

IMPORTANT:
Refer to www.extron.com for the complete user guide and installation instructions before connecting the product to the power source.

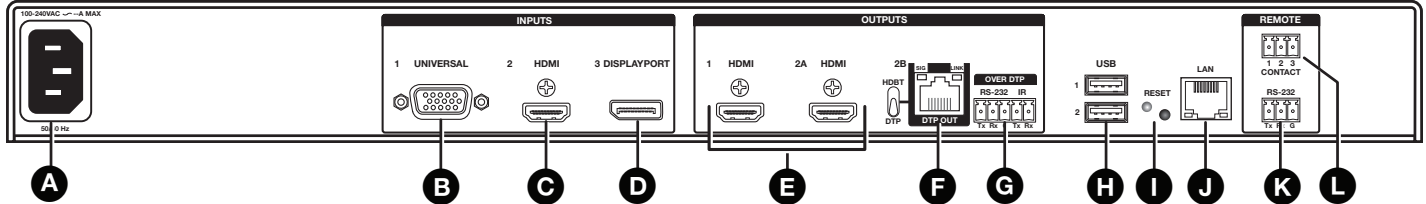
Annotator 300 • Setup Guide

The Extron Annotator 300 Annotation Graphics Processor is a scaling product that allows a presenter to draw, point, or type on video or computer source outputs using a touch panel, mouse, or keyboard.

This set up guide allows you to easily and quickly set up and configure your Annotator 300 using step by step instructions. It covers performing basic operations using the front panel controls and selected Simple Instruction Set (SIS™) commands.

NOTE: For full installation, configuration, menus, and operation details, see the *Annotator 300 User Guide* at www.extron.com.

Rear Panel Features



Power and video input connections	Outputs and control connections	
<ul style="list-style-type: none"> A AC power connector B Universal analog 15-pin HD connector C HDMI connector (HDMI/DVI inputs) D DisplayPort connector 	<ul style="list-style-type: none"> E HDMI connectors (2) (HDMI/DVI outputs) F RJ-45 connector (DTP or HDBaseT output), selectable by DIP switch G 5-pole captive screw connector (for DTP RS-232 and IR insert) H USB A connectors (2) 	<ul style="list-style-type: none"> I Reset button and LED J RJ-45 LAN connector K Remote RS-232 3-pole captive screw connector L Remote contact closure 3-pole captive screw connector

Installation

Mounting and Cabling

Step 1 – Mounting

- a. Turn off or disconnect all equipment power sources.
- b. Mount the Annotator 300 to a rack using the pre-installed rack ears (see figure 1), or use an optional MBU 149 mounting kit (part number 70-222-01) for under-the-desk mounting (see figure 2).

Step 2 – Connecting inputs

- a. Connect analog video sources to the universal connector (see **B** above). Compatible sources are RGB, YUV (HD or SD), RGBcV, S-video and composite video. Default setting for the input is auto-detect.
- b. Connect a digital HDMI or DVI source to the HDMI connector (see **C** above).
- c. Connect a DisplayPort input source to the DisplayPort connector (see **D** above).

Step 3 – Connecting outputs

- a. Connect suitable video displays to the two HDMI connectors (see **E** above).
- b. Connect either an Extron DTP device to this connector for transmission over DTP (default), or connect an HDBaseT device if transmitting over HDBaseT (see **F** above). Set the DIP switch to DTP or HDBaseT as applicable.

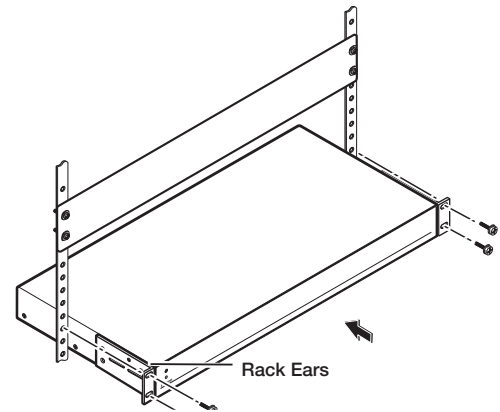


Figure 1. Rack Mount

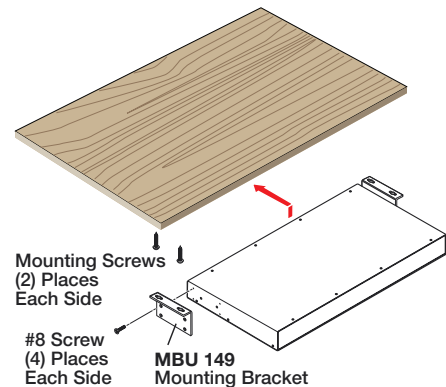


Figure 2. Furniture Mount

CAUTION: Risk of damage to equipment.
DO NOT connect an HDBaseT unit if using DTP transmission. The power carried over DTP may damage the unit.

Attention: Cela risque d'endommager votre équipement.
Ne PAS connecter une unité HDBaseT si vous utilisez la transmission DTP. L'alimentation transmise sur DTP peut endommager l'unité.

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Step 4 — Connecting control devices

- For RS-232 or IR control over DTP, connect to the 5-pole "Over DTP" captive screw connector (see **G** on page 1).
- For control through Ethernet, connect a LAN or WAN to the RJ-45 connector (see **J** on page 1). The default IP address is 192.168.254.254. The default subnet mask is 255.255.0.0.
- For serial RS-232 control, connect a host device to the 3-pole captive screw connector (see **K** on page 1). The default baud rate is 9600.
- For remote contact closure control, connect a host device to the 3-pole captive screw connector (see **I** on page 1).
- For control through USB, connect a host device to the front panel mini USB port (see **A** on image below).

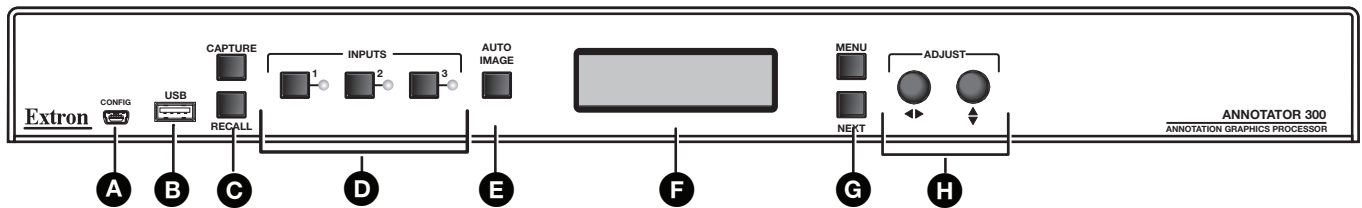
Step 5 — Connecting user interface devices and touch panels

Connect user interface devices (mouse and keyboard) or touch panels to the Annotator 300 using either of the rear panel USB ports (see **H** on page 1). Alternatively the front panel USB port can also be used to connect a user interface device.

Step 6 — Connecting power

Plug in a standard IEC power cord from a 100 to 240 VAC, 50-60 Hz power source into this power receptacle (see **I** on page 1).

Front Panel Overview



- Front panel mini USB configuration port** — Connect a control system or computer to this mini USB port (cable not supplied), for device configuration, control, and firmware upgrading.
- Front panel USB port** — Connect an external drive to store or recall captured images, or connect a user interface device.
- Capture and Recall Buttons** — Use these buttons to capture or recall captured images to or from a connected external drive, network drive, or internal memory.
- Input selection buttons and LEDs (1-3)** — Select/switch inputs; LEDs indicate which input is active (current input lights green).
- Auto Image Button** — Pressing this twice initiates the Auto-Image™ function on the selected input.
- LCD display** — This 16x2 screen displays device settings and menu configuration information.
- Menu navigation buttons (Menu, Next)** — These buttons allow navigation through the LCD menu system of the Annotator 300.
- Adjust knobs** — These are used with the menu navigation buttons to adjust the device settings and picture controls.

Setting the Front Panel Locks (Executive Modes)

The Annotator 300 has three modes of front panel security lock that limit the operation of the unit from the front panel.

Executive mode 0 (disabled) — The front panel is fully unlocked. This is the default setting.

Executive mode 2 (enabled) — The front panel is locked except for input switching. Can be set via front panel or by SIS command.

Executive mode 1 (enabled) — The front panel is completely locked and can be enabled and disabled only by SIS commands.
See the online *Annotator 300 User Guide* for SIS commands.

Enabling or Disabling Executive Mode 2 From the Front Panel

To enable Executive mode 2 or 0, press and hold the Menu and Next buttons simultaneously for 2 seconds. The display indicates that Executive mode is either enabled or disabled. When the Annotator 300 is in Executive mode 0 (unlocked), this selects mode 2 (locked) and if in Executive mode 2, this selects mode 0 (unlocked).

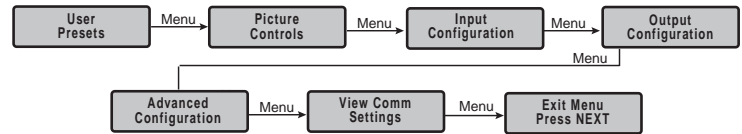
When either Executive mode (1 or 2) is enabled and a front panel action is attempted (other than input switching and Auto-Image), the LCD displays the status for 2 seconds. Executive mode 1 can be enabled or disabled only by SIS commands.

Configuring the Annotator 300

The Annotator 300 can be configured either via front panel menus or through a host connected via RS-232, USB, or LAN connection. Through a host connection, the Annotator 300 can be configured using Extron Product Configuration Software (PCS), embedded webpages or by using Extron Simple Instruction Set (SIS) commands.

Front Panel Menu System

The scaler has a menu system consisting of six submenus that can be accessed using the front panel Menu and Enter buttons. The Communications menu (View Comm Settings) is a read-only menu. The menus are:



- User Presets • Picture Controls • Input Configuration • Output Configuration • Advanced Configuration • Communication Settings

To use any menu, press the Menu button to access the Main menu, then repeatedly press the Menu button to cycle through the list to the desired menu. Press Next to enter the desired submenu, and follow the steps below.

NOTE: Press Menu at any time to exit a submenu and return to the main menu.

For detailed information on the menus, see the *Annotator 300 User Guide*, available online at www.extron.com.

Configure the outputs, then the inputs, as follows:

1. Within the Output Configuration menu, use either Adjust knob to configure the output rate and resolution, the HDMI format, and to set the HDCP Notification (Off or On).
2. From the Advanced Configuration menu, Test Pattern submenu, select the Alternating Pixels (Alt. Pixels) test pattern and view the display to confirm the display is sampling the signal properly.
3. From the Test Pattern menu, change the test pattern to Crop, and adjust the display size, position, or overscan settings until all four sides of the crop pattern are visible.
4. Use the Advanced Configuration menu to set the Aspect ratio (Fill or Follow). Rotate either Adjust knob to the desired setting.
5. Within the Input Configuration menu, press the applicable input button, then press Next to cycle to the desired submenu. Rotate the Adjust knobs to change the input values (for example, Input type, Film detection, and so on) as required. Use this menu to make any desired advanced adjustments including Horizontal and Vertical Start, Pixel Phase, Total Pixels, Active Pixels, and Active Lines; OR...
6. Perform Auto-Image. Auto-Image is a quick way to size an input to fit the output. To perform Auto-Image on an input, press the Auto Image button. Press it again to confirm.
7. Use the Advanced Configuration menu to change image transition effect. Rotate either Adjust knob to select cut or fade.

Touch Panel Configuration

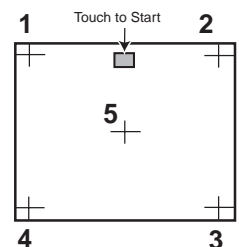
If a USB touchpanel is part of the system, confirm the panel is supported by the firmware on the Annotator 300 by reviewing the compatibility list available on the product page of the Extron website (www.extron.com). If the touchpanel is not supported by the firmware, a supporting module must be uploaded to the Annotator 300 using PCS 2.1.

1. Connect to the Annotator 300 using the PCS 2.1 software.
2. From the icon ribbon, click on and open the **Annotation Settings** page.
3. In the **Installed USB Modules** section, click **Add**. The **Add a USB Device** window opens.
4. Find the touchpanel device in the list of available modules, or if the device is not present in the list but is available from the Extron website, click on **Check for Updates**.
5. Select the module that supports your touchpanel and click **Add**. The window closes and the selected touchpanel is now listed in the **Installed USB Modules** section.

Touch Panel Calibration

If a touchpanel screen is attached to the Annotator 300, the touch accuracy can be calibrated using the Calibrate Panels setting in the Advanced configuration menu.

1. Within the Advanced Configuration menu select **Yes** and press **Next** to cycle to Calibrate Panels.
2. Observe all connected touchpanel screens. On all screens a green box appears at top center. To start the sequence, tap the box on one of the panel screens you need to calibrate.
3. The box disappears and a crosshatch + appears in the upper left corner. Tap the screen at the crosshatch.
4. The crosshatch re-appears at the top right corner. Tap the crosshatch. The crosshatch re-appears in the lower right.
5. Repeat by tapping the crosshatch as it reappears in each corner, in sequence (see image at above right) and then tap the crosshatch when it appears in the center of the screen.
6. After tapping the fifth (central) crosshatch, the unit saves the calibration data and restarts the sequence by showing the green box on all connected touchpanels.
7. Repeat for each connected touchpanel screen. Press any front panel button to exit the sequence and save the data.



Annotation Graphics Overview


























The Annotator 300 output includes a graphical toolbar, which is used for annotation. The toolbar slides in from the right side, and can be accessed through a touch screen, or by using a compatible 2-button mouse attached to a USB port.

To open the toolbar, click on the green arrow at top right of the screen. The menu bar slides into view and, when enabled, the toolbar stays visible down the right side of the display and allows for selection of various tools and controls. See page 4 for details.

To close the toolbar, click on the arrow again or allow it to time-out.

NOTE: By default, the toolbar closes after 10 seconds of inactivity. This duration can be modified using SIS commands.

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 Inputs	Input Selection — This opens a pop-up palette displaying the selectable inputs. Selecting an input button switches the display to that input.	 Fill — Select this when selecting rectangle or ellipse, to draw a solid shape filled with the selected color.
 Pointer	Pointer — This changes the cursor to an extra large arrow of the currently selected color.	 Undo — This undoes the last 15 completed annotations or a Clear action.
 Auto Image	Auto Image — When selected, the unit performs an Auto-Image on the currently selected input.	 Redo — If selected while using the Undo function, it recreates the last undone annotation.
 Freehand	Freehand — This allows freehand drawing on the display.	 Clear — This clears the screen of all unsaved annotations. This action can be undone with the Undo function.
 Line	Line — This creates a straight line between two points.	 Tools — This opens a secondary palette with advanced tools: Capture, Freeze, Mute, Whiteboard, Spotlight, Zoom, and Pan.
 Arrow	Arrow — This creates a straight line with an arrowhead.	 Capture — This takes a snapshot image of the current program output, including annotations. Captured images can be saved to the unit or PC.
 Rectangle	Rectangle — This creates a rectangle with edges parallel to the raster.	 Freeze — This freezes the live video. Re-select to unfreeze the video, or alternatively, switch inputs.
 Ellipse	Ellipse — This creates an ellipse between the primary and the opposite corner.	 Mute — This mutes the video input and displays a black screen. Annotations and menus are still visible. Re-select to unmute.
 Text	Text — This creates on-screen text at any point selected. Press the <Enter> key to commit the text to the screen.	 Whiteboard — This creates a white screen for annotations. Re-select to disable the whiteboard.
 Highlighter	Highlighter — This creates a semi-transparent line allowing the video to show through.	 Spotlight — This creates a no-fill ellipse to focus on a specific area of the screen, while the brightness of the outer area is greatly reduced.
 Size Select	Size Select — This adjusts size of the annotation tool, such as text size, after selecting the Text tool.	 Zoom — This zooms in on a specific area of the screen. Using the cursor, create a rectangle at that area. Create a rectangle of less than 100 pixels to reset zoom to default.
 Eraser	Eraser — This erases any (unsaved) annotations on the screen. The size is defined by the size tool.	 Pan — Select this while an image is zoomed in, to move the focus to a new area. Place the cursor on a zoomed image and drag to the new area.
 Color	Color — This allows up to 16 colors to be selected for any drawing function (fill or outline), text, or pointer.	

Basic SIS Commands Table

The Annotator 300 can be configured with specific SIS commands via USB, RS-232, or a LAN connection. This table lists a selection of the commands. For a full list of SIS commands see the *Annotator 300 User Guide*, online at www.extron.com.

Command	ASCII command (host to annotator)	Response (annotator to host)	Additional description
Select input	[x1]!	In[x1]←	Select video from input [x1].
Execute Auto-Image	A	Img0←	Execute an Auto-Image.
Mute video to black	[x3]*1B	Vmt[x3]*1←	Mute [x3] video and display to a black screen.
Unmute video	[x3]*0B	Vmt[x3]*0←	Unmute video mute.
Freeze input	1F	Frz1←	Freeze selected input.
Unfreeze input	0F	Frz0←	Unfreeze selected input.
Show/hide annotations	[Esc][x3]Ashw←	Ashw [x3]←	Set output(s) to display the annotations.
Show/hide cursor	[Esc][x3]Cshw←	Cshw [x3]←	Set output(s) to display the cursor.
Show/hide OSD menu	[Esc][x3]Mshw←	Mshw [x3]←	Set output(s) to display the OSD menu.
Clear all annotations	[Esc]0Edit←	Edit0←	Clears all annotations on the output (can be undone).

NOTE: [x1] = Input number: 1, 2, or 3
[x3] = Output group selections: 0 = All (default), 1 = Output 1 only (HDMI), 2 = Output 2A and 2B only (HDMI and DTP), 3 = None

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68-2378-50
Rev. A
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