

# CHECKER MOTORS

A11-A12-A12W CAR AND TAXI  
A11E-A12E

V8 195 HP. WITHOUT AND WITH A.I.R. SYSTEM  
283 CU. IN. ENGINE



## 283 CU. IN. ENGINE

ENGINE VAC. @ IDLE 17"-21"  
9.25-1  
COMP. RATIO 150 PSI (MIN.)  
MAX. VAR. 20 PSI  
FIRING ORDER 1-8-4-3-6-5-7-2  
HYD. LIFTERS — ZERO LASH + 1 TURN

### IGNITION COIL

DELCO — 1115204  
PRI. RES. 1.28-1.42 OHMS  
SEC. RES. 7200-9500 OHMS  
TEST SET LINE 8  
IGNITION CURRENT  
ENGINE STOPPED 4.0A — IDLING 1.8A

### BALLAST RESISTOR

DELCO 1957154  
1.8 OHMS @ 80° F.

### CONDENSER CAPACITY

.18-.23 MFD

### SPARK PLUGS

STAND. — AC 45  
COLDER — AC 44  
GAP — .035"  
TORQUE — 20-25 FT./LBS.

### WITHOUT A.I.R. SYSTEM

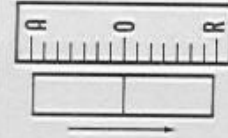
500 MANUAL TRANS. 700 A.I.R. SYSTEM  
475 (DR) AUTO. TRANS. 600 (DR)  
(ON) W/AIR COND. (OFF)  
HOT IDLE COMPENSATOR VALVE HELD CLOSED  
WHEN MAKING IDLE SPEED ADJUSTMENT

### IGNITION TIMING

WITHOUT A.I.R. SYSTEM WITH A.I.R. SYSTEM  
4° BTDC @ 500 RPM STAND. TRANS. 4° BTDC @ IDLE RPM  
4° BTDC @ 500 RPM AUTO. TRANS. 4° BTDC @ IDLE RPM  
DIST. VAC. DISCONNECTED AND PLUGGED

### IGNITION ADVANCE AT 2500 ENGINE RPM

TOTAL CENT. VAC. CENT. ONLY  
WITHOUT A.I.R. SYSTEM — 30°-38° 16°-20°  
WITH A.I.R. SYSTEM — 30°-38° 16°-20°



FRONT OF ENGINE

## DISTRIBUTOR

### MECHANICAL ADVANCE

1111150	1111150	DIST. RPM	DIST. DEG.	DIST. DEG.
500	0°-2°	500	0°-2°	
700	4°-6°	700	4°-6°	
1000	6½°-8½°	1000	6½°-8½°	
2100	13°-15°	2100	13°-15°	

SECONDARY RESISTANCE — 3.0 MIN.  
HI TENSION WIRE RESISTANCE 3000-7000 OHMS PER FOOT

### VACUUM ADVANCE

1111150	1111150	VAC.	DIST. DEG.	DIST. DEG.
7"-9"	7"-9"	7"-9"	7"-9"	START
15"-16"	15"-16"	15"-16"	15"-16"	7°-9°
MAX. ADV. 9°	MAX. ADV. 9°	MAX. ADV. 9°	MAX. ADV. 9°	MAX. ADV. 9°

### Without A.I.R. System

1111150	Delco	Rotation	Spring Tension	With A.I.R. System
19-23 Oz.			19-23 Oz.	1111150
30° (28°-32°)			30° (28°-32°)	C
.019" NEW			.019" NEW	
.016" USED			.016" USED	
2° (MAX.)			2° (MAX.)	

BETWEEN IDLE AND 1500 RPM

## STARTER FREE SPEED CURRENT DRAW

49-76 AMPS (INCLUDES SOLENOID) @ 10.6 VOLTS  
6200-9400 RPM

### BATTERY

12V NEG. GRD.  
H11-50  
50 AH

CRANKING VOLTAGE  
MIN. 9.0V

OPERATING VOLTAGE SETTING  
14.0-14.8 VOLTS @ 75° F.

## SOLENOID CURRENT DRAW

HOLD IN WINDINGS BOTH WINDINGS  
10½-12½ AMPS @ 10 VOLTS 42-49 AMPS @ 10 VOLTS

## SOLENOID PULL IN VOLTAGE

7.7 VOLTS (MIN.)  
SWITCH (S) TERMINAL OF SOLENOID AND GROUND

## STARTING MOTOR CIRCUIT RESISTANCE

INSULATED CIRCUIT — .4 VOLTS  
BATTERY POSITIVE POST TO SOLENOID STARTER MOTOR TERMINAL  
BATTERY POSITIVE POST TO BATTERY TERMINAL OF SOLENOID — .2 VOLTS  
BATTERY TERMINAL OF SOLENOID TO STARTER MOTOR TERMINAL OF SOLENOID — .2 VOLTS

GROUND CIRCUIT — .2 VOLTS  
BATTERY NEGATIVE POST TO STARTER MOTOR HOUSING

SOLENOID CONTROL CIRCUIT — 3.5 VOLTS (MAX.)  
BATTERY POSITIVE POST TO SOLENOID SWITCH (S) TERMINAL

## FUEL PUMP

PRES. 5¼-6½ PSI @ 450-1000 RPM  
VOL. 1 PT. 30-45 SEC. @ IDLE RPM

## FUEL FILTERS

FUEL TANK — STRAINER  
CARB. — INLET FILTER  
SERVICE AS REQUIRED  
FUEL PUMP — CERAMIC ELEMENT AND SEDIMENT BOWL  
REPLACE ELEMENT AS REQUIRED

### STANDARD

#### ALTERNATOR — MOTOROLA

MOTOROLA — A12NCC454  
RATED OUTPUT — 35 AMPERE NEG. GRD.  
CIRCUIT TYPE — RBT

ROTATION — CLOCKWISE  
15 AMPERES @ 500 ENGINE RPM  
CURRENT OUTPUT — 33 AMPS @ 15 VOLTS  
MINIMUM — 25 AMPS @ 13 VOLTS  
WHEN MEASURED AT BATTERY  
ADD 5 AMPS TO CURRENT OUTPUT  
FOR TOTAL OUTPUT

ENG. RPM — 2000  
GEN. RPM — 5000  
FIELD CURRENT — 2.0-2.6 AMPS  
BELT TENSION FT./LBS.  
NEW CAR INSPECTION — 80-110  
NEW BELT — 110-120  
USED BELT — 70-80

#### CHARGING CIRCUIT RESISTANCE

VOLTS @ 10 AMPS  
.3V INS. CIR.  
.05V GRD. CIR.

#### ROTOR FIELD CURRENT DRAW

2.3-2.9 AMPS @ 12.6 ± .2 VOLTS

### WITH AIR COND.

#### ALTERNATOR — MOTOROLA

MOTOROLA — A12NCC604 MOTOROLA — A12NCC603  
RATED OUTPUT — 55 AMPERE NEG. GRD.  
CIRCUIT TYPE — RBT

ROTATION — CLOCKWISE  
22 AMPERES @ 500 ENGINE RPM  
CURRENT OUTPUT — 55 AMPS @ 15 VOLTS  
MINIMUM — 50 AMPS @ 13 VOLTS  
WHEN MEASURED AT BATTERY  
ADD 5 AMPS TO CURRENT OUTPUT  
FOR TOTAL OUTPUT

ENG. RPM — 2000  
GEN. RPM — 5000  
FIELD CURRENT — 1.8-2.4 AMPS  
BELT TENSION FT./LBS.  
NEW CAR INSPECTION — 80-110  
NEW BELT — 110-120  
USED BELT — 70-80

#### CHARGING CIRCUIT RESISTANCE

VOLTS @ 10 AMPS  
.3V INS. CIR.  
.05V GRD. CIR.

#### ROTOR FIELD CURRENT DRAW

2.1-2.7 AMPS @ 12.6 ± .2 VOLTS

### 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

### REGULATOR — MOTOROLA 70C44238B01 — MOTOROLA — TVR12CCI

#### CIRCUIT TYPE — RBT ISOLATION DIODE TEST

VOLTMETER CONNECTED POS. LEAD TO ALTERNATOR REGULATOR TERMINAL,  
NEG. LEAD TO ALTERNATOR GROUND. WITH IGNITION SWITCH AND ALL  
ACCESSORIES OFF VOLTMETER INDICATION SHOULD NOT EXCEED .1 VOLT.

#### REGULATOR TERMINAL VOLTAGE TEST

VOLTMETER CONNECTED POS. LEAD TO ALTERNATOR REGULATOR TERMINAL,  
NEG. LEAD TO ALTERNATOR GROUND. WITH IGNITION SWITCH ON VOLTMETER  
SHOULD INDICATE NOT LESS THAN 1/2 VOLT OR MORE THAN 2 VOLTS.

#### OPERATING VOLTAGE TEST

VOLTMETER CONNECTED POS. LEAD TO ALTERNATOR OUTPUT TERMINAL,  
NEG. LEAD TO ALTERNATOR GROUND. ENGINE RPM 2000 WITH 10 AMP. MAX. LOAD.  
14.0-14.8 VOLTS @ 75° F.

#### OPERATING VOLTAGE CHART

TEMPERATURE	VOLTAGE SETTING	TEMPERATURE	VOLTAGE SETTING
0°	14.6-15.4V	80°	13.9-14.7V
20°	14.4-15.2V	100°	13.8-14.6V
40°	14.2-15.0V	120°	13.7-14.5V
60°	14.1-14.9V	140°	13.6-14.2V
		160°	13.3-14.1V