Radio Frequency Do's & Don'ts

Please read before installing !

Almost all of us have used a cordless phone, cellular phone, or FRS radios by now. They all work with the same principles as our wireless products only they have the advantage of us listening to hear when we are in a bad location by hearing static or noise and knowing we have to move closer or move to a hill (higher) to acquire better signal reception. Radio frequency (wireless) in simple terms consists of a transmitter and a receiver. Our transmitters sends data via radio frequency (wireless) to the receiver (inside) triggering a tone or alert inside your home. Line of sight with no obstructions between outside device and inside receiver are always favorable for the best results. 98% of our tech support phone calls are asking why my sensor isn't working or is intermittent in sensing. And 98% of the time it is poor communications between outside sensor and inside receiver. A good example is using your cordless phone or cell phone and stepping one direction or the other to sound clear or full of static and noise. The difference is you are able to hear the noise and adjust your location. Because our devices send data, the only way to determine "noise" or "static" is by your system not "beeping" or intermittent and/or erratic operation.

Learn how your sensing device works by trying it first in your house before mounting it at the location that you want to install it. All variables are less of a factor the closer the receiver and sensor are to each other. In other words it is more critical at 700 foot distance than at 100 foot distance from transmitter to receiver.

Do's

- Mount the receiver as high as possible in your home.
- Make transmitter to receiver as clear of obstructions as possible.
- Try your sensor and receiver inside before mounting to understand how unit operates.
- Set the receiver at a window on the same side of the house as the sensor.

Don'ts

- Do not set the receiver on the floor inside your home.
- Do not place the receiver in a basement.
- Do not set your receiver next to cordless phones, computers, or any other electronic devices.
- Do not set the receiver next to metal devices.
- Do not mount the outside sensor on metal.
- Do not set your outdoor sensor on the ground to test.

Other Wireless Facts:

- Steel or aluminum siding can greatly reduce range of transmitter to receiver range.
- Metalized Celotex under siding or brick can have a huge effect on reduction of range.
- Brick and masonry will have a substantial range reduction.
- Height is a huge factor in performance of transmission distance.
- Glass windows provide the least resistance to radio frequency.
- Always try to place your receiver at a window on the same side of your home as the sensor outside.
- The closer the sensor is to the receiver, the less that the above play into as factors.
- Mounting an outdoor sensor over a hill has the most reducing effect of radio frequency distance.
- Usually small receiver relocations are all that is needed.
- 2nd story placement of the receiver can result in a huge distance increase if applicable.
- Maximum height and minimum obstructions are the largest benefit in range.
- Our units distance are rated line of sight average. You can experience more or less range than rated.
- Weather conditions can also change performance of distance.
- Over a period of time range can slightly degrade as product ages, frequencies of product slightly shift, foliage growth, or local RF interference changes. You may need to relocate the sensor closer to the receiver.

Locate the probe as close to the edge of driveway as possible. Maximum distance to detect a vehicle is approx. 14 away from the probe. Before burying probe, try for a week or two to ensure proper communication between control box and receiver are verified.

Mount the control box as high as possible for best communication to the receiver.

Mounting on the back side of the pole toward receiver will give you a stealth appearance as no one will see the box driving in plus the wireless communication will improve by not transmitting though the density of the mounting object.

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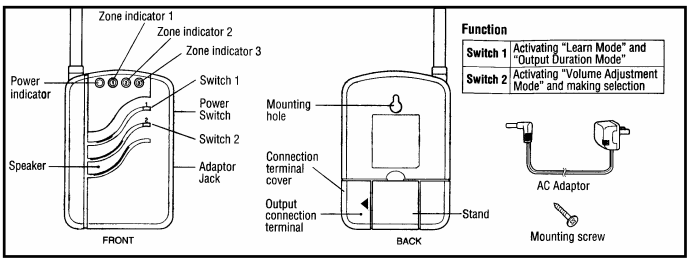
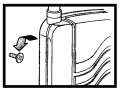
Receiver



Function

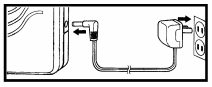
Switch 1	Activating "Learn Mode" and "Output Duration Mode"
Switch 2	Activating "Volume Adjustment Mode" and making selection

Wall Mounting
Use the supplied screw and keyhole slot on back of receiver.



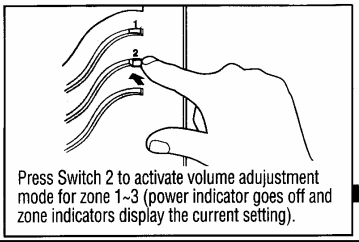
Desktop
Pull out the stand on the back of the receiver.

AC Adapter
Use only the power adapter supplied with the receiver.



Adjusting Volume

Chime volume for zone 1~3 can only be set as a group. There are 5 volume settings. Chime volume is set to level 3 at the factory.

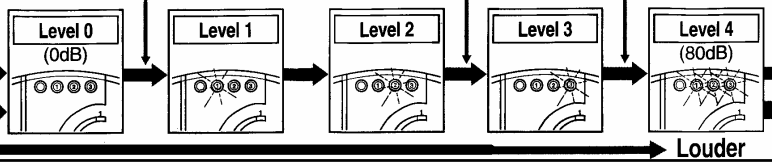


Press Switch 2 to activate volume adujustment mode for zone 1~3 (power indicator goes off and zone indicators display the current setting).

After 5 seconds, the receiver will automatically return to normal operation status (zone indicators will go off and power indicator will remain lit).

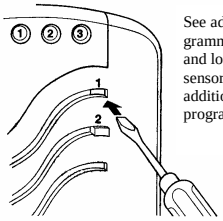
Note: Hold down Switch 2 five seconds for zone 4 (power indicator goes off and zone indicators display the current setting).

Press Switch 2 to toggle through the volume settings (Level 4 is the loudest).



Programming Additional Sensors

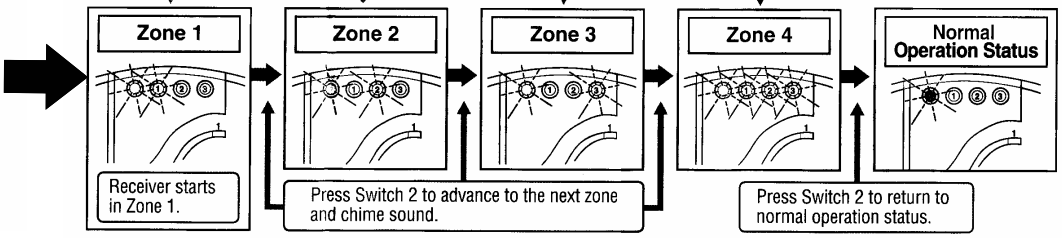
To set receiver into learn mode for additional sensors, press in switch # 1 and hold down until the green power indicator starts to flash along with zone 1 LED. Press switch # 2 to activate learn mode for second sensor. # 2 LED should be lit. Trigger your additional sensor and tone two will sound. Follow same procedure for zone 3.



See additional programming info to right and look at outdoor sensor page under additional sensor programming.

Each zone emits a different tone plus red LED indicator of 1, 2, or 3 to inform you of which sensor was triggered.

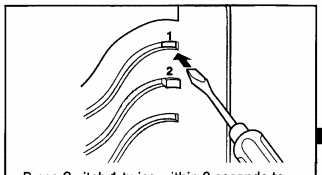
Activate the transmitter you wish to teach the receiver.
(For zone 1, zone 2 and zone 3, the corresponding zone indicator lights up during reception and all 3 zone indicators flash rapidly for zone 4.)



- In Regular Mode: terminal output duration can be set for zones 1~3 only as a group. Zone 4 always latches until it is reset by pressing Switch 2.
- In Utility Output Mode: terminal output (5 sec) is only for zone 3. Zone 1 and 2 will chime only and zone 4 will latch until it is reset by pressing Switch 2.
- Factory setting is 5 sec.

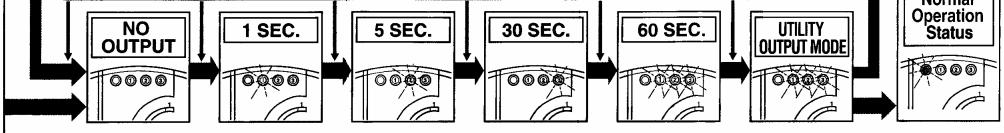
For Programming Timer Duration For Relay Output Only.

Warning! If you do not understand that the timer output relay is a low current switching, (500 ma) please consult with qualified assistance or call Jansen Electronics. Burned relay contacts or pc board traces will void the warranty of receiver if improper hookup occurs.



Press Switch 1 twice within 2 seconds to activate terminal output duration mode (zone indicators display the current setting).

Press Switch 2 to toggle through settings.

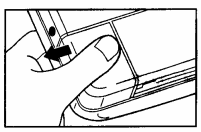


LOW BATTERY INDICATION

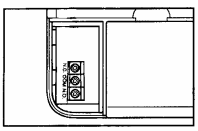
Zone indicators start flashing whenever corresponding transmitters have low battery. The receiver will sound chime followed by 2 beeps.

How To Install A Device To The Relay Output. X-10, Pager, Phone Dialer, Lights, Etc.

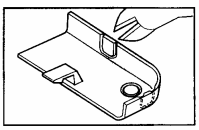
Any device with a zero voltage input terminal can be connected to this terminal. This may include electronic locks, emergency sounding devices, and automatic reporting equipment.



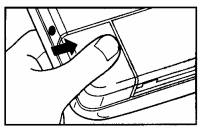
Remove the connection terminal cover



Use the terminal marked "COM-N.O." for N.O. devices and "COM-N.C." for N.C. devices.



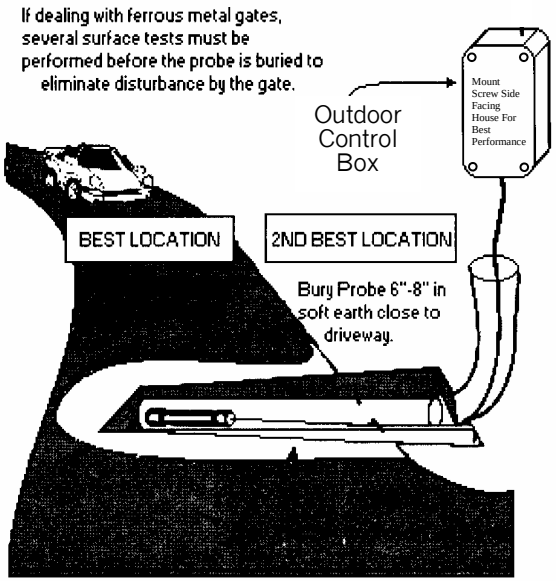
Remove knockouts according to wiring needs.



Close the connection terminal cover.

Try unit in house or close proximity before mounting probe and outdoor housing.
Learn how your unit operates before taking it a long distance away.

Installation Suggestions



Mount box reasonably high as possible to improve range and to avoid vandalism. Mount on the side facing the home to give maximum range plus box will not be visible to someone driving in.

Possible Ways to Bury Probe

1) Center of Driveway - 1st Choice
   a) Sensitivity can be lowered for greater stability
   b) Range can be extended for a wide driveway
   c) Bury probe under driveway by encasing probe in 2″ or 3″ PVC pipe that has been sealed at one end.
      i) Pipe should be pitched for drainage.
      ii) Allows retrieval of probe at later date.
2) Alongside Driveway - 2nd Choice
   a) Bury probe 6″-8″ in soft earth close to driveway.
   b) Place probe parallel to traffic motion.

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Try unit in desired area several weeks before burying probe !

Range & Sensitivity Do's & Don'ts

- The range of the probe will cover a 14 ft. driveway.
- Lay probe as close to driveway as possible.
- Do not cut probe cable. It is better to coil up any extra.
- Do not bury probe within 5 ft. of power cables or transformers.
- Do not bury probe within 20 ft. of high powered radio transmitter towers.
- Do not bury probe within 25 ft. of residential traffic.
- Do not bury probe within 40 ft. of highway traffic.
- Do not bury probe within 100 ft. of moving trains.
- Do not set the receiver on the floor in your house.
- The higher the receiver and box outdoors, the more range you will get.
- Mount transmitter box at least 10 ft. from probe.
- Probe slid in PVC pipe, capped on one end and pitched for drainage, will give the longest life to probe and is recommended but not required.
- Install probe parallel with driveway.
- Mount transmitter box as high on tree, pole, building, etc. as you can.
- The higher the transmitter box, the greater range to receiver in house.
- Initial stabilization when installing battery may take several minutes.
- When batteries are low, system may oscillate or not work at all.
- 9 volt lithium batteries will last longest.
- Over tightening screws can warp box allowing moisture to enter box.
- Probe sensitivity adjustment inside of housing. (Small white dial)
- Always keep sensitivity as minimal as possible to avoid any false signals.

Receiver

- Set receiver in window that it can "see" transmitter to get maximum range.
- Don't set the receiver on the floor or put in basement.
- You can set receiver in other locations if less range is needed.
- Height and least obstructions give you maximum range.
- 1500 and 5000 receivers hanging up by constantly beeping indicates a communication problem between outdoor and indoor units. Not applicable to 500 ft range model 500P.

You must install the batteries !! ***Shipped not installed !!***
Unit will transmit and oscillate for several minutes until stabilizes.

Probe Overview