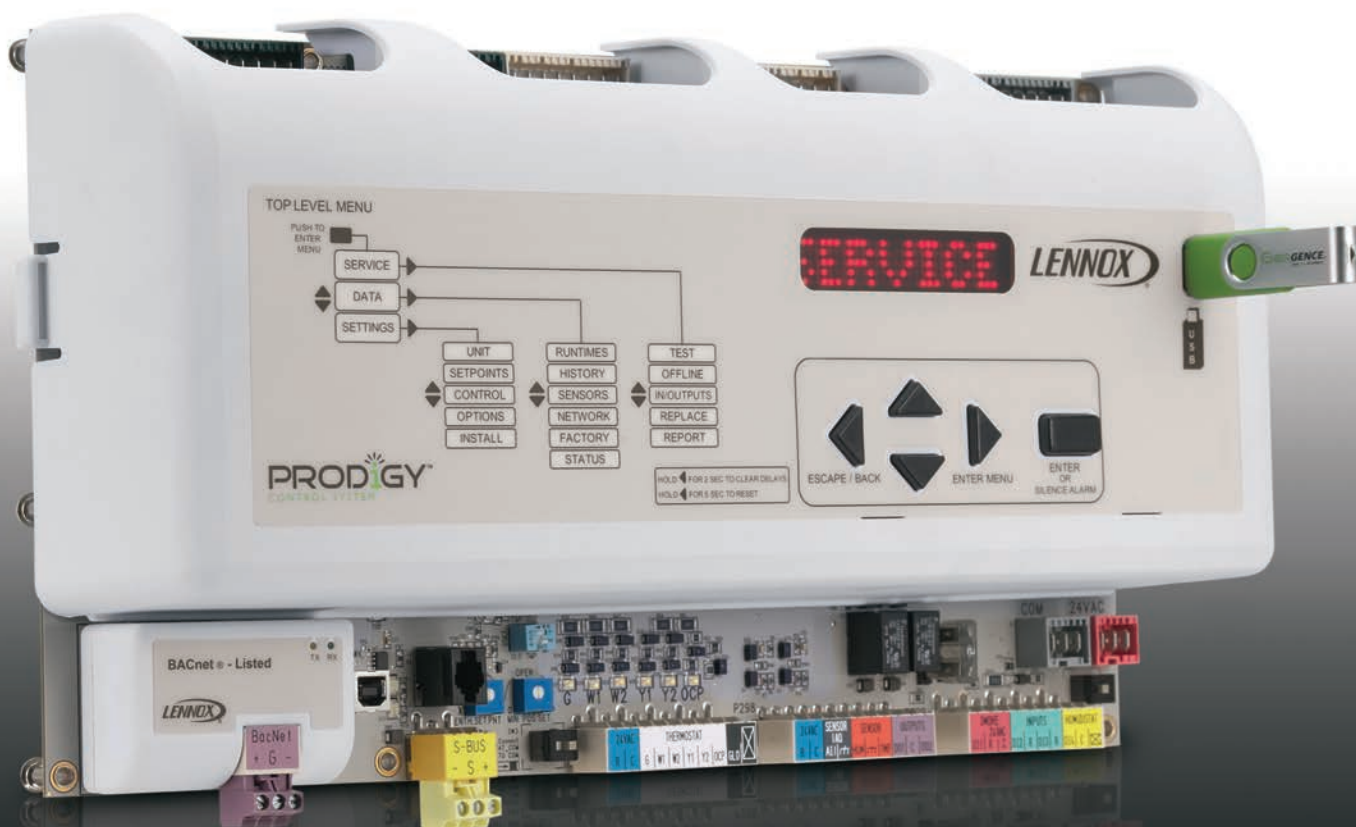
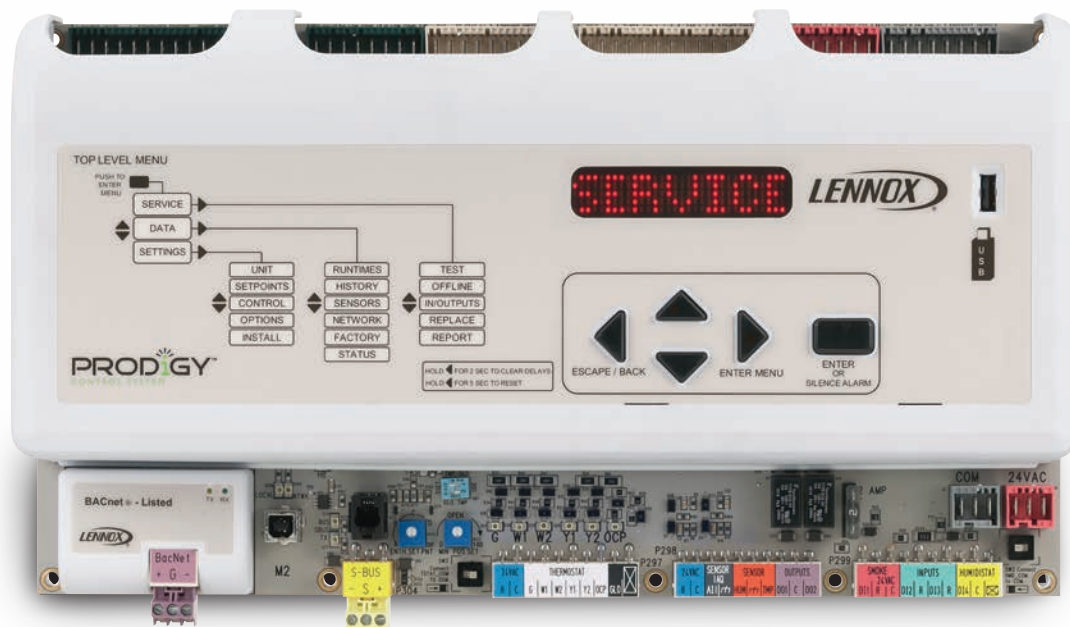


OPERATION MANUAL

PRODIGY[®]
CONTROL SYSTEM





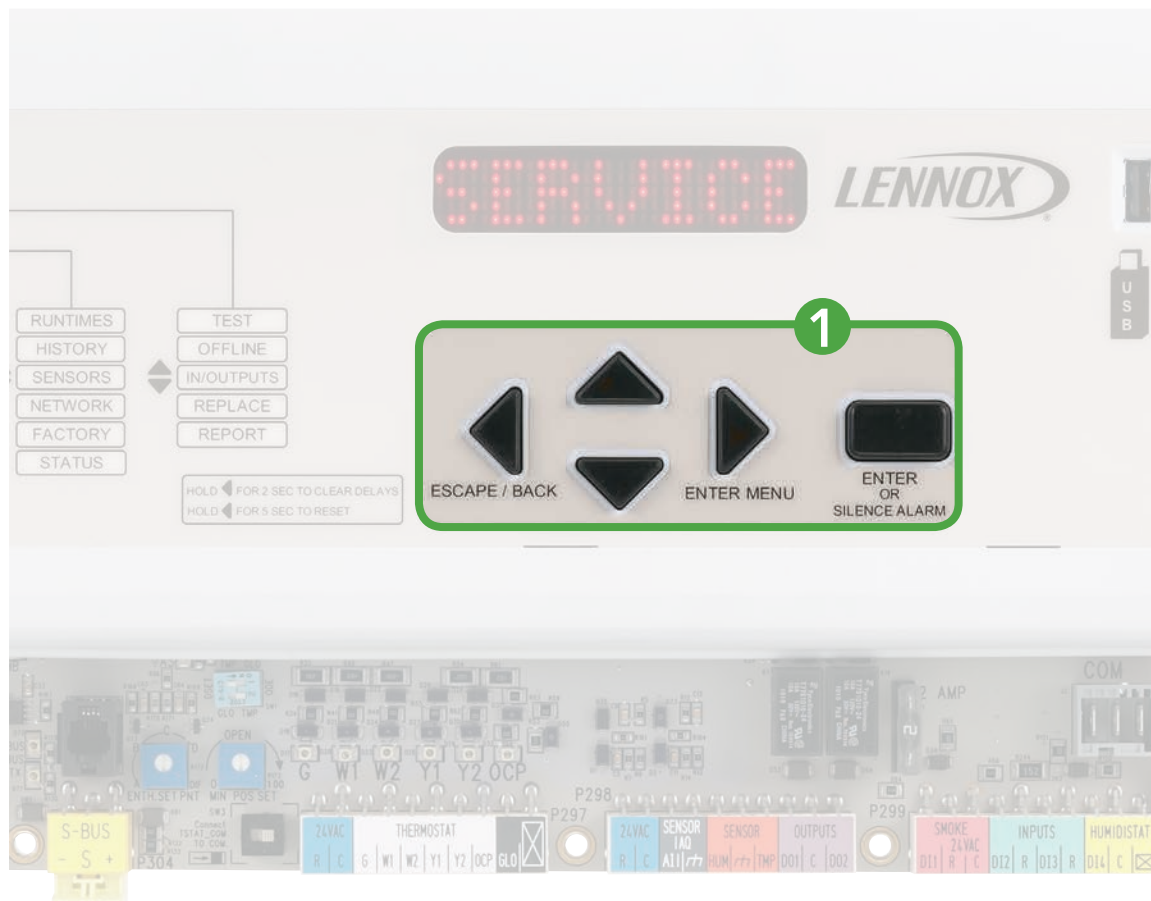
PRODIGY
CONTROL SYSTEM

The Prodigy® control system is the latest example of Lennox' commitment to advanced HVAC technology. Standard on every Strategos® rooftop unit, the Prodigy control system makes setup, troubleshooting and servicing easier than ever.

The Prodigy control system includes:

- Prodigy unit controller
- SmartWire™ system
- Optional Prodigy BACnet module (BTL certified)
- Optional Prodigy LonTalk® module (LonTalk certified)

NAVIGATION

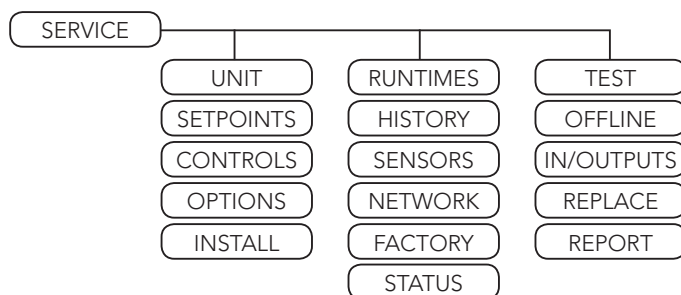



1. Navigation is performed by using the arrowed keys and the enter button

- To reset the Prodigy® unit controller, press the left arrow ◀ and hold for 5 seconds


— You will now be at the beginning of the menu structure

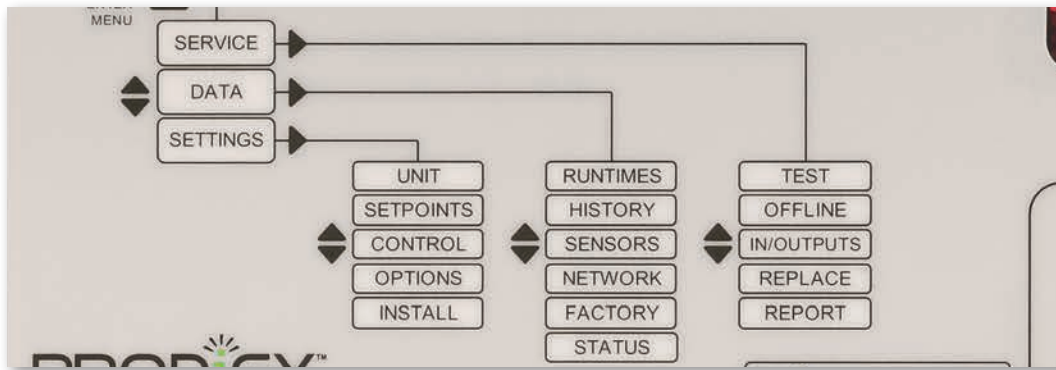
- Press the enter  or right arrow ▶ to go into the sub menus:



- Press the down arrow ▼ until you see 
- To exit the menu structure, press the left arrow ◀
 - Press the left arrow ◀ again to return to the Display mode.

DISPLAY



- Display shows the controller's current state
 - It will show either the current mode of operation or an alarm/status message
- To exit the display mode, press enter 
- You are now in the menu structure
- Notice that the first level of the menu structure is located on the controller



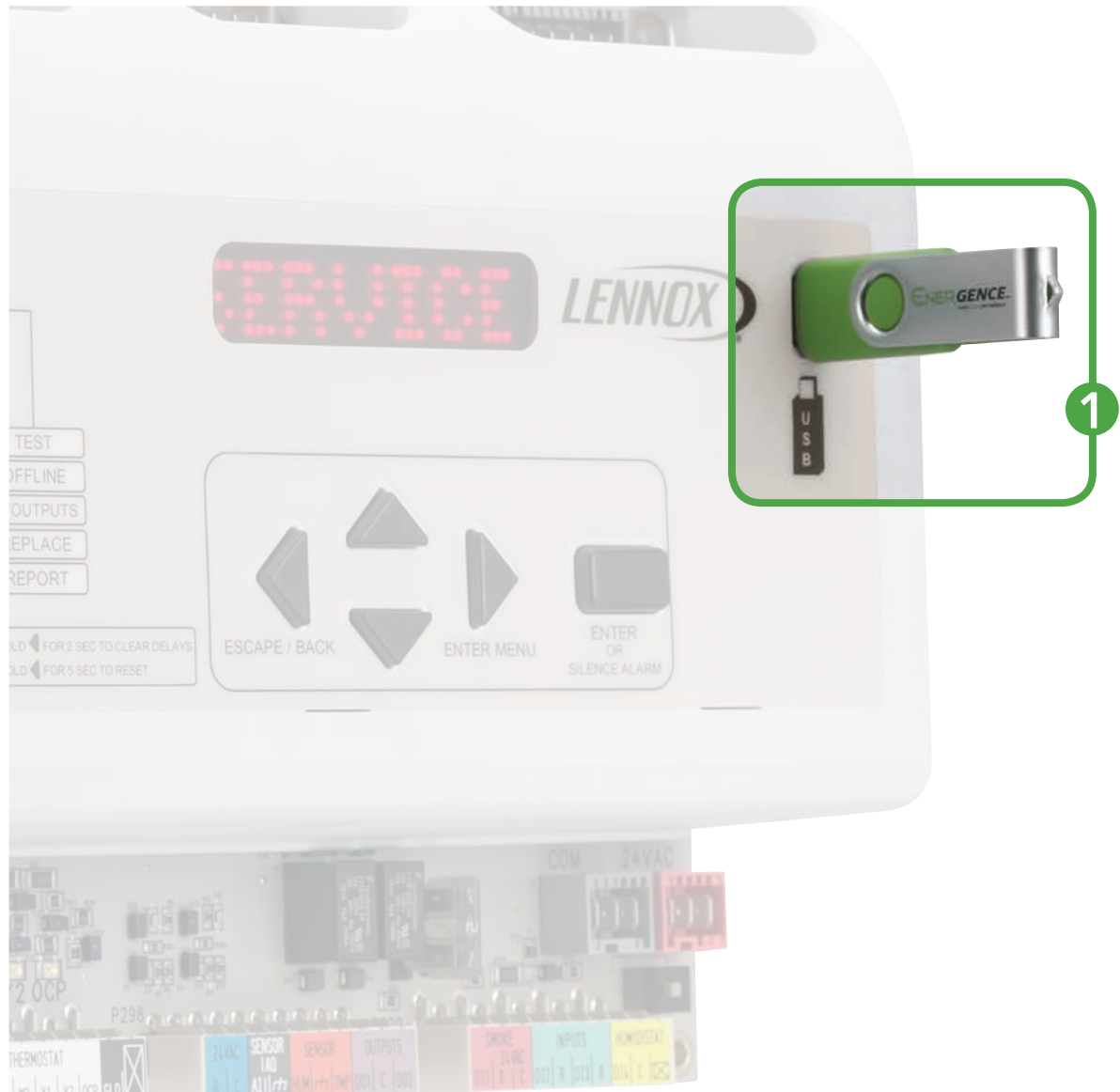
English, French or Spanish language can be selected.

ALARMS



The Prodigy[®] unit controller displays alarms in descriptive, actionable text.

- To simulate an alarm, press the left arrow  until you are in the display mode
- Flip down the switch to the right of the controller labeled Compressor 1HP (s4). It is located on the green trainer board next to the lower right corner of the gray M2
- This will show the alarm for a high-pressure switch trip for Compressor 1
- To silence the alarm, press enter 
- To turn off the alarm, simply flip the switch (S4) back to the up position

USB SERVICE REPORTS



1. The Prodigy[®] controller's USB port can download service reports

- To generate a report, insert a USB memory stick into the USB port then press enter 
- With **REPORT** displayed, press enter  to write the report
- The display will show it is writing the report and then indicate when it is complete
- The report will be saved to the memory stick with a file name based on the unit's serial number
- This report can be transferred to any computer via the memory stick

1

===== USB SERVICE REPORT =====

Service Date 7/4/2010
 Service Time 3:15:00
 Serial No. 5609K00002
 M2 Version 7.06.00
 DB1 Version 1.06.00
 Unit No. 2
 Sbus Address 2
 BACnet Address 36L87
 CAT No. LGH036H4ES1Y
 MODEL NO. COOLING
 Status

Runtime Data	1832 HRS	79 CYCLES
Total Power On	286 HRS	
Before Install	2040 HRS	
Filter	1063 HRS	131 CYCLES
Belt	1162 HRS	66 CYCLES
Blower	46 HRS	
Compressor 1	0 HRS	0 CYCLES
Compressor 2	0 HRS	0 CYCLES
Compressor 3	0 HRS	32 CYCLES
Compressor 4	14 HRS	2 CYCLES
Outdoor Fan 1	0 HRS	0 CYCLES
Outdoor Fan 2	0 HRS	0 CYCLES
Outdoor Fan 3	0 HRS	0 CYCLES
Outdoor Fan 4	0 HRS	0 CYCLES
Outdoor Fan 5	0 HRS	17 CYCLES
Outdoor Fan 6	5 HRS	16 CYCLES
Heat Stage 1	0 HRS	13 CYCLES
Heat Stage 2	2 HRS	1608 CYCLES
Reheat	15 HRS	
Free Cooling	0 HRS	
UV Lamp	0 HRS	

Sensor Data
 OAT : 100 degF
 RAT : 85 degF
 DAT : 86 degF
 ZAT : 83 degF
 RH : 60 %
 CO2 : 415 ppm

Alarm/Status Log

23 ALARM(23) STRIKE 3 ON COMP
 CHECK CHECK CHARGE, FILTER, AI
 MENU TO CLEAR LOCKOUTS.
 (23) 7.04.2010 1:05:00 22 ALARM(22) COMP 1 LOW PRESS
 CHARGE, FILTERS, AIR FLOW. CO
 (22) 7.04.2010 1:00:00 ALARM(5) FILTER S27 REPLACE
 SWITCH S27
 (5) 6.30.2010 21:05:00

END OF REPORT

2

===== USB SERVICE REPORT =====

Service Date
 Service Time 4:23:00
 Serial No. 5609K00002
 M2 Version
 DB1 Version
 Unit No.
 Sbus Address
 BACnet Address
 CAT No.
 MODEL NO.
 Status

COOLING

Runtime Data	1832 HRS	80 CYCLES
Total Power On	286 HRS	
Before Install	0 HRS	
Filter	1063 HRS	
Belt	1162 HRS	131 CYCLES
Blower	0 HRS	0 CYCLES
Compressor 1	0 HRS	0 CYCLES
Compressor 2	0 HRS	0 CYCLES
Compressor 3	0 HRS	0 CYCLES
Compressor 4	0 HRS	0 CYCLES
Outdoor Fan 1	14 HRS	32 CYCLES
Outdoor Fan 2	0 HRS	2 CYCLES
Outdoor Fan 3	0 HRS	0 CYCLES
Outdoor Fan 4	0 HRS	0 CYCLES
Outdoor Fan 5	0 HRS	0 CYCLES
Outdoor Fan 6	0 HRS	0 CYCLES
Heat Stage 1	5 HRS	17 CYCLES
Heat Stage 2	0 HRS	16 CYCLES
Reheat	2 HRS	13 CYCLES
Free Cooling	15 HRS	1608 CYCLES
UV Lamp	0 HRS	

Sensor Data

OAT : 100 degF
 RAT : 76 degF
 DAT : 57 degF
 ZAT : 77 degF
 RH : 50 %
 CO2 : 415 ppm

Alarm/Status Log

23 ALARM(23) STRIKE 3 ON COMP 1 S87 COMP LOCKOUT.
 CHECK CHECK CHARGE, FILTER, AIR FLOW, COIL, USE SERVICE
 MENU TO CLEAR LOCKOUTS.
 (23) 7.04.2010 1:05:00 22 ALARM(22) COMP 1 LOW PRESS S87 COMP OFF. CHECK
 CHARGE, FILTERS, AIR FLOW. COIL
 (22) 7.04.2010 1:00:00 ALARM(5) FILTER S27 REPLACE FILTER OR CHECK FILTER
 SWITCH S27
 (5) 6.30.2010 21:05:00

END OF REPORT

USB SERVICE REPORTS

The reports at left are an example of a service call.





1. The first report shows the status of a unit with a faulty compressor and dirty filter
 - The sensor data illustrates the issue
2. The second report shows the same unit with a new compressor and filter
 - Notice the new sensor readings and the reset runtime information

USB PROFILES







www.lennoxcommercial.com

You can also save a unit profile which can be uploaded to another similar unit.

- To save or upload a unit profile, insert a USB memory stick in the USB port
- Press enter  when the screen reads  then scroll down to  and press enter 
- The controller will automatically check to see if there is a profile that matches the unit
- If there is a profile saved to the memory stick with a matching cat number, the controller will ask to upload it
- This will instantly upload all setpoints to the unit that are saved to the profile
- If there is no profile saved, the controller will ask if you want to save the unit's profile






SELF-TEST

The Prodigy® unit controller features a self-test function. This allows the user to individually test critical component operation.

- First, navigate to the **SERVICE** menu and press enter 
- Then, press enter  again to access the **TEST** menu
- Press the down arrow  to find **COOL** and press enter 
- Then select either an individual compressor or stage (L or H)
- The controller will turn on just that compressor (stage)
- It will then return the RAT and DAT as a check of correct operation

REPLACE






The replace function is used to reset component runtime information. To demonstrate, we will use a filter replacement.

- First, navigate to the **SERVICE** menu and press enter 
- Press the down arrow  to scroll to **REPLACE** and press enter 
- Press enter  on **FILTER** which should be the first category
- To reset the filter runtime, press enter 
- This resets the filter runtime, which should be done after every filter change

RUNTIMES







The Prodigy® unit controller contains runtime information on all key components.

- Navigate to the **DATA** menu and press enter 
- Press enter  again on **RUNTIMES** to access the menu
- You can scroll through all the runtimes using the up and down arrows  
- Press the left button  twice to return to the **DATA** menu




HISTORY

You can also view the history of alarm and status messages.

- From the **DATA** screen, press enter  and scroll to **HISTORY** and press enter 
- Press enter  on the **ALARMS** screen
- The Prodigy® unit controller will display the last five alarms
- Press the left button  three times to return to the **DATA** screen

SENSOR DATA









The Prodigy® unit controller can also display important sensor data.

- Once on the **DATA** screen, press enter  and scroll to **SENSORS** then press enter 
- You can scroll through all the sensors and their current readings
- This data can be critical in diagnosing a problem
- Press the left button  twice to return to the **DATA** menu

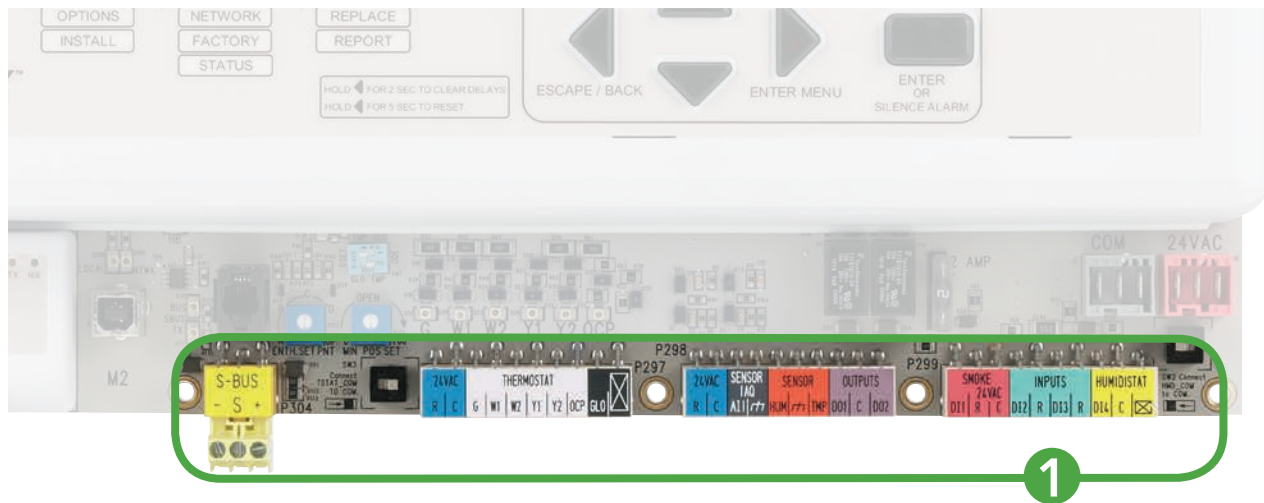
SETPOINTS



Changing setpoints on the Prodigy® unit controller is quick and easy.

- First, navigate to the **SETTINGS** menu and press enter 
- Press the down arrow  to scroll to the **SETPOINTS** menu and press enter 
- Press enter  to view the **COOLING** setpoints
- Press enter  to change the **OCCUPIED** cooling setpoint
- Use the up and down arrows   change the setpoint
- Press enter  to set the value

SMARTWIRE™ SYSTEM



The SmartWire™ system is designed to simplify field wiring and sensor installation.

1. Advanced connectors are color-coded, labeled and keyed to prevent miswiring and ensure units are installed and set up correctly
 - The wire-coloring scheme is standard across all units
 - Each connection is intuitively labeled to simplify troubleshooting

SOLUTIONS FOR CUSTOMIZED COMFORT



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Packaged Units

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- Energence® Rooftop Units
- Landmark® Rooftop Units

Split Systems

- S-Class™ Air Conditioners/
Heat Pumps
- T-Class™ Air Conditioners/
Heat Pumps
- Air Handlers
- Indoor Coils

Heating

- T-Class Unit Heaters
- Unit Heaters
- Duct Furnaces
- Furnaces

Commercial Controls

- Prodigy® Control System
- L Connection® Network
- Systems Integration Solutions
- Commercial Thermostats

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Dehumidification System
- Demand Control Ventilation
- Energy Recovery Systems
- Air Filters
- UVC Germicidal Lights



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