

ENGINE CALIBRATION AND SET UP KIT

OPERATOR'S MANUAL



INCLUDES:

- | | |
|---|---|
| 1. #7894 - Flexible Compression Whistle Alert | 5. #7877 - Long Piston Stop |
| 2. #7886 - Extended 10.75 in. (14 mm) TDC Indicator | 6. #7885 - 14mm to 18mm Spark Plug Hole Adapter |
| 3. #7881 - Compression Gauge Extension | 7. #7892 - 14mm to 12mm Spark Plug Hole Adapter |
| 4. #7880 - Standard 6.25 in. (14 mm) TDC Indicator | 8. #7882 - Rigid Compression Whistle Alert |

COMPRESSION WHISTLE ALERT™ “Rigid” #7882 / “Flex” #7894

No more burning your fingers. Just listen to Whistle Alert!™

Insert the **Rigid Whistle Alert** or the **Flex Whistle Alert** into any 14mm spark plug hole and bump the engine until you hear the whistle. You are now on the compression stroke!

- Easily finds Top Dead Center compression stroke
- No more burning your fingers and hands
- Turn engine over from inside the car and listen for the whistle
- Made and assembled in the USA

TDC INDICATOR #7880 (Std. 6.25") & #7886 (Ext. Model 10.5")

READ WARNINGS FIRST!

- DO NOT use on an engine that has an acute spark plug angle relative to the flat top of the piston or you may bend TDC Shaft.
- Best used on Hemi Type engines.
- Make sure the ignition is turned off before installing tool.
- Do not turn the engine over with starter - manual use only.
- Before using the tool, bring the piston close to TDC and make sure the engine is on compression stroke with both valves closed.
- Lubricate the threads of the TDC Indicator before use.

The TDC Indicator allows technicians to accurately set any piston to Top Dead Center. Just remove the spark plug, screw in the gauge and rotate the engine by hand, observing the graduation marks on the sliding shaft. Note the top of the piston stroke! You can also use a dial indicator by setting the plunger on the flat top of the indicator.

- Accurately displays piston movement
- Stainless steel spring
- 1/8th inch graduation marks
- Made and assembled in the U.S.A.
- Installs as easily as a spark plug
- Lifetime warranty
- Made of 1144 steel

DIRECTIONS:

1. Remove the spark plug of the cylinder you want to test.
2. Lubricate the threads of the Compression Gauge Extension.
3. Install the tool in the spark plug hole and tighten until snug.
4. Now rotate the engine, noting the highest point the piston travels by watching the graduation marks on the indicator shaft.
5. Note the top of the piston stroke.

COMPRESSION GAUGE EXTENSION #7881

The Compression Gauge Extension brings the spark plug hole above the valve cover on hemispherical and deep-plug-hole engines for easy compression gauge attachment.

- Works on deep-hole spark plugs and hemispherical engines
- Extends spark plug hole to 7.5 inches
- Attaches compression gauges easily
- O-ring seal allows complete compression transfer
- Made of 1144 steel alloy
- American made and assembled
- Lifetime Warranty

CRANK STOPPER #7877

Use to remove balancer pulleys or set up for timing alignment. When installed correctly, the Crank Stopper will lock the piston against it so a technician can remove balancers, timing gears, etc.

READ WARNINGS FIRST!

- Use only on HEMI-spherical type engines with flat top pistons.
- Use only where the tool is perpendicular to top of piston.
- Warranty will be voided and serious damage may occur if used in any other applications.
- Do not install into worn threads! Serious injury and damage may occur if tool is not inserted into healthy threads.
- When used under high pressure, the tool may act as a projectile if all threads are not properly inspected for wear before insertion.

NOTE! The Crank Stopper should be used only on clean applications, not hard or over torque bolts. (Be sure to look into the combustion chamber and make sure all the valves are closed and piston is coming up to TDC (compression stroke) before installing the tool. Do not use if the spark plug hole angle is too acute.)

- Make sure ignition is turned off before installing tool.
- Do not turn engine over with starter - manual use only.
- Before using the tool, bring the piston on its compression stroke ½ way to TDC or a minimum of 40 degrees before TDC and make sure all valves are closed.
- Avoid screwing the tool into the combustion chamber deeper than necessary.
- Lubricate the threads of Crank Stopper before use.
- Do not use a breaker bar. Maximum should be a ½" drive ratchet.

DIRECTIONS:

1. Remove the spark plug and rotate the engine by hand until the piston comes mid way to the top of its compression stroke a minimum of 40 degrees before TDC.
2. Install the tool in the spark plug hole until the tool just passes the spark plug threads and contacts the piston.
3. Continue to slowly rotate the engine manually until the piston stops against the Crank Stopper. This should hold the engine in place, allowing the removal of the harmonic balancer, timing chain, belts or gears.

TO REINSTALL PARTS:

1. Back off the piston from the Crank Stopper and remove the tool.
2. Rotate the engine until the piston moves past TDC approximately ½ of the piston throw.
3. Reinstall the Crank Stopper and turn engine back until it engages the piston.

ADAPTER BUSHINGS #7885 (18 mm) & #7892 (12 mm)

These adapter bushings allow you to use any of the Engine Calibration and Set-up Kit with 12 mm or 18 mm spark plug hole applications, except the Crank Stopper #7876, which does not work on 12mm.

LIMITED LIFETIME WARRANTY

Workmanship and material. Any defect in the material or workmanship is repaired or replaced within 24 working hours upon receiving it by the manufacturer. The warranty does not cover abuse claims.

RELATED PRODUCTS

Disc Brake System Analyzer #7884

Identifies the exact cause of uneven wear.

The only tool that identifies an imploded brake hose and accurately detects where the problem lies without breaking a line.



Fuel Pump Relay Bypass Master Kit #9038

Energize a fuel pump with the push of a switch.

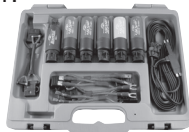
6 pc. set covers most domestic, Japanese, Korean, and German applications.



Fuse Saver® Master Kit #8016

Finds short circuits FAST!

5 resetting, color matching breaker handles: 5, 10, 15, 20, and 30 amps



Mantus™ Tight Access Tool #8041

The ultimate grab tool.

Serrated tips grip fuses, terminals and wires.

Cleans male spade pins.



(OEM) Original Equipment Manufacturer USA

©2013 Innovative Products of America® Incorporated. All rights reserved. This material may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder. For permission, contact info@ipatools.com.