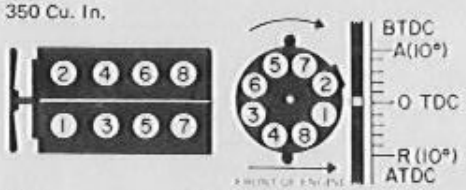
89 1969 CHECKER MOTORS A11-A12-A12W A11E-A12E CAR AND TAXI V8 300 HP 350 CU. IN. ENGINE W/4 BBL. CARB.

ENGINE 350 Cu. In.



Firing Order	1-8-4-3-6-5-7-2
Hyd. Lifters	Zero Lash + 1 turn down
Comp. Ratio	10.25-1
Comp. PSI (min)	160
(max. var.)	20

BATTERY 12V Neg. Grd.

Standard	H11-50	50AH
Optional		80AH

Cranking Voltage (min) 9.0v

CHARGING SYSTEM

	Standard	Optional
Output (min)	30A	50A
Operating Voltage (measured at battery)	14.0-14.8v	14.0-14.8v

IDLE

Engine Vac. 17"-21"
RPM—apply park brake firmly
(automatic load leveler motor—inactive)
HOT IDLE COMPENSATOR VALVE—must be seated
W/AIR CLEANER REMOVED—plug eng. vac. supply port.

Auto. Trans. (DR) 600 W/Air Cond. off

DWELL (Degrees)

At Idle 30 (28-32)
Variation 2 (between idle and 1500 RPM)

IGNITION TIMING (Degrees)

Dist. Vac. LIne Disconnected and Plugged
Auto. Trans. 4 BTDC @ Idle RPM

IGNITION ADVANCE (Degrees @ 2500 RPM)

	Cent. & Vac.	Cent. Only
Auto. Trans.	25-31	16-20

IDLE MIXTURE

Air Cleaner Installed—Vac. Hose Connected.
With idle speed RPM set to specifications, and mixture screws backed out 3 turns from lightly seated position. Turn mixture screws equally as required to obtain max. idle speed RPM. Adjust carb. idle speed screw to obtain specified idle speed RPM setting, turn each mixture screw clockwise (lean) to obtain a 20 RPM engine speed drop and then counter-clockwise (rich) ¼ turn. Readjust carb. idle speed screw as required to obtain specified idle speed RPM setting.

FUEL PUMP

Press.	5-6½ PSI @ 450-1000 RPM
Vol.	1 pt. 30-45 sec. @ Idle RPM

Filter (carb. inlet nut) Replace element every 12,000 miles or 12 months.
Filter (fuel tank) Strainer—Service as required.

SPARK PLUGS

	Standard	Colder
	ACR44	ACR43
Gap	.035"	.035"
Torque	25 Ft/Lbs.	25 Ft/Lbs.

CARBURETOR

Auto. Trans. Rochester-4MV 7029202

DISTRIBUTOR Auto. Trans.

Delco	1111489
Rotation	C
Spring Tension (oz)	19-23
Gap (inch) New	.019
Used	.016
Dwell (Degrees)	30 (28-32)
Variation (Degrees)	2
Condenser Capacity	.18-.23MFD

MECHANICAL ADVANCE
1111489

Dist. RPM	Dist. Deg.
500	0-2½
640	3¼-5½
850	6½-8½
2350	12-14

VACUUM ADVANCE

In. Vac.	Dist. Deg.
10	0
17	5

IGNITION COIL (ohms @ 80°F)

Delco	1115275
Pri. Res.	1.77-2.05
Sec. Res.	3000-20,000
Test Set Line	8
Ballast Resistor	
External	1.35

IGNITION CURRENT

Engine Stopped	4.0A
Idling	1.8A

SECONDARY RESISTANCE 3.0 min.

HI TENSION WIRE RESISTANCE

Coil to Dist. Cap	10000 ohms per foot (max)
Spark Plug Wires	10000 ohms per foot (max)

STARTING CRANKING CIRCUIT RESISTANCE

Insulated Circuit
Bat. Pos. Post to Starter Motor Terminal of Solenoid—.4v
(Pos. bat. cable only— .2v)
(Solenoid contacts— .2v)
Ground Circuit
Bat. Neg. Post to Starter Motor Housing—.2v

STARTER FREE RUNNING CURRENT DRAW

Delco 1108361 12¾" Ring Gear 1108338 14" Ring Gear
55-85A (includes solenoid) @ 9.0v RPM 3100-4900

SOLENOID CURRENT DRAW

Hold in Windings	14½-16½A @ 10v
Both Windings	41-47A @ 10v

SOLENOID PULL IN VOLTAGE

SW (S) Term. of Solenoid and Ground 7.7v (min)

SOLENOID CONTROL CIRCUIT

Bat. Term. of Solenoid to SW (S) Term. of Solenoid-3.5v (max)

SUN ELECTRIC CORPORATION—CHICAGO, ILLINOIS 60631

MOTOROLA ALTERNATOR MODEL	CIRCUIT TYPE	REGULATOR MODEL	ROTATION	COLD OUTPUT When Measured at Battery Add 5 Amps to Current Output for Total Output	ENGINE RPM	GEN RPM	FIELD CURRENT @ 80°F.	BELT TENSION FT/LBS. New	BELT TENSION FT/LBS. Used
Standard 70D44790B	35 Ampere RBT	TVR12CCI 70C44238BO1	Clockwise	15 Amperes 35 Amps. @ 15 Volts	500 2000	5000	2.0-2.6 Amps. Bench Testing Rotor Current Draw 2.3-2.9 Amps. @ 12.4-12.8v	110-120	70-80
W/Air Cond. Optional 70D44791B	55 Ampere RBT	TVR12CCI 70C44238BO1	Clockwise	22 Amperes 55 Amps. @ 15 Volts	500 2000	5000	1.8-2.4 Amps. Bench Testing Rotor Current Draw 2.1-2.7 Amps. @ 12.4-12.8v	110-120	70-80

MOTOROLA REGULATOR

MODEL TVR12CCI CIRCUIT TYPE – RBT
70C44238BO1
12 Volts – Neg. Grd.

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:

With Ind. Light – 0.3 volts
Grd. Cir. .05v
Reg. Grd. .05v

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 ½ 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

Temp. Deg.	0	20	40	60	80	100
Setting (min)	14.6	14.4	14.2	14.1	13.9	13.8
Volts (max)	15.4	15.2	15.0	14.9	14.7	14.6

Temp. Deg.	120	140	160
Setting (min)	13.7	13.6	13.3
Volts (max)	14.5	14.2	14.1

RECTIFIER DIODE TESTING

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

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