

Stratix Express Setup

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Access Level: Everyone



Question

- How do I perform the Express Setup procedure on the Stratix switches?
- How do I assign an IP address to the Stratix 5700?
- What are the new Express Setup procedure on the Stratix firmware 15.2(4)EA3?

Environment

- Stratix 5700
- Stratix 8000
- Stratix 8300
- Stratix 5400
- Stratix 2500

Answer

For any firmware revision, if you cannot get the switch to enter express mode, factory default the switch and then try express setup again.

Notes:

- Express Setup has a timeout window in which it has to be completed by clicking the submit button
 - For IOS version 15.2(5)EA.fc4 or earlier the timeout is 2 minutes for all express setup modes
 - For IOS version 15.2(6)E0a or later the timeout is around 1 hour for all express setup modes
- If it is done within the window
 - The Setup LED and EIP MOD LED will turn solid green
- If it is not done within the window
 - The Setup LED and EIP MOD LED will still be flashing green or Setup LED will be off.

For IOS version **15.2(4)EA** or earlier, all switches use single-mode Express Setup.

Follow these steps to run single-mode Express Setup:

1. Make sure that at least one switch Ethernet port is available for Express Setup.
 - **Note:** No other devices should be plugged into the switch when doing Express Setup for the first time.
2. Make sure your computer network adapter is set to **Obtain an IP address automatically**.
During Express Setup, the switch acts as a DHCP server. If your personal computer has a static IP address, change your personal computer settings before you begin to temporarily use DHCP.
3. Apply power to the switch.
When the switch powers on, it begins the power-on self-test (POST). During POST, the status indicators flash while a series of tests verify that the switch functions properly. Wait for the switch to complete POST, which takes approximately 3 minutes.
4. Make sure that POST has completed by verifying that the **EIP Mod** and **Setup** LED indicators are flashing green. If the switch fails POST, the **EIP Mod** LED indicator turns red.
5. Press and release the *Express Setup* button. Wait for a few seconds until the status indicator on one of the unconnected switch ports flashes green.
Unlike multi-mode Express Setup, there is no time requirement for when you release the Express Setup button.
6. Connect a Category 5 Ethernet cable from the flashing switch port to the Ethernet port on your personal computer.
 - **Note:** For 1783-BMS4S2SGL or 1783-BMS4S2SGA switches, Port Gi1/1 does not flash during setup, but must be used to connect 1783-BMS4S2SGL or 1783-BMS4S2SGA switches to a computer. Since the switches are all fiber ports, insert a copper SFP module into the Gi1/1 port on the switch then connect a Category 5 Ethernet cable from the SFP module to the Ethernet port on the computer or connect the Gi1/1 port on the switch to the Ethernet port on the computer by using a fiber-to-Ethernet media converter.
7. While the **Setup** LED indicator flashes green, start an Internet browser session on the personal computer.
8. The switch prompts you for the default switch username and password.
9. There is no default username, leave the username field blank then enter the default switch password, `switch`. If `switch` doesn't work use the password, `password`.
 - If the window does not appear, do the following:
 - Enter the URL of a well-known website in your browser to be sure the browser is working correctly.
 - You may also enter the URL to access the Express Setup page directly:
 - `http://169.254.0.1/express-setup.htm`
 - Your browser will then automatically be directed to the Express Setup web page.
 - Verify That any wireless interface is disabled on your personal computer
10. Enter the desired IP address, subnet mask, and (optional) Default Gateway in the **Network** settings.
11. Click *Submit*
12. The web page pop up will require you to sign in again using the new username and password.
 - If the pop up doesn't appear check the following:
 - Verify the pop up blocker is disabled on the webpage
 - Verify the antivirus software is disabled or at the very least the pop up blocker is disabled within the software

13. To complete the Express Setup process, unplug the computer from the switch and wait until the **Setup** LED indicator turns completely off.
14. Change your network adapter to a static IP address in the same network as the switch and re-connect to the switch port.
15. Now re-launch the web browser to the switch using the new IP address set for the switch in step 10.

For IOS version **15.2(4) EA3**, switches use multi-mode Express Setup.

The new firmware **15.2(4)EA3** introduces the multi-mode Express Setup press which means the mode is determined by how many seconds the Express Setup button is held in. All the steps from above are still valid except for step 5 Press and release the *Express Setup* button. See the multi-modes below along with their features.

- Short Press mode—You want to use Express Setup to enter the initial IP address of the switch. You can then configure additional network settings via Device Manager. To run Short Press mode, press and hold the Express Setup button until the Setup status indicator flashes green during seconds 1...4, and then release.
 - Follow all the steps from above section.
 - Note: If a non-default configuration already exists on the switch and you do the Short Press mode, it will cause the Setup LED go solid red for 10 seconds. You will have to do a factory defaults first to clear the non-default configuration then do the Short Press mode to get back into Express setup. This behavior is working as designed as stated per the [Stratix Managed Switches User Manual](http://literature.rockwellautomation.com/idc/groups/literature/documents/um/1783-um007_-en-p.pdf) (http://literature.rockwellautomation.com/idc/groups/literature/documents/um/1783-um007_-en-p.pdf) Publication 1783-UM007 on Page 35.

If you are looking in the CLI you will see the following error message:

```
%CLS_ACC-2-SETUP_BTN_PRS: setup/admin button pressed
%CLS_ACC-3-UNABLE_TO_RESET_CONFIG: Switch already has configuration's cannot enter Express
Setup
%CLS_ACC-2-MODE EXITED: Complete consoleless access from mode EXPRESS SETUP
```

```
S5700-AdvEIP>
*Jan 1 19:14:24.714 EST: %CLS_ACC-2-SETUP_BTN_PRS: setup/admin button pressed
S5700-AdvEIP>
*Jan 1 19:14:24.714 EST: %CLS_ACC-3-UNABLE_TO_RESET_CONFIG: Switch already has configuration's cannot enter Express S
etup
S5700-AdvEIP>
*Jan 1 19:14:34.747 EST: %CLS_ACC-2-MODE EXITED: Complete consoleless access from mode EXPRESS SETUP
```

- Medium Press mode—You want to use a DHCP server to assign the switch an IP address. You can then configure additional network settings via Device Manager or the Logix Designer application. To run Medium Press mode, press and hold the Express Setup button until the Setup status indicator flashes red during seconds 6...10, and then release.
 - The Setup status indicator flashes green during seconds 1...5, and then red during seconds 6...10.
 - The switch broadcasts a DHCP request out of all ports on VLAN 1.
 - VLAN 1 is configured with the IP address returned by the DHCP server.
 - CIP is enabled on VLAN 1 with CIP security password set to switch.

- Long Press mode—You want to reset the switch to use factory default settings. To run Long Press mode, press and hold the Express Setup button until the Setup status indicator flashes alternating green and red during seconds 16...20, and then release.
 - Upon release of the Express Setup button, the switch restarts with factory default settings.

Table 10 - Multit-mode Express Setup Modes

Attribute	Short Press Mode	Medium Press Mode	Long Press Mode
Enable method	Press and hold the Express Setup button until the Setup status indicator flashes green during seconds 1...5, and then release.	Press and hold the Express Setup button until the Setup status indicator flashes red during seconds 6...10, and then release.	Press and hold the Express Setup button until the Setup status indicator flashes alternating green and red during seconds 16...20, and then release.
		Between seconds 11...15 and after 21 seconds, the Setup status indicator turns off. If you release the Express Setup button while the Setup status indicator is off, no Express Setup mode is enabled.	
Setup status indicator	Flashes green between seconds 1...5.	Flashes red between seconds 6...10.	Flashes green and red between seconds 16...20.
Function	<ul style="list-style-type: none"> • The Express Setup management interface is selected. • The switch acts as a DHCP server on VLAN 1000 with an address of 169.254.0.1. • Once the DHCP session is successfully established, the switch assigns the computer an IP address of 169.254.0.2 on VLAN 1000. • The default login credentials are set to the following: <ul style="list-style-type: none"> – User name: [no user name/blank] – Password: switch • Express Setup parameters are completed via Device Manager. 	<ul style="list-style-type: none"> • A DHCP client request is sent out of all switch ports on VLAN 1. • VLAN 1 is configured for the IP address returned by DHCP. • The default login credentials are set to the following: <ul style="list-style-type: none"> – User name: [no user name/blank] – Password: switch • CIP (Common Industrial Protocol) is enabled on VLAN 1 with the CIP security password set to switch. • Express Setup parameters are completed via Device Manager or the Logix Designer application. 	<ul style="list-style-type: none"> • All configuration settings (config.text, vlan.dat, and private-config.text files) in internal memory or on the SD card or CompactFlash card are reset to factory defaults. • The switch restarts with factory default settings.

Note: Do not perform Express Setup while a process is running.

For more information on Express Setup and the network settings see the [Stratix Managed Switches User Manual](http://literature.rockwellautomation.com/idc/groups/literature/documents/um/1783-um007_-en-p.pdf) (http://literature.rockwellautomation.com/idc/groups/literature/documents/um/1783-um007_-en-p.pdf) Publication 1783-UM007.

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