

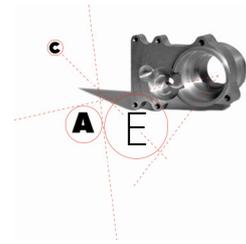
CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,

VIC.3450.

Ford Zephyr Cable Wiper Kit Component List



Wiper Motor Assembly with Flexible Drive Cable
(125 Deg Sweep, x 1200 mm Flexible Cable)
Wiper Mounting Bracket, U Clamp, and Rubber
Two Wheel boxes, Spacers, 45 deg & 90 degrees, and Bezel and Nut
Wiring Loom, Switch and In Line Fuse. 3pcs of Bundy Tube.
Customer Instruction Sheet

Note: Tubing used is standard 5/16 Steel Brake tubing. Do not kink these tubes as serious damage to the wiper motor will occur. **Kink or dented tube must be replaced.**

Some gentle bending can be done in a standard tube bender tool to give a better fitment to the cable drive.

It may be necessary to fit tube spacers to the wheel box posts to give the correct angle of operation in relation to the windscreen glass.

It helps if you run a 1/4 drill into the tube to ease the fitment of the Flex Drive cable and give a smoother movement where flaring may have caused some disfiguration internally. Any excess spiral drive cable length can be cut off by removing the end tube and cut with 4" grinder, just short of the end piece length. Refit end piece to cover the cable.

Fitting Instructions

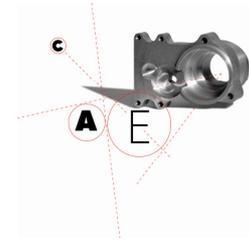
Universal Cable Driven Wiper Kit

- 1 If not using the original wiper post holes, locate suitable position of the Wheel boxes, Drill 3/8 clearance hole at the correct angle to give the pressure on the blades. (Should be as close to 90 degrees to the windscreen glass as possible.)
- 2 Fit the two new wheel boxes and file to shape the tube spacer to suit the curvature of the cowl on both Posts or cut the straight spacers to fit when mounting on the top of windscreen.
If you wish to have the park position with both blades in the centre of the windscreen, the LHS wheel box will be mounted with the tubes and cable at the bottom of the wheel box, and the RHS wheel box with the tube and cable on the top of the wheel box. (See drawing for correct installation)
- 3 Fit the centre tube between each wheel box and the end tube to the RH Side wheel box, making sure the tube flares fit into the wheel box slots provided. It may be necessary to gently bend the tube slightly to allow correct fitment,
- 4 Once you have completed step 3 the Wiper Motor need to be mounted in the appropriate position on the vehicle using the Bracket, Clamp and Pad rubber supplied.
NOTE: Make sure the wiper motor is mounted securely, if the motor flexes when in operation it may cause damage to worm drive.
- 5 Grease with suitable wheel grease or silicon grease the entire cable, then feed the Flexible cable thru the first wheel box, support the wiper motor while you mount the first tube into the wheel box and mount the wiper

CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,
VIC.3450.



- 5 Cont. motor bracket to vehicle and the wiper motor to its bracket. **DO NOT STRAIN THE WIPER FIRST TUBE IN ANY WAY. (If the Tubes get any kinks or dents in them they must be replaced or the wiper motor can be seriously damaged.)**
- 6 Fit 2-speed switch in appropriate hole and install wiring loom supplied.
- 7 Connect Brown wire to suitable earth location on the vehicle
- 8 Connect Red feed wire through Fuse supplied to suitable Ignition Feed Wire on Ignition Switch of vehicle. Activate the wiper motor and check for smoothness of operation. Tighten all wheel boxes cover plates. Retest wiper operation.
- 9 Fit original arm or new wiper arm and blades in the park position
- 10 Activate power and check wipers for sweep and all body clearances. If the sweep is too large or too small, CAE has gearwheels @ 90, 100, 125 Degree that can be exchanged by sending the gear wheel to us and advising us what degree of sweep you would like. Sometimes the park position of the wiper can be 180 degree out and give you parking in the upright position instead of laying flat in the bottom centre of the windscreen. If this needs to be corrected, the gearwheel inside the wiper cover needs to be rotated 180 degrees. Simply press the nylon gear away from the steel parking disk and rotate the nylon gear 180 degrees to the steel plate. If you are not sure what to do then you can send the gear to us and we will change it at no charge.

Windscreen Wiper Systems ----- Some useful helps.

1. Motor

This is a two speed wiper motor, with self parking.

Make sure you use the correct bracket and strap with the rubber covering, and the motor is not touching any part of the vehicle body to eliminate noise.

2. Drive Gear

When the new motor arrives there is a threaded brass ferrule to take the first drive tube. There are a couple of gears to fit this motor with the number 100 or 130 which is stamped on the top round plate. This is giving the least amount of travel to the rack and wiper arms.

On the top of the gear plate where the number is stamped there is a

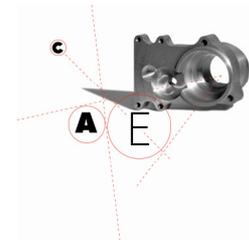
CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,

VIC.3450.

2. Drive Gear cont.



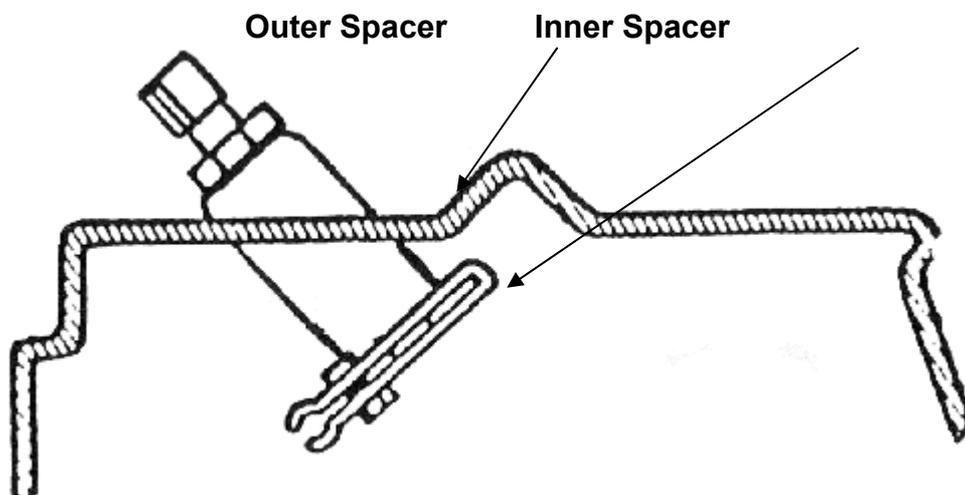
drive peg welded in position. This is the only item which changes position throughout all the gears (e.g. welded in different positions on the top plate.). Obviously if this peg was welded to the centre of the plate there would be no travel at all, so the further the peg is positioned to the outer edge of the plate the more travel you get. With each gear come 2 washers and a circlip retains the gear in to the motor, always pack with grease in the gear area before refitting the top cover.

3. Wheel Boxes

The wheel box size is 32 teeth on the inner drive wheel and the ideal length of shaft from the inner face to the end of the splines is 2.5 inches. This allows for the thickness of material on fibreglass cars as the first spacer can be cut down in size allowing for varying thicknesses through the bulkhead where the wheel boxes fit.

If the car has a split screen then it is quite easy to fit what was called the clapped hands system. This is by turning one of the wheel boxes through 180 degrees.

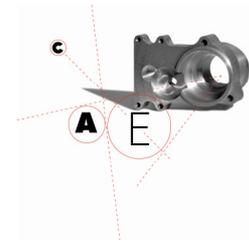
Wheelbox showing inner and outer spacer which will require some radius work to suit individual shaped cowls



CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,
VIC.3450.



4. Drive Rack

When fitting a new system to an existing vehicle, it is advisable to fit a new drive rack as this is one of the items that wears, resulting in the wiper arms having too much play.

5. Drive or "Bundy" Tubing Sets

It is far better to use the recommended wiper tubing (5/16 Steel Brake Tube) than to use copper tube as this can be noisy and wears very quickly on any bends. Wear of the drive tube, sharp bends or kinks in the tube, causes friction that can lead to the motor burning out.

Bundy tube sets can be made up providing you give the supplier 2 dimensions. The first is the distance from the motor to the centre of the first wheel box hole, and the second the distance between the wheel box hole centres through the bulkhead. Obviously if there is a 3 wiper system then there is another dimension needed. Try to avoid sharp bends in the tubing, if you have to bend the bundy tube, an easy way to form the shape is to insert the drive rack into the tube before bending. This will keep the tube the correct diameter on any of the bends (very much like a plumber bends copper piping by inserting the spring). Always grease the rack liberally before inserting into the bundy tube.

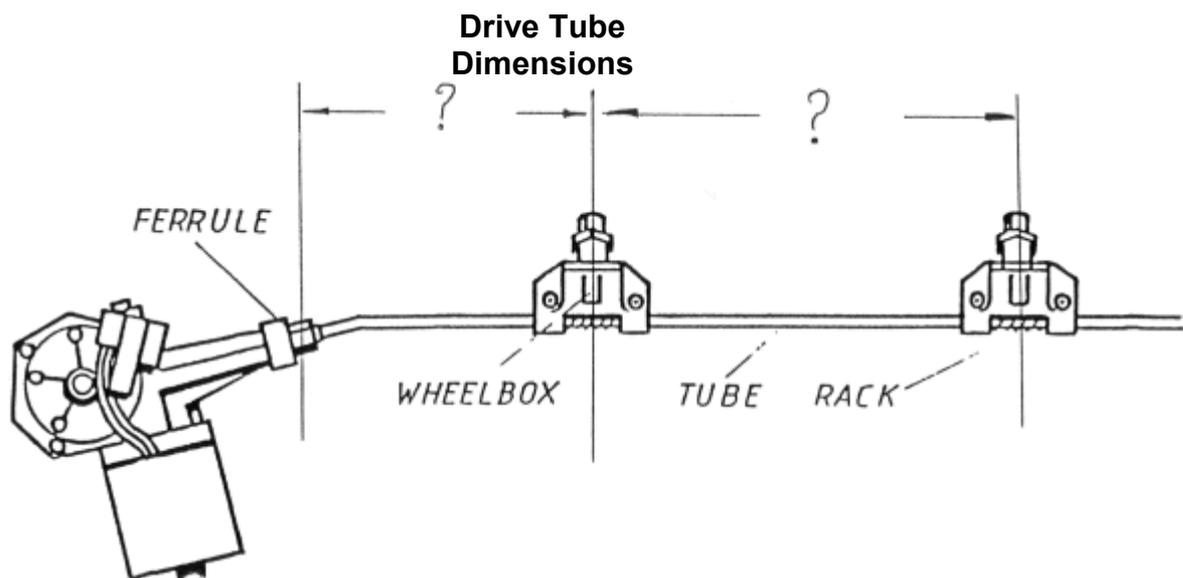


DIAGRAM ABOVE IS LAYOUT FOR LEFT SIDE PARKING. IF CENTRE PARKING OF THE BLADES IS REQUIRED, THEN THE RIGHT HAND WHEEL BOX NEEDS TO BE REVERSE FITTED SO THE DRIVE CABLE WILL RUN ALONG THE TOP OF THE WHEELBOX.

CAE PERFORMANCE PRODUCTS

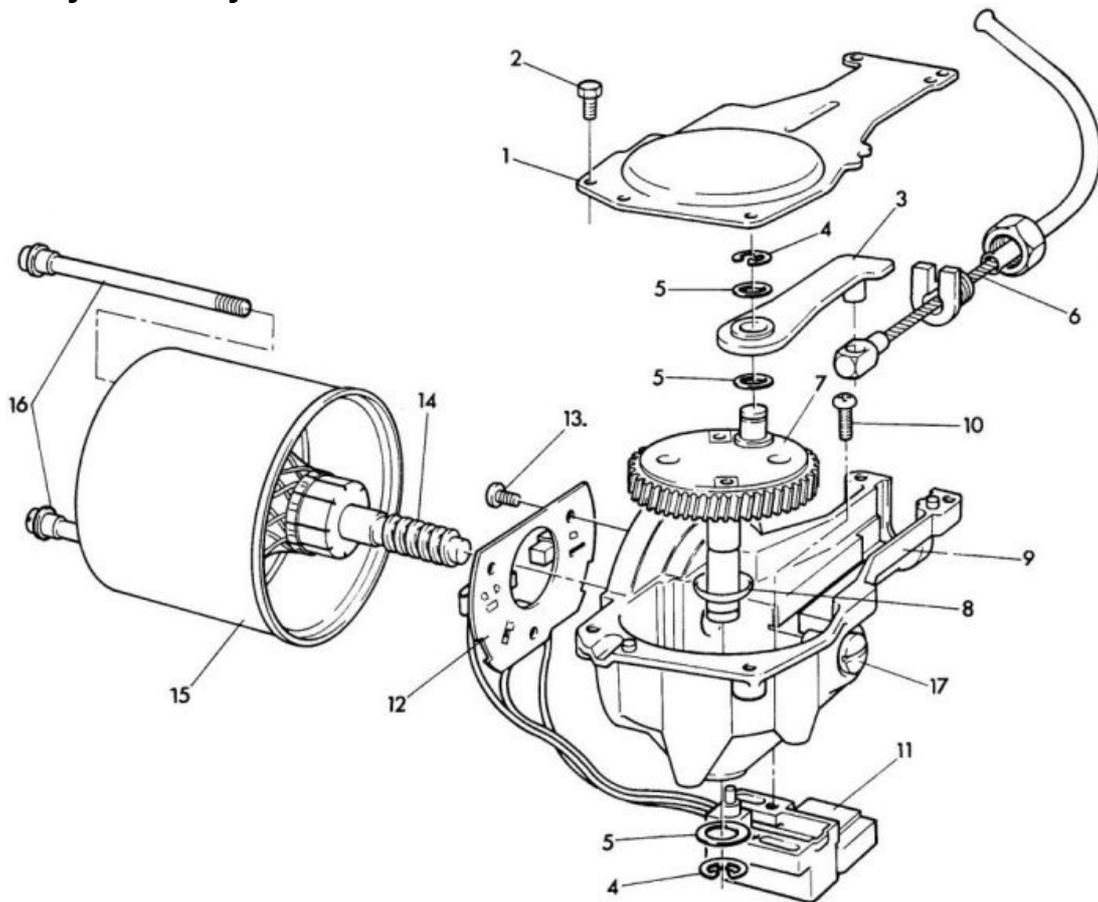
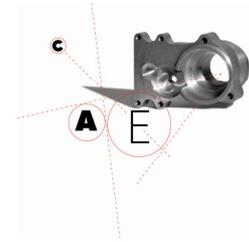
A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,
VIC.3450.

6. Switch

It is important that you use the correct wiper 2-speed switch as supplied. The reason for this is that when the switch is in the off position with the ignition switched on there is one connection which becomes live. This operates the parking position. If you use a non-live switch then the wipers would stop whenever the switch was switched off.

If purchasing a second hand motor make sure there are 3 wires going into the motor body. This is the way to tell if the motor is 2-speed, 1 speed only has 2 wires. Most Lucas and Stalk Column Switches are not compatible with CAE Wiper Motors. We do have a Toggle Switch and Relay Assembly available for vehicles similar to the Cobra Cars



KEY:

- | | | |
|------------------------|----------------------------|----------------------|
| 1 Gearbox cover | 7 Gear wheel with crankpin | 13 Screw for brushes |
| 2 Screw for cover | 8 Dished washer | 14 Armature |
| 3 Connecting Rod | 9 Gearbox | 15 Yoke |
| 4 Circlip | 10 Limit switch screw | 16 Bolts |
| 5 Washers | 11 Limit switch | 17 Thrust screw |
| 6 Flexible wiper drive | 12 Brush gear | |



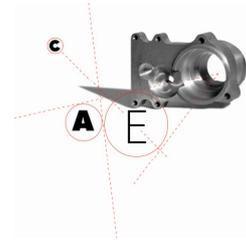
CABLE WIPER KITS

Made to your requirements

CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,
VIC.3450.



**WASHER KIT ASSEMBLY
1.2 LITRES**

Bottle & pump assembly,
mounting bracket,
push button switch,
tube & a twin Jet.



WINDSCREEN WASH PUMP

Drive Tube (correct material) Cut & flared.

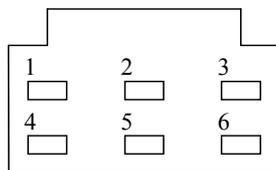
No Charge

Wheelboxes

32 tooth gear wheel.3 1/4 inch drive shaft.

Wiper Motor Pin Outs.

Plugs viewed from the front not the wiring side

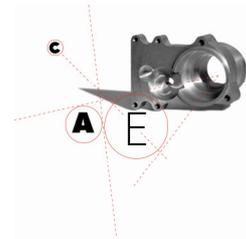


- 1) Black (Earth)
- 2) Green/Red (Low)
- 3) Blue/Red (Park)
- 4) Blank
- 5) Yellow/Blue (High)
- 6) Green/White (+ve)

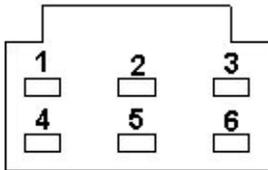
CAE PERFORMANCE PRODUCTS

A.B.N. 375 4092 6783

7 MAIN ROAD, CASTLEMAINE,
VIC.3450.

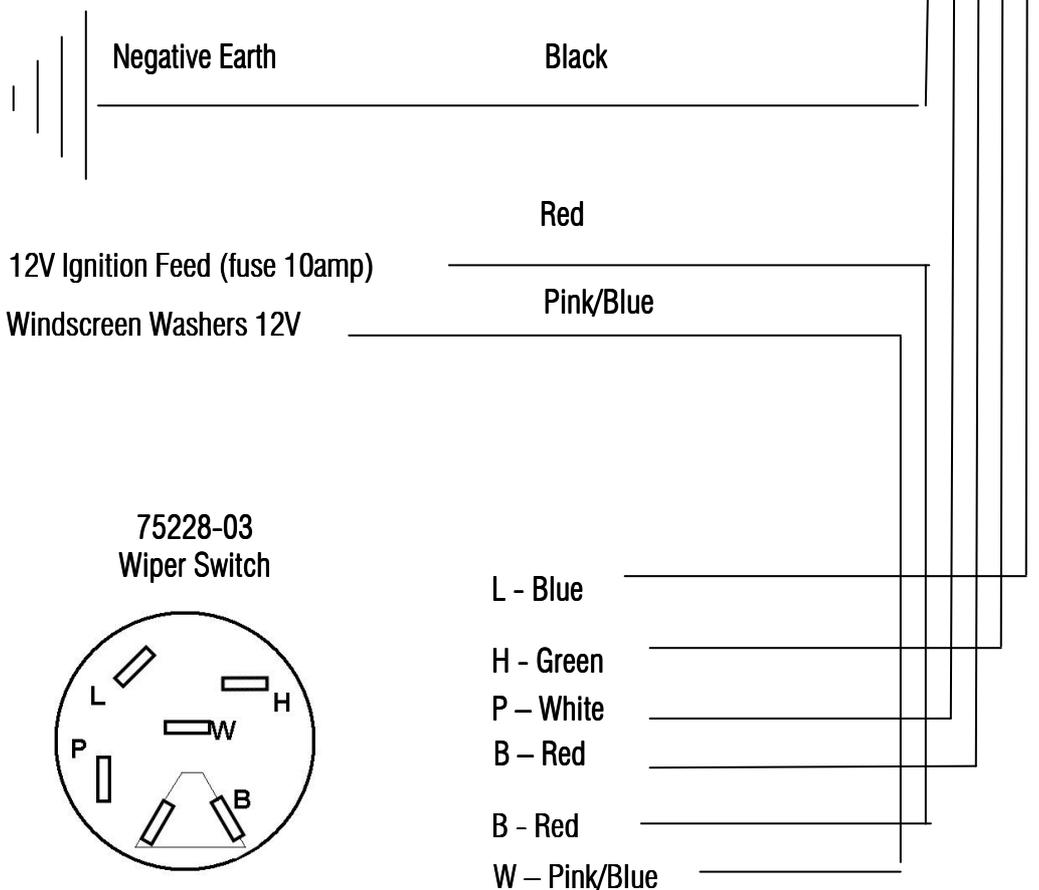


WIPER MOTOR LOOM PINOUTS

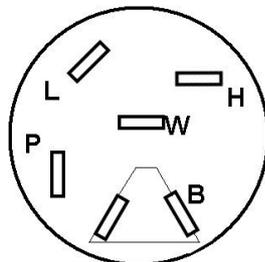


- 1) White - Park
- 2) Blue – Low Speed
- 3) Black - Earth
- 4) Red – 12V Feed
- 5) Green – High Speed
- 6) Blank

6 Pin Female Loom Plug
As Viewed from the front



75228-03
Wiper Switch



Wiper switch system is 12V Positive Feed