

MyVirtual Network[®]

THERMOSTAT



PRODUCT DESCRIPTION ///

The XWT380 **Thermostat** is an innovative system designed to work with a home gateway enabling remote access and operation of your HVAC system. The XWT380 **Thermostat** offers state of the art performance and professional level reliability at cost effective prices. The fully optimized 418 MHz radio subsystem offers optimal range coverage allowing the **Thermostat** to be placed virtually anywhere.

PACKAGE CONTENTS ///

- (1) Thermostat Base Unit
- (1) Thermostat Display Unit
- (1) 24 VAC Power Supply
- (1) Wall Mounting Kit
- (1) Installation Guide



THERMOSTAT BASE UNIT



THERMOSTAT DISPLAY UNIT



WALL MOUNTING KIT



24 VAC POWER SUPPLY

INSTALLATION ///

The system is comprised of the **Thermostat** display and user interface which replaces your old **Thermostat**, and the base unit which should be installed adjacent to the HVAC System.

This installation must be performed by a qualified HVAC engineer. Be sure to read the complete system installation and operational manual.

The installer should ensure that all local wiring regulations and good practice are adhered to.

WALL MOUNTING THE THERMOSTAT DISPLAY UNIT ///

INSTALLATION

Before installing this unit:

1. Read all of the installation instructions carefully.
2. Read the User's Manual carefully.
3. Ensure that this product is suitable for your application.
4. Ensure that wiring complies with all codes and ordinances.
5. Disconnect power to the control transformer of the HVAC to prevent electrical shock and damage to equipment.

LOCATION

XWT380 **Thermostat** display unit is designed to replace your old thermostat.

However, in order to ensure accurate and reliable operation, please check that the following criteria are met:

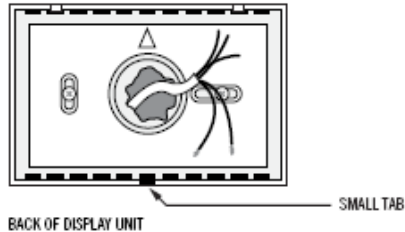
1. Ensure that the **Thermostat** is mounted between 5 and 5.5 ft above the floor level and is at least 2 feet away from an outdoor wall.
2. Ensure that the **Thermostat** is located in an area where there is adequate air circulation.
3. Ensure that the **Thermostat** display is not mounted in an area in direct sunlight, or in the path of heat generated by nearby appliances.
4. Ensure that it is not mounted on an outdoor wall, near a fireplace, or in the path of any air ducts.

REMOVING THE OLD THERMOSTAT

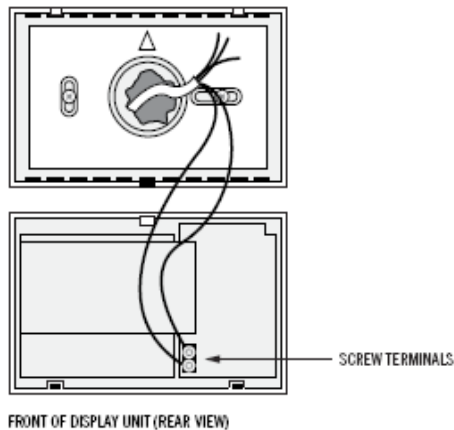
1. Disconnect the power to the control transformer.
2. Remove the cover to the existing **Thermostat**.
3. Disconnect the wires going to each terminal on the **Thermostat**.
4. Remove the existing plate or base from the wall if applicable.

INSTALLING THE DISPLAY UNIT

1. Press the small tab on the bottom center of the display unit with a small screwdriver and separate the front from the base.
2. Mount the base part on the wall, using suitable screws for the mounting surface. Ensure the arrow points up.



3. Connect any two wires to the display unit's terminal block situated on the back. It does not matter which color goes to which screw terminal.



4. Make a note of the colors of these two wires as you will need to connect the same two wires to the base unit at the other end.
5. Upon completion of wiring the thermostat, push all excess wiring into the hole in the wall. If there is a large hole in the wall, plug the hole with suitable filler or foam to ensure an accurate temperature reading by the **Thermostat** display unit.

6. Engage the upper tabs of the display unit with the counterparts on the base and press the bottom gently in until you feel it click into place. Do not use excessive force. Ensure you do not have excessive wire looped inside the enclosure.

NOTE: Be sure that the **Thermostat** temperature sensor has not been damaged during installation.

BASE UNIT INSTALLATION ///

CAUTION

This installation must be performed by a qualified HVAC engineer. Be sure to read the complete system installation and operational manual before you begin this installation.

IF WORKING WITH GAS CENTRAL HEATING UNIT ENSURE THE GAS VALVE IS SHUT OFF.

BE SURE TO DISCONNECT THE POWER TO THE CONTROL TRANSFORMER

Do not short gas valve, fan, heat relay, or cool relay. This may damage the Base unit.

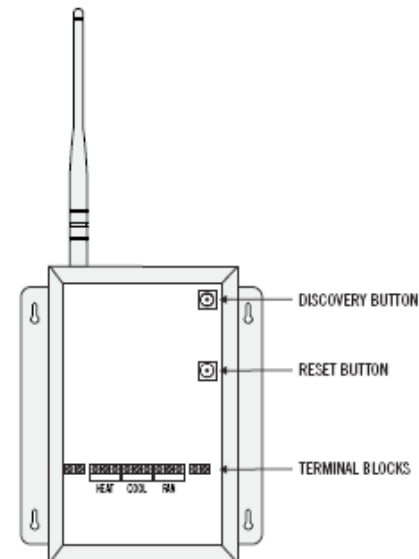
DO NOT ATTEMPT TO HOOK UP TO LIVE CIRCUITS

An accidental connection to a component on the circuit board could cause damage to the Base unit and may be dangerous.

INSTALL THE BASE UNIT AT POINT NEAR THE HVAC UNIT AND CONVENIENT FOR ACCESS

Please also ensure that you mount the unit in a position that gives you easy access to the old thermostat wiring going to the HVAC's control system.

1. Mount the unit vertically about on a wall as high as convenient (5.5 to 6 ft).
2. Remove the front cover by removing four (4) small screws on each side of the base unit.



BASE UNIT INTERNALS FOR INSTALLATION

- Place the cover in a safe place and take care not to damage the plastic light pipe assembly mounted inside the cover.
- Locate the cables that connected the old thermostat to the HVAC unit.
- Ensure you make a note of the color/label relationship and remove the wires from the HVAC control panel.
- Now locate the same two wires the colors which you chose to connect the **Thermostat** display unit (refer to your notes mentioned in the display unit installation instruction).
- Using bottom right grommet entry connect the same two wires to the terminals marked "Com Link". Again, either color to either screw terminal.

NOTE: In order to maintain a good dust and bug seal pierce the grommets just enough to pull your wires through. Do not remove grommet. Ensure that all wires and their insulation are in good condition. Replace any wire that shows sign of aging and feels brittle to the touch.

POWER CONNECTION ///

USING 24V AC FROM THE HVAC UNIT

If you can get easy access to the HVAC unit's transformer you may use this to power the base unit. However please check the following before doing so:

- That the transformer rating is not exceeded when you add the display load (approx 200mA).
- That the transformer is not switched via other circuits and has a permanent primary feed from the power line.
- That the voltage does not exceed 27V AC.

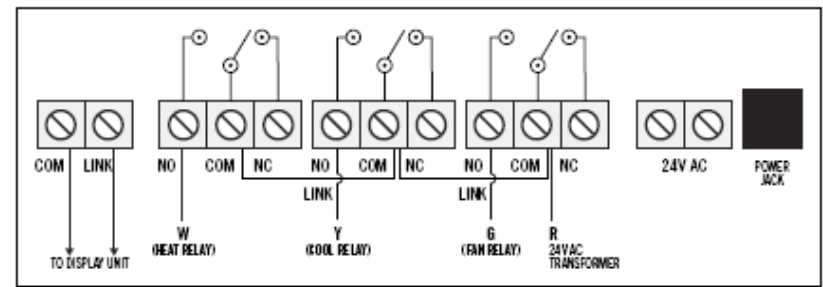
NOTE: If in doubt please use the power adapter supplied with the **Thermostat** Kit. To do this, simply route the power wire through the lower left grommet into the housing and plug in the power jack.

CONNECTION TO HVAC UNIT ///

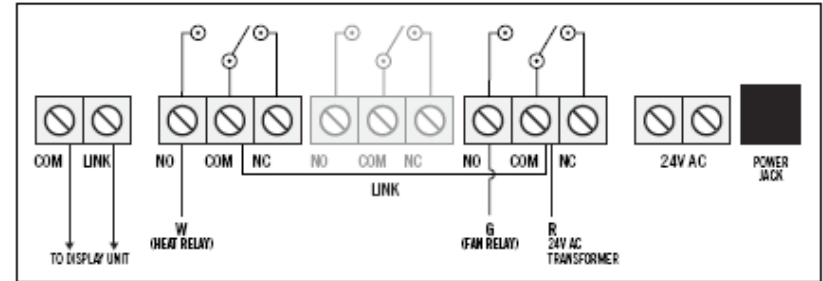
The following three diagrams cover heating only, cooling only, and heating/cooling combination HVAC units. The notations used refer to most common notations used in HVAC wiring in the US.

The installer must verify that these notations do indeed adhere to the following:

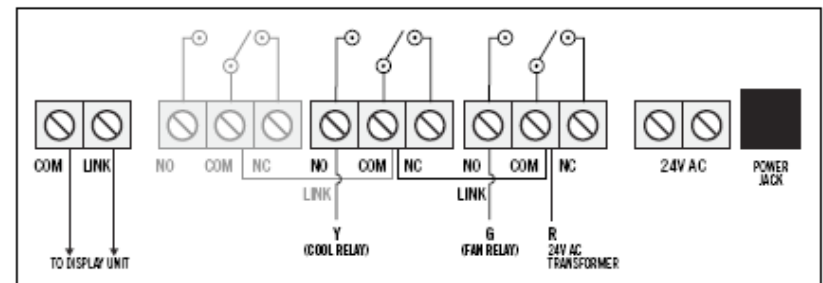
- "W" refers to the connection to the heat relay
- "Y" refers to the connection to the cooling relay
- "G" refers to the connection to the fan relay.
- "R" refers to the connection to the 24V AC transformer.
- "COMMON" refers to the connection between the other terminal of the transformer and all HVAC system relays.



SINGLE STAGE HEATING/COOLING



SINGLE STAGE HEATING ONLY



SINGLE STAGE COOLING ONLY

- Double check all your connections and ensure that the installation is neat and all connections are secure.
- You are now ready to perform the discovery and final set up procedure covered in the main system manual.
- Leave the cover of the base unit off until the whole system is operational.
- Upon completion of the set up, replace the front cover and ensure that the light pipe assembly on the inside of the cover is not damaged or detached.