 30° (28'-32')
Gap .019" NEW
.016" USED
Dwell Variation 2" (MAX.)

With Dist. Vac. Line Disconnected

MECHANICAL ADVANCE

DIST. RPM
400
1000
2300

DIST. DEG.
0°-2°
8½°-10½°
11°-13°

VACUUM ADVANCE

VAC.
8½°-10°
14½°-16½°

START 10°

SECONDARY RESISTANCE — 3.0 MIN.

FUEL PUMP

PRES.
5½-6¾ PSI @ 1000 RPM

VOL.
1 PT. 30 SEC. @ IDLE RPM

FUEL FILTERS
Fuel Tank — Plastic Fabric
CARB. — FILTER BEHIND
INLET NUT
CLEAN YEARLY
OR EVERY 12000 MILES

SUN ELECTRIC CORPORATION — CHICAGO 31, ILLINOIS

FORM NO. 690-640-070

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ALTERNATOR — STANDARD

DELCOTRON — 1100683 S.S. — 1100676
RATED OUTPUT — 37 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE — RBD
CURRENT OUTPUT — COLD
15 AMPS (MIN.) @ 500 ENG. RPM
35 AMPS @ 14.0 VOLTS 2500 ENG. RPM
25 AMPS @ 14.0 VOLTS 2000 GEN. RPM
35 AMPS @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT DRAW 1.9-2.3A @ 12V 80°F.
BELT TENSION FT./LBS.
NEW BELT 110-115 USED BELT 70-75

ALTERNATOR — W/AIR COND.

DELCOTRON — 1100627
RATED OUTPUT — 55 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE — RBD
CURRENT OUTPUT — COLD
15 AMPS (MIN.) @ 500 ENG. RPM
50 AMPS @ 14.0 VOLTS 2500 ENG. RPM
32 AMPS @ 14.0 VOLTS 2000 GEN. RPM
50 AMPS @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT DRAW 2.2-2.6A @ 12V 80°F.
BELT TENSION FT./LBS.
NEW BELT 110-115 USED BELT 70-75

RECTIFIER DIODE TESTING
WITH 12V BULB AND 12V BATTERY
TEST LAMP LITES ONE DIRECTION DIODE SATISFACTORY
TEST LAMP LITES BOTH DIRECTIONS DIODE SHORTED
TEST LAMP DOES NOT LITE EITHER DIRECTION DIODE OPEN
WITH DIODE RECTIFIER TESTER
METER INDICATION 2 AMPS OR MORE DIODE SATISFACTORY
METER INDICATION 1 AMP OR LESS DIODE SHORTED
METER INDICATION ZERO DIODE OPEN

DELCOTRON REGULATOR—MODEL 1119515 CIRCUIT TYPE RBD

FIELD CIRCUIT RESISTANCE
VOLTMETER POS. LEAD CONNECTED TO POS. BATTERY CABLE.
VOLTMETER NEG. LEAD CONNECTED TO ALTERNATOR FIELD TERMINAL, WITH
ENGINE OPERATING AT IDLE SPEED—METER INDICATION NOT TO EXCEED .3 VOLT

CHARGING CIRCUIT RESISTANCE
OPERATE ENGINE AT 1000 RPM WITH 10 AMP LOAD, VOLTMETER POS. LEAD
CONNECTED TO ALTERNATOR OUTPUT TERMINAL, VOLTMETER NEG. LEAD CONNECTED
TO POSITIVE BATTERY CABLE, METER INDICATION NOT TO EXCEED .3 VOLT

FIELD RELAY
CLOSING VOLTS — 1.5-3.2V
AIR GAP — .015"
POINT OPENING — .030"

OPERATING VOLTAGE CHART — UPPER CONTACTS
OPERATE ENGINE AT 1500 RPM FOR 15 MINUTES TO PERMIT SYSTEM TO STABILIZE.
CYCLE SYSTEM BY STOPPING AND RESTARTING ENGINE.
TEMPERATURE MEASURED WITH THERMOMETER ¼” FROM REGULATOR COVER

<table>
<thead>
<tr>
<th>TEMPERATURE</th>
<th>VOLTAGE SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>65°</td>
<td>13.9-15.0V</td>
</tr>
<tr>
<td>85°</td>
<td>13.8-14.8V</td>
</tr>
<tr>
<td>105°</td>
<td>13.7-14.6V</td>
</tr>
<tr>
<td>125°</td>
<td>13.5-14.4V</td>
</tr>
<tr>
<td>145°</td>
<td>13.4-14.2V</td>
</tr>
<tr>
<td>165°</td>
<td>13.2-14.0V</td>
</tr>
<tr>
<td>185°</td>
<td>13.1-13.9V</td>
</tr>
</tbody>
</table>

OPERATING VOLTAGE TEST RELATED TO TEMPERATURE CHART
AND FULLY CHARGED BATTERY
CYCLE SYSTEM BEFORE MAKING FINAL VOLTAGE SETTING READING.
VOLTMETER POS. LEAD CONNECTED TO ALTERNATOR “BAT” TERMINAL.
VOLTMETER NEG. LEAD CONNECTED TO GROUND AT REGULATOR.
ENGINE RPM 2500 WITH 10 AMP LOAD OR LESS.
UPPER CONTACT SETTING
13.5-14.4 VOLTS @ 125°F.
LOWER CONTACT SETTING
.1 TO .4 VOLTS LOWER THAN UPPER CONTACT SETTING
AIR GAP (LOWER POINTS JUST TOUCHING) — .067"
POINT OPENING (LOWER POINTS JUST TOUCHING) — .014"

TAILORING VOLTAGE SETTING WITH NO CIRCUIT DEFECTS
BATTERY UNDERCHARGED — RAISE SETTING BY .3V
BATTERY OVERCHARGED — LOWER SETTING BY .3V

CHARGING CIRCUIT RESISTANCE
(VOLTS @ 10 Amps)
.3V INS. CIR.
.05V GRD. CIR.
.05V REG. CIR.
1964 PONTIAC TEMPEST

V8 ENGINE
22 SERIES LEEMANS
TRANSISTOR IGNITION

IGNITION PULSE AMPLIFIER — 1115005

IGNITION COIL
DELCO — 1115189
PRI. RES. .42-.50 OHMS @ 75°F.
SEC. RES. 8700-12400 OHMS @ 75°F.

BALLAST RESISTORS
IGNITION SWITCH TO COIL LOOM — .707-.715 OHMS
IGNITION COIL TO GROUND LOOM — .433-.455 OHMS

SPARK PLUGS
AC 455
(HIGH SPEED DRIVING AC 435)
GAP — .033"-.038"
TORQUE 15-25 FT./LBS.

1964 PONTIAC TEMPEST

IDLE SPEED
STAND. TRANS. 580-600
AUTO. TRANS. 480-500 DR
W/AIR COND. OFF STAND. TRANS. 640-660
AUTO. TRANS. (DR) 540-560
HOT IDLE COMPENSATOR CLOSED

IGNITION TIMING
STAND. TRANS. 6" BTDC @ IDLE RPM
AUTO. TRANS. 6" BTDC @ IDLE RPM
DIST. VAC. LINE DISCONNECTED

IGNITION ADVANCE
AT 2500 ENGINE RPM
TOTAL 38 1/2" - 42 1/2"
CENT. ONLY 18 1/2" - 22 1/2"

326 H.O. CU. IN. ENGINE
COMP. RATIO 10.25-1
COMP. PRES. 170-190 PSI
MAX. VARIATION 20%
FIRING ORDER 1-8-4-3-6-5-7-2
HYD. LIFTERS — ZERO LASH

DISTRIBUTOR PICKUP COIL TEST
OHMMETER CONNECTED ACROSS DISTRIBUTOR PICKUP
COIL LEADS, RESISTANCE SHOULD BE 550-650 OHMS,
(RESISTANCE INFINITE — COIL OPEN)
(RESISTANCE LOW — COIL SHORTED)
OHMMETER CONNECTED EITHER COIL LEAD TO
GROUND. METER SHOULD READ INFINITE.

DISTRIBUTOR
MECHANICAL ADVANCE
DELCO — 1111040
ROTATION CC

VACUUM ADVANCE
DELCO — 1111040
ROTATION CC

DIST. RPM
400
1000
2400
3000

DIST. DEG.
0°-2°
9°-11°
11°-13°
10°-13°

DIST. DEG.
8°-10°
14 1/4° - 16 3/4°
10°

SECONDARY RESISTANCE — 3.0 MIN.

BATTERY
12V NEG. GRD.
61 AH
CRANKING VOLTAGE
MIN. 9.0V
STARTER CRANKING SPEED 180 ENGINE RPM

STARTER FREE RUNNING CURRENT DRAW
70-105 AMPS @ 10.6 VOLTS
INCLUDES SOLENOID
3800-6200 RPM

SOLENOID SWITCH CURRENT DRAW
HOLD IN WINDINGS
14 1/2 - 18 1/2 AMP @ 10 VOLTS

BOTH WINDINGS
41-47 AMP @ 10 VOLTS
SOLENOID PULL IN VOLTAGE
7.7 VOLTS MIN.

FUEL PUMP
PRES.
5 1/4 - 6 3/4 PSI @ 1000 RPM
VOL.
1 PT. 45 SEC. @ 1000 RPM

FUEL FILTERS
Fuel Tank — Plastic Fabric
CARB. — FILTER BEHIND INLET NUT
CLEAN YEARLY OR 12000 MILES.
ALTERNATOR — TRANSISTOR — IGNITION
DELCOTRON TRANSISTOR REGULATOR — MODEL 1116366

ALTERNATOR — TRANSISTOR — IGNITION
DELCOTRON — 1100674
RATED OUTPUT — 60 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE — RBT
CURRENT OUTPUT — COLD
15 AMPS (MIN.) @ 500 ENG. RPM
57 AMPS @ 14.0 VOLTS 2500 ENG. RPM
36 AMPS @ 14.0 VOLTS 2000 GEN. RPM
57 AMPS @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT DRAW 2.65-2.95 AMPS @ 12V 80°F.
BELT TENSION — FT./LBS.
NEW BELT 110-115 USED BELT 70-75

RECTIFIER DIODE TESTING
WITH 12V BULB AND 12V BATTERY
TEST LAMP LITES ONE DIRECTION DIODE SATISFACTORY
TEST LAMP LITES BOTH DIRECTIONS DIODE SHORTED
TEST LAMP DOES NOT LITE EITHER DIRECTION DIODE OPEN
WITH DIODE RECTIFIER TESTER
METER INDICATION 2 AMPS OR MORE DIODE SATISFACTORY
METER INDICATION 1 AMP OR LESS DIODE SHORTED
METER INDICATION ZERO DIODE OPEN

INDICATOR LITE AND FIELD RELAY
1115827
CLOSING VOLTAGE — 2.5-3.5 VOLTS
SEALING VOLTAGE — 0 TO 1 VOLT ABOVE CLOSING VOLTAGE
AIR GAP
POINTS CLOSED — .011"-.018"
POINT OPENING — .020"-.030"

DELCOTRON TRANSISTOR REGULATOR — MODEL 1116366
CONTROL CIRCUIT RESISTANCE TEST
WITH IGNITION SWITCH ON CONNECT VOLTOMETER POS. LEAD TO BATTERY POS. CABLE, WITH VOLTMETER NEG. LEAD, PROD REGULATOR CONNECTOR BODY "BLACK LEAD TERMINAL." RECORD VOLTAGE DROP. CONNECT VOLTOMETER NEG. LEAD TO BATTERY NEG. POST, VOLTMETER POS. LEAD TO REGULATOR GROUND. RECORD VOLTAGE DROP. TOTAL OF BOTH READINGS NOT TO EXCEED .3 VOLT.

REGULATOR TEST
WITH IGNITION SWITCH ON CONNECT VOLTOMETER POS. LEAD TO REGULATOR CONNECTOR BODY "BLACK LEAD TERMINAL." CONNECT VOLTMETER NEG. LEAD TO ALTERNATOR FIELD TERMINAL. METER INDICATION SHOULD BE .9 VOLT (MIN.) TO 2.0 VOLTS (MAX.)

OPERATING VOLTAGE CHART
OPERATE ENGINE AT 1500 RPM FOR 10 MINUTES TO STABILIZE SYSTEM. TEMPERATURE MEASURED WITH THERMOMETER ¼" FROM REGULATOR COVER.

<table>
<thead>
<tr>
<th>TEMPERATURE</th>
<th>VOLTAGE SETTING</th>
<th>TEMPERATURE</th>
<th>VOLTAGE SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>65°</td>
<td>13.75-14.5V</td>
<td>115°</td>
<td>13.45-14.15V</td>
</tr>
<tr>
<td>75°</td>
<td>13.7 -14.4V</td>
<td>125°</td>
<td>13.4 -14.1V</td>
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<tr>
<td>85°</td>
<td>13.65-14.3V</td>
<td>135°</td>
<td>13.35-14.05V</td>
</tr>
<tr>
<td>95°</td>
<td>13.6 -14.25V</td>
<td>145°</td>
<td>13.3 -14.0V</td>
</tr>
<tr>
<td>105°</td>
<td>13.5 -14.2V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OPERATING VOLTAGE TEST RELATED TO TEMPERATURE CHART AND FULLY CHARGED BATTERY
OPERATE ENGINE AT 1500 RPM. CONNECT VOLTMETER POS. LEAD TO REGULATOR CONNECTOR BODY "BLACK LEAD TERMINAL." CONNECT VOLTMETER NEG. LEAD TO REGULATOR GROUND. REFER TO CHART FOR CORRECT SETTING.

VOLTAGE SETTING ADJUSTMENT
REMOVE REGULATOR PIPE PLUG. TURN INTERNAL ADJUSTING ARM COUNTERCLOCKWISE TO INCREASE SETTING — COUNTERCLOCKWISE TO DECREASE SETTING. EACH NOTCH SETTING APPROX. .3 VOLT. VOLTAGE SHOULD BE WITHIN SPECIFICATIONS WITH ADJUSTING ARM IN CENTER POSITION.

TAILORING VOLTAGE SETTING
WITH NO CIRCUIT DEFECTS
BATTERY UNDER-CHARGED RAISE SETTING BY .3 VOLT
BATTERY OVER-CHARGED LOWER SETTING BY .3 VOLT

CHARGING CIRCUIT RESISTANCE
(VOLTS @ 10 AMPS)
.3V INS. CIR.
.05V GRD. CIR.
.05V REG. CIR.
### 1964 Pontiac IGNITION COIL

**DELCO 1111587**

- **PRI. RES.**: 1.81-2.01 OHMS
- **SEC. RES.**: 7200-9500 OHMS
- **TEST SET LINE**: 8

**IGNITION CURRENT**

- ENGINE STOPPED 3.4A - IDLING 2.1A

**BALLAST RESISTOR**

- LOOM 1.32 ±0.4 OHMS @ 80°F.

**CONDENSER CAPACITY**

- .18-23 MFD

**SPARK PLUGS**

- AC 455
  - (HIGH SPEED DRIVING AC 435)
  - GAP = .033"-.038"
  - TORQUE 15-25 FT./LBS.

---

### 1964 Pontiac DISTRIBUTOR MECHANICAL ADVANCE

<table>
<thead>
<tr>
<th>DISTRIBUTOR</th>
<th>DELCO - 1111052</th>
</tr>
</thead>
<tbody>
<tr>
<td>REG. FUEL</td>
<td>1111053</td>
</tr>
<tr>
<td>CC</td>
<td>Delco</td>
</tr>
<tr>
<td>Rotation</td>
<td>19-23 Oz.</td>
</tr>
<tr>
<td>Spring Tension</td>
<td>19-23 Oz.</td>
</tr>
<tr>
<td>Dwell</td>
<td>30&quot; (28-32&quot;)</td>
</tr>
<tr>
<td>Gap</td>
<td>.016&quot;</td>
</tr>
<tr>
<td>Dwell Variation</td>
<td>3&quot; (MAX)</td>
</tr>
</tbody>
</table>

---

### 1964 Pontiac VACUUM ADVANCE

<table>
<thead>
<tr>
<th>VACUUM ADVANCE</th>
<th>1111054</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIST. DEG.</td>
<td>VAC</td>
</tr>
<tr>
<td>START</td>
<td>6&quot;-8&quot;</td>
</tr>
<tr>
<td>10 1/2</td>
<td>13&quot;-15&quot;</td>
</tr>
</tbody>
</table>

**SECONDARY RESISTANCE**

- 3.0 MIN.

---

### 1964 Pontiac BATTERY

- **12V NEG. GRD.**
- **REG. FUEL RATIO ENGINE**: 53 AH
- **PREM. FUEL RATIO ENGINE**: 61 AH
- **OPTIONAL 70 AH**
- **HEAVY DUTY 72 AH**

**CRANKING VOLTAGE**

- MIN. 9.0V

**STARTER CRANKING SPEED**

- 180 ENGINE RPM

---

### 1964 Pontiac ENGINE PERFORMANCE

- **IDLE SPEED**
  - **STAND. TRANS.**: 480-500 RPM
  - **AUTO. TRANS.**: 480-500 DR
  - **W/AIR COND. OFF**: STAND. TRANS. 690-710 RPM
  - **AUTO. TRANS. (DR)**: 690-710 RPM

**HOT IDLE COMPENSATOR CLOSED**

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**SUN ELECTRIC CORPORATION—CHICAGO 31, ILLINOIS**

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### ALTERNATOR — STANDARD

**DELCOTRON — 1100678 - 1100680**
- **Circuit Type**: RBD
- **Current Output — Cold**
  - 15 Amps (Min.) @ 500 Eng. RPM
  - 40 Amps @ 14.0 Volts 2500 Eng. RPM
  - 28 Amps @ 14.0 Volts 2000 Gen. RPM
  - 40 Amps @ 14.0 Volts 5000 Gen. RPM
- **Field Current Draw 1.9-2.3A @ 12V 80°F**
- **Belt Tension FT./LBS.**
- **New Belt 100-115 Used Belt 70-75**

### ALTERNATOR — W/AIR COND.

**DELCOTRON — 1100681**
- **Circuit Type**: RBD
- **Current Output — Cold**
  - 15 Amps (Min.) @ 500 Eng. RPM
  - 50 Amps @ 14.0 Volts 2500 Eng. RPM
  - 32 Amps @ 14.0 Volts 2000 Gen. RPM
  - 50 Amps @ 14.0 Volts 5000 Gen. RPM
- **Field Current Draw 2.2-2.6A @ 12V 80°F**
- **Belt Tension FT./LBS.**
- **New Belt 100-115 Used Belt 70-75**

### RECTIFIER DIODE TESTING

**With 12V Bulb and 12V Battery**
- Test lamp lites one direction diode satisfactory
- Test lamp lites both directions diode shorted
- Test lamp does not light either direction diode open

**With Diode Rectifier Tester**
- Meter indication 2 Amps or more diode satisfactory
- Meter indication 1 Amp or less diode shorted
- Meter indication zero diode open

### DELCOTRON REGULATOR — MODEL 1119511 CIRCUIT RBD

#### Field Circuit Resistance
- Voltmeter pos. lead connected to pos. battery cable, voltmeter neg. lead connected to alternator terminal field, with ignition switch on, meter indication not to exceed .3 volt.

#### Charging Circuit Resistance
- Operate engine at 1000 RPM with 10 Amp load, voltmeter pos. lead connected to alternator output terminal, voltmeter neg. lead connected to positive battery cable, meter indication not to exceed .3 volt.

#### Operating Voltage Chart — Upper Contacts
- Operate engine at 1500 RPM for 15 minutes to permit system to stabilize.
- Cycle system by stopping and restarting engine.
- Temperature measured with thermometer ¼” from regulator cover.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Voltage Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>65°F</td>
<td>13.9-15.0V</td>
</tr>
<tr>
<td>85°F</td>
<td>13.8-14.8V</td>
</tr>
<tr>
<td>105°F</td>
<td>13.7-14.6V</td>
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<tr>
<td>125°F</td>
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<tr>
<td>145°F</td>
<td>13.4-14.2V</td>
</tr>
<tr>
<td>165°F</td>
<td>13.2-14.0V</td>
</tr>
<tr>
<td>185°F</td>
<td>13.1-13.9V</td>
</tr>
</tbody>
</table>

#### Operating Voltage Test Related to Temperature Chart and Fully Charged Battery
- Cycle system before making final voltage setting reading voltmeter pos. lead connected to alternator “BAT” terminal, voltmeter neg. lead connected to ground at regulator.
- Engine RPM 2500 with 10 Amp load or less.
- **Upper Contact Setting**
  - 13.5-14.4 Volts @ 125°F.
- **Lower Contact Setting**
  - .1 to .4 Volts lower than upper contact setting.
  - Air gap (lower points just touching) — .067”.
  - Point opening (lower points just touching) — .015”.

#### Tailoring Voltage Setting with No Circuit Defects
- Battery undercharged — raise setting by .3V.
- Battery overcharged — lower setting by .3V.

#### Charging Circuit Resistance
- (Volts @ 10 Amps)
  - .3V Ins. Cir.
  - .05V Grd. Cir.
  - .05V Reg. Cir.
1964 PONTIAC TRANSISTOR IGNITION AND HEAVY DUTY CHARGING SYSTEMS

IGNITION COIL
DELCO - 1115189
PRI. RES. .42-.50 OHMS @ 75°F
SEC. RES. 6700-12400 OHMS @ 75°F

BALLAST RESISTORS
IGNITION SWITCH TO COIL
LOOM - .707-.715 OHMS
IGNITION COIL TO GROUND
LOOM - .433-.455 OHMS
IGNITION PULSE AMPLIFIER - 1115005

DISTRIBUTOR PICKUP COIL TEST
OHMMETER CONNECTED ACROSS DISTRIBUTOR PICKUP COIL LEADS. RESISTANCE SHOULD BE 550-650 OHMS.
(RESISTANCE INFINITE - COIL OPEN)
(RESISTANCE LOW - COIL SHORTED)
OHMMETER CONNECTED EITHER COIL LEAD TO GROUND. METER SHOULD READ INFINITE.

389 CU. IN. ENGINE DISTRIBUTOR
DELCO - 1111047
ROTATION CC
MECHANICAL ADVANCE VACUUM ADVANCE
DIST. RPM DIST. DEG. VAC. DEG.
400 0.0-2" 8.0-10" START
1000 7.9-9" 143°-16 3/4" 10°
2200 10.0-12"
3000 9.14-12"

SECONDARY RESISTANCE - 3.0 MIN.

389 CU. IN. ENGINE SPECIAL - 421 CU. IN. ENGINE
STAND. TRANS. AUTO.
COMP. RATIO 8.6-1 SPEC.
MAX. VARIATION 20% HYD. LIFTERS - ZERO LASH
COMP. PRES. 140-150 PSI 155-165 PSI CRANKING VOLTAGE
FIRING ORDER 1-8-4-3-7-2 MIN. 9.0V 38 1/2" - 42 1/2"

BATTERY
12V NEG. GRD. 70 AH CRANKING VOLTAGE
HEAVY DUTY 72 AH STARTER CRANKING SPEED 180 ENGINE RPM
MIN. 9.0V

STARTER FREE RUNNING CURRENT DRAW
INCREASED SOLENOID REG. FUEL RATIO ENGINE
65-100 AMPS @ 10.6 VOLTS 3600-5100 RPM
PREM. FUEL RATIO ENGINE 70-105 AMPS @ 10.6 VOLTS 3800-6200 RPM

421 CU. IN. ENGINE DISTRIBUTOR
DELCO - 1111040
ROTATION CC
MECHANICAL ADVANCE VACUUM ADVANCE
DIST. RPM DIST. DEG. VAC. DEG.
400 0.0-2" 8.0-10" START
1000 9.0-11" 144°-16 3/4" 10°
2400 11.0-13"
3000 10.14-13"

389 CU. IN. ENGINE IDLE SPEED
STAND. TRANS. 480-500 AUTO. TRANS. 480-500 DR
W/AIR COND. OFF STAND. TRANS. 540-560 AUTO. TRANS. (DR) 540-560
HOT IDLE COMPENSATOR CLOSED

421 CU. IN. ENGINE IDLE SPEED
STAND. TRANS. 640-660 AUTO. TRANS. 640-660 DR
W/AIR COND. OFF STAND. TRANS. 690-710 AUTO. TRANS. (DR) 690-710
HOT IDLE COMPENSATOR CLOSED

SOLENOID SWITCH CURRENT DRAW
HOLD IN WINDINGS BOTH WINDINGS
REG. FUEL RATIO ENGINE REG. FUEL RATIO ENGINE
10.1/2-12.1/2 AMPS @ 10 VOLTS 42-49 AMPS
PREM. FUEL RATIO ENGINE PREM. FUEL RATIO ENGINE
15.1/2-17.1/2 AMPS @ 10 VOLTS 47-54 AMPS
SOLENOID PULL IN VOLTAGE - 7.7 VOLTS MIN.

SPARK PLUGS
AC 455 (HIGH SPEED DRIVING AC 435)
GAP - .033"-.038"
TORQUE 15-25 FT./LBS.

421 CU. IN. ENGINE IGNITION ADVANCE AT 2500 ENGINE RPM
TOTAL CENT. ONLY
36-40° 16-20°

SPARK PLUGS
AC 455 (HIGH SPEED DRIVING AC 435)
GAP - .033"-.038"
TORQUE 15-25 FT./LBS.

421 CU. IN. ENGINE IGNITION ADVANCE AT 2500 ENGINE RPM
TOTAL CENT. ONLY
38 1/2"-42 1/2" 18 1/2"-22 1/2"

IGNITION TIMING
STAND. TRANS. 6° BTDC @ IDLE RPM
AUTO. TRANS. 6° BTDC @ IDLE RPM
DIST. VAC. LINE DISCONNECTED

FUEL PUMP
PRE. 51 1/4-63 1/4 PSI @ 1000 RPM
1 PT. 45 SEC. @ 1000 RPM

FUEL FILTERS
Fuel Tank - Plastic Fabric Carb.-Inlet Strainer
TR-Power-Only
Disposable Element Type
In Line Between Fuel Pump & Carb.
Replace Every 12000 Miles or 12 Months

SUN ELECTRIC CORPORATION — CHICAGO 31, ILLINOIS
Copyright 1964 PRINTED IN U.S.A.
HEAVY DUTY CHARGING SYSTEMS
ALTERNATOR—TRANSISTOR—IGNITION
DELCOTRON TRANSISTOR REGULATOR—MODEL 1116366 AND 9000590

ALTERNATOR—TRANSISTOR—IGNITION
DELCOTRON—1100674
RATED OUTPUT—60 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE—RBT
CURRENT OUTPUT—COLD
15 AMPS (MIN.) @ 500 ENG. RPM
57 AMPS @ 14.0 VOLTS 2500 ENG. RPM
36 AMPS @ 14.0 VOLTS 2000 GEN. RPM
57 AMPS @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT DRAW 2.65-2.95 AMPS @ 12V 80°F.
BELT TENSION—FT./LBS.
NEW BELT 110-115 USED BELT 70-75

ALTERNATOR—HEAVY DUTY
DELCOTRON—1100682
RATED OUTPUT 55 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE—RBT
CURRENT OUTPUT—COLD
50 AMPS @ 14.0 VOLTS 2500 ENG. RPM
32 AMPS @ 14.0 VOLTS 2000 GEN. RPM
50 AMPS @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT DRAW 2.2-2.6 AMPS @ 12V 80°F.
BELT TENSION—70-75 FT./LBS.
NEW BELT 110-115 USED BELT 70-75

ALTERNATOR—HEAVY DUTY—W/AIR COND.
DELCOTRON—1117765
RATED OUTPUT—62 AMPERE 14 VOLTS NEG. GRD.
CIRCUIT TYPE—RBT
CURRENT OUTPUT—COLD
15 AMP (MIN.) @ 500 ENG. RPM
62 AMP @ 14.0 VOLTS 2500 ENG. RPM
18 AMP @ 14.0 VOLTS 1000 GEN. RPM
62 AMP @ 14.0 VOLTS 5000 GEN. RPM
FIELD CURRENT @ 80°F
3.7-4.4 AMPS @ 12 VOLTS
BELT TENSION—FT./LBS.
NEW BELT 110-115 USED BELT 70-75

DELCOTRON TRANSISTOR REGULATOR MODEL 1116366 CIRCUIT TYPE RBT
MODEL 9000590 CIRCUIT TYPE RBT

CONTROL CIRCUIT RESISTANCE TEST
WITH IGNITION SWITCH ON CONNECT VOLTOMETER POS. LEAD TO BATTERY POS.
CABLE, WITH VOLTOMETER NEG. LEAD, PROD REGULATOR CONNECTER BODY "BLACK
LEAD TERMINAL" RECORD VOLTAGE DROP. CONNECT VOLTOMETER NEG. LEAD TO
BATTERY NEG. POST, VOLTOMETER POS. LEAD TO REGULATOR GROUND. RECORD
VOLTAGE DROP. TOTAL OF BOTH READINGS NOT TO EXCEED .3 VOLT.

REGULATOR TEST
WITH IGNITION SWITCH ON CONNECT VOLTOMETER POS. LEAD TO REGULATOR
CONNECTER BODY "BLACK LEAD TERMINAL" CONNECT VOLTOMETER NEG. LEAD TO
ALTERNATOR FIELD TERMINAL. METER INDICATION SHOULD BE .9 VOLT (MIN.)
TO 2.0 VOLT (MAX.)

OPERATING VOLTAGE CHART RELATED TO MODEL 1116366 ONLY
OPERATE ENGINE AT 1500 RPM FOR 10 MINUTES TO STABILIZE SYSTEM.
TEMPERATURE MEASURED WITH THERMOMETER ¼" FROM REGULATOR COVER.

<table>
<thead>
<tr>
<th>TEMPERATURE</th>
<th>VOLTAGE SETTING</th>
<th>TEMPERATURE</th>
<th>VOLTAGE SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>65°</td>
<td>13.75-14.5V</td>
<td>115°</td>
<td>13.45-14.15V</td>
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<tr>
<td>75°</td>
<td>13.7-14.4V</td>
<td>125°</td>
<td>13.36-14.1V</td>
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<tr>
<td>85°</td>
<td>13.65-14.3V</td>
<td>135°</td>
<td>13.35-14.05V</td>
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<tr>
<td>95°</td>
<td>13.6-14.25V</td>
<td>145°</td>
<td>13.3-14.0V</td>
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<tr>
<td>105°</td>
<td>13.5-14.2V</td>
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</tbody>
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MODEL 1116366 AND MODEL 9000590
OPERATING VOLTAGE TEST RELATED TO TEMPERATURE CHART AND
FULLY CHARGED BATTERY
OPERATE ENGINE AT 1500 RPM, CONNECT VOLTOMETER POS. LEAD TO REGULATOR
CONNECTER BODY "BLACK LEAD TERMINAL" CONNECT VOLTOMETER NEG. LEAD TO
REGULATOR GROUND.

MODEL 1116366—REFER TO TEMPERATURE VOLTAGE CHART
MODEL 9000590—13.7-14.3 VOLTS ALLOWABLE
RANGE AT "O" POSITION OF ADJUSTING SCREW.

VOLTAGE SETTING ADJUSTMENT
REMOVE REGULATOR PIPE PLUG. TURN INTERNAL ADJUSTING ARM COUNTER-
CLOCKWISE TO INCREASE SETTING—CLOCKWISE TO DECREASE SETTING. EACH
NOTCH SETTING APPROX. .3 VOLT. VOLTAGE SHOULD BE WITHIN SPECIFICATIONS
WITH ADJUSTING ARM IN CENTER POSITION.

TAILORING VOLTAGE SETTING
WITH NO CIRCUIT DEFECTS
BATTERY UNDER-CHARGED RAISE SETTING BY .3 VOLT
BATTERY OVER-CHARGED LOWER SETTING BY .3 VOLT

CHARGING CIRCUIT RESISTANCE
(VOLTS @ 10 AMP)
.3V INS. CIR.
.05V GRD. CIR.
.05V REG. CIR.

INDICATOR LIGHT RELAY
1115827
CLOSING VOLTS—2.5-3.5 VOLTS
AIR GAP—POINTS JUST TOUCHING—.011"-.018"
POINT OPENING—.020"-.030"

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