SCT Programming Guide

History

V1.0	Initial Release
V1.1	Added RC-EDA supported commands
V1.2	Added RC-SDA+ Gen2 and RC-SDA Gen3. Added v5.0 for RC-SDA+

Contents

Version 1.2

SCT RS232 Protocol

Supported SCT devices include an SCT RS232 protocol that is independent of VISCA/Poly commands. This section describes how to issue these commands, and the expected results.

RS232 3-Pin Terminal Block Pinout:
TX: Sends data out from SCT
RX: Receives data to SCT
GND: Ground

G RX TX

Parameters (DIP switch 2 selectable): 9600 baud, No parity, 8 data bits, 1 stop bit **or**
9600 baud, Even parity, 8 data bits, 1 stop bit

Every command must start with ASCII ## and must end with a carriage return and line feed (hex 0D 0A).

Basic Format

#	#	set <or> get	:	Command	Space	Parameter	Carriage Return	Line Feed
(23h) Start bytes	(23h)	3 bytes	(3Ah) 1 byte	Varies	(20h) 1 byte	Optional	(0Dh)	(0Ah) End bytes

Minimum firmware versions required – For details on determining firmware version, refer to the Support -> Tech Tips section of www.soundcontrol.net and select your device.

      RC-SDA (2021 or newer hardware)[1] : v6.0
      RC-SDA Gen3: v1.0
      RC-SDA+: v5.0
      RC-SDA+ Gen2: v1.0
      RC-EDA: v3.0

SCT Command List:

Command	Parameter	Direction	Function	Supported Devices
mfc_pwr	on/off/reset	set	Off: Disables power to the 60-pin Multi-Function Connector (MFC) [2] On: Enables power to the 60-pin MFC connector Reset: Disables power to the 60-pin MFC connector for 2 seconds, then re-enables power	RC-SDA+ RC-SDA+ Gen2
mfc_pwr	n/a	get	Replies with current state <value> <on> if 60-pin MFC power is enabled. <off> f 60-pin MFC power is disabled.	RC-SDA+ RC-SDA+ Gen2
img_flip	on/off	set	Off: Video image will be in standard upright mode	RC-SDA (2021) RC-SDA Gen3 RC-SDA+ RC-SDA+ Gen2

3

			On: Video image will be inverted vertically, for ceiling mounting (upside-down)	
img_flip	n/a	get	Replies with current state <value> <on> If video image is in standard upright mode. <off> If video image is flipped vertically.	RC-SDA (2021) RC-SDA Gen3 RC-SDA+ RC-SDA+ Gen2
hdmi_cec_out1_pwr	on/off	set	On: CEC active source (on) command is sent to HDMI Output 1 Off: CEC standby (off) command is sent to HDMI Output 1	RC-EDA
hdmi_cec_out2_pwr	on/off	set	On: CEC active source (on) command is sent to HDMI Output 2 Off: CEC standby (off) command is sent to HDMI Output 2	RC-EDA
rx_signal	n/a	get	Replies with current state <value> <on> If HDMI input has an active signal <off> If HDMI input has no active signal	RC-EDA
usb_audio_mic_mute	on/off/toggle	set	On: USB Audio port microphone is muted Off: USB Audio port microphone is unmuted Toggle: USB Audio port microphone state is toggled	RC-SDA+ Gen2
usb_audio_mic_mute	n/a	get	Replies with current state <value> <on> If USB Audio port mic is muted <off> If USB Audio port mic is unmuted.	RC-SDA+ Gen2
usb_unified_mic_mute	on/off/toggle	set	On: USB Unified port microphone is muted Off: USB Unified port microphone is unmuted Toggle: USB Unified port microphone state is toggled	RC-SDA+ Gen2
usb_unified_mic_mute	n/a	get	Replies with current state <value> <on> If USB Unified port mic is muted <off> If USB Unified port mic is unmuted.	RC-SDA+ Gen2
camera_tracking	enable/disable	set	Enable: Tracking is enabled[3] Disable: tracking is disabled[3]	RC-SDA Gen3 RC-SDA+ RC-SDA+ Gen2
camera_tracking	n/a	get	Replies with current state <value> <enabled> If tracking is enabled <disabled> If tracking is disabled	RC-SDA Gen3 RC-SDA+ RC-SDA+ Gen2

[1] See appendix 1 for identifying RC-SDA hardware versions.

[2] Cuts power only to camera that is directly connected to the MFC, not through an extension kit.

[3] If D2 mode is enabled and MFC mode is Poly.

4

All commands without return values will reply:
(Without quotes. ACK followed by a carriage return and line feed. Characters between quotes are ASCII):
- If command is recognized: "ACK" 0Dh 0Ah
- If command is not recognized: "NACK" 0Dh 0Ah

All commands with return values will return the following pattern:
(Without quotes. Without brackets. A space character, 20h, is between <value> and ACK. Characters between quotes are ASCII. End of reply is a carriage return and line feed):
- If command is recognized: "<value> ACK" 0Dh 0Ah
- If command is not recognized: "NACK" 0Dh 0Ah

VISCA to Poly Translation

Supported SCT devices have the ability to translate VISCA to Poly commands in real-time. This simplifies systems with Poly cameras that integrate VISCA joystick controllers or third-party control systems.

Supported SCT Devices – For details on determining firmware version, refer to the Support -> Tech Tips section of www.soundcontrol.net and select your device.

Device	Minimum Firmware Version
RC-SDA (2021 or newer hardware)[1]	v5.0
RC-SDA Gen3	V1.0
RC-SDA+	v1.0
RC-SDA+ Gen2	v3.0

[1] See appendix 1 for identifying RC-SDA hardware versions.

RS232 3-Pin Terminal Block Pinout:
TX: Sends data out from SCT
RX: Receives data to SCT
GND: Ground

G RX TX

Parameters (DIP Switch 2 OFF): 9600 baud, No parity, 8 data bits, 1 stop bit

Refer to the Sony VISCA specification for details on the full command structure.
Download PDF: Sony VISCA

The following table identifies which commands are translated to Poly:

Command Set	Command	VISCA Packet	Notes
Pan/Tilt	Left	81 01 06 01 vv ww 01 03 FF	vv: Pan Speed 01 (Slow) to 18 (Fast) ww: Tilt Speed 01 (Slow) to 14 (Fast)
	Right	81 01 06 01 vv ww 02 03 FF	
	Up	81 01 06 01 vv ww 03 01 FF	

	Down	81 01 06 01 vv ww 03 02 FF	
	Stop	81 01 06 01 vv ww 03 03 FF	
Zoom	Tele	81 01 04 07 2p FF	p: Zoom Speed. 0=Low, 7=High
	Wide	81 01 04 07 3p FF	
	Stop	81 01 04 07 00 FF	
Preset	Set	81 01 04 3F 01 0p FF	p: Preset number (=0 to 4)
	Recall	81 01 04 3F 02 0p FF	
Image Flip	On/Off	81 01 04 66 0p FF	p: 2=On, 3=Off
Power	On/Standby	81 01 04 00 0p FF	p: 2=On, 3=Standby

Appendix 1 – Identifying RC-SDA Hardware Versions

The RC-SDA has had three major hardware versions since initially released in 2018. Version 2018-2020 is identified by a 4 position DIP switch and lack of microSD card slot. Version 2021-2022 is identified by an 8 position DIP switch and includes a microSD card slot. RC-SDA Gen3 is identified by "Gen3" indicated on the silkscreen.

RC-SDA 2018-2020

RC-SDA 2021-2022

RC-SDA Gen3

6