

# Troubleshooting

- Phone Does Not Boot

# Phone Does Not Boot

Well well well. You've bricked the phone.  
Well done.

This can happen when you become a little too curious about what the `fmt` commands do.

All is not lost, you can most likely recover the phone with a bit of effort.

## Requirements

- Access to the phone's UART debugging interface
- A `tftp` server
  - I used the inbuilt one with `truenas`.
- A copy of some firmware. (See `JackGit`)

## Steps

- Configure your tftp server and place the `.bin` file from the firmware zip file inside the root directory.
- Access the phone's UART debug interface
- Power on the phone.
  - If the phone cannot boot it will enter into the bootloader (`PSPBoot`) shell, `psbl`.
  - You should see something similar to this.
  - *NOTE: If you mistype a command the shell will hang and the device will need to be power cycled. This gets annoying fast. Good luck!*

Basic POST completed... Success.

Last reset cause: Hardware reset (Power-on reset)

PSPBoot1.4 rev: 1.4.0.6

(c) Copyright 2002-2008 Texas Instruments, Inc. All Rights Reserved.

Press ESC for monitor... 1

(psbl)

- Next set the following environment variables:
  - The static IP Address of the phone:
    - `setenv IPA 192.168.1.200`
  - The subnet mask:
    - `setenv SUBNET_MASK 255.255.255.0`
  - The MAC address:
    - `setenv HWA_0 aa:aa:aa:aa:aa:aa`
  - The MAC port:
    - `setenv MAC_PORT 0`
  - I'm not 100% sure you need to do this but I haven't checked.
- You should be ready to upgrade the firmware.
  - `upgrade -i <TFTP_SERVER_IP> spa50x-30x-7-4-6.bin`
- If successful, you'll see the new firmware be written to memory.

```
(psbl) upgrade -i 192.168.1.5 fw.bin
Validate firmware successful
Cannot upgrade bootloader in bootloader/recovery
Cannot upgrade bootloader in bootloader/recovery
Programming sector:3
Programming sector:4
Programming sector:66
Programming sector:67
Programming sector:68
Programming sector:69
Programming sector:70
Programming sector:71
Programming sector:72
...
Programming sector:125
Programming sector:126
Programming sector:127
```

- Finally, reboot the phone by either:
  - Power cycle
  - `reboot`

You will know the process will have worked when you see something like this:

```
Booting...
Attached TCP/IP interface to dummy unit 254
Attaching network interface lo0... done.

Adding 8763 symbols for standalone.
```

CPU: TI TNETV1057 Communication Processor. Processor #0.

Memory Size: 0xffe000. BSP version 7.2.7.20.

```
=====
Board      : TI TNETV1057 Communication Processor
SOC        : Titan, ChipId: 0x7, Version: 2
Cache      : Write-Back, Write-Allocate
PSP Version : 7.2.7.20
Type       : BasePSP 7.2.7.20 Patch
PSPWIZ Version : 0.5
MIPS freq  : 87500000 Hz,
System Freq : 87500000-> Hz,
VBUS freq   : 81250000 Hz
BasePSP mode : Routing
=====
```

Model no: 2

appCreate: autoBootLevel=2

MXP environment is created.

About to create Idle Task

About to create Measurement Task

Idle Measurement Tasks created

Panic button enabled

Heartbeat started

Creating Golden Gateway application...

Creating fs:/tmp 3145728

Decompress app module.... done

appmodule len=2642000

Creating fs:/DR 16384

/DR created

decompress constdat successfully:520624

flash\_init . . .

-- flash\_raw\_init . . .

-- flash\_fstr\_init . . .

-- flash\_fsm\_init . . .

-- flash\_license\_init . . .

-- flash\_fpar\_init . . .

-- flash\_custom\_init . . .

-- flash\_fprv\_init . . .

-- flash\_dhcp\_prov\_init . . .

flash\_init done

