SIEMENS

Start-up for Unit Conditioner Controller with 2-Position Damper and 3-Speed Fan

TEC-0347.11

Table of Contents

Verifying Power to Controller

NOTE: Update each controller at the field panel immediately after you complete the controller start-up procedures, and have made all other changes to the controller's point database, including balancing, tuning, etc.

Verify that the Controller is powered up. Check that the BST LED on the controller is flashing (*Figure 1*). If the BST LED does not flash on/off once per second, then refer to the *APOGEE Automation Service Procedures* on InfoLink for troubleshooting information.

NOTE: The Controller Interface Software (CIS) used with the Unit Conditioner Controller with Two-Position Damper and Three-Speed Fan — Electronic Output (firmware revision FF10) must be Rev. 2.0 or greater.

1. Verify that APPLICATION (Point 2) is set to 2090 (slave mode) for Rev. FF10 or higher.
2. Display the STARTUP report.

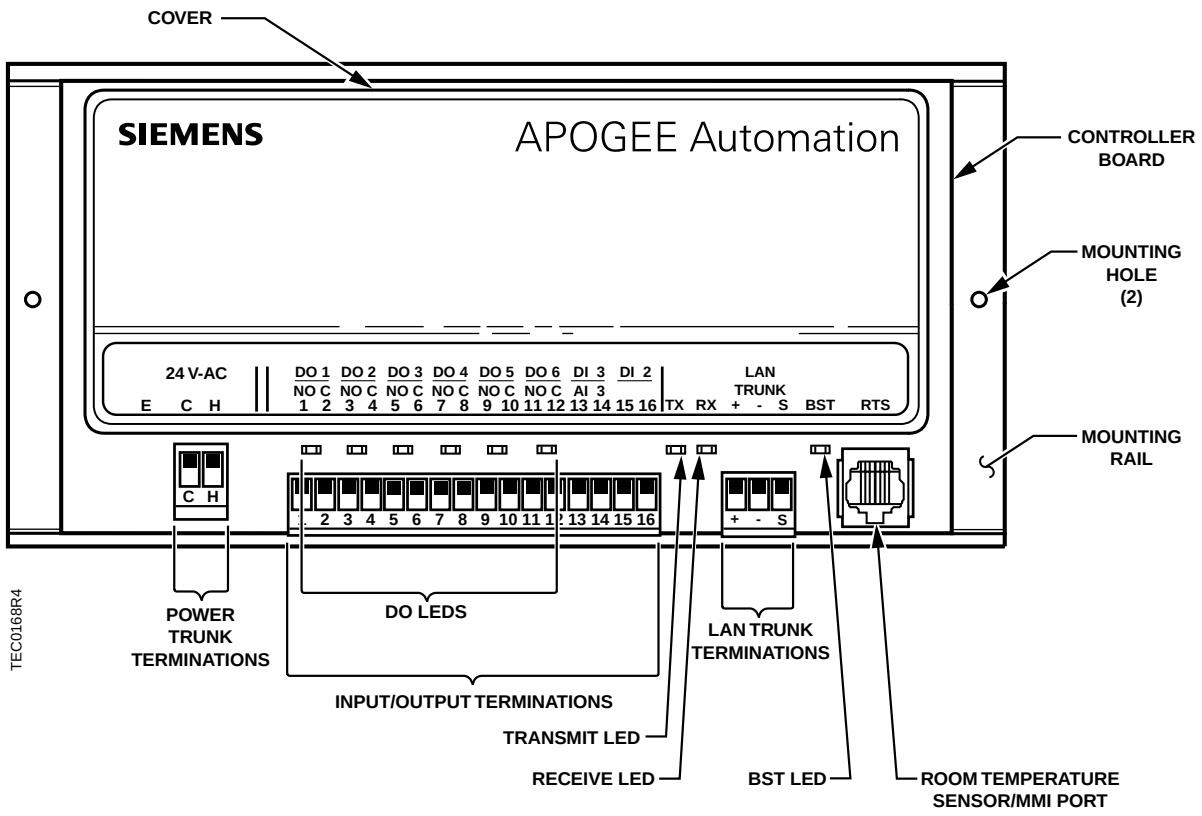

Figure 1. Unit Conditioner Controller with Two-Position Damper and Three-Speed Fan – Electronic Output.

Enabling Actuators

Enable the actuators by setting the points for motor setup, motor timing, and actuator setup verification as follows:

Setting MTR SETUP

MTR SETUP (Point 58) determines which actuators will be controlled by the application and whether they are direct or reverse acting.

Application 2404 does not use any modulating motors. However, it does allow for the use of 1 motor (motor 1) as a spare modulating motor. See *Table 1* for how to set the MTR SETUP point in application 2404.

Table 1. Motor Enable/Reverse Values for MTR SETUP (Point 58).

Motor 1 Enabled	Motor 1 Enabled and Reversed	Motor 1 Not Used
1	3	0

Setting Motor Timing

The run time of the actuator is indicated by MTR1 TIMING (Point 51).

If Motor 1 is a damper actuator, then use *Table 2* to set MTR1 TIMING. If the damper rotation angle is a value other than 90°, then set MTR1 ROT ANG (Point 56) to the appropriate value.

Table 2. Damper Actuator Run Time.

Damper Actuator	Setting (seconds)	
	50 Hz	60 Hz
349-0101	106	88
GDE 131.1U	108	90
GDE 131.1P	108	90
GLB 131.1P	150	125
[1]GBB 171.1U	150	150
[2]GDE 161.1P	108	90
[2]GLB 161.1P	150	125

[1] GBB 171.1U run time is independent of Hz.
[2] Analog output 0-10V.

See the Manufacturer Installed Controls (MIC) web page on Landscape (http://landscape.us.abatos.com/mic/) for specific manufacturers' damper opening details (90°/60°/etc.).

If Motor 1 is a valve actuator, then use *Table 3* to set MTR1 TIMING.

Table 3. Valve Actuator Run Time.

Valve Actuators	Setting (seconds)	
	50 Hz	60 Hz
SSB81U (Powermite – MZ Series)	180	150
SQS 82	155	130
SQS 65U (analog output 0 to 10V)	35	30
SQS 65.5U (analog output 0 to 10V)	35	30
SSB 61U (analog output 0 to 10V)	N/A	150

Verifying Actuator Setup

If you are using motor 1, then verify that the actuator will close and remain closed when commanded closed as follows:

- If Motor 1 is enabled and the actuator on Motor 1 does not close, then reverse the action of that actuator by adding the value **2** to MTR SETUP (Point 58).
- If Motor 1 is enabled and reversed and the actuator on Motor 1 does not close, then reverse the action of that actuator by subtracting the value **2** from MTR SETUP.

If the actuator still does not close completely, then the actuator has been installed or set up incorrectly. Refer to the actuator installation instructions, set up information, Table 1, or the *APOGEE Automation Service Procedures* on InfoLink for more information.

Setting the Application

NOTE: If you are going to enter an LCTLR point at the field panel, then keep track of the application, override time, and controller address you enter at the portable operator's terminal. You will be required to enter these values again at the field panel.

Set APPLICATION (Point 2) to **2404**.

After you set the application, the controller will go through a shut-down/load sequence as it switches from slave mode to the application selected. After the application loads and the OVERVIEW report appears, continue with the following procedures.

Setting CAL TIMER

Application 2404 does not have anything in it that needs calibrating. However, if you are using motor 1 as a spare modulating motor, application 2404 will calibrate it. Set CAL TIMER (Point 96) to the time interval that will trigger calibration of the motor. The default value for CAL TIMER is 12 hours.

Setting Room Temperature Set Points

Follow these steps to set the room temperature set points:

1. Display the SETPOINTS report.

2. If the room temperature sensor has a set point dial, and if RM STPT DIAL (Point 13) is to be used by the controller, then set STPT DIAL (Point 14) to **YES**; otherwise, set STPT DIAL to **NO**.

   NOTE: If STPT DIAL is set to YES, then DAY HTG STPT (Point 7) and DAY CLG STPT (Point 6) will not be used. Instead, the value of RM STPT DIAL will be used.

3. If there is no set point dial on the room temperature sensor, then verify that STPT DIAL is set to **NO**.

   Set the following points to the appropriate values:

   - DAY CLG STPT (Point 6)
   - DAY HTG STPT (Point 7)
   - NGT CLG STPT (Point 8)
   - NGT HTG STPT (Point 9)

4. If the room temperature sensor has a set point dial and the set point dial is to be used, then set RM STPT MIN (Point 11) and RM STPT MAX (Point 12) for the minimum and the maximum allowable room temperature set point values, respectively. Valid values range from 55° to 95°F (13° to 35°C). Common values for these points are 65°F (18°C) for RM STPT MIN and 80°F (27°C) for RM STPT MAX.

Setting Override Time

Follow these steps to set the override time:

1. Display the STARTUP report.

2. If using night override, then set OVRD TIME (Point 20) to the number of whole hours that an override should last. If set at zero (the default), then night override is disabled.

Enabling Wall Switch

If a wall switch is used for day/night control, then enable it by setting WALL SWITCH (Point 18) to YES.

Setting Controller Address

Set the controller address by setting CTLR ADDRESS (Point 1) to the appropriate number.

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The start-up is complete.