



*Ducted Systems
Technical Services
Service Tips Letter*

Letter: **ST-012-2018**

Date: July 12, 2018

To: All Unitary Products Branch Service, Sales, and Training Managers
All Unitary Products Distribution Service, Sales, and Training Managers

Subject: SSE Control – New Firmware Version 3.3.1.186

Product: Commercial Products Equipped with SSE Controls

Summary: This letter is in regard to the release of 3.3.1.186 Firmware version with the new menu structure for ease of startup and commissioning of the Commercial products with the SSE controls.

SSE firmware version 3.3.1.186 will begin being implemented into production units in the upcoming weeks. This firmware version will have several functional improvements as well as a new menu that is structured to provide ease of commissioning and troubleshooting by organizing parameters in a logical manner and minimizing the levels needed to get to important information.

Functional improvements included in this release are:

- 4-pipe split system mode improvement
- Low limit tempering improvement
- Added COBP occupied heating enabled setpoint
- BACnet encoding type default set to ASCII
- Off During Unoccupied Mode default set to NO
- Improvement to Hot Gas Reheat Mode
- Added RAT and OA Enthalpy to trending option
- Improved Refrigeration Fault Detection and Diagnosis (FDD) alarm suppression for reducing nuisance alarms

Additional details on these improvements can be found in the Smart Equipment Controls Software Guide on UPGNET in the equipment catalog under Smart Zoning Systems & Controls>Smart Equipment>Application Data.

Some of the features of the new menu are:

1. A true commissioning section that has the necessary parameters to set up a large majority of units. This commissioning section is broken into 3 parts:
 - a. Standard – includes all the basic parameters needed for most thermostat controlled equipment.

- b. Options – includes parameters for some of the more common factory options and operational sequences.
 - c. Network Setup – includes parameters needed for communications with building controls.
2. A details section that is configured to provide easy setup and troubleshooting of all functions. For example, Cooling has the following submenus:
- a. Setup – includes all of the necessary parameters to set up the cooling function.
 - b. Service – includes all of the necessary parameters to observe or troubleshoot the cooling function. Here you will see things like Operating Cooling and Heating Setpoints, Operational Space Temperature, Cooling Status, Supply Air Temperature, and Thermostat Inputs, all of which are useful in troubleshooting.
 - c. Sensors – includes all refrigerant sensor values for all stages of cooling.
 - d. Safeties – includes status of all refrigerant safeties.

Heating, Indoor Fan, and all other unit functions are configured in a similar manner.

3. A Controller section that provides access to all networking parameters, firmware versions, sensor overrides, time and date settings, and controller type selections (RTU, Split, Heat Pump). The sensor overrides are very useful in troubleshooting as they allow you to select a value for any sensor that has an operational value in order to manipulate a sequence to verify operation. These overrides will last for 15 minutes and then the operational value will revert back to the next highest priority value. Please refer to ST-009-2017 for more important information on operational values.

The Update menu remains unchanged from previous versions of firmware. This is where you will find Load Firmware, Backup, Restore, and the Cloning functions.

The new 3.3 firmware will be phased into Norman commercial production as follows:

7.5-50 ton commercial split system	July/August 2018
25-40 ton commercial packaged units	July/August 2018
3-12.5 ton CDR commercial packaged units	August/Sept 2018
3-25 ton commercial packaged unit	August/Sept 2018

As 3.3 firmware is implemented into production units, SSE controls with that firmware can be identified using the following part numbers:

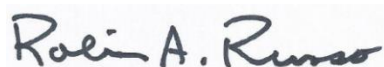
1 stage with no communication card	5444020 (SE-SPU1001-5D)
1 stage with communication card	5444022 (SE-SPU1011-5D)
2 stage without communication card	5444023 (SE-SPU1002-5D)
2 stage with communication card	5444024 (SE-SPU1012-5D)

A MAP upgrade to version 4.2.0.801 will be needed to see all new parameters in the new menu structure of 3.3 firmware. This upgrade is available on UPGNET in the equipment catalog under Zoning Systems & Controls>Smart Equipment>Software. The 3.3.1.186 firmware is available at the same location.

Kit S1-32550527000 is now available that includes a flash drive with 3.3.1.186 firmware and a micro USB cable. The flash drive can be used to upgrade controls from 3.2.0.0138. The micro USB cable makes it possible to connect a MAP directly to a computer and upgrade to 4.2.0.801. Instructions for the kit are located on UPGNET in the equipment catalog under Zoning Systems & Controls>Smart Equipment>Accessory Installation Instructions.

Firmware version 3.3.1.186 is included in the new SERT tool located on UPGNET in the equipment catalog under Zoning Systems & Controls>Smart Equipment>Training. We encourage you to download that program and take a look at the new menu while you are getting familiar with the usefulness of the tool.

Please contact Johnson Controls, DX Ducted Systems Technical Support at 1-877-874-7378 with questions you may have.



Robin A. Russo
Sr. Product Application Engineer
Johnson Controls DX Ducted Systems

Todd Bracey

Todd Bracey
Sr. Product Application Engineer
Johnson Controls DX Ducted Systems