

The TRIUMPH Corporation

SERVICE BULLETIN

February 19, 1964 64/3

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: How to use TRI-COR "Top Center" Tool and Ignition Timer Kit.

Use these tools for quickly and accurately setting ignition timing of all Triumph Models that have contact breaker points mounted on end of camshaft.

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>LIST PRICE</u>
CD385	Top Center Tool	\$2.60 A
CD368	Complete Ignition Timer Kit	3.00 A

CD368 Timer Kit consists of these separate parts:

1 - CD376	Timer Disc	\$1.10 A
1 - CD382	Adaptor	1.50 A
1 - CD378	Washer	.20 A
1 - CD138	Wing Nut	.20 A

1. Remove both spark plugs and contact breaker cover plate.
2. Remove contact breaker assembly holding bolt (E1545) and washer (S25-43).
3. Thread ignition timer adaptor (CD382) into the camshaft to replace the bolt and washer that you have just removed. If you are checking ignition at full retard (static timing) make sure that you fit the brass washer (CD378) with the recess toward the adaptor and away from the ignition cam.
4. Carefully tighten the adaptor body and fit plastic timer disc (CD376). Put piece of masking tape on the exhaust pipe with a mark to line up with the edge of the disc. Set disc accurately for top center as follows:
 1. Engage fourth gear and rotate engine using the rear wheel until piston is on top center WITH BOTH VALVE CLOSED. (This is important to prevent damaging inlet valve). Adjust top center (T.C.) mark on disc to line up with mark on masking tape. NOW rotate the engine forward 35°. (Do not rotate engine backwards through the inlet cycle).
 2. Fit Top Center Tool (CD385) into spark plug hole. Carefully screw adjustable pin down until it touches the piston and lock pin with lock nut. Now rotate the engine forward through bottom center (exhaust cycle) until the piston comes upwards and touches the pin. **CAUTION! DO NOT** rotate engine backwards as the inlet valve could strike the Top Center Tool and bend the valve. Check the reading on the disc and adjust by splitting the difference between first and second reading. Now rotate the engine backwards until the piston again touches the pin and recheck. When you have the disc adjusted so that you get the same reading on either side of top center (on exhaust stroke) you then know that top center (T.C.) reading on the degree disc is perfect.

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3. Remove top center tool. Using your Burnworth Tester part #233, (See Service Bulletin No. 64/2) Take a direct reading from the timer disc when the points break and this will give you static timing in crankshaft degrees.

We recommend checking "FULL ADVANCE" ignition timing with the auto advance unit locked in full advance position. This can easily be done as follows:

Fit brass washer (CD378) with the recessed face toward the contact breaker cam. As you tighten the adaptor use a small screw driver in the notch at the edge of the contact breaker cam and rotate the cam clockwise (for Twin Models)* until the cam is full advanced. The cam can be locked in that position by tightening the adaptor against the brass washer (do not overtighten). This will hold the auto advance mechanism locked in full advance position. Set contact breaker points so they open at 38° before top center. (full advance) This is a good ignition timing for all models.

* For Cubs rotate cam counterclockwise.

Since the first production 1963 Models, the static timing for various Models has been changed, due to a change in the "range" of the auto advance. For this reason, it is always best to check "FULL ADVANCE" timing by following the above instructions.

If you have an automotive type ignition timing light you may also wish to use your TRI-COR Ignition Timer under running conditions. After you have mounted the timing disc and obtained top center, connect the timing light to the spark plug of the cylinder you wish to check and the corresponding set of points. Shine the light on the rotating disc and check the timing under running conditions for this cylinder. You can do this with locked spark or with the auto advance operating.

You can easily adjust the contact breaker points without removing the disc once you have set it for accurate top center. You can also adjust the timing by moving the contact breaker point plate without disturbing the disc. With a little practice you can use the TRI-COR Ignition Timer to obtain accurate degree disc timing in less than ten minutes.

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh

CAUTION!: When the Top Center Tool is fitted in the spark plug hole, rotate engine CAREFULLY to avoid damage to piston or inlet valve. An over-size inlet valve could strike the tool. Never rotate engine through inlet cycle while tool is in place. If in doubt, remove inlet valve cover and make certain valve is not opening while Top Center Tool is fitted.