TROUBLE SHOOTING

FAULT	POSSIBLE CAUSE	SOLUTION
No flash.	1. Battery clamps are reversed. 2. Poor connection of battery clamps.	1. Swap the clamps over. 2. Make sure the clamps are connected to a clean battery terminal.
Light flashes intermittently.	1. Inductive pick-up wire lying too close to the other spark plug wires.	1. Move the pick-up wire away from the other wires.
No flash but the “check” light is on.	1. Wrong direction of inductive clamp. 2. Weak ignition or spark plug. The gap is too close.	1. Point the arrow on the inductive pick-up towards the No. 1 spark plug. 2. Test with other spark plug wires. If it flashes, repair the the plug or gap.

QUALITY GUARANTEE & WARRANTY

KENNEDY TOOLS carry a one year manufacturers warranty.
KENNEDY TOOLS are designed & manufactured to the highest standards & specifications.
Assuring the quality and performance required by all sectors of industry.
KENNEDY TOOLS are fully guaranteed against faulty materials & workmanship.
Should they be found to be defective, they will either be repaired or replaced free of charge (fair wear and tear and/or misuse excepted).
This does not affect your legal rights.
Please retain supplier invoice as proof of purchase.

ELECTROMAGNETIC COMPATIBILITY (EMC) DIRECTIVE 2004/108/EC
DECLARATION OF CONFORMITY

We hereby certify that KENNEDY Advance Timing Light Model TLA012 complies with all the relevant provisions of the EC Directive 2004/108/EC (The Machinery Directive of the Council of European Communities)

Standards Applied: EN 61000-6-3:2007 & EN 61000-6-1:2007

Manufactured for

KENNEDY TOOLS
Wigston, Leicester, England, LE18 2FS.

www.kennedy-tools.co.uk

Signed:
Date: 30th January 2018
Name: Keith Read
Position: HSQE Manager.

CE

KENNEDY® PROFESSIONAL

ADVANCE TIMING LIGHT



- For checking and setting ignition timing on automotive, agricultural and marine engines.
- Measures ignition spark advance from 0-60°.
- For use on 12 volt systems.
- Reverse polarity protected.
- Accurate to 8,000rpm.
- 1 metre long removable coiled power leads.
- Impact resistant metal case and rubber nose cone.
- On/off trigger switch.
- Bright linear Xenon flash tube for daylight use.
- Focused lens provides concentrated light.
- Easy to apply inductive impulse pick-up.
- Check light.

MODEL TLA012
KEN-503-5320K

www.kennedy-tools.co.uk

CE

INSTRUCTION MANUAL

"Timing" is the precise moment a spark plug ignites an air and fuel mixture which results in an explosion delivering maximum power to the engine piston.

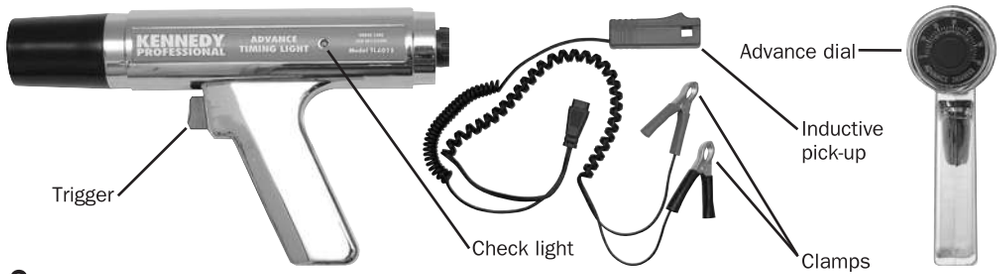
KENNEDY thoroughly recommends reading these instructions before using the Timing Light, even if you have used one before. Reading these instructions carefully and understanding them fully will enable you to perform tasks correctly and will prevent injury to yourself or someone else as well as prevent damage to the vehicle and equipment. For detailed and concise instructions on using this product correctly, refer to the manufacturer's workshop manual or the appropriate Haynes service and repair manual.

SAFETY GUIDELINES

- If any doubt, contact a qualified auto electrician.

- Always wear safety goggles to protect your eyes from battery acid, petrol, dust and dirt flying off moving engine parts.
- Always wear protective gloves when working with engine components.
- Always ensure that hands, hair, clothing or cables are well clear of any moving or hot parts.
- Always follow the vehicle manufacturer's recommendation and procedures.
- Always turn off the ignition of the vehicle before connecting the clamps to the battery and disconnecting the timing light.
- Always ensure that the hand brake is on and the vehicle transmission is in Neutral (manual) or Park (automatic).
- Always keep children and unauthorised persons away from the working area.
- Always store the timing light in a safe, dry and child proof location when not in use.
- Always run the engine in a well ventilated area.
- 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.

- Never use the timing lights if they are damaged in any way.
- Never smoke, create sparks or use a naked flame near batteries.
- Never rest tools or metallic items on top of the battery.
- Never touch any ignition components when the ignition is on as very high voltages are present.
- Never pull the cables or clamps from the battery terminals.
- Never operate in the vicinity of flammable liquids or gases.
- Never place the timing light on the hot engine surface.
- Never modify the timing light in any way or use it for a task for which it is not designed.



INTRODUCTION

Timing is given in "linear measurement" or "degrees" relative to the "Top Dead Centre" (TDC), of the movement of the piston (see figure 1).

B.T.D.C Before Top Dead Centre. 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 Centre. The piston is at its highest point in the cylinder.

A.T.D.C After Top Dead Centre. When the timing is "retarded", the spark occurs after the piston has started to go down in the cylinder.

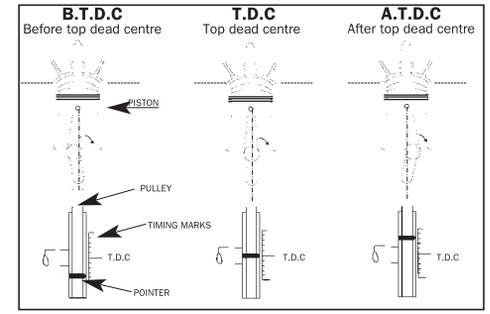


Fig. 1

OPERATING INSTRUCTIONS

LEAD CONNECTIONS (see fig.2)

1. Clamp the inductive pick-up around the number one (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.

N.B. When the trigger is pressed the check light should come on if the timing light is connected properly.

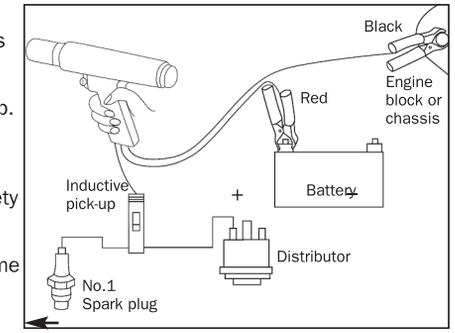


Fig. 2

STANDARD 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. Set the advance dial to zero if you require to use the manufacturers timing marks on the pulley.
7. Trigger the timing light and observe the reading from the timing mark.
8. 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.
9. Stop the engine.
10. Tighten the distributor clamp bolt.
11. Restart and check the timing.
12. If it is the correct reading, stop the engine and reconnect the vacuum hose.

ADVANCE TIMING ADJUSTMENT

The timing light is fitted with an advance dial. The dial allows you to put the degree of timing required according to the manufacturers specifications into the timing light. This means you only have to find the TDC timing mark on the engine pulley. It also allows the checking of advance timing when raising engine revs. The dial can be turned until the mark on the belt aligns with the TDC mark on the engine pulley and the dial setting gives you the timing degrees.