

INSTALLATION GUIDE

The WR-24 automatically rolls up power windows when the security system is armed by using an auxiliary channel or starter disable out-put from the alarm unit.

When mounting the module always locate it as close to the switches as possible. Do not mount the module in the door as water damage will result. Do not mount the module on heating dock or on heating dock exhaust where the hot air from the heater will cause the unit to fail ventilation. When extending some of the wires always use 14 AWG or larger.

NOTE: The WR-24 will not drive a relay, and bench tests are ineffective if there is no moving motor present on the outputs. If the vehicle is equipped with any type of factory automatic full-travel one-touch window system, ensure that you interface with leads connected directly to the motor, and not to any or control module.

For simplicity. We only describe the switch and motor wiring for two types. **TYPE-A** The motor leads of Type-A switches do not change state when the ignition key is turned on. Type-A switch leads either rest ground or rest open (neither ground or (12V+).

TYPE-B Switch leads at ground when the ignition key is OFF, but rest at 12V(+) with the ignition key ON.

Which wire gets (+) 12V and which wire gets ground depends on which direction you wish, the motor to travel. The switch must be able to reverse these connections. Window motors work on this principle, which is called reversed polarity. (Many vehicles reverse polarity relays are used in window circuits.) The three most common reversing polarity systems are described ABOVE.

The WR-24 installs between the switches and the motors. It becomes the window master controller, The custom IC inside the WR-24 monitors the security system's arm/disarm state, and an auxiliary output of the security system. It also monitors the state of the motors, and will shut them off if anything impedes their motion.

TO ACCESS SINK OUTPUT

To access sink output open module locate tab marked sink. Solder a wire on the tab and run it out on the side of the unit.

Sink Output Four Window Mode

In a four window mode, the sink output will provide a ground signal 250ma. Output while the windows are rolling up and it will reset when the operation is done.

Note: - this feature is active only with (J1)-on and (J4) on.

Sink Output Two Window Mode

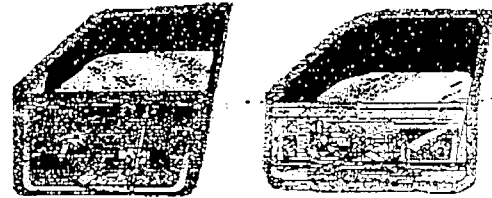
In a two window mode, the sink output will send a constant ground signal 250ma output when the operation is done. This output can be used to trigger a second window module.

Note: this feature is active only with (J1)- OFF and (J4) on.

SMART WINDOW ROLL-UP MODULE

WR-24

2 or 4 Window Roll-Up Module



- * Quick-connect & disconnect plug
- * Can roll-up AND Down 2 windows
- * Can roll-up 4 windows
- * Fits most cars with existing power windows
- * Use high quality relays for control module
- * The System allows (-) pulse or Constant Trigger
- * Auto-sense to stop window roll-up when closed
- * Automatic temperature Control Ventilation.
- * Remote Manual Venting
- * The safety controls. During Window Roll- up it will Automatically Stop the Window if anything Impedes the Motion.

DISABLE AND RE ENABLE AUTO HEAT VENTILATION THROUGH REMOTE

To disable or re enable heat ventilation through remote, after the windows have closed with in 10-seconds if the roll down channel is activated the heat controlled ventilation Will be disabled or re enabled depending on the state that it was in.

Note: This feature is active only with (J4)-ON and (J1)-OFF see jumper setting.

TO BYPASS AUTO HEAT VENTILATION PERMANENTLY

To bypass auto heat ventilation permanently, open window module and remove jumper (J2).

VENTILATION THROUGH REMOTE

After the windows has closed activating roll down channel will vent widow by one inch or two inches depending on the setting of the jumper.

Note: remote ventilation will also cancel heat ventilation.

HEAT VENTILATION BYPASS VIA REMOTE VENTILATION

If the ventilation has been activated via remote the heat ventilation will be bypassed. Each time the ventilation channel is activated, the windows will vent either one inch or two inches depending on the jumper setting.

MODE SELECT

Mode select is controlled by (J-1)

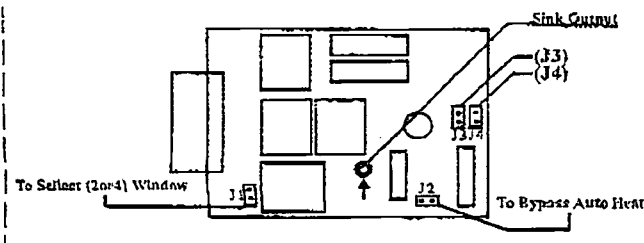
(J-1) ON window module will operate four windows up only.

(J-1) OFF And Cut the Black/White Loop for window module will operate two windows up and down and vent if window up control channel is constant signal through that arm cycle.

TWO WINDOW MODE. PULSE TRIGGER

In a two window mode and pulse trigger signal will only roll up the windows. In this mode there is no auto heat control ventilation, no ventilation through the remote.

JUMPER SETTING	ON	OFF
J1 Mode Select	4-Windows	2Windows
J2 Heat Vent Bypass	Auto Vent	No Heat Vent
J3 Vent Opening	Open 1 Inch	Open 2 Inches
J4 Trigger Input	Constant (-)	Pulse (-)

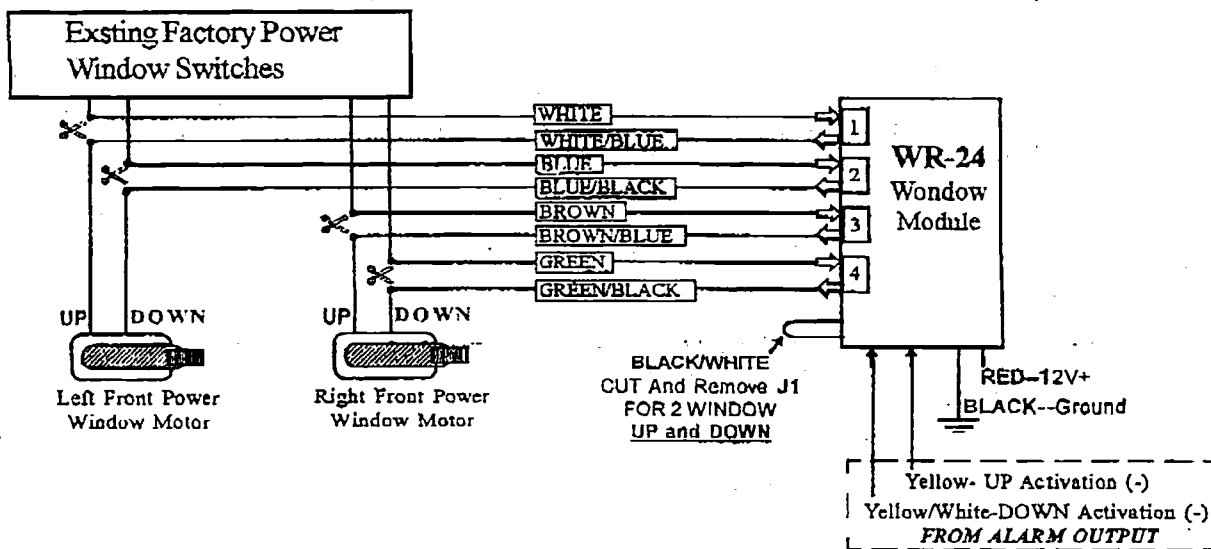


BEFORE WIRING THE WR-24

To understand how to install this system properly, keep the following in mind:

- 1.- Power Windows typically use 12 volt dc motors. Motor direction is changed by swapping the polarity at the motor. In other words switch the (+) and (-) leads will cause the motor to turn in the opposite direction.
- 2.-It is important to interface the window module after (down stream) the existing window switches. This way th window module can properly disable any signals coming from the existing window switches when the window module is being used. This will prevent any conflicting signals or short circuit conditions. As a result, the existing wires going to the power window motors should be cut between the existing power window switches and the power window motor as shown in the wiring diagram.
- 3.-This module acts as a bypass. When the window module is inactive, it acts as a pass thru allowing the system to operate as originally wired. (closing the original connections you cut open) But when the window module is active, the connections coming from the existing power window switches are opened and (+) and (-) 12vdc is supplied directly to the power window motor from the window module. For this reason, it is important that you provide a constant +12vdc power to the window module regardless of the position of the ignition key that way the window module can be activated remotely even when the vehicles ignition is not on.

2 Window Roll-Up & Down Module



4 Window Roll-Up Module

