Caution

Failure to follow these instructions can damage the product or cause a hazardous condition. Disconnect power during the installation of this product. All wiring must conform to local codes and ordinances. This product is designed for use with 24 VAC systems.

For additional assistance visit www.PelicanWireless.com to request support.

Introduction

The plus50 provides a hardware upgrade to add CO_2 sensor capability to existing Pelican thermostats including the TS200 and TS200H. Once installed, the thermostat will provide continuous status of CO_2 levels and can provide demand ventilation in three ways:

1. Control of the Pelican Pearl Economizer Controller.
2. In coordination with Pelican's line of Zone Controllers with integrated Economizer Control.
3. Simple fan operation when CO_2 levels exceed the CO_2 set point.

Prerequisites

Existing Pelican thermostats will not recognize the CO_2 sensor unless they are running at least firmware version 3.0. We recommend verifying the firmware version before beginning installation. Contact Pelican Technical Support at support@PelicanWireless.com or 888-512-0490 for assistance verify the firmware version and if necessary to receive the free firmware upgrade.

Installation

The plus50 is provided as a replacement sub-base. The existing thermostat front plate and internal Wiring Module (WM500 or WM700) will need to be installed into the new sub-base. For installations where the Wiring Module has already been relocated to a different location the new sub-base can replace the existing sub-base without removing and re-installing the Wiring Module.
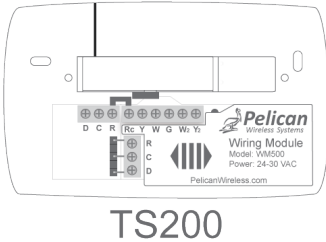
The installation steps are:

1. Turn off power to the thermostat.
2. Remove the existing front plate by pulling it straight away from the base.
3. Disconnect all control wiring.
4. Remove the existing Wiring Module as shown in the following section.
5. Remove the existing sub-base and install the new sub-base.
6. Re-install the Wiring Module into the new sub-base.
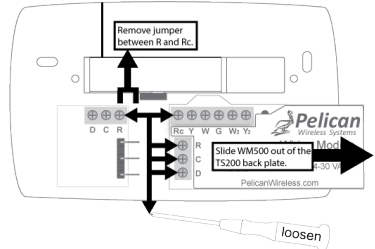7. Reconnect control wiring. Re-install the thermostat front plate.

Wiring Module Removal and Installation

The following diagram shows how to remove the Wiring Module and then re-install the Wiring Module into the new plus50 sub-base.
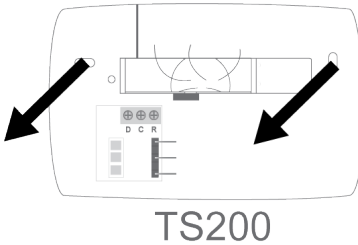
Step 1: Pull front plate off TS200 or TS200H.
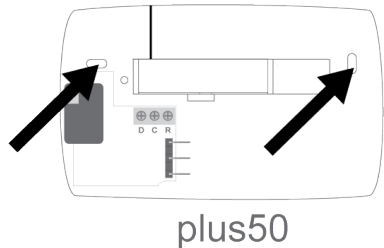

TS200

Step 2: Loosen R and Rc terminals and remove jumper. Loosen R, C, D terminals on Wiring Module. Slide Wiring Module to the right to remove.
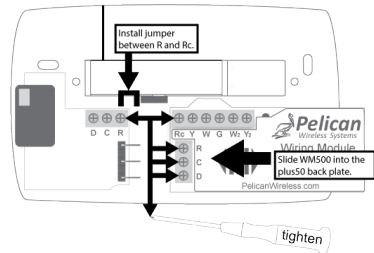

Step 3: Remove existing TS200 or TS200H sub-base from wall.

TS200

Step 4: Mount plus50 sub-base onto wall.

plus50

Step 5: Install Wiring Module into plus50 sub-base. Install jumper between R and Rc. Tighten R and Rc terminals. Tighten R, D, C terminals on Wiring Module.

Integrated CO_2 Sensor Operation

The integrated CO_2 sensor never requires manual calibration. It has a built-in automatic calibration which will adjust the CO_2 accuracy after 48 hours of operation. The thermostat will display CO_2 levels on the Site Manager Web App after 3 minutes of operation. Demand Ventilation parameters can be adjusted using the Site Manager Thermostat Setup function.