

## AccuSpark Returns Note

This page **MUST** be completed in full and enclosed with returned items, we **cannot** process returns without this information.

Name:.....

Address.....

Post Code.....EmailAddress.....

Daytime Phone Number..... Date of original purchase.....

Was the item purchased through (please circle appropriate option) :

a) Ebay   b) Over the phone   c) Via our website   d) Show   E) Shop sale

Invoice Number/ebay item number.....

Description of item returned .....

Reason for return.....

Description of fault (if faulty).....

Refund or replacement? (please state).....

Date:.....

Copy of invoice/ebay sales invoice to be enclosed

Return to: AccuSpark, 33 Park Street, St. Albans, Herts AL2 2PE, ONLY after instructions/troubleshooting guide have been read.

### Terms of Warranty

Accuspark warrants to the original Purchaser that its products shall be free from defects in material and workmanship for a period of 12 months , from the day of purchase.

If within the warranty period AccuSpark finds, after inspection, that the product or any component thereof is defective, AccuSpark will, at it's option, repair such product or component or replace them with identical or similar parts PROVIDED that within such period the Purchaser delivers the defective product or component to us with this form completed in full, AND has installed and used the product in a normal and proper manner consistent with our printed instructions. The foregoing limited warranty is exclusive and in lieu of all other warranties, whether express or implied, including any implied warranty or merchantability or fitness for a particular purpose. The furnishing of a repair or replacement components shall constitute the sole remedy of purchaser and the sole liability of Accuspark whether on warranty, contract or for negligence, and in no event will Accuspark be liable for money damages whether direct or consequential.

# AccuSpark

**Modern Ignition for Classic cars**

**Fitting and Information Guide For**

**Modules**

**Distributors**

**coils**

**Tools**

**[www.accuspark.co.uk](http://www.accuspark.co.uk)**

## 1 Before fitting

### AccuSpark Distributors

AccuSpark electronic ignition kit. **NOTE : All kits are negative earth only**

Ensure your electrics are Negative earth, the - terminal of the battery should be connected to the car body. **DO NOT PROCEED IF YOUR CAR IS POSITIVE EARTH.**

If your car has been positive earth and been converted ensure your coil has been correctly fitted. The negative side of the coil should be connected to the distributor.

Check the charging system; with the engine running the battery voltage should not exceed approx. 14.5 Volts. If the vehicle is over-charging, a new alternator or voltage regulator will be required. Over-charging will damage the AccuSpark unit.

Before fitting your AccuSpark it should be noted what type of ignition system is fitted and that a suitable coil is correctly fitted.

Only coils of more than 1.4 Ohms of resistance are suitable. Low resistance and electronic ignition coils are NOT suitable and will invalidate any warranty.

A coil fitted to points will work either way around, this is not the case with electronic ignition. It is imperative that the coil is checked for fitting and suitability.

The coil will have 2 spade terminals one - and one +. Remove the wire/wires from the + terminal, with the ignition on, these should show 12 Volts, this is the feed. The negative side runs to the distributor, the negative side may also have a **taco** fitted

### Testing for a ballast resistor or wire

If there is no ballast resistor visible you may have a ballast wire inside the loom. To test for it proceed as follows:

1. Check voltage of battery with volt meter and make a note
2. Remove the wires from the negative side of the coil (negative earth cars)
3. Connect a temporary wire from the negative terminal of the coil to earth
4. Turn ignition on (nothing else switched on)
5. Now check the voltage on the coil, put red probe on + side of coil and the - probe to earth
6. If the reading is less than 80% of battery voltage there is probably a resistor in the system. If it is more than 80% you probably have a standard system
7. Remove the temporary wire and reconnect wires.

If your reading is less than 80% you should use a ballast coil, or our AccuSpark Blue

If your reading is more than 80% you should use a non-ballast coil, or our AccuSpark Red

### Testing Type of coil

Remove all wires, set your volt meter to Ohms.

A reading of around 1.5 indicates a Ballast coil (AccuSpark Blue coil)

A reading of around 3 Ohms indicates a Standard coil. (AccuSpark Red coil)

Fig1a

### AccuSpark fitted to a Standard Ignition

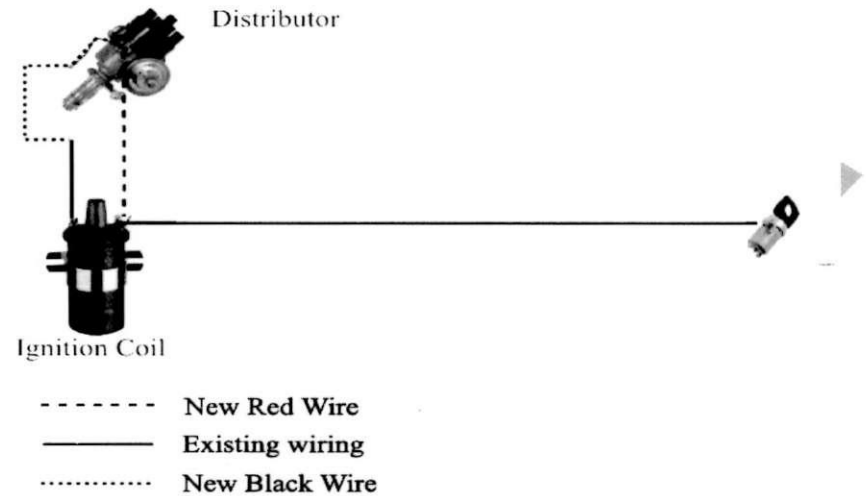
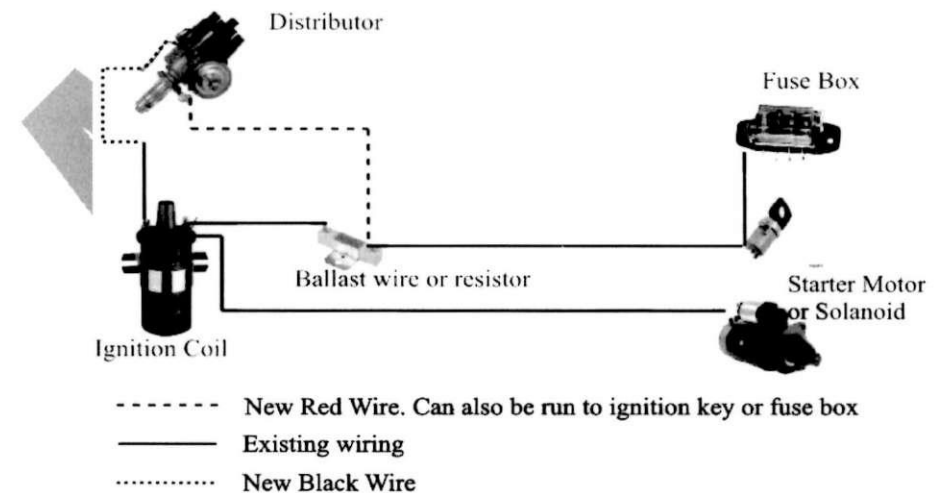


Fig1b

### AccuSpark fitted to a Ballast Ignition



### 3. Fitting a new AccuSpark Distributor.

Turn engine to TDC with rotor pointing to number one HT lead. Mark the position. Loosen the clamp and remove distributor. When fitting new distributor it may be necessary on some models to use the existing clamp. Insert Distributor.

- a. Distributors with an offset keyway can only be inserted in 1 position. Once inserted the position of the rotor now points to number one, the cap and leads should be fitted accordingly.
- b. Distributors with a gear can be fitted in any position. It should be inserted **attempting** to position the rotor to the same position as the old unit. Once fitted the rotor will be pointing to number one, fit cap and leads accordingly

### 4. Connecting AccuSpark

#### Existing distributor with AccuSpark Module /Full new AccuSpark Distributor

It is recommended that any radio suppressors are removed before fitting.

Your Distributor will now have a Red wire and a Black or Blue wire, it may be necessary to lengthen the red wire on some models.

1. Connect the black or blue wire to the existing low tension wire running to the negative side of the coil.
2. Connect the red wire to a 12 volt source as below
  - a. Standard ignitions: Connect to positive terminal on coil. See fig 1a
  - b. Ballast ignitions: Connect to the 12 Volt side of the resistor or wire (DO NOT CONNECT TO COIL). See fig 1b  
if the position of the resistor or wire is unknown connect to ignition key or the live side of the fuse box (not through a fuse). see fig 1b

**NOTE :** If unsure of your ignition type connect as b.

#### Special Note CDI Ignitions:

AccuSpark is compatible with CDI units such as MSD 6AL

Follow instructions and connect black wire to CDI as if connecting points low tension wire. The red wire should be connected to the same switched power source as CDI unit .

The Red wire should not be connected to the coil under any circumstances.

### 5.Starting the car

Attempt to start car, in most cases the car will start .In some cases the distributor will have to be turned a few degrees in each direction until car starts and best idle can be achieved. Then the engine can be timed with a strobe.

PLEASE NOTE: It is not possible to accurately set timing statically, a strobe lamp must be used.

### 6 Trouble shooting and test Guide

Note: If at any point the module has been incorrectly fitted and the polarity reversed the module will no longer function.

#### Engine will not Start

Cars which have been converted from positive earth, but have not had the coil reversed will have blown the module

Ensure the rotor has been refitted and the centre brush in the cap is OK

Ensure the coil has 1.4 Ohms of resistance and is correctly fitted

Ensure that the baseplate earth wire is in good condition

It is recommended that a radio suppressor is not fitted to coil.

1. Crank engine to start car. If the car makes attempt to start i.e. misfires or appears to jam, then the ignition timing will need adjustment  
If the car make no attempt to start proceed to step 2
2. With the ignition on, place a test bulb between the - side of coil and earth. The bulb should illuminate.
3. If the bulb fails to illuminate there is no power supply to coil. Check wiring .  
If the bulb illuminates, then crank the engine with the starter, as the engine turns the bulb should flicker. If This occurs the module is functioning, check leads cap and rotor
4. If bulb fails to flicker and all checks have been made, please fill the return form on the back of this leaflet

#### Car was running and now won't start

1. Car is overcharging (more than 14.5 Volts) causing the module to fail.
2. Heat sink paste has not been applied, meaning the module has overheated.
3. Incorrect coil with too low a resistance or electronic coil has been fitted .Coils with a resistance of less 1.4 ohms should not be fitted.

## 7. AccuSpark Timing lamps.

Timing should normally be carried out at approx. 800 revs with the vacuum disconnected.

All AccuSpark timing lamps come with simple connections

Connect Red clamp to a positive power source, battery or Fuse box etc.

Connect Black clamp to negative terminal on battery or earth

Connect the inductive pick up on to Number 1 spark plug lead, with the arrow pointing the spark plug.

### H8000

Pull trigger and point lamp beam at timing marks, read scale from engine.

### P8000

Pull trigger and point beam at timing marks, align timing mark on pulley with TDC mark on engine with adjusting knob, when marks are aligned read timing from scale on timing light.

### SP8000

Select angle and 2 or 4 Cyl on timing light. P8000 Pull trigger and point beam at timing marks, align timing mark on pulley with TDC mark on engine with up and down buttons, when marks are aligned read timing from scale on timing light.

In addition the SP8000 has a rev counter feature: with the engine running select rev counter feature with the left hand buttons

### Ignition timing guide

As a general rule, the more advance on an engine without causing detonation (engine knock) the more power it will produce.

Average timing settings are around 6 – 14 degrees BTDC at 800 revs.

The Distributor should be advanced until the best fastest idle can be achieved within this range.

Then the total advance should be checked at around 4000-5000 revs this should be typically be around 30-40 BTDC.

If when test driven there are any rattling sounds (pinking or detonation) from the engine the ignition should be retarded until this stops.

If engine runs on ignition timing should also be retarded.

## 2. Fitting AccuSpark module to existing Distributor

See special notes relating to specific kits before proceeding.

1. If access is poor and removal is necessary first remove distributor as in next section (fitting new Distributor)
2. Disconnect low tension lead from side of distributor (this will be connected to the module later)
3. Remove distributor cap
4. Remove Rotor
5. Remove Points and condenser, these will no longer be needed, keep screws
6. Establish correct position of module, **on many kits this is not the same as the points and often the condenser fixing point is used.**
7. Open the sachet of white silicone heat sink and spread the whole of the contents on the base of the module, this helps dissipate the heat from the module and the whole sachet must be used.
8. Fix Module to baseplate and fix using the screws removed from the points
9. Use the supplied cable tie to secure the wires away from the centre of the distributor.
10. Push the supplied trigger ring down onto the centre cam, this should be a snug fit, if loose some kits are supplied with a packing piece place this on first then push the trigger on. If nothing supplied wrap a small piece of tape around centre cam and the push trigger wheel on. If it appears to be too tight a suitable-sized socket can be placed over the ring and gently tapped.
11. The gap between the trigger and Module is not critical but the two should not touch
12. Refit rotor
13. Refit cap
- 14 Proceed to connecting your AccuSpark Section 4

### Special Notes

1. **Lucas 23D**: On the Lucas 23D kit it will be necessary to remove two small lugs from the base plate in order to allow the baseplate to fit flush
2. **Lucas 45D** kits are supplied with a trigger and a combined trigger and rotor, use the one with the best fit. Do not use both
3. **Lucas 48D4 and 59D4**. The small locating post for the blue self-cleaning points should be removed, or the baseplate replaced if one has been provided.
4. **Motorcraft/Fomoc.** Some distributors may require the cutting of a small slot in the base plate to allow the wires to exit