SW Series
Composite, S-Video, and Stereo Audio Switchers

SERIES FEATURES
- Inputs: Four, six, eight, and twelve input models
- Outputs: Dual buffered video outputs; dual buffered audio outputs
- 250 MHz (-3 dB) video bandwidth, video models
- RS-232 control
- Contact closure remote control - SW 4 and SW 6 models only
- Vertical interval switching and auto-input switching capabilities - video models
- Automatically detects which inputs have an active signal and reports this information through the RS-232 port - video models
- NTSC, PAL, and SECAM compatible - video models
- Internal universal power supply
- 1U, full rack width metal enclosure, rack mount brackets included

DESCRIPTION
The Extron SW Series is a line of high performance, active composite video, S-video, and stereo audio switchers. The highly flexible SW Series switchers are available with up to 12 inputs. Composite and S-video switchers feature genlock input and vertical interval switching, providing synchronization of video signals of one device with those from another video source, and resulting in smooth and clean transitions when switching between inputs. Each model with audio includes adjustable audio input gain and attenuation, allowing users to set the individual input audio levels, and providing no significant difference in volume when switching between sources. All SW AV switchers offer multiple control options, including front panel buttons, RS-232, and auto-input switching.

Composite Video Switchers
All composite models have 250 MHz (-3 dB) bandwidth with video inputs on female BNC connectors. Two individually buffered composite video outputs are also on female BNC connectors. Balanced/unbalanced stereo audio is accepted on captive screw connectors, while unbalanced stereo audio is accepted on RCA connectors for SW RCA models.

S-Video Switchers
S-video models have 250 MHz (-3 dB) bandwidth with video inputs on female 4-pin mini DIN connectors. There are two individually buffered and active video outputs: one for composite video on a female BNC connector and one for S-video on a female 4-pin mini DIN connector. Balanced/unbalanced stereo audio is accepted on captive screw connectors, while unbalanced stereo audio is accepted on RCA connectors for SW RCA models.

Audio Switchers
Audio-only models accept balanced/unbalanced stereo audio on captive screw connectors, or unbalanced stereo audio on RCA connectors for SW RCA models.
### SW V
Composite Video Switchers

**UNIQUE FEATURES**
- Switches composite video on BNC connectors
- Video genlock input with loop-through

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VERSION DESCRIPTION</th>
<th>PART #</th>
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</thead>
<tbody>
<tr>
<td>SW 6V</td>
<td>Six Input Video</td>
<td>60-487-01</td>
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<tr>
<td>SW 8V</td>
<td>Eight Input Video</td>
<td>60-482-01</td>
</tr>
<tr>
<td>SW 12V</td>
<td>Twelve Input Video</td>
<td>60-483-01</td>
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</tbody>
</table>

### SW AV
Composite Video and Stereo Audio Switchers

**UNIQUE FEATURES**
- Switches composite video on BNC and stereo audio on captive screw connectors
- Video genlock input with loop-through
- Audio input gain and attenuation

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VERSION DESCRIPTION</th>
<th>PART #</th>
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<tbody>
<tr>
<td>SW 4AV</td>
<td>Four Input Video &amp; Audio</td>
<td>60-484-21</td>
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<tr>
<td>SW 6AV</td>
<td>Six Input Video &amp; Audio</td>
<td>60-487-21</td>
</tr>
<tr>
<td>SW 8AV</td>
<td>Eight Input Video &amp; Audio</td>
<td>60-482-21</td>
</tr>
<tr>
<td>SW 12AV</td>
<td>Twelve Input Video &amp; Audio</td>
<td>60-483-21</td>
</tr>
</tbody>
</table>

### SW AV RCA
Composite Video and Stereo Audio Switchers with RCA Connectors

**UNIQUE FEATURES**
- Switches composite video on BNC and stereo audio on RCA connectors
- Video genlock input with loop-through
- Audio input gain and attenuation

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VERSION DESCRIPTION</th>
<th>PART #</th>
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<tbody>
<tr>
<td>SW 4AV</td>
<td>Four Input Video &amp; Audio - RCA</td>
<td>60-484-31</td>
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<tr>
<td>SW 6AV</td>
<td>Six Input Video &amp; Audio - RCA</td>
<td>60-487-31</td>
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<tr>
<td>SW 8AV</td>
<td>Eight Video &amp; Audio - RCA</td>
<td>60-482-31</td>
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<tr>
<td>SW 12AV</td>
<td>Twelve Video &amp; Audio - RCA</td>
<td>60-483-31</td>
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### SW SV

**S-Video Switchers**

**UNIQUE FEATURES**
- Switches S-video on 4-pin mini DIN connectors
- Built-in video encoder converts S-video to composite video
- Video genlock input with loop-through

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VERSION DESCRIPTION</th>
<th>PART #</th>
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<tbody>
<tr>
<td>SW 6SV</td>
<td>Six Input S-Video</td>
<td>60-487-02</td>
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<tr>
<td>SW 8SV</td>
<td>Eight Input S-Video</td>
<td>60-482-02</td>
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<tr>
<td>SW 12SV</td>
<td>Twelve Input S-Video</td>
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### SW SVA

**S-Video and Stereo Audio Switchers**

**UNIQUE FEATURES**
- Switches S-video on 4-pin mini DIN and stereo audio on captive screw connectors
- Built-in video encoder converts S-video to composite video
- Video genlock input with loop-through
- Audio input gain and attenuation

<table>
<thead>
<tr>
<th>MODEL</th>
<th>VERSION DESCRIPTION</th>
<th>PART #</th>
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<tr>
<td>SW 4SVA</td>
<td>Four Input S-Video &amp; Audio</td>
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<td>SW 6SVA</td>
<td>Six Input S-Video &amp; Audio</td>
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<td>SW 8SVA</td>
<td>Eight Input S-Video &amp; Audio</td>
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<tr>
<td>SW 12SVA</td>
<td>Twelve Input S-Video &amp; Audio</td>
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</table>

### SW SVA RCA

**S-Video and Stereo Audio Switchers with RCA Connectors**

**UNIQUE FEATURES**
- Switches S-video on 4-pin mini DIN and stereo audio on RCA connectors
- Built-in video encoder converts S-video to composite video
- Video genlock input with loop-through
- Audio input gain and attenuation

<table>
<thead>
<tr>
<th>MODEL</th>
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<tr>
<td>SW 4SVA RCA</td>
<td>Four Input S-Video &amp; Audio - RCA</td>
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<td>SW 6SVA RCA</td>
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<td>SW 8SVA RCA</td>
<td>Eight Input S-Video &amp; Audio - RCA</td>
<td>60-482-32</td>
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<tr>
<td>SW 12SVA RCA</td>
<td>Twelve Input S-Video &amp; Audio - RCA</td>
<td>60-483-32</td>
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**Continued →**
# SW A
## Stereo Audio Switchers
### UNIQUE FEATURES
- Switches unbalanced/balanced stereo audio on captive screw connectors
- Dual balanced/unbalanced audio outputs

<table>
<thead>
<tr>
<th>MODEL</th>
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<td>SW 6A</td>
<td>Six Input Audio</td>
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<td>Eight Input Audio</td>
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<tr>
<td>SW 12A</td>
<td>Twelve Input Audio</td>
<td>60-483-20</td>
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</tbody>
</table>

## SW A RCA
## Stereo Audio Switchers with RCA Connectors
### UNIQUE FEATURES
- Switches unbalanced stereo audio on RCA connectors
- Audio input gain and attenuation

<table>
<thead>
<tr>
<th>MODEL</th>
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<td>SW 6A RCA</td>
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<td>SW 8A RCA</td>
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<td>SW 12A RCA</td>
<td>Twelve Input Audio - RCA</td>
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## SW Series Accessories
### INCLUDED ACCESSORIES

<table>
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<tr>
<td>MBD 149</td>
<td>1U, Full Rack Width, Rack Mount and Through-Desk Kit for Four-Piece Enclosure</td>
<td>page 856</td>
<td>70-077-03</td>
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### OPTIONAL ACCESSORIES

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<tr>
<td>BBG 6A</td>
<td>Blackburst, Color Bars, and Audio Generator</td>
<td>page 724</td>
<td>60-535-01</td>
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<tr>
<td>CCR 204</td>
<td>Four-Button Contact Closure Remote</td>
<td>page 286</td>
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<tr>
<td>CCR 306</td>
<td>Six-Button Contact Closure Remote</td>
<td>page 287</td>
<td>60-795-02</td>
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<td>KP 6</td>
<td>Keypad Remote Control For Use With 9-pin Contact Closure Port</td>
<td>page 288</td>
<td>60-111-20</td>
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<td>IR 102 Remote Control Kit</td>
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<td>SVHSM-BNCF 8&quot; (20 cm)</td>
<td>S-Video to 2-BNC Adapter Cable: 4-Pin Mini DIN Male to 2 BNC Female - 8&quot; (20 cm)</td>
<td>page 833</td>
<td>26-353-01</td>
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<td>CSR 6</td>
<td>Captive Screw to RCA Adapter Cable: Five Pole 3.5 mm Captive Screw to Two RCA Female - 6&quot; (15 cm)</td>
<td>page 834</td>
<td>26-575-01</td>
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</tbody>
</table>
**SW Series**

**VIDEO**

Gain: 18 dB to +24 dB, adjustable per input

Input gain adjustment: +4 dBu (1.23 Vrms), -10 dBV (316 mVrms), configurable

RCA models: 12k ohms unbalanced, DC coupled

Impedance: 75 ohms

Nominal level: 1 Vp-p for Y of S-video, and for composite video

Minimum/maximum levels: 0.3 Vp-p for C of S-video

Return loss: 50 ohms unbalanced, 100 ohms balanced

Impedance: 75 ohms

Nominal level: ±0.1 dB channel to channel

Input: 4, 6, 8, or 12 (depending on the model) RCA female

Gain error: ±0.1 dB channel to channel

Maximum level: (600 ohm) >+26 dBm, balanced; >+15 dBm, unbalanced at 1% THD+N

**AUDIO INPUT**

Number/signal type: SW 6/8/12 SV, SW 4/6/8/12AV RCA, SW 6/8/12A RCA

Connectors: 2 stereo, balanced/unbalanced

Gain: 2 stereo, balanced/unbalanced

Maximum level: 2 stereo, balanced/unbalanced

Connectors: 2 stereo, balanced/unbalanced

Gain error: 2 stereo, balanced/unbalanced

Nominal level: 2 stereo, balanced/unbalanced

Maximum level: 2 stereo, balanced/unbalanced

**SYNC**

Genlock connectors: 1 stereo, balanced/unbalanced

Contact closure: 2 stereo, balanced/unbalanced

Contact closure pin configurations: 2 = TX, 3 = RX, 5 = GND

Contact pin configurations: 1 = TX, 2 = RX, 3 = RX, 4 = RX, 5 = GND, 6 = input 2, 7 = input 3, 8 = input 4, 9 = input 5, 10 = input 6

Contact closure: 2 stereo, balanced/unbalanced

**SPECIFICATIONS**

**VIDEO**

Gain: Unity

Bandwidth: Composite video 4, 6, and 8 input models

S-video models and composite video 12 input models

Bandwidth: 250 MHz (-3 dB)

Cross talk: < -60 dB @ 5 MHz

Switching speed: < 20 ms (max.)

**VIDEO OUTPUT**

Number/signal type: SW 6/8/12 SV, SW 4/6/8/12AV RCA, SW 6/8/12A RCA

Connectors: 2 stereo, balanced/unbalanced

Gain: 2 stereo, balanced/unbalanced

Maximum level: 2 stereo, balanced/unbalanced

**CONTROL/REMOTE**

Serial control port: RS-232, 9-pin female D connector (also used for contact closure for 4- and 6-input models)

Baud rate and protocol: 9600 baud, 8 data bits, 1 stop bit, no parity

Serial control pin configurations: 2 = TX, 3 = RX, 5 = GND

Contact closure: 1 stereo, balanced/unbalanced

Contact closure pin configurations: 1 stereo, balanced/unbalanced

Contact pin configurations: 2 stereo, balanced/unbalanced

**AUDIO OUTPUT**

Number/signal type: SW 6/8/12 SV, SW 4/6/8/12AV RCA, SW 6/8/12A RCA

Connectors: 2 stereo, balanced/unbalanced

Gain error: 2 stereo, balanced/unbalanced

Nominal level: 2 stereo, balanced/unbalanced

Maximum level: 2 stereo, balanced/unbalanced

**GENERAL**

Power: 100 VAC to 240 VAC, 50/60 Hz, 20 watts, internal, autoswitchable

Temperature/humidity: Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing

Contact closure: ISTA 1A in carton (International Safe Transit Association)

Contact pin configurations: Also under desk-mountable with optional kit #70-222-01.

Contact closure: 50 ohms unbalanced, 100 ohms balanced

Nominal level: ±0.1 dB channel to channel

Maximum level: ±0.1 dB channel to channel

**IR controller module**

Extron IR 102 kit (optional)

Program control: Extron’s control/configuration program for Windows®

Extron’s Simple Instruction Set (SIS™)

**Audio / Video Switchers**

Extron's control/configuration program for Windows®

Extron’s Simple Instruction Set (SIS™)

**Note:** For complete specifications, please go to www.extron.com