Single Setpoint for STE-9xxx NetSensor

Application Guide
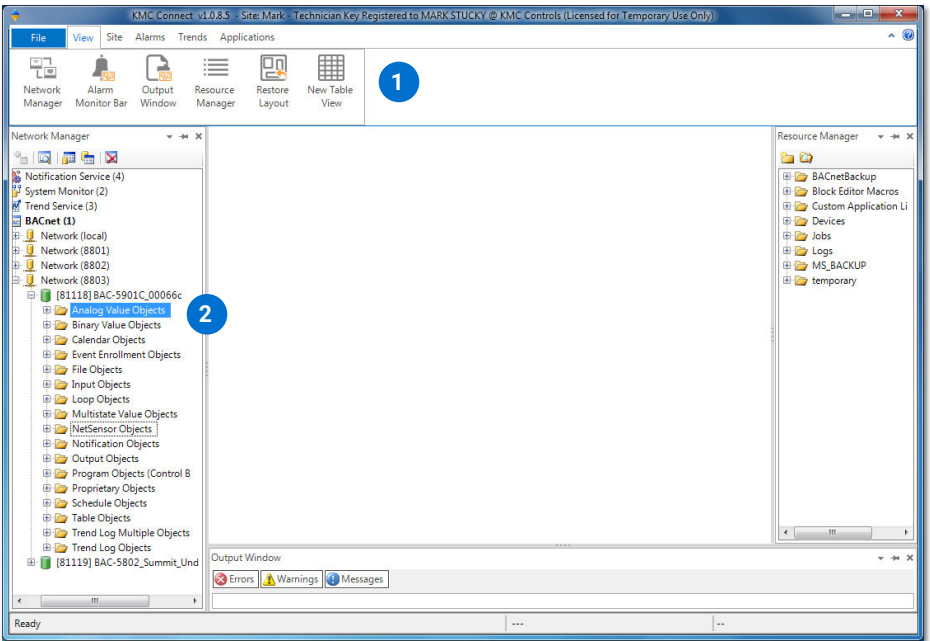

Contents

STE-9000 Series NetSensor Setpoints

KMC Conquest NetSensors have **dual** (heating and cooling) setpoints. If a **single** occupied setpoint is desired:

- Configure AV5 and the NetSensor object to have AV5 be the only setpoint reference (instead of AV3 and AV4).
- Add custom Control Basic code.

NOTE: KMC provides a backup BND file that provides the custom Control Basic code. See the other file in the zipped file containing this bulletin.

Procedure

NOTE: All other controller application configuration should be performed (using the NetSensor, KMC Connect Lite, KMC Connect, KMC Converge, or TotalControl) before making the changes for a single setpoint. See other related documentation for additional information about configuration.

1. Start KMC Connect, KMC Converge, or TotalControl. (KMC Connect screens are shown here.)
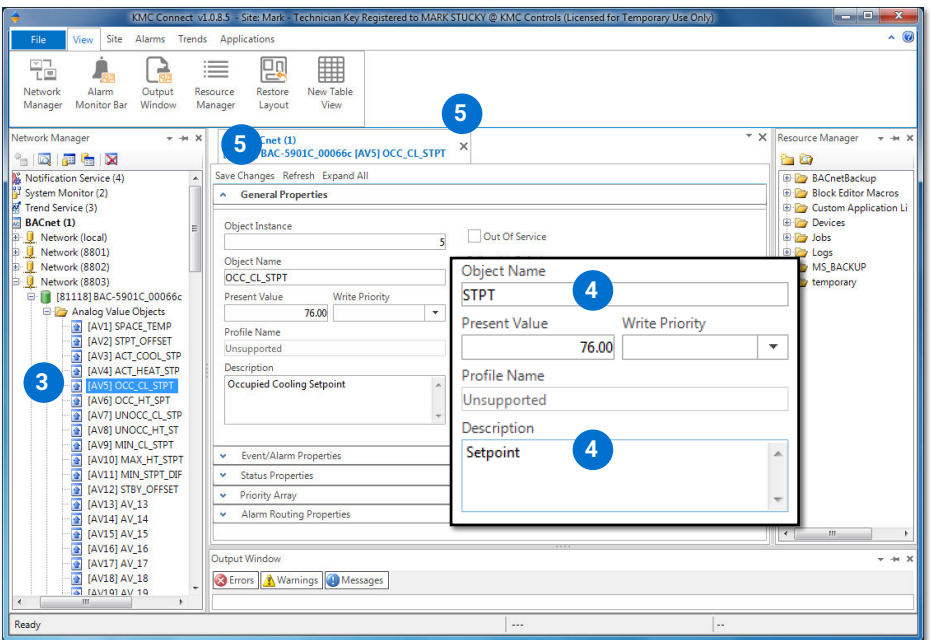
NOTE: Before modifying AV5, PRG7, and DS_01, backing up those objects (by dragging them from the Network Manager into a suitable folder in the Resource Manager) is recommended.
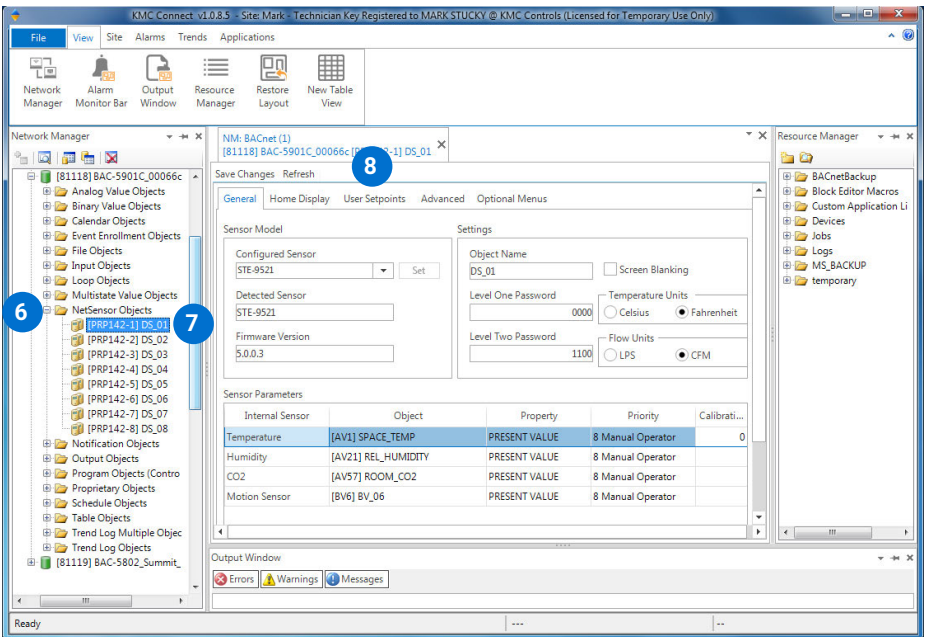
2. On the controller, click the **+** in front of Analog Value Objects to expand the folder.

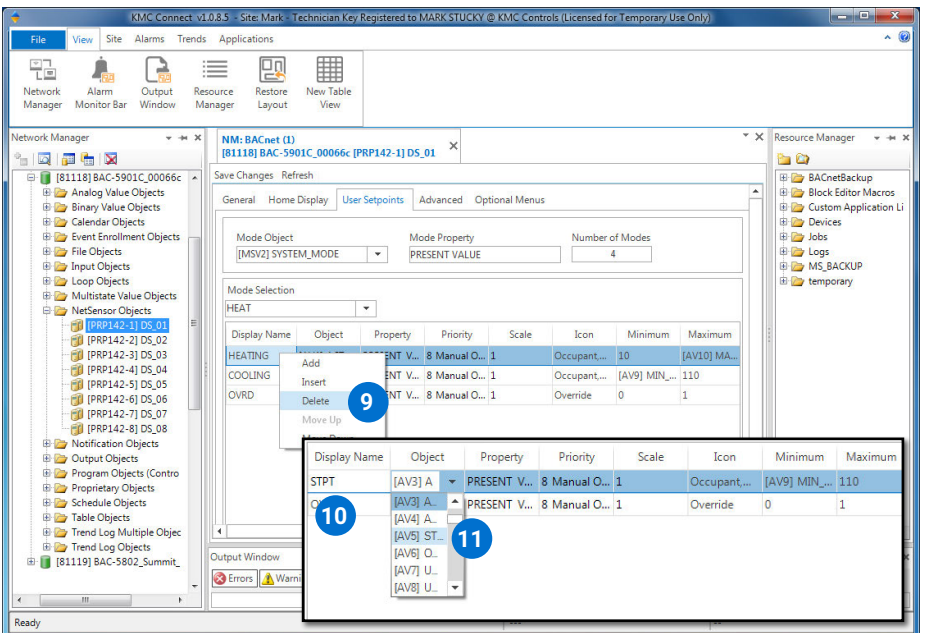3. Double-click **AV5** to open it.

4. In the Object Name and Description fields, delete the references to Occupied Cooling—leaving **STPT** and **Setpoint**.
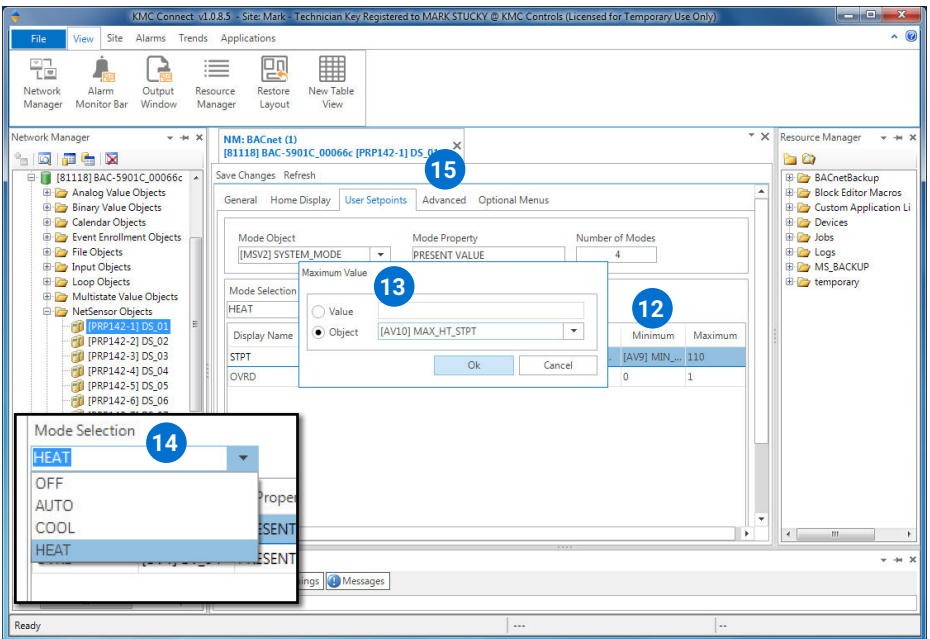
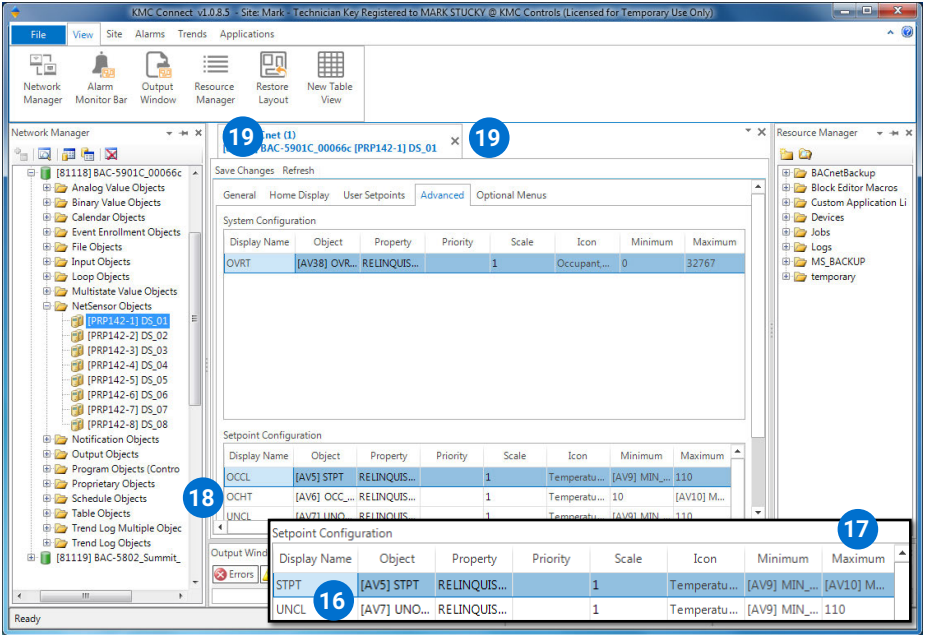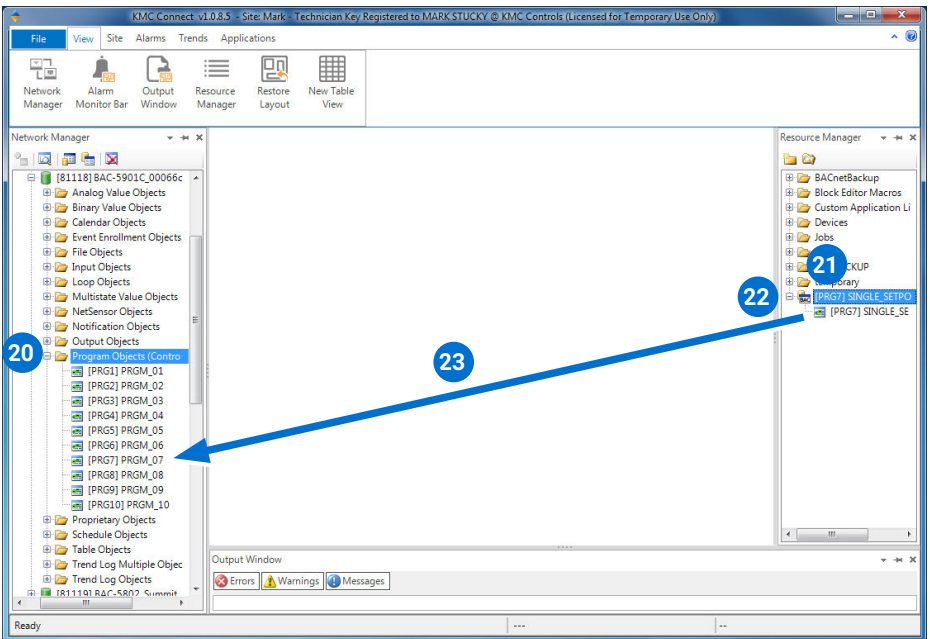5. Click **Save Changes** and then the **X** in the tab to close it.

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6.   Click the **+** in front of NetSensor Objects to expand the folder.

7.   Double-click **[PRP142-1] DS_01** to open it.

8.   Click the **User Setpoints** tab.

9.   Right-click in either the **HEATING** or **COOLING** line and select **Delete**.

10. On the remaining line, click under Display Name and enter **STPT** (or similar description up to 7 characters maximum).

11. Click under Object and select **AV5** from the drop-down box.

12. Click under Minimum and select **AV9** (if not already selected) from the Object drop-down box.

13. Click under Maximum and select **AV10** (if not already selected) from the Object drop-down box.

14. Under Mode Selection, select the other modes and modify the **HEATING** and **COOLING** lines as described in Steps 9 through 13.

15. Click the **Advanced** tab.

16. Click under Display Name of the line containing AV5 and change OCCL to **STPT**.

17. Click under Maximum and change the value to the object **AV10**.

18. Right-click in the OCHT line (containing AV6) and delete the line.

19. Click **Save Changes** and then the **X** in the tab to close it.

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20. Under Network Manager, click the **+** sign in front of Program Objects to expand the folder.

NOTE: If preferred, copy and paste code from **Control Basic Code (Reference) on page 7** instead of using the BND file.
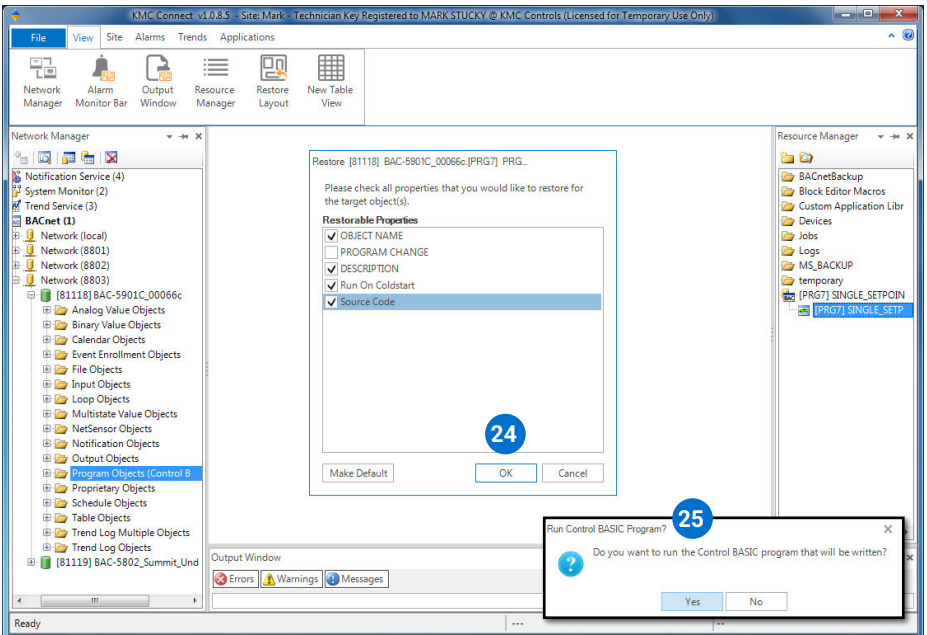
21. Drag the supplied **[PRG7] SINGLE_SETPOINT.bnd** file into Resource Manager.

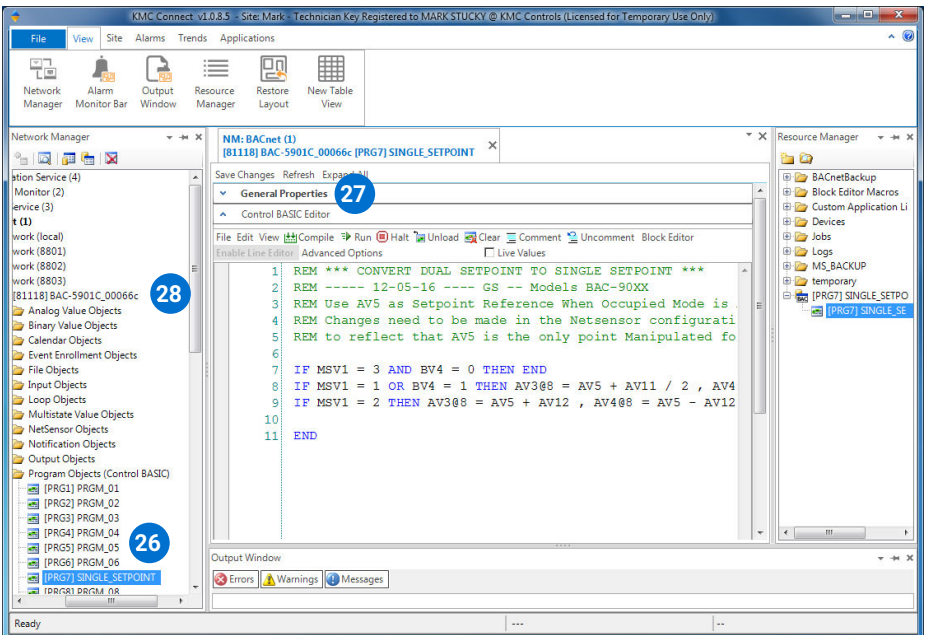22. Click the **+** sign in front of it to expand it.

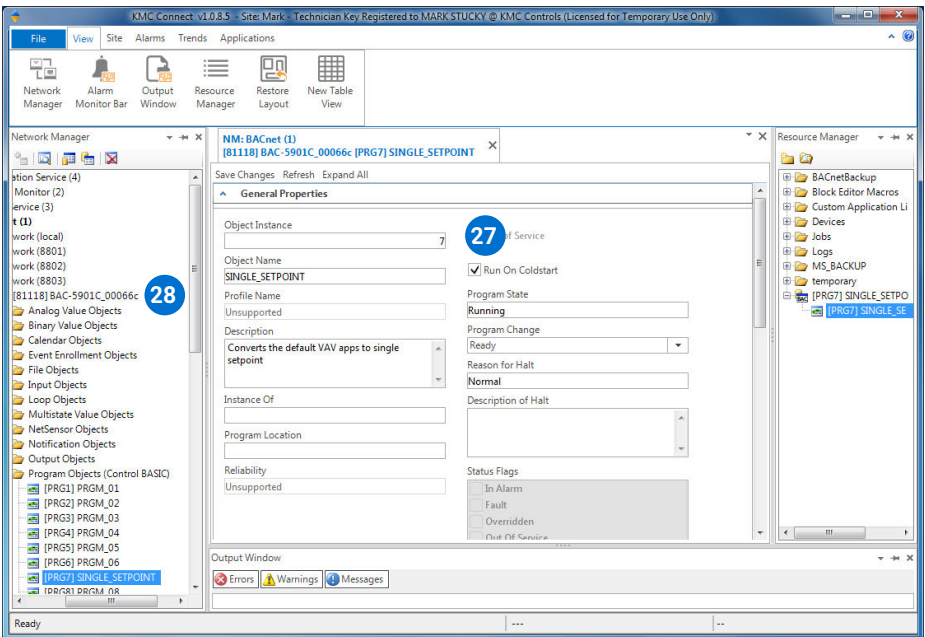23. Drag the **PRG7** file of the Resource Manager into **PRG7** of the Program Objects folder of the controller.

NOTE: Use a different unused program object if program 7 is already being used. The code in the supplied object can also be copied, modified, and pasted into other code as needed.

NOTE: KMC Controls is not responsible for custom code created or modified by customers.

24. In the Restore dialogue box, click **OK**.

25. In the Run Control Basic Program dialogue box, click **Yes**.

26. Double-click to open the **[PRG7] SINGLE_SETPOINT** Program object.

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27. Open the General Properties section and ensure that **Run On Coldstart** is checked.

28. Restart the controller:

    A. Right-click the controller device object in Network Manager.

    B. Select **Reinitialize Device…** from the menu.

    C. Click the **Reinitialize** button.

Control Basic Code (Reference)

NOTE: Below is the KMC Control Basic code in the BND file for Program 7. As an alternative method, this text can be copied and then pasted into an empty program (or section of a program) instead of doing the steps with the BND file.

NOTE: Fix unintended line breaks after pasting. Ensure that **Run On Coldstart** for the program is checked.

```
REM *** CONVERT DUAL SETPOINT TO SINGLE SETPOINT ***
REM ----- 12-05-16 ---- GS -- Models BAC-90XX
REM Use AV5 as Setpoint Reference When Occupied Mode
is Active
REM Changes need to be made in the Netsensor
configuration under "User Setpoints" tab
REM to reflect that AV5 is the only point Manipulated
for Setpoint control

IF MSV1 = 3 AND BV4 = 0 THEN END
IF MSV1 = 1 OR BV4 = 1 THEN AV3@8 = AV5 + AV11 / 2 ,
AV4@8 = AV5 - AV11 / 2
IF MSV1 = 2 THEN AV3@8 = AV5 + AV12 , AV4@8 = AV5 -
AV12

END
```
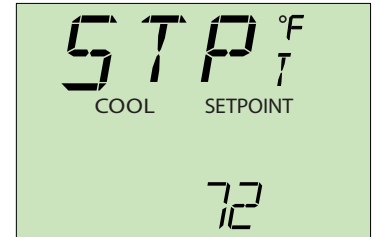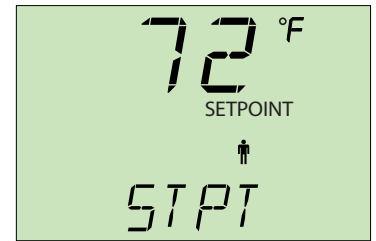
NetSensor Menus

Pushing the Enter button on the NetSensor will now show only a single setpoint (instead of separate heating and cooling setpoints) on the screen.

In the Setpoints section of the NetSensor's controller configuration menus, "Setpoint" controls both occupied heating and cooling even if it shows just COOL on the screen. **Un**occupied dual setpoints function as usual.

NOTE: For more information about the configuration menus, see the Controller Configuration with STE-9xx1 Menus section of the **KMC Conquest Controller Application Guide**.

Handling Precautions

For **digital and electronic** sensors, thermostats, and controllers, take reasonable precautions to prevent electrostatic discharges to the devices when installing, servicing, or operating them. Discharge accumulated static electricity by touching one's hand to a securely grounded object before working with each device.

NOTICE

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

Support

Additional KMC product information and resources are available on the web at **www. kmccontrols.com**. To see all available files, log-in to the KMC Partners site.

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