



ATD-5639 Super Compression Tester Kit Manual



- Tests compression on all major model vehicle platforms, domestic and foreign with gasoline engines, including mini engines
- Quick coupler connection on gauge assembly for fast and easy changing of hose and adapter assemblies
- 2-1/2" gauge has dual scale dial with ranges from 0-300 psi and 0-21 BAR
- Easy push-button deflator for fast service
- Rubber gauge boot for added protection

WARNING

WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. *Wash hands after handling.*

WARNING



Flying particles can cause eye injury

- Wear safety goggles.
- Do not exceed gauge's maximum pressure rating.
- Be sure all connections are secure.
- Do not use gauge while engine is running.



Clear plastic lens on gauge can break

- Do not drop or hit gauge face.
- Do not use gauge if clear plastic lens is cracked or broken.



Moving parts can cause injury

- Keep yourself, clothing and test equipment clear of moving parts.



Burn Risk

- Do not touch engine components that are hot.



Risk of sudden vehicle movement

- Set vehicle to neutral for a standard

Gasoline Engine Compression Testing

Consult appropriate manufacturer's service manual for compression specifications.

1. The battery must be at or near full charge so that the cranking speed on the first cylinder is the same as on the last cylinder. A battery charger may be needed to maintain cranking RPM.
2. Idle the engine until operating temperature is reached. Stop the engine.
3. Remove all spark plugs and the air cleaner.
4. Block wide open the throttle body valve or carburetor throttle and choke plates.
5. Disconnect the ignition system using the appropriate method:
 - a. On point-type ignition systems or electronic ignition systems that have a separate coil; disconnect power to the coil.
 - b. On GM High Energy Ignition systems: remove the battery supply wire that connects to the distributor.
 - c. On distributor-less ignition: disconnect the ignition module harness' electric plug.
6. Thread correct adapter into a spark plug hole, or hold rubber cone of the compression tester in the spark plug hole tightly to prevent leakage. **CAUTION: Do not use long reach adapters on engines with standard spark plugs as engine damage may occur.**
7. Crank engine 6 times or until maximum pressure is reached. Engines with higher compression may require 10 or more cranks, but limit time to fifteen seconds maximum.

8. To retest the same cylinder, or before going to the next cylinder, release the pressure by pushing in the depressor under the gauge.
9. Test each cylinder.

IMPORTANT: Engines with aluminum heads require special care to prevent stripping of the spark plug hole threads. Prepare for a compression test by loosening and retightening the spark plugs when the engine is cold. (*Aluminum cylinder threads are less likely to strip when the engine is cold.*) Before removing spark plugs, always clean dirt from around the plugs. By doing this, proper seating of the compression test adapter and the new spark plugs is ensured. Apply oil to threads and hand tighten when installing/removing compression test adapters.

ADAPTERS / REPLACEMENT PARTS

70327	14mm hose assembly, short	TU-21	1-1/2", 200 PSI gauge and hose assembly for small engine testing
70328	14mm hose assembly, long		
70340	68mm gauge and hardware assembly	73102	10mm adapter, short thread
71619	68mm pressure gauge and boot assembly, 300 PSI	73110	Adapter extension
41305	Quick coupler for gauge and hardware assembly	73111	12 and 16mm hose assembly
41351	Deflator for gauge and hardware assembly	73115	24" hose assembly with quick coupler
60610	Connector for gauge and hardware assembly	41301	Quick coupler for 24" hose assembly
		74466	Repair parts kit
		42008	Instructions



ATD-5639

70340 Gauge Assembly

- 23007 Gauge Only 1/8"
- 41917 Boot
- 60611 Union 1/4" 1/8" F
- 41351 Deflator
- 41305 Quick Coupler 1/4" MPT

73102 M10

- 43103 O-Ring

70327 M14 Short

- 43141 O-Ring
- 41751 Valve Core

73111 M12 & M16

- 43112 Large O-Ring
- 17-1486 Small O-Ring
- 41751 Valve Core

73110 M14x1.25

- 43141 O-Ring

70328 M14 Long

- 43141 O-Ring
- 41751 Valve Core

**TU-21 Small Engine Gauge
M14 & M18 thread**

- 43181 Large O-Ring
- 43141 Small O-Ring
- 200 lb psi

73115 Hose 24"

- 41301 Female Quick Coupler

Part Number	Description
70340	GAUGE ASSEMBLY
23007	GAUGE ONLY, 1/8"
41917	BOOT
60611	UNION, 1/4" x 1/8"
41351	DEFLATOR
41305	QUICK COUPLER, 1/4" MPT
73102	M10 FITTING
43103	O-RING
TU-21	SMALL ENGINE GAUGE
73115	HOSE, 24"
41301	FEMALE QUICK COUPLER
73110	M14 x 1.25" FITTING
70327	M14 SHORT HOSE
41751	VALVE CORE
70328	M14 LONG HOSE
41751	VALVE CORE
73111	M12 & M16 HOSE
43112	LARGE O-RING

74466	REPAIR PARTS KIT INCLUDES:
41401	QUICK COUPLER WASHER
41751	AIR VALVE CORE x2
43103	O-RING, M10 FAT .275 x 1.25
43123	O-RING, 9/16" OD x 7/16" ID
43141	O-RING, M14 .424 ID x .103 x2
43181	O-RING, M18 .549 ID x .103 x2