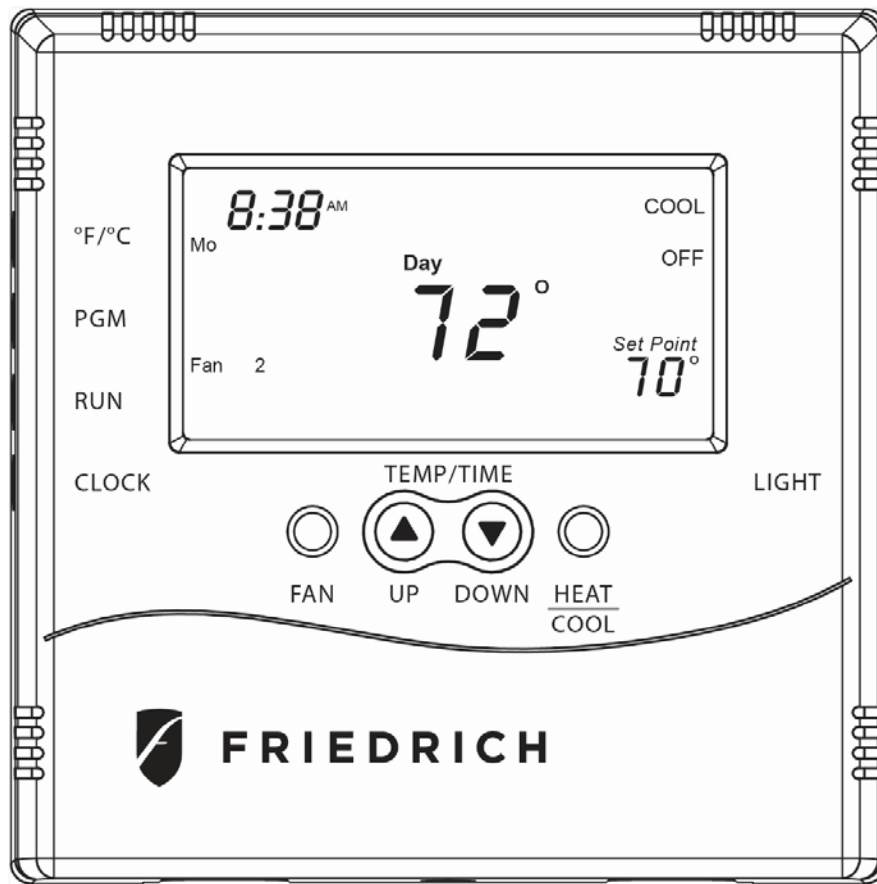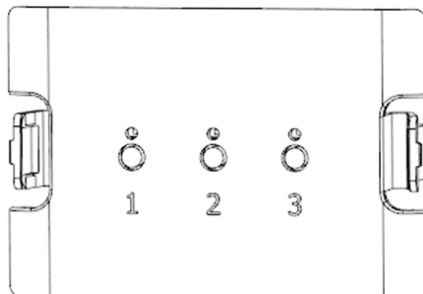**Installation and Operation Manual**

FRIEDRICH

This Manual covers the following models:

- **KWW– Kühl Wireless Wall Thermostat**
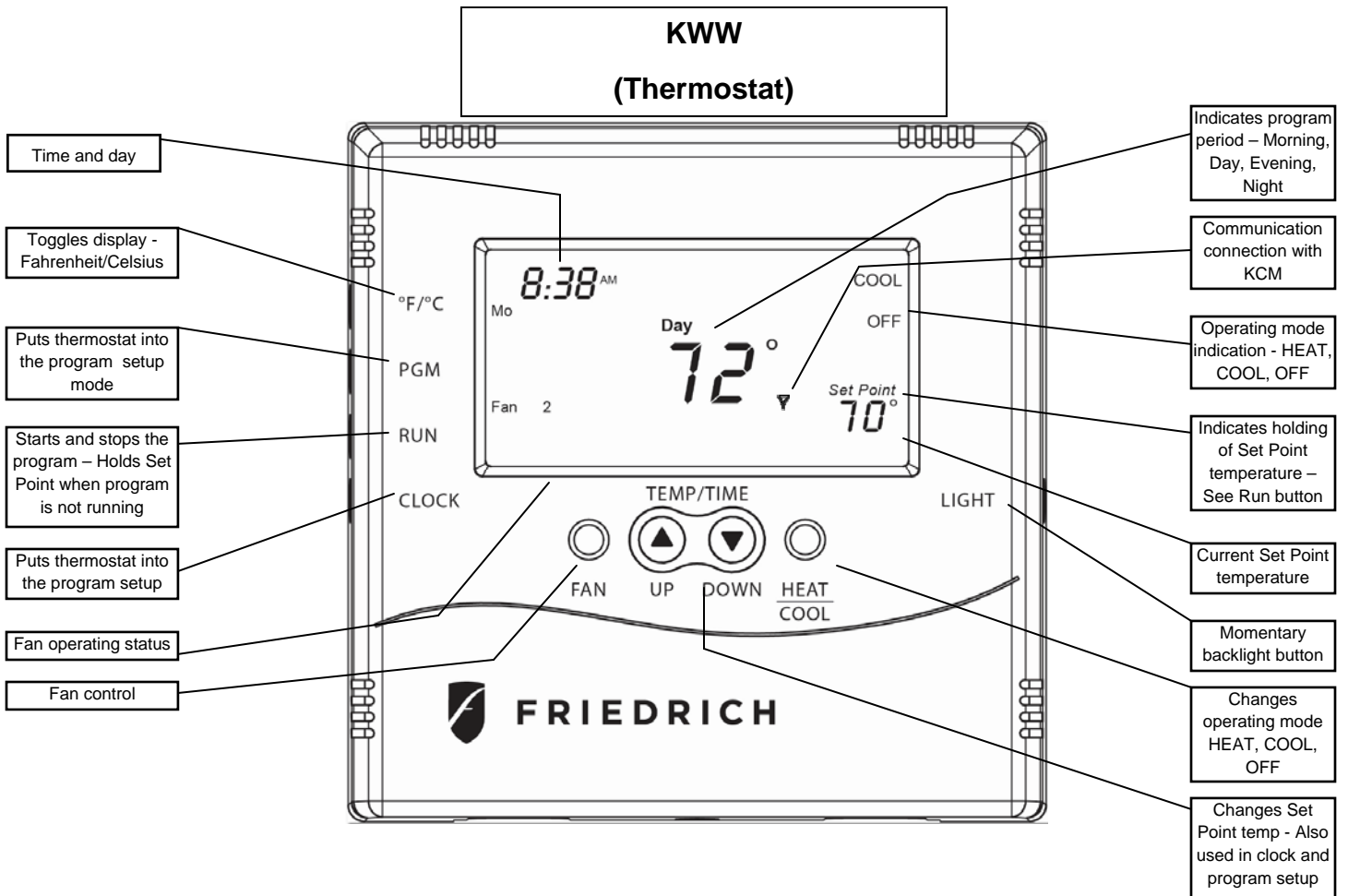- **KCM– Kühl Communication Module**

KWW

°F/°C
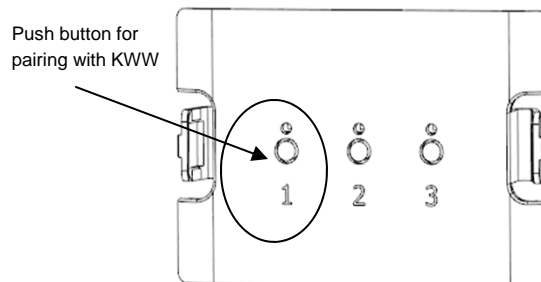
PGM

RUN

CLOCK

8:38 AM
Mo
Day
72°
Fan 2
COOL
OFF
Set Point
70°

TEMP/TIME

LIGHT

FAN   UP   DOWN   HEAT / COOL

FRIEDRICH

KCM

1   2   3

KWW Overview

KWW

(Thermostat)

Time and day

Toggles display - Fahrenheit/Celsius

Puts thermostat into the program setup mode

Starts and stops the program – Holds Set Point when program is not running

Puts thermostat into the program setup

Fan operating status

Fan control

Indicates program period – Morning, Day, Evening, Night

Communication connection with KCM

Operating mode indication - HEAT, COOL, OFF

Indicates holding of Set Point temperature – See Run button

Current Set Point temperature

Momentary backlight button

Changes operating mode HEAT, COOL, OFF

Changes Set Point temp - Also used in clock and program setup

°F/°C

PGM

RUN

CLOCK

8:38 AM

Mo

Day

Fan 2

72°

COOL

OFF

Set Point

70°

TEMP/TIME

▲ ▼

FAN UP DOWN HEAT COOL

LIGHT

**FRIEDRICH**

KCM

Push button for pairing with KWW

1 2 3

Step 1: Setting provisions to allow for the KWW to operate the air conditioner through the KCM module.

**Instructions on how to configure the unit's electronic control for KCM operation**

Accessing the switches section:

1. Ensure display is fully bright. If display is dimmed, press any button on the user interface to wake it up.

2. Simultaneously press and hold the 4 corner buttons on the Kühl display (Fig 1)(System + Fan Speed + Up Arrow + Timer / Schedule) for about 5 seconds. Release the buttons when the display shows any two digit number (00 – 99). (Fig 2)

3. Open the filter access panel door on Kühl unit to access the timer buttons below the Kühl control panel.(TIMER SET, HOUR, and MIN). (Fig 3 & 4)

4. Use the up or down arrow to scroll until switch number 01 is displayed

5. If switch number 01 is ON, switch to OFF, press the HOUR button once and let go. (Fig 2)

6. When the wall thermostat is used with your Kühl unit you have the option to have the unit display continue to light up as it does without the KWW thermostat or, you may configure the unit so the display is inactive and only the communication symbol will illuminate . If you want the screen to illuminate scroll the up arrow key until switch number 3 is displayed and switch it to ON. If you would like only the communication symbol to appear turn switch to OFF (If you skip this step after approximately (3) minutes the screen will go blank.)

7. Use the up or down arrow to scroll until switch number 13 is displayed.

8. If switch number 13 is ON, switch to OFF, press the HOUR button once and let go. (Fig 2)

9. Repeat above steps for switch number 50, 57 and 61 and turn them OFF. *DO NOT CHANGE ANY OTHER SWITCH SETTINGS*

10. When done, press TIMER SET to save and exit.

11. If you wish to return the unit control and discontinue use of the KWW wall thermostat you must turn switches 1, 13, 50, 57 back on.
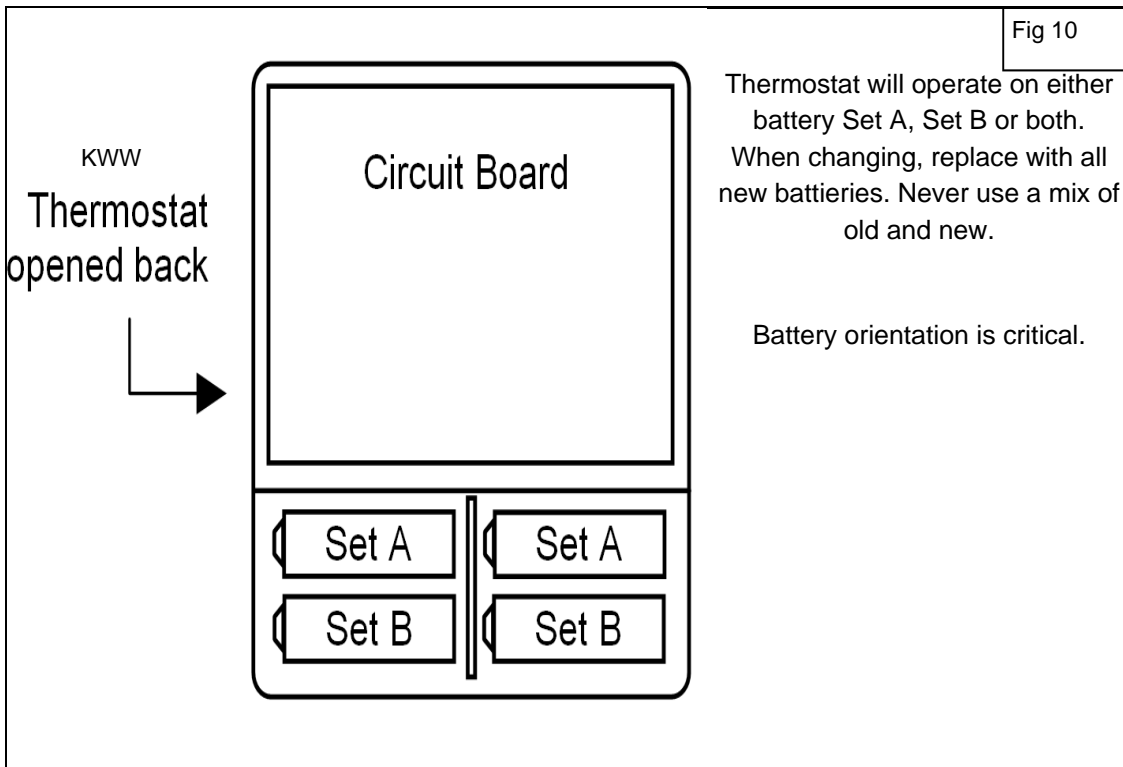

Fig 1

Fig 2

Fig 3

Fig 4
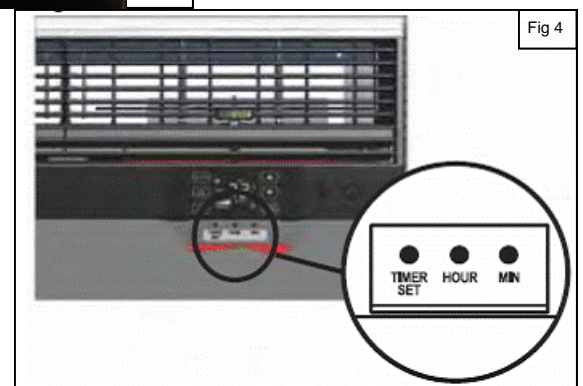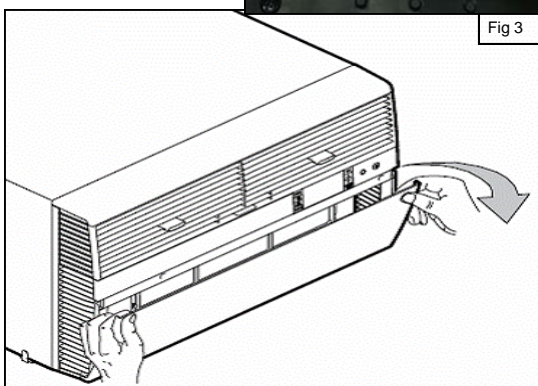
Step 2: Install KCW into your Kühl air conditioner

- Turn off power to unit at power button

- Open the filter panel on front of Kühl unit (Fig 3)

- Locate control board at the left side of unit (Fig 5)

- Remove blank plate on lower side of the electronic control board, by squeezing the left and right tabs and pulling cover away from unit (Fig 6)

- Plug KCM into location that cover was removed from (Fig 7)

- Power up Window unit

- Communication symbol will appear on the display of your Window unit (Fig 8)

Control Board | Fig 5

Fig 6

Fig 7

KCM

1   2   3

Fig 8
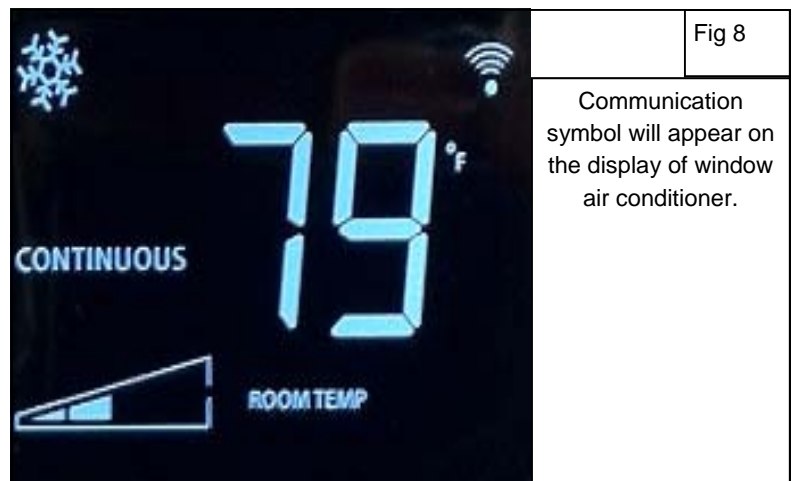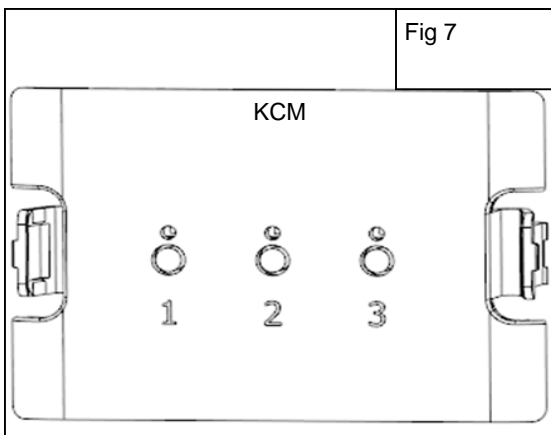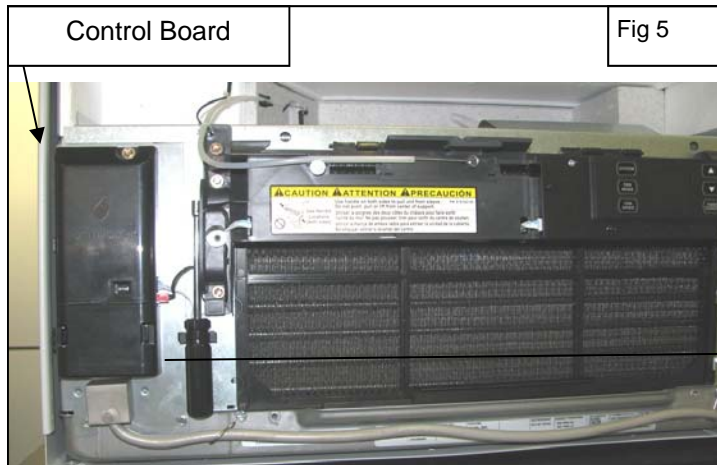
Communication symbol will appear on the display of window air conditioner.

CONTINUOUS

79 °F

ROOM TEMP

- To open KWW's housing press in tabs at bottom and pull apart the housing (Fig 9)

- Install (4) AA batteries into KWW (Fig 10)

Fig 9

Tabs

Backplate removed

Fig 10

KWW

Thermostat opened back

Circuit Board

Set A   Set A

Set B   Set B

Thermostat will operate on either battery Set A, Set B or both. When changing, replace with all new battieries. Never use a mix of old and new.
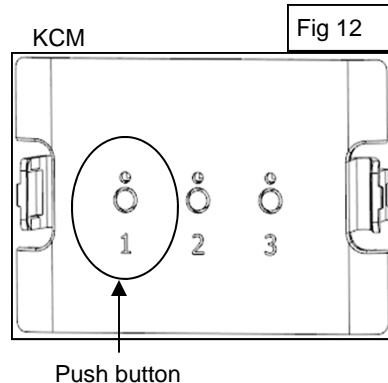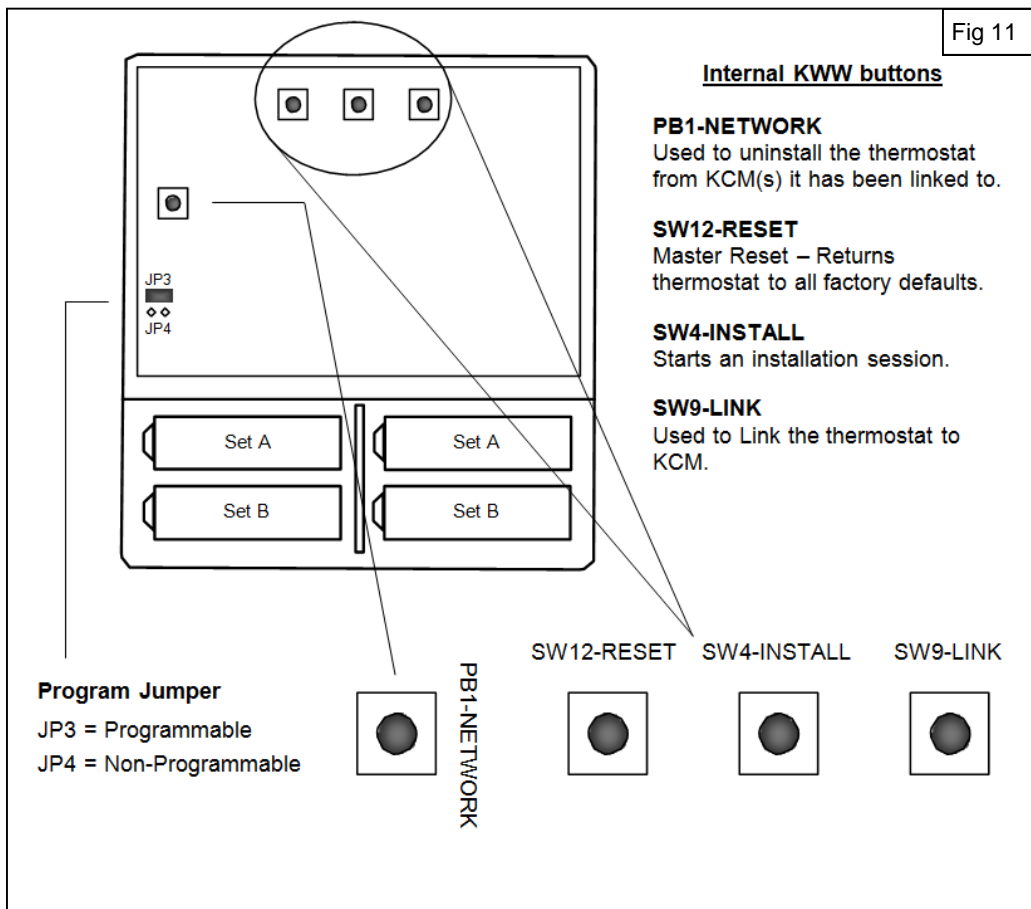
Battery orientation is critical.
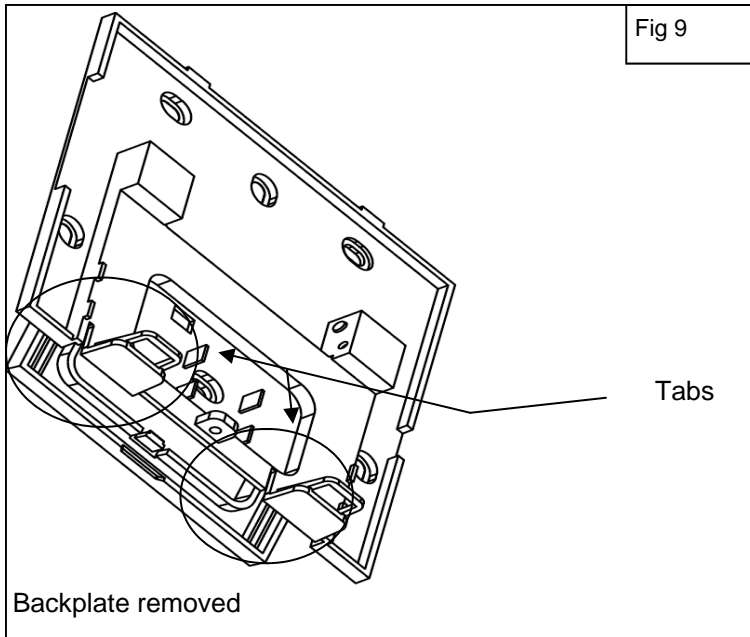
Step 3: Pair Thermostat with Module

Linking thermostat (KWW) to KCM- ***Note– KCM comes pre programmed to the KWW use the instructions below in the event that the KCM should arrive unprogrammed, or you have purchased additional KCM modules***

- Open KWW and locate SW4,SW9 and PB 1. (Fig 11)
- Press SW4-INSTALL button once and let go inside the thermostat back. (Fig 11) A steady 00 will show on the KWW's display and the *Install* icon will blink.
- Next press the HEAT/COOL button once and let go. The default number 00 will flash on the KWW's display. (*Note: For multiple KCM's set 01,02 etc, as more KCM's are added)
- Next press SW9-Link button once and let go. (Fig 11) "*Please wait*" message appears on the display.
- Within 5 seconds, press push button #1 once and let go on the KCM. (Fig 12)
- A response of "good" should be displayed on the thermostat.

- If "good" displays press SW4-INSTALL once and let go to close the installation session and return to normal thermostat operation.

- Note: In the unlikely event of a "Bad" response message displaying during the linking process, repeat the following steps.

    - Press the thermostat SW4-Install button.(Fig 12) The *install* icon will blink.

    - Press and hold for (3) seconds the PB1-NETWORK button inside the thermostat back. (Fig 11)

    - Repeat steps 1-5 again.

Thermostat (KWW) Backview

KCM

Fig 12

Fig 11

Internal KWW buttons

PB1-NETWORK
Used to uninstall the thermostat from KCM(s) it has been linked to.

SW12-RESET
Master Reset – Returns thermostat to all factory defaults.

SW4-INSTALL
Starts an installation session.

SW9-LINK
Used to Link the thermostat to KCM.

Push button

JP3
JP4

Set A   Set A

Set B   Set B

Program Jumper
JP3 = Programmable
JP4 = Non-Programmable

PB1-NETWORK

SW12-RESET   SW4-INSTALL   SW9-LINK

Step 4: Mounting the Thermostat

Note: *Mount the thermostat about five feet above the floor. Do not mount the thermostat on an outside wall, in direct sunlight, behind a door, or in an area affected by a vent or duct.*

The KWW has six (6) mounting holes. Back plate will match up with existing electrical box or drywall mounting ring.

1- Remove back plate from thermostat housing and use it to mark the mounting holes. Ensure thermostat is level for aesthetic reasons as orientation will not affect operation.

2- Drill 3/8" holes and insert drywall fasteners (#6 Screws recommended) and fasten the back plate to the wall.

Optional-

Located on the back of the housing is a built-in hinged stand support. This feature permits the thermostat to stand on a flat surface such as a table or shelf, in the event that permanent mounting to a wall is not desired.

Button Definitions:

A four button arrangement is located on the front of the KWW.

These buttons are used in adjusting fan operation, changing the set point temperature up or down and changing the operating mode of the thermostat. *Note that the Up, Down, and heat/Cool buttons are also used for setting the clock and programming the thermostat.

Four buttons located on the left side of the thermostat (Figure 13) control display of temperature in either Fahrenheit or Celsius, programming, clock setup and control of whether the thermostat is under manual or program control.

A single button on the right side of the thermostat activates the display backlight. When pressed, the backlight will illuminate the display briefly and turn off. If other buttons are pressed immediately after the backlight button, the display will stay illuminated until a few seconds after all button activity has ended. Backlighting takes significant energy from the batteries and should be used sparingly. Frequent use of the backlight function will noticeably reduce battery life.

- F / C - Toggles Fahrenheit Celsius display

- Program set up button

- Run – Sets program or manual mode of operation
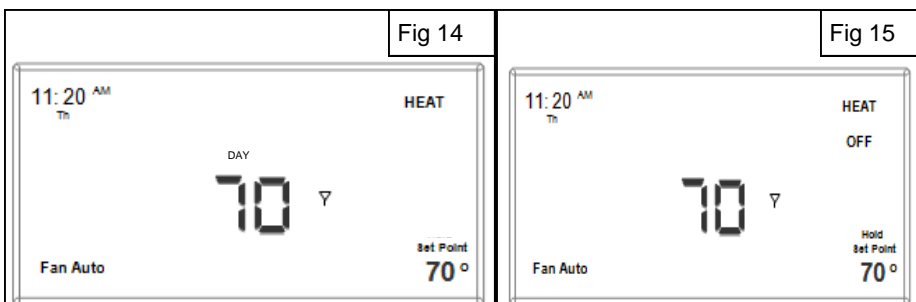
- Clock set up button

Fig 13
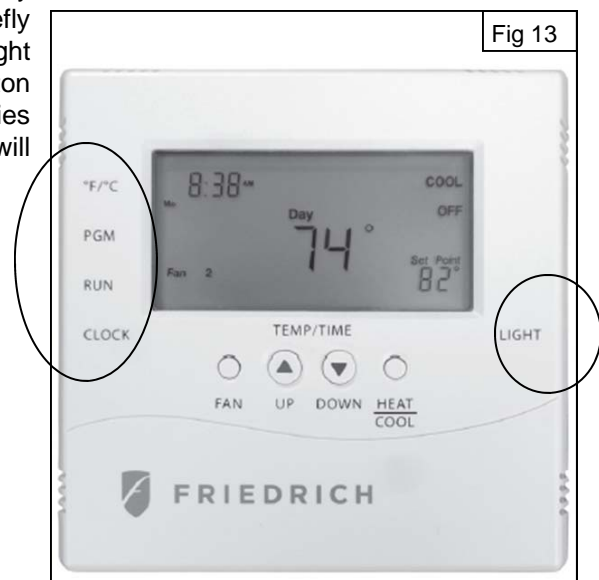
RUN BUTTON- Program / Manual Operation:

The RUN button toggles the thermostat between manual operating mode and program operating mode. When in the program mode your thermostat responds to the times and temperatures programmed.

(Figure 14) shows a thermostat running in program mode. One of the four periods, in this case "Day", is displayed, letting you know which period of the day the program is in. When in manual mode as shown in (Figure 15), the period of the day is not displayed. Instead, the word "HOLD" will be displayed above the set point temperature, indicating the thermostat is holding that temperature.

Note: When "OFF" appears on the display of the KWW the system has turned off based on the set point.

In manual mode you can adjust to the desired temperature using the UP and DOWN buttons, and the thermostat will maintain that temperature until you change it again.

Fig 14
11:20 AM Th HEAT DAY 70 ▽ Set Point Fan Auto 70°

Fig 15
11:20 AM Th HEAT OFF 70 ▽ Hold Set Point Fan Auto 70°

Programmable Thermostat options

Setting the Clock:

In all set up modes the thermostat will blink the display item you are about to change. The UP and DOWN buttons change the settings, the HEAT/COOK button is used to move to the next item.

To set the clock, you will use the buttons marked CLOCK, UP, DOWN, HEAT/ COOL.

Step 1

Press the CLOCK button. The hour digits will blink. Press the UP or DOWN button to change the hour. Note: AM/PM will change as you roll the hour past 12. Be sure to set the hour properly for AM/PM. Press HEAT/COOL button to keep the hour you've just sent and to move minutes.

Step 2

The Minute digits will now be blinking. Press UP or DOWN button to change to the desired minute. When the correct minute is flashing press HEAT/COOL.

Step 3

One of the seven day icons (Mo, Tu, We, Th, Fr, Sa, Su) will now blink, press UP or DOWN until the correct day icon is displayed and press HEAT/COOL.

Step 4

Press the CLOCK button to keep all clock changes you've made and resume normal operation.

Thermostat Programming:

The Friedrich Kuhl thermostat provides four program periods: Morning, Day, Evening, and Night. The time and temperature can be set for each period. *Separate heating and cooling programs can be entered.

Upon initial power up the thermostat loads time and temperature program default parameters for weekday and weekend days.

You can quickly step through to a specific item you want to change by pressing the HEAT/ COOL button until what you want to change is flashing. When the item you want to change is flashing, use the UP or DOWN button to adjust.

Cont' Thermostat Programming:

The mode the thermostat is in when the PROGRAM or RUN button is pressed is the mode that will be controlled by that program. If in the COOL mode as shown, the program entered will be stored as the program for cooling.
The mode displayed on the screen is the mode that will run.
To program the thermostat, you will use the PROGRAM, HEAT/COOL, UP, and DOWN buttons.

Step 1

Press the PROGRAM button to put the thermostat into the programming mode. The display will blink all of the day of the week icons. Pressing the UP or DOWN buttons will toggle between (weekday) icons and the (weekend) icons. Ensure the display is blinking the days you want to program. Press HEAT/COOL.

Step 2

Next the morning period will blink. Use the UP or DOWN button to toggle through Morning, Day, Evening, or Night, stopping at the period you want to program. Press HEAT/COOL.

Step 3

Next, the hour of the day will blink. This is the starting hour of the period you have selected. Use the UP or DOWN button to change the selected hour start time. Press HEAT/COOL.

Step 4

The minute of the day will blink next. This is the starting minute in the hour. Use the UP or DOWN button to change the minute digits to the desired setting. (Note that the minutes change in five-minute increments.) Press HEAT/COOL.

Step 5

The desired set point will now be blinking. This is the temperature you want the thermostat to go to at the time of the day you selected. Press the UP or DOWN button to change the set point temperature.

Step 6

If you started with the morning time period, the next period, Day, will now be blinking. Follow steps two, three, four and five above for each period you wish to program.

Exiting program mode:

Pressing the PROGRAM button at any time will exit out of the programming mode, save your changes to memory and return you to normal thermostat operation.

Changing temperature while running a program:

You can always change the temperature up or down while a program is running. However, when the program moves to the next period, the programmed set point temperature for that period will take effect. For instance, assume the current program period is Evening, with a programmed temperature of 70°, and the next period, Night, is programmed for 65°, scheduled to start at 11:00 PM. If during the evening time period you desired the space to be warmer, you could press the UP button to raise the temperature set point. The thermostat will hold that temperature until the next program period, at which point the temperature will adjust to the programmed temperature set point for that period. In this case the Night period is set for 11:00 PM and 65°. (Fig16)

	Period	Time	Heat	Cool
Weekday Default	MORNING	6:00 AM	70°	75°
	DAY	8:00 AM	62°	83°
	EVENING	6:00 PM	70°	75°
	NIGHT	10:00 PM	62°	78°
	Period	Time	Heat	Cool
Weekend Default	MORNING	8:00 AM	70°	75°
	DAY	10:00 AM	62°	83°
	EVENING	6:00 PM	70°	75°
	NIGHT	11:00 PM	62°	78°

Fig 16 The default program parameters conform to Energy Star guidelines and are a good point from which to start. Default settings are provided in (Fig 16)

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