BACview®
Installation and User Guide
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You can use the following items as a local user interface to an OEMCtrl® controller. These items let you access the controller information, read sensor values, and test the controller.

<table>
<thead>
<tr>
<th>Connect...</th>
<th>To the controller's...</th>
<th>For...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BACview®6 Handheld</strong> keypad/display device</td>
<td>Local Access port</td>
<td>Temporary user interface for start-up</td>
</tr>
<tr>
<td><strong>Virtual BACview® software</strong> running on a laptop</td>
<td>Local Access port*</td>
<td>Temporary user interface for start-up</td>
</tr>
<tr>
<td><strong>BACview®6</strong> keypad/display device</td>
<td>Rnet port</td>
<td>Permanent user interface</td>
</tr>
<tr>
<td><strong>BACview®5</strong> keypad/display device</td>
<td>Rnet port</td>
<td>Permanent user interface</td>
</tr>
</tbody>
</table>

* Requires a USB Link

These are accessory items that do not come with the controller.
BACview®6 Handheld device

You can use a BACview®6 Handheld device (part #BV6H) to start up, configure, and troubleshoot a controller.

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power required</td>
<td>+12 Vdc @ 200 mA</td>
</tr>
<tr>
<td>Power supply</td>
<td>Supplied by the 4-conductor Rnet cable from the controller.</td>
</tr>
<tr>
<td>Backlit LCD display</td>
<td>4-line by 40-character display</td>
</tr>
<tr>
<td>Cable</td>
<td>6 ft. (1.8 m) cable to connect to controller's Local Access port.</td>
</tr>
<tr>
<td>Protection</td>
<td>15 K V ESD protection to the enclosure. Built-in solid-state polyswitch protection on incoming power. Polyswitch is not replaceable; it will reset itself if the condition that caused a fault returns to normal.</td>
</tr>
<tr>
<td>Environmental operating range</td>
<td>32–120°F (0–48.9°C), 10–90% relative humidity, non-condensing</td>
</tr>
<tr>
<td>Overall dimensions</td>
<td>Width: 9 5/8 in. (24.5 cm) Height: 4 15/16 in. (12.5 cm) Depth: 1 in. (2.5 cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.2 lbs (0.54 kg)</td>
</tr>
<tr>
<td>Listed by</td>
<td>UL-916 (PAZX), cUL-916 (PAZX7), FCC Part 15-Subpart B-Class A, CE</td>
</tr>
</tbody>
</table>
To connect to a controller

Insert the BACview® Handheld’s cable connector into the controller’s Local Access port connector.

Using the BACview®6 Handheld device

NOTE For information on the BACview® screens for a specific controller, see the manufacturer's documentation. For information on system screens that are common to most controllers, see BACview® system screens (page 17).

To activate the device

The BACview® Handheld screen goes dim after inactivity. Press any key except MUTE or FN, to activate the screen.

NOTE You can change the length of inactivity on the KEYPAD screen.

To log in

A BACview® screen is programmed with one of the following password levels.

<table>
<thead>
<tr>
<th>A screen with this password level...</th>
<th>Can be accessed by...</th>
<th>For...</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Anyone</td>
<td>Viewing only</td>
</tr>
<tr>
<td>User</td>
<td>An operator logged in with the User or Admin password*</td>
<td>Viewing or editing</td>
</tr>
<tr>
<td>Admin</td>
<td>An operator logged in with the Admin password*</td>
<td>Viewing or editing</td>
</tr>
</tbody>
</table>

* User and Admin passwords are defined by the manufacturer. However, someone with the Admin password can change the User password on the User password screen (page 17).

When you are prompted to log in:

1. Use the numeric keys to enter the 4-digit password.
2. Press the OK softkey.
**To navigate**

To move within a screen, use the arrow keys.

To jump to another screen, do one of the following:

- Use the arrow keys to highlight a link, then press **Enter**.

```
Highlighted link
[→RTU]
```

- Press a softkey.

**NOTE** A **[Prev]** link jumps to the previous screen.

```
[←Prev]
```

**To change a property**

1. Use the arrow keys to highlight the property value you want to edit.

```
Highlighted property
[ 72.0] °F
```

2. Press **ENTER**.

**NOTE** If you have not previously logged in, you will be prompted for your password. See **To log in**.

3. Press the left or right arrow key to move the cursor under the character you want to change.

4. Do one of the following:
   - Press a number key.
   - Press the **DECR** or **INCR** softkey to cycle through binary or multi-state options or to decrease or increase a number.
   - Press the **CANCEL** softkey to restore the original value.

5. Optional: To edit another property in this same screen, repeat steps 1 through 4.

6. Press the **OK** softkey to save all changes to the screen.
To obtain a controller status report

To obtain a status report (Modstat) for the connected controller, press **FN + .** (the period key). Use the arrow keys to scroll through the report.

To handle alarms

If the alarm features are set up, the BACview® device will do the following when it receives an alarm from the controller:

- Turn on the Alarm LED
- Turn on the audible alarm
- List the alarm in the **Active Alarms** list on the **Alarms** screen

When the BACview® device receives the alarm’s return-to-normal, it moves the alarm from the **Active Alarms** list to the **Returned-To-Normal** list. The audible alarm and LED turn off after all active alarms have returned to normal.

To manually turn off alarms before the BACview® device receives the return-to-normal, you can:

- Press **MUTE** to silence the alarm.
- Press **FN+MUTE** to silence the alarm, turn off the LED, and move all alarms in the **Active Alarms** list to the **Manually Cleared** list.

To adjust the display's brightness

To adjust the contrast of the display, turn the contrast screw on top of the BACview®6 Handheld device clockwise to lighten the display or counterclockwise to darken it.
Virtual BACview® application

The Virtual BACview® application simulates the BACview® Handheld keypad/display device. Run the Virtual BACview® application on a laptop that is connected to the controller.

**NOTE** The manufacturer will supply you with the program.

---

**To connect a laptop to the controller**

**CAUTIONS**
- Maintain polarity when controllers share power.
- Failure to maintain polarity while using the USB Link on a computer that is grounded via its AC adapter may damage the USB Link and the controller.

**PREREQUISITES**
- The controller must have been downloaded by the manufacturer
- Laptop with USB port
- USB Link (Part #USB-L)
Using a USB Link

1 If your computer does not already have the USB Link driver installed, install it before you connect the USB Link to your computer.

   NOTE If needed, you can get the latest driver from http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx.

   a) Put the USB Link Driver CD into your laptop.
   b) Run the .exe to install the driver. Accept all of the wizard’s default settings.

2 Connect the USB-Link to the computer and to the controller’s Local Access port.

3 Start the Virtual BACView® application.

4 In the Row Count field, enter the number of screen rows you want displayed (100 maximum).

5 In the Comm Port field, select the laptop’s comm port that the USB Link is connected to. To find the port number, select Start > Control Panel > System > Hardware > Device Manager > Ports (Com & LPT). The COM port number is beside CP210x USB to UART Bridge.

6 Click OK.

Using the Virtual BACView® application

To perform actions, you can click the keys on the Virtual BACView® interface or you can use their keyboard equivalents. Hover your cursor over a key to see its keyboard equivalent.

NOTE For information on the BACView® screens for a specific controller, see the manufacturer’s documentation. For information on system screens that are common to most controllers, see BACview® system screens (page 17).

To activate the application

The Virtual BACView® application displays the standby screen after inactivity. Click any key except MUTE or FN, to activate the screen.

NOTE You can change the length of inactivity on the Keypad screen.
To log in

A BACview® screen is programmed with one of the following password levels.

<table>
<thead>
<tr>
<th>A screen with this password level...</th>
<th>Can be accessed by...</th>
<th>For...</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Anyone</td>
<td>Viewing only</td>
</tr>
<tr>
<td>User</td>
<td>An operator logged in with the User or Admin password*</td>
<td>Viewing or editing</td>
</tr>
<tr>
<td>Admin</td>
<td>An operator logged in with the Admin password*</td>
<td>Viewing or editing</td>
</tr>
</tbody>
</table>

* User and Admin passwords are defined by the manufacturer. However, someone with the Admin password can change the User password on the User password screen (page 17).

When you are prompted to log in:

1. Use the numeric keys to enter the 4-digit password.
2. Press the OK softkey.

To navigate

To move within a screen, click the arrow keys.

To jump to another screen, do one of the following:

- Click the arrow keys to highlight a link, then click Enter.

  ![Highlighted link](highlighted_link.png)

- Click a softkey.

  ![Softkey](softkey.png)

  **NOTE** A [Prev] link jumps to the previous screen.
To change a property

1. Use the arrow keys to highlight the property value you want to edit.

   ![Highlighted property]
   
   Active character

2. Click ENTER.
   
   **NOTE** If you have not previously logged in, you will be prompted for your password. See To log in.

3. Click the left or right arrow key to move the cursor under the character you want to change.

4. Do one of the following:
   
   - Click a number key.
   - Click the **DECR** or **INCR** softkey to cycle through binary or multi-state options or to decrease or increase a number.
   - Click the **CANCEL** softkey to restore the original value.

5. Optional: To edit another property in this same screen, repeat steps 1 through 4.

6. Click the **OK** softkey to save all changes to the screen.

To obtain a Modstat report

To obtain a Modstat report that shows the status of the connected controller, hold down **Ctrl** and click . (the period key). Use the arrow keys to scroll through the report.

To handle alarms

If the alarm features are set up, the Virtual BACview® application does the following when it receives an alarm from the controller:

- Turn on the Alarm LED
- Turn on the audible alarm
- List the alarm in the **Active Alarms** list on the **Alarms** screen

When the Virtual BACview® application receives the alarm's return-to-normal, it moves the alarm from the **Active Alarms** list to the **Returned-To-Normal** list. The audible alarm and LED turn off after all active alarms have returned to normal.

To manually turn off alarms before the Virtual BACview® application receives the return-to-normal, you can:

- Click **MUTE** to silence the alarm.
- Hold down **Ctrl** and click **MUTE** to silence the alarm, turn off the LED, and move all alarms in the **Active Alarms** list to the **Manually Cleared** list.


To change the number of screen rows

1. Select File > Restart.
2. Type the number of rows in the Row Count field.
The BACview®6 device

You can use a BACview®6 device as a permanent user interface to a controller.

You connect the BACview®6 device to the controller's Rnet. The BACview®6 device can share the Rnet with RS or ZS sensors and a second BACview®6 device, with no more than 6 devices total on the Rnet. Wire the devices in a daisy-chain or hybrid configuration.

**NOTE** The BACview®6 device and Equipment Touch cannot reside on the same Rnet communication network.

---

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power required</td>
<td>+12 Vdc @ 200 mA</td>
</tr>
<tr>
<td>Power supply</td>
<td>Supplied by the 4-conductor Rnet cable from the controller.</td>
</tr>
<tr>
<td><strong>NOTE</strong></td>
<td>To use 2 BACview devices, you must provide an external power supply for the second device.</td>
</tr>
<tr>
<td>Backlit LCD display</td>
<td>4-line by 40-character display</td>
</tr>
<tr>
<td>Protection</td>
<td>15 KV ESD protection to the enclosure. Built-in solid-state polyswitch protection on incoming power. Polyswitch is not replaceable; it will reset itself if the condition that caused a fault returns to normal.</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall or panel mounting. Remote mounting up to 500 feet. Standard &quot;J&quot; box may be used.</td>
</tr>
</tbody>
</table>
Environmental operating range

<table>
<thead>
<tr>
<th>Environmental operating range</th>
<th>32–120°F (0–48.9°C), 10–90% relative humidity, non-condensing</th>
</tr>
</thead>
</table>

Overall dimensions

<table>
<thead>
<tr>
<th>Overall dimensions</th>
<th>Width: 9 5/8 in. (24.5 cm)</th>
<th>Height: 4 15/16 in. (12.5 cm)</th>
</tr>
</thead>
</table>

Weight

<table>
<thead>
<tr>
<th>Weight</th>
<th>1.2 lbs (0.54 kg)</th>
</tr>
</thead>
</table>

Listed by

<table>
<thead>
<tr>
<th>Listed by</th>
<th>UL-916 (PAZX), cUL-916 (PAZX7), FCC Part 15-Subpart B-Class A, CE</th>
</tr>
</thead>
</table>

---

Mounting the BACview®6 device

**Caution!**

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

You can mount the BACview®6 device:

- In the panel above the controller
- On the panel door
- On a wall up to 500 feet from the controller
To mount

**Caution!**
The BACview®6 device is powered by a Class 2 power source. Properly isolate the BACview®6 device from non-Class 2 circuits in the same control panel.

1. Remove the 4 screws on the sides of the device to remove the rear mounting plate.

2. Using the rear mounting plate as a template, drill 4 holes in the surface where you are mounting the BACview® device, then insert 4 screws in the holes.

3. If mounting the BACview® device on a panel door, use the cutout in the rear mounting plate as a template to cut a hole in the panel door for the cable to pass through.

4. Reattach the rear mounting plate.

5. Wire the BACview® device to the controller. See Wiring the BACview® device (page 5, page 13).

6. Hang the BACview device on the 4 mounting screws.

**NOTE** If mounting above the controller or on a wall, pull the cable out to the side of the BACview device without bending or pinching the cable beneath it.

Wiring the BACview®6 device

**Rnet wiring specifications**

**NOTE** Use the specified type of wire and cable for maximum signal integrity.

<table>
<thead>
<tr>
<th>Description</th>
<th>4 conductor, unshielded, CMP, plenum rated cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor</td>
<td>18 AWG</td>
</tr>
<tr>
<td>Maximum length</td>
<td>500 feet (152 meters)</td>
</tr>
<tr>
<td>Recommended coloring</td>
<td>Jacket: White</td>
</tr>
<tr>
<td></td>
<td>Wiring: Black, white, green, red</td>
</tr>
<tr>
<td>UL temperature rating</td>
<td>32–167°F (0–75°C)</td>
</tr>
</tbody>
</table>
The BACview®6 device

<table>
<thead>
<tr>
<th>Voltage</th>
<th>300 Vac, power limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listing</td>
<td>UL: NEC CL2P, or better</td>
</tr>
</tbody>
</table>

To wire the BACview® device

1. Turn off the controller's power.
2. Pull the screw terminal connector from the BACview® device.
3. Partially cut, then bend and pull off the outer jacket of the Rnet cable(s). Do not nick the inner insulation. Strip about .25 inch (.6 cm) of the inner insulation from each wire.

![Diagram of outer jacket and inner insulation]

4. Insert the other 4 wires into the BACview®6 device's screw terminal connector. If wiring 2 cables, insert like-colored wires into each terminal.

![Diagram of screw terminal connector]

**CAUTION** Allow no more than .06 inch (1.5 mm) bare communication wire to protrude. If bare communication wire contacts a metal surface other than the terminal block, the sensor may not communicate correctly.

![Diagram of correct and incorrect insertion]

5. Insert the screw terminal connector into the BACview®6 device with the screw heads facing out.

**NOTE** If mounting the BACview®6 device on a panel door, feed the cable through the door cutout.
6  Connect the other end of the cable to the controller's **Rnet** port or to an RS or ZS sensor.

**NOTES**

- Insert the shield wire with the ground wire into the controller's **GND** terminal.
- Use the same polarity throughout the Rnet.

7  Turn on the controller's power.

---

**Wiring 2 BACview devices to the Rnet**

Two BACview devices on an Rnet display the same screen.

The first BACview device on an Rnet is powered by the controller. You must provide an external power supply for a second device.

⚠️ **CAUTION** The BACview device is powered by a Class 2 power source. Take appropriate isolation measures when mounting it in a control panel where non-Class 2 circuits are present.

---

Set the address of each device by putting one device's jumper in the top position and the other's jumper in the bottom position.

---

**Diagram:**

External power supply

---

BACview

---

Controller

---

Set the address of each device by putting one device's jumper in the top position and the other's jumper in the bottom position.

---

**Diagram:**

Jumper

---

Rear mounting plate cutout
Using the BACview®6 device

The instructions to use the BACview® or BACview® device are the same as those for the BACview® Handheld device. See Using the BACview® Handheld device.

**NOTE** For information on the BACview® screens for a specific controller, see the manufacturer's documentation.
BACview® system screens

When you are viewing a controller’s BACview® screens, most of the screens are specific to the controller. However, you may also see the system screens described below that are common to most controllers.

For information on the controller-specific screens, see the Points/Properties appendix in the controller’s Installation and Startup Guide.

NOTES

- If a screen has more rows than can be displayed, use the arrow keys to scroll through the screen.
- Pound signs (#####) indicate that a value has too many digits to display in the existing field.

<table>
<thead>
<tr>
<th>Screen</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>For: All controllers Displays when the BACview® device has had no operator activity for the length of time specified on the Keypad screen described below.</td>
</tr>
<tr>
<td>Home</td>
<td>For: All controllers Displays if you press a key while the standby screen is showing.</td>
</tr>
<tr>
<td>Login</td>
<td>For: All controllers Navigate to: Login Displays if you select the Login link, or if you select a screen that requires a password. See To log in.</td>
</tr>
<tr>
<td>User password</td>
<td>For: All controllers Navigate to: UserPw Lets the Administrator set up a 4-digit user-level password that restricts access to certain screens.</td>
</tr>
<tr>
<td>Screen</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Alarm** | For: All controllers  
Navigate to: **Alarm**  
Displays the 100 most recent alarms received by the controller. |
|          | **Module Event History (100 most recent)**  
**--- ACTIVE ALARMS ---**  
None in buffer.  
**--- ACTIVE FAULTS ---**  
None in buffer.  
**---- RETURNED-TO-NORMAL (RTN) ----**  
None in buffer.  
**----- MANUALLY CLEARED (CLR) -----**  
None in buffer. |

| **Clock set** | For: All controllers  
Navigate to: **Clockset**  
Lets the Administrator make changes to the controller's real time clock. However, if a router is on the network, the time set in the router takes precedence over the time set on this screen. |
|              | **Set Current Time/Date (24 hr clock)** |
|              | Time (hh:mm:ss): [22]: 02 : 12 |
|              | Date (dd-mm-yy): 01 - Nov - 09 |
|              | [→Prev] [→DST] |

| **DST** | For: All controllers  
Navigate to: **Clockset > DST**  
Lets an operator adjust the beginning and ending dates for daylight saving time. |
<p>|         | <strong>DST Start Time: [02]: 00 Amount: 060</strong> |
|         | <strong>Entry# Beg (mm-dd-yy) End (mm-dd-yy)</strong> |
|         | 0 Mar 08 2009 Nov 01 2009 |
|         | 1 Mar 14 2010 Nov 07 2010 |
|         | 2 Mar 13 2011 Nov 06 2011 |
|         | 3 Mar 11 2012 Nov 04 2012 |
|         | 4 Mar 10 2013 Nov 03 2013 |
|         | 5 Mar 09 2014 Nov 02 2014 |
|         | 6 Mar 08 2015 Nov 01 2015 |
|         | 7 Mar 13 2016 Nov 06 2016 |
|         | 8 Mar 12 2017 Nov 05 2017 |
|         | 9 Mar 11 2018 Nov 04 2018 |
|         | [→Prev] |</p>
<table>
<thead>
<tr>
<th>Screen</th>
<th>Description</th>
</tr>
</thead>
</table>
| Keypad | For: All controllers  
Navigate to: Keypad  
Lets you define:  
  - The amount of time (255 min. maximum) of inactivity after which the standby screen displays and, if applicable, the backlight on a BACview® device turns off.  
  - The priority level (0-16), that the BACview® device uses to write BACnet commandable properties to a controller.  
  **BACnet Priorities:**  
  0 = Relinquish Default (Writes this as the default value for the controller)  
  1 = Manual Life Safety (Highest priority)  
  2 = Automatic Life Safety  
  3 = Available  
  4 = Available  
  5 = Critical Equipment Control  
  6 = Minimum ON/OFF  
  8 = Manual Operator  
  9 = Available  
  10 = Available  
  11 = Available  
  12 = Available  
  13 = Available  
  14 = Available  
  15 = Available  
  16 = Available (Lowest priority)  
  **NOTE** The value that is written from the BACview® device is always written to the controller. If a priority of 1-16 is specified, other BACnet devices must write at a priority equal to or greater than the priority specified by the BACview® device.  
  **EXAMPLE** The Heating Setpoint is written to the controller by a BACview® device at Priority 9. Another BACnet device writes the Heating Setpoint to the controller at Priority 16. This value will NOT overwrite the BACview® value since it was written at a lower priority (16) than the BACview® priority (9). |
| BACnet | For: All controllers  
Navigate to: BACnet  
Lets you view or edit the controller’s BACnet Device Instance number. This is a unique number that is typically autogenerated. However, if you need to use a custom number, set Autogenerate Device ID to N, then enter your custom BACnet Device Instance number. |
<table>
<thead>
<tr>
<th>Screen</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Router</strong></td>
<td>For I/O Flex 6126, I/O Pro 812u, and OEMPrtl Pro</td>
</tr>
<tr>
<td></td>
<td>Navigate to: <strong>Router</strong></td>
</tr>
<tr>
<td></td>
<td>Lets you view or edit the MS/TP network number and the router's address.</td>
</tr>
<tr>
<td></td>
<td>The [→IP] link jumps to the following screen.</td>
</tr>
<tr>
<td><strong>IP</strong></td>
<td>For: I/O Pro 812u, and OEMPrtl Pro</td>
</tr>
<tr>
<td></td>
<td>Navigate to: <strong>IP</strong></td>
</tr>
<tr>
<td></td>
<td>Lets you view or edit network addresses.</td>
</tr>
<tr>
<td><strong>BACnet Time Master</strong></td>
<td>For: All controllers</td>
</tr>
<tr>
<td></td>
<td>Navigate to: <strong>TimeMstr</strong></td>
</tr>
<tr>
<td></td>
<td>The network should have only one BACnet Time Master that issues time broadcasts.</td>
</tr>
<tr>
<td></td>
<td>Set <strong>Time Sync Mode</strong> to:</td>
</tr>
<tr>
<td></td>
<td>• <strong>No Broadcast</strong> if this controller is not the BACnet Time Master.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Local Broadcast</strong> to have the controller send time broadcasts only to controllers on his locally connected MS/TP network.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Global Broadcast</strong> to have the controller send time broadcasts to all controllers and all MS/TP networks in the system.</td>
</tr>
<tr>
<td></td>
<td>Set <strong>Time Sync Interval</strong> to how often the time broadcast should be sent (1-9999 minutes).</td>
</tr>
<tr>
<td><strong>Local Schedule</strong></td>
<td>For: All controllers</td>
</tr>
<tr>
<td></td>
<td>Navigate to: <strong>Sched</strong></td>
</tr>
<tr>
<td></td>
<td>See Setting local schedules.</td>
</tr>
</tbody>
</table>
Setting local schedules

Using a BACview® device, you can set local occupancy schedules directly in a controller. These schedules can be used in a stand-alone controller or used to start up of a network controller.

To set up schedules in a BACview® device, first define a schedule for each day of the week and then define schedules for the exceptions, such as holidays.

**NOTES**

- To set schedules in a BACview® device, you must enable the **Occupancy Schedules** property on the **Unit Configuration** screen. From the **Home** screen, go to **CONFIG > UNIT**.
- A network schedule will overwrite a local schedule that was set up in a BACview® device.

To set up a weekly schedule

You can set up a schedule and apply it to different days of the week. For example, you could set up one schedule for Monday through Thursday, a second schedule for Friday, and a third schedule for Saturday and Sunday.

To set up a schedule:

1. From the **Home** screen, navigate to **CONFIG > Sched > schedule_schedule > Weekly schedule > Mon** (or any day of the week), then press **Enter**. For help, see To navigate in a BACview® device (page 4) or To navigate in a Virtual BACview® application (page 8). (page 8)

2. Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:
   a) Highlight **Add/Del**, then press **Enter**.
   b) Use the **INCR** softkey to change the value to **Add**, then press **Enter**.
   c) The 12:00 am state is always the first transition. Change the 12:00 am state if it should be **On**. For help, see To change a property in a BACview® device (page 4) or To change a property in the Virtual BACview® application (page 9).
   d) Highlight **Add/Del**, then press **Enter**.
   e) Use the **INCR** softkey to change the value to **Add**, then press **Enter**.
   f) Change the time and state of the new transition.
   g) Repeat steps d through f until you have added all transitions for the day.

**NOTES**

- To delete a transition, highlight **Add/Del** in that row, press **Enter**, use the **DECR** softkey to change the value to **Delete**, then press **Enter**.
- To create a 24-hour off or on schedule, define only the 12:00 am state.

3. Press the **Continue** softkey.

4. If the schedule applies to another day of the week, highlight the field below the day, press **Enter**, use the **INCR** softkey to change the value to **X**, then press **Enter**.

5. Press the **Save** softkey.
To set up exception schedules

You can set up exception schedules that will override the regular schedules. For example, you can set up a schedule for the January 1, 2014 holiday that will override the regular Friday schedule.

To set up an exception schedule:

1. From the Home screen, navigate to CONFIG > Sched > schedule_schedule > Exceptions. For help, see To navigate in a BACview® device (page 4) or To navigate in a Virtual BACview® application (page 8).

   NOTE   The screen shows any existing exceptions. To delete an exception, highlight Del, press Enter, use the INCR softkey to change the field to Yes, then press Enter.

2. Press the Add softkey.

3. Highlight the type of exception you want.

<table>
<thead>
<tr>
<th>Exception type...</th>
<th>Lets you define an exception schedule for...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>A specific date such as a holiday, or a recurring date such as the first day of every month.</td>
</tr>
<tr>
<td>Date Range</td>
<td>A specific date range such as January 1, 2013 through January 5, 2013, or a recurring date range such as the 1st through the 5th of every month.</td>
</tr>
<tr>
<td>Week-N-Day</td>
<td>A specific week in a month such as the third week in January, and/or a specific day of the week such as Tuesdays in January.</td>
</tr>
<tr>
<td>Calendar Reference</td>
<td>For future use</td>
</tr>
</tbody>
</table>

4. Press Enter.
   a) Set each field (Year, Month, etc.) as needed. See table below. For help, see To change a property in a BACview® device (page 4) or To change a property in the Virtual BACview® application (page 9).

   NOTE   For a Date Range exception, you must define the beginning and end of the range.

   Beginning                  End
   Year [Select] 2009 [Select] 2009
   Month [Select] Jan [Select] Jan

5. Press the Continue softkey.

6. The default priority is 16. If 2 exception schedules will be used on the same day and have any time periods with conflicting states, assign a higher priority to the schedule that should be followed during the conflicting periods. To do this, change 16 to a lower value.

7. Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:
   a) Highlight Add/Del, then press Enter.
   b) Use the INCR softkey to change the value to Add, then press Enter.
   c) The 12:00 am state is always the first transition. Change the 12:00 am state if it should be On. For help, see To change a property in a BACview® device (page 4) or To change a property in the Virtual BACview® application (page 9).
   d) Highlight Add/Del, then press Enter.
   e) Use the INCR softkey to change the value to Add, then press Enter.
   f) Change the time and state of the new transition.
   g) Repeat steps d through f until you have added all transitions for the day.
### Setting local schedules

**NOTES**
- To delete a transition, highlight **Add/Del** in that row, press **Enter**, use the **DECR** softkey to change the value to **Delete**, then press **Enter**.
- To create a 24-hour off or on schedule, define only the 12:00 am state.

8. Press the **Save** softkey.

#### To set the...  To...  Do the following...

<table>
<thead>
<tr>
<th>To set the...</th>
<th>To...</th>
<th>Do the following...</th>
</tr>
</thead>
</table>
| Year          | Any year | 1. Highlight **Select**, then press **Enter**.  
2. Use **INCR** to change the field to **Any**, then press **Enter**.  
| A specific year | 1. Highlight **2009**, then press **Enter**.  
2. Change the date, then press **Enter**.  |
| Month         | Even, Odd, or Any | 1. Highlight **Select**, then press **Enter**.  
2. Use **INCR** to change the field to **Even, Odd, or Any**, then press **Enter**.  
| A specific month | 1. Highlight **Jan**, then press **Enter**.  
2. Use **INCR** to change the month, then press **Enter**.  |
| Day           | Last or Any | 1. Highlight **Select**, then press **Enter**.  
2. Use **INCR** to change the field to **Last or Any**, then press **Enter**.  
| A specific day | 1. Highlight **1**, then press **Enter**.  
2. Change 1 to the number you want, then press **Enter**.  |
| DOW (day of week) | Any | Leave the default.  
| A specific day of the week | 1. Highlight **Any**, then press **Enter**.  
2. Use **INCR** to change the field to **Select**, then press **Enter**.  
3. Highlight **Mon**, then press **Enter**.  
4. Use **INCR** to change the day of the week, then press **Enter**.  |
| Week          | Any | Leave the default.  
| Last          | 1. Highlight **Any**, then press **Enter**.  
2. Use **INCR** to change the field to **Last**.  
3. Press **Enter**.  |
| A week number (Ex: 2nd week of the month) | 1. Highlight **Any**, then press **Enter**.  
2. Use **INCR** to change the field to **Select**, then press **Enter**.  
3. Highlight **1**, press **Enter**, use **INCR** to change the week number, then press **Enter**.  |
The BACview®5 device is a keypad/display that you can attach to a controller to view or edit some of the controller's property values or its real time clock.

NOTE
You can turn the contrast screw on top of the BACview device clockwise to lighten the display or counterclockwise to darken it.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power required</td>
<td>+12 Vdc @ 50 mA</td>
</tr>
<tr>
<td>Power supply</td>
<td>Supplied by the 4-conductor Rnet cable from the controller. <strong>NOTE</strong> To use 2 BACview devices, you must provide an external power supply for the second device.</td>
</tr>
<tr>
<td>Backlit LCD display</td>
<td>2-line by 16-character display</td>
</tr>
<tr>
<td>Protection</td>
<td>15 KV ESD protection to the enclosure. Built-in solid-state polyswitch protection on incoming power. Polyswitch is not replaceable; it will reset itself if the condition that caused a fault returns to normal.</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall or panel mounting. Remote mounting up to 500 feet. Standard &quot;J&quot; box may be used.</td>
</tr>
<tr>
<td>Environmental operating range</td>
<td>32–120°F (0–48.9°C), 10–90% relative humidity, non-condensing</td>
</tr>
<tr>
<td>Overall dimensions</td>
<td>Width:</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Height:</td>
</tr>
<tr>
<td>Weight</td>
<td>.5 lbs (0.23 kg)</td>
</tr>
<tr>
<td>Listed by</td>
<td>UL-916 (PAZX), cUL-916 (PAZX7), FCC Part 15-Subpart B-Class A, CE</td>
</tr>
</tbody>
</table>
Mounting the BACview®5 device

**CAUTION** If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

You can mount the BACview device:
- In the panel above the controller
- On the panel door
- On a wall up to 500 feet from the controller

To mount the BACview5

**CAUTION** The BACview is powered by a Class 2 power source. Take appropriate isolation measures when mounting it in a control panel where non-Class 2 circuits are present.

1. Remove the 4 screws on the sides of the BACview device to remove the rear mounting plate.

2. Using the rear mounting plate as a template, drill 2 holes in the surface where you are mounting the BACview device, then insert 2 screws in the holes.

3. If mounting the BACview device on a panel door, use the cutout in the rear mounting plate as a template to cut a hole in the panel door for the cable to pass through.

4. Reattach the rear mounting plate.

5. Wire the BACview® device to the controller. See *Wiring the BACview® device* (page 5, page 13).
6 Hang the BACview device on the 2 mounting screws.

**NOTE** If mounting above the controller or on a wall, pull the cable out to the side of the BACview device without bending or pinching the cable beneath it.
Wiring the BACview®5 device

Rnet wiring specifications

**NOTE** Use the specified type of wire and cable for maximum signal integrity.

<table>
<thead>
<tr>
<th>Description</th>
<th>4 conductor, unshielded, CMP, plenum rated cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor</td>
<td>18 AWG</td>
</tr>
<tr>
<td>Maximum length</td>
<td>500 feet (152 meters)</td>
</tr>
<tr>
<td>Recommended coloring</td>
<td>Jacket: White</td>
</tr>
<tr>
<td></td>
<td>Wiring: Black, white, green, red</td>
</tr>
<tr>
<td>UL temperature rating</td>
<td>32–167°F (0–75°C)</td>
</tr>
<tr>
<td>Voltage</td>
<td>300 Vac, power limited</td>
</tr>
<tr>
<td>Listing</td>
<td>UL: NEC CL2P, or better</td>
</tr>
</tbody>
</table>

To wire the BACview® device

1. Turn off the controller's power.
2. Pull the screw terminal connector from the BACview® device.
3. Partially cut, then bend and pull off the outer jacket of the Rnet cable(s). Do not nick the inner insulation. Strip about .25 inch (.6 cm) of the inner insulation from each wire.

![Diagram of outer and inner insulation](image)

4. Insert the other 4 wires into the BACview® device's screw terminal connector. If wiring 2 cables, insert like-colored wires into each terminal.

![Diagram of screw terminal connector](image)
**CAUTION** Allow no more than .06 inch (1.5 mm) bare communication wire to protrude. If bare communication wire contacts a metal surface other than the terminal block, the sensor may not communicate correctly.

5 Insert the screw terminal connector into the BACview® device with the screw heads facing out.

**NOTE** If mounting the BACview® device on a panel door, feed the cable through the door cutout.

6 Connect the other end of the cable to the controller's Rnet port or to an RS or ZS sensor.

**NOTES**
- Insert the shield wire with the ground wire into the controller's GND terminal.
- Use the same polarity throughout the Rnet.

7 Turn on the controller's power.

**Wiring 2 BACview devices to the Rnet**

Two BACview devices on an Rnet display the same screen.

The first BACview device on an Rnet is powered by the controller. You must provide an external power supply for a second device.

**CAUTION** The BACview device is powered by a Class 2 power source. Take appropriate isolation measures when mounting it in a control panel where non-Class 2 circuits are present.
Set the address of each device by putting one device's jumper in the top position and the other's jumper in the bottom position.

Rear mounting plate cutout
Before you can use a BACview device, you must:

1. Create a BACview screen file in ViewBuilder.
2. Enter the screen file name in the controller's Properties box in SiteBuilder.
3. Download the control program to the controller.

The screen file's programming determines which screens you see and what information they display. Your file may display some of the standard screens below as well as custom screens.

**NOTES**
- Question marks (?????) on a screen indicate a programming error that must be fixed by the screen programmer.
- Pound signs (#####) indicate that a value has too many digits to display in the existing field.

<table>
<thead>
<tr>
<th>Screen</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>Displays when the BACview device has had no operator activity for the time specified in the driver's Keypad inactivity timeout field. The standby screen may be blank or display information such as the date and time.</td>
</tr>
<tr>
<td>Home</td>
<td>Displays when you click a key while the BACview device is in standby mode.</td>
</tr>
<tr>
<td>Login</td>
<td>Displays if the operator selects a screen that requires a password. See To log in.</td>
</tr>
<tr>
<td>Alarm</td>
<td>Displays the 100 most recent alarms received by the controller.</td>
</tr>
<tr>
<td>Clockset</td>
<td>Lets the Administrator make changes to the controller's real time clock. However, if a gateway controller is on the network, the time set in the gateway takes precedence over the time set on this screen. The [–&gt;DST] link jumps to the screen where an operator can adjust the beginning and ending dates for daylight saving time.</td>
</tr>
</tbody>
</table>

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8
| User password | Lets the Administrator change the 4-digit user-level password.  
**NOTE** An Administrator can change the User password on the User password screen or in the WebCTRL® for OEMs interface on the controller's Driver page. |
|----------------|--------------------------------------------------------------------------------|

### Keypad

For: All controllers  
Navigate to: **Keypad**  
Lets you define:
- The amount of time (255 min. maximum) of inactivity after which the **standby** screen displays and, if applicable, the backlight on a BACview® device turns off.  
**NOTE** This time can also be defined in the module driver.
- The priority level (0-16), that the BACview® device uses to write BACnet commandable properties to a controller.

**BACnet Priorities:**  
0 = Relinquish Default    (Writes this as the default value for the controller)  
1 = Manual Life Safety    (Highest priority)  
2 = Automatic Life Safety  
3 = Available  
4 = Available  
5 = Critical Equipment Control  
6 = Minimum ON/OFF  
8 = Manual Operator  
9 = Available  
10 = Available  
11 = Available  
12 = Available  
13 = Available  
14 = Available  
15 = Available  
16 = Available    (Lowest priority)  

**NOTE** The value that is written from the BACview® device is always written to the controller. If a priority of 1-16 is specified, other BACnet devices must write at a priority equal to or greater than the priority specified by the BACview® device.

**EXAMPLE** The Heating Setpoint is written to the controller by a BACview® device at Priority 9. Another BACnet device writes the Heating Setpoint to the controller at Priority 16. This value will NOT overwrite the BACview® value since it was written at a lower priority (16) than the BACview® priority (9).
BACnet
For: All controllers
Navigate to: BACnet

Lets you view or edit the controller's **BACnet Device Instance** number. This is a unique number that is typically autogenerated. However, if you need to use a custom number, set **Autogenerate Device ID** to N, then enter your custom **BACnet Device Instance** number.

```
<table>
<thead>
<tr>
<th>BACnet Device Instance:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[240001]</td>
<td></td>
</tr>
</tbody>
</table>
```

Router
For I/O Flex 6126, I/O Pro 812u, and OEMPrtl Pro
Navigate to: Router

Lets you view or edit the MS/TP network number and the router's address.

```
<table>
<thead>
<tr>
<th>BACnet Network #</th>
<th>MAC Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC156: [0000]</td>
<td>16</td>
</tr>
<tr>
<td>MS/TP: [0000]</td>
<td>16</td>
</tr>
<tr>
<td>Ethernet: [0000]</td>
<td>00-80-c9-00-09-3b</td>
</tr>
</tbody>
</table>

[Prev]  [IP]
```

IP
For: I/O Pro 812u, and OEMPrtl Pro
Navigate to: IP

Lets you view or edit network addresses.

```
<table>
<thead>
<tr>
<th>IPv4 Network:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[0000]</td>
</tr>
<tr>
<td>Current IP Addr:</td>
</tr>
<tr>
<td>192.168.168.14</td>
</tr>
<tr>
<td>Subnet Mask:</td>
</tr>
<tr>
<td>255.255.0.0</td>
</tr>
<tr>
<td>Gateway Addr:</td>
</tr>
<tr>
<td>192.168.168.125</td>
</tr>
<tr>
<td>UDP Port: 47808</td>
</tr>
</tbody>
</table>

[Prev]  [Setup]
```