

Factory Reset

Switch

Connect

1. Connect to the device via serial console¹⁾:

```
$ cu -l </dev/ttyUSB0> -s <9600>
```

2. If there is garbage output:

[illegible]

1. Reconnect to the device via serial console with these baud rates, until output is readable:
 - 9600
 - 4800
 - 1200
 - 2400
 - 19200
 - 38400
 - 57600
 - 115200
2. Physically restart device.
3. During boot phase, hold MODE button until `switch:` prompt appears.
4. Change device baud rate:

```
switch% set BAUD 9600
```

5. Reconnect to the device via serial console with baud rate 9600.
6. Restart device to leave ROMMON mode:

```
switch% reset
```

Erase Configuration

1. Access privileged mode:

```
> enable
```

2. If privileged mode is password protected:

1. Physically restart device.
2. During boot phase, hold MODE button until switch: prompt appears.
3. Delete configuration file and continue booting device:

```
switch% flash_init
switch% delete flash:config.text
Are you sure you want to delete "flash:config.text" (y/n)?> y
switch% boot
```

3. Check, if there is any configuration present:

1. Show all file systems:

```
# show file systems
File Systems:
      Size(b)      Free(b)      Type  Flags  Prefixes
*   15998976      3329536      flash    rw  flash: flash1:
...
      524288       523212      nvram    rw   nvram:
...
```

2. Show NVRAM memory (3rd column should contain 0):

```
# dir nvram:
Directory of nvram:/
 510  -rw-   0  no date  startup-config
 511  ----   0  no date  private-config
```

3. Show FLASH memory (vlan.dat should not be present):

```
# dir flash:
```

4. If configuration is present, delete device configuration:

```
# write erase
# delete vlan.dat
```

Router

Connect

1. Connect to the device via serial console:

```
$ cu -l </dev/ttyUSB0> -s <9600>
```

2. If there is garbage output:

```
6=v1;T5 7=T W%G4 1 1U7
w3!7 7G Gv!
19] Z45G v!
f vu% V5Z +7 3$ F) 7F) .P3
q ZT+ U n 7 = 63 G / ! w WW ? : 37
6# Ku) x 4 g 7
R w9 ? JV Z U r z ; s ! e47
) v 7=Q u7
```

1. Reconnect to the device via serial console with these baud rates, until output is readable:
 - 9600
 - 4800
 - 1200
 - 2400
 - 19200
 - 38400
 - 57600
 - 115200
2. Physically restart device.
3. During boot phase, press **Break**^[2] (type ~# if using cu command) or try **Ctrl+C**.
4. Change device baud rate:

```
rommon> confreg
Configuration Summary
(Virtual Configuration Register: 0x21)
enabled are:
break/abort has effect
console baud: 19200
boot: the boot helper image

do you wish to change the configuration? y/n [n]> y
enable "diagnostic mode"? y/n [n]> n
enable "use net in IP bcast address"? y/n [n]> n
enable "load rom after netboot fails"? y/n [n]> n
enable "use all zero broadcast"? y/n [n]> n
disable "break/abort has effect"? y/n [n]> n
enable "ignore system config info"? y/n [n]> n
change console baud rate? y/n [n]> y
0=9600, 1=4800, 2=1200, 3=2400, 4=19200, 5=38400, 6=57600,
7=115200
```

```
enter rate [4]> 0
change the boot characteristics? y/n [n]> n

          Configuration Summary
    (Virtual Configuration Register: 0x1)
enabled are:
break/abort has effect
console baud: 9600
boot: the boot helper image

do you wish to change the configuration? y/n [n]> n

You must reset or power cycle for new config to take effect
```

5. Restart device to apply changes:

```
rommon> reset
```

6. Reconnect to the device via serial console with baud rate 9600.

Erase Configuration

1. Access privileged mode:

```
> enable
```

2. If privileged mode is password protected:

1. Physically restart device.
2. During boot phase, press **Break** (type ~# if using cu command) or try **Ctrl+C**.
3. Set configuration register³⁾ to use NVRAM configuration (0x2142) and restart leave ROMMON mode:

```
rommon> confreg 0x2142
rommon> reset
```

3. Check, if there is any configuration present:

1. Show all file systems:

```
# show file systems
File Systems:

      Size(b)      Free(b)      Type  Flags  Prefixes
...
      262136       254916      nvram    rw    nvram:
...
* 255537152 111308800 usbflash    rw  usbflash0: flash:
```

2. Show NVRAM memory (3rd column should contain 0):

```
# dir nvram:
Directory of nvram:/

 254  -rw-   0  no date  startup-config
 255  ----   0  no date  private-config
 256  -rw-   0  no date  underlying-config
...
```

3. Show FLASH memory (vlan.dat should not be present):

```
# dir flash:
```

4. If configuration is present, delete device configuration:

```
# write erase
# delete vlan.dat
```

5. Check if correct configuration register (0x2102) is used:

```
# show version | i register
Configuration register is 0x2102
```

6. If there is different configuration register:

1. Restart device:

```
# reload
```

2. During boot phase, press **Break** (type ~# if using cu command) or try **Ctrl+C**.
3. Set configuration register to use NVRAM (configuration) and restart device to leave ROMMON mode:

```
rommon> confreg 0x2102
rommon> reset
```

¹⁾

Linux serial devices:

<https://unix.stackexchange.com/questions/307390/what-is-the-difference-between-ttys0-ttyusb0-and-tyama0-in-linux>

²⁾

Pause/Break key alternatives: https://en.wikipedia.org/wiki/Break_key#Keyboards_without_Break_key.

³⁾

Cisco router configuration register values:

<https://www.cisco.com/c/en/us/support/docs/routers/10000-series-routers/50421-config-register-use.html#anc6>.

From:

<http://localhost/> - **Wiki**

Permanent link:

http://localhost/cisco/factory_reset

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