



**TerraMaster TNAS**

# **Fundamentals & Preliminaries**

**Model:F2-NAS 2/F4-NAS**



# Contents

- 1. Overview ..... 2
- 2. Hardware ..... 2
  - 2.1 Package list ..... 2
  - 2.2 Appearance ..... 3
  - 2.3 Indicator and Beeper ..... 3
  - 2.4 Hard Disk Installation ..... 4
  - 2.5 Connection ..... 5
- 3. Software ..... 5
  - 3.1 Tcloud Application ..... 6
  - 3.2 TOS ..... 7
- 4. Initialization ..... 8

# 1. Overview

TNAS is the collective name of TerraMaster Network Storage. The TNAS product includes hardware, OS and other auxiliary applications and combines the software with hardware. The TNAS product has powerful function and complicated configurations. You should carefully read the instructions prior to operation. For any questions, please visit “Help Center” at the TerraMaster official website, or contact the technical support team of TerraMaster.

After you receive your new TerraMaster TNAS product, please first log into the TerraMaster website [www.terra-master.com](http://www.terra-master.com), find the “Installation Guide” page, and install and set the TNAS according to the “Installation Guide.”








Due to improvement and demand of this product, appearance, design and specification may be subject to change without prior notification.

Images and illustrations in this instruction manual may be slightly different from the actual product, so please refer to the actual objects.

# 2. Hardware

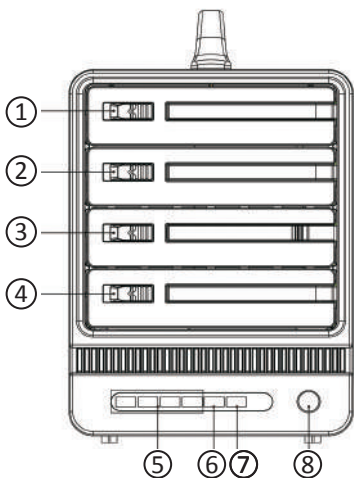
## 2.1 Package list

After new TNAS is received, please check if the package includes the following articles. If any article is missing, please contact the reseller quickly.

TNAS host *1	Power core *1	Power adaptor*1	Several screws
			
	Installation guide *1	Network core *1	Product brochure (optional)
			

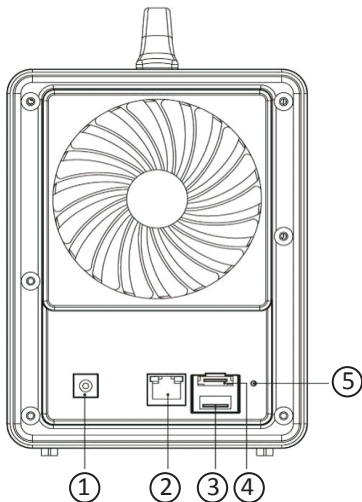
2.2 Appearance

Panel illustration (e.g., F4-NAS):



- ① ~ ④ :Hard disk tray for fixing hard disk;
- ⑤ :hard disk indicator;
- ⑥ :network indicator;
- ⑦ :e-SATA indicator;
- ⑧ :power switch/power indicator;

Rear cover illustration (e.g.,F4-NAS):



SN	Interface	Description
①	Power interface	DC 12V power input: Prompt: Do not use the non-original plant power adaptor. Otherwise, the device may be damaged!
②	Network interface	1000M/100M/10Mbps network interface.
③	USB 2.0 HOST	Connect USB storage device, printer or USB wireless adaptor.
④	e-SATA interface	Connect e-SATA storage device.
⑤	RESET interface	Hold it for 5s and recover the default factory setting.

2.3 Indicator and beeper

SN	Indicator	Description
⑤	Hard disk indicator	1.Red indicator: it indicates power on or hardware failure. 2.Purple indicator: the hard disk is under preparation status and cannot be used. 3.Blue indicator: the hard disk is under normal operation status. 4.Blue indicator flickering: it is reading the data. 5.Off: no hard disk is detected.
⑥	LAN network indicator	1 Blue indicator: connect the network normally. 2 Blue indicator flickering: in data reading. 3 Off: the network is not connected. Note: 2-disk TNAS has no such indicator.
⑦	Power indicator	1. On: power on status. 2. Off: power off status.

Beeper	Description
Short beeping	1) Booting completed. 2) System shutdown. 3) Enter hard disk degradation mode. 4) Software updated.
Long beeping	1) Booting completed. 2) In shut-down. 3) Abnormal fan. 4) The hard disk storage space is full.

## 2.4 Hard disk installation

TNAS is installed with the hard disk or without hard disk. Different models can be selected in case of purchase. After the TNAS with hard disk is initialized, it can be used. For TNAS without hard disk, a user should purchase hard disk by himself. After hard disk installation and product initialization, TNAS can be used. TNAS should be installed with 3.5 inch SATA hard disk. TNAS is the storage device, which will operate for a long period, so the high-standard hard disk is required. Please log into the TerraMaster official website, read “Hard Disk Compatibility,” and select correct hard disk for TNAS.

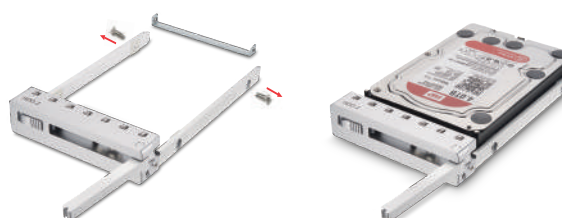
### Hard disk installation method

E.g., for model F4-NAS, the hard disk of other TNAS models can be installed in the same way.

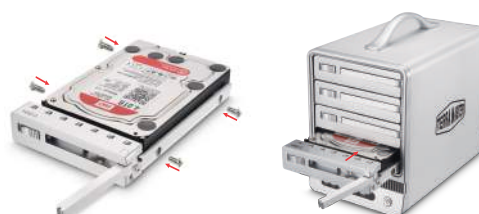
1. Shown as the arrow, push the lock of the hard disk tray left, automatically eject the pull handle on the tray, grasp the pull handle, and draw the hard disk tray from TNAS.



2. Loosen two screws on the rear side of the tray and take away the iron rod. This iron rod is to prevent the tray from damage in transportation. After the hard disk is installed, it can be discarded. The hard disk should be placed on the tray. The front side of the hard disk is facing upward.



3. Fix the hard disk and tray by using screws and insert the tray into TNAS along the track. When the tray is inserted, please open the handle and keep the handle under the straightening status. Otherwise, the hard disk may not be installed to the correct position.



4. After the tray is fully inserted, the handle should be closed and the hard disk installation is completed. The hard disk is installed by referring to the above steps.



## 2.5 Connection

Before TNAS can normally work, it should connect the network and power.

### Connection method:

#### Step 1:

Connect TNAS to the network by using a network cable. The connected network devices include the router, hub, or switch. If you expect to connect TNAS to the network via Wi-Fi, please purchase the USB wireless network adapter specified by TerraMaster.

#### Step 2:

please connect the TNAS to the power by using a power adapter. The power adapter provides 12V DC to TNAS. Key tip: do not use the non-original power adapter of the plant. Otherwise, the device may be damaged and the physical body may be endangered in an extreme case!

#### Step 3:

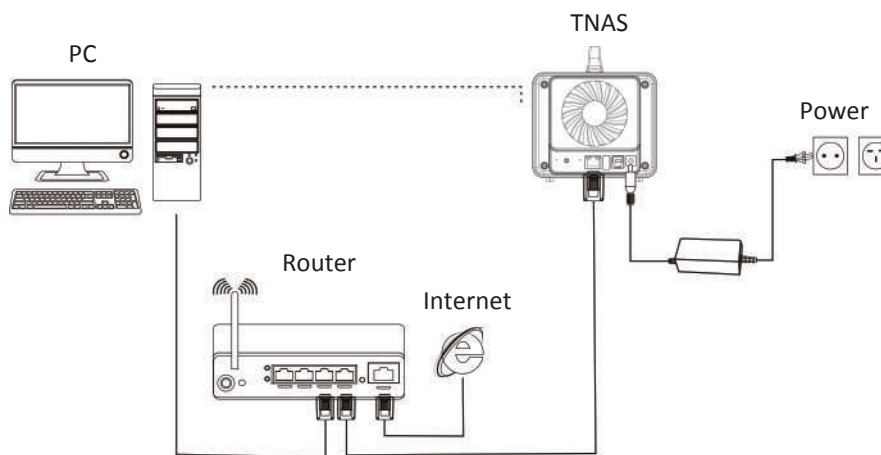
Press the power button. When the power is connected, TNAS power indicator is on.

#### Step 4:

If the hardware operates normally and TNAS powers on, the hard disk indicator will temporarily display red, then display purple, and finally display blue. If the hardware indicator displays red all the time, it indicates that the hard disk is abnormal. The hard disk may be damaged, or the hard disk is not compatible to TNAS. If this case occurs, please make TNAS power off, plug off the hard disk, plug the hard disk again, and power on. If the hardware indicator still displays red, please replace the hard disk and try again.

#### Step 5:

Check if the network indicator of TNAS and network equipment (router, hub or switch) displays normal connection. If it does not, please reconnect or replace the network cable and reconnect it. If the network is connected, the device connection is completed and the user can enter the next step.



## 3. Software

Before using TNAS, two softwares should be downloaded and installed.

1. Tcloud desktop application: auxiliary software specially designed for easy use of TNAS.
2. TOS operate system: TOS specially designed for TNAS. Without TOS, TNAS cannot work.

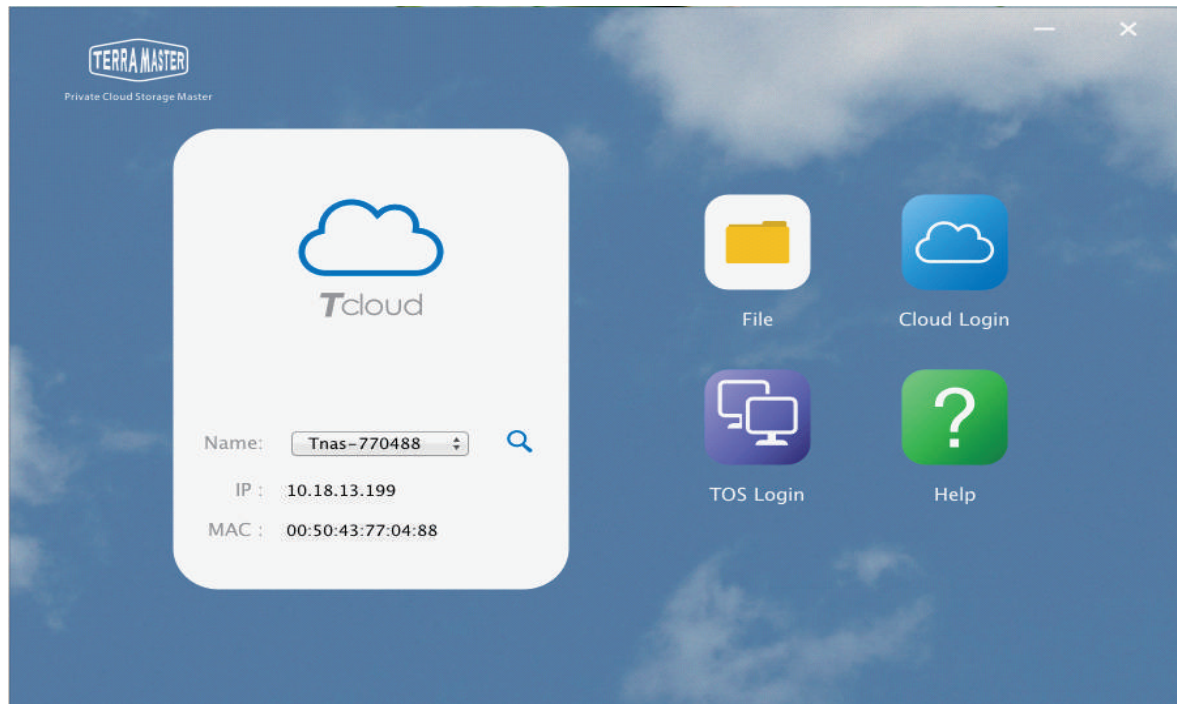
### 3.1 Tcloud application

The Tcloud application is the auxiliary software to facilitate users to use TNAS. TerraMaster designs Tcloud application for Windows OS, MAC OS, Android and iOS OS.

#### Download and install Tcloud application:

Before TNAS is initialized, Tcloud for Android OS and iOS OS cannot be used. You should first download Tcloud desktop application based on Windows or MAC OS to assist you to complete connection and setting of PC and TNAS. Please visit “download center” at [www.terra-master.com](http://www.terra-master.com), select correct TNAS model, and download Tcloud application on the download page.

#### Functions of Tcloud desktop application:



1. Search: once TNAS application is opened, it will automatically search all TNAS devices in a LAN and list its name, IP address, and MAC address. You can select any TNAS for login. Note: only when TNAS and PC are within a same sub-network, TNAS can be searched by TNAS application.
2. TOS login: To click this option, you can enter TOS login page. After a user inputs a correct user name and password, he can log into TOS.
3. File manager: This function is a convenient means for a user to visit the shared folders of TNAS. To select the TNAS for login under this function menu and input a user name and password, you can log into the TNAS shared folders.
4. Cloud login: a user can remotely access TNAS via Internet. Before using this function, an administrator should enable remote login privilege for the user.
5. Help: To click “Help” menu: a user can enter the help center and get the problem answer and technical support.

### 3.2 TOS

#### 1. What is TOS?

TerraMaster Operating System is called as TOS and is an OS specially developed for TNAS. TOS provides intelligent and friendly user interface, includes multiple applications for houses and enterprises, assist the users to easily realize storage management, safety backup, multimedia entertainment and sharing, remote access and downloading.



## 2. TOS installation

The new TNAS should be initialized prior to use. Before initialization starts, if TNAS is connected to the Internet, the system will automatically detect the TOS version. If any new version is found, the system will boot the user to upgrade TOS software. You can manually update TOS software at any time after initialization. For update method of TOS, please refer to the “software update” in the “Operation Instruction” chapter in the instruction.

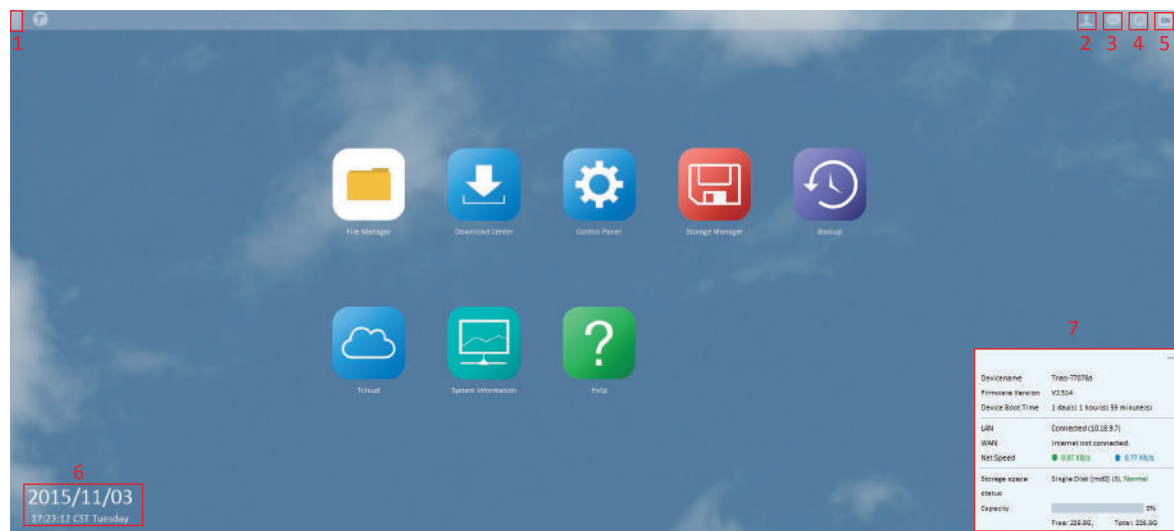
## 3. TOS login

To use more functions of TNAS, or make more advanced setting for TNAS, you should log into TOS via the administrator account. The default factory administrator name: admin. The initial password: admin.

You can log into TOS via two means:

- 1) Log in via Tcloud desktop application: run the Tcloud application on PC, find TNAS device in the network, select the searched TNAS, click “Log in”, input user name and password to log in.
- 2) Log in via TNAS IP address: input IP address of TNAS at the browser URL field, e.g. <http://192.163.1.100>, you can enter TOS login interface. IP address of TNAS can be obtained in Tcloud application.

## 4. Introduction to TOS desktop function



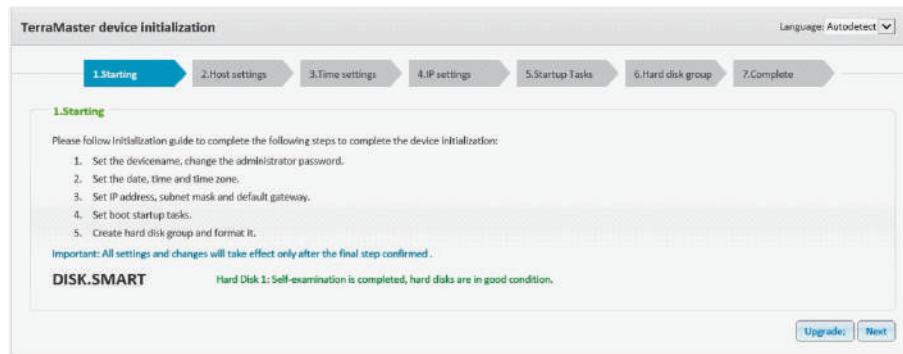
1. Home: To click this flag on any page, you can return to TOS homepage.
2. User setting: you can perform operations such as “user setting”, “restart”, “shut down” and “exit from login.”
3. Notification: display the notification pushed by the server to TNAS.
4. Status: display and hide the system status bar.
5. Language: set the display language on TOS menu.
6. Time: display the date and time of TNAS system.
7. System status: display some main information on TNAS, including device name, software version, boot time, LAN and Internet connection status, storage status, and capacity.

## 4. Initialization

The system data of TNAS is stored on the hard disk. If the newly purchased TNAS or TNAS with replaced new hard disk cannot boot due to no system data, it should be initialized.



TNAS initialization steps: 1. Host setting > 2. Time setting > 3. Network Setting > 4. Startup tasks setting > 5. Hard disk group creating > 6. Complete.



### Detailed explanation of initialization steps and guidance:

Before TNAS is initialized, you should complete TNAS hardware installation and connection, download TNAS desktop application to the PC.

#### 1. Search TNAS:

Please run Tcloud desktop application on PC, click “Search” option on the menu, and search TNAS device in the network. To select the TNAS name to initialize from the searched TNAS list, and click “TOS login.” If the TNAS is not initialized, the system will enter the initialization booting page. Note: only when TNAS and PC are in a same subnetwork, TNAS can be searched by the Tcloud application.

#### 2. Detect hard disk:

TNAS will detect the health status of the hard disk. If the result displays normal, please click “Next step.” If the hard disk detection result displays risk, the risky hard disk should be replaced. TNAS supports the hard disk hot-plug. The hard disk can be replaced directly without power off. After the hard disk is replaced, please click “Detect again.”

#### 3. TOS update:

If your TNAS is connected with Internet, the system will automatically detect the available latest TOS software version. If it is available, please click “Update.” After TOS completes the update, TNAS will restart. After TNAS restarts, please search TNAS with Tcloud application software again.

#### 4. Basic settings:

Please complete basic settings of TNAS according to prompt, e.g. host setting, time setting, network setting, and startup tasks setting, and click “Next Step”.

#### 5. hard disk group:

Please select the type of the hard disk group, then select the hard disk for creating the group, and click “OK.” When the hard disk group is created, the hard disk will be formatted. Please back up data on the hard disk and click “Next step.”

#### 6. Complete

After the set information is correct, click “Complete” TNAS will enter initialization flow until completion.

Note: the initialization time will depend on the group type and hard disk capacity. Single-hard disk group will require about 10-40 minutes. If two 2TB hard disk are used to create RIAD 1 group, the time is about 120 minutes or longer. When the RAID1, RAID5, RAID6 or RAID10 group are created, the data will be synchronized after initialization. Over 10 hours will be required. Please wait. After 100% progress displays, other operations can be performed.