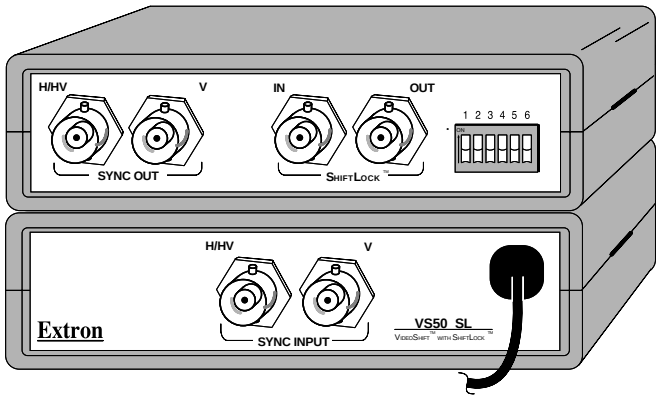
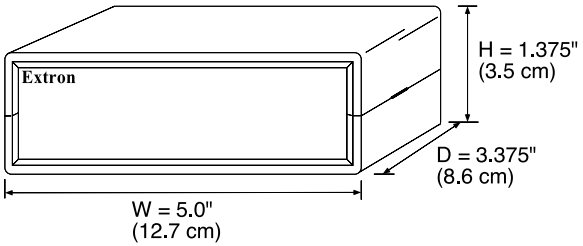
Extron Electronics
INTERFACING, SWITCHING AND DISTRIBUTION

User Guide



VS50 SL

P/N 60-211-01



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VideoShift ™

VideoShift™ is a technique in which the displayed video image is slowly shifted horizontally and vertically in a clockwise (rotating) direction. Gradually shifting the position of the video image in this manner reduces "burn-in" damage to the CRT which can occur when intense images are allowed to remain in the same position for extended periods.

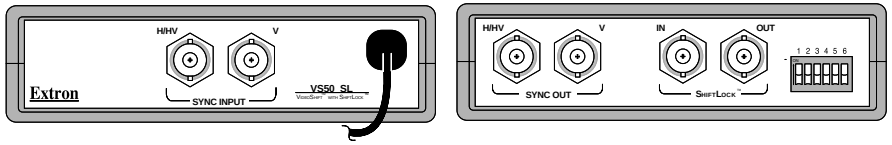
ShiftLock™

ShiftLock™ is a feature that enables synchronization of the VideoShift™ capability of two or more devices. Input and output ShiftLock™ connectors allow VideoShift™ devices to be connected (daisy-chained) enabling the "Master" device to control VideoShift™ for itself and all "Slave" devices.

VS50 SL Operation

The model VS50 SL Video Shifter includes both VideoShift™ and ShiftLock™ features. The operating characteristics of the VS50 SL are controlled by the position of the six switches on the DIP switch module. The DIP switches are externally accessible and the switch positions are briefly defined in the table on the facing page. The following descriptions and specifications are provided as an aid to understanding the operating mode of the VS50 SL as a function of the DIP switch settings.

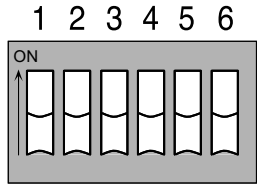
1. Original Sync Mode (DIP switch 2 (SW2) = ON):
   - A. When set for separate H&V out (SW3 = OFF):
     - a. If input = separate H&V,
       H/HV out = H in,V out = V in
     - b. If input = composite sync (CS),
       H/HV out = CS in, V out = V stripped from CS in
   - B. When set for Composite Sync out (SW3 = ON):
     - a. If input = separate H&V,
       H/HV out = Composite sync, V out = Gnd
     - b. If input = Composite sync,
       H/HV out = CS in, V out = Gnd
2. Processed Sync Mode (SW2 = OFF):
   - A. When set for separate H&V out (SW3 = OFF):
     H/HV out = H processed, V out = V processed
   - B. When set for CS out (SW3 = ON):
     H/HV out = Composite sync, V out = Gnd
3. Output sync polarity:
   - A. Output sync is negative when CS output selected (SW3 = OFF)
   - B. Output sync is negative when Negative sync selected (SW1 = ON)
   - C. Follow input polarity when Follow Input is selected (SW1 = OFF)
     (Note: For CS input, both H&V sync will be negative)
4. Processed sync timing specifications:
   - A. Delay from original sync (Shift Function = disable [SW4 = ON]):
     75 micro-seconds for Vertical Sync
     310 nano-seconds for Horizontal Sync
   - B. Shifting range (from Shift Function = enable position [SW4 =OFF]):
     ±20 micro-seconds for Vertical Sync
     ±25 nano-seconds for Horizontal Sync
5. Shift timing specifications:
   - A. Shift Mode = Test (SW5 = ON) = 4 seconds/rotation
   - B. Shift Mode = Normal (SW5 = OFF) = 5 minutes/rotation



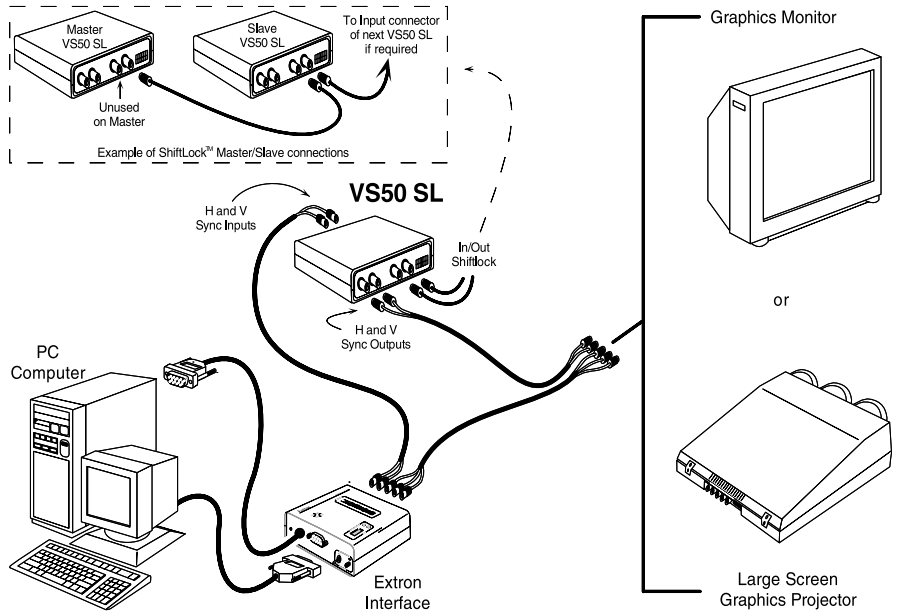
DIP Switch Setting

DIP Switch positions are defined in the table below.

Abbreviations: CSync = Composite Sync
H = Horizontal, V = Vertical



Switch	Description	ON	OFF ¬
1	Output Sync Polarity	Negative	Follow Input
2	Original/Processed Sync	Original	Processed
3	H/HV BNC Sync	CSync	H Only
4	Shift Function	Disable	Enable
5	Shift Mode	Test	Normal
6	Operating Mode	Slave	Master

Connecting the VS50 SL Input, Output and ShiftLock Cables

Use the diagram below as an aid to connecting input, output and ShiftLock™ cables to the VS50 SL Video Shifter. The video (RGB) cables are routed directly from the source to the destination device. However,the sync cables must be routed through the VS50 SL as shown in the diagram. If connecting more than one VS50 SL, the ShiftLock™ connectors may be connected to allow a Master/Slave setup as shown in the upper left corner of the diagram.