



PowerPlay Programming Manual

HTTP command protocols

Connect a Cat5/6 cable to the Ethernet port on the backpanel of the PowerPlay to a network port. The PowerPlay can communicate with a computer connected to the internet, or to the PS Audio Globalnet Server.

HTTP commands are entered in the following syntax:

<http://HOSTNAME/commands.cgi?command=XX=YYY> where the XX=YYY portion is as described in the tables below. These command input characters must be uppercase. HOSTNAME can be the host name of the PowerPlay (readable from the front panel display, or network interface), or the IP address (also readable from the front panel display, or network interface).

If there is a command input error, depending on the type of error, the PowerPlay will respond with either &data=OK, or &data=ERROR.

Serial command protocols

Connect a terminal or computer directly to the female DB9 RS232 connector on the PowerPlay backpanel for direct serial communication. Port setup parameters:

- Baud rate 19200
- No. of data bits 8
- No. of stop bits 1
- Parity none
- Flow control none

Serial commands are entered in the following syntax:

[XX=YYY](#)\n\r where XX=YYY is as described in the tables below. The \n\r command terminators are new line and carriage return.

If there is a command input error, depending on the type of error, the PowerPlay will respond with either &data=OK, or &data=ERROR



Table 1: Unit Commands

Command	Action	Syntax	PowerPlay Response
Unit Power	Master Power OFF	UP=OFF	&data=OK
	Master Power ON	UP=ON	&data=OK
	Reboot Master Power	UP=REBOOT	
	Master Power Status	UP=?	&data=xxx (ON or OFF)
Unit Name	Set Unit Name	UN=xxx (up to 16 char)	&data=OK
	Request Unit Name	UN=?	&data=xxx (Unit Name)
Display Brightness	Set display to BRIGHT	UB=BRIGHT	&data=OK
	Set display to DIM	UB=DIM	&data=OK
	Set display to OFF	UB=OFF	&data=OK
	Display brightness status	UB=?	&data=xxx (BRIGHT, DIM, OR OFF)
Output Delay	Set Unit output ON/OFF delay (seconds)	UD=x,y (up to 65536,65536)	&data=OK
	Return output delay settings	UD=?	&data=x,y (x= number of seconds of delay before switching on. y= number of seconds before switching off)
Unit Lockout	Turn front panel lockout OFF	UL=OFF	&data=OK
	Turn front panel lockout ON	UL=ON	&data=OK
	Return Lockout Status	UL=?	&data=xxx (ON or OFF)
DHCP	Turn DHCP Server Off	NS=OFF	&data=OK
	Turn DHCP Server On	NS=ON	&data=OK
	Return DHCP Status	NS=?	&data=xxx (ON or OFF)
Status Requests	Return Power Status of Unit and Zones	RS	Note 1
	Return all Information	RA	Note 2



Table 2: Zone Commands

Command	Action	Syntax (x=zone number 1-10)	PowerPlay Response
Zone Power	Turn Specified Zone Off	ZP=x,OFF	&data=OK
	Turn Specified Zone On	ZP=x,ON	&data=OK
	Reboot Specified Zone	ZP=x,REBOOT	&data=OK
	Return Specified Zone Power Status	ZP=x,?	&data=yyy (ON or OFF)
Zone Name	Set specified Zone Name	ZN=x, y (up to 16 chars)	&data=OK
	Return Specified Zone Name	ZN=x,?	&data=yyy (Zone Name Characters)
Zone Delay	Set Specified Zone Delay to Always On	ZD=x,ON	&data=OK
	Set Specified Zone Delay to Switched	ZD=x,SW	&data=OK
	Set Specified Zone Delay to Delayed	ZD=x,DLY	&data=OK
	Set Specified Zone Delay to Programmed	ZD=x,PGM	&data=OK
	Set Specified Zone Delay to Reboot	ZD=x,RBT	&data=OK
	Set Specified Zone Delay to Auto- Reboot	ZD=x,ARB	&data=OK
	Return Specified Zone Delay Status	ZD=x,?	&data=yyy (ON,SW,DLY, PGM,RBT, OR ARB)
	Set Specified Zone Delay Time (seconds)	ZT=x,y,z (up to 65536,65536)	&data=OK
	Return Specified Zone Delay Time	ZT=x,?	&data=y,z (y= number of seconds of delay before switching on. z= number of seconds before switching off)
Zone Priority	Set Specified Zone Priority Level to Low	ZL=x,LOW	&data=OK
	Set Specified Zone Priority Level to Normal	ZL=x,NORMAL	&data=OK
	Set Specified Zone Priority Level to Critical	ZL=x,CRITICAL	&data=OK
	Return Specified Zone Priority Level	ZL=x,?	&data=yyy (LOW, NORMAL, or CRITICAL)



Table 3. External interface commands

Command	Action	Syntax	PowerPlay Response
Infrared Control	Store IR Code	IS=x (IR Code String)	&data=OK
	Get IR Code	IG=x (Code number (1-16))	&data= x (IR Code String)
	Delete IR Code	ID=x (Code number (1-16))	&data=OK
	Send IR Code	IF=x (Code number (1-16))	&data=OK
	Return IR Code information	RI	&irxname=YY. See note 3.
Phone Control	Set Phone Control Password	PP=x (4 digits)	&data=OK
	Return Phone Control Password	PP=?	&data= (4 digits)

Note 1. PowerPlay Response to the RS command:

Example

&upwr=1&umov=1&zpwr=1111111111&volts=122&watts=10&thd=3.3&temp=nosensor&ups=notfound

	Response	Range of Response
Unit Power Status	&upwr=	0 if off, 1 if on
Over Voltage Metal Oxide Varistor (MOV) Protection Status	&umov=	0 if no MOV protection, 1 if MOVs are ok
Zone Power Status	&zpwr=	For each zone, 0 if off, 1 if on
Output Voltage	& volts=	Same as the output voltage displayed on the front panel
Output Power	&watts=	Same as the output power displayed on the front panel
Output Harmonic Distortion	&thd=	Same as the harmonic distortion reading displayed on the front panel
Temperature	&temp=	If the optional temperature sensor is installed, this is the same value that is displayed on the front panel for temperature. Otherwise 'nosensor'
UPS	&ups=	notfound, online, battery, critical, or loop



Note 2. PowerPlay response to the RA command.

Example:

```
&upwr=1&uname=Unit_1&utdon=0&utdoff=0&ulock=0&umov=1&ub=2&ptype=ci&mtype=9000&mvolt
s=120&z1pwr=1&z1name=Preamp&z1dlymode=ON&z1tondly=3&z1toffdly=3&z1priority=1&z2pwr=1&z
2name=DLY&z2dlymode=ON&z2tondly=3&z2toffdly=3&z2priority=1&z3pwr=1&z3name=ZONE3&z3dly
mode=SW&z3tondly=3&z3toffdly=3&z3priority=1&z4pwr=1&z4name=ZONE4&z4dlymode=SW&z4tondly
=3&z4toffdly=3&z4priority=1&z5pwr=1&z5name=ZONE5&z5dlymode=SW&z5tondly=3&z5toffdly=3&z
5priority=1&z6pwr=1&z6name=ZONE6&z6dlymode=SW&z6tondly=3&z6toffdly=3&z6priority=1&z7pwr=
1&z7name=ZONE7&z7dlymode=SW&z7tondly=3&z7toffdly=3&z7priority=1&z8pwr=1&z8name=ZONE8
&z8dlymode=SW&z8tondly=3&z8toffdly=3&z8priority=1&z9pwr=1&z9name=ZONE9&z9dlymode=SW&z
9tondly=3&z9toffdly=3&z9priority=1&z10pwr=1&z10name=ZONE10&z10dlymode=SW&z10tondly=3&z
10toffdly=3&z10priority=1&volts=123&watts=11&thd=3.3&temp=nosensor&ups=notfound&dhcps=1&d
hcp=1&mac=001FF6000081&ip=192.168.249.51&mask=255.255.255.0&gateway=192.168.249.1&pdns=
192.168.249.204&sdns=192.168.249.206&hostname=PowerPlay1&fwvproc=2.01&fwvboot=1.05&fwvw
eb=1.11&fwvtel=1.01&fwvtelwav=1.04
```

	RA Response	Range of Response
Unit Power Status	&upwr=	0 if off, 1 if on
Unit Name	&uname=	Up to 16 alphanumeric characters
Unit Time Delay On	&utdon=	0 to 65536
Unit Time Delay Off	&utdoff=	0 to 65536
Front Panel locked	&ulock=	0 if not locked. 1 if locked
Over Voltage Metal Oxide Varistor (MOV) Protection Status	&umov=	0 if no MOV protection, 1 if MOVs are ok
Display Brightness	&ub=	0 if off, 1 if dim, 2 if bright
Product Type	&ptype=	ci or av
Model Number	&mtype=	8000 or 9000
Product Voltage	&mvolts=	Nominal design voltage = 100,120, or 230
Zone Power Status	&z(1-10)pwr=	For each zone, 0 if off, 1 if on
Zone Name	&z(1-10)name=	Up to 16 alphanumeric characters
Zone Delay Mode	&z(1-10)dlymode=	ON or OFF
Zone On Delay Time	&z(1-10)ondly=	0 to 65536
Zone Off Delay Time	&z(1-10)offdly=	0 to 65536
Zone Priority	&z(1-10)priority=	0=Low, 1=Normal, 2=Critical
Output Voltage	&volts=	Same as the reading on the front panel display



Output Power	&watts=	Same as the reading on the front panel display
Output Harmonic Distortion	&thd=	Same as the reading on the front panel display
Temperature	&temp=	Same as the reading on the front panel display if optional temp sensor is installed. Otherwise 'nosensor'
UPS Status	&ups=	notfound, online, battery, critical, or loop
DHCP Server Enable	&dhcps=	0=disabled, 1=enabled
DHCP Enable	&dhcp=	0=disabled, 1=enabled
MAC Address	&mac=	MAC address of unit
IP Address	&ip=	IP address of unit
Subnet Mask	&mask=	Mask address of unit
Gateway Address	&gateway=	Address of Gateway
Primary DNS server	&pdns=	IP Address of Primary DNS server
Secondary DNS server	&sdns=	IP Address of Secondary DNS server
Hostname	&hostname=	Up to 16 alphanumeric characters
Processor Firmware Version	&fwvproc=	Version number of main control software
Bootloader Firmware Version	&fwvboot=	Version number of bootloader software
Web Firmware Version	&fwvweb=	Version number of Web interface software
Telephone control Firmware Version	&fwvtel=	Version number of phone control software
Telephone control .wav file Firmware	&fwvtelwav=	Version number of telephone audio file software

Note3. PowerPlay response to the RI command

Example

```
&ir1name=TV Power &ir1event=PWRON&ir1wait=1&ir2name=TV Ch
&ir2event=PWRON&ir2wait=1&ir3name=Mute &ir3event=PWRON&ir3wait=1&ir4name=Vol up
&ir4event=PWRON&ir4wait=1&ir5name=Vol dn &ir5event=PWRON&ir5wait=1&ir6name=VCR Power
&ir6event=PWRON&ir6wait=1&ir7name=EMPTY&ir8name=EMPTY&ir9name=EMPTY&ir10name=EMPTY
&ir11name=EMPTY&ir12name=EMPTY&ir13name=EMPTY&ir14name=EMPTY&ir15name=EMPTY&ir16n
ame=EMPTY&freeslots=10
```