

FORD 1937-38

Electrical—Engine

Trucks and

V8 '85" PASSENGER CARS, COMM'L

GENERATOR STANDARD

GENERATOR (STD):—Third brush control type. Air-cooled. Various models used as follows:

1937 Car & Truck Models		
Generator	Armature	Pulley Diam.
① 40-10000-B	18-10005	4.28"
79-10000-B	79-10005-A	Double 4.68"
② 78-10000-HA	78-10005-HA	4.38"
④ 78-10000-HB	78-10005-HA	3.68"
③ 78-10000-HC	78-10005-HB	4.38"
⑤ 79-10000-HA	79-10005-HA	Double 4.68"
⑥ 79-10000-HB	79-10005-HB	Double 4.68"

1938 Car & Truck Models		
81-A-10000-A	79-10005	4.2"
81-A-10000-B	79-10005-HA	4.2"
③ 81-A-10000-C	79-10005-HB	4.2"
79-10000-B	79-10005	Double 4.5"

- ①—Replacement Generator 81A-10000-A
- ②—Replacement Generator 81A-10000-B
- ③—Replacement Generator 81A-10000-E
- ④—Replacement Generator 82A-10000-B
- ⑤—Replacement Generator 81T-10000-A
- ⑥—Replacement Generator 81T-10000-B

Charging Rate Adjustment:—Remove commutator cover band, shift third brush by hand counter-clockwise to increase, or clockwise to decrease output (brush held by friction). Standard setting is 1½ commutator segments between 3rd & main brush.

Maximum Charging Rate:—See table below.

Performance Stds.—See Note

40-10000-B		81A-10000-A	
Amperes	Eng. RPM	Amperes	Eng. RPM
Start	500	Start	500
17	1300	17	1300
11	2500	11	2500
78-10000-HA		78-10000-HC	
81A-10000-B		81A-10000-C	
Start	525	Start	350
26	1250	18	1000
16	2500	16	2500
78-10000-HB		79-10000-B	
Start	350	Start	500
26	1000	17	1350
16	2500	11	2500
79-10000-HA		79-10000-HB	
Start	525	Start	525
26	1300	18	850
16	2500	16	2500

NOTE:—If generators do not test up to these "Performance Stds." they should be overhauled.

Rotation:—Counter-clockwise at commutator end.

Field Current:—4.5-6.0 amperes at 6 volts (1.0-1.22 ohms resistance) for 40-10000-B, 81A-10000-A, 79-10000-B; 3.43-4.17 amperes at 6.0 volts (1.44-1.75 ohms resistance) for all other generators.

Removal:—Generator mounted on bracket at front of engine between cylinder banks with fan mounted on forward end. Driven in tandem with two water pumps by Vee Belt. To remove, take off nut on bracket stud.

Belt Adjustment:—Loosen nut on bracket flange mounting stud, move generator up until total side movement on belt midway between generator and water pump pulleys is 1", tighten nut.

GENERATOR SPECIAL EQUIPMENT

GENERATOR (RADIO & SPECIAL EQUIP.):—Two brush type with vibrating Voltage and Current Regulation. Air-cooled. Models used as follows:

'85' Car & Truck Models	
81A-10000-D	78-10005-A,C.....4.2"
81A-10000-E①	78-10005-B,D.....4.2"
'85' Truck Models	
81T-10000-A	78-10005-A,C.....Double 4.5"
81T-10000-B①	78-10005-B,D.....Double 4.5"

①—Low Speed (Taxi, Door-to-door Delvry., etc.)

Charging Rate Adjustment:—No adjustment provided. See Regulator Section below.

Maximum Charging Rate:—Controlled by regulator (dependent on battery condition and load). To check generator capacity, disconnect field lead at generator, connect both generator terminals together (use short insulated wire), use 'BRS' set or rheostat connected across battery terminals to apply load until voltage is exactly 6 volts. Operate generator at 1000 R.P.M., check output with ammeter connected in charging line. After making test, restore original connections, do not operate generator with terminals connected together (this eliminates all regulator action).

Performance Data.

81A-10000-D		81-T-10000-A	
Amperes	Eng. R.P.M.	Amperes	Eng. R.P.M.
Start	500	Start	550
28	1250	28	1300
81A-10000-E		81-T-10000-B	
Start	350	Start	350
20	1000	20	1050

Rotation:—Counter-clockwise at commutator end.

Field Current:—1.82-2.22 amperes at 6.0 volts (2.7-3.3 ohms resistance) for all models.

Removal & Belt Adjustment: Same as Std. (above).

SPECIAL GENERATORS:—Other Makes—Refer to Electrical Equipment Index for 'Special Generator' article for complete data on special Generators and Regulators

CUTOUT RELAY

CUTOUT RELAY:—No. B-10505 (On all Std. Generators above). Mounted on generator with field lead grounded to mounting screw.

Cuts In:—7 volts, 10 M.P.H.

Cuts Out:—3 ampere maximum discharge.

Contact Gap:—.015-.020".

Air Gap:—.010-.015" with contacts closed.

REGULATOR

REGULATOR:—Ford No. 81-A-10505. Used on Special Generators (above). Consists of Vibrating Voltage-and-Current Regulator and Cutout Relay in case on dash. **NOTE:**—This type superseded by 01A-10505-C. For complete data, refer to Electrical Equipment Index.

Cutout Relay.

See Standard model above.

Voltage-and-Current Regulator.

Voltage Setting:—7.6 volts max. at 70° F.

Current Setting:—30 amperes (81-82-A-10000-D; 81-T-10000-A Generators), 23 amperes (81-82-10000-E; 81-T-10000-B Generators).

Regulator Checking:—See article in Electrical Equipment Section for complete directions.

LIGHTING

LIGHTING:—Headlamps. Corcoran-Brown 'Two-Lite', Pre-focused type. Upper and lower beams controlled by lighting switch (1937), Beam Selector Switch on toeboard (1938).