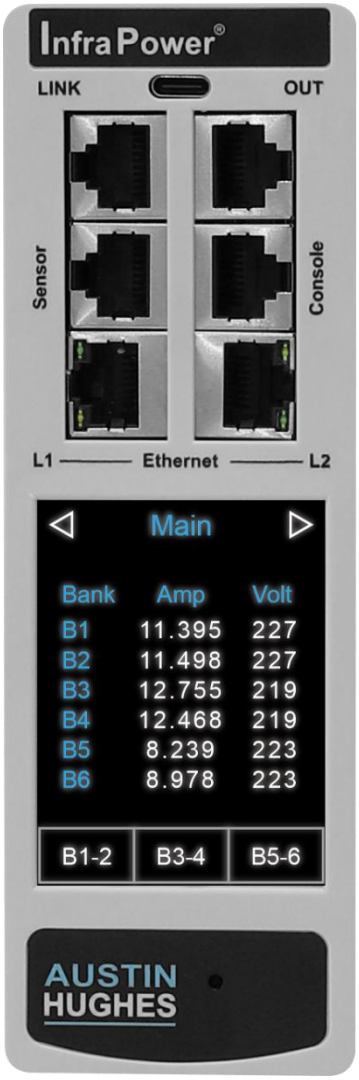
InfraPower®

COMMAND LINE INTERFACE USER GUIDE Z 2000 Series IP PDU



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< Part 1 > Command Line Interface

< 1.1 > Introduction

Command Line Interface (CLI) allows you to administer the Z IP PDU via either the network interface or console port* using Telnet or Secure Shell (SSH). If the ZIP PDU is in factory default setting or password is " 00000000 ", you MUST change the password during the login. After you change the password, you can login the CLI to perform the setting, monitoring and control.

By default, CLI access via SSH is enabled and Telnet is disabled whereas the Telnet can be enabled.

*Only 2.8" Z IP PDU comes with console port

The CLI can be used to :

- Reset
- Configure the device settings
- Display the device and network information such as device name, firmware version, IP setting and so on.

< 1.2 > Logging in to CLI

Logging in via the console port is different from logging in via the network interface using SSH or Telnet.

Logging in via the console port for local access

1. Connect your computer to the console port of ZIP PDU using a USB to RJ-45 console cable
2. Launch SSH via PuTTY.
   Ensure the COM port settings is as below :
   Bits per second = 115200 (115.2kbps)
   Data bits = 8
   Stop bits = 1
   Parity = None
   Flow control = None
3. In PuTTY, press “ Enter ” and the login prompt appears.
4. Input the login name and password. CLI shares the same login name and password as the WEBUI.
5. A main menu will be shown for functions selection and configuration.
6. Select “ (6) Command Line Interface ” to enter to CLI prompt

Logging in via the network interface for remote access

1. Launch SSH via PuTTY.
2. Input the IP address of ZIP PDU
3. Input the login and password in the login prompt. CLI shares the same login name and password as the WEBUI.
4. A main menu will be shown for functions selection and configuration.
5. Select “ (6) Command Line Interface ” to enter to CLI prompt

< 1.3 > Syntax

The CLI uses a SET and GET command structure to save and retrieve setup parameters.

The CLI syntax is as follows :

- Colon (:) MUST be followed by a parameter
- All names are case sensitive
- get help to retrieve the get commands and options
- set help to retrieve the set commands and options

< Part 2 > System

< 2.1 > Get system

Command	Default value	Remarks
get system help	N/A	To show the list of system option can be retrieved.
get system model	Z IP PDU	The model name of the system
get system firmware	Z4M-Z105-250822	The firmware version of the system
get system build	yyyymmdd	The build date of the system firmware
get system name	Default_z4m_name	To retrieve the system name
get system location	Default_z4m_loc.	To retrieve the system location
get system tempunit	C	C = Celsius F = Fahrenheit
get system date	2007-01-01	The format is yyyy-mm-dd
get system time	00:08:51	The format is hh:mm:ss
get system timezone	GMT+00:00	The time zone setting of the system
get system ntp	time.google.com	If returns “none”, the system date / time is set manually not synchronize by time server
get system https	Yes	If the value returned is “ No ”, web service is via http.
get system port	443	Port no. use by https / http
get system timesync	Disable	Disable = time sync is disabled. Enable = time sync is enabled.
get system sslcert	Default	If you load your own certificate in the WEBUI, it will return “ Custom ”.
get system opcpop	xxxx	The value of **o**utlet **p**ower **c**ycling **p**ower **o**ff **p**eriod. Value : 1 to 3600s. Default value is 3s.
get syslog xxxx - xxxx	A list of syslog	To retrieve the syslog of the system. xxxx : 1 to 1600. If **NOT** input xxxx – xxxx. The first 100 events will be displayed by default.

< 2.2 > Set system

Command	Return value	Remarks
set system help	N/A	To show the list of system option can be set.
set system name:xxxx	OK	Set the system name to " xxxx ". Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop up to 16 characters.
set system location:xxxx	OK	Set the system location to " xxxx ". Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop up to 16 characters.
set system tempunit:C	OK	Set the temperature unit to " C "
set system date:2025-09-18	OK	Set the system date to 2025-09-18. If ntp server is enabled, cannot set system date
set system time:15:20:30	OK	Set the system time to 15:20:30. If ntp server is enabled, cannot set system time.
set system timezone:GMT+08:00	OK	Set the time zone of the system
set system ntp:none / xxxxx / sync	OK	None: set the date / time setting to manual. xxxxxx : set the date / time synchronization by NTP server. sync : synchronize date / time from NTP server.
set system opcpop:xxxx	OK	To set the **o**utlet **p**ower **c**ycling **p**ower **o**ff **p**eriod. xxxx : 1 ~ 3600s.

< Part 3 > Network

< 3.1 > Get network

Command	Default value	Remarks
get network help	N/A	To show the list of network option can be retrieved.
get network:xx mode	dual / lan1	dual : device has 2 network interfaces. lan1 : device has one network interface.
get network:xx failover	Disable / Enable	To view to the network interface operates in failover mode or not.
get network:xx dns	xxx.xxx.xxx.xxx / xxx.xxx.xxx.xxx	To retrieve the IP address of primary and secondary DNS server.
get network:xx mac	xx:xx:xx:xx:xx:xx	To retrieve the Mac address of the network interface.
get network:xx link	Up / Down	To retrieve the link state of the network interface.
get network:xx speed	100 / 1000 / 65535	To retrieve the connection speed of the network interface. 65535 means not connected
Get network:xx dhcp	Disable / Enable	To retrieve the DHCP setting of the network interface.
get network:xx ipv4	xxx.xxx.xxx.xxx	To retrieve the IPv4 address of the network interface.
get network:xx smv4	xxx.xxx.xxx.xxx	To retrieve the IPv4 address of the network interface's subnet.
get network:xx gwv4	xxx.xxx.xxx.xxx	To retrieve the IPv4 address of the network interface's gateway.
get network:xx ipv6	xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx/xx	To retrieve the IPv6 address of the network interface.

< Part 4 > Device

< 4.1 > Get PDUs

Command	Default value	Remarks
get pdu help	N/A	To show the list of pdu option can be retrieved
get pdu:xx model	The pdu model name	To retrieve the model name of the pdu
get pdu:xx name	The name of the specified pdu level	To retrieve the name of the pdu
get pdu:xx location	The location of the specified pdu level	To retrieve the location of the pdu
get pdu:xx firmware	The firmware version of the specified pdu level	To retrieve the firmware version of the pdu
get pdu:xx uid	The unique ID of the specified pdu level	To retrieve the unique ID of the pdu
get pdu:xx real-time-clock	The rea-time clock of the specified pdu level	To retrieve the real-time clock of the pdu. Format : yymmddhhmmssw. w means weekday.
get pdu:xx serial-no	The serial no. of the specified pdu level	To retrieve the serial no of the pdu.
get pdu:xx cumulative-energy	The cumulative energy of the specified pdu level	To retrieve the cumulative energy of the pdu in thousandth of kWh.
get pdu:xx apparent-power	The apparent power of the specified pdu level	To retrieve the apparent power of the pdu in thousandth of kVA.
get pdu:xx active-power	The active power of the specified pdu level	To retrieve the active power of the pdu in thousandth of kW.
get pdu:xx current	The current loading of the specified pdu level	To retrieve the current loading of the pdu in A.
get pdu:xx power-factor	The power factor of the specified pdu level	To retrieve the power factor of the pdu Valid value : 0.0 ~ 1.0
get pdu:xx frequency	The frequency of the specified pdu level	To retrieve the frequency of the pdu in Hz.
get pdu:xx voltage	The voltage of the specified pdu level	To retrieve the voltage of the pdu in V.

< 4.2 > Set PDUs

Command	Default value	Remarks
set pdu help	N/A	To show the list of pdu option can be set.
set pdu:xx name:xxxx	To set the pdu name of the specified pdu level.	Length of name : 1 ~ 63. Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop.
set pdu:xx location:xxxx	To set the pdu location of the specified pdu level.	Length of location : 1 ~ 63. Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop.

< 4.3 > Get Circuits

Command	Default value	Remarks
get circuit help	N/A	To show the list of circuit option can be retrieved
get circuit:xx level:yy name	The circuit name	To retrieve the name of the circuit
get circuit:xx level:yy rated-amp	The rated amp. of the specified circuit	To retrieve the rated amp of the circuit in A.
get circuit:xx level:yy rated-volt	The rated voltage. of the specified circuit	To retrieve the rated voltage of the circuit in V.
get circuit:xx level:yy alarm	The amp. alarm threshold of the specified circuit	To retrieve the amp. Alarm threshold of the circuit in A.
get circuit:xx level:yy rising-alert	The amp. rising alert threshold of the specified circuit	To retrieve the amp. rising alert threshold of the circuit in A.
get circuit:xx level:yy low-alert	The amp. low alert threshold of the specified circuit	To retrieve the amp. low alert threshold of the circuit in A.
get circuit:xx level:yy amp state	The alarm state of current loading of the specified circuit	To retrieve the alarm state of the circuit. Value : Normal, L. Alert (low alert), R.Alert (rising alert) & Alarm
get circuit:xx level:yy voltage	The voltage of the specified circuit	To retrieve the voltage of the circuit in V.
get circuit:xx level:yy current	The current loading of the specified circuit	To retrieve the current loading of the circuit in A.
get circuit:xx level:yy power-factor	The power factor of the specified circuit	To retrieve the power factor of the circuit Valid value : 0.0 ~ 1.0
get circuit:xx level:yy active-power	The active power of the specified circuit	To retrieve the active power of the circuit in thousandth of kW.

Command	Default value	Remarks
get circuit:xx level:yy apparent-power	The apparent power of the specified circuit	To retrieve the apparent power of the circuit in thousandth of kVA.
get circuit:xx level:yy peak	The peak current loading of the specified circuit	To retrieve the peak current loading of the circuit in A.
get circuit:xx level:yy peak-timestamp	The time stamp of peak current loading of the specified circuit	To retrieve the time stamp of peak current loading of the circuit being recorded in A. Time stamp format : yymmddhhmmss
get circuit:xx level:yy cumulative-energy	The cumulative energy of the specified circuit	To retrieve the cumulative energy of the circuit in thousandth of kWh.
get circuit:xx level:yy cum-timestamp	The time stamp of cumulative energy of the specified circuit	To retrieve the time stamp of cumulative energy of the circuit being recorded in thousandth of kWh. Time stamp format : yymmddhhmmss
get circuit:xx level:yy protection-state	The circuit state of the specified circuit.	Value: Normal , Tripped

< 4.4 > Set Circuits

Command	Default value	Remarks
set circuit help	N/A	To show the list of circuit option can be set.
set circuit:xx level:yy alarm:zz	Set the amp. alarm threshold of the specified circuit to zz	To set the amp. Alarm threshold of the circuit in A up to 3 decimal places. Alarm threshold must be greater than rising alert threshold. Rising alert threshold must be greater than low alert threshold.
set circuit:xx level:yy rising-alert:zz	Set the amp. rising alert threshold of the specified circuit to zz	To set the amp. rising alert threshold of the circuit in A up to 3 decimal places. Rising alert threshold equals to 0.000 means disable.
set circuit:xx level:yy low-alert:zz	Set the amp. low alert threshold of the specified circuit to zz	To set the amp. low alert threshold of the circuit in A up to 3 decimal places. Low alert threshold equals to 0.000 means disable.
set circuit:xx level:yy peak:reset	Reset he peak current loading of the specified circuit to zero	To reset the peak current loading of the circuit to zero with timestamp updated.
set circuit:xx level:yy cumulative-energy:reset	Reset the cumulative energy of the specified circuit to zero	To reset the cumulative energy of the circuit to zero with timestamp updated.

< 4.5 > Get Outlets

Command	Default value	Remarks
get outlet help	N/A	To show the list of outlet option can be retrieved
get outlet:xx level:yy binding-circuit	The circuit which the outlet belongs to	Binding circuit value: 01 to 12. It depends on the no. of circuit of the PDU have.
get outlet:xx level:yy type	The outlet type of the specified outlet	To retrieve the outlet type of the outlet.
get outlet:xx level:yy name	The outlet name of the specified outlet	To retrieve the outlet name of the outlet.
get outlet:xx level:yy rated-volt	The rated voltage of the specified outlet	To retrieve the rated voltage of the outlet in V.
get outlet:xx level:yy rated-amp	The rated ampere of the specified outlet	To retrieve the rated ampere of the outlet in A.
get outlet:xx level:yy alarm	The amp. alarm threshold of the specified outlet	To retrieve the amp. Alarm threshold of the outlet in A.

Command	Default value	Remarks
get outlet:xx level:yy rising-alert	The amp. rising alert threshold of the specified outlet	To retrieve the amp. rising alert threshold of the outlet in A.
get outlet:xx level:yy low-alert	The amp. low alert threshold of the specified outlet	To retrieve the amp. low alert threshold of the outlet in A.
get outlet:xx level:yy power-up-sequence-delay	The power up sequence delay of the specified outlet.	To retrieve the power up sequence delay of the outlet in second. Value : 1 to 3600.
get outlet:xx level:yy relay-state	The power state of the specified outlet	To retrieve the power state of the outlet. Value : On / Off
get outlet:xx level:yy amp-state	The apparent power of the specified outlet	To retrieve the alarm state of the outlet. Value : Normal, L. Alert (low alert), R.Alert (rising alert) & Alarm
get outlet:xx level:yy voltage	The voltage of the specified outlet	To retrieve the voltage of the outlet in V.
get outlet:xx level:yy current	The current loading of the specified outlet	To retrieve the current loading of the outlet in A.
get outlet:xx level:yy power-factor	The frequency of the specified outlet	To retrieve the power factor of the outlet Valid value : 0.0 ~ 1.0
get outlet:xx level:yy active-power	The active power of the specified outlet	To retrieve the active power of the outlet in thousandth of kW.
get outlet:xx level:yy apparent-power	The apparent power of the specified outlet	To retrieve the apparent power of the outlet in thousandth of kVA.
get outlet:xx level:yy peak	The peak current loading of the specified outlet	To retrieve the peak current loading of the outlet in A.
get outlet:xx level:yy peak-timestamp	The time stamp of peak current loading of the specified outlet	To retrieve the time stamp of peak current loading of the outlet being recorded in A. Time stamp format : yymmddhhmmss
get outlet:xx level:yy cumulative-energy	The cumulative energy of the specified outlet	To retrieve the cumulative energy of the outlet in thousandth of kWh.
get outlet:xx level:yy cum-timestamp	The time stamp of cumulative energy of the specified outlet	To retrieve the time stamp of cumulative energy of the outlet being recorded in thousandth of kWh. Time stamp format : yymmddhhmmss

< 4.6 > Set Outlets

Command	Default value	Remarks
set outlet help	N/A	To show the list of outlet option can be set.
set outlet:xx level:yy name:zz	Set the outlet name of the specified outlet to zz	Lenth of name : 1 ~ 16. Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop.
set outlet:xx level:yy alarm:zz	Set the amp. alarm threshold of the specified outlet to zz	To set the amp. Alarm threshold of the outlet in A up to 3 decimal places. Alarm threshold must be greater than rising alert threshold. Rising alert threshold must be greater than low alert threshold.
set outlet:xx level:yy rising-alert:zz	Set the amp. rising alert threshold of the specified outlet to zz	To set the amp. rising alert threshold of the outlet in A up to 3 decimal places. Rising alert threshold equals to 0.000 means disable.
set outlet:xx level:yy low-alert:zz	Set the amp. low alert threshold of the specified outlet to zz	To set the amp. low alert threshold of the outlet in A up to 3 decimal places. Low alert threshold equals to 0.000 means disable.
set outlet:xx level:yy power-up-sequence-delay:zz	Set the power up sequence delay of the specified outlet to zz	To set the power up sequence delay of the outlet in second. Value: 1 to 3600s.
set outlet:xx level:yy relay-state:zz	Set the relay-state of the specified outlet to zz	To set the relay-state of the outlet. Value: On, Off, Power-cycle
set outlet:xx level:yy peak:reset	Reset he peak current loading of the specified outlet to zero	To reset the peak current loading of the outlet to zero with timestamp updated.
set outlet:xx level:yy cumulative-energy:reset	Reset the cumulative energy of the specified outlet to zero	To reset the cumulative energy of the outlet to zero with timestamp updated.

< 4.7 > Get Sensors

Command	Default value	Remarks
get sensor help	N/A	To show the list of sensor option can be retrieved
get sensor:xx level:yy name	The sensor name of the specified sensor	To retrieve the sensor name of the sensor.
get sensor:xx level:yy location	The sensor location of the specified sensor	To retrieve the sensor location of the sensor.
get sensor:xx level:yy activation	The activation state of the specified sensor	To retrieve the activation state of the sensor. 1=activated , 0=deactivated
get sensor:xx level:yy type	The sensor type of the specified sensor	To retrieve the sensor type of the sensor. 2=Temp/TH, 3=Door, 5=Smoke
get sensor:xx level:yy connect-state	The connect state of the specified sensor	To retrieve the connect state of the sensor. 1=connected, 2=disconnect
get sensor:xx level:yy alarm-state	The alarm state of the specified sensor	To retrieve the alarm state of the sensor. Temp /TH sensor :00=normal, 10=temp sensor alarm, 01=humid sensor alarm, 20=temp sensor rising alert, 02=humid sensor rising alert Door sensor : 10=open , 00=close Smoke sensor : 10=alarm, 00=normal
get sensor:xx level:yy temp-measurement	The temp. reading of the specified sensor	To retrieve the temp. reading of the sensor in degree C or F depends on the temp unit setting of system
get sensor:xx level:yy temp-state	The temp. alarm state of the specified sensor	To retrieve the temp. alarm state of the sensor. Value: Normal, Alarm,R.Alert
get sensor:xx level:yy temp-alarm	The temp. alarm threshold of the specified sensor	To retrieve the temp. Alarm threshold of the sensor in degree C or F depends on the temp unit setting of system
get sensor:xx level:yy temp-rising-alert	The temp. rising alert threshold of the specified sensor	To retrieve the temp. rising alert threshold of the sensor in degree C or F depends on the temp unit setting of system

Command	Default value	Remarks
get sensor:xx level:yy humid-measurement	The humidity reading of the specified sensor	To retrieve the humidity reading of the sensor in %.
get sensor:xx level:yy humid-state	The humid. alarm state of the specified sensor	To retrieve the humid. alarm state of the sensor. Value: Normal, Alarm,R.Alert
get sensor:xx level:yy humid-alarm	The humid. alarm threshold of the specified sensor	To retrieve the humid. Alarm threshold of the sensor in %.
get sensor:xx level:yy humid-rising-alert	The humid. rising alert threshold of the specified sensor	To retrieve the humid. rising alert threshold of the sensor in %.

< 4.8 > Set Sensors

Command	Default value	Remarks
set sensor help	N/A	To show the list of sensor option can be set
set sensor:xx level:yy location	To set the location of the specified sensor.	Length of location : 1 ~ 16. Valid input : 0~9, A~Z, a~z, underscore, dash & full-stop.
set sensor:xx level:yy activation:zz	To set the activation state of the specified sensor	To set the activation state of the sensor. 1=activate , 0=deactivate
set sensor:xx level:yy type:zz	To set the sensor type of the specified sensor	To set the sensor type of the sensor. 2=TH / Temp, 3=Door, 5=Smoke
set sensor:xx level:yy temp-alarm:zz	To set the temp. alarm threshold of the specified sensor	To set the temp. Alarm threshold of the sensor in degree C or F depends on the temp unit setting of system. Temp alarm threshold must be greater than temp. rising alert threshold.
set sensor:xx level:yy temp-rising-alert:zz	To set the temp. rising alert threshold of the specified sensor	To set the temp. rising alert threshold of the sensor in degree C or F depends on the temp unit setting of system. Temp. rising alert threshold equals to 0.0 means disable.
set sensor:xx level:yy humid-alarm:zz	To set the humid. alarm threshold of the specified sensor	To set the humid. Alarm threshold of the sensor in %.
set sensor:xx level:yy humid-rising-alert:zz	To set the humid. rising alert threshold of the specified sensor	To set the humid. rising alert threshold of the sensor in %. Temp. rising alert threshold equals to 0.0 means disable.

< Part 5 > Outlet Notation

Outlet Type	Notation
IEC C13	1
IEC C19	2
BS-1363	3
US NEMA	4
Schuko (CEE 7/4)	5
AS 3112	6
French (CEE 7/5)	7
L13 (IEC C13 with slide lock)	Z
L19 (IEC C19 with slide lock)	[
X19	\
CX13	^
CX19	_ (underscore)
South Africa (Type M)	R
International	S

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