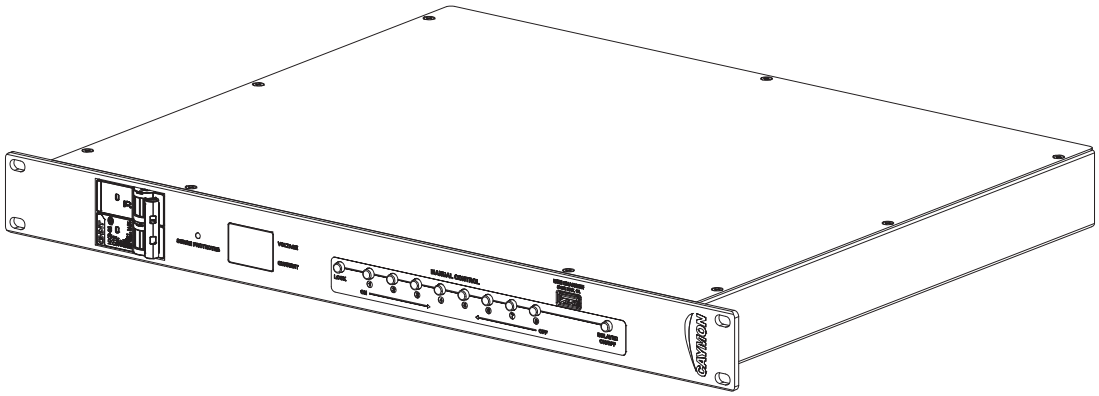
CAYMON
professional stands and racks

Commands Manual

PSQ108



ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the CAYMON website @ caymon.eu.

REV-1.2

Table of contents

Intelligent power sequencer

The PSQ108 is an intelligent power sequencer with 8 x IEC C13 outputs which can be remotely switched using AUDAC Touch™ via TCP/IP or RS-232 connection. It also features front controls for manual control. Several PSQ108 devices can be daisy chained together so that only one IP address is needed for controlling all units. The sequential power on/off function reduces the inrush current of the connected devices when power is turned on and by using the configurable delay times, the order in which the devices turn on can be set. Other features include short circuit and overcurrent protection by means of a 16A circuit breaker, voltage and current monitoring, surge protection with LED indicator and a front USB charging port (max 1000mA).

Chapter 1

Connections

CONNECTION STANDARDS

The in- and output connections for CAYMON equipment are performed according to international wiring standards for professional audio equipment.

RS232/485 port (RJ45)

Pin 1	White-Orange	RS232 RxD
Pin 2	Orange	RS232 TxD
Pin 3	White-Green	Not used
Pin 4	Blue	RS485 A
Pin 5	White-Blue	RS485 B
Pin 6	Green	GND
Pin 7	White-Brown	Not used
Pin 8	Brown	Not used

Network settings

STANDARD NETWORK SETTINGS

DHCP: **ON**
IP Address: 192.168.0.181 (Depending on DHCP)
Subnet Mask: 255.255.255.0 (Depending on DHCP)
Gateway: 192.168.0.1 (Depending on DHCP)
DNS 1: 8.8.4.4 (Depending on DHCP)
DNS 2: 1.1.1.1 (Depending on DHCP)

Chapter 2

Using the commands

The PSQ108 has 2 communication ports which all accept the same commands:

- RS232/485 port
- TCP/IP

The RS232/RS485 port must be configured with 19200 baud, 8 data bits, 1 stop bit, no parity.

The TCP/IP port accepts commands at port 5001. The PSQ108 accepts maximum 5 simultaneous TCP/IP connections.

Command overview

Startsymbol **|** *Destination* **|** *Source* **|** *Command* **|** *Argument(s)* **|** *Checksum* **|** *Return*

Example: Get the device IP address

ASCII command: #|C001|TOUC|GIP|0|U|return

Argument: None

Answer: dhcp^ip4.ip3.ip2.ip1^mask4.mask3.mask2.mask1^gw4.gw3.gw2.gw1^dns4.dns3.dns2.dns1^adns4.adns3.adns2.adns1

dhcp: dhcp status.

0=OFF

1=ON

ip: IP4 address of the unit

mask: subnet mask

gw: address of gateway

dns: IP4 address of dns server 1

adns : IP4 address of dns server 2

PSQ108 replies: #|TOUC|C001|GIP|0^192.168.0.181^255.255.255.0^192.168.0.1^8.8.4.4^1.1.1.1|U|return

Important:

- The address of the PSQ108 is C001 by default and the range is 001-999.
- The address for broadcast commands is C000 or ALL.
- Source address has a maximum length of 4 characters and cannot contain “|” or “#”
- Return in ASCII is <CR><LF> (carriage return & line feed)
- Return in HEX is 0x0d 0x0a (carriage return & line feed)
- The checksum is CRC-16 excluding the ‘#’. You can replace the checksum with ‘U’, this is always accepted as checksum.

Command flow

1. The client (e.g. TOUC-AUDAC Touch) sends a command to the PSQ108
2. The PSQ108 acknowledges the command by returning the same command and a ‘+’ as Argument.
3. The PSQ108 updates all clients with the new information

Chapter 3

Configuration and setting commands

SA - Set the device address

Device address range [1-999], C000 used for broadcast address. The device address C00x should be updated with C00y.

Command: #|C00x|TOUC|SA|id|U|return

Argument:

id: the new device address

Answer: +, acknowledge

Example: Set C001 device address to C002

ASCII Command: #|C001|TOUC|SA|2|U|return

Answer: #|TOUC|C001|SA|+|U|return

Update: #|ALL|C001|A|2|U|return

GIP - Get IP address

Get the device IP address

Command: #|C001|TOUC|GIP|0|U|return

Argument: None

Answer: #|TOUC|C001|GIP|dhcp^ip4.ip3.ip2.ip1^mask4.mask3.mask2.mask1^gw4.gw3.gw2.gw1^dns4.dns3.dns2.dns1^adns4.adns3.adns2.adns1|U|return

Example: Get the device IP address from C001

ASCII Command: #|C001|TOUC|GIP|0|U|return

Answer: #|TOUC|C001|GIP|0^192.168.0.101^255.255.255.0^192.168.0.254^8.8.4.4^1.1.1.1|U|return

SIP - Set IP address

Set the device IP address

Command: #|C001|TOUC|SIP|dhcp^ip4.ip3.ip2.ip1^mask4.mask3.mask2.mask1^gw4.gw3.gw2.gw1^dns4.dns3.dns2.dns1^adns4.adns3.adns2.adns1|U|return

Argument:

dhcp: dhcp status.

0=OFF

1=ON

ip: IP4 address of the unit

mask: subnet mask

gw: address of gateway

dns: IP4 address of dns server 1

adns: IP4 address of dns server 2

Answer: +, acknowledge

Example: IP address of C001 should be changed to 192.168.0.101

ASCII Command: #|C001|TOUC|SIP|0^192.168.0.101^255.255.255.0^192.168.0.254^8.8.4.4^1.1.1.1|U|return

Answer: #|TOUC|C001|SIP|+|U|return

Update: #|ALL|C001|IP|0^192.168.0.101^255.255.255.0^192.168.0.254^8.8.4.4^1.1.1.1|U|return

Relay commands

GRS - Get relay status

Command: #|C001|TOUC|GRS|0|U|return

Argument: None

Answer: #|TOUC|C001|SZSET|00rr|U|return

rr: Hexidecimal value of the binary relay status

Example: Request relay status from C001 and the answer is all relays are on, where the answer 00FF is 11111111 in 8 digit binary

The 8 bit hexadecimal representation is 00rr and bit0 is relay 1 and bit 7 relay 8. If bit value is 1 then relay is active.

ASCII Command: #|C001|TOUC|GRS|0|U|return

Answer: #|TOUC|C001|SZSET|00FF|U|return

SRON - Set relay on

Command: #|C001|TOUC|SRON|00rr|U|return

Argument: 00rr

00rr: The 8 bit hexadecimal representation where bit0 is relay 1 and bit7 relay 8. If bit value is 1 then relay is turned/kept on.

Answer: +, acknowledge

Example: Set the relay 1 on

ASCII Command: #|C001|TOUC|SRON|0001|U|return

Answer: #|TOUC|C001|SRON|+|U|return

Update: #|ALL|C001|SZSET| 0001|U|return

SROFF - Set relay off

Command: #|C001|TOUC|SROFF|00rr|U|return

Argument: 00rr

00rr: The 8 bit hexadecimal representation where bit0 is relay 1 and bit7 relay 8. If bit value is 1 then relay is turned /kept off.

Answer: +, acknowledge

Example: Set the relay 1 off

ASCII Command: #|C001|TOUC|SROFF|0001|U|return

Answer: #|TOUC|C001|SROFF|+|U|return

Update: #|ALL|C001|SZSET|00FE|U|return

GDELONE - Get delay on enable

Command: #|C001|TOUC|GDELONE|0|U|return

Argument: None

Answer: #|TOUC|C001|DELONE|relay1^relay2^relay3^relay4^relay5^relay6^relay7^relay8|U|return

Example: Request delayed power on status for C001 relays

ASCII Command: #|C001|TOUC|GDELONE|0|U|return

Answer: #|TOUC|C001|DELONE|1^1^1^1^1^1^1^1|U|return

SDELONE - Set delay on status

Command: #|C001|TOUC|SDELONE|relay1^relay2^relay3^relay4^relay5^relay6^relay7^relay8|U|return

Argument: relay

relay: relay status

0=Disabled

1=Enabled

2=Last state (before DELOFF or power interrruption)

Answer: +, acknowledge

Example: Set delayed power on status for C001 relays, relay 2 is set for last state and relay 3 is disabled

ASCII Command: #|C001|TOUC|SDELONE|1^2^0^1^1^1^1^1|U|return

Answer: #|TOUC|C001|SDELONE|+|U|return

Update: #|ALL|C001|DELONE|1^2^0^1^1^1^1^1|U|return

GDELONT - Get power on delay time

Command: #|C001|TOUC|GDELONT|0|U|return

Argument: None

Answer: #|TOUC|C001|DELONT|delay1^delay2^delay3^delay4^delay5^delay6^delay7 ^delay8|U|return

delay: delay on time (in seconds)

Example: Request power on delay time from C001 where the delayed on time for relay 1 is 1 second, for relay 2 is 2 seconds, for relay 3 is 3 seconds etc...

ASCII Command: #|C001|TOUC|GDELONT|0|U|return

Answer: #|TOUC|C001|DELONT|1^2^3^4^5^6^7^8|U|return

SDELONT - Set power on delay time

Command: #|C001|TOUC|SDELONT| delay1^delay2^delay3^delay4^delay5^delay6^delay7 ^delay8 |U|return

Argument: delay

delay: delay on time (in seconds, range 0s - 9999s)

Answer: +, acknowledge

Example: Set power on delay time from C001 where the delayed on time for relay 1 is 1 second, for relay 2 is 2 seconds, for relay 3 is 3 seconds etc...

ASCII Command: #|C001|TOUC|SDELONT| 1^2^3^4^5^6^7^8 |U|return

Answer: #|TOUC|C001|SDELONT|+|U|return

Update: #|ALL|C001|DELONT| 1^2^3^4^5^6^7^8|U|return

GDELOFFE - Get power off delay enable

Command: #|C001|TOUC|GDELOFFE|0|U|return

Argument: None

Answer: #|TOUC|C001|DELOFFE|relay1^relay2^relay3^relay4^relay5^relay6^relay7^relay8|U|return

Example: Request delayed power off status for C001 relays

ASCII Command: #|C001|TOUC|GDELOFFE|0|U|return

Answer: #|TOUC|C001|DELOFFE|1^1^1^1^1^1^1^1|U|return

SDELOFFE - Set power off delay enable

Command: #|C001|TOUC|SDELOFFE|relay1^relay2^relay3^relay4^relay5^relay6^relay7^relay8|U|return

Argument: relay

relay: relay status

0=Disabled, Relay is not turned off during delayed off

1=Enabled, Relay is turned off during delayed off

Answer: +, acknowledge

Example: Set power off delay enable for all relays

ASCII Command: #|C001|TOUC|SDELOFFE|1^1^1^1^1^1^1^1|U|return

Answer: #|TOUC|C001|SDELOFFE|+|U|return

Update: #|ALL|C001|DELOFFE| 1^1^1^1^1^1^1^1|U|return

GDELOFFT - Get power off delay time

Command: #|C001|TOUC|GDELOFFT|0|U|return

Argument: None

Answer: #|TOUC|C001|DELOFFT|delay1^delay2^delay3^delay4^delay5^delay6^delay7 ^delay8|U|return

delay: delay off time (in seconds)

Example: Request power off delay time from C001 where the delayed off time for relay 1 is 8 second, for relay 2 is 7 seconds, for relay 3 is 6 seconds etc...

ASCII Command: #|C001|TOUC|GDELOFFT|0|U|return

Answer: #|TOUC|C001|DELOFFT|8^7^6^5^4^3^2^1|U|return

SDELOFFT - Set power off delay time

Command: #|C001|TOUC|SDELOFFT|delay1^delay2^delay3^delay4^delay5^delay6^delay7 ^delay8 |U|return

Argument: delay

delay: delay off time (in seconds, range 0s - 9999s)

Answer: +, acknowledge

Example: Set power off delay time from C001 where the delayed off time for relay 1 is 8 second, for relay 2 is 7 seconds, for relay 3 is 6 seconds etc...

ASCII Command: #|C001|TOUC|SDELOFFT| 8^7^6^5^4^3^2^1 |U|return

Answer: #|TOUC|C001|SDELOFFT|+|U|return

Update: #|ALL|C001|DELOFFT| 8^7^6^5^4^3^2^1|U|return

GPWRON - Get power on setting

Command: #|C001|TOUC|GPWRON|0|U|return

Argument: None

Answer: #|TOUC|C001|PWRON|1|U|return

Example: Request power on setting for C001

ASCII Command: #|C001|TOUC|GPWRON|0|U|return

Answer: #|TOUC|C001|PWRON|1|U|return

SPWRON - Set power on setting

Command:#|C001|TOUC|SPWRON|power|U|return

Argument: power

power: power on setting

If argument is 0, device does not initiate delay on sequence after power is turned on. If argument is 1, device does initiate delay on sequence after power is turned on.

Answer: +, acknowledge

Example: Set power on setting for C001

ASCII Command: #|C001|TOUC|SPWRON|0|U|return

Answer: #|TOUC|C001|SPWRON|+|U|return

Update: #|ALL|C001|PWRON|0|U|return

DELON - Delayed power on

Command: #|C001|TOUC|DELON|0|U|return

Argument: None

Answer: +, acknowledge

Example: Execute delayed power on for C001

ASCII Command: #|C001|TOUC|DELON|0|U|return

Answer: #|TOUC|C001|DELON|+|U|return

Update: #|ALL|C001|SZSET|0001|U|return

#|ALL|C001|SZSET|0003|U|return

#|ALL|C001|SZSET|0007|U|return

#|ALL|C001|SZSET|000F|U|return

#|ALL|C001|SZSET|001F|U|return

#|ALL|C001|SZSET|003F|U|return

#|ALL|C001|SZSET|007F|U|return

#|ALL|C001|SZSET|00FF|U|return

The 8 bit hexadecimal representation is 00rr and bit 1 is relay 1 and bit 7 relay 8. If bit value is 1 then relay is active.

DELOFF - Delayed power off

Command: #|C001|TOUC|DELOFF|0|U|return

Argument: None

Answer: +, acknowledge

Example: Execute delayed power off for C001

ASCII Command: #|C001|TOUC|DELOFF|0|U|return

Answer: #|TOUC|C001|DELOFF|+|U|return

Update: #|ALL|C001|SZSET|007F|U|return

#|ALL|C001|SZSET|003F|U|return

#|ALL|C001|SZSET|001F|U|return

#|ALL|C001|SZSET|000F|U|return

#|ALL|C001|SZSET|0007|U|return

#|ALL|C001|SZSET|0003|U|return

#|ALL|C001|SZSET|0001|U|return

#|ALL|C001|SZSET|0000|U|return

The 8 bit hexadecimal representation is 00rr and bit 1 is relay 1 and bit 7 relay 8. Relay is turned off during delayed off sequence.

Monitoring commands

GVAM - Get voltage and current

Command: #|C001|TOUC|GVAM|0|U|return

Argument: None

Answer: #|TOUC|C001|VAM|V^A|U|return

V: Voltage reading in Volts

A: Current reasding in mA

Example: Request voltage and current information for C001

ASCII Command: #|C001|TOUC|GVAM|0|U|return

Answer: #|TOUC|C001|VAM|240^200|U|return

240V, 200mA

GSPD- Get surge protection (SPD) status

Command: #|C001|TOUC|GSPD|0|U|return

Argument: None

Answer: #|TOUC|C001|SPD|1|U|return

SPD: Surge protection status.

0=Disabled

Device is not protected against surges and should be inspected by qualified technician.

1=Enabled

Device is protected against electrical surges.

Example: Request SPD status for C001

ASCII Command: #|C001|TOUC|GSPD|0|U|return

Answer: #|TOUC|C001|SPD|1|U|return

GMORE - Get voltage, current, surge protection status and relay status

Command: #|C001|TOUC|GMORE|0|U|return

Argument: None

Answer: #|TOUC|C001|MORE|V^A^SPD^RS|U|return

RS: Relay status in hexadecimal.

Example: Request voltage, current, surge protection status and relay status for C001

ASCII Command: #|C001|TOUC|GMORE|0|U|return

Answer: #|TOUC|C001|MORE|240^200^1^FF|U|return

Normally this information is broadcasted every three seconds.

Factory reset commands

RESET - Restart device

Command: #|C001|TOUC|RESET|reset|U|return

Argument:

reset: reset mode

0= This argument restarts in normal operation mode.

1= This argument reboots the device in update modus and makes the device ready to receive update by updater program.

Answer: None

Example: Restart C001

ASCII Command: #|C001|TOUC|RESET|0|U|return

Answer: None

DEF - Reset to factory defaults

Command: #|C001|TOUC|DEF|reset|U|return

Argument: reset

0=Reset address, relays off, DELONT, DELONE, DELOFFT, DELOFFE, PWRON

1=Reset address, relays off, DELONT, DELONE, DELOFFT, DELOFFE, PWRON + **IP**

Answer: +, acknowledge

Example: Reset C001 without resetting IP

ASCII Command: #|C001|TOUC|DEF|0|U|return

Answer: #|TOUC|C001|DEF|+|U|return

Update: Address: C001|return

TCP/IP: IP setting DO NOT change after a factory reset|return

Relay: all relays go to OFF|return

Delay on time: 1^2^3^4^5^6^7^8|return

Delay off time: 8^7^6^5^4^3^2^1|return

Delay on enable: 1^1^1^1^1^1^1^1|return

Delay off enable: 1^1^1^1^1^1^1^1|return

Power on: 1 (delayed power on on startup)|return

Misc commands

GSV - Get device software version

Get installed software version

Command: #|C001|TOUC|GSV|0|U| return

Argument: None

Answer: #|TOUC|C001|SV|SV|U|return

SV: Software version

Example: Request software version from C001

ASCII Command: #|C001|TOUC|GSV|0|U|return

Answer: #|TOUC|C001|SV|1.2|U|return

CAYMON
professional stands and racks

Discover more on caymon.eu