

QUICK START GUIDE

EMD4000T, EMD4000R

EMERALD KVM 4K

24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT [BLACKBOX.COM](https://www.blackbox.com)



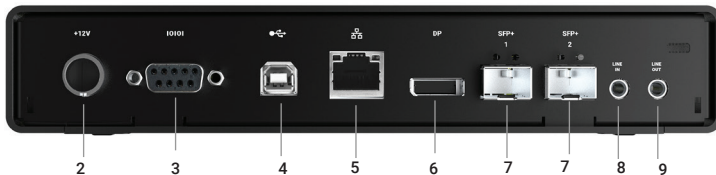
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STEP 1A - Transmitter Diagrams

Front panel



Back panel



STEP 1B - Transmitter Components

TABLE 1. EMD4000T COMPONENTS

NUMBER IN DIAGRAM AT LEFT	DESCRIPTION	DESCRIPTION
1	Power LED	LED indicates power status
2	12-VDC, 3-A Power In connector	Connect to supplied power adapter
3	DB9 connector	Connects to serial console port
4	USB Type B connector	Connect to PC/workstation USB connector
5	RJ-45 connector	Connects to LAN
6	DisplayPort 1.2 video connector	Connect to PC Video
7	(2) SFP+ ports	Dual 10G network ports
8	Audio Line In	Connect to PC Line Out
9	Audio Line Out	Connect to PC Line In

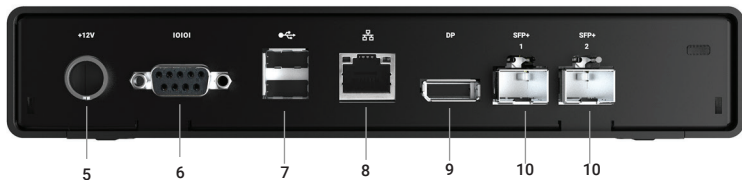


STEP 2A - Receiver Diagrams

Front panel



Back panel



STEP 2B - Receiver Components

TABLE 2. EMD4000R COMPONENTS

NUMBER IN DIAGRAM AT LEFT	DESCRIPTION	DESCRIPTION
1	On/Off button	Powers on and off unit. LED indicates power status.
2	Audio Line Out	Connects to speakers
3	Audio Microphone In	Connects to microphone
4	(2) USB Type A connectors	Connect to USB peripherals
5	12-VDC, 3-A Power In connector	Connect to supplied power adapter
6	DB9 connector	Connects to serial console port
7	(2) USB Type A connectors	Connect to USB peripherals
8	RJ-45 port	Connect to network
9	DisplayPort 1.2 Video connector	Connect to monitor
10	(2) SFP+ connectors	Dual 10G network ports



STEP 3 - Connect Power

CONNECT POWER TO TRANSMITTER

1. Locate the power supply adapter and the AC line cord.
2. Plug the DC connector of the power supply into the matching socket on the rear of the transmitter.
3. Attach the AC line cord to the power supply adapter.

CONNECT POWER TO RECEIVER

1. Locate the power supply adapter and the AC line cord.
2. Plug the DC connector of the power supply into the matching socket on the rear of the receiver.
3. Attach the AC line cord to the power supply adapter.



STEP 4 - Connect the Peripherals

CONNECT THE TRANSMITTER

1. Attach the Emerald Transmitter to the target PC/workstation using DisplayPort and USB Type B cables.
2. Connect the SFP+ transceiver appropriate for the cable type and distance you are running over the fiber to the SFP+1.
3. Connect from this transceiver to your 10G network switch or directly to a receiver. Emerald does support direct attach SFP+, typically this will be the most cost efficient option for a relatively short distance (less than 22.9 feet [7 meters]).

NOTE: SFP+1 must be used as the primary network connection on the Emerald 4K Transmitters.

CONNECT THE RECEIVER

1. Attach the monitor, keyboard, mouse, USB and audio devices to the Emerald Receiver.
2. Connect the SFP+ transceiver appropriate for the fiber cable type and distance you are running over fiber to SFP+1.
3. Connect from this transceiver to your 10G network switch or directly to the receiver.

NOTE: SFP+1 must be used as the primary network connection on the Emerald 4K Receivers.



STEP 5 - Starting Up and Default Settings for IP

STARTING UP

1. Once everything is connected, press the Power button on the front of the Emerald Receiver.
2. The On-Screen Display (OSD) will appear on the screen.
3. Enter the default administrator user name and password.
4. The default network setting for the Emerald Receiver uses a preconfigured static IP address.

DEFAULT SETTINGS

Default Settings:

Transmitter IP Address: 192.168.1.22

Receiver IP Address: 192.168.1.21

Type: Static

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

Admin username: admin

Admin password: no password, it is blank by default

Ports Used: 3389

IMPORTANT: Do not lose the admin password once configured; there is no way to reset or retrieve it. The Emerald receiver has the option to create a second administrator account as a backup.



STEP 6 - Point-to-Point Installation for IP

POINT-TO-POINT INSTALLATION

In a point-to-point configuration, no administrator setup of the Emerald Transmitter or the Emerald receiver is required. This enables you to install the system quickly, directly out of the box. In the point-to-point configuration, you can install only one transmitter and receiver pair on a subnet and both must be on the same subnet unless a router is present in the network to span subnets. To span across different subnets, you will need to have admin rights to both routers on either side of the installation and setup port forwarding for Port 9020, 9030 and 3389 for KVM; Port 3389 for RDP for Remote Desktop.



STEP 7 - Matrix Installation and Getting Started for IP

MATRIX INSTALLATION

In an IP installation, every Emerald transmitter and receiver requires its own IP address. The network setting is set to static, so the addresses will need to be configured manually:

1. Always configure the transmitter first by connecting the transmitter to the receiver, then connect a keyboard, monitor, and mouse to the receiver unit (receiver is on at this time).
2. Once the transmitter is configured, you can now configure the receiver.
3. A transmitter out of the box must be configured on the same subnet.

GETTING STARTED

Once the IP addresses have been configured, each receiver will need to be configured for users, user passwords, user access rights and default video resolutions. You can access these settings from the receiver's OSD (reboot the receiver and login as admin) and begin configuring these parameters.

NOTE: Each receiver can support a maximum of 32 users and a maximum of 32 targets (virtualized or transmitter).



NOTES



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SUPPORT**

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