The Friedrich WRT2 is a programmable, wireless electronic thermostat, which can be used with the following heating/cooling applications:

- Single Stage Heat - Cool PTAC Units
- Single Stage Heat Pump PTAC Units
- with or without Electric Heat

Ensure that heat and cool operates correctly.

Use a flat screwdriver to separate the thermostat receiver.

Within 10 minutes of returning power to the PTAC unit, insert 2x AA brand name alkaline batteries (included) into the thermostat transmitter.

Mount the receiver unit using the double-sided tape provided in the location above.

If only 1 receiver has been powered up:

- TURN ON FAN for 10s

Turn OFF electricity to all heating and cooling components.

Input Voltage: 19 to 30 VAC

Mount the thermostat transmitter on an area that has good circulation but is not directly affected by a vent or duct.

Use supplied screws to mount base to the wall.

The WRT2 thermostat comes in two parts: a receiver unit that is wired to the PTAC unit and a transmitter unit that is installed on the wall and wirelessly communicates with the receiver unit.

In Package

- Thermostat transmitter
- Thermostat receiver
- Dry wall anchors and mounting screws
- 2 AA batteries

Included in Package

- R F

Specs

- Input Voltage: 19 to 30 VAC
- Output Rating: Max. 1.5A per output wire (5A total)
- Temperature Control: 60°F to 90°F (16°C to 32°C)

Safety Information

- This thermostat is for LOW voltage applications only.
- Turn OFF electricity to all heating and cooling components.
- All wiring must conform to applicable local and national building and electrical codes and ordinances.

Safety Information

- This thermostat is for LOW voltage applications only.
- Turn OFF electricity to all heating and cooling components.
- All wiring must conform to applicable local and national building and electrical codes and ordinances.

Safety Information

- This thermostat is for LOW voltage applications only.
- Turn OFF electricity to all heating and cooling components.
- All wiring must conform to applicable local and national building and electrical codes and ordinances.

Specifications

- Input Voltage: 19 to 30 VAC
- Output Rating: Max. 1.5A per output wire (5A total)
- Temperature Control: 60°F to 90°F (16°C to 32°C)

WIRING DIAGRAM: Heat Pump

Note 1: Make the following Installer Settings for Heat Pump units

<table>
<thead>
<tr>
<th>System Type</th>
<th>Changeover valve type</th>
<th>Required action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Pump B</td>
<td>1. Set Installer Settings Menu #06 to HP</td>
<td>1. Set Installer Settings Menu #06 to HP</td>
</tr>
<tr>
<td>O</td>
<td>1. Set Installer Settings Menu #06 to HP</td>
<td>2. Set Installer Settings Menu #07 to O</td>
</tr>
</tbody>
</table>

Note 2: When configured for Heat Pump operation, the “Y” wire will be energized for both cooling and first-stage heating operation. Do not connect the “W1” wire to any terminal.

Note 3: The “W2” wire is used to call for Electric/Auxiliary heat. If your Heat Pump PTAC does not have Electric heat, then the “W2” wire should not be used and Installer Settings menu 10 (Aux. Stage Off/On) should be set to “OFF”.

Note 4: For PTAC units with only one fan speed (single “G1” fan terminal), use the “GL” wire for wiring and Installer Settings menu 12 (High Fan) must be set to “OFF”.

FRIEDRICH
**WIRING DIAGRAM: Heat - Cool**

**RF PAIRING**

- The RF icon in the top right corner of the LCD shows the RF connection state between transmitter and receiver.
- **BLANK:** No receiver pair
- **SOLID:** Transmitter and receiver connected
- **FLASHING:** Receiver paired but disconnected

**INSTALLER SETTINGS**

- **To change setting value**
  - Press **MODE** until last setting page (98) has been saved or leave thermostat with no button press for 60 seconds
  - Note: You must press **MODE** to save each setting value

**HOW TO NAVIGATE**

- **Press UP or DOWN to change setting value**
- **Press MODE** to save setting value and proceed to next setting option
- **Press FAN to return to previous setting option**

**HOW TO EXIT**

- **Press MODE** until last setting page (98) has been saved or leave thermostat with no button press for 60 seconds
  - Note: You must press **MODE** to save each setting value

**FUNCTION DESCRIPTIONS**

<table>
<thead>
<tr>
<th>Menu Number</th>
<th>Function Description</th>
<th>User Option Number</th>
<th>Default setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Temperature Scale</td>
<td>F: Fahrenheit</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Temperature Calibration</td>
<td>+1.5°F</td>
<td>0.0°F</td>
</tr>
</tbody>
</table>
| 03          | Available modes      | 01: Heat and Cool with auto
                                                                   02: Heat and Cool without auto
                                                                   03: Heat
                                                                   04: Cool only
| 04          | Max Heat Set Temp    | F: 60 to 90 (5°F step) | 60°F |
| 05          | Min Cool Set Temp    | F: 60 to 80 (5°F step) | 80°F |
| 06          | FPC Type             | H: Heat-Cool
                                                                   C: Cool
                                                                   P: Heat
| 07          | HP valve type        | B: B Valve
                                                                   C: C Valve
| 08          | Auto dead-band between heat and cool operation in AUTO mode | +0.25°F
                                                                   +0.50°F
                                                                   -0.50°F
                                                                   +2.25°F
| 09          | Stage 1 Temperature Control Switch | +0.25°F
                                                                   +0.50°F
                                                                   -0.50°F
                                                                   +2.25°F
| 10          | Auxiliary Stage Cut-in/Offset (only used for HP system type) | CFP: No Electric / Auxiliary heat
                                                                   CFP: -3.0 to +4.0°F (1°F step) |
| 11          | [Not Used]           |                    |                |
| 12          | High FAN availability | CN: High FAN available
                                                                   CN: High FAN not available
| 13          | Programming mode     | OFP: Manual
                                                                   CN: Programmable
| 14          | Clock Format (Programming mode only) | 12: 12 hour
                                                                   24: 24 hour |
| 15          | Permits per day (Programming mode only) | 4: 4 permits per day
                                                                   2: 2 permits per day
                                                                   1: 1 permit per day |
| 16          | Auto Daylight Savings (Programming mode only) | CN: Auto DST on
                                                                   CN: Auto DST off |
| 17          | [Not Used]           |                    |                |
| 18          | Reset to default set temperatures after each mode change (manual mode only) | CN: uses default temperatures after each mode change (see menu 17 and 18)
                                                                   CFP: Maintain last set temperature for each mode |

**NORMAL OPERATION**

**CHANGING MODE**

- **Press MODE button to initiate selection menu**
- **Press MODE button until desired system mode is blinking.** After 2 seconds of no button press desired mode is selected

**CHANGING SET TEMPERATURE**

- Ensure thermostat is in correct system mode (Heat, Cool or Auto)
- **Press UP or DOWN button**. New set temperature will be displayed in large digits. After 2 seconds of no button press new set temperature is selected
- If Programming mode is OFF, then new set temperature will be held indefinitely. If programming mode is ON (see below), then new set temperature will be held until next scheduled set-point change

**CHANGING FAN SPEED**

- **Press FAN button to initiate fan speed selection menu**
- **Press FAN until desired fan mode is selected**. After 2 seconds of no button press desired fan mode is selected
- **AUTO:** Fan operates as needed during a call for heating or cooling activity only.
- **LOW:** Fan operates continuously in low speed. Heat/Cool will turn on/off as needed
- **HIGH:** Fan operates continuously in high speed. Heat/Cool will turn on/off as needed based on background

**SETTING A KEYPAD / FRONT PANEL LOCKOUT**

- **While in any normal operating mode**, except OFF, a keypad lockout can be introduced which will prevent any mode change, fan change or temperature adjustment from being made by the user. Even when locked, any button press will illuminate the display backlight.
- **To activate (and deactivate) the keypad lockout**, set thermostat to heat, cool or auto mode then hold **FAN** button for 5 seconds. When the keypad is locked, a padlock icon will appear in the lower left corner of the display.

**SET CLOCK AND TEMPERATURE PROGRAM SCHEDULE**

- **NOTE:** After 60 seconds with no button press thermostat will exit the settings menu
- **You have the following options**
  - Set thermostat real-time clock
  - Set a heat schedule
  - Set a cool schedule
  - Use **UP** or **DOWN** buttons until desired section is blinking. Press **MODE** button to enter selection.
- **To exit press FAN or select “Exit” and press MODE**

**ADJUSTING THE REAL-TIME CLOCK**

- **Connect the real-time clock menu has been selected use the UP or DOWN buttons to set each variable.** MODE will save value and proceed to next variable. **FAN** will return to prior variable.
- By default, the thermostat will automatically adjust the clock for Daylight Savings (see below) or can be disabled by changing the Auto Daylight Savings (setting 16) option in the installer menu

**ADJUST THE HEAT OR COOL TEMPERATURE PROGRAM**

- **NOTE:** Each program period ends at the start time of the next upcoming period.
- **NOTE:** If configured to use only 2 periods, only DAY and NIGHT will be used, and the MORN and EVEN periods will not be used or visible. If you use 1 period and 7 day programming, thermostat will reset to the desired set temperature at each day time each day.
- **Once either HEAT or COOL programming sections has been selected, choose which days(s) to schedule together (i.e. all weekdays together, or each day separately). Use the UP or DOWN buttons to scroll through the blinking days and press the MODE button to select each day with a indicator dot. Press twice to deselect any previously selected day. All deselected and all days are selected, move blinking selection to “SCHED” and press the MODE button to proceed.
- **Adjust the start time of the first program using UP or DOWN buttons and press the MODE button.** Press the UP or DOWN buttons to set the desired selection for the time slot and press the **MODE** button to continue to the next period.
- **Repeat until all periods have been set.** Thermostat will return to day selection page.
- If all desired days have been selected schedule “EXIT” and press MODE. Otherwise use the UP and DOWN buttons to move blinking selection to desired days and press MODE to select day[s] for scheduling.

**ENTERING EMERGENCY HEAT MODE (HP UNITS ONLY)**

- **While in HEAT mode, press DOWN - MODE for 5 seconds.** The thermostat will show **HEAT** with the *Err* icon, will only use the W2 wire as the heating wire and will not call for compressor heating.
- To return to normal heating mode, set thermostat to HEAT mode, press hold both the **MODE** and **DOWN** buttons for at least 5 seconds the screen changes. The “E” will disappear and only show “HEAT” to confirm regular Heat mode.

**FCG Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Relocate or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device must be used in fixed locations and in such a way that a separation distance of at least 0.9 meters is normally maintained between the transmitter’s radiating structure(s) and the body of the user or nearby persons.

**IC Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes:

1. L’appareil ne doit pas causer d’interférences nuisibles.
2. L’utilisateur de l’appareil doit recevoir tout brouillage radioélectrique autant que de raison en cas d’interférence.

www.friedrich.com

Friedrich Air Conditioning Co.
1001 Reunion Pl Suite 500,
San Antonio, TX 78216
1-877-599-5665

Important:

- This is a class A digital device. In a residential environment, it is possible that this equipment may cause radio interference, in which case the user may be required to take corrective measures as outlined in the operating instructions.
- This device is intended only for use by trained personnel.
- This unit may not be safely operated with a defective or damaged front cover.
- This device is intended only for the installation described in this manual.
- All required covers and fasteners must be securely in place for safe and proper operation.