Smart Equipment Firmware Update 4.0 Instructions

Date Issued**:** 01/16/20

Below is the step by step process to upgrade firmware on Simplicity Smart Equipment (SSE) to Version 4.0.0.1051.

NOTE: A USB Stick is required for firmware updates on versions 2.0 or newer. The USB stick must be formatted to FAT32 or FAT and be 16 gigabytes or less.

This upgrade process is applicable to older 4 megabyte boards.

Duration from start to finish is roughly 20 to 40 minutes depending on accessory boards present.

1. Save the combined "4.0.0.1051.secusb.pkg" file onto a USB stick.
   a. **NOTE:** This package contains the firmware update for both the Unit Control Board (UCB) and Accessory Control Boards.
2. Disable electrical power to the equipment.
3. Disconnect accessory devices from the primary unit control board (UCB). Accessory devices are connected to the SA Bus Terminal Blocks shown in Figure 1 or the J15 shown in Figure 2. These devices include the Economizer Controller, the 4-Stage Expansion board, and the Fault Detection & Diagnostics (FDD) board.

Figure 1: SA Bus on the Unit Control Board (Must be Disconnected)
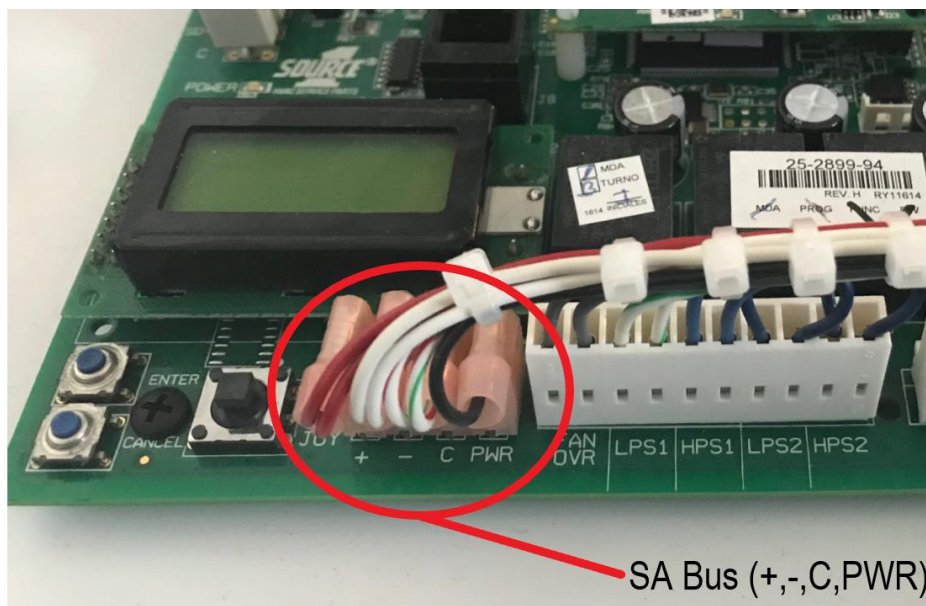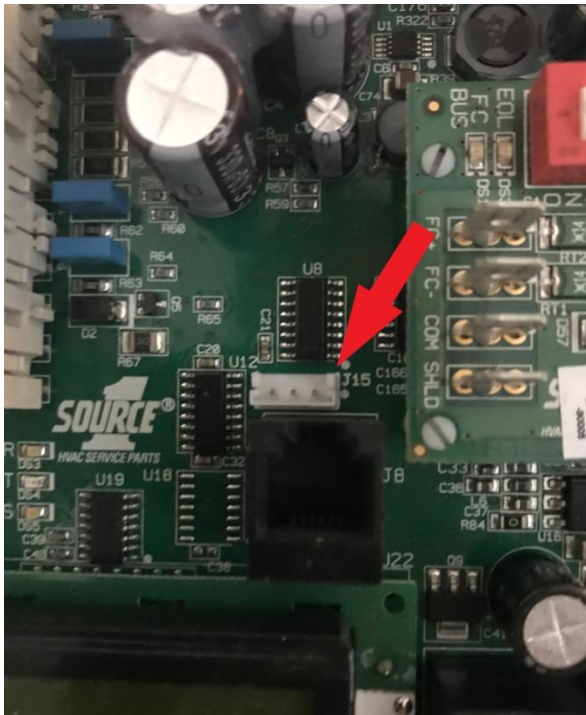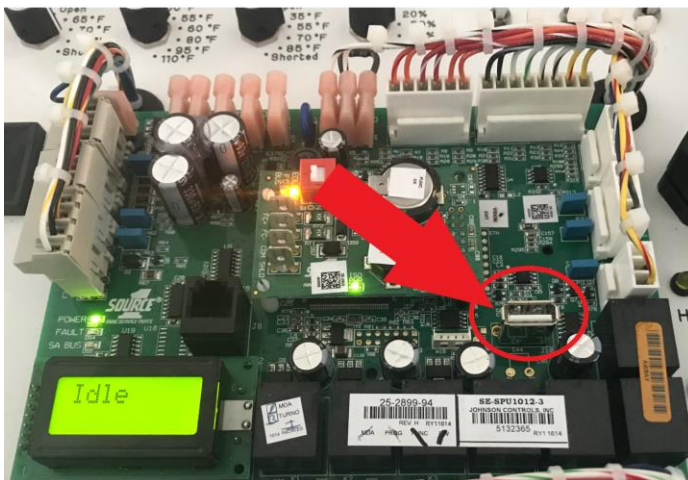

SA Bus (+,-,C,PWR)

Figure 2: J15 Terminal on Unit Control Board (Must be Disconnected)

4. Re-enable electrical power to the equipment.

5. Plug the USB Stick with the 4.0.0.1051 package file from Step 1 into the USB port on the UCB Board shown in Figure 3. The LCD display must read "USB OK."

Figure 3: USB Port on Unit Control Board

6. Through the local LCD display on the UCB with the joystick, navigate and select the firmware package to apply the update: Update>Load Firmware, select and confirm "4.0.0.1051.secusb.pkg." Shown below in Figures 4 through 7.

    a. **NOTE: DO NOT REMOVE THE USB.** While updating, the UCB will reboot twice automatically. Following the first reboot, the UCB will show either a blank home screen or a normal home screen containing some messages (ignore the messages). Roughly 2 minutes later, the UCB will display a message such as "FWU" and then commence a second phase of firmware updates. Upon completion of the second phase, the UCB will reboot a second time.

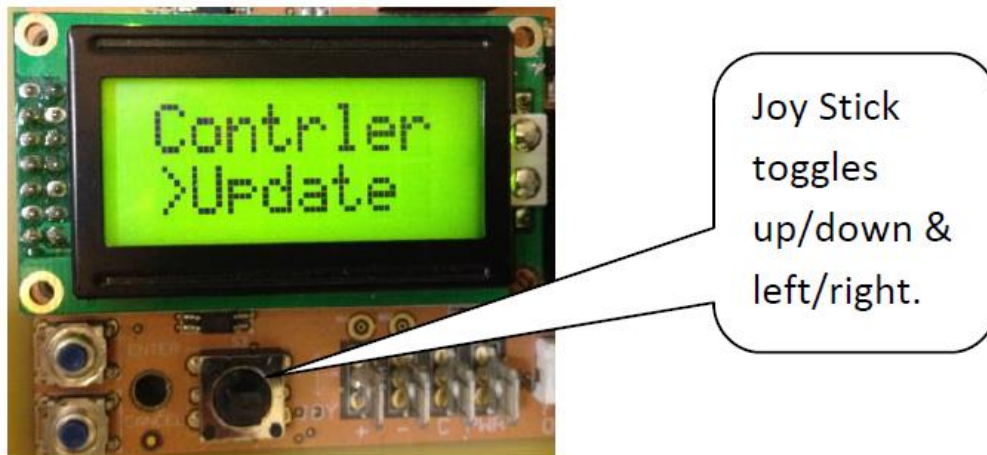**Figure 4: UCB Display Navigation with Joystick Toggle**

Joy Stick toggles up/down & left/right.

Figure 5: UCB Navigation with Enter and Cancel Buttons

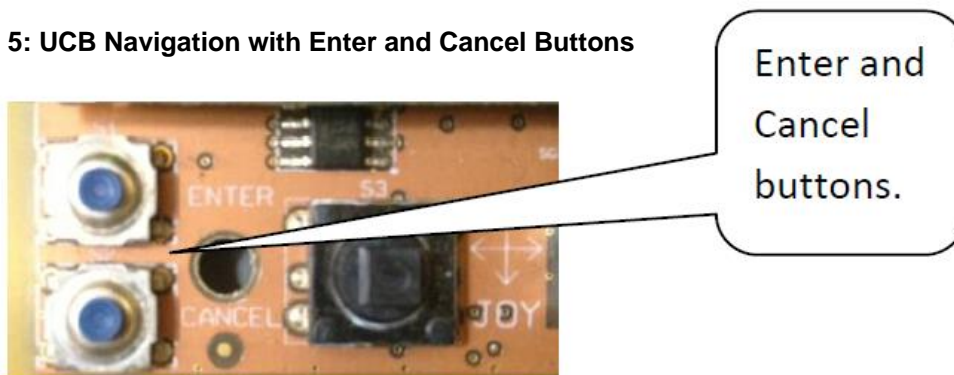

Enter and Cancel buttons.

Figure 6: View Firmware Menu (Displays Current Firmware UCB Version)
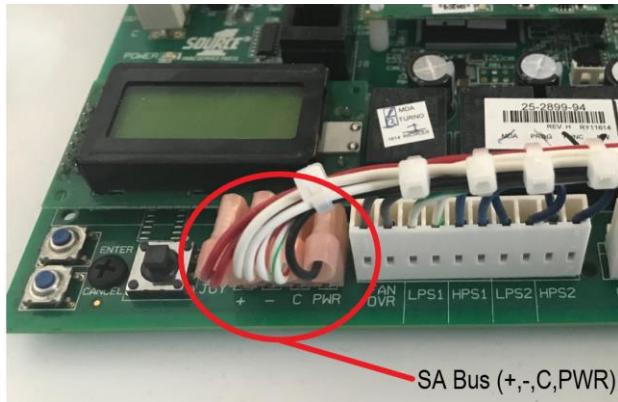

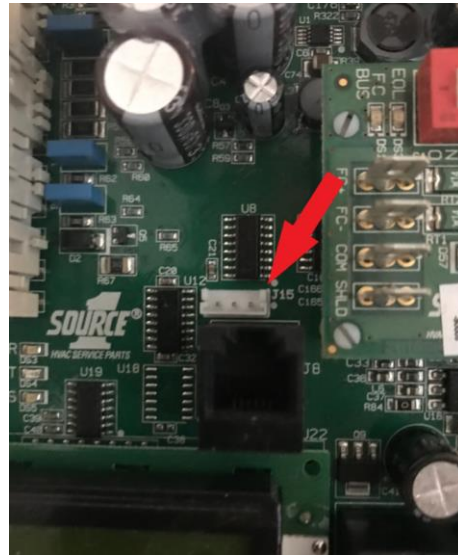**Figure 7: Load Firmware (Selected to do Firmware Updates from USB)**

7. After the second UCB reboot and the boot process, disable electrical power to the equipment again.

8. Reconnect the accessory devices to the SA bus or J15 terminal on the UCB board shown in Figures 8 and 9 below.

**Figure 8: SA Bus on Unit Control Board
(Must be Re-Connected)**

SA Bus (+,-,C,PWR)

**Figure 9: J15 Terminal on Unit Control Board
(Must be Re-Connected)**

9. Re-enable electrical power to the equipment.

    a. **NOTE: STILL DO NOT REMOVE THE USB.** After re-enabling electrical power, in roughly 2-3 minutes the UCB will detect the accessory boards and then proceed to update them if present. **Leave the board alone.** Until the 2-3 minute time elapses, the UCB Display will look like it's under normal operation, then it will proceed to do further updates.

10. Upon completion of the install of the firmware update to the accessory boards, the UCB will automatically reboot for the last time and will be ready for normal operation.

11. Remove USB from the UCB.

For technical assistance, please contact Ducted Systems Technical Services at:
1-877-874-7378

Sincerely,

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