**Overview:**

* Hardware troubleshooting the QNAP NAS.

**1. QNAP NAS will not power up.**

**checklist:**

* unplug/swap memory and try to power on the NAS. If memory issue, removing it will be able to power on the NAS even without memory installed.
* swap power supply and test to power it on.
* Swap out motherboard.

**2. NAS does not fully boot up with HDD**

If user cannot boot the NAS up with the HDD plugged in, do the following test:

1. Reboot the NAS and check for the following beeps:

**a.** 1 beep after 10-15 second of first powering on the NAS. If you hear if, go on to next step.

**b.** 1 beep after 2-3 minutes of boot up. If you do not hear it, go to troubleshoot step for **2.** **Boot up without HDD test** below.

**c.** If you get both beeps, NAS should be functional, have user check their network and make sure the NAS is plugged into the network.

**2. Boot up without HDD test**

**a.** Boot the NAS without the HDD plugged in and check the following beeps:

**b.** 1 beep after 10-15 second of first powering on the NAS. If you hear it, go on to next step.

**c.** 1 beep after 2-3 minutes of boot up. If you hear both beep, then the NAS if functional.

If user only hear the first beep but not the second beep, then it's a firmware problem. Replace the DOM with the one included in the box.

If user hears no 1st beep at all, the NAS is defective. Need to follow the steps to determine faulty part below.

**3. No first beep, hardware replacement needed:**

**checklist:**

* swap memory and try to power on the NAS.
* swap power supply and test to power it on.
* Swap out motherboard.

**4. HDD not detected in QNAP NAS:**

**checklist:**

* Reboot the NAS
* try secondary drive
* If above fails, try this test:

1. Boot up without HDD. Take the HDD and plug it into another bay. If still does not pick it up, try with a different drive. If the same, should be motherboard or backplane issue. If secondary drive gets detected, should be HDD issue.

2. Boot up without HDD. Take the HDD and plug into the same slot. If not detected, try different slot. If it picks up, should be motherboard or backplane issue.