TS70(A)-B8056 Quick Installation Guide

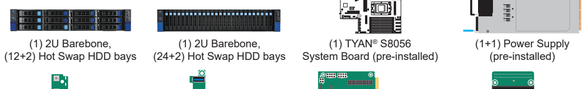
Document # D2570-120/ Revision 1.2a

1 General Information

Read Me First

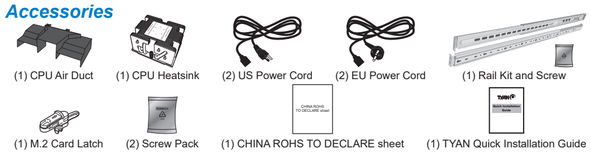
1. The Barebone User's Manual is available for download from our Web site at http://www.tyan.com. Make sure to read all precautions and instructions before you start installing the server system.
2. Refer all servicing to qualified personnel to avoid the risk of damage to the server system.
3. Exercise normal ESD (Electrostatic Discharge) procedures during system integration. TYAN/MiTAC recommends wearing gloves and an anti-static wrist strap to avoid possible damage to the equipment.
4. Current processor socket design places the pins on the motherboard instead of the processor itself. Exercise caution when installing the processors as the manufacturer's warranty does not cover damage inflicted upon the motherboard, including damage to the CPU sockets.

Box Content



(1) 2U Barebone, (12+2) Hot Swap HDD bays
(1) 2U Barebone, (24+2) Hot Swap HDD bays
(1) TYAN® S8056 System Board (pre-installed)
(1+1) Power Supply (pre-installed)
(1) M1718T65-FPB Front Panel Board (pre-installed)
(1) M1717T65-USB USB Board (pre-installed)
(1) M7126T65-PDB-1 Power Distribution Board (pre-installed)
(1) M7063F86-PBP Power Backplane Board (pre-installed)
(1) M7136T70-R24-2F Riser Card (pre-installed)
(1) M7136T70-L28-1F Riser Card (pre-installed)
(1) M1318T65-BP12E-2 HDD Backplane Board (pre-installed)
(3) 80*80*56mm Fan (pre-installed)
(3) M1322T70A-BPE-8 HDD Backplane Board (pre-installed for B8056T70AE26HR-2T)
(1) M1320T70-BP12E-12 HDD Backplane Board (pre-installed, for B8056T70V8E6HR-2T)

Accessories



(1) CPU Air Duct
(1) CPU Heatsink
(2) US Power Cord
(2) EU Power Cord
(1) Rail Kit and Screw
(1) M.2 Card Latch
(2) Screw Pack
(1) CHINA ROHS TO DECLARE sheet
(1) TYAN Quick Installation Guide

Required Hardware Components

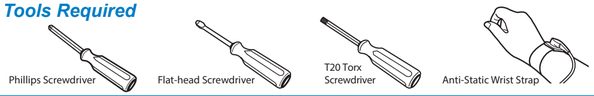
Minimum Hardware Requirements

To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:

- Processor: (1) AMD Zen 4 (Genoa) series processor (TDP up to 320W)
- Memory Type:
  - (24) DIMM slots support
  - (24) DIMM slots per CPU; (12) memory channels per CPU
  - RDDR5 4800 w/ ECC (1.2V) when 2DPC/1DPC; LRDDR5 4800 w/ ECC (1.2V) when 2DPC/1DPC
- Hard Disk Drives:
  - B8056T70V8E6HR-2T: (12) hot-swap 3.5"/2.5" SATA HDD+ first 4bays also support(4) hot-swap NVMe HDD (2) hot-swap 2.5"NVMe HDD at Rear
  - B8056T70AE26HR-2T: (24) hot-swap 2.5" NVMe HDD (2) hot-swap 2.5 NVMe HDD at Front
- Rack Mount Kit (Industry 19" rack-mountable)

NOTE: The updated hardware requirements of the system please refer to the barebones user's manual on our website at www.tyan.com

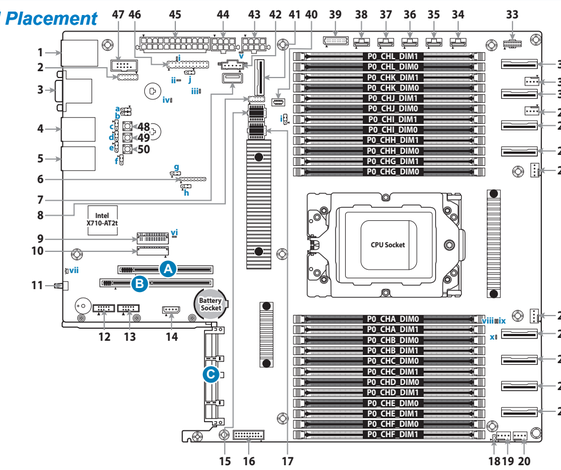
Tools Required



Phillips Screwdriver
Flat-head Screwdriver
T20 Torx Screwdriver
Anti-Static Wrist Strap

2 Motherboard Placement

Motherboard Placement



CONNECTORS

1 RJ45 LAN Port (LAN3) Dedicated IPMI + USB3.2 Gen1x2
2 VGA Header (VGA1)
3 VGA Port + COM port
4 RJ45 LAN Port (LAN1)
5 RJ45 LAN Port (LAN2)
6 CPLD JTAG Connector (J12)
7 TYPE A USB3.2 Gen1 Header (TYPEA_USB1)
8 TYAN Module Header (J62)
9 M.2 Connector (M2_CN2)
10 M.2 Connector (M2_CN1)
11 ID Button
12 SGPIO0 Header (SGPIO0)
13 SGPIO1 Header (SGPIO1)
14 IPMB Connector (IPMB1)
15 BIOS Socket
16 USB3.2 Gen1 Header (USB3_FPIO1)
17 BMC Socket
18 Intrusion Header (J66)
19 4-pin FAN Connector (SYS_FAN5)
20 4-pin FAN Connector (SYS_FAN4)
21 MCIO NVME (CN4)
22 MCIO NVME (CN3)
23 MCIO NVME (CN6)
24 MCIO NVME (CN5)
25 4-pin FAN Connector (CPU0_FAN)
26 4-pin FAN Connector (SYS_FAN3)
27 MCIO SATA/NVME (CN10)
28 MCIO SATA/NVME (CN9)
29 4-pin FAN Connector (SYS_FAN2)
30 MCIO NVME (CN8)
31 4-pin FAN Connector (SYS_FAN1)
32 MCIO NVME (CN7)
33 HDT Header (J1)
34 HDD BP SMBUS Header (HDR_1)
35 HDD BP SMBUS Header (HDR_2)
36 HDD BP SMBUS Header (HDR_3)
37 HDD BP SMBUS Header (HDR_4)
38 HDD BP SMBUS Header (HDR_5)
39 Fan Connector for BB (FAN_HD1)
40 ESPI TPM Header (J56)
41 MCIO NVME (CN1)
42 PSMI Connector (PSMI_HD1)
43 CPU and Memory Power Connector (PW3)
44 CPU and Memory Power Connector (PW2)
45 Power Connector (PW1)
46 Front Panel Connector (FPIO_2)
47 COM2 Header (COM2)
48 NMI Button
49 PWR Button
50 COLD RST Button

LEDS

i BMC ALERT LED (D18)
ii SYS_PWROK LED (D32)
iii BMC heartbeat LED (D1_2)
iv PROCHOT LED (D26)
v PSU_ALERT LED (D31)
vi SATA & M.2 LED (D39)
vii ID LED
viii PWR_GOOD LED (D52)
ix PWROK LED (D57)
x CPU RESET LED (D58)

JUMPERS

a COM2 Switch Jumper (J7)
b COM2 Switch Jumper (J6)
c BMC Jumper (J2)
d COM1 Switch Jumper (J8)
e COM1 Switch Jumper (J9)
f NCSI SEL Jumper (J4)
g SMBUS SEL Jumper (3PHD1)
h CPLD force PowerOn SEL Jumper (J3)
i Clear CMOS Jumper (J75)
j Reset Jumper (J33)

SLOTS

A PCIE#1 x24 (PESLOT1)
B PCIE#2 x16 (PESLOT2)
C OCP 3.0 Mezzanine Slot

3 System Installation

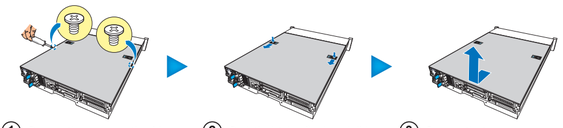
B8056T70V8E6HR-2T
B8056T70AE26HR-2T

Open the Chassis

Preparing the Chassis

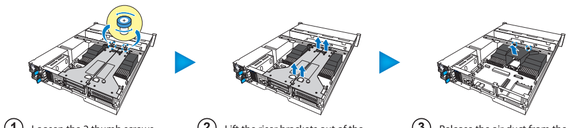
Read normal ESD (Electrostatic Discharge) procedures.

Place your TYAN® Server Chassis on a flat anti-static surface to perform the following integration procedures. Read ESD procedures before reaching inside to install components.



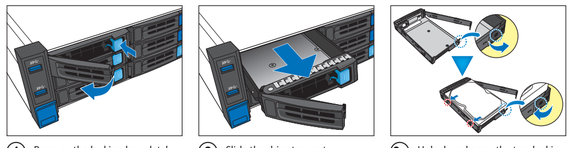
1 Remove the screws on the sides of the top cover.
2 Push the latches firmly and slide the top cover forward to disengage it from the chassis.
3 Remove the top cover.

Remove the Air Duct

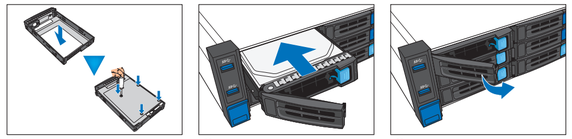


1 Loosen the 2 thumb screws on the riser brackets.
2 Lift the riser brackets out of the chassis.
3 Release the air duct from the guide pins and remove from the chassis.

Install the Front Hard Disk Drives (2.5" or 3.5") *for B8056T70V8E6HR-2T SKU*

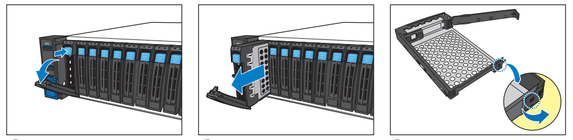


1 Press on the locking lever latch. The locking lever opens automatically.
2 Slide the drive tray out.
3a Unlock and open the tray locking lever. Place the 3.5" drive into the drive tray. Close the locking lever to secure the drive to the tray.

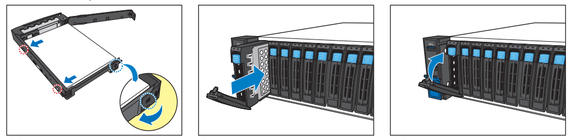


3b Place a 2.5" drive into the drive tray. Use 4 screws to secure the drive to the tray.
4 Reinsert the drive tray into the chassis.
5 Press the locking lever to secure the tray. Repeat the same procedures to install other drive trays.

Install the Front Hard Disk Drives (2.5") *for B8056T70AE26HR-2T SKU*

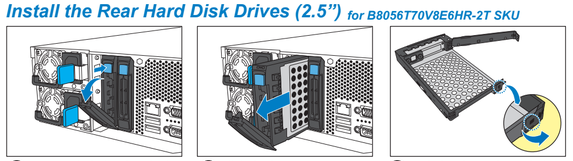


1 Press on the locking lever latch. The locking lever opens automatically.
2 Slide the HDD tray out.
3 Unlock and open the tray locking lever.

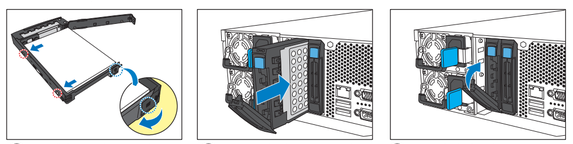


4 Install the 2.5" HDD into the pins on the drive tray. Close the locking lever to secure the HDD to the tray.
5 Reinsert the HDD tray into the chassis.
6 Press the locking lever to secure the tray. Repeat the same procedures to install other HDD trays.

Install the Rear Hard Disk Drives (2.5") *for B8056T70V8E6HR-2T SKU*

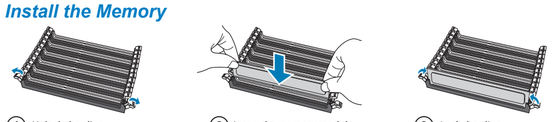


1 Press on the locking lever latch. The locking lever opens automatically.
2 Slide the drive tray out.
3 Unlock and open the tray locking lever.



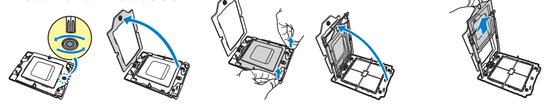
4 Install the 2.5" drive into the pins on the drive tray. Close the locking lever to secure the drive to the tray.
5 Reinsert the drive tray into the chassis.
6 Press the locking lever to secure the tray. Repeat the same steps to install the other drive tray.

Install the Memory

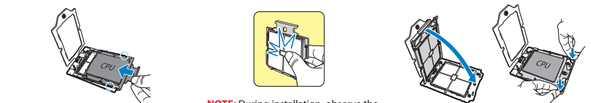


1 Unlock the clips.
2 Insert the memory module.
3 Lock the clips.

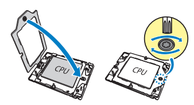
Install the Processor



1 Use a T20 Torx screwdriver to loosen the screw securing the force frame.
NOTE: The force frame will automatically eject after the captive screws are being released.
2 By placing your both index fingers on the sides on the metal handle, pull to release the rail frame. Then lift the rail frame to its fully open position.
3 Remove the external cap from the rail frame.

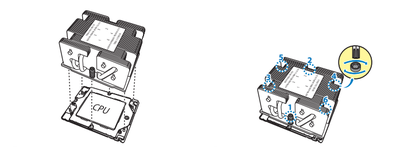


4 Align and install the carrier frame with package into the slot on the rail frame.
NOTE: During installation, observe the following:
⇨ make sure to push the carrier frame with package towards the end of the rail frame until it clicks into place.
⇨ do not drop the carrier frame or touch the package pad to avoid component damage.
5 Carefully close the rail frame with the installed package. Then push both edges of the rail frame firmly until it locks in place.



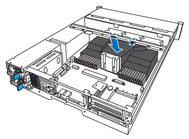
6 Close the force frame. Then use a T20 Torx screwdriver to tighten the screw to secure the force frame.

Install the CPU Heatsink



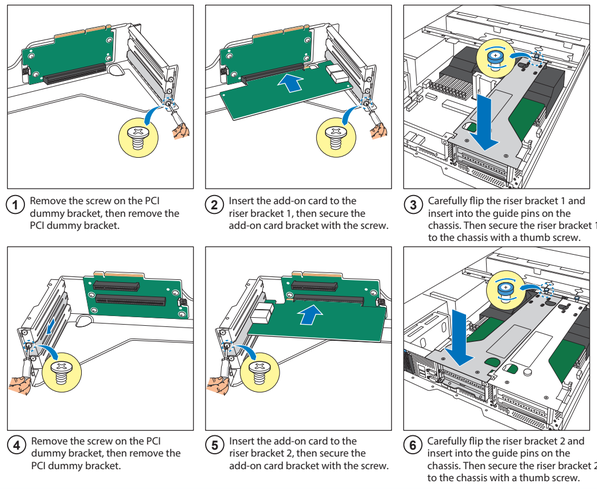
1 Align and install the CPU heatsink onto the top of the CPU socket.
2 Use a T20 Torx screwdriver to tighten the heatsink screws in a sequential order (1⇨2⇨3⇨4⇨5⇨6).

Install the Air Duct



By aligning with the guide pins, place the air duct on top of the CPU heatsink.

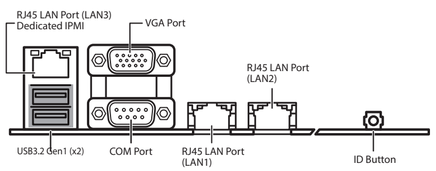
Installing the Add-On card (Optional)



1 Remove the screw on the PCI dummy bracket, then remove the PCI dummy bracket.
2 Insert the add-on card to the riser bracket 1, then secure the add-on card bracket with the screw.
3 Carefully flip the riser bracket 1 and insert into the guide pins on the chassis. Then secure the riser bracket 1 to the chassis with a thumb screw.
4 Remove the screw on the PCI dummy bracket, then remove the PCI dummy bracket.
5 Insert the add-on card to the riser bracket 2, then secure the add-on card bracket with the screw.
6 Carefully flip the riser bracket 2 and insert into the guide pins on the chassis. Then secure the riser bracket 2 to the chassis with a thumb screw.

4 I/O Ports

Locate the External I/O Port



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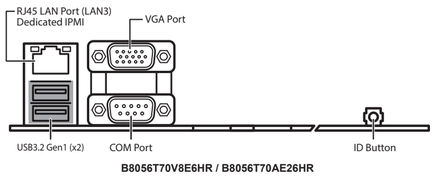

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