Return Information:

Name:

Address:

Tel Number:
email:
Details of Purchase:

Details of fault

Return to
AccuSpark Ignition
Unit 2 , Lantern commercial Centre
London Road
Farmstead
Herts
AL3 8HG
UK

AccuSpark

Petrol Engine Timing Lights

H8000
S8000
P8000
SP8000

Instruction Manual

Warning:

Ignition Systems Can produce extremely high voltages, although any shocks are highly unlikely to cause harm a sudden shock can cause uncontrolled movements such as a hand into the path of a moving fan. Always work with care

The AccuSpark range of timing lights give a good solution to all timing requirements for petrol classic cars. All give an extremely bright light that can be clearly seen in daylight and many come with an additional range of professional features.

Section 1: Set up

All Models 12 Volt Only - Positive or Negative Earth

A. Connect the crocodile clamps to the battery positive and negative terminals. On positive earth cars clamps should still be connected as indicated by battery terminals

B. Slide open the induction clamp on H8000 models S, P and SP8000 models have opening jaws. Fit induction clamp onto number 1 HT lead, ensure the arrow on clamp is facing the plug

H8000 Clamp

S8000 /P8000/SP8000

Direction Arrow

3. If the Lamp has been purchased by mail order. Although the lamps are robust, items sent by post can occasionally get a very rough ride. It has been known for connections inside to become dislodged. If the Customer wishes, without affecting any warranty, it is possible to open the unit to check to see if any wires have become dislodged.

4. P8000 and SP8000. These models have detachable Leads, ensure there is a good connection between lamp and leads.

SP8000: ONLY
Inaccurate rev counter Display

There can be issues with some types of leads that give an erratic or inaccurate reading.

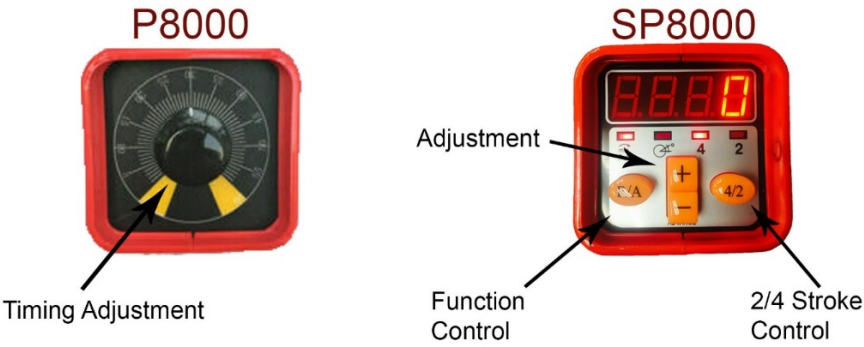
1. Move the clamp along the length of the lead to try and improve the accuracy

2. Ensure the lead is not crossed with another lead or another lead is close to the pickup

3. A small amount of tin foil can be wrapped around the lead, under the pick-up clamp, this often will solve the problem.

4. If there is a Display and the Strobe fails to function this indicates a faulty or damaged lamp.

If problems persist, please contact us at help@accuspark.co.uk



Section 4: Additional features on SP8000

1. In addition to the previous features the SP8000 can also be used on 4 and 2 stroke engines
   use the cyl button to alternate between 2 and 4 strokes.
2. There is also a function to display RPM. use the function button to alternate between timing and RPM

Section 5: Troubleshoot

1. Ensure the clamp to HT lead has the arrow pointing towards the sparkplug
2. Check the connection from crocodile clips, it is possible the crocodile clamp may not have been properly crimped. Check the connection between the crocodile clamp and the lead to the timing light.

C. On models where the battery is not accessible it is possible to connect under the bonnet:
   On negative earth cars the red/positive clamp can be connected to a spare terminal on the fuse box, the black/negative terminal can be connected to earth. Connect in reverse for positive earth

D. Ensure all cables are clear of any rotating engine parts.

E. Start car

Section 2: Inspection and adjustment

Timing is normally checked with the vacuum advance and retard tube disconnected from the distributor if there is one. The end of the vacuum tube should be blocked off with some tape, there is no need to block the distributor

A. Timing is normally checked at tick over speed. It is important that the engine speed is slow enough that the advance and retard mechanism has not engaged. Normally under around 1000 RPM
   Some workshop manuals will also give timing figures at various engine speeds. Increased speeds can be achieved with the help of an additional person or by adjusting the tick-over screws

B. Point timing gun and pull trigger at the timing marks normally located on the front of the engine. See Fig 1.
   Normally there will be a single mark on the crankshaft and a number or pointers on the crankcase cover. The largest pointer on the cover will show TDC, in addition there may also be some slightly smaller pointers normally denoting 4 or 5 degrees each. Most commonly there will only be marks for TDC and BTDC, but some vehicles may also have marks for ATDC or a TDC alone.

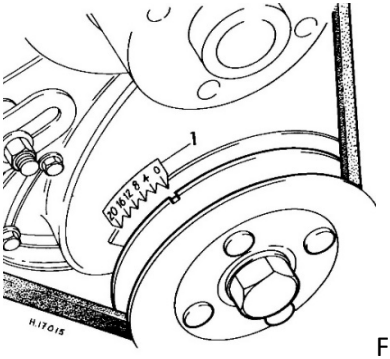


Fig 1

C. When the strobe light is functioning and engine running it will make the marks appear to be stationary. The position of the crank pulley mark should be observed in relation to the cover marks. This will give a reading for the ignition timing.

D. If the timing needs adjusting, then switch off engine, loosen the distributor clamp so it is still firm, but so as the distributor can still be rotated.

E. Restart the engine and operate the timing gun

F. The distributor can now be rotated with the engine running to obtain the correct timing.
When the crank pulley mark is aligned with the relevant timing mark stop engine and tighten distributor clamp. restart engine and check. (Fig 1 shows Crank pulley mark aligned with TDC Mark)

G. In addition to setting and adjusting the timing it is also possible to check the function of the mechanical advance and retard as well as the vacuum advance. To test the advance and retard, with the engine running and the timing light illuminating the timing marks increase the engine speed, the timing marks should appear to move with the increase in engine speed.

H. To test the vacuum advance, with the engine at tick over and timing light illuminating the timing marks, re-attach the vacuum pipe, the timing marks should move a few degrees.

Section 3: P8000 and SP8000 advance and retard function.

The professional range of timing lights come with the additional feature of timing advance and retard control, this consists of a dial control on the P8000 and a digital display and +/- control buttons on the SP8000

If you wish to use in standard form set dial to zero on P8000, and on SP8000 adjust using buttons to zero (set to 10 by default) then use as in section 1

The advance/retard adjustment is an especially useful feature, it enables the user to check/set ignition timing using only the TDC marks.

A. To check timing, connect timing gun as described in section 1.

B. Point gun at timing marks and pull trigger, adjust timing knob on P8000 or use + and – buttons on SP8000 until the crank pulley mark is in line with the TDC mark on crankcase. When the marks are aligned, observe the position of the dial on P8000 or look at display on SP8000, this will be the current timing.

C. To adjust timing to the required setting, stop engine, loosen the distributor clamp slightly, adjust the dial on the P8000 or use the buttons on the SP8000 to the desired setting. Start engine. Rotate the distributor until the crank mark is in-line with the TDC mark on crankcase. When aligned stop engine, tighten distributor, start engine and recheck.