



## SANYO Commercial Solutions

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# Technical Service Bulletin

2007.11.23

- Category:** Return Air Temperature Sensing
- Topic:** Accuracy of temperature readings/settings when using the built-in return air sensor, instead of a wall mounted remote controller or sensor located in the conditioned space.
- Applicable Product:** 26-42K BTU One-to-One Splits (PAC) and all ECO-i Indoor Units

For accurate room temperature control when using return air sensing, adjustment of the “**heating or cooling shift values**” may be necessary to make the return air sensor value equal the actual room temperature. This is accomplished by adding or subtracting “shift” degrees from the return air sensor value, to compensate for either;

- The temperature at the installed height of a ductless unit or,
- High or Low return duct inlet temperature -and/or-,
- The ambient temperature surrounding return ductwork and air handler.

NOTE: Shift values are factory set at either -4F or -2F for Heating (Item 06) depending on the model, and 0F for Cooling (Item 17) on all models. If it is not desired, or possible to change shift values, simply adjust the room temperature set points accordingly.

To determine the specific shift value required:

- Run only the system fan until a stable temperature is reached.
- Then find the difference from the return air temperature to the actual room temperature.
  - Example: Difference from 69F return air temperature to 72F actual room temperature = +3F

To adjust return air sensor shift values: (see manual for detailed instructions)

- Set item codes 06 and 17 on each indoor unit EEPROM.
- To set new shift values, connect an RCS-TM80BG to the “RC” terminals of each AHU using return air sensing.
- Press the “Wrench” + “Set” + “Clear” buttons simultaneously for 5 seconds.

- Change the Item Code by pressing the Temperature “Up” or “Down” arrow buttons until the proper code is displayed.
- Change the value by pressing the Time “Up” or “Down” arrow buttons until the proper number is displayed.
- Press the “Set” button after each new value is entered to permanently store the new setting.
- Repeat as necessary on all indoor units. Press the “Wrench” button to exit the setting mode.

The following are examples only. Your specific shift values may vary depending on actual conditions.

