

# 1

Channel

BW-1060

## SELF-CONTAINED SECURITY SYSTEM

# INSTALLATION MANUAL

### **Before Installing:**

1. Read the INSTRUCTIONS!
2. USE A DIGITAL OR ANALOG VOLT/OHM METER
3. BEFORE MOUNTING THE PRODUCT CHECK THE POSSIBLE LOCATIONS FOR THE SIREN AND LED BEFORE YOU PERMANENTLY INSTALL THEM.
4. PROTECT THE VEHICLE BY USING FENDER COVERS.
5. ROLL DOWN THE DRIVER'S WINDOW BEFORE STARTING THE INSTALLATION.
6. ALWAYS LOOK BEFORE DRILLING. MAKE SURE YOU WILL NOT CAUSE DAMAGE TO VEHICLE HOSES, ELECTRICAL LOOMS OR PHYSICAL DAMAGE TO VEHICLE.

### **Timing Information:**

**Automatic reset time:** 45 seconds,

**Panic output reset time:** 45 seconds,

**Arming time:** (when all inputs are monitored): 3 seconds-active arm.

**Armed output:** The Gray wire will produce a grounded output when system is armed.

### **Flashing Parking Light Output:**

*Armed:* 1 second pulsed, *Disarmed:* 2-one second pulses. *System triggered:* 1 second pulse on, 1 second off, repeated for 45 seconds.

### **Input Zone Out Feature:**

If a door input remains on for 4 consecutive cycles (45 seconds) that input will be ignored. If the input returns to a non-triggered state for 30 seconds it will be monitored by the system again.

## **PROGRAMMABLE FEATURES**

To program these specific features follow the procedure:

**1. Anti Car Jacking:** Turn the ignition key to the ON position. Within 5 seconds press and hold button #2 for 5 seconds. When Anti Car Jacking is enabled, the siren will chirp once. When disabled it will chirp twice.

**2. Current Sensor:** Turn the ignition key to the ON position, within 5 seconds press and hold button #1 for 5 seconds, when current sense is enabled siren will chirp once, when disabled it will chirp twice.

**3. Shock Sensor:** Turn the ignition key to the ON position, within 5 seconds press and hold buttons #1 & #2 for 5 seconds, the siren will chirp 5 times after 3 seconds. The system is now ready to learn the impact. Hit the car with the same level you want to trigger the alarm. After learning the impact level, the siren will sound a burst of chirps confirming it has learned the impact level.

**4. Temporary Remote Trigger Bypass:** If you wish to have the system ignore the door inputs, but wish to have the starter disable feature engaged:

- a. Press Button #1, you will hear a normal arming chirp, (as long as arming chirps are on).
- b. Within 5 seconds press Button #2, you will hear a second short chirp, confirming that all inputs will not be monitored. Once you disarm and rearm, the doors will be monitored normally.

**5. Code Learning Mode:** If you wish to “teach” the system different remote controls:

- a. Make sure system is disarmed or in valet mode,
- b. Turn the ignition switch on 5 times within 5 seconds and leave it in the on position (ON, OFF, ON, OFF, ON, OFF, ON, OFF, then ON), you will hear one chirp from the siren, the LED will flash one time, You must press all of the arming buttons on all transmitters that you desire to operate. You will hear a chirp after the system has learned each remote control. The system will hold 3 different codes in memory.
- c. Siren will chirp after 5 seconds to exit learn mode. If the green wire is not connected to the ignition switch, touch wire to 12V+ five times within 5 seconds.

**NOTE:** Once you enter the code learning mode, the system will throw out any previously programmed remotes. If you are programming two remotes with the same code, the system will acknowledge only the first remote. Even though both remotes will operate the system.

**6. Silent Arm/Disarm:** If you wish to arm or disarm your alarm, but do not want the siren to chirp:

- a. Press Button #2 momentarily. This will temporarily delete the arm or disarm chirps. Chirp can only be heard if standing right next to the vehicle. Chirps will be muted for one complete cycle (arm/disarm).

# INSTALLATION INSTRUCTIONS:

## 1. Mount the Siren:

Locate a suitable place under the hood, away from hot and moving engine parts such as manifolds, turbo chargers, fan belts, etc. Secure siren by screwing bracket to a solid location under the hood. Make sure that there is no outside access to both siren and wire from underneath the vehicle or through the grill.

Point the siren down so that water may not accumulate inside the siren bell.

Ground the black wire of the siren to a solid ground; preferably, use a star washer and ring terminal.

When running wires inside the vehicle, use either tape or split loom tubing.

Always use either existing grommets or if a new hole is needed protect the wire from chaffing by installing a proper size grommet.

## 2. Install the Status Indicator (LED): *(Optional)*

Locate a suitable place for the status indicator (LED), drill the appropriate size hole (7/16"). Make sure there is enough depth for the LED to fit all the way in, and can be easily seen from outside the vehicle. Carefully run the LED and 2 pin red connector and wire harness to the module and plug into the matching red two pin connector on the module. Push the LED into the hole, it should fit snugly.

## 3. Connect Starter

### Disable Relay: *(Optional)*

Using a volt/ohm meter locate the starter wire (normally a heavier gauge wire) off of the ignition switch. The meter will read 12V+ only during cranking. When the starter wire has been located, cut the wire, the vehicle should not be able to start now. Connect the gray wire to a relay (See starter disable relay on page 5).

## 4. Connect Negative door input: Blue wire on main harness *(Optional)*

Connect the blue wire from the harness to the wire that shows ground when all of the doors are opened. Verify with a volt/ohm meter. Make sure that all doors when opened separately make the target wire provide a ground output.

## 5. Connect Hood/ Trunk switch input: Blue wire on main harness *(Optional)*

Connect the blue wire to either or both hood and trunk switches. They must provide a ground output when the trunk or hood are opened. You must use a diode to isolate your hood wire from your door wire.

## 6. Connect the Flashing Parking Light Output: Yellow wire main harness.

Using a volt/ohm meter, locate the wire (usually on the head light switch) that

shows 12V+ when only the parking lights are switched on. European vehicles may require an additional relay if they have separate wires that switch on the left and right side parking lights.

This relayed output has a maximum of 10 amps. Do not hook to head lights. (See diagram section).

### **7. Connect 12V+ Power Input: Red wire on main harness**

Connect the red fused wire on the main harness to a constant 12V+ source.

This source wire should be at least 20 amp supply. There usually is a main constant power wire on the ignition switch. Use volt/ohm meter to verify.

### **8. Connect the 12V+ ignition input: Green wire on main harness** *(Optional)*

Connect the green wire on the main harness to a main ignition wire. This can be also found in the main ignition switch wire harness. Your volt/ohm meter will read 12V+ when key is turned on.

Make sure that this ignition wire has 12V+ on even during the starting process of the vehicle. It is important that the voltage does not drop when the car is starting.

Some vehicles have ignition wires that remain or slowly drop to 0 volts. Verify that when the ignition is shut off that the voltage drops to 0 Volts immediately. If the green wire has voltage on it after the

key is turned off, it will keep the alarm from arming via the remote.

### **9. Connect Ground Input: Black wire on main harness**

Locate a good solid chassis ground and connect to the black wire on main harness. Verify the ground with your volt/ohm meter.

### **10. Plug in the main harness to the module.**

#### **11. Test features, functions and adjust shock sensor.**

Arm and disarm system, check that the siren chirps and parking lights are functioning normally. Make sure that the programmed features are performing correctly.

Test the door inputs (make sure that you check that all doors trigger the system not just the drivers door). Arm the system and try starting the vehicle, it should not start.

Check for range with the remotes. See that they arm and disarm all the way around the vehicle; adjust the module antenna location if necessary.

Using the remote check for the user features: chirp mute, temporary trigger and bypass.

Deliver the vehicle to customer.

## STATUS INDICATOR (LED) FUNCTIONS

Off= System off in Active Mode

Slow Flash= System Armed

Rapid Flash= System was triggered

On Solid= 3 second final prearm state

On Solid= (when disarmed)

-Input is open.

## SILENT TEST MODE

When the system is disarmed the LED will go solid every time an input is triggered.

You can check the shock sensor, doors, hood, trunk, and the auxiliary sensor input as well.

## SIREN CHIRP STATUS

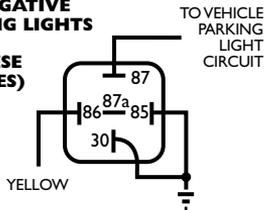
1 chirp= system armed

2 chirps= system disarmed

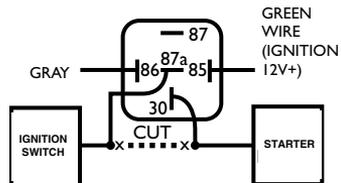
3 chirps= System disarmed, but alarm was triggered while away.

4 chirps= Alarm armed but there is a trigger that remains open (This occurs 25 seconds after system was armed).

### FOR NEGATIVE PARKING LIGHTS (MOST JAPANESE VEHICLES)



### OPTIONAL STARTER DISABLER CIRCUIT

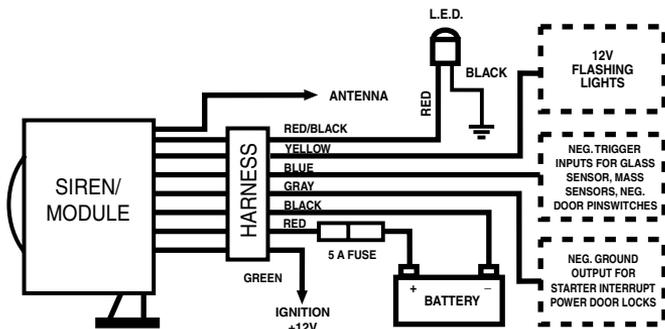


## CHIRP STATUS

- A) 1 Chirp = System Armed
- B) 2 Chirps = System Disarmed
- C) 3 Chirps = System has been triggered
- D) 4 Chirps = Alarm armed but there is a trigger that remains open

## LED STATUS

- A) Fast Flashing = System has been triggered
- B) Steady Flashing = System Armed



## SUMMARY OF INPUTS AND OUTPUTS:

### Inputs:

1 Negative door trigger

### Outputs:

Flashing lights: relayed - 10 amp Max

Starter Interrupt: 500 mA - negative

## I CHANNEL PROGRAMMABLE FEATURES:

Feature #1= Anti Car Jacking:	ON= Anti Car Jack	OFF= Anti Car Jack
Feature #2= Shock Sensor:	ON= Shock Sensor	OFF= Shock Sensor
Feature #3= Current Sense:	ON= Current Sense	OFF= Current Sense

## TERMINAL NUMBERING AND WIRE COLOR CODES

#	COLOR	FUNCTION	FUNCTION
1)	Red	+12V In	Main Power. Connect this wire to the battery POSITIVE (+) terminal with the supplied 5 amp fuse <b>installed at the BATTERY end of the wire!</b> Be sure to read the CAUTION in item 4 of the installation instructions.
2)	Black	Ground	Connect this wire to a clean, solid GROUND.
3)	Blue	(-) Trigger	Connect this wire to shock, glass, radar, other sensors, or to hood, trunk, or door pinswitches that are GROUND-ED when the door is opened.
4)	Gray	Starter Interrupt	This output is Ground (-) whenever the alarm is ARMED. It is used to drive the starter interrupt relay.
5)	Yellow	Flashing Lights(+)	Connect to 12 Volt flashing lights.
6)	Red/Black	LED(+)	Connect to the Red wire of the BWS-180 LED. Connect black wire from LED to ground.
7)	Green	Ignition Input (+)	Connect ignition wire to Green wire from the harness.

### Not part of harness:

8)	Black	Antenna	Wire on the Receiver Module. <b>Do not attempt to ground the antenna wire!</b>
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## TROUBLESHOOTING

<b>SYMPTOM</b>	<b>PROBABLE CAUSE</b>	<b>SUGGESTED CORRECTION</b>
Range is poor	Antenna wire is grounded, module is picking up interference from vehicles electrical system	Make sure antenna is not connected to anything, relocate module away from vehicle computer modules
Vehicle starts when armed	Wrong starter wire was cut	Locate proper starter wire and reconnect
Car will not start when system is disarmed	Bad connection on gray wire in harness	Repair connection at starter wire, replace module
Alarm system intermittently works	Bad power and ground connections	Replace and secure power and ground connectors
Car won't start; Alarm won't function properly	Vehicle battery dead or drops below 7.5 volts when trying to start the vehicle	Replace battery or charge
Alarm doesn't Arm or Disarm	Ignition input has voltage on it, make sure the power wire shows 12V+	Turn key off - wrong wire connected to green wire main harness
Alarm will not go into Code Learning Mode	Not leaving ignition in the on position after turning it on & off five times. Not turning ignition on/off rapidly enough (5 sec.)	Repeat procedure quicker
Alarm will not go into Code Learning Mode	Green wire not connected	Connect green wire to an ignition source
Alarm chirps 4 times 30 seconds after system is Armed	Factory Dome light Delay is longer than 30 seconds. Door open or defective pin switch	If dome light delay is longer than 30 seconds no correction necessary. Replace defective pin switch
Parking lights do not flash	Wrong wire connected to the Yellow wire, or requires a negative output	Correct the wire connected to the Yellow wire, using a SPDT relay reverse polarity on Yellow wire (see diagram)



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