

Smart-**AVI**

SMART AUDIO VIDEO INNOVATION

SMTCP-2

ETHERNET CONTROL FOR SMARTAVI SWITCHES

**Control most SmartAVI matrix switches from
anywhere in the world**

USER MANUAL



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INTRODUCTION

The SMTCP-2 is an RS-232 control module that allows most SmartAVI switching matrixes to be controlled remotely via HTTP or TELNET. Manage the switching functions of your matrix with ease from anywhere in the world. With the SMTCP-2 you can save up to 10 preset input/output configurations for easy access. TELNET access provides transparent command control of your matrix, perfect for use with automated third-party control software.

FEATURES

- Supports HTTP and TELNET control
- 10/100 Ethernet Interface
- Up to 10 user-definable configurations
- Password Protected
- Up to 5 Users can Control the Matrixes
- IP Configuration via TCP/IP and RS-232
- Flexible control of several types of matrixes

APPLICATIONS

- Server Collocation
- Digital Signage
- Airports
- Dealer Rooms
- Control Rooms
- Audio/Visual Presentations
- Hotels/Resorts

WHAT'S IN THE BOX?

PART NO.	QTY	DESCRIPTION
SMTCP-2	1	SMTCP-2 Device
PS5VDC2A	1	5VDC2A Power Supply
CCRS232-X	1	Serial male to male cross-over cable

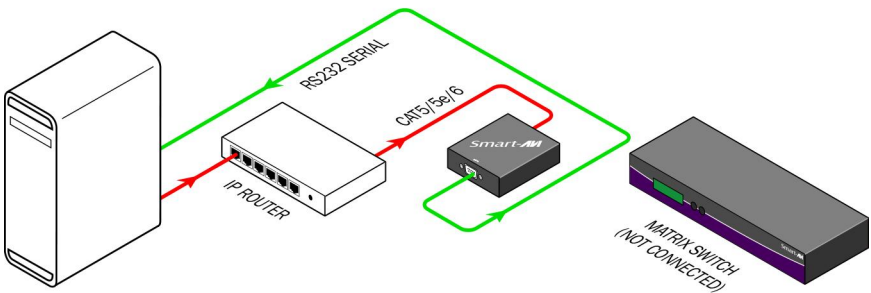
TECHNICAL SPECIFICATIONS

Power	External 100-240 VAC/5VDC2A @10W
Dimensions	2.8125"W x 1"H x 3.375"D
Weight	0.5 lbs
Approvals	UL, CE, ROHS Compliant
Operating Temp.	32-131 °F (0-55 °C)
Storage Temp.	-4-185 °F (-20-85 °C)
Humidity	Up to 95%

CONNECTING TO THE SMTCP-2 FOR THE FIRST TIME

The first time you connect the SMTCP-2, you will need to perform the following steps to set the initial configuration. This includes establishing an HTTP connection and manually setting the IP address for the SMTCP-2.

1. Power off all devices.
2. Use a female to male ***Straight-Through*** RS-232 (Serial) cable to connect the SMTCP-2 to the computer.
3. Use a CAT5 ethernet cable to connect the SMTCP-2 to a TCP/IP network via a network router or other network connection that **has DHCP enabled**. If your network does not support DHCP, please see page 14 of this manual for instructions.



4. Power on the computer and run a terminal program such as Hyperterminal to open a serial connection to the SMTCP-2 using the standard 9600 baud, 8, N, 1 configuration.
5. Power on the SMTCP-2. When powered on, it will obtain an IP address automatically via DHCP from the network.
6. The IP information for the SMTCP-2 will be displayed on the terminal screen as follows:

CONNECTING TO THE SMTCP-2 FOR THE FIRST TIME

```
*****
* SmartAVI control is UP *
* version 10.12.20#6 *
*****
addr:192.168.1.102
Mask:255.255.255.0
gtwy:192.168.1.1
*****
```

NOTE: the above IP address is for demonstration purposes only. Actual results may be different.

7. The IP address shown must be used to connect to the SMTCP-2 via HTTP.
8. Open a web browser and navigate to the IP address that is indicated. You will be prompted to enter a username and password.
9. To access the web interface of SMTCP-2, log in with the following information:

User ID: Admin
Password: Pass

User ID:	<input type="text" value="Admin"/>
Password:	<input type="password" value="••••"/>
<input type="button" value="Click here to continue"/>	

INITIAL SETUP FOR SMTCP-2

1. Once connected to the SMTCP-2, you will see the following menu of options:

- Matrix
- Device Config
- Network Setting
- User Administration
- Web Based Telnet



For the initial setup, click the [Network Setting](#) button and manually assign an IP address to the SMTCP-2. This will assure that the SMTCP-2 will always have the same IP address.

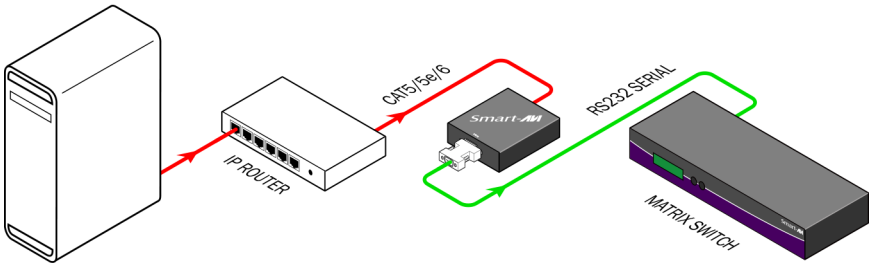
A screenshot of the Network Setting configuration form. It has a dark background with light text. The form contains the following elements: 'Use DHCP:' with a checked checkbox; 'IP Address:' with a text input field; 'IP Mask:' with a text input field; 'Gateway:' with a text input field; and an 'Activate' button at the bottom.

Note: Be sure to choose an address that will not conflict with any other devices on the network, and that the address is not in the range of the DHCP server.

2. Once you have manually assigned an IP address to the SMTCP-2, you may disconnect the RS-232 cable between the computer and the SMTCP-2.

INITIAL SETUP FOR SMTCP-2

3. Connect the SMTCP-2 to a SmartAVI video matrix using an RS-232 (female-to-female) cable with a null modem adaptor (refer to the figure below):



4. It is also recommended that you set a password for the SMTCP-2 at this point. To change the password (and/or username) of the web interface, click on the [User Administration](#) button. Enter the new password and click *Submit*. This sets the password for the HTTP interface only.

A screenshot of a web interface with a dark background. It contains three input fields: 'User Name:' with 'Admin' entered, 'Password:', and 'Retype Password:'. Below the fields is a 'Submit' button.

5. The *Device Type* is the SmartAVI video matrix connected to the SMTCP-2. To change the *Device Type*, type the IP address of the SMTCP-2 followed by:

`"/cgi-bin/main.cgi?func=product_type"`

From the dropdown menu, choose the correct matrix type and dimensions connected to the SMTCP-2 and click *Submit*.

Once the initial setup is completed, you can begin configuring it for your matrix.

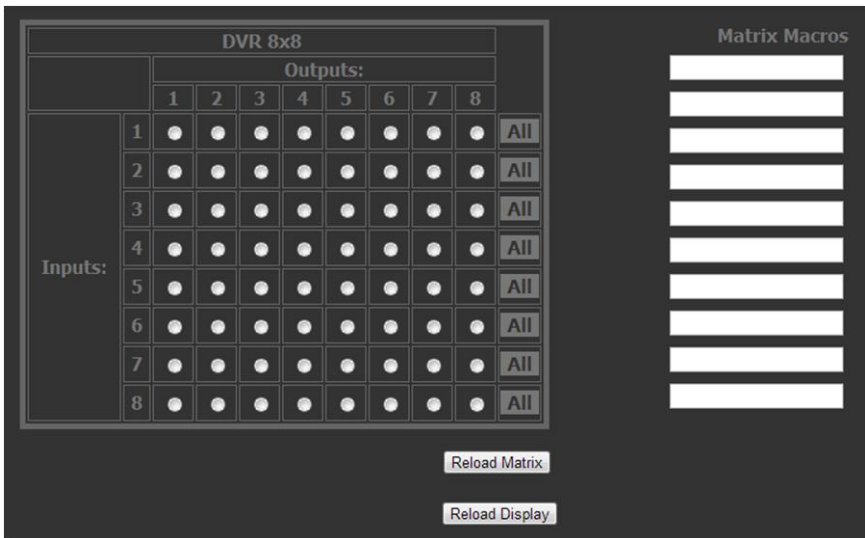
The following describes the menu options in the web interface to control the video matrix:

A screenshot of a web interface with a dark background. It features a 'Device Type:' dropdown menu with 'DVR 8x8' selected. Below it are 'Matrix dimensions:' with 'Inputs: 8' and 'Outputs: 8' in input fields. At the bottom are three buttons: 'Submit', 'Reset Names', and 'System Reset'.

CONTROLLING THE SMTCP-2 VIA HTTP

I. MATRIX MENU

The **Matrix** menu allows you to set the cross-points for the matrix. Cross-points are used to route signals from the individual inputs to individual outputs. The output channels can only have one input, but each input can have several outputs.




Clicking *All* sets all the outputs to the input of the same row.

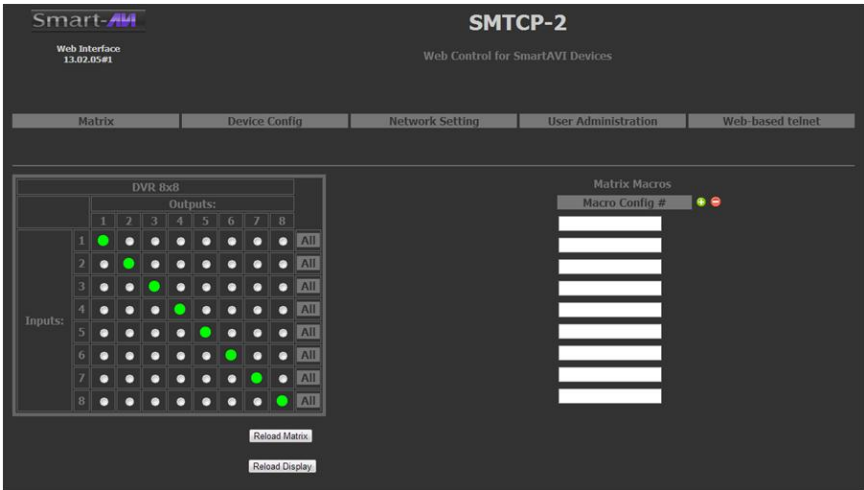
Reload Matrix loads the web matrix configuration from the SMTCP-2 into the SmartAVI video matrix.


Reload Display loads the matrix configuration from the SmartAVI video matrix into the SMTCP-2 web matrix configuration.

The **Matrix Macros** preset allows you to save and recall cross-point configurations with the push of a button. To setup a *Matrix Macros* preset, you must do the following steps:

CONTROLLING THE SMTCP-2 VIA HTTP

1. Create a matrix macro name.
2. Configure the inputs and outputs of the matrix as you want.
3. Click the  button next to macro name to save.



4. Clicking the  button deletes the macro. Once finished organizing the macros, you can simply click on a macro to load the configuration you setup.

CONTROLLING THE SMTCP-2 VIA HTTP

II. DEVICE CONFIG MENU

The **Device Config** menu allows you to customize the names of the *Input*, *Output*, and *Matrix Macros*. You can simply assign names to the inputs, outputs, and macro names. The macro names are used in the Matrix Menu for quick storage and retrieval of matrix configurations. Leaving a preset blank will exclude it from the Matrix Menu. Click *Submit* to update the matrix.

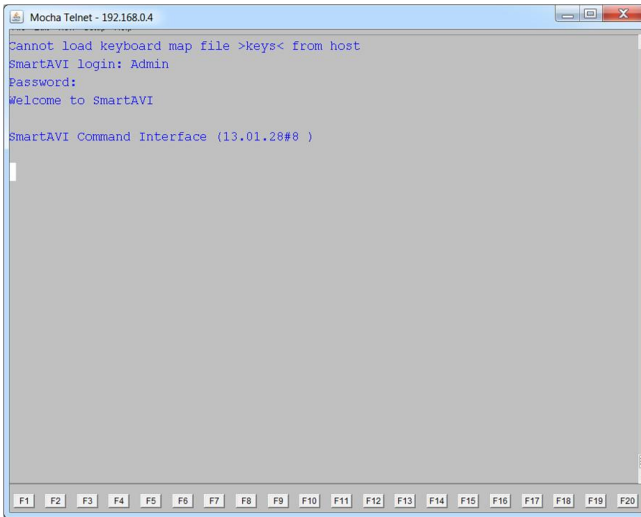
Smart-AM SMTCP-2
Web Interface 13.02.05#1 Web Control for SmartAVI Devices

Matrix Device Config Network Setting User Administration Web-based telnet

Input Names:	Output Names:	Macro Names:
1: <input type="text"/>	1: <input type="text"/>	1: <input type="text" value="Test Macro # 1"/>
2: <input type="text"/>	2: <input type="text"/>	2: <input type="text" value="Test Macro # 2"/>
3: <input type="text"/>	3: <input type="text"/>	3: <input type="text"/>
4: <input type="text"/>	4: <input type="text" value="Monitor"/>	4: <input type="text"/>
5: <input type="text"/>	5: <input type="text" value="Projector"/>	5: <input type="text"/>
6: <input type="text"/>	6: <input type="text" value="TV"/>	6: <input type="text"/>
7: <input type="text"/>	7: <input type="text"/>	7: <input type="text"/>
8: <input type="text"/>	8: <input type="text"/>	8: <input type="text"/>
		9: <input type="text"/>
		10: <input type="text"/>

CONTROLLING THE SMTCP-2 VIA HTTP

III. WEB-BASED TELNET



The **Web-based Telnet** allows you to send commands to the matrix via a web-based TELNET connection to the SMTCP-2 through a *Java internet application*. This application is similar to telnet clients such as HyperTerminal or PuTTY. Use the same username and password from the web interface login. Once logged in, SMTCP-2 is ready to accept commands.

Note: Please see user manual for the matrix you are using for a list of the available commands.

CONTROLLING THE SMTCP-2 VIA TELNET

Commands may be sent transparently to the matrix via a TELNET connection to the SMTCP-2. To use this function, use a telnet client such as Hyperterminal or PuTTY to connect to the IP address of the SMTCP-2. You will be prompted for a username and password - this will be the same as the login information via HTTP. Once logged in, the SMTCP-2 is ready to accept the standard RS-232 commands. For a list of the available commands, please see the user manual for the matrix you are using. Although the commands are not echoed to the client display, the commands are being issued to the matrix. Should you need commands to be echoed, please see the instructions for your TELNET client.

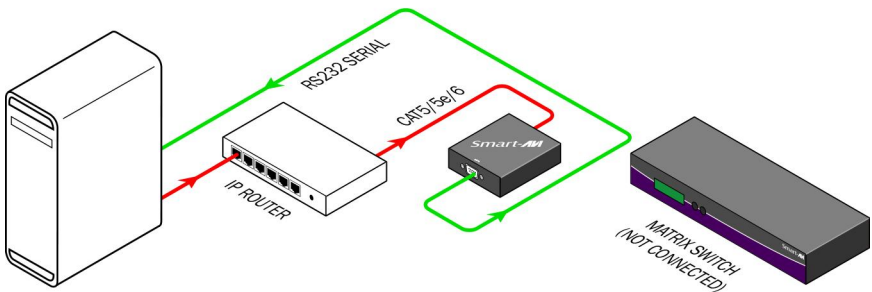
UPGRADING THE SMTCP-2

To upgrade the SMTCP-2 with the latest firmware, contact your sales representative at 800-AVI-2131, 818-503-6200 or contact us at www.smartavi.com.

CONNECTING TO THE SMTCP-2 FOR THE FIRST TIME WITHOUT DHCP

The first time you connect the SMTCP-2, you will need to perform the following steps to set the initial configuration. This includes establishing an HTTP connection and manually setting the IP address for the SMTCP-2.

1. Power off all devices.
2. Use a female to male ***Straight-Through*** RS-232 (Serial) cable to connect the SMTCP-2 to the computer.
3. Use a CAT5 ethernet cable to connect the SMTCP-2 to a TCP/IP network via a network router or other network connection.



4. Power on the computer and run a terminal program such as Hyperterminal to open a serial connection to the SMTCP-2 using the standard 9600 baud, 8, N, 1, None Flow Control configuration.
5. While powering on the SMTCP-2, press and hold Shift-1 (exclamation) until a command prompt appears.
6. Press enter to show the network configuration help screen as follows:

Smart-AVI

SMART AUDIO VIDEO INNOVATION

NOTICE

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Designed and Manufactured in the USA

800.AVI.2131

Tel: (818) 503-6200 Fax: (818) 503-6208

11651 Vanowen St. North Hollywood, CA 91605

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Many industry-leading companies have recognized the innovation and power of SmartAVI's technologies and have successfully implemented them within their systems. Users of SmartAVI technology include:

