

Monitoring the Remote Power Rack Shelf

Learn the information and procedures for monitoring the performance and health of the Remote Power Rack Shelf.

Important safeguards

To prevent personal injury and to protect the device from damage, read and follow these safety precautions.

General hazards

Hazard warnings also apply to accessories once they are installed in a Christie product that is connected to power.

Fire and Shock Hazard



To prevent fire or shock hazards, do not expose this product to rain or moisture.
Do not alter the power plug, overload the power outlet, or use it with extension cords.
Do not remove the product enclosure.
Only Christie qualified technicians are authorized to service the product.

Electrical Hazard



Risk of electric shock.
Do not remove the product enclosure.
Only Christie qualified technicians are authorized to service the product.



General hazard.



Electric shock hazard. To avoid personal injury, disconnect all power sources before performing maintenance or service.



Electrocution hazard. To avoid personal injury, always disconnect all power sources before performing maintenance or service procedures.



Do not operate the product at an altitude exceeding 2000 m.

General safety warnings



Warning! If not avoided, the following could result in death or serious injury.

- Only Christie qualified technicians are permitted to open product enclosures.
- This product must be installed within a restricted access location not accessible by the general public.
- SHOCK HAZARD! Disconnect the product from AC before installing, moving, servicing, cleaning, removing components, or opening any enclosure.
- A minimum of two people or appropriately rated lift equipment is required to safely lift, install, or move the product.
- A certified electrician must be present during installation to ensure the installation meets the local electrical code.
- Install the product near an easily accessible AC receptacle.
- Hazardous voltages are present at power system inputs. The DC output, though not dangerous in voltage, has a high short-circuit current capacity that may cause severe burns and electrical arcing.
- SHOCK HAZARD! Power supply uses double pole/neutral fusing.
- Fuses are present in active and neutral lines.
 - F1—Rated 15 A, 250 VAC
 - F2—Rated 15 A, 250 VAC
- Before working with live power systems, remove all metallic jewelry (such as watches, rings, metal rimmed glasses, or necklaces) and wear safety glasses with side shields at all times during the installation.
- Motors and fans may start without warning.
- Use insulated hand tools while working on live power systems.

Logging in to the Remote Power Supply Rack Shelf web interface

To make changes to the Remote Power Supply Rack Shelf, use Internet Explorer.

1. Connect a computer to the Remote Power Supply Rack Shelf with a network crossover cable.
2. To access the web interface, in the Control Panel, change the IP address and subnet mask of the computer to be on the same subnet as the Remote Power Supply Rack Shelf.

If the IP address and subnet mask on the Remote Power Supply Rack Shelf have not been changed from the default, use the following values on the computer:

- IP address: 10.10.10.202
- Subnet mask: 255.255.255.0

3. Turn off any browser pop-up blockers.
4. In the browser address bar, type the IP address of the Remote Power Supply Rack Shelf device.

The default IP address is 10.10.10.201.

If you have changed the IP address of the Remote Power Supply Rack Shelf, the IP address and subnet mask of the computer must also be changed.

The IP address for the web interface is one digit higher than the IP address of the device. For example, when the IP address of the device is 10.10.10.201, the address of the web interface is 10.10.10.202.

5. If prompted, run the MSXML add-on.
6. Log in to the Remote Power Supply Rack Shelf with your username and password. The default username is **Admin**, and the default password is **1234**.

Changing the time on the Remote Power Supply Rack Shelf

Configure the time on the Remote Power Supply Rack Shelf.

The date and time is a dynamic field, and as changes are made to the values on the screen the internal values are also changed. An event is added to the event log detailing the changes made.

1. Log in to the Remote Power Supply Rack Shelf web interface.
2. Select **Controller > Date and Time**.
3. Set the date and time for the Remote Power Supply Rack Shelf.
 - Manually enter the date and time for the Remote Power Supply Rack Shelf to use.
 - Automatically retrieve the date and time from a server.
 - a. Select **Enable SNTP Service**.
 - b. Type the IP address of the SNTP source.
 - c. In the **Time Zone Adjustment** field, select the time zone adjustment for the location of the Remote Power Supply Rack Shelf.
4. Click **Save**.
5. If the time is set by an SNTP service, click **Get Time Now**.

Setting the temperature units

Change the units used when reporting the temperature.

1. Log in to the Remote Power Supply Rack Shelf web interface.
2. Select **Controller > Temperature Units**.
3. Select whether the display units are Celsius or Fahrenheit.
4. Click **Save**.

Changing the voltage of the rectifiers

Change the output voltage to the preferred voltage.

1. *Log in to the Remote Power Supply Rack Shelf web interface (on page 2).*
2. Select **Rectifiers > Configure Rectifiers**.
3. Change the Float Voltage field to the preferred voltage.
4. Ensure the Safe Voltage and Over Voltage Protection (OVP) fields are set properly for the new voltage.

Christie recommends the following settings:

- Float voltage: 54 VDC

- Equalize voltage: 55 VDC
 - Safe voltage: 54 VDC
 - OVP: 59 VDC
 - HVA: 55.5 VDC
5. Click **Submit Changes**.

Viewing the status of the Remote Power Rack Shelf

For a detailed report of the system, review the parameters on the View Live Status page.

1. *Log in to the Remote Power Rack Shelf web interface* (on page 2).
2. To view the current status of the Remote Power Rack Shelf, select **System > View Live Status**.

Additional live status information is available in the sub-menus for the other areas of the interface.

Viewing log files

Use the log files to help identify and correct issues with the Remote Power Rack Shelf.

1. *Log in to the Remote Power Rack Shelf web interface* (on page 2).
2. Select **Logs and Files > Retrieve Logs**.
3. Click the log type to view.
4. To save the log file, click **Save**.
5. Type a file name for the saved log file, and select where the file will be saved.
The log files are saved in CSV format.

Configuring global alarm settings

Configure the alarm parameters that are applicable to all alarms.

1. *Log in to the Remote Power Rack Shelf web interface* (on page 2).
2. Select **Alarms > Global Alarm Configuration**.
3. Set the alarm hysteresis.
 - **Voltage Hysteresis**—The voltage range where the alarm can clear or activate. For example, if the low voltage alarm activates at 43.00 V, having a voltage hysteresis of 0.50 V means it clears when the voltage reaches 43.50 V. This applies only to Voltage Alarms (7.5.5.2).
 - **Time Hysteresis**—The amount of time in seconds that the condition has to be true before the alarm is activated. In the example above, if the value of time hysteresis is 5 seconds, the voltage must be below 43.00 V for at least 5 seconds before the alarm is activated. Similarly, to clear the alarm, the voltage must be above 43.50 V for 5 seconds.
4. Select the alarm tone.

5. To set the duration that alarms remain cutoff when the alarm cutoff (ALCO) is activated, select **Enable ALCO Duration** and specify the number of minutes for the cutoff.
6. To disable the audible alerts for alarms with the alarm cutoff enabled, select **Silence Buzzer**.
7. To revert the relay status to the normal state by activating the alarm cutoff, select **Revert Relays**.
8. To stop sending email when alerts are triggered, select **Stop Sending Email**.
9. To stop sending SNMP traps with cutoff alarms when alerts are triggered, select **Stop Sending SNMP Traps**.
New alarms triggered after the alarm cutoff is activated will send SNMP traps.
10. Click **Next**.

Identifying where alarm and trap messages are sent

Configure the email address and SNMP trap destination where alarms are recorded.

Find Christie SNMP information and MIBs at www.christiedigital.com/SNMP.

1. Log in to the Remote Power Rack Shelf web interface (on page 2).
2. Select **Communications > Event Notification Destination**.
3. Click **Add New Destination**.
4. Type a name for the destination.
5. Select whether the notification should be sent through email or recorded in the SNMP trap.
6. (Optional) To configure the SNMP trap destination, select the connection type.
 - Select **Broadcast** if the Remote Power Rack Shelf is located in the same segment as the network management station (NMS). An IP Address is not required. Broadcast cannot be used as master.
 - Select **IP Address** if the value is known for NMS. This is the recommended setup selection for SNMP destination configuration.
 - Select **Host Name** if the NMS has a fully qualified domain name that can be resolved by a DNS server.
7. (Optional) Configure the SMTP setting for email communication.
 - a) Type the SMTP IP address.
 - b) In the **From Address** field, type the email address the notification email will be sent from.
 - c) In the **To Address** field, type the email address of the group who will receive the notification email.
Creating a distribution mailing list for SNMP alerts means that changes to the people receiving the emails does not require a change to the Remote Power Rack Shelf configuration.
8. Click **Next**.
9. Select the connection type **Dedicated Connection**.
10. Enter the network login credentials.
11. Click **Finish**.

12. Select **Enable**.

Configuring alarms

Set the criteria that triggers an alarm, and the action to be taken when the alarm is triggered.

1. Log in to the Remote Power Rack Shelf web interface (on page 2).
2. Select **Alarms > Configure Alarms**.
3. Select the type of alarms to configure.
4. For the alarm, in the **Activation Value** column, set the value that triggers the alarm.
5. To activate the alarm, select **Enable**.
6. Set the priority of the alarm.
 - **Minor**—Alarm conditions of a less serious nature or not an immediate threat to service.
 - **Major**—Alarm conditions that are serious or an immediate threat to service.
7. To receive email when an alarm is triggered, select the checkbox.
8. To have the alarm recorded in the SNMP trap, select the checkbox and specify the severity of the alarm.

Alarms

Remote Power Rack Shelf alarms can be set to identify issues with temperature, voltage, and digital input channels.

For an at-a-glance view of the Remote Power Rack Shelf, review the status LEDs on the front of the device. Only one LED is illuminated at a time during alarm conditions.

- Green—OK, no alarms present.
- Yellow—Minor alarm is present (no major alarms).
- Red—Major alarm is present.

Rectifier alarms

Alarm	Description
Rectifier Fail	Sets an alarm condition for an actual rectifier failure. The activation value is factory set.
Rectifier Minor	Sets an alarm condition for a minor rectifier failure; i.e., an alarm condition detected in a rectifier, but one that is not considered an immediate threat to the operation of that rectifier. The activation value is factory set.
Rectifier Major Fail Count	Sets the total number of rectifier fail alarms that trigger the rectifier major alarm. The activation value must be greater than or equal to the number entered for the minor rectifier fail count alarm.
Rectifier Minor Fail Count	Sets the total number of rectifier fail alarms that trigger the rectifier minor alarm. The activation value must be less than or equal to the number entered for the major rectifier fail count alarm.

Alarm	Description
Out of Tolerance	Sets an alarm condition when a rectifier out of tolerance is detected. The activation value is factory set.
Rectifier Comms Lost	Sets an alarm condition when rectifier communications is lost. The activation value is factory set.
Rectifier Equalize Activated	Sets an alarm condition when a rectifier in EQ mode is detected. The activation value is factory set.
Rectifier AC Mains Fail	Sets an alarm condition when a rectifier AC mains fail is detected. The activation value is factory set. The activation value for AC Mains Fail detection is determined to be when the number of rectifiers in AC Fail divided by the number of rectifiers acquired is greater than or equal to 90%.
Fan Fail Alarm (for Fan Cooled Systems)	Triggers an alarm when a fan fail (speed error or failed fan) condition has occurred in any of the rectifiers in the system. <ul style="list-style-type: none"> • The Fan Fail Alarm is true when the CXC receives a Fan Fail or Fan Speed Error alarm from any rectifier. • The Fan Fail Alarm is cleared when all Fan Fail and Fan Speed Error alarms are cleared from all the rectifiers. • Each time that the Fan Fail Alarm goes on/off, the event is logged in the Event History. Since it is a rectifier alarm, up to four rectifiers (up to 12 fan fail alarms) that are in alarm are logged. The activation value is factory set.
Power Save	Sets an alarm condition when a rectifier is in Power Save mode. The activation value is factory set. The default activation value is 1.
Urgent AC Mains Fail	Sets a major alarm condition when the Rectifier AC Mains Fail alarm has been active for a period of time; the default activation value is ten (10) minutes.

Current alarms

Alarm	Description
Load Current High	Setting for the load current alarm. When the current to the load has exceeded this setting, an alarm is activated and the message LOAD CURRENT HIGH displays.

Voltage alarms

Alarm	Description
AC Mains High	Activates an alarm when the AC exceeds the input to the power system. The message AC MAINS HIGH displays.
AC Mains Low	Activates an alarm when the AC input to the power system falls below the specified setting. The message AC MAINS LOW displays.
High Voltage [1-2]	Activates an alarm when the power system DC voltage exceeds the specified value. The message HIGH VOLTAGE 1 (or 2) displays.

Alarm	Description
Low Voltage [1-2]	Activates an alarm when the power system DC voltage falls below the specified value. The message LOW VOLTAGE 1 (or 2) displays.
Midpoint Monitor [1-5]	Activates an alarm when voltage reading (1 through 5) exceeds the specified range. For example: If the activation value is 1.00, then the actual range that the controller operates with is from -0.50V to +0.50V. The message MIDPOINT MONITOR 1 (or 2-5) displays.

Temperature alarms

Alarm	Description
Temp Sensor Fail [1-4]	Activates an alarm when any temperature sensor fails.

Miscellaneous alarms

Alarm	Description
Real Time Clock Error	Activates an alarm when any change to the CXC clock occurs due to a battery failure or the real time clock itself failing. The alarm also becomes active whenever the date is before Jan. 1, 2000 or after Dec. 31, 2030.
Invalid Device Firmware	Activates an alarm if the firmware of a device (e.g. Cordex rectifier) has become corrupt and is no longer functioning.
Ground Fault Detected (High Voltage CXC only)	Activates an alarm when the specified ground fault is detected. The default value is +/-5 mA.
System Major	The Supervisor can map a relay to the power system major alarm, which is activated if there are one or more active MAJOR alarms. A pull-down menu with scroll bars can be used for navigation.
System Minor	The Supervisor can map a relay to the power system minor alarm, which is activated if there are one or more active MINOR alarms. A pull-down menu with scroll bars can be used for navigation.

Related documentation

Additional information is available in the documentation included with Christie products the Remote Power Rack Shelf will be used with.

Technical support

Technical support for Christie products is available at:

- North and South America: +1-800-221-8025 or Support.Americas@christiedigital.com
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or Support.EMEA@christiedigital.com
- Asia Pacific: +65 6877-8737 or Support.APAC@christiedigital.com