T19 Hydro Server Installation Guide

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1. Overview

The T19 Hydro server is one of the Bitmain's newest versions in the 19 hydro server series. Power supply APW11 is part of T19 Hydro server. All T19 Hydro servers are tested and configured prior to shipping to ensure easy set up.



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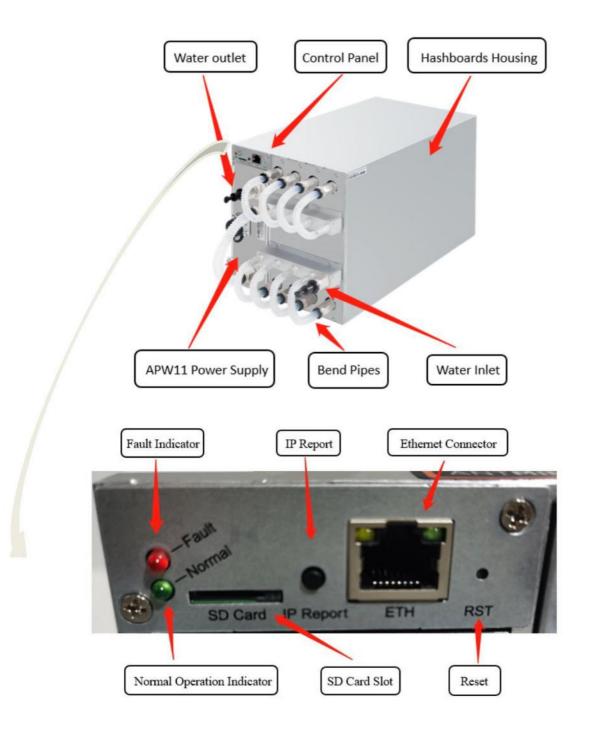
Caution:

- 1. Please refer to the layout above to place your goods in usage in case of any damage.
- 2. DO NOT remove any screws and cables tied on the product.
- 3. Please note that the actual server shall prevail.
- 4. There must be an external specific Surge Protection device complying with IEC/EN 61643-11 either in front of the power supply or outside the end system (in a separate distribution box or as part of the building installation).
- 5. Do not plug or remove the device when it is powered on.

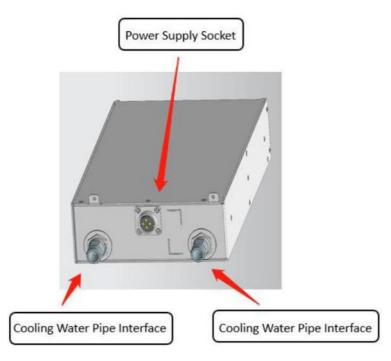
6. The external of the power supply shall have a disconnecting device, which can disconnect L1&L2&L3 simultaneously.
7. The T19 Hydro server shall be used simultaneously with the ANTSPACE HK3. Please click <u>here</u> for more details of ANTSPACE HK3.

1.1 T19 Hydro Server Components

The main components and control panel of T19 Hydro servers are shown in the following figure:



APW11 Power Supply:



Note:

Power supply APW11 is part of T19 Hydro server. For detailed parameters, please refer to the specifications below.

1.2 Specifications

Product Glance Value							
Version		T19 Hydro					
Model		208-A					
Crypto Algorithm/Coins	SHA256/BTC/BCH						
Hashrate, TH/s	119 ± 3%	125.5 ± 3%	132 ± 3%	138.5 ± 3%			
Power on wall@Tj65°C, Watt (1-1)	4463 ± 5%	5194 ± 5%					
Power efficiency on wall @Tj65°C, J/TH (1-1)	37.5 ± 5%	37.5 ± 5%	37.5 ± 5%	37.5 ± 5%			

Detailed Characteristics	Value
Powe	r Supply
Power supply AC input voltage, Volt (2-1)	342~418
Power supply AC Input Frequency Range, Hz	47~63
Power supply AC Input current, Amp ₍₂₋₂₎	30
Hardwar	e Configuration
Network connection mode	RJ45 Ethernet 10/100M
Server Size (Length*Width*Height, w/o package), mm	410*196*209
Server Size (Length*Width*Height, with package), mm	570*316*430
Net weight, kg	15.2
Gross weight, kg	17.5
Environme	nt Requirements
Operation temperature, °C (2-3)	0~40
Inlet water temperature, °C	20-40
Water flow L/min	8±10%
Water pressure bar	≤3.5
Storage temperature, °C	-20~70
Operation humidity(non-condensing), RH	10~90%

Notes:

- (1-1) Inlet water temperature
- Caution: Wrong input voltage may probably cause server damaged Three-phase AC input, 10A per wire Operation altitude is recommended below 2000m (2-1)
- (2-2) (2-3)

2. Setting up the Server

To set up the server:



The file IPReporter.zip is supported by Microsoft Windows only.

1. Go to the following site:

https://shop.bitmain.com/support.htm?pid=00720160906053730999PVD2K0vz0693

- 2. Download the following file: IPReporter.zip.
- 3. Extract the file.

i

The default DHCP network protocol distributes IP addresses automatically.

- 4. Right-click IPReporter.exe and run it as Administrator.
- 5. Select one of the following options:
 - Shelf, Step, Position suitable for farm servers to mark the location of the servers.
 - Default suitable for home servers.
- 6. Click Start.

		Ip Reporter	>	
Shelf 1	Step 1	Position	1	Start
Information	1			
NO. I	P	N	AC	
	for farm miners to			
if you're home	e miner, you may l	eave it as default	directly.	
				>
			-	
Skip	Stop	Ev	port	Quit
Swip	Stop	EX	port	Quit

4				
Shelf 1	Step 1	Position	1	Start
In	C	Confirmation		×
	IP 1010.70.1	123		
	MAC 6C:EC:EB	:62:39:F2		
PC	SITION 1-1			
	OK	Skip	Stop	

Stop

Quit

Export

 On the control panel, click the IP Report button. Hold it down until it beeps (about 5 seconds). The IP address will be displayed in a window on your computer screen.

- 8. In your web browser, enter the IP address provided.
- 9. Proceed to login using root for both the username and password.
- 10. In the Protocol section, you can assign a Static IP address (optional).

Skip

- 11. Enter the IP address, Subnet mask, gateway and DNS Server.
- 12. Click "Save".
- 13. Click <u>https://support.bitmain.com/hc/en-us/articles/360018950053</u> to learn more about gateway and DNS Server.

ANTMINER	Artiminur T10 Hydro [Aujournin SHA256d] Convert		Locale Miner 🍞 🕑 Retresh Timer 2022-00-15 18:31 41 🖶 English 🗸
E Dashboard	Pools Mining Address	Miner Name	Password (optional)
양 IP Setting · · · · · · · · · · · · · · · · · · ·	Pool3 ss antpool com 3333 Pool2 Pool3	shenzhen+lest+bb;	120
 Firmware Upgrade 	Setup Mode Normal V		
		Save	
📆 Miner Log	Filmware Version Mon Oct 18 19:39 04 CST 2021 IP Address 10.76 15 182 MAC 24 CS-CE A	3.45.D7 Type Release	Rostoni Factory Sottings Restart Mnor

3. Configuring the Server

Setting up the Pool

To configure the server:

1. Click Settings as below.

ANTHINER	Antiminar T10 Hydro Algorithm SHA256d		Lacste Miner 🍞 🕑 Remesin Timer 2022-02-15 10:31:41 🖶 English 🗸
문을 Dashboard 문 Settings 약(한 IP Setting	Pools Mining Address Pool on 3333	Minor Namo shearhen-itesi-boc	Password (optional) 128
La System · ·	Pool2 Pool3		
Firmware Upgrade	Setup Mode Normal 🛩	Sava	
		- 5640	
To Miner Log	Purmeare Version Mon Oct 18 19:39:04 CST 2021	SICE AS AS D7 Type Release	Rudors Factory Softings Rostart Minor

2. Set the options according to the following table.

Option	Description
Mining address	Enter the address of your desired pool. The T19 Hydro servers can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.
Name Password (optional)	Your worker ID on the selected pool. The password for your selected worker.

3. Click Save after the configuration.

4. Monitoring Your Server

To check the operating status of your server (taking T19 Hydro 138.5T as an example):

1. Click dashboard marked below to check the server status.

æ	Real Time Hash	nate	-	Net	twork Status			-	Miner Te	mperat	hire			0
			(14.00)				(1111)						
								~						~
2		60.59 ₀₀₀	14028		Chains' Rate Chains relis (Chin) accion 50.000									-
		00%	4d 22h		intern 10,000 Östeller Har en alson -O- alson				n Infanio Itha	nin 30	Newin 255a	ain 2005a	wa shisa	n Bişanı
	Pool													
	Pour	Mining Address	Manan	Nation	Post Convectors Materia	Det	Printly	Accepted	CillA	Detti	Rejected	State	LIOH	LATIN
	1 strat	tum+tcp://se.antpool.com	itsnerte (CCC	an+last+btc	The second s	262K	Ð	25936	6790905704	0	0	52856	262144	25.40.1
	2				Abrainta		1	o	U	ø	ø	œ	e.	1
	3				- Andrewson -		2	0	ø	0	0	0	0	X
	Antminer T19 /	lydro												
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	2	104	10135	550	395437 82/GH4%	34	54535 (210)		39 41 40 45 43 44	1.30	61.52	62 67 62 5	2.36	Normal 🔳
	а	104	17382	550	38102 at situ	at	5638 GIU	i i	38 40 40 46 43 44	1.30	51 54	51 55 53 5	17.36	Normal 💼
		104	1202	960			5635 CHU		40 42 49 47 50 44				6-37	Normal I

Note: The frequency of T19 Hydro server is fixed with the value 550 MHz. Firmware will stop running when the Temp (PCB) reaches to 80° or the water temperature is either greater than 65° or lower than 20° , there will be an error message "Fatal Error: Temperature is too high!" shown on theBottom of the Kernel log page.

2. Monitor your server according to the descriptions in the following table:

Option	Description					
Number of chips	Number of chips detected in the chain.					
Frequency	SIC frequency setting.					
Real Hashrate	eal-time Hashrate of each hash board (GH/s).					
Inlet Temp	Temperature of the inlet (°C).					
Outlet Temp	Temperature of the outlet (°C).					
Chip state	One of the following statuses will appear:					
	The Green Icon - indicates normal					
	The Red Icon- indicates abnormal					

5. Administering Your Server

5.1 Checking Your Firmware Version

To check your firmware version:

- 1. Enter the backstage of your server, find the firmware version on the bottom.
- 2. **File System Version** displays the date of the firmware your server use. In the example below, the server is using firmware version 20211018.

	E Antmiser Thill Highlin (Algorithm SHA2864)				Lacate Miner 🗇 🕖 Metrest Tener 2022-06-18 10 30.00	🖶 English 🗸
BS Dashboard						
E Settings			IP Setting			
吊 System ,	Network inform	white MAC-Address 2A/0 IP Address 10 76 /0 Subnet Mask 255 0	3 CE A3 A5 07 5.182 55.255 0			
Password 1	Host	inamo Arimina				
C Firmwoor Upgrade		utocal DHCP		*		
			See			
50 Minor Log	Farmany Version Mark Cet 18 19 29:04 CST 2021 Proceedings 10 76:15 10	WWC 24/03/CE A8/45/07	Type Amease		i Asstore Sectory Settings	Restort Minter

5.2 Upgrading Your System

Make sure that the T19 Hydro server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

To upgrade the server's firmware:

1. In System, click Firmware Upgrade.

ANTHINER	E Adminur T10 Hydro (Algorithi 19442986	Carabae			Lucate Nativer (1990)	🔘 Retheath Trans 2022-02-15 10	32 28 🖶 English ~
BB Dashboard							
En Settings			Fir	mware Upgrade			
않? IP Setting							
녌 System ~		Fittiware Fit					
Password			Keep the Same Se	atings			
C Firmwore Upgrode				Update			
词 Miner Log	Firmaner Hennes Max Oct 18 12 23 54 CST 2021	ill Addime 10.76.15.162	UNC 24 03:05 43 43:07	Type Release		Anstau Factory Selfings	Pustur Minur

2. For Keep Settings:

- Select "keep settings" to keep your current settings (default).
- Unselect "keep settings" to reset the server to default settings.
- 3. Click the button and navigate to the upgrade file. Select the upgrade file, then click **Update**.
- 4. When the upgrade is completed, restart the server and it will turn to the setting page.

	E Anning T10 Hydro (Algorithe SHA2864) (* Dece			ocane Maner 🏐 🕐 Metterst Torver 2022 465 18 10 20 30 1	English -
EE Dashboard					
E Settings		IP Setting			
St IP Setting					_
器 System へ	Network information	ah0 MAC-Address 2A/03 CE A3/A5/07 IP Address 10 76/10/162 Subnet Mask 215/255 255/0			
Password	HestNitamo	Mitrana			
C Pirmwere Upgrade	Protocol	DHCP	¥		
		504			
To Minor Log	Formany Version Max Oct 18 19 39/04 CST 2021 Proceedings, 10 76:15 162 No.	AC 24/03/CE 48/48/07 Type Resease		ideston Factors Settings	ort Mater

- 5. Click one of the following options:
 - **Reboot** to restart the server with the new firmware.
 - Go Back to continue mining with the current firmware. The server will load the new firmware next time it is restarted.

5.3 Modifying Your Password

To change your login password:

- 1. In System, click the Password tab.
- 2. Set your new password, then click Save.

SS Destroard			
CD Settings	Reset Password		
S2 P Setting			
S types ~	Current Password		
	Name (Pastanged		
C: Primert	Confirm Password		
C Forward Upgrafe			
	1999		
1 Sec			

5.4 Restoring Initial Settings

To restore your initial settings

- 1. Turn on the server and let it run for 5 minutes.
- 2. On the control panel, press and hold the Reset button for 10 seconds.

Resetting your server will reboot it and restore its default settings. The red LED will automatically flash once every 15 seconds if the reset is operated successfully.

Environmental Requirements

Please run your server in accordance with the following requirements

1. Basic Environmental Requirements:

1.1. Climatic Conditions:

Description	Requirement		
Operating Temperature	-20-50°C		
Operating Humidity	20-90%RH (non-condensing)		
Storage Temperature	-20-70℃		
Storage Humidity	5-95%RH (non-condensing)		
Altitude	<2000m		

1.2. Site Requirements of the Server Running Room:

Please keep the server running room away from industrial pollution sources:

For heavy pollution sources such as smelters and coal mines, the distance should be more than 5km.

For moderate pollution sources such as chemical industries, rubber and electroplating industries, the distance should be more than 3.7km.

For light pollution sources such as food factories and leather processing factories, the distance should be more than 2km.

If unavoidable, the site should be chosen in the perennial upwind direction of the pollution source.

Please do not set your location within 3.7km from the seaside or the salt lake. If unavoidable, it should be built as airtight as possible, equipped with air conditioning for cooling.

1.3. Electromagnetic Environmental Conditions:

Please keep your site away from transformers, high-voltage cables, transmission lines and high-current equipment, for example, there should be no high-power AC transformers (>10KA) within 20 meters, and no high-voltage power lines within 50 meters. Please keep your site away from high-power radio transmitters, for example, there should be no high-power radio transmitters (>1500W) within 100 meters.

2. Other Environmental Requirements:

The server running room shall be free of explosive, conductive, magnetically conductive and corrosive dust. The requirements of mechanical active substances are shown below:

2.1 Requirements of Mechanical Active Substances

Mechanical Active Substance	Requirement
Sand	<= 30mg/m ³
Dust (suspended)	<= 0.2mg/m ³
Dust (deposited)	<=1.5mg/m ² h

2.2 Requirements of Corrosive Gas

Corrosive Gas	Unit	Concentration		
H ₂ S	ррb	< 3		
SO ₂	ppb	< 10		
Cl ₂	ррb	<1		
NO ₂	ppb	< 50		
HF	ppb	< 1		
NH ₃	ppb	< 500		
O ₃	ppb	< 2		
Note: ppb (part per billion) refers to the unit of concentration, 1ppb stands for the volume ratio of				
part per billion.				

Regulations:

FCC Notice (FOR FCC CERTIFIED MODELS):

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EU WEEE: Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handling it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste

disposal service or the shop where you purchased the product.

台湾 ROHS:

	設備名稱: T19 Hydro 服務器型號: 208-A 有害物質					
單元	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
外殼	0	0	0	0	0	0
電路板組件	—	0	0	0	0	0
其他線材	—	0	0	0	0	0
備考 1. "超出 0.1 wt %"及"超出 0.01 wt %"係指限用物質之百分比含量超出百分比含量基準 值。 備考 2. "〇"係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 3. "一"係指該項限用物質為排除項目。						