# SW-5X1PS-70M Q-SYS Plugin Guide

For Q-SYS Designer · Plugin version 1.0.6

**The KanexPro SW-5X1PS-70M plugin lets a Q-SYS system control the SW-5X1PS-70M over the network.** It talks to the unit's own control port (TCP 8000): no other KanexPro software and no RS-232 cable are needed. Every control has a pin, so it can be wired to UCI buttons, logic and scripts like any Q-SYS control, and the plugin reads the unit back so changes made on its front panel, remote or web page show in Q-SYS.

> **Before you start —** the Q-SYS Core must reach the SW-5X1PS-70M on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

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## 1. WHAT THE PLUGIN DOES

It controls: show, layout, picture-in-picture position, picture-in-picture size, side by side: split, side by side: fit, three windows: split, three windows: fit, four windows: split, four windows: fit, border, blank picture and sound (AV mute), freeze the picture, switch to a newly plugged-in source by itself, when the source goes, switch to, output resolution, HDCP, picture mode, volume, volume a step, mute the sound, mute, plays, mix, delay (ms), main In plays the sound of, level, EQ, reset the EQ, EDID, receiver shows, receiver switches by itself, receiver detects a source by, receiver USB device ports' 5V, USB switching, USB devices go to, USB device ports' 5V, laptops on USB-C reach the network, screen, turn the screen on and off by itself, turn it on and off with, turn it off after no source for, on, presets, save, clear a preset, power, lock the front buttons (on = locked), beep, IR remote, power the receiver over the HDBT cable (PoE), fan.

It reads back: power, windows, receiver HDMI input 5V, receiver USB host 5V, firmware.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

## 2. BEFORE YOU START

- ✓ Q-SYS Designer on a Windows computer, and a Q-SYS Core.
- ✓ The SW-5X1PS-70M on the same network as the Core, or routed to it, with TCP port 8000 open between them.
- ✓ The unit's IP address (front panel or its own web page).

## 3. INSTALL THE PLUGIN

1. Download **KanexPro-SW-5X1PS-70M-QSYS-1.0.6.zip** from the SW-5X1PS-70M page on kanexpro.com (Resources) and unzip it.
2. Copy `KanexPro-SW-5X1PS-70M.qplug` into `Documents\QSC\Q-Sys Designer\Plugins` on the Q-SYS Designer computer, or drag the file onto Designer's window.
3. Restart Q-SYS Designer. The plugin appears in Schematic Elements under **Plugins > KanexPro**.
4. Drag it into the design, select it and set its properties (section 4).
5. Save the design to the Core and run it. The plugin connects by itself and shows its state on its Status control.

> **One plugin per unit —** for two SW-5X1PS-70M units, add the plugin twice and give each its own IP address.

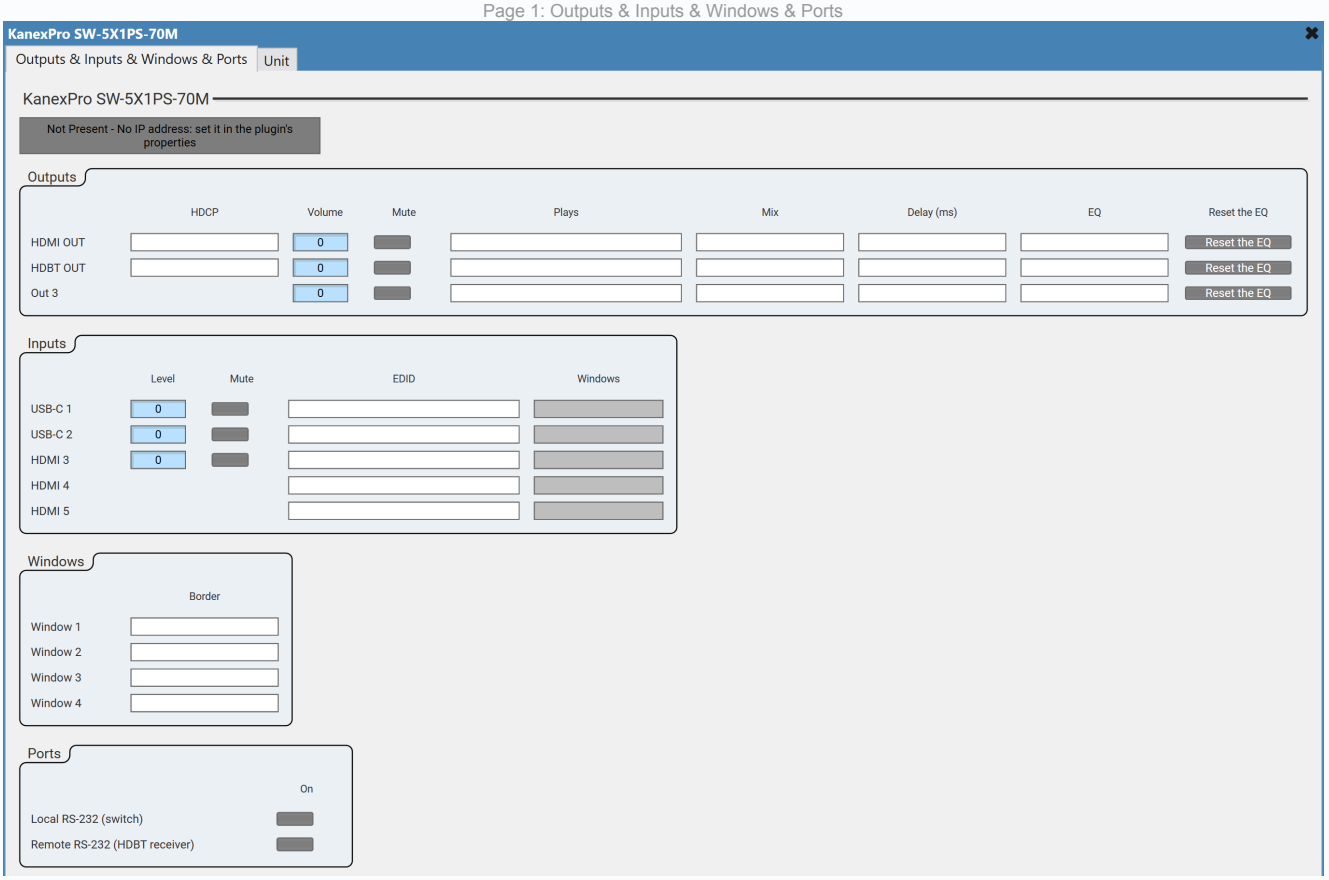
## 4. PROPERTIES

**PLUGIN PROPERTIES**

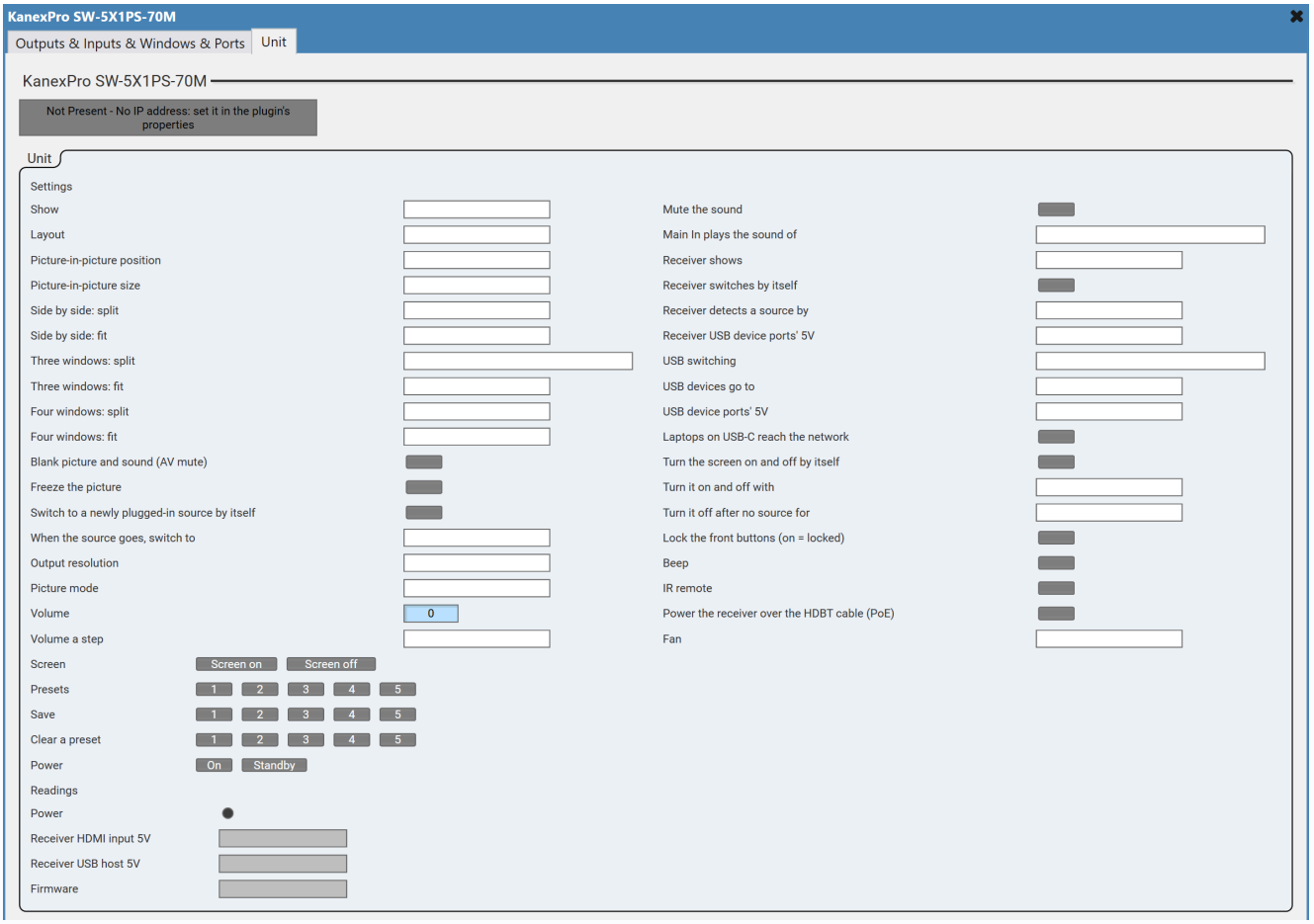
| | |
|---|---|
| **IP Address** | The SW-5X1PS-70M's address on the control network. Empty by default. |
| **Port** | 8000 (TCP), the unit's control port. Change it only if the unit's own web page was set to another port. |
| **Poll Interval** | How often, in seconds, the plugin reads the unit back. Default 10; 0 reads it only after a change from Q-SYS. |

## 5. THE PLUGIN IN Q-SYS DESIGNER

Page 1: Outputs & Inputs & Windows & Ports




Page 2: Unit




The SW-5X1PS-70M plugin's control panel in Q-SYS Designer

## 6. CONTROLS

105 controls. Where a control is repeated for each input or output, it is listed once.

| # | Control | Where | What it does |
|---|---|---|---|
| 0 | **Status** | the plugin | Shows whether the plugin is connected to the unit, and why not (section 7). |
| 1 | **Show** | the unit | Sets the show. Choices: USB-C 1; USB-C 2; HDMI 3; HDMI 4; HDMI 5. A dot means something is plugged into that input. |
| 2 | **Layout** | the unit | Sets the layout. Choices: Single; PIP; PBP; Triple; Quad. |
| 3 | **Picture-in-picture position** | the unit | Sets the picture-in-picture position. Choices: Left top; Left bottom; Right top; Right bottom. |
| 4 | **Picture-in-picture size** | the unit | Sets the picture-in-picture size. Choices: Small; Medium; Large. |
| 5 | **Side by side: split** | the unit | Sets the side by side: split. Choices: Two equal halves; One big, one small. |
| 6 | **Side by side: fit** | the unit | Sets the side by side: fit. Choices: Fill the screen; Keep 16:9. |
| 7 | **Three windows: split** | the unit | Sets the three windows: split. Choices: Half and two quarters; One big, two small. |
| 8 | **Three windows: fit** | the unit | Sets the three windows: fit. Choices: Fill the screen; Keep 16:9. |
| 9 | **Four windows: split** | the unit | Sets the four windows: split. Choices: Four equal; One big, three small. |
| 10 | **Four windows: fit** | the unit | Sets the four windows: fit. Choices: Fill the screen; Keep 16:9. |
| 11 | **Border** | each win | Sets the border on each win. Choices: Off; Black; Red; Green; Blue, and 5 more. |

| | | | |
|---|---|---|---|
| 12 | **Blank picture and sound (AV mute)** | the unit | Turns the blank picture and sound (AV mute) on or off. |
| 13 | **Freeze the picture** | the unit | Turns the freeze the picture on or off. |
| 14 | **Switch to a newly plugged-in source by itself** | the unit | Turns the switch to a newly plugged-in source by itself on or off. |
| 15 | **When the source goes, switch to** | the unit | Sets the when the source goes, switch to. Choices: Auto; USB-C 1; USB-C 2; HDMI 3; HDMI 4, and 1 more. |
| 16 | **Output resolution** | the unit | Sets the output resolution. Choices: Auto; 3840x2160p60; 3840x2160p50; 4096x2160p60; 4096x2160p50, and 10 more. |
| 17 | **HDCP** | each output | Sets the HDCP on each output. Choices: Auto; HDCP 1.4; HDCP 2.2. |
| 18 | **Picture mode** | the unit | Sets the picture mode. Choices: Video mode; PC mode. |
| 19 | **Volume** | the unit | Sets the volume, from 0 to 100. |
| 20 | **Volume a step** | the unit | Sets the volume a step. Choices: Down; Up. |
| 21 | **Mute the sound** | the unit | Turns the mute the sound on or off. |
| 22 | **Volume** | each output | Sets the volume on each output, from 0 to 100. |
| 23 | **Mute** | each output | Turns the mute on or off on each output. |
| 24 | **Plays** | each output | Sets the plays on each output. Choices: Main In (HDMI/USB-C In); Line In; Dante In. |
| 25 | **Mix** | each output | Sets the mix on each output. Choices: Stereo; Left; Right; Left and right. |
| 26 | **Delay (ms)** | each output | Sets the delay (ms) on each output. Choices: 0; 1; 2; 3; 4, and 46 more. |
| 27 | **Main In plays the sound of** | the unit | Sets the main In plays the sound of. Choices: Window 1 (follows the picture); USB-C 1; USB-C 2; HDMI 3; HDMI 4, and 1 more. |
| 28 | **Level** | each input | Sets the level on each input, from 0 to 100. |
| 29 | **Mute** | each input | Turns the mute on or off on each input. |
| 30 | **EQ** | each output | Sets the EQ on each output. Choices: Flat; Custom 1; Custom 2; Custom 3; Custom 4, and 1 more. |
| 31 | **Reset the EQ** | buttons 1 to 3 | Reset: reset. |
| 32 | **EDID** | each input | Sets the EDID on each input. Choices: Auto (HDBT or HDMI or HDBT+HDMI); Copy HDMI OUT; Copy HDBT OUT; 4K2K60_444, Stereo Audio 2.0; 4K2K30_444, Stereo Audio 2.0, and 11 more. What each input tells the source it can show. User Defined 1 and 2 are loaded on the switch's own web page. |
| 33 | **Receiver shows** | the unit | Sets the receiver shows. Choices: HDBT in; HDMI in. |
| 34 | **Receiver switches by itself** | the unit | Turns the receiver switches by itself on or off. |
| 35 | **Receiver detects a source by** | the unit | Sets the receiver detects a source by. Choices: TMDS; 5V. |
| 36 | **Receiver USB device ports' 5V** | the unit | Sets the receiver USB device ports' 5V. Choices: Force off; Force on; Follow. |
| 37 | **USB switching** | the unit | Sets the USB switching. Choices: Auto (switch on USB 5V); Manual; Follow video (HDMI 3 with USB host 3). |
| 38 | **USB devices go to** | the unit | Sets the USB devices go to. Choices: USB-C 1; USB-C 2; USB host 3. |
| 39 | **USB device ports' 5V** | the unit | Sets the USB device ports' 5V. Choices: Force off; Force on; Follow. |
| 40 | **Laptops on USB-C reach the network** | the unit | Turns the laptops on USB-C reach the network on or off. |

| | | | |
|---|---|---|---|
| 41 | **Screen** | buttons 1 to 2 | Screen on: turns the unit on. Screen off: puts the unit in standby. Sent to the screen over HDMI (CEC). |
| 42 | **Turn the screen on and off by itself** | the unit | Turns the turn the screen on and off by itself on or off. |
| 43 | **Turn it on and off with** | the unit | Sets the turn it on and off with. Choices: CEC; RS-232; CEC and RS-232. |
| 44 | **Turn it off after no source for** | the unit | Sets the turn it off after no source for. Choices: 5 sec; 10 sec; 30 sec; 1 min; 5 min, and 1 more. |
| 45 | **On** | each port | Turns the on on or off on each port. |
| 46 | **Presets** | buttons 1 to 5 | Recalls that preset. |
| 47 | **Save** | buttons 1 to 5 | Saves the unit's current settings as that preset. |
| 48 | **Clear a preset** | buttons 1 to 5 | Clears that preset. |
| 49 | **Power** | buttons 1 to 2 | On: turns the unit on. Standby: puts the unit in standby. |
| 50 | **Lock the front buttons (on = locked)** | the unit | Turns the lock the front buttons (on = locked) on or off. On, the buttons on the switch do nothing. Its own web page shows the same setting the other way round: 'Front Panel Buttons ON' = unlocked. |
| 51 | **Beep** | the unit | Turns the beep on or off. |
| 52 | **IR remote** | the unit | Turns the IR remote on or off. |
| 53 | **Power the receiver over the HDBT cable (PoE)** | the unit | Turns the power the receiver over the HDBT cable (PoE) on or off. |
| 54 | **Fan** | the unit | Sets the fan. Choices: Auto; 25%; 50%; 75%; 100%. |
| 55 | **Power** | the unit | Lit when the unit reports power. |
| 56 | **Windows** | each input | Shows the unit's windows for each input. |
| 57 | **Receiver HDMI input 5V** | the unit | Shows the unit's receiver HDMI input 5V. |
| 58 | **Receiver USB host 5V** | the unit | Shows the unit's receiver USB host 5V. |
| 59 | **Firmware** | the unit | Shows the unit's firmware. |

## 7. STATUS

| STATUS CONTROL | |
|---|---|
| **OK (green)** | Connected to the unit and reading it back. |
| **Initializing (blue)** | Connecting. It tries again every few seconds by itself. |
| **Fault (red)** | Not connected, with the reason: the unit does not answer, or the connection was refused or closed. |
| **Compromised (orange)** | Connected, but the unit refused the last change. The text names it. The control returns to what the unit reports at the next read. |
| **Not Present (grey)** | No IP address is set in the plugin's properties. |

## 8. TROUBLESHOOTING

**The Status control shows Fault and it does not connect.**
Check the IP address: find the unit's address on its front panel or its own web page and compare it with the plugin's IP Address property. A unit on DHCP may have moved; give it a fixed address or a DHCP reservation.

**The address is right, but it still does not connect.**
Check the network path. The Core and the unit must reach each other: the same network or VLAN, or a route between them. From a computer on the Core's network, the unit's web page should open at its address.

**Could a firewall be blocking it?**

Yes. A firewall or switch ACL between the Core and the unit must allow TCP port 8000 to the unit. Also leave the Port property at 8000 unless the unit's own web page was set to another port.

**It connects, but a change does not happen.**
The Status control shows Compromised and names the command the unit refused. The unit may be in standby: turn it on first.

**Changes made on the unit do not show in Q-SYS.**
Set Poll Interval above 0. Changes made on the unit's front panel, remote or web page then show within that many seconds.