

1.11. RIFF 14

FERRARI DISTRIBUTOR TIMING

To completely time a late model Ferrari, a timing light (electronic) and a feeler guage are required,

First install all new point sets, or file (with an ignition point file) the old sets so that a smooth parallel surface remains. Then adjust the gaps to the spacing recommended in the owners manual. (.014" Connect a good quality timing light to the #1 spark plug. Start the engine and let it idle below 1000 RPM. The 10AF mark, which is just before the PM1/6 on the flywheel, should be visible at engine idle as observed in the timing window. Now increase the RPM to 5000; 42AM should be visible on the flywheel. If the 10AF lines up with the pointer and the 42AM does not, advance the right distributor (by rotating the top) until the 42AM is at the pointer. It is generally preferred that the engine be in time at high speed more so than at idle. Next move the timing light to sparkplug #6 on the same bank. Start the engine and increase the RPM to 5000. The same 42AM (now 360° later) should be seen at the pointer. If it is not visible, stop the engine and adjust the position of the second point set by loosening the two screws and sliding the set forward or backward, thus the timing of the even number cylinder can be accomplished. To determine which points control the even and odd number cylinder crank, the engine over until the rotor points to #1 on the cap. The set of points that are just opening are the even numbers set (the flywheel mark should be just coming up to the 10AF mark also). This "odd set" is not adjusted for position, only the "even number set" is moved to adjust the #6 firing position. This completes the timing of the right hand bank.

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To time the left hand bank, connect the timing light to cylinder #7 (closest to the fire wall) and start the engine. At an idle (less than 1000 RPM), the 10AF mark should be visible at the pointer. This mark is located just ahead of the PM7/12 mark on the flywheel. Increase the engine speed to 5000 RPM and observe the timing mark; 42AM should be visible at the pointer. If this mark is not at the pointer, adjust the distributor (by rotating the top) so 42AM is at the pointer. Again, it is more important that the timing be correct at 42AM than at 10AF. Move the timing light to cylinder number 12. Start the engine and increase the RPM to 5000. The 42AM should again be visible at the pointer. If it is not, move the second or odd number points until the 42AM is obtained. To determine even #12 from the odd #7 point set, crank the engine until the rotor points to #7 on the distributor cap. The points should be just opening (10AM should be close to the pointer also); this set is the even number and should not be moved for cylinder number 12 adjustments.

It is always wise to repeat all timing checks again to double check their accuracy.

NOTES:

1. Be sure to retighten all of the 14mm nuts that hold the distributor top on to the base. These nuts should be just loose enough to move the distributor timing when adjusting #1 and #7 maximum advances (42AM).

NOTES (continued)

2. To avoid the sparking between the top and base of the distributor while timing, a short length of wire should be permanently connected to the top section. This cable should then be connected to the fire wall at some convenient point. Thus a good electrical connection between the distributor and ground is always maintained. A typical connection would be between the capacitor mounting screw and the ignition coils' mounting bracket. A number 18 guage insulated wire is sufficient.
3. It is not always necessary to remove the metal cover plate on the bellhousing to expose the flywheel timing marks. A clear plastic (preferably Lexan) cover plate can be made by tracing the old piece and installing in its place. This way, the timing light can be shined through the "window" to check timing.
4. Lube the distributor cam lobes with a good quality grease such as Delco cam lube.
5. Definitions of the flywheel markings are:
 - PM1/6 - Punto Morto; this is top dead center for #1 cylinder.
 - PM7/12 - Punto Morto; this is top dead center for #7 cylinder.
 - 10AF - 10° Anticipo Fillo; this is 10° fixed advanced.
 - 42AM - 42° Anticipo Massimo; this is 42° maximum or full advance.