Savant SmartMedia (SSM-3100) Quick Reference Guide

009-0311-02
SSM-3100-05

The Savant SmartMedia (SSM-3100) Quick Reference Guide provides all the steps necessary to install the Savant SmartMedia Controller.

Box Contents

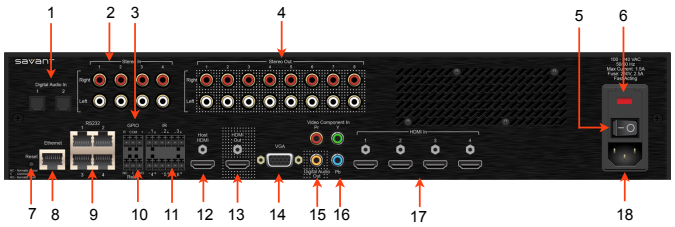
(1) SmartMedia (SSM-3100)
(1) Installation Kit (075-0075-xx)
- (4) Screw m5 x 12mm (039-0034-xx)
- (1) Power cord C13, 6 feet (N. America) (064-0079-xx) or appropriate international power cord
- (2) 6-Pin Screw-down Plug in Connector (028-9352-xx)
- (2) 3-Pin Screw Down Plug in Connector (028-9351-xx)
- (2) Rack Mounting Brackets (2U) (071-0113-xx)
- (1) 1HDMI Locking Cable, 3 feet (CBL-3LHDMI-xx)

(1) Quick Reference Guide (this document)

Specifications

Environmental	
Temperature	32º to 104º F (0º to 40º C)
Humidity	10% to 80% Non-condensing
Cooling	10 cubic feet per minute (CFM) recommended.
Maximum BTUs	188 BTUs per hour
Dimensions and Weight	
Dimensions (H x W x D)	3.46 in x 17.30 in x 12.94 in (8.79 cm x 43.94 cm x 32.88 cm)
Weight	15.5 lb/7.03 kg
Power	
Supply	100-240V AC, 50/60 Hz
Nominal Power Draw	35 Watts
Maximum Power Draw	55 Watts
Compliance	
Safety and Emissions	S Mark/FCC Part 15 /CE Mark /C-Tick
RoHS	Compliant

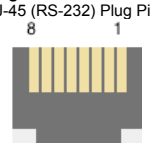
1	On/Off button (hole)	Insert pin into hole for about 10 seconds to place in standby mode. Insert the pin again for about 1 second to take system out of standby mode. The **1/0** power switch on the back of Controller must be On (**1**) to enable this function. To turn the power off for the entire system, use the switch on the rear panel.
2	Power Bi-color LED	**Green** indicates the system has adequate power and is operating normally. **Red** indicates the system is in stand-by mode. In standby most of the Controller circuitry is powered down. **Off** indicates that the system is getting no power.
3	Status Bi-color LED	**Green** indicates the Host has established communications with the embedded system. **Green flashing** indicates the embedded system is ready (running with DHCP IP address), but the Host has not established communications with the embedded system. **Off** indicates the embedded processor is resetting or is powered up; and is booting the embedded firmware. **Red** indicates the Host has determined the firmware needs to be updated, but a problem occurred during the process that will initiate a reset. **Red flashing** indicates the embedded firmware is running, but has not received a DHCP IP Address. **Amber** indicates the Host is currently updating the embedded firmware. **Amber flashing** indicates the embedded system has a valid link-local IP Address and is waiting to connect to the Host. **Over Temperature or Hardware Failure** If the Controller over heats or has a hardware failure, the Status LED indication will be interrupted every 3-seconds with a solid red indication. For example, if the LED is flashing green when an over temperature or hardware failure occurs, the LED, in 3-second intervals, will flash green, solid red, etc.
4	RS-232 LED	**Green** indicates RS-232 serial port data activity. **Off** indicates no RS-232 serial port activity.
5	GPIO LED	**Green** indicates GPIO port signal activity. **Off** indicates no GPIO port activity.
6	OSD Present LED	**Green** indicates the external host is connected to the Host HDMI port **Off** indicates the external host is not connected to the Host HDMI port.
7	Video LED	**Off** indicates the encrypted video content remains protected. The HDCP keys remain valid. **Red flashing** indicates the HDCP keys are invalid.
8	IR LED	**Green** indicates IR port signal activity. **Off** indicates no IR port activity.
9	Relay LED	**Green** indicates Relay port signal activity. **Off** indicates no Relay port activity.



1	Digital Audio In: 1, 2	Input ports support TosLink to receive digital audio signals
2	Stereo In: 1,2,3,4	Right and Left (8) RCA jacks for audio input
3	GPIO	General Purpose Input and Output ports—uses 3-pin screw-down connector The digital GPIO ports are binary I/O ports used for contact closure, trigger (output), or detect (input). R is reserved (not used). The COM pin is used for common ground. Pin 1 is used for input or output.
	GPIO Inputs	When configured as an input, the port detects a voltage present (GPIO input). GPIO inputs can safely detect the presence of a voltage of 0-30V DC with a high/low threshold of approximately 2.4V DC.
	GPIO Outputs	When configured as an output, a GPIO port outputs a voltage below 12V DC. The maximum current per port is 150 milliamps. An overcurrent condition shuts down the output until that condition is removed.
4	Stereo Out	Right and Left (16) RCA jacks for audio output
5	1/0	On/Off button for the controller (chassis) 1 is used to power the chassis to the On state. 0 is used to power the chassis to the Off state.
6	Fuse	250V, 5A—Fast acting fuse. This is replaceable.
7	Reset button	Resets the CPU and reboots the system.
8	Ethernet	RJ-45 10/100 Base-T, auto-negotiating port
9	RS-232	RJ-45 ports used to transmit and receive serial binary data transmission.
10	Relay NC/C/NO (Normally Closed/Common Normally Open)	This port provides dry contacts (open/closed) to control devices requiring basic on/off operation. A single relay port can carry a maximum of 30V DC with a maximum current of 1.0 amps. Input from a device to the Savant controller is not supported through a relay.
11	IR 1 - 6	Infrared transmitter ports
12	Host HDMI	Input port for external host with locking HDMI connectors
13	HDMI Out	HDMI output port
14	VGA	Input analog RGBHV signal port.
15	Digital Audio Out	Digital coax connector.
16	Video Component In	RCA jacks for component input: YP_BP_R
17	HDMI In	Input port for devices using High-Definition Multimedia Interface
18	Input Power	100-240V AC, 50/60 Hz

Wiring and Connectors

RS-232 Wiring
Controller RJ-45 (RS-232) Plug Pinouts



1 RX+ (Not Used for RS-232)	5 RXD (RS-232)
2 RX- (Not Used for RS-232)	6 TX-/TXD (TDX for RS-232)
3 TX+ (Not Used for RS-232)	7 CTS (RS-232)); ports 1 and 2 only
4 GND (RS-232)	8 RTS (RS-232)); ports 1 and 2 only

Important
If you are using RJ-45 to DB-9 adapters not supplied by Savant, be sure to terminate any wires required for communication/control within the adapter. Ensure that all wires required for communication/control are not terminated in the connecter. Also, ensure that the unused wires in the connector are cut to prevent them shorting out, as they are still terminated in the RJ-45 connector on the controller side

For more details on RS-232, RS-422 and RS-485 connectors, go to **SavantSystems.com >Dealer Login > Knowledge Base > Products**
- Refer to the RS-232/RS Conversion to DB-9 and RS-422/485 Pinout Application Note

45 Perseverance Way, Hyannis, MA 02601 Phone 508.683.2500 Fax 508.683.2600 SavantSystems.com

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IR Port Layout and Pinouts (two 6-pin 3.81mm screw down connectors)

1		2		3	
-	+	-	+	-	+
4		**5**		**6**	
-	+	-	+	-	+

Relay and GPIO Port Pinouts (3-pin 3.8mm screw down connectors)

GPIO	Relay
Pin #	Pin #
R, COM, 1	R, COM, 1

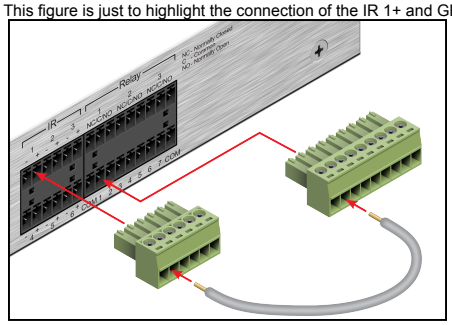
Restoring System Defaults

This procedure will clear a static IP address that has been set up by the installer using the embedded scanner, RPMembscanner— a Savant specific program located in the RacePointMedia folder and installed when you load RacePoint Blueprint™ on your computer.

To restore the default state of the SSm-3000, do the following.

1. Using a wire (for example, a strand from a Cat-5 cable), to connect **IR 1+** to **GPIO 1**. See the next figure.

This figure is just to highlight the connection of the IR 1+ and GPIO 1 connection.



2. Power up or reset the system.
3. The status LED will blink green briefly while the firmware clears the static IP address.
4. The system will then reboot and come back up with the status LED blinking green, if the system received an IP address from the DHCP server. If the system has a self-assigned address, the LED is blinking amber.

You can confirm your embedded processor has an IP address by opening the **Embedded Scanner** window from RacePoint Blueprint by entering ***rpmembscanner*** in Spotlight. For more information on the embedded scanner, access the dealer portal at: **http://dealers.SavantSystems.com/.**

Interconnect the Network

The SSM-3100 requires business class/commercial grade network equipment in order to handle the IP traffic between Savant Network Equipment. When configuring the network ensure that all of the connected Savant units (SSM-3100 and HST-3001) are on the same local area network (subnet or LAN). Being on the same subnet allows the Savant units to locate each other using the Bonjour® network protocol.

Network Changes Require Rebooting the SSM-3100

The embedded processor used in the Smart Controller, needs to be rebooted after switching to a new network with a new IP address range. If you do not reboot, the Controller will not sense the network and IP address changes. The **Status** LED on the front panel of the Controller will start to flash and log reports in System Monitor.

Replacing or Checking Fuse

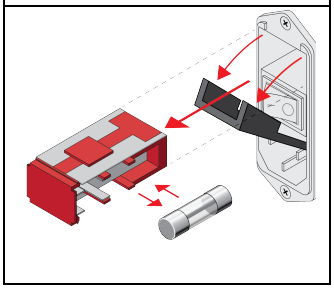
To replace or check the fuse on the SSM-3000, do the following.

1. On the input power block, open the cover (hinged) to access the fuse cartridge. Refer to the illustrations below.
2. Using a thin, flat tool remove the red fuse cartridge.

Important: Before removing the fuse note how and where the fuse is mounted in the cartridge. The fuse must be replaced at the same location. Refer to the illustration below.

3. Remove the existing fuse and replace it with a new one.
4. Re-install the cartridge. Note that the cartridge fits in only one direction.

Vertical Mounting



ELECTRIC SHOCK: The 100-240V AC, 50-60 Hz source power poses an electric shock hazard that has the potential to cause serious injury to installers and end-users.

Additional Documentation

Additional documentation for the SSM-3100 is available at: http://www.SavantSystems.com/ >Dealer Login > Knowledge Base > Products.

- Refer to the **SmartMedia (SSM-3000 & SSM-3100) Deployment Guide**
- Refer to the **GPIO Hardware Setup Guide**
- Click link: **RacePoint Blueprint**

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