



FIRESTORM 77 SERIES DUAL SYNC SENSOR

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INSTALLATION INSTRUCTIONS

NOTE: Make sure that your ignition coils are disconnected until after you completed step 12. Serious injury can occur if you touch any of the coil outputs while coil is connected to FireStorm.

Make sure the engine is set at 0 TDC # 1 Cylinder. If you wish to put in initial advance by setting the balancer to 5 to 10 Degrees BTDC, you must put the number in CRANK PICKUP OFFSET in Ignition Configuration.

1. Rotate the engine to Top Dead Center of cylinder #1.
 2. Remove the distributor being replaced from the engine.
 3. Install the Dual Sync Sensor making sure that it seats properly.
 4. Attach the Dual Sync Sensor adapter wire harness (part# 77642 GM/CHRY or 77643 FORD) to the FireStorm Box main wire harness, ensuring that the ground leads are connected to an appropriate grounding point on the engine. Then plug the CAM & CRANK connector to the Dual Sync Sensor.
 5. Turn the ignition to the **Key-On, Engine-Off** position, and launch the SparkMap Software program.
 6. Select the "Online to FireStorm" data source, and go to the Ignition Configuration screen by pressing the **CTRL- I** key combination, or selecting the Ignition menu item from the **Configuration** menu.
 7. From the Ignition Type drop-down list, select **Dual Sync Distributor or Hall Effect equivalent W/CAM**, then press **F10**. When prompted, turn the ignition key to the **Off** position. The key must remain in the **Off** position for at least **20 seconds** for the programming changes to be implemented by the Module.
- SENSOR PHASING**
8. Turn the ignition key to the **On** position then position yourself so that you can see both the Red (Crank) and Blue (Cam) LEDs. Verify that the ignition is still in the **Key-On, Engine-Off** position.

9. Rotate the Sensor housing **opposite the shaft rotation (Chevy/Chry: Rotate housing counter clockwise – Ford: Rotate Clockwise)** or opposite direction as when the engine is turning the rotor. (Either clockwise or counterclockwise) continue rotating **until the blue LED shuts off completely**. This indicates the falling edge of the cam trigger position. **(Please disregard if blue LED comes back on in next 2 steps)**

10. If red light is still on, continue to slowly rotate the distributor housing **until the red LED shuts off (Stop)**. This indicates the falling edge of the crank trigger position #1. Stop at this point.

11. If red light was off after blue light LED shut off, slowly rotate the distributor Housing **until the red LED comes on and shuts off (Stop)**. This indicates the falling edge of the crank trigger position. Stop at this point. Your Sensor is now set to Top Dead Center of cylinder #1.

12. Taking care not to rotate the distributor housing, verify that the crank LED (red) is not lit and tighten the sensor. If the red LED is lit, repeat steps 8-12.

DO NOT ATTACH ANOTHER SWITCHED 12 VOLT SUPPLY TO THE BOX.

Start the engine. Using a timing light, verify that the timing reading on the harmonic balancer is the same as the timing reading in CalMap. We recommend forcing the timing in SparkMap to 10–20 degrees while verifying readings. If the readings are different, loosen the Sensor and rotate the housing until the timing readings on the harmonic balancer are the same as the timing reading in SparkMap. Tighten the Sensor.

Your Dual Sync Sensor is now correctly mounted, phased, and ready to run.

If you encounter problems or if you need further technical assistance, please call our technical service line at (216) 688-8300.



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03/12
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