

# ***MultiView*** ***Octet*** **System**

Quick Reference  
&  
Setup Guide



## **Magenta Research**

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## MAGENTA MULTIVIEW™ SERIES

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# 1. Specifications

**Cable Required:** Category 5, 5e, 6 shielded or unshielded twisted pair

**Compliance:** CE; FCC Class A, IC Class A

**Video Support:** all supported VESA modes to WUXGA (1920x1200), RGBHV, RGB, Composite (NTSC, PAL, SECAM), S-Video, Component Video, widescreen modes, HDTV modes including 1080p, 1080i, 720p (Receiver Dependent)  
DDC/EDID fully supported

**Resolution and**

**Refresh Rate:** Receiver Dependent

**Required Source**

**Impedance:** Video OUT: 75 ohms;  
Audio models: Audio OUT (if any): 600 ohms maximum

**Required Destination**

**Impedance:** Video IN: 75 ohms;  
Audio models: Audio IN (if any): 24k ohm

**Audio**

**Characteristics:** Full Stereo  
Line Level 600 Ohm Unbalanced

**Serial**

**Characteristics:** Protocol: Asynchronous; transparent to data format;  
3 wire (Tx, Rx, Gnd), baud rate selectable.  
Default baud rate is 9600.

**Connectors:** (2) 3.5 mm (1/8"), (8) RJ-45, (2) HD15 F; (2) DB9M

**Temperature**

**Tolerance:** Operating: 32 to 104°F (0 to 40°C);  
Storage: -4 to +140°F (-20 to +60°C)

**Humidity**

**Tolerance:** Up to 80% noncondensing

**Enclosure:** Steel

**Power:** +12 VDC  
Consumption: 18 watts maximum

**Size:** 1.75"H x 8.7"W x 6.0"D (4.4 x 22.1 x 15.2 cm)

**Weight:** 2.3 lb. (1.04 kg)

## 2. Introduction

### 2.1 Overview

The MultiView™ Octet System supports RS-232, video and stereo audio signals over CAT5 cable. The Octet SAP RS-232 serial protocol offers pollable serial modes so a bi-directional serial session can be established with a single receiver attached to the Octet or a receiver in a daisy chain that is attached to the Octet.

In order to utilize the full potential of the Magenta MultiView Octet, all receivers must be SAP versions.

Non SAP receivers may be utilized for video only applications.

Video signals supported include RGBHV, Component (HD/SD formats) as well as composite and S-Video (adapter cables may be required).

Serial signals are 3 wire RS-232 (Tx, Rx, ground, 8-N-1).

Note when using the Magenta MultiView Octet and SAP series receivers with a MultiView 9D Cat5 DA, or Cat5 matrix switch, the serial is one way transmit only. There are no configuration changes required to the units. The serial application in use should be changed to transmit only.

Audio is full stereo, line level. One or two separate channels of mono audio may also be used.

### WARNING

**This equipment is not intended for, nor does it support, distribution through an Ethernet network. Do not connect these devices to any sort of networking or telecommunications equipment!**

### 2.2 Equipment You May Also Need

- Audio cable with 3.5 mm jacks.
- Video cable with HD15 connectors
- Serial cable with DB9 connectors.
- CAT5 cable.

### 2.3 Compatible Cabling

Magenta Research products are compatible with Cat5/5e/6 data cabling as well as skew free CAT5/5e cabling manufactured for video applications. Note that some skew free Cat5 is specific to a particular vendor and is not compatible with our products. Please ensure any skew free CAT5 cable is non-proprietary prior to purchase/ installation.

CAT6 cable, due to the manufacture method, can exhibit much greater skew than standard CAT5/5e and may require skew compensation beyond what the standard product offers. Please contact Magenta Research for assistance.

CAT5/5e/6 cabling for the Magenta MultiView Series must be pinned to the TIA-EIA T568B wiring specification (see Appendix A) We also highly recommend that all CAT5 cables be pre-terminated and tested. Cables terminated on-site or in an existing infrastructure should be tested before use to ensure compliance with the TIA-EIA T568B specification. Using incorrectly terminated CAT5 cables can damage the Magenta MultiView Series.

## 3. Setup and Installation

### 3.1 Data Mode Configuration

SAP series offer pollable RS232 serial in addition to stereo audio. The serial signal is 3 wire TX, RX, GND and does not support full modem signals. Baud rates for the SAP series selectable from 1200 to 115k . Simplex modes are supported without jumper or other changes by simply using the TX signal only. See Sections 3.3.3, 3.3.4 and Appendix B on configuration and use of Octet and SAP series receivers

### 3.2 Cabling Considerations

- We recommend mounting and connecting all cabling to the Magenta MultiView Series components before applying power.
- Make sure that the CAT5 cable you intend to use has been tested to comply with the TIA/EIA 568B wiring specification (See **Appendix A**).

### 3.3 Making the Connections

#### 3.3.1 CONNECTIONS AND SETUP IN GENERAL

In order to setup and use the MultiView Octet transmitter:

1. Connect the source video to the Magenta MultiView Octet video input port which is an HD15 connector labeled VIDEO IN. For RCA or BNC signals, an adapter cable may be required. Contact Magenta Research for details
2. If desired, attach a local monitor via the local monitor port to the VIDEO OUT port or use this port to cascade into another Octet (up to 5 units may be cascaded this way).
3. Make your audio and serial connections via the 3.5 mm stereo input and DB9 connector as appropriate. The AUDIO OUT and SERIAL OUT may be cascaded to other Octets as necessary (up to 5 units).
4. Connect the CAT5 cables from the receivers to the CAT5 OUTPUTS of the Octet.
5. Apply power on the transmitter. The power LED should light and if there's a local monitor attached a video image should appear on the monitor's screen.
6. Install receiver units per the instructions in the respective receiver user manual. Ensure each receiver has a unique address (see receiver manual or Appendix B).
7. Set up the Octet using the LCD screen and menu options. See Section 3.3.3. The Octet may also be setup and controlled serially. See Section 3.3.4.

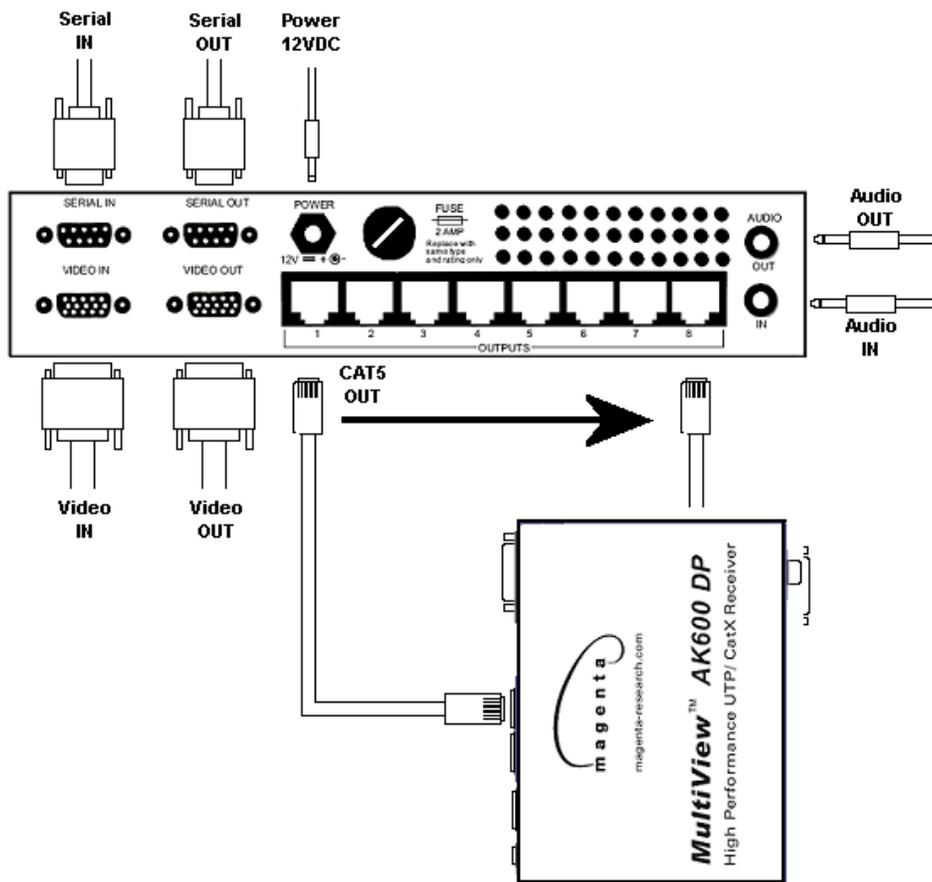
Refer to Sections 3.3.5 for use and operation of the Octet

**3.3.2 CONNECTIONS ON THE OCTET**

The Octet supports a variety of video modes from composite, S-video, Component and RGBHV. Adapter cables may be necessary to connect to the HD15 video input. Audio signal is line-level stereo and powered speakers are required. Serial protocol is 3 wire Tx, Rx, Gnd 8-N-1.

Figure 3-1 shows the Octet cable connections.

Note that the VIDEO OUT, SERIAL OUT, and AUDIO OUT may be used to cascade to secondary Octets. The video and audio outputs may also be connected to an external display monitor and powered speakers local to the Octet. A maximum of 5 Octets may be cascaded together.



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### 3.3.3 OCTET SETUP and CONFIGURATION

The MultiView™ Octet System setup and configuration parameters are accessible via the front LCD screen. Four buttons are used to select, view and/or change parameters.

Figure 3-2 shows the locations and functions of the controls.

The following explains each setup screen as well as its possible values.

After 10 seconds of inactivity within a setup screen, the Octet will exit setup mode and display the Default Status screen or a user defined status screen.

#### **MENU button**

Cycles through the various configuration parameters

#### **OK button:**

Press to accept parameter value

#### **UP/DOWN buttons:**

Cycles through options for a given parameter.

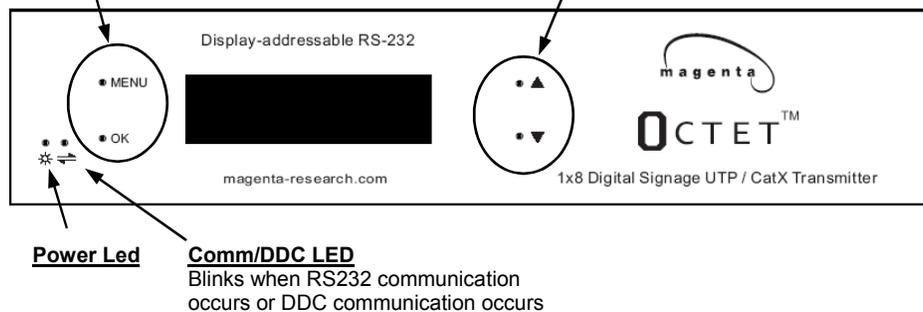


Figure 3-2. Octet Controls

#### **Octet Setup Menus:**

Use the MENU button to cycle through the options. Once in an option setting, use the UP/DOWN buttons to cycle through the parameter settings. When desired parameter is shown, press the OK button to select and save it.

#### **Default /Status screen:**

This screen is shown during normal operation. It displays the Octet firmware version on the first line, the second line shows the Octet Source Unit Address and the Destination Unit Address. These indicate the current transmitter to receiver serial session.

The UP/DOWN buttons may be used to adjust the LCD display contrast settings.

Pressing OK will save the current contrast setting into memory.

It is also possible to change the default screen to display a custom message. See Section 3.3.4, *Write String to LCD* command.

#### **Software Version screen:**

This screen shows the Octet's firmware and software versions.

### 3.3.3 OCTET SETUP and CONFIGURATION

#### **DC Restore Mode:**

This screen shows current DC Restore mode settings. DC Restore modes are used to correct for AC coupled video signals on the transmitter input (Note: AC Coupling must be turned on by selecting AC mode in AC Coupling screen. See AC Coupling parameters). Also see Section 4, Troubleshooting for more information. DC Restore modes may be changed at will and go into effect immediately. A power cycle is not required.

Modes are:

00 = DC Restore OFF (default)

01 = DC Restore Mode 1

02 = DC Restore Mode 2

Press the OK button to select desired value.

#### **AC Coupling:**

This screen works in conjunction with the DC Restore mode discussed previously.

In order to use DC Restore modes 1,2 AC Coupling must be set to AC. The default video mode is DC. Use the UP/Down buttons to select desired setting, then press the OK button.

However, AC coupling may be used by itself in non-RGBHV modes such as YUV video. Sync problems can occur if this mode is ON, DC Restore is set to OFF when RGBHV video is used.

#### **Sync Mode:**

This screen is used to change the H/V sync mode in RGBHV signals.

In most cases, the default value of Agile sync will work fine. However there are times when a signal (especially a 1080p signal) may require Fixed sync mode.

***NOTE: ALL receivers must also be set to Fixed sync mode for the system to function properly. See appropriate receiver manual for details. Not all receivers support fixed sync modes.***

Once desired sync mode is selected, press OK button to store in memory.

#### **Baud Rate:**

This screen can be used to change the baud rate on the Octet's serial input port

***NOTE: This only affects the incoming Octet Serial ports. It does not change the receivers baud rate. It is not recommended to change the incoming baud rate unless absolutely necessary as it is possible to saturate the communication link to the receiver resulting in data over runs and data loss.***

To change the baud rate, use the UP/DOWN buttons to select desired value, then press the OK button to set it. The default baud rate is 9600.

#### **Source Address:**

This screen configures the serial address of the Octet. This address is used to establish a serial session with a receiver. This address must be unique and in the range of 0-255 (or if cascading Octets, address+256\*Octet\_ID number)

This address will also appear in the Status screen.

If multiple Octets are serially cascaded, each Octet must have a unique address. This will reduce the number of addresses available for receivers.

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### 3.3.3 OCTET SETUP and CONFIGURATION

#### **Destination Address:**

This screen sets the address of a receiver to which the Octet will establish a serial session with. All serial commands sent to the SERIAL IN port will pass to this receiver. This may also be accomplished via a keyboard command as detailed in the next section. The default value is 0.

Note that this value is not retained in memory and will revert to the default value after a power cycle.

Use UP/DOWN buttons to select and press OK when done.

#### **Copy DDC:**

This screen will initiate a DDC copy of the display connected to the VGA IN port.

The DDC is a data communication channel used in plug and play devices to accurately report a displays capabilities and identify the manufacturer. If this data is not available, the video source may revert to a low resolution or not display at all.

To copy a particular display's DDC:

Remove the Source input signal and temporarily connect the desired display. Press the OK button in the Copy DDC LCD screen on the Octet to start the copy sequence. Once the DDC information has been copied, the monitor can be removed. The new DDC will be stored into the Octet memory.

The Octet features a generic DDC as a default. This can be restored using the command below. This DDC supports popular VESA standards in standard and widescreen formats.

#### **Restore DDC:**

To restore the Octet's generic default DDC, press the OK button in this screen.

#### **Set Attention Character:**

The attention character is the special code that is used to communicate with the Octet. When sending Octet specific commands this character sequence must be used. This is a one character sequence of Control-A through Control-Z (or 01h to 1Ah)

*NOTE: This code is sent once to the Octet in order to establish communication with the intended receiver. Once a session has been established with a specific receiver normal serial control source to device may commence without further formatting.*

The default value is control-X (18h). This may be changed to one of 26 possible letters of control-A to control-Z. Note that this control code will not be passed by the Octet to a receiver. If the device being controlled requires specific control codes such as Ctrl-M (carriage return), ensure this value is not used as the Octet attention code.

#### **Pass-through mode:**

When the pass-through mode is enabled, the Attention character and all Octet commands are ignored. Serial communication is passed directly to all devices in the system in broadcast mode. This is useful if a third party display addressing system is utilized.

**Front Panel Lockout**

The front panel buttons may be locked/unlocked. When the buttons are locked, the LCD will indicate this whenever a button is pressed. See below:

To Lock the front panel buttons:

- 1) Press and hold the MENU and OK buttons simultaneously
- 2) Press the DOWN arrow button.

To Unlock the front panel buttons:

- 1) Press and hold the MENU and OK buttons simultaneously
- 2) Press the UP arrow button.

**Reset Octet to factory defaults**

To reset all parameters in the Octet to factory defaults, press and hold all four buttons simultaneously.

The LCD will display RESET ALL. CONFIGURATION SAVED when complete.

**3.3.4 OCTET SERIAL COMMANDS**

The Octet can be configured via the serial port also, as follows:

**Sending Commands:**

All Octet commands are preceded by an “attention character”, which is factory-set to control-X (18h). It is possible to change the attention-character through the Octet’s serial port or LCD display. In the following command set description, this character is represented by: **<ATTN>**.

**Note:** When using a Windows terminal application to send commands, it is helpful to configure it so that it will “Append line feeds to incoming line ends”.

**Addressing Rules:**

SAP-receivers have an 8-bit “device address” which can be set with a DIP-switch on the receiver. There are some special rules concerning how receivers behave depending on their address:

<b>Receiver Address</b>	<b>Behavior</b>
0	Receives broadcast-session data. Able to respond if there is a broadcast-session active.
1...255	Receives broadcast-session data. Does not respond if there is a broadcast-session active. Receives device-session data. Only able to respond if there is a Device-session active.

There are several types of communication sessions:

- Device-session.  
One Octet communicates specifically with one receiver.
- Group broadcast:  
One specific Octet broadcasts to all receivers attached directly to it.
- Global broadcast:  
All Octets broadcast to all receivers attached to them.

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### Octet serial commands:

#### Device-session:

The one-to-one communication session is established using this command sequence:

Command:       <ATTN>Da<CR>  
Response:       none (individual session is activated)

**a** = device address. Range = "1" to "255" (ASCII encoded).

**Note:** For cascaded Octet units, add (256 \* Octet\_ID) to the device address.

Consider an Octet cascade-configuration of 5 units, with ID's 0, 1, 2, 3 and 4:

To establish a session with remote ID "3" attached to Octet unit ID "4", the address field will need to be:  $(3 + (256 * 4)) = 1027$ .

**Note:** Only receivers set to the specified address in this command will be able to respond.

#### Group Broadcast:

Generally this is used to send a message to all receivers simultaneously when a specific response isn't required. When using cascaded Octet units, add "256\*Octet\_ID" to the address field for every Octet unit beyond the base unit.

Command:       <ATTN>Da<CR>  
Response:       none (group session is activated)

**a** = 0 + (256 \* Octet unit ID)

**Note:** Only receivers set to address-0 will be able to respond however all receivers attached to the selected Octet unit will receive the message. Use with caution – you may need to have "addressable displays" in the system.

#### Global Broadcast:

Generally this is used to send a message to all receivers in the entire system (across all Octet units) simultaneously when a specific response isn't required.

Command:       <ATTN>D\*<CR>  
Response:       none (global session is activated)

**Note:** Only receivers set to address-0 will be able to respond however all receivers in the system will receive the message. Use with caution – you may need to have "addressable displays" in the system.

#### Lock Front Panel Buttons:

Command:       <ATTN>L<CR>  
Response:       @<CR>

**Note:** If you press a button when they are locked, a message is displayed indicating "Buttons Locked!".

#### Unlock Front Panel Buttons:

Command:       <ATTN>U<CR>  
Response:       @<CR>

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### Octet serial commands:

#### Write string to LCD:

Command: <ATTN>Wascii-string-up-to-32-chars<CR>  
Response: @<CR>

- The string will override the **idle-screen** display. The string can be up to 32 characters.
- Characters 1-16 will display on line-1, characters 17-32 will display on line-2.
- A string shorter than 32 characters will be padded with trailing spaces on the LCD.
- For example, to display this message on the LCD:

This is a test 1  
This is a test 2

Send the command: <ATTN>W**This is a test 1This is a test 2**<CR>

#### Restore LCD default display:

Command: <ATTN>W<CR>  
Response: @<CR>

#### Set Octet's ID number:

Command: <ATTN>Sa<CR>  
Response: @<CR>

**a** = 0 to 255. There can be up to 256 Octet units in one cascade configuration.

For example, to set the ID to 12, send the command <ATTN>S12<CR>

#### **Note:**

- The ID number can also be set through the front-panel LCD menu interface.

**Caution:** To prevent assigning multiple Octets the same ID, use this command **only** when they are **not** serially-cascaded. In other words – do one box at a time.

#### Read Octet's ID number:

Command: <ATTN>A<CR>  
Response: Saaa@<CR>

**aaa** = 000 to 255. Note: This response is always padded with leading zero's.

**Caution:** Use this command **only** when connected directly to a single Octet. **Do Not** send this command to a group of serially-cascaded Octets because the result will be indeterminate.

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### Octet serial commands:

#### Copy DDC Data from monitor:

Command: <ATTN>C<CR>  
Response: @<CR>

#### Restore default DDC data:

Command: <ATTN>E<CR>  
Response: @<CR>

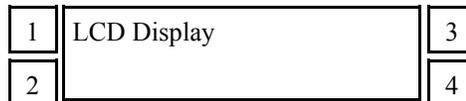
#### Enable pushbutton feedback:

Command: <ATTN>F1<CR>  
Response: @<CR>

**Note:** If button-feedback is enabled, when buttons are pushed on the front panel they won't activate any functions locally. The button-press event will be sent to the host in the following format:

Button-event: <ATTN>Fx@<CR>

Where **x** = "1", "2", "3" or "4", for the 4 buttons on the front panel:



#### Disable pushbutton feedback:

Command: <ATTN>F0<CR> or <ATTN>F<CR>  
Response: @<CR>

#### Set DC-restore mode:

Command: <ATTN>Mx<CR>  
Response: @<CR>

**x** = DC-restore mode:    0 = DC-restore off  
                                  1 = DC-restore mode-1  
                                  2 = DC-restore mode-2

**Note:** See previous section on configuring this mode from the LCD for an explanation of this mode and the next one, AC Coupling.

#### Set AC-Coupling mode:

Command: <ATTN>Nx<CR>  
Response: @<CR>

**x** = AC-coupling mode:    0 = AC-coupling OFF (DC-coupled)  
                                  1 = AC-coupling ON (must be ON if using DC-restore mode 1 or 2)

## Octet serial commands:

**Set Sync-mode mode:**

Command: &lt;ATTN&gt;Yx&lt;CR&gt;

Response: @&lt;CR&gt;

x = Sync-mode:            0 = Agile-sync mode (RepliSyncÔ)  
                               1 = Fixed-sync mode

**NOTE: ALL receivers must also be set to Fixed sync mode for the system to function properly. See appropriate receiver manual for details. Not all receivers support fixed sync modes.**

**Set Octet baud-rate:**

Command: &lt;ATTN&gt;Bx&lt;CR&gt;

Response: @&lt;CR&gt;

x = Baud-rate:	1 = 1200	4 = 9600	7 = 38.4K
	2 = 2400	5 = 14.4K	8 = 57.6K
	3 = 4800	6 = 19.2K	9 = 115.2K

**Note:** The "@" acknowledgement character is transmitted at the current baud rate, then the baud-rate change becomes effective. All subsequent communications take place at the new baud rate.

*This only affects the incoming Octet Serial ports. It does not change the receiver's baud rate. It is not recommended to change the incoming baud rate unless absolutely necessary as it is possible to saturate the communication link to the receiver resulting in data over runs and data loss if different baud rates are used throughout the system.*

**Set Remote-device baud-rate:**

Command: &lt;ATTN&gt;Rx&lt;CR&gt;

Response: @&lt;CR&gt;

x = Baud-rate:	1 = 1200	4 = 9600	7 = 38.4K
	2 = 2400	5 = 14.4K	8 = 57.6K
	3 = 4800	6 = 19.2K	9 = 115.2K

**Note:** To set a remote device's baud-rate, a session must first be established with the device using the "D" command. The group and global addressing rules apply as well. Therefore, it's quite possible (and perfectly useful) to globally set every remote device to the same baud rate using this command.

*It is not recommended to change the incoming baud rate unless absolutely necessary as it is possible to saturate the communication link to the receiver resulting in data over runs and data loss if different baud rates are used throughout the system.*

*It is possible to have different baud rates set on different receivers. Generally it is good practice to set all units to have the same baud rate.*

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### Octet serial commands:

#### Remote-device echo:

Command: <ATTN>Pc<CR>  
Response: @<CR>c

c = single ASCII character

**Note:** The character is transmitted to the previously addressed remote device. The remote device, if present and operating properly, will immediately echo that single character. This is the **only way** to know if a particular SAP receiver is plugged-in and working. It does not require a display to be attached to the receiver's serial port (this is a software-loopback function). The character should be a printable ASCII character – not a control character.

#### Set Attention Character:

Command: <ATTN>Tc<CR>  
Response: @<CR>

c = Attention character: A = Control-A  
B = Control-B  
C = Control-C  
D = Control-D  
...  
**X = Control-X (factory default value)**  
Y = Control-Y  
Z = Control-Z

**Note:** After the "@" acknowledgement character is transmitted, all subsequent communications must use the new attention character value.

For example, to set the attention character to control-D (currently set to control-X):

Command: <Ctrl-X>TD<CR>  
Response: @<CR>

From this point forward, all commands must begin with <Ctrl-D>

The default value is control-X (18h). This may be changed to one of 26 possible letters of control-A to control-Z. Note that this control code will not be passed by the Octet to a receiver. If the device being controlled requires specific control codes such as Ctrl-M (carriage return), ensure this value is not used as the Octet attention code.

### Octet serial commands:

#### Get Octet version information:

Command: `<ATTN>V<CR>`

The response to this command is (using sample version information):

`B1.0A1.1S94412340102@<CR>`

This string decodes to:

- B1.0 = Bootloader version 1.0
- A1.1 = Application version 1.1
- S94412340102 = Software release P/N 944-1234-01 Rev 02.

**Note:** The information fields will change, depending on firmware or hardware updates.

#### Retrieve All Configuration Settings:

Command: `<ATTN>Q<CR>`

The response is a long string of most commands and the currently set parameter. The string is terminated with `@<CR>`. Here is an example “Retrieve All Configuration Settings” response string:

`US012F0M0N0Y0B4TX@<CR>`

This string decodes to:

- Keypad Unlocked (U)
- Octet unit-ID = 12 (S012)
- Button-feedback disabled (F0)
- DC-restore disabled (M0)
- AC-coupling disabled (N0)
- Sync-mode = Agile sync (Y0)
- Serial baud-rate = 9600 (B4)
- Attention character = control-X (TX)

**Note:** The order of the parameters may change in future software revisions.

### 3.3.5 OCTET OPERATION

Each SAP receiver as well as each Octet must have a unique address. Once this has been done, a special command (control-X and the letter D) is sent to the Octet to specify which receiver to open a session with. At this point, normal serial communication can occur between the RS232 source and display.

See Appendix B on how to set the receiver address.

Each Octet manages receivers in address ranges of 1-255. In order to establish communication with receivers connected to each Octet, the following formula must be used to calculate an offset to add to the desired receiver's address. This is based upon each Octet's address ID so you need to know which receivers are connected to each Octet.

$$\text{Octet offset} = (\text{Octet\_ID} \times 256)$$

where Octet\_ID is the address of the Octet.

This must be added to the desired receiver's address in order to communicate with it.

Example 1: A single Octet addressed as 10 with 8 receivers connected.

Receiver addresses are 21-28.

To connect to the receiver addressed 25, the command would be  
Ctrl-XD2585 ( $10 \times 256 + 25 = 2585$ )

Example 2: Two Octets cascade, the first Octet has address 10, the second has address 11. Both have eight receivers, addressed 21-28.

To connect to receiver addressed 25 on the first Octet, the command would be Ctrl-XD2585 ( $10 \times 256 + 25 = 2585$ ).

To connect to a receiver addressed 25 on the second Octet, the command would be Ctrl-XD2841 ( $11 \times 256 + 25 = 2841$ )

In order to utilize the pollable serial mode and connect to individual receivers, a special command needs to be sent to the Octet in order to communicate with a receiver. This is done by the serial application in use prior to sending commands to the device. This command is only required once and remains in effect until a different receiver is chosen.

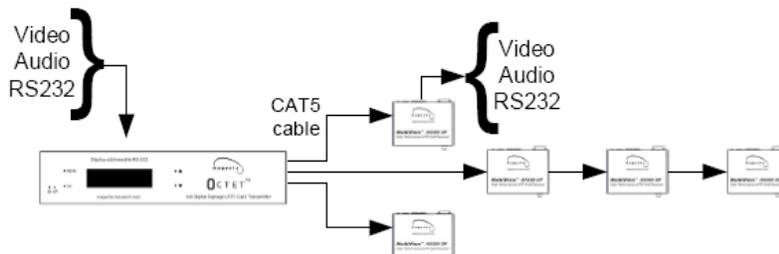
Once the session has been established all serial communication is sent straight to the destination device without further formatting or special control codes.

Follow the steps below to do this:

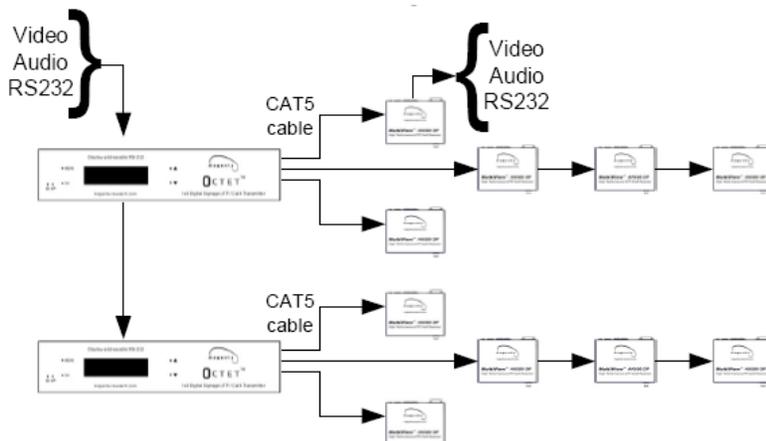
- 1) To establish a bi-directional RS232 session with a specific receiver, the Octet needs the receiver's address set. To do this send a CTRL-X D<ID> <carriage return>, where <ID> is the receiver address plus the Octet\_ID offset
- 2) To broadcast serial commands to all receivers on a specific Octet, set <ID> to (Octet\_ID x 256). Or set ID to the asterisk (\*) to broadcast all receivers on all Octet's.
- 3) To disable serial communication to all receivers, set <ID> to an unused receiver address such as 255 (to enable serial communication again, simply set <ID> to a functioning receiver's address).

3.3.6 OCTET Wiring Examples

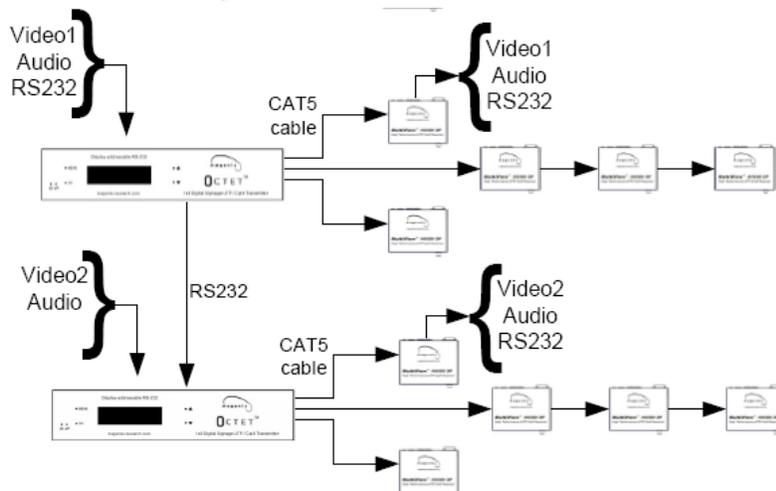
Single Octet to single and daisychain receivers



Cascaded Octet's to single and daisychain receivers



Independent Octet's (2 video groups) to single and daisychain receivers. All Octet's use a single RS232 link



## 4. Troubleshooting

### 4.1. Common Problems

In most cases, nearly every issue with the MultiView Octet System can be resolved by checking the CAT5 termination and making sure that it's pinned to the TIA/EIA 568B wiring specification. However, there may be other problems that cause the system to not perform as it's designed. Below are solutions to the most common installation errors.

**Problem:** No power LED.

**Solution:**

- Check fuse on back on unit. Replace with 2A type.

**Problem:** Octet gets warm during operation/fan noisy.

**Solution:**

- Check air filter over fan. Remove and clean as necessary.

**Problem:** No video signal at the Octet local port or at the receiver.

**Solution:**

- Check that both units are powered.
- Ensure EQ adjustment is set correctly on receiver.
- Make sure the CAT5 cable is terminated correctly per the TIA/EIA 568B wiring specification.
- Is the display device powered on and functioning?  
Check to ensure display settings (resolution, refresh rate, etc) are compatible with input signal.
- There may be a DDC compatibility problem. See sections 3.3.3 and 3.3.4 on copying a display DDC.

**Problem:** Poor video quality:

**Solution:**

- Have all receiver adjustments been finished.
- Ensure EQ adjustment is set correctly on the receiver.
- Check all cable connections.
- The video signal's refresh rate may be set too high. Reset to a lower refresh rate in your monitor-configuration menu.
- There may be a delay skew issue. See receiver manual for skew compensation options/settings.
- There may be a DDC compatibility problem. See sections 3.3.3 and 3.3.4 on copying a display DDC.

**Problem:** Poor audio quality:

**Solution:**

- Powered speakers are required. Make sure speaker power is ON.
- Check input source levels from the source device. Make sure the audio source is not overdriven or underdriven.

- Problem:** Serial communication doesn't work correctly.
- Solution:**
- Are the serial devices connected properly? Are the serial parameters correct for source/destination devices?
  - Are the serial cables terminated correctly? If a null-modem cable is used, it must be placed at the receiver end.
  - Ensure the correct receiver has been properly set via the Set Remote Unit Address command and has the proper serial address configured.
- Problem:** "Green shift" or "green washout" on multimedia signals.
- Solution:** The standard video/serial model is designed to function with DC coupled signals in which the black level is referenced to 0 volts. Nearly all VGA cards function this way. Some media servers, however, provide AC coupled signals and can cause a green color shift in the video. This is a result of the sync clamping on the red and blue channels of the video/serial model. For five-component (RGB/H&V) AC coupled video, the MultiView Octet transmitter has been designed with full DC restoration capability. This problem is easily solved via a simple setting in the Octet configuration screen. Please refer to Section 3.3.3, AC Coupling and DC Restore options.
- Problem:** Notes on Daisy Chaining:
- Solution:** When daisy chaining, the maximum cable distance is not increased beyond the rated distance of the receiver used. For example, an AK600 can only daisy chain within 600 ft of the transmitter. It is possible to daisy chain out of a short range receiver into a longer range receiver to increase the range. For example, over 600 ft an AK600 can be daisy chained into an AK1200 which allows for daisy chaining to 1,200 ft. A maximum of 12 units may be daisy chained together. If a unit in the middle of the chain loses power or is disconnected from the chain, all units after this will lose all signals.

## Appendix A. Cabling Pinouts

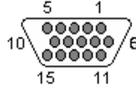
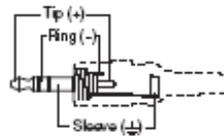


Table A-1. HD15 video connector.

Pin	RGBHV (VGA)	RGBS	RGsB	Composite	SVHS (Y/C)	YUV
1	Red +	Red +	Red +		C+	V+
2	Green+	Green+	Green+	C+	Y+	Y+
3	Blue+	Blue+	Blue+			U+
4	—	—	—			
5	Gnd	Gnd	Gnd			
6	Red-	Red-	Red-		C-	V-
7	Green-	Green-	Green-	C-	Y-	Y-
8	Blue-	Blue-	Blue-			U-
9	—	—	—			
10	Gnd	Gnd	—			
11	Gnd	Gnd	—			
12	—	—	—			
13	H Sync	C Sync	—			
14	V Sync	—	—			
15	Gnd	Gnd	—			

Table A-2. Audio Connection (3.5 mm stereo)

Pin	Channel 1	Channel 2
Tip	+	
Ring		+
Sleeve	-	-



## Appendix A. Cabling Pinouts

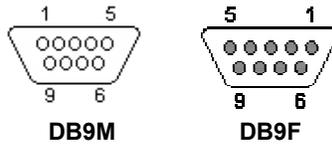
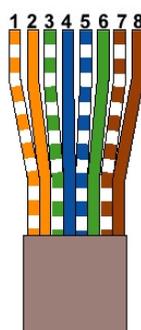
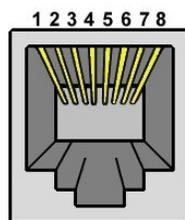


Table A-3. DB9 Male (In) Female (Out) Serial connector

Pin	3 wire SAP	Simplex
1		
2	RX	
3	TX	TX
4		
5	Ground	Ground
6		
7		
8		
9		

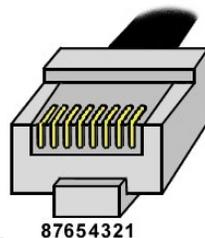
### T568B CAT5 Specification



Pin	Color	Pair
1	Orange/White	2
2	Orange	2
3	Green/White	3
4	Blue	1
5	Blue/White	1
6	Green	3
7	Brown/White	4
8	Brown	4

Cabling must be the same on both ends

Use for Cat5/5e/6



## Appendix B. Pollable Serial Mode

In order to fully utilize the addressable serial features of the Octet and SAP series receivers each receiver and Octet must have a unique address set first.

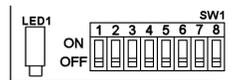
The following details the installation and setup procedure.

To set the Octet ID, please use the LCD menu or appropriate serial command as detailed in sections 3.3.3 and 3.3.4. All Octets must have a unique address.

To set the receiver address requires that each internal serial audio daughterboard in the receiver have a unique address set. This is done via an 8 position dipswitch. Use the following chart to determine the proper switch addresses. **All receivers and Octets must have a unique address.** *It is recommended to write the address on each receiver once this step has been completed.* It is also recommended to keep a list of receiver addresses and locations to make it easier to determine which receiver/display is desired to communicate with.

**\*\* Do not set any receivers to address 0 \*\***

- 1) Remove the top cover assembly of the receiver
- 2) Locate the 8 position dipswitch on the internal daughterboard assembly and using the following chart, set the receiver address.



- 3) Replace cover assembly and install unit.

Each Octet manages receivers in address ranges of 1-254. In order to establish communication with receivers connected to each Octet, the following formula must be user to calculate an offset to add to the desired receivers address. This is based upon each Octet's address ID so you need to know which receivers are connected to each Octet.

Octet offset = (Octet\_ID x 256)  
where Octet\_ID is the address of the Octet.

This must be added to the desired receiver's address in order to communicate with it.

Example 1: A single Octet addressed as 10 with 8 receivers connected.  
Receiver addresses are 21-28.

To connect to the receiver addressed 25, the command would be  
Ctrl-XD2585 (10\*256+25=2585)

Example 2: Two Octets cascade, the first Octet has address 10, the second has address 11. Both have eight receivers, addressed 21-28.

To connect to receiver addressed 25 on the first Octet, the command would be Ctrl-XD2585 (10\*256+25=2585).

To connect to a receiver addressed 25 on the second Octet, the command would be Ctrl-XD2841 (11\*256+25=2841)

## Appendix B. Pollable Serial Mode Address Chart

Addr	Switch Setting	Addr	Switch Setting	Addr	Switch Setting	Addr	Switch Setting
00	RESERVED	32	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	64	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	96	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
01	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	33	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	65	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	97	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
02	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	34	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	66	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	98	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
03	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	35	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	67	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	99	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
04	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	36	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	68	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	100	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
05	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	37	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	69	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	101	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
06	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	38	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	70	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	102	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
07	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	39	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	71	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	103	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
08	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	40	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	72	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	104	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
09	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	41	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	73	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	105	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
10	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	42	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	74	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	106	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
11	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	43	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	75	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	107	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
12	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	44	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	76	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	108	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
13	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	45	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	77	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	109	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
14	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	46	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	78	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	110	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
15	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	47	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	79	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	111	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
16	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	48	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	80	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	112	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
17	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	49	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	81	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	113	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
18	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	50	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	82	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	114	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
19	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	51	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	83	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	115	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
20	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	52	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	84	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	116	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
21	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	53	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	85	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	117	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
22	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	54	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	86	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	118	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
23	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	55	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	87	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	119	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
24	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	56	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	88	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	120	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
25	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	57	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	89	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	121	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
26	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	58	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	90	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	122	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
27	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	59	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	91	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	123	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
28	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	60	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	92	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	124	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
29	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	61	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	93	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	125	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
30	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	62	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	94	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	126	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1
31	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	63	<input type="checkbox"/> 8 <input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	95	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1	127	<input type="checkbox"/> 7 <input type="checkbox"/> 6 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1

## Appendix B. Pollable Serial Mode Address Chart (cont.)

Addr	Switch Setting	ON	OFF	Addr	Switch Setting	ON	OFF	Addr	Switch Setting	ON	OFF	Addr	Switch Setting	ON	OFF
128	8 7 6 5 4 3 2 1	ON	OFF	160	8 7 6 5 4 3 2 1	ON	OFF	192	8 7 6 5 4 3 2 1	ON	OFF	224	8 7 6 5 4 3 2 1	ON	OFF
129	8 7 6 5 4 3 2 1	ON	OFF	161	8 7 6 5 4 3 2 1	ON	OFF	193	8 7 6 5 4 3 2 1	ON	OFF	225	8 7 6 5 4 3 2 1	ON	OFF
130	8 7 6 5 4 3 2 1	ON	OFF	162	8 7 6 5 4 3 2 1	ON	OFF	194	8 7 6 5 4 3 2 1	ON	OFF	226	8 7 6 5 4 3 2 1	ON	OFF
131	8 7 6 5 4 3 2 1	ON	OFF	163	8 7 6 5 4 3 2 1	ON	OFF	195	8 7 6 5 4 3 2 1	ON	OFF	227	8 7 6 5 4 3 2 1	ON	OFF
132	8 7 6 5 4 3 2 1	ON	OFF	164	8 7 6 5 4 3 2 1	ON	OFF	196	8 7 6 5 4 3 2 1	ON	OFF	228	8 7 6 5 4 3 2 1	ON	OFF
133	8 7 6 5 4 3 2 1	ON	OFF	165	8 7 6 5 4 3 2 1	ON	OFF	197	8 7 6 5 4 3 2 1	ON	OFF	229	8 7 6 5 4 3 2 1	ON	OFF
134	8 7 6 5 4 3 2 1	ON	OFF	166	8 7 6 5 4 3 2 1	ON	OFF	198	8 7 6 5 4 3 2 1	ON	OFF	230	8 7 6 5 4 3 2 1	ON	OFF
135	8 7 6 5 4 3 2 1	ON	OFF	167	8 7 6 5 4 3 2 1	ON	OFF	199	8 7 6 5 4 3 2 1	ON	OFF	231	8 7 6 5 4 3 2 1	ON	OFF
136	8 7 6 5 4 3 2 1	ON	OFF	168	8 7 6 5 4 3 2 1	ON	OFF	200	8 7 6 5 4 3 2 1	ON	OFF	232	8 7 6 5 4 3 2 1	ON	OFF
137	8 7 6 5 4 3 2 1	ON	OFF	169	8 7 6 5 4 3 2 1	ON	OFF	201	8 7 6 5 4 3 2 1	ON	OFF	233	8 7 6 5 4 3 2 1	ON	OFF
138	8 7 6 5 4 3 2 1	ON	OFF	170	8 7 6 5 4 3 2 1	ON	OFF	202	8 7 6 5 4 3 2 1	ON	OFF	234	8 7 6 5 4 3 2 1	ON	OFF
139	8 7 6 5 4 3 2 1	ON	OFF	171	8 7 6 5 4 3 2 1	ON	OFF	203	8 7 6 5 4 3 2 1	ON	OFF	235	8 7 6 5 4 3 2 1	ON	OFF
140	8 7 6 5 4 3 2 1	ON	OFF	172	8 7 6 5 4 3 2 1	ON	OFF	204	8 7 6 5 4 3 2 1	ON	OFF	236	8 7 6 5 4 3 2 1	ON	OFF
141	8 7 6 5 4 3 2 1	ON	OFF	173	8 7 6 5 4 3 2 1	ON	OFF	205	8 7 6 5 4 3 2 1	ON	OFF	237	8 7 6 5 4 3 2 1	ON	OFF
142	8 7 6 5 4 3 2 1	ON	OFF	174	8 7 6 5 4 3 2 1	ON	OFF	206	8 7 6 5 4 3 2 1	ON	OFF	238	8 7 6 5 4 3 2 1	ON	OFF
143	8 7 6 5 4 3 2 1	ON	OFF	175	8 7 6 5 4 3 2 1	ON	OFF	207	8 7 6 5 4 3 2 1	ON	OFF	239	8 7 6 5 4 3 2 1	ON	OFF
144	8 7 6 5 4 3 2 1	ON	OFF	176	8 7 6 5 4 3 2 1	ON	OFF	208	8 7 6 5 4 3 2 1	ON	OFF	240	8 7 6 5 4 3 2 1	ON	OFF
145	8 7 6 5 4 3 2 1	ON	OFF	177	8 7 6 5 4 3 2 1	ON	OFF	209	8 7 6 5 4 3 2 1	ON	OFF	241	8 7 6 5 4 3 2 1	ON	OFF
146	8 7 6 5 4 3 2 1	ON	OFF	178	8 7 6 5 4 3 2 1	ON	OFF	210	8 7 6 5 4 3 2 1	ON	OFF	242	8 7 6 5 4 3 2 1	ON	OFF
147	8 7 6 5 4 3 2 1	ON	OFF	179	8 7 6 5 4 3 2 1	ON	OFF	211	8 7 6 5 4 3 2 1	ON	OFF	243	8 7 6 5 4 3 2 1	ON	OFF
148	8 7 6 5 4 3 2 1	ON	OFF	180	8 7 6 5 4 3 2 1	ON	OFF	212	8 7 6 5 4 3 2 1	ON	OFF	244	8 7 6 5 4 3 2 1	ON	OFF
149	8 7 6 5 4 3 2 1	ON	OFF	181	8 7 6 5 4 3 2 1	ON	OFF	213	8 7 6 5 4 3 2 1	ON	OFF	245	8 7 6 5 4 3 2 1	ON	OFF
150	8 7 6 5 4 3 2 1	ON	OFF	182	8 7 6 5 4 3 2 1	ON	OFF	214	8 7 6 5 4 3 2 1	ON	OFF	246	8 7 6 5 4 3 2 1	ON	OFF
151	8 7 6 5 4 3 2 1	ON	OFF	183	8 7 6 5 4 3 2 1	ON	OFF	215	8 7 6 5 4 3 2 1	ON	OFF	247	8 7 6 5 4 3 2 1	ON	OFF
152	8 7 6 5 4 3 2 1	ON	OFF	184	8 7 6 5 4 3 2 1	ON	OFF	216	8 7 6 5 4 3 2 1	ON	OFF	248	8 7 6 5 4 3 2 1	ON	OFF
153	8 7 6 5 4 3 2 1	ON	OFF	185	8 7 6 5 4 3 2 1	ON	OFF	217	8 7 6 5 4 3 2 1	ON	OFF	249	8 7 6 5 4 3 2 1	ON	OFF
154	8 7 6 5 4 3 2 1	ON	OFF	186	8 7 6 5 4 3 2 1	ON	OFF	218	8 7 6 5 4 3 2 1	ON	OFF	250	8 7 6 5 4 3 2 1	ON	OFF
155	8 7 6 5 4 3 2 1	ON	OFF	187	8 7 6 5 4 3 2 1	ON	OFF	219	8 7 6 5 4 3 2 1	ON	OFF	251	8 7 6 5 4 3 2 1	ON	OFF
156	8 7 6 5 4 3 2 1	ON	OFF	188	8 7 6 5 4 3 2 1	ON	OFF	220	8 7 6 5 4 3 2 1	ON	OFF	252	8 7 6 5 4 3 2 1	ON	OFF
157	8 7 6 5 4 3 2 1	ON	OFF	189	8 7 6 5 4 3 2 1	ON	OFF	221	8 7 6 5 4 3 2 1	ON	OFF	253	8 7 6 5 4 3 2 1	ON	OFF
158	8 7 6 5 4 3 2 1	ON	OFF	190	8 7 6 5 4 3 2 1	ON	OFF	222	8 7 6 5 4 3 2 1	ON	OFF	254	8 7 6 5 4 3 2 1	ON	OFF
159	8 7 6 5 4 3 2 1	ON	OFF	191	8 7 6 5 4 3 2 1	ON	OFF	223	8 7 6 5 4 3 2 1	ON	OFF				

## Appendix C. Rackmounting Units

The Octet may be rackmounted using optional Rackmount Kits.

Either one unit may be mounted in 1U x 19"W with the single mount kit, or two units may be mounted sided by side in 1U x 19"W.

Figure C-1 shows the both methods.

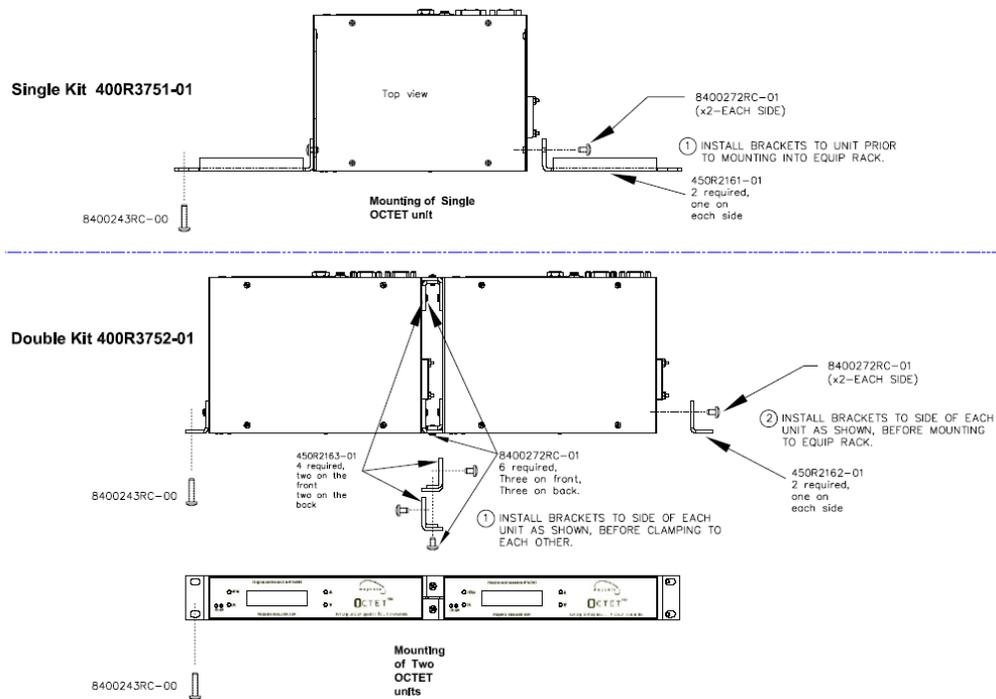


Figure C-1. Receiver Mounting Bracket.



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