Room Temperature Sensors (with Rotary Dials)

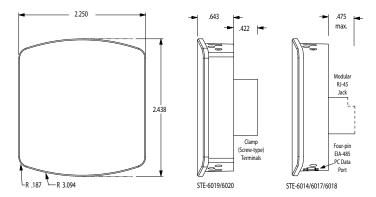## STE-6014/6017/6018/6019/6020

Installation Guide

Mounting

| STE-6014 | STE-6017/6019 | STE-6018/6020 |

Model Number	Interface Features		Cable Connections		
	Override Button	LED Status Indicator	Screw Clamp Terminals	RJ-45 Connector	EIA-485 Data Port
STE-6014				X	X
STE-6017	X			X	X
STE-6019	X		X		
STE-6018	X	X		X	X
STE-6020	X	X	X		

All dimensions are in inches

Location and Cover Removal

Install the sensor on an inside wall where it can sense the average room temperature and be away from direct sunlight, heat sources, windows, air vents, and air circulation obstructions (curtains, furniture, etc.). It can be mounted on a hollow wall or (with an HMO-6036/6036W universal backplate) to a 2 x 4 inch electrical (handy) box.

The cover is held to the black base by three, small, round pegs that fit in the holes of the cover. The

bottom peg is on a tab, which snaps into the center bottom hole.

1. With a small Phillips screwdriver or hex wrench, **press in and hold the plastic tab button that snaps into the center hole on the bottom of the cover. Do not use excessive force and deform or break the tab.**

2. Carefully pull the cover from the black base.

Electrical Box Installation (Recommended)

1. Mount an HMO-6036 or HMO-6036W universal backplate to the handy box using the two screws provided.

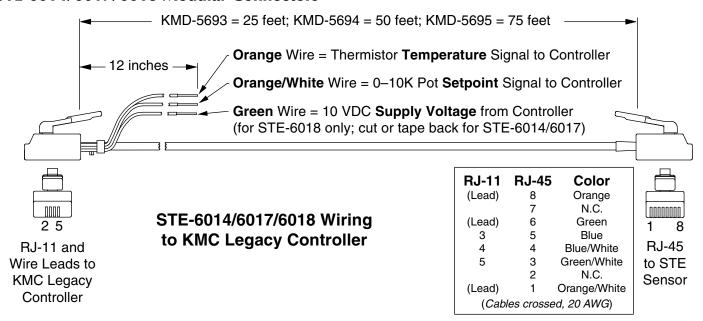2. Remove the cover from the black base (see the Location and Cover Removal section).

3. With the plastic tab button on the bottom, attach the base to the universal backplate using the two screws provided.

4. Connect the wiring (see the Wiring section).

5. Reinstall the cover.

Hollow Wall Installation

1. Remove the cover from the black base (see the Location and Cover Removal section).

2. Using the base as a template, drill two holes for mounting screws (7/64 inches or 3 mm in diameter and 1.4 inches, 1-13/32 inches, or 35.6 mm apart) and cut a center hole (size needed is dependent on model) for the terminal block or jack.

3. Attach the base to the wall using two #6 self-threading screws. (Plastic anchors are recommended, and the size of the holes will then need adjusting.)

4. Connect the wiring (see the Wiring section).

5. Reinstall the cover.

Wiring

STE-6014/6017/6018 Modular Connectors

KMD-5693 = 25 feet; KMD-5694 = 50 feet; KMD-5695 = 75 feet

12 inches

Orange Wire = Thermistor **Temperature** Signal to Controller

Orange/White Wire = 0–10K Pot **Setpoint** Signal to Controller

Green Wire = 10 VDC **Supply Voltage** from Controller
(for STE-6018 only; cut or tape back for STE-6014/6017)

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RJ-11 and
Wire Leads to
KMC Legacy
Controller

**STE-6014/6017/6018 Wiring
to KMC Legacy Controller**

RJ-11	RJ-45	Color
(Lead)	8	Orange
	7	N.C.
(Lead)	6	Green
3	5	Blue
4	4	Blue/White
5	3	Green/White
	2	N.C.
(Lead)	1	Orange/White
(*Cables crossed, 20 AWG*)		

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RJ-45
to STE
Sensor

KMC Legacy BACnet and KMDigital Controllers

Connecting STE-6014/6017/6018 models to a legacy
KMC controller (before KMC Conquest) requires
a special cable with (on the sensor end) an RJ-45
connector and (on the controller end) an RJ-11
connector with an additional three wires (as relevant
to the model) for controller inputs. Purchasing
preassembled cables from KMC is more **cost-
effective** and **reliable** than creating custom cables in
the field. Use one of the following cables:

- **KMD-5693** = 25 feet

- **KMD-5694** = 50 feet

- **KMD-5695** = 75 feet

The three additional wire connections to the control-
ler are:

- **Orange** is the **thermistor** signal to the controller's
  appropriate input

- **Orange/white** is the **setpoint** signal to the con-
  troller's appropriate input

- **Green** is the **supply voltage** of 10 VDC to the
  STE-6018 LED from an output of the controller
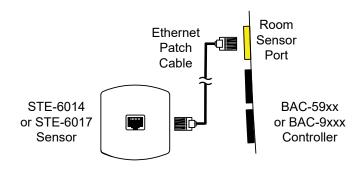 (for the STE-6014/6017, clip or tape the unused
  wire)

NOTE: Pressing the push button (not available
on the STE-6014) momentarily shunts the
thermistor for a SENSORON signal (via the
C terminal or orange wire).

KMC Conquest BAC-59xx and BAC-9xxx

For **STE-6014/6017** (but not STE-6018) sensors, use
HSO-9001, **HSO-9011**, **HSO-9012**, or other standard
Ethernet patch cables to connect the sensors' modu-
lar ports to the **BAC-59xx/9xxx** controllers' sensor
ports.

NOTE: The sensor ports in KMC Conquest
controllers do not support the 10 VDC
output to the LED indicator in STE-6018
sensors.

See the Analog STE-6000 Series Thermistor Sensors
section in the **KMC Conquest Controller Applica-
tion Guide** for configuration information.

Ethernet
Patch
Cable

Room
Sensor
Port

STE-6014
or STE-6017
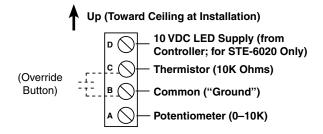Sensor

BAC-59xx
or BAC-9xxx
Controller

For **STE-6019** (but not STE-6020) sensors, an **HPO-9005** adapter and Ethernet patch cable can be used to connect the sensors' terminals to the BAC-59xx/9xxx controllers' sensor ports.

NOTE: The sensor ports in KMC Conquest controllers do not support the 10 VDC output to the LED indicator in STE-6020 sensors.

See the **KMC HPO-9005 Room Sensor Adapter Installation Guide** for installation and configuration information.

STE-6019/6020 Terminals

Up (Toward Ceiling at Installation)

D — 10 VDC LED Supply (from Controller; for STE-6020 Only)

C — Thermistor (10K Ohms)

(Override Button)

B — Common ("Ground")

A — Potentiometer (0–10K)

Maintenance

Careful installation will also ensure long-term reliability and performance. Remove dust as necessary from holes in top and bottom. Clean with a soft, damp cloth and mild soap.

More Information

For general product information, see the **STE-6000 Series Room Temperature Sensors/Transmitters Data Sheet** on the KMC Controls web site.

For mounting considerations, network connection, legacy controller configuration, legacy controller programming, troubleshooting, and other information, see the **STE-6014/6017/6018/6019/6020 Application Guide**.

Important Notices

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