

Digital Inductive Timing Light User Guide

555-40750

9-16 Volt



JEGS.com

1-800-345-4545

Technical Terms

- Timing is given in "linear measurement" or "degrees" relative to the "Top Dead Center" (T.D.C.) of the movement of the piston. (See Figure 1)
- B.T.D.C. (Before Top Dead Center): When the timing is "advanced", the spark will occur before the piston reaches the top of the engine cylinder ensuring that the full power of the explosion is obtained.
- T.D.C. (Top Dead Center): The piston is at its highest point in the cylinder.
- A.T.D.C. (After Top Dead Center): When the timing is "retarded", the spark occurs after the piston has started to go down in the cylinder.

Introduction: Contents

1. For checking and setting ignition timing on automotive, agricultural and marine engines.
2. For use on 9-16 volt systems.
3. Reverse polarity protected.
4. Accurate to 8,000rpm.
5. 20 in. long durable power leads.
6. Impact resistant housing.
7. On/off trigger switch.
8. Bright linear Xenon flash tube for daylight use.
9. Focused lens provides concentrated light.

Figure 01

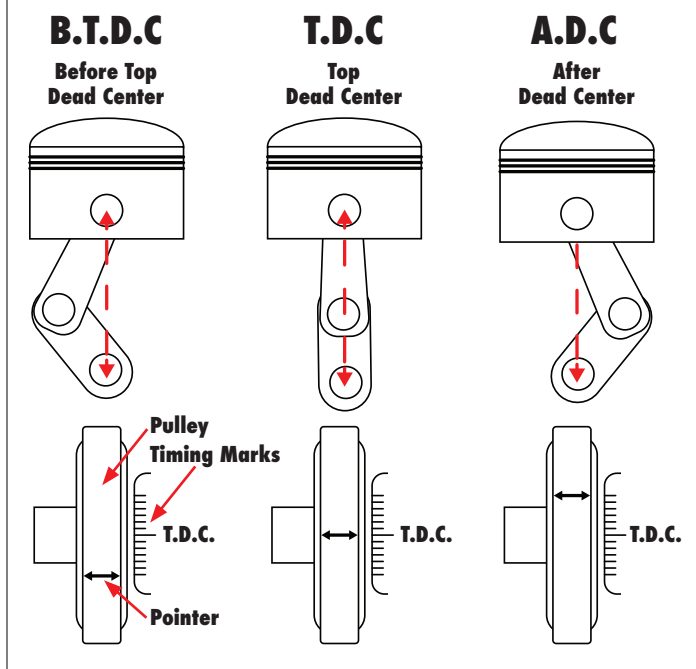


Figure 02

Introduction: Operation Buttons

- A. Display Area: Display ignition advance angle or engine speed.
- B. Indicator Area: Indicates that the product is in a certain functional state.
- C. Operation Buttons (See below descriptions)
1. R/A Button:
Switch speed and ignition advance angle to be displayed.
 2. 4/2 Button:
Switch from 4-stroke and 2-stroke.
 3. + Button:
Short press to increase the ignition advance angle by 0.1 and long press to increase it by 1.
 4. - Button:
Short press to reduce the ignition advance angle by 0.1 and a long press to reduce it by 1.



Figure 03

Operating Instructions

1. Clamp the inductive pick-up around the No.1 Spark Plug wire. Make sure the arrow on it is facing towards the spark plug. Do not allow the inductive pick-up to touch the exhaust manifold or surrounding parts as these areas become extremely hot and will damage the inductive pick-up.
2. Connect the RED clamp to the positive(+) battery terminal.
3. Connect the BLACK clamp to a secure engine ground such as the alternator bracket or the engine block. For safety reasons, do not use the negative(-) battery terminal or fuel system components as a ground connection point.

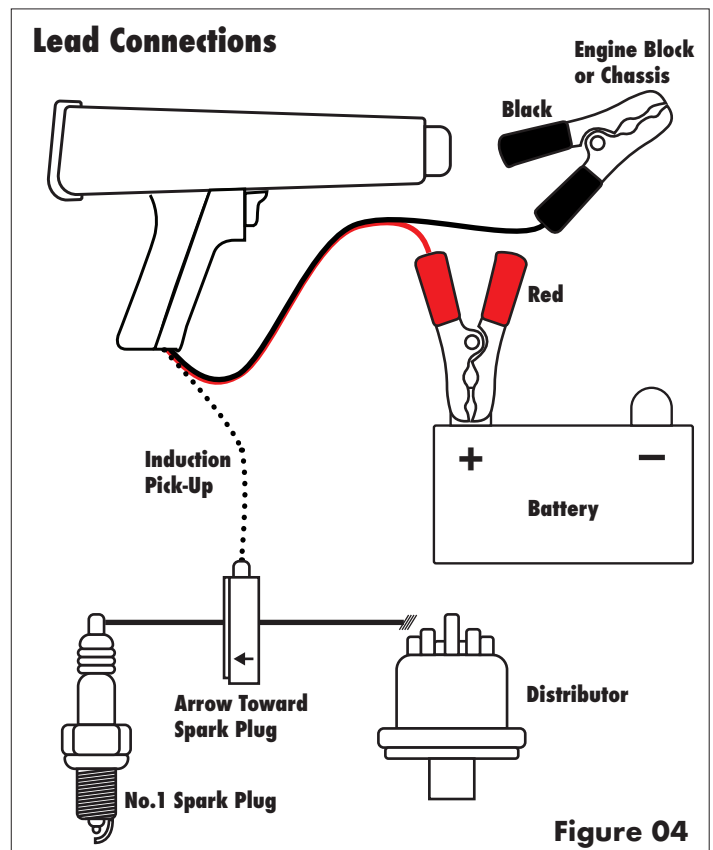


Figure 04

Timing Adjustment

PLEASE NOTE: Before adjusting the timing, the “dwell angle” or “gap” should be adjusted on vehicles fitted with contact breaker points.

1. Check manufacturers specifications for correct timing for engine being serviced.
2. Loosen the distributor clamp bolt so that the distributor can be rotated in either direction.
3. Locate engine timing mark and use a rag to clean all grease and dirt from the mark and the pointer. It may help to use chalk or white paint on the mark to make it more easily seen.
4. Start and run the engine until normal operating temperature is reached. Approximately 15 minutes and then stop engine.
5. Start the engine and operate at normal idle speed, aiming the timing light towards the timing mark.
6. Trigger the timing light and observe the reading from the timing mark.
7. Compare the reading obtained with the manufacturers specifications. If the timing is not as specified, slowly rotate the distributor slightly to obtain a correct reading.
8. Stop the engine.
9. Tighten the distributor clamp bolt.
10. Restart and check the timing.
11. If it is the correct reading, stop the engine and reconnect the vacuum hose.

Troubleshooting

Fault	Possible Causes	Solution
No Flash	<ol style="list-style-type: none">1. Battery clamps are reversed.2. Poor connection of battery clamps.	<ol style="list-style-type: none">1. Swap the clamps over.2. Make sure the clamp connections are clean
Light Flashes Intermittently	<ol style="list-style-type: none">1. Inductive pick-up wire lying too close to the other spark plug wires.	<ol style="list-style-type: none">1. Move the pick-up wire away from the other wires.

Safety Information

1. If you are uncomfortable using this timing light contact a qualified auto technician.
2. Always wear safety goggles to protect your eyes from battery acid, fuel, dust and dirt flying off moving engine parts.
3. Always wear protective gloves when working with engine components.
4. Always ensure that hands, hair, clothing or cables are clear of any moving or hot parts.
5. Always follow the vehicle manufacturer's recommendation and procedures.
6. Always turn off the ignition of the vehicle before connecting the clamps to the battery and disconnecting the timing light.
7. Always ensure that the hand brake is on and the vehicle transmission is in Neutral (manual) or Park (automatic).
8. Always keep children and unauthorized persons away from the working area.
9. Always store the timing light in a safe, dry and child proof location when not in use.
10. Always run the engine in well ventilated areas.
11. Always remember that a flashing timing light "freezes" rotating components. Do not be tempted to touch an apparently stationary component which is, in fact, rotating.
12. Never use the timing light if it is damaged in any way.
13. Never smoke, create sparks or use a naked flame near batteries.
14. Never rest tools or metallic items on top of the battery.
15. Never touch any ignition components when the ignition is on as very high voltages are present.
16. Never pull the cables or clamps from the battery terminals.
17. Never operate in the vicinity of flammable liquids or gases.
18. Never place the timing light on the hot engine surface.
19. Never modify the timing light in any way or use it for a task for which it is not designed.