

# Micro/S/C/A/N/ SECURITY PRODUCTS

## ELECTRIC WINDOW OR SUNROOF INTERFACE AN 0031

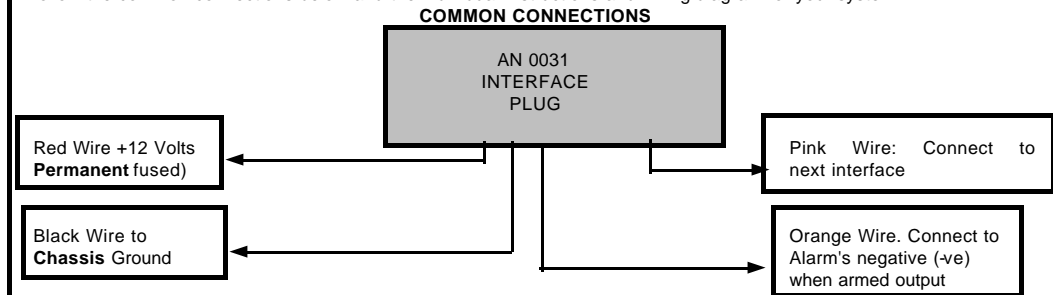
The **Micro/S/C/A/N/ AN 0031** is a quality interface designed to automatically shut one pair of electric windows or one electric sunroof when you arm your vehicle's security alarm. To do this, your alarm must have a **negative when armed output**. An electronic sensor within the interface automatically shuts off power to the motors once the windows are fully closed.

There are three types of electric window systems. This interface is designed to operate the most common system but with the addition of one or two relays, will also operate any of the others. We have included instructions for all three types.

**Please do not attempt to use this unit to exceed the stated capacity or it will be damaged and the warranty voided.** For 4 electric windows, you will need two interfaces and a third one if you have an electric sunroof as well.

### INSTALLATION:

Below are shown the common interface connections for all types of window systems. Before making any connections, please study this diagram, then using the descriptions on the next pages to ascertain which window system you have, follow the common connections below and the individual instructions and wiring diagram for your system.



**N.B.:- THE AN0031 WINDOW INTERFACE SHOULD BE THE ONLY ITEM CONNECTED TO THE ALARM'S NEGATIVE WHEN ARMED OUTPUT. ANY ITEMS CURRENTLY CONNECTED SHOULD BE DISCONNECTED AND RE-WIRED TO THE PINK WIRE FROM THE AN0031 UNIT.**

Remove the driver's master window switch assembly from the driver's door panel. You may have to remove the door panel to do this. In some vehicles, this switch is on the centre console. **DO NOT DISCONNECT THE WIRES FROM THIS SWITCH.** Inspect the wiring from this switch assembly. You should find one of the following system types by checking the function of each wire using a volt/ohm meter.

### SYSTEM (A) 4 or 5 WIRE REVERSE POLARITY, REST AT GROUND TYPE SYSTEM

This is the most common system. When probing with a volt/ohm meter, you will find +12 volts on one wire leading to the switch, and ground on the remaining three or four wires. Upon moving the switch in one direction, you will find that one of the grounds will change to +12 volts. Moving the switch in the other direction, a different ground wire will change to +12 volts. The remaining one or two ground wires will always have a ground apparent on them.

- One wire has +12 volts all the time.
- One or two wires are grounded (-ve) all the time.
- Two wires are grounded, then alternately change to +12 volts when moving the window switch in one direction or the other.

When connected as per the common connection diagram and the system type diagram below, when the AN0031 is activated by the alarm being switched on, the blue and green wires will have +12 volts on them to close the windows. **Make sure you connect these wires only to the motor side of the cut (UP) wires.** If you reverse the connections, you will get a dead short through the window switch and either blow the fuse or damage the AN0031 interface. *AN0031 units damaged through wrong connections are not covered by warranty.*

When the AN0031 is NOT activated, the Brown and Blue wires are connected together through a set of internal relay contacts in the AN0031, as are the White and Green. This enables your window switches to work as normal. When the AN0031 is activated, the Brown and White wires are disconnected completely and +12 volts is put straight onto the Blue and Green wires.

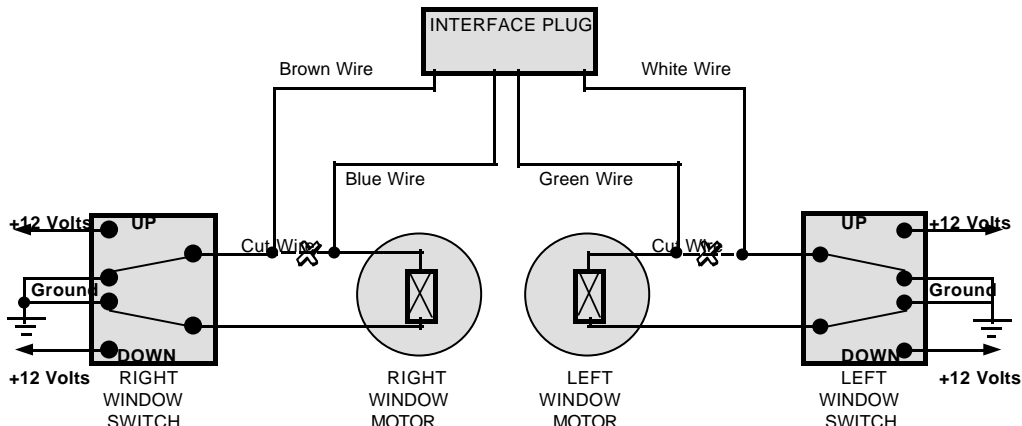
## PERFORMANCE PRODUCTS LTD

*advanced* TECHNOLOGY

Cleaver House, 8 Boughton, Chester, CH3 5AG

Tel:-01244 321300. Fax:-01244 343370. HELPLINE:-01244 321700 (Mon - Fri 10am till 4.30pm)

**SYSTEM (A) 4 or 5 WIRE REVERSE POLARITY, REST AT GROUND TYPE**  
(THIS IS THE MOST COMMONLY USED SYSTEM ON MODERN CARS)



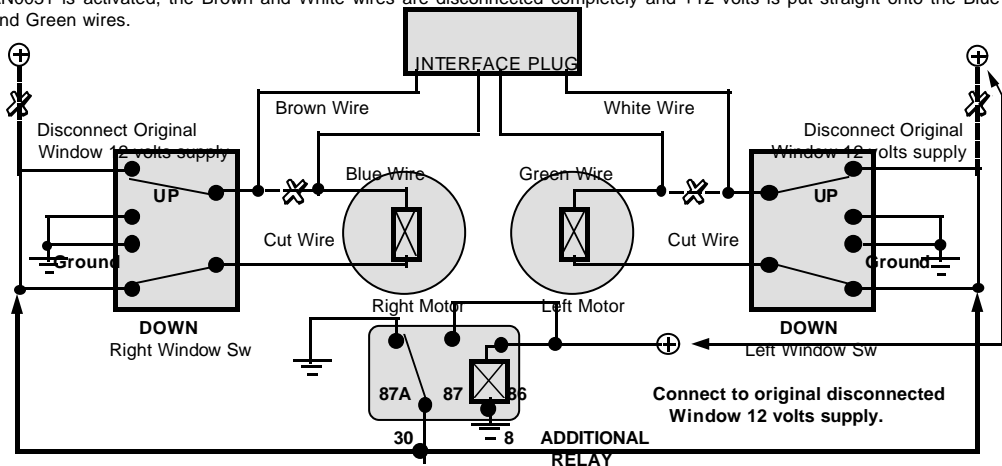
**SYSTEM (B) 4, 5 or 6 WIRE REVERSAL, REST AT POSITIVE TYPE**

When probing with a volt/ohm meter, you will find +12 volts on three or four wires leading to the switch, and ground on the remaining one or two wires. Upon operating the switch, you will find that one of the +12 volts wires you have found will change to ground. Moving the switch in the other direction, another +12 volts will change to ground. +12 volts will be present on two of the wires all the time or sometimes on one wire if they are connected internally within the switch. Similarly, the two remaining ground wires will always have ground apparent on them. Sometimes the two grounds are supplied by one wire and connected internally within the switch.

- One or two wires have +12 volts all the time.
- one or two wires are grounded all the time.
- Two wires are +12 volts but alternately change to ground when moving the window switch in one direction or the other.

When connected as per the common connection diagram and the system type diagram below, when the AN0031 is activated by the alarm being switched on, the blue and green wires will have +12 volts on them to close the windows. **Make sure you connect these wires only to the motor side of the cut (UP) wires.** If you reverse the connections, you will get a dead short through the window switch and either blow the fuse or damage the AN0031 interface. *AN0031 units damaged through wrong connections are not covered by warranty.*

When the AN0031 is NOT activated, the Brown and Blue wires are connected together through a set of internal relay contacts in the AN0031, as are the White and Green. This enables your window switches to work as normal. When the AN0031 is activated, the Brown and White wires are disconnected completely and +12 volts is put straight onto the Blue and Green wires.



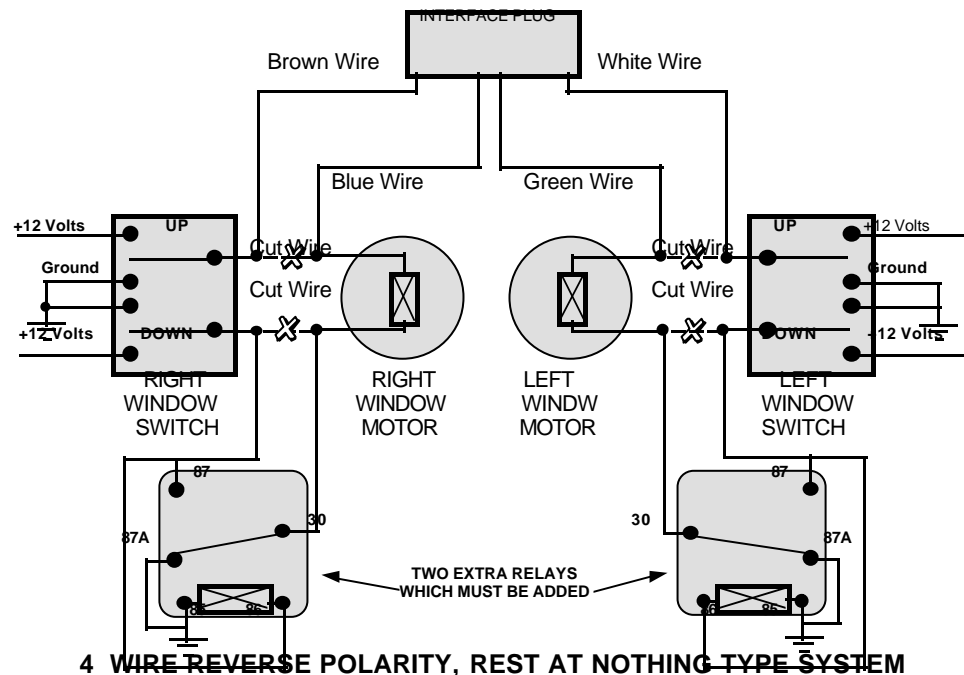
**(C) 4 WIRE REVERSE POLARITY, REST AT NOTHING TYPE SYSTEM**

This type of system usually has four wires attached to the switch. One wire brings in +12 volts and another goes to ground. The two remaining wires go to either side of the window motor winding and in the rest position will have neither positive nor negative present. Power and ground are connected internally to either side of the switch. Internal connections ensure the motor winding receives the correct voltage or ground to raise or lower the windows when the appropriate side of the switch is pressed.

- One wire has +12 volts all the time
- One wire has ground all the time.
- Two wires are zero potential (not connected to either +12 volts or ground) then change to +12 volts or ground when moving the window switch.

When connected as per the common connection diagram and the system type diagram below, when the AN0031 is activated by the alarm being switched on, the blue and green wires will have +12 volts on them to close the windows. **Make sure you connect these wires only to the motor side of the cut (UP) wires.** If you reverse the connections, you will get a dead short through the window switch and either blow the fuse or damage the AN0031 interface. *AN0031 units damaged through wrong connections are not covered by warranty.*

When the AN0031 is NOT activated, the Brown and Blue wires are connected together through a set of internal relay contacts in the AN0031, as are the White and Green. This enables your window switches to work as normal. When the AN0031 is activated, the Brown and White wires are disconnected completely and +12 volts is put straight onto the Blue and Green wires.



**4 WIRE REVERSE POLARITY, REST AT NOTHING TYPE SYSTEM**