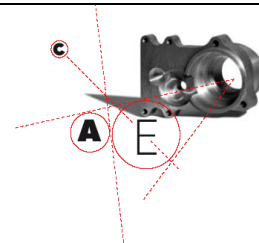


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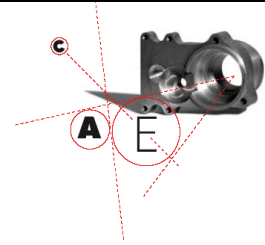
Customer Instructions

Torana LH -UC Cable Wiper Kit. (Inside Mounting.)

Parts	
1 x Wiper Motor. 100D Sweep x 1550 length	
Tubes:	
1 x 720mm flared both, with Tube nut (rubber grommet fitted)	
1 x 595mm flared both ends,	
1 x 65mm End piece flared 1 end	
1 x 0561-116 rubber Grommet	
2 x Wheelboxes, each loosely assembled with 2ea. x M5 x 16 counter sunk screws and nuts, 2ea. x 1/4" UNC counter sunk mounting screws and Backing plate.	
1 x 'U' Clamp and rubber pad and Mounting bracket bolts and nuts	
2 x M6 x 25mm bolts and 2 x 6mm nuts 2 x 20mm body washers 2 x 6mm spring washers 2 x Collared nuts	
1 x Loom Assembly with Fuse holder and switch attached	
	Instructions:
1	Remove the top grill, cowl panel to access the Wiper Arms and Pivots.
2	Remove the original Posts, Arms and Wiper motor
3	Drill a 3/8" dia drill hole down through the cowl drain hole on the passengers side and through the inside panel, this is where you run the Bundy tubing from the wiper motor to the first wheelbox post. Go inside the car and drill a 16mm (5/8") hole up though the hole you just created. From about 50mm from the end bend the (720mm long) tube in a sweeping curve as shown in picture page 3. When finished with bend slide it up through the hole leaving the brass nut and grommet on the inside of the car. Press the Grommet into place. HINT: To avoid kinking tube slide the cable into the tube before bending. <u>Do not kink or crease the tubing during this operation or it will have to be replaced</u>
4	Fit the Clamp loosely to the mounting bracket then fit the mounting bracket. Next to where the motor sits there is a large round speaker hole in the kick panel with 2 holes in the front side of it. This is where you fit the mounting bracket. Put 25mm bolts with the body washers under the head, through the hole and screw a nut on fit the mounting bracket loosely on these 2 bolts. Put the next 2 collared nuts loosely to hold the bracket in place. Get the Wiper motor and slip the cable up through the outer tube. Fit Motor to the 'U' clamp and squeeze in the rubber pad. Screw the Brass cable nut on to the motor to hold cable tube in place. Tighten all nuts on the mounting bracket and clamp. Push rubber grommet in to the hold around cable tube. Be careful not to damage it.
5	Screw both wheel boxes on the original mount holes and tighten. The top holes in the back plate are the mounting holes.
6	Fit the first tube to the passenger's side wheel box. (Continued on next page)

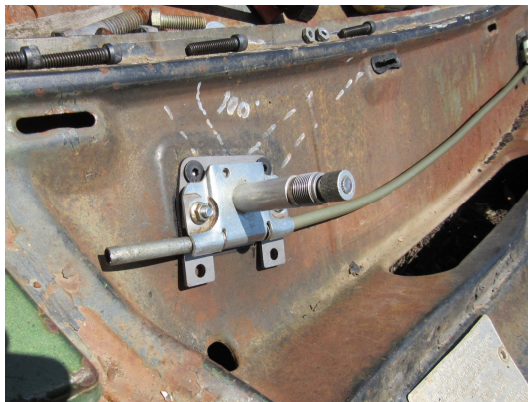
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	<p>Continued: The centre tube will require a slight bend over its whole length to align correctly with both wheel boxes. Then slide the centre tube over the cable and fit to the wheel boxes. And last slide the short tube over the end of the cable and fit to driver side wheel box. Tighten the 5mm collared nuts on the wheel boxes to secure cable.</p>
	<p>Connect the wiring loom to the wiper motor plug and the brown wire to a suitable earth on the car body</p>
	<p>DO NOT ATTACH THE ARMS AND BLADES AT THIS POINT</p>
	<p>Connect the red wire through the fuse supplied on to a suitable Ignition positive, but don't screw it into place just yet. With the red wire unattached, just momentarily touch it to a positive source of power and observe the wheel boxes knur drive to see if it is working quietly and smoothly</p>
	<p>Connect the red wire to the positive power source and again test the system using the rotary switch. When in the park position, fit the outside Arms and blades and re-test and adjust the parking of the blades by rotating the arms on the knurl so you achieve a flat park of the blades</p>
	<p>Mount the rotary switch into its final place and test again</p>

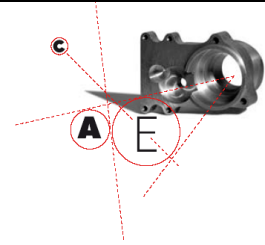


If the wiper pivot doesn't protrude through the centre of the grill you can adjust the angle by putting washers between the tabs at the bottom of the mounting plate and the body. Use a tech screw to hold these in place.



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This picture shows the bend required for the first that is connected to the Wiper Motor. Large curve bends generally are the easiest to apply and are quieter and have less friction during operation.

To reduce the chances of kinking the tube put the drive cable through the tube before bending.

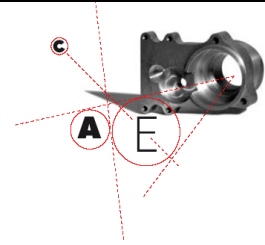
Do not kink or crease the tubing during this operation as the tube must be replaced

This operation requires some skill. If you are not confident seek some one experienced with this type of skill.

CAE Performance Products recommends this product should be fitted by a qualified person.

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Windscreen Wiper Systems - Some useful Tips.

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 number of gears available to fit this motor ranging from 80 to 125 degrees. 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 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 length of shaft from the inner face to the end of the knurl is 2.5 inches.(64mm) This is the same length as the original posts and allows for the variation thickness of material on some cars. Post length can be adjusted shorter by adjusting the brass nut on each post.

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. The Chev has the passenger side wheel box with its tubing and spiral drive running over the top of the wheelbox gear, and the drivers side wheelbox has its tubing and spiral drive running on the bottom of the wheelbox gear.

4. Drive Rack

When fitting a new system as an original replacement, 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.

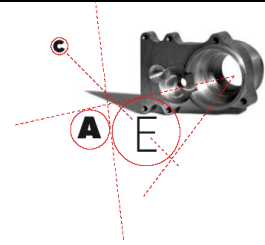
5. Drive or "Bundy" Tubing Sets

It is far better to use the recommended wiper tubing (5/16 Steel Brake Tube) supplied, rather 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.

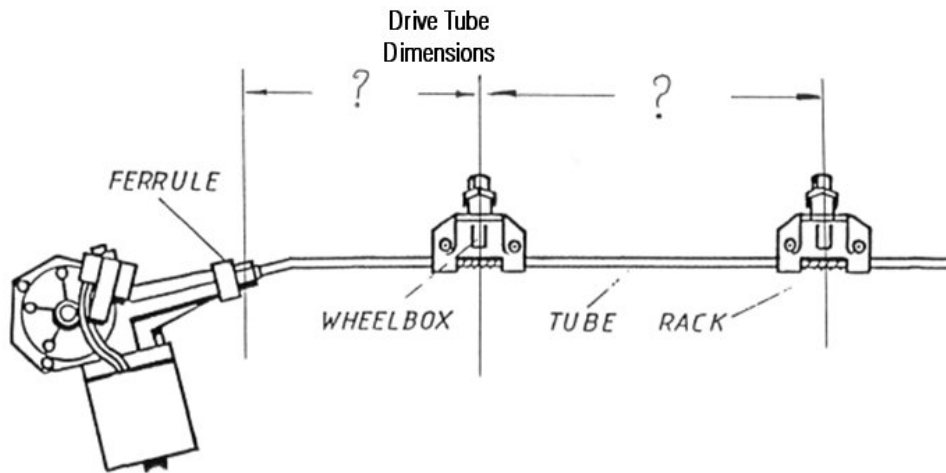
Bundy tube sets can be made up providing you give the supplier 2 dimensions. The first is the distance from the motor to the centre of the first wheel box hole and the second is the distance between the 2 wheel box hole centres. Try to avoid sharp bends in the tubing. If you have to bend the Bundy tube it is recommend that you insert the drive cable 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.

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This image is the standard wiper sweep

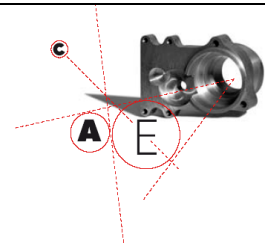
6. Switch

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.

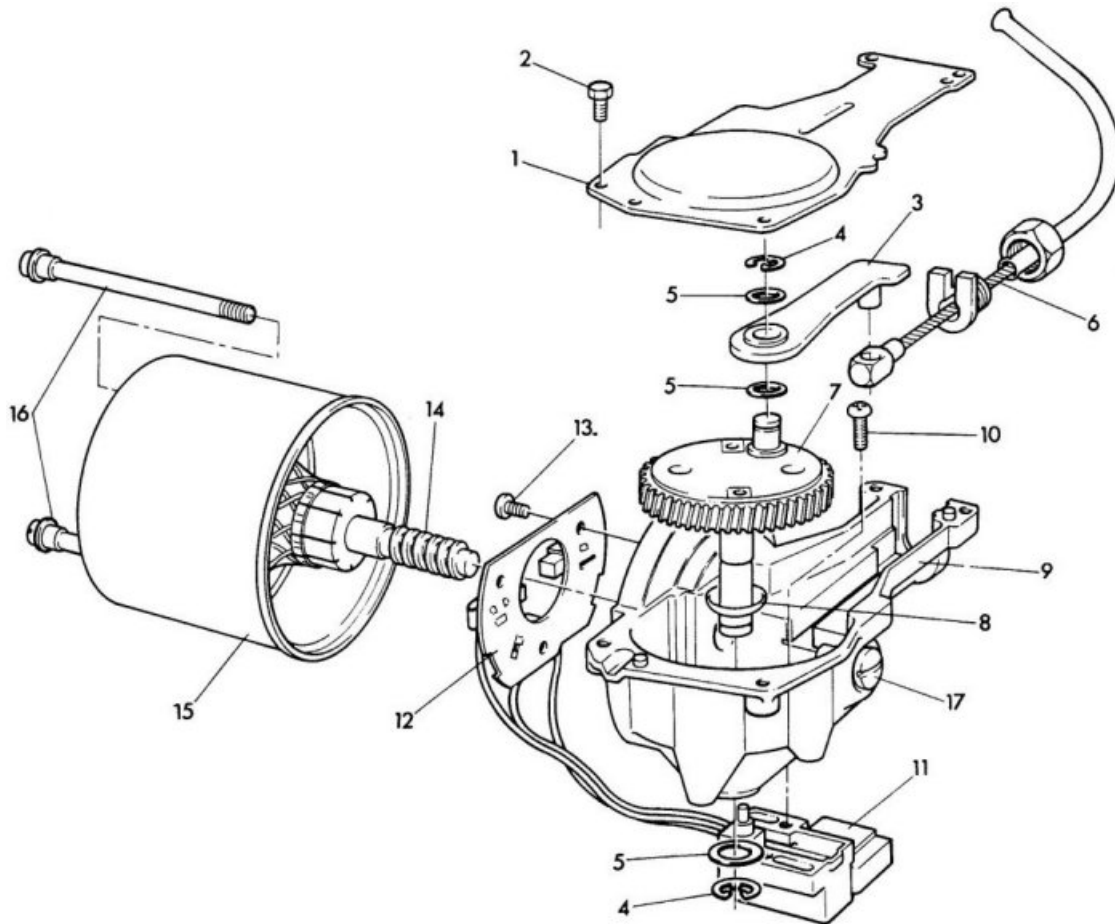
If purchasing a second hand motor make sure there are 3 wires going into the motor body. This is the way to tell if the motor is 2-speed, 1 speed only has 2 wires.

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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 | |

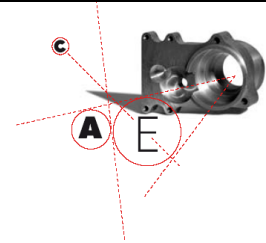


WIPER KITS

Made to your requirements

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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.

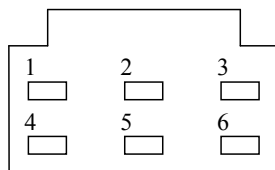
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Wheelboxes Pt No 72889

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

Wiper Motor Pin Outs.

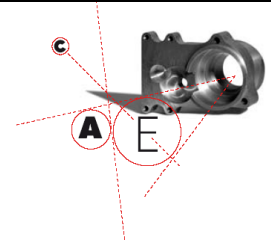
Plugs viewed from the front not the wiring side



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

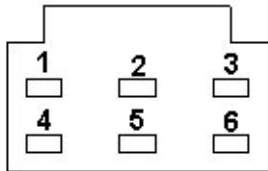
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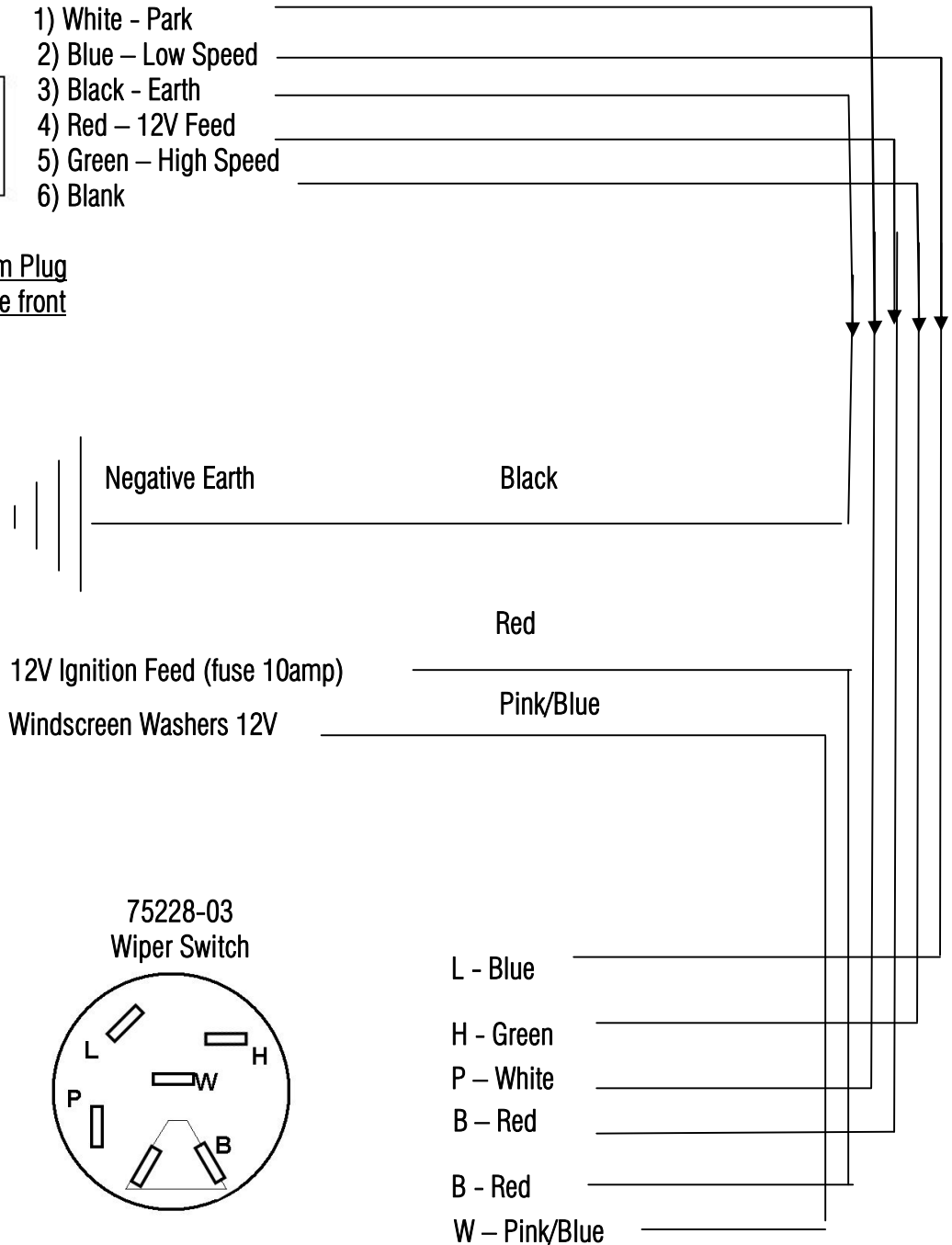
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WIPER MOTOR LOOM PINOUTS



- 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



Wiper switch system is 12V Positive Feed