

ITEM T81/11

SUBJECT: CONSTANT ENERGY IGNITION SYSTEM FITTING

MODELS: TR7 (Lucas Ignition System)

The following procedure should be followed when fitting Constant Energy Ignition systems to TR7 vehicles.

REMOVE THE ORIGINAL DISTRIBUTOR:- (45 DE)

1. Set engine to No. 1 cylinder firing and normal static timing (see appropriate workshop manual).
2. Disconnect the battery.
3. Remove the heater system air scoop.
4. Remove distributor cap and note the position of the distributor body. Rotor arm should also line up with No. 1 spark plug lead (Figure 1).
5. Disconnect 3 pin LT Connector and vacuum pipe (if fitted).
6. Remove the two distributor securing bolts and remove distributor and clamp plate.

FIT NEW DISTRIBUTOR:- (45 DM)

1. Remove distributor cap.
2. Fit the distributor to the engine with the body and rotor arm in the same position as the original distributor. Tighten the mounting clamp plate to the engine.
3. Remove rotor arm and anti-flash shield and carefully adjust distributor body to line up the nearest limb of the timing reluctor with the pick-up coil limb (Figure 2).
4. Tighten the clamp plate bolt. Replace the anti-flash shield and rotor.
5. Using the original distributor cap as a guide, ensure that No. 1 cylinder spark plug lead lines up with the rotor arm. Reposition if necessary.
6. Fit the new distributor cap and transfer the HT leads.
7. Connect vacuum pipe (if fitted).

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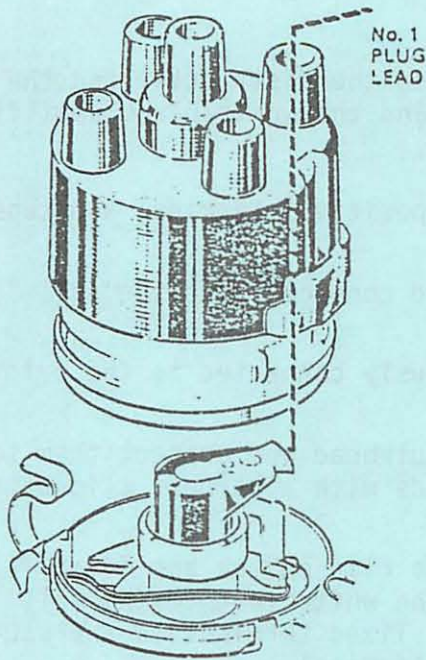


Fig. 1 Rotor arm alignment
model 45DE distributor



Fig. 2 Reluctor alignment

FITTING THE AMPLIFIER:-

1. Position the amplifier on the bulkhead over the passenger side footwell (see Figure 3) ensuring the socket for the distributor pick-up lead faces towards the engine.
2. Mark the position of the two fixing points and drill two holes 5/16" diameter. Clean around the holes inside and outside of the vehicle to ensure a good metal-to-metal contact with the car body when the amplifier is fitted. Cut away some of the sound proofing material on the inside so that the securing washers and nuts are tightened against the metal of the body.
3. Plug the distributor leads into the amplifier.
4. Using the two bolts supplied, secure the amplifier to the bulkhead, ensuring:
 - (i) the pick-up braid ground eyelet is trapped under the head of the adjacent bolt.
 - (ii) a harness clip is fitted to the head of the outer bolt for securing the amplifier to coil leads.

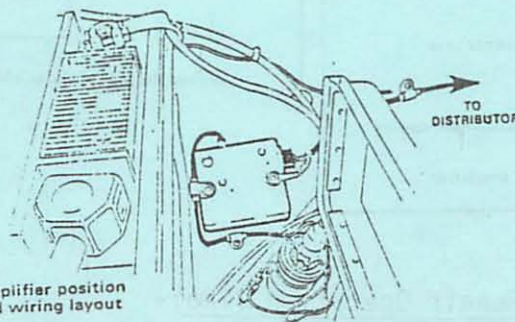


Fig. 3 Amplifier position
and wiring layout

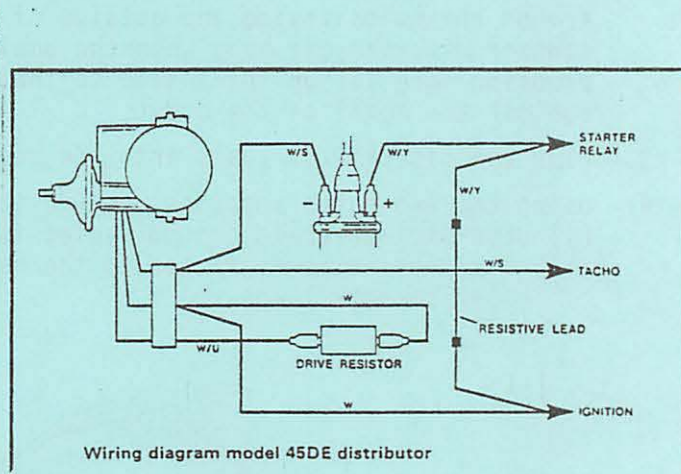
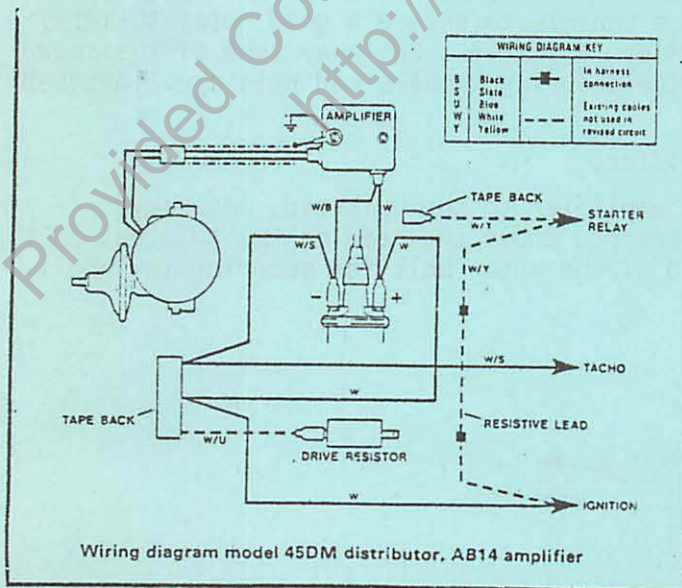
WIRING:-

When routing the wiring make sure the screen leads between the distributor and the amplifier are kept as far away as possible from the HT leads and the white/black amplifier to coil lead and the white/slate coil to tachometer lead.

1. Disconnect the white/yellow lead from the coil "+" (positive) terminal and tape it back.
2. Disconnect the white lead from the drive resistor and connect it to the coil "+" (positive) terminal.
3. Tape back the three-pin low tension connector previously connected to the original distributor.
4. Route the amplifier to distributor leads along the bulkhead and connect them to the distributor flyleads (see Figure 3). Secure the leads with a harness clip attached to the bolt under the airscoop fixing lug.
5. Route the amplifier to coil leads through the harness clip on the amplifier fixing bolt and down to the coil. (see Figure 3). Connect the white lead to the coil "+" (positive) terminal (if necessary, fit an additional fixed terminal to the stud) and the white/black lead to the coil "-" (negative) terminal.
6. Neatly fasten the white/black leads to the bulkhead (see Figure 3).

TIMING:-

Connect timing light to No. 1 spark plug lead and set ignition timing to specifications quoted on the under hood emission label.



Repair Operation Time:-

Operation 86.35.40 - Fit Constant Energy Ignition Kit - 1.20 hours

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CONSTANT ENERGY IGNITION KIT CROSS-REFERENCE LIST

VEHICLE	YEAR	ORIGINAL DISTRIBUTOR	ORIGINAL AMPLIFIER	USE CONSTANT ENERGY KIT	CONSTANT ENERGY DISTRIBUTOR	CONSTANT ENERGY AMPLIFIER
TR7	FED 1975-76	41601	54427199	60600713	41809	47263
	CAL 1975-76	41603	54427199	60600714	41810	47263
	FED 1977-79	41701	83502	60600716	41812	47263
	CAL 1977-79	41700	54429757	60600715	41811	47263

H.C.T.