idi
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ilex

Mobile Video Integration System



Installation Guide

For units ***using*** MSV2 video signal router

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Made in the USA

L280-0974 REV F

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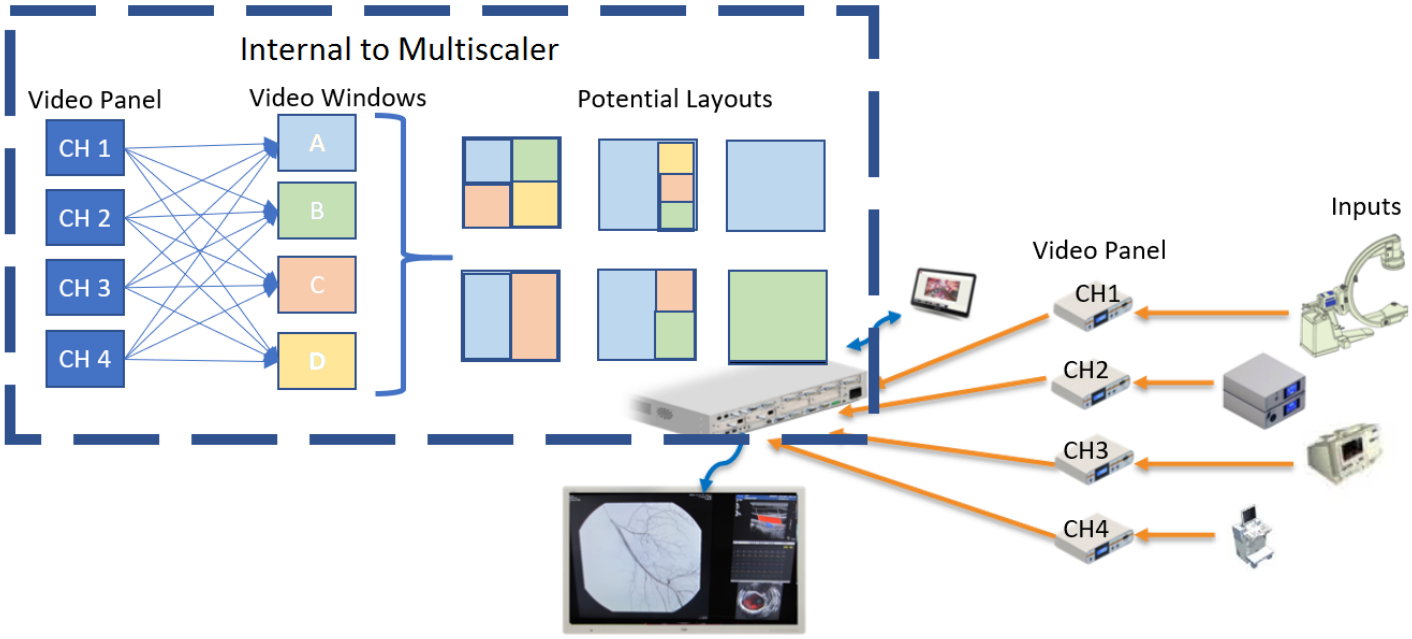
ilex controls

For details of ilex cart and monitor controls, please refer to Operator Manual L280-0975.

Video Inputs

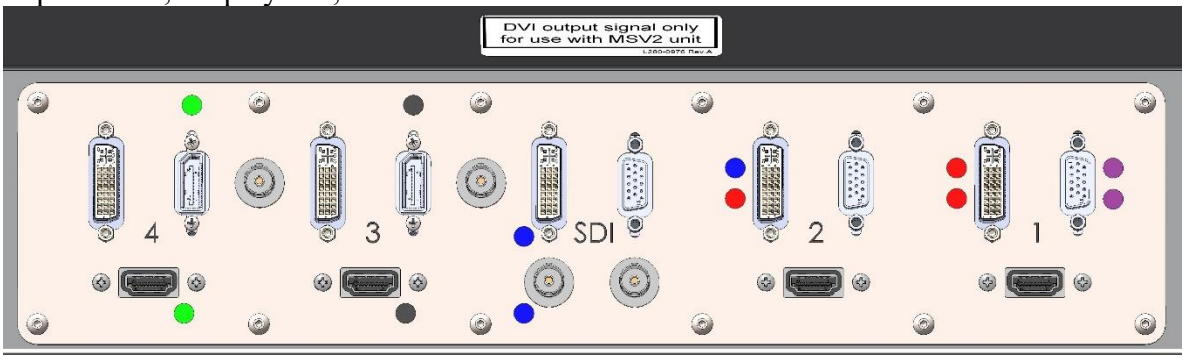
The ilex has 4 different channel input capabilities

Video inputs are connected to the rear of the ilex then routed scalers and into the controller, the MSV2 (Multiview scalar). Basic Layout navigation is done in the "Guest" mode of the system. Changing or programing of the layout format is available only in the "Administrator" mode.



Video Panel on rear of ilex

Channel 1 inputs: DVI, VGA, or HDMI
Channel 2 inputs: DVI, or HDMI
(SDI available for Channel 2 by using DVI to DVI jumper from SDI panel. Converter is required)
Channel 3 inputs: DVI, DisplayPort, or HDMI
Channel 4 inputs: DVI, DisplayPort, or HDMI



Basic “Guest” mode



Screen Layouts

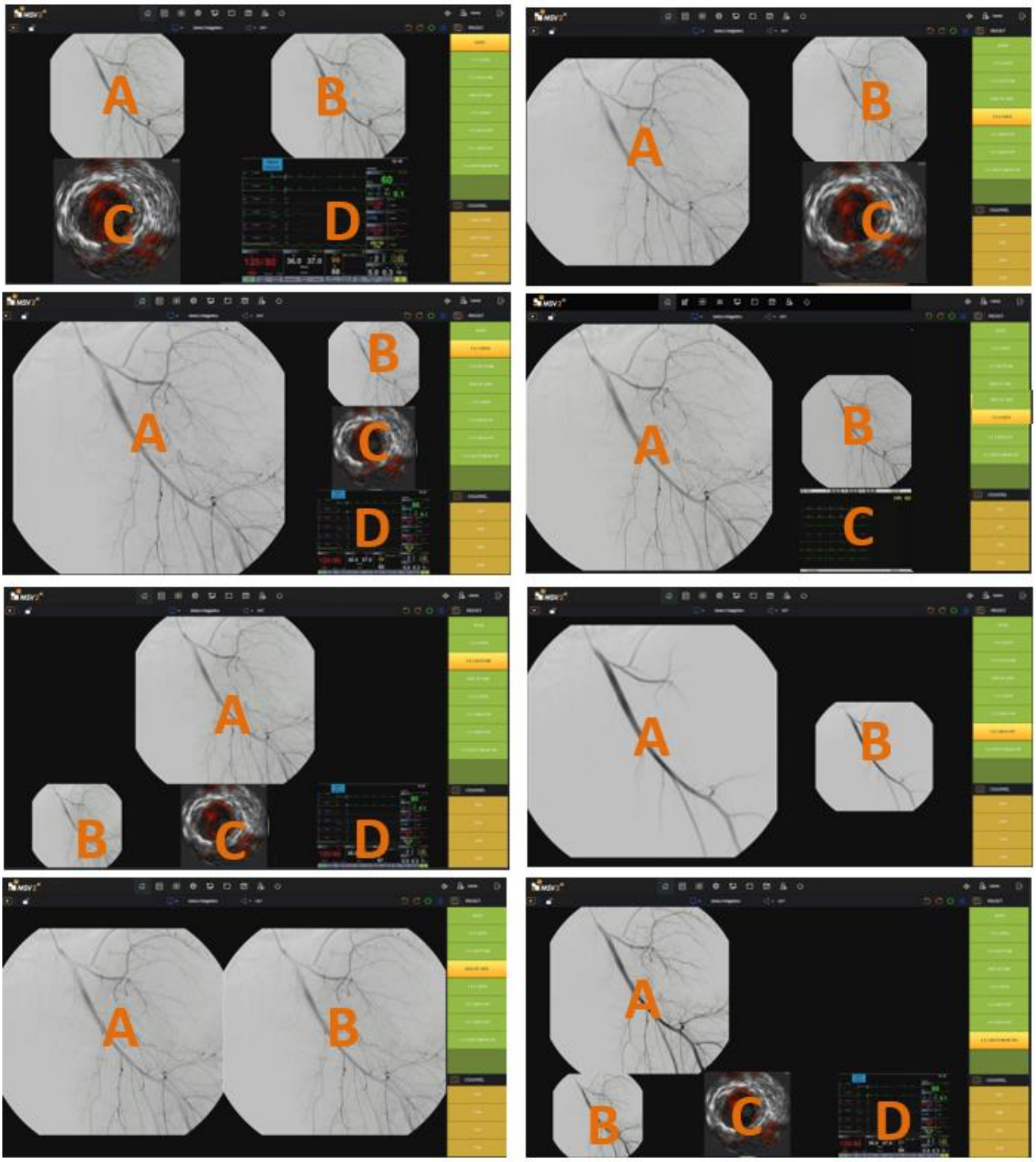
Single Channel Inputs

Administrator mode

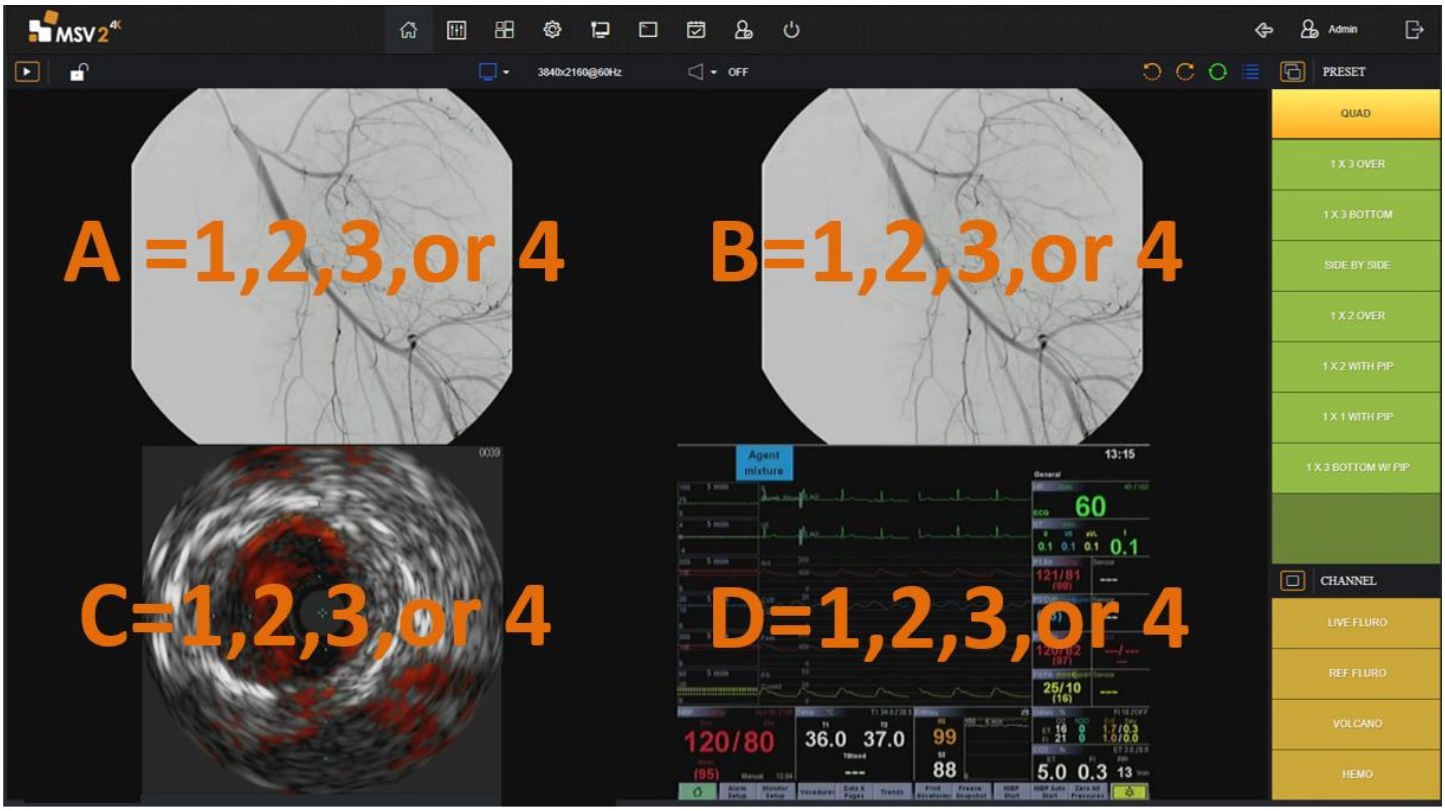


Factory Preset Layouts

By design each preset has the capability of showing 4 windows, A, B, C, & D. Each of the windows can be cropped, resized, relocated, and assigned one of the 4 channel inputs. Channels 3 & 4 can also accept DisplayPort video inputs when required. Channels 1 and 2 are HDMI inputs only.
There are 8 preset layouts as shown below. There is also single channel layout which displays each of the four channels at full screen.

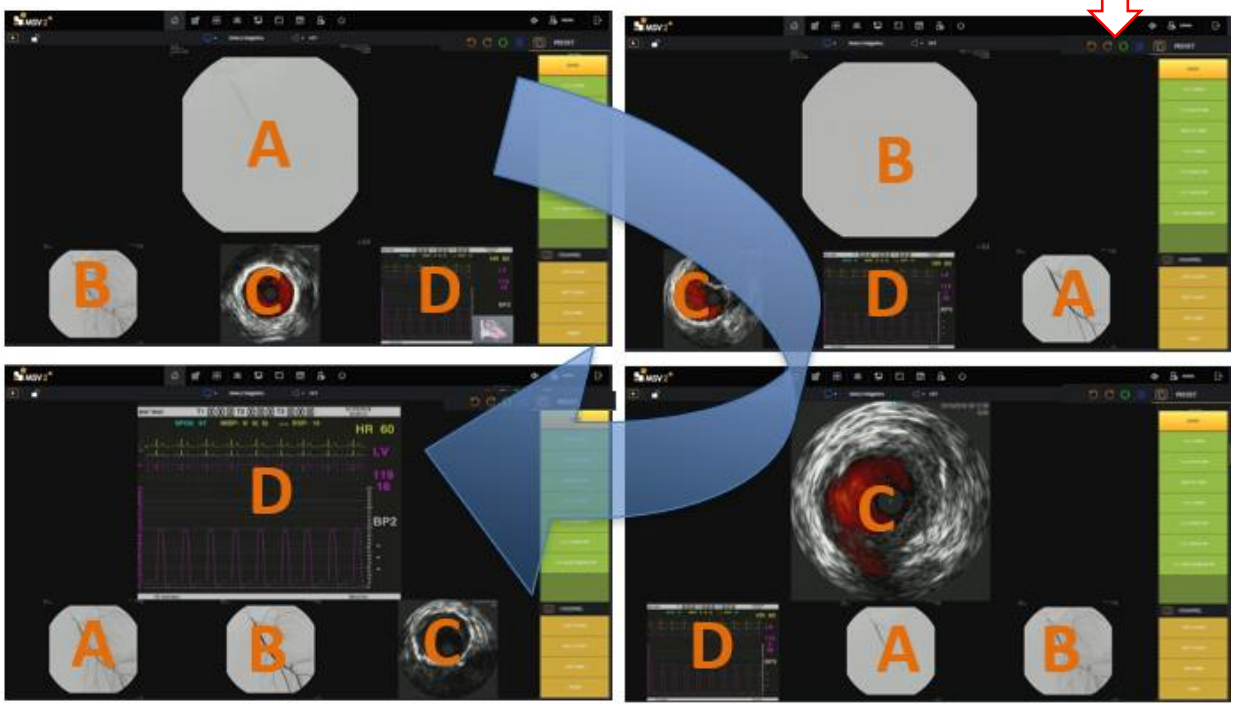


For each of the preset layouts the windows can be assigned channel 1,2,3 or 4.



Screens can be rotated clockwise or counterclockwise within a given layout.

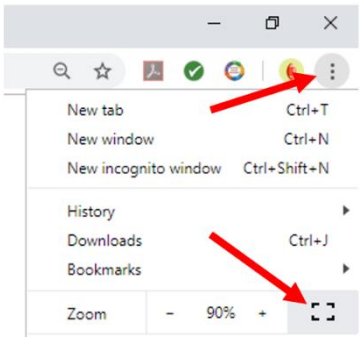
Image Rotation buttons



Accessing Onscreen Keyboard

When a keyboard is not used it is still possible to bring up the onscreen keyboard.

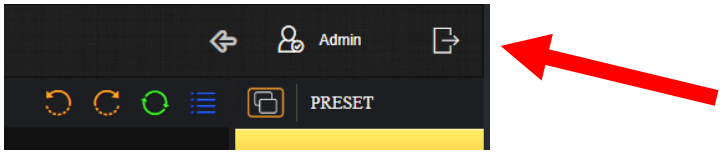
1. Press and hold anywhere on the screen until the "x" appear at the top of the screen. Click on the "x".
   1.1. On the taskbar at the bottom of the screen, click on the icon that looks like a keyboard
   1.2. Click on the icon in the top right of the keyboard to undock it. Now the keyboard can be moved around the screen
   1.3. Click in the bottom right of keyboard on the icon 123 to get the number pad to appear
   1.4. Click the "x" in the top right-hand corner of the keyboard to close it out
   1.5. Once keyboard use is complete, click on the screen.
   1.6. Click the three dots in the top left corner of the web browser
   1.7. Click the square next to the zoom buttons to bring the monitor back into Fullscreen mode.



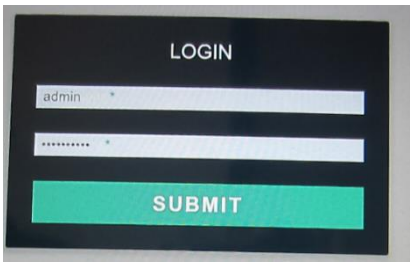
Modifying Layouts

Log in as an administrator

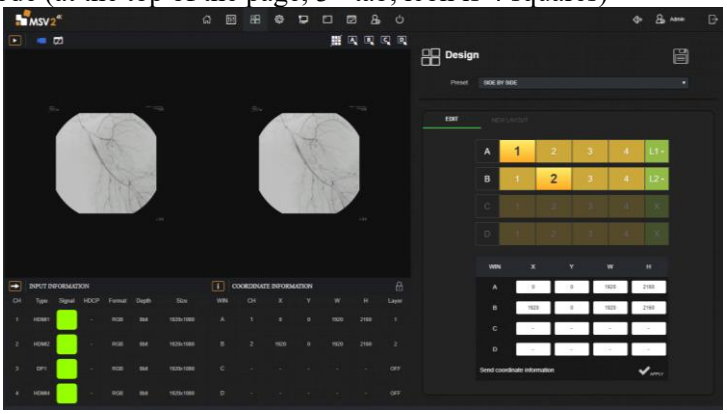
2. To login as admin click in the top right corner of the screen, click the door with an arrow point right to sign out. Connect keyboard to the tablet or access the on-screen keyboard as described in previous section.



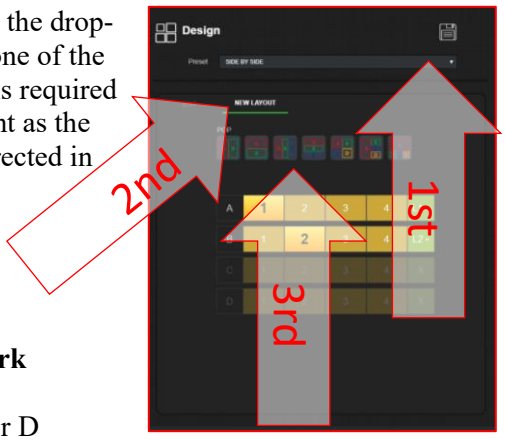
   2.1. Login in with the following credentials (case sensitive, and don't forget exclamation at end)
      2.1.1. **Username:** admin
      2.1.2. **Password:** 123123123!
   2.2. To login as guest/operator mode use the following credentials (case sensitive)
      2.2.1. **Username:** idi
      2.2.2. **Password:** Password55



3. In general, always remember to Click apply and save, otherwise work will be lost.
   3.1. There are 8 possible user set layouts that can be adjust the size, and location of windows (User0,1,2,3,4)
      3.1.1. Start in Design mode (at the top of the page, 3rd tab, icon is 4 squares)



3.1.2. On the right side of the screen select the desired user in the drop-down menu. Click on the new layout tab, then select one of the predefined layouts with the correct number of channels required for layout. Avoid looking at the live screen at this point as the images will be scaled incorrectly, this will be autocorrected in the next few steps



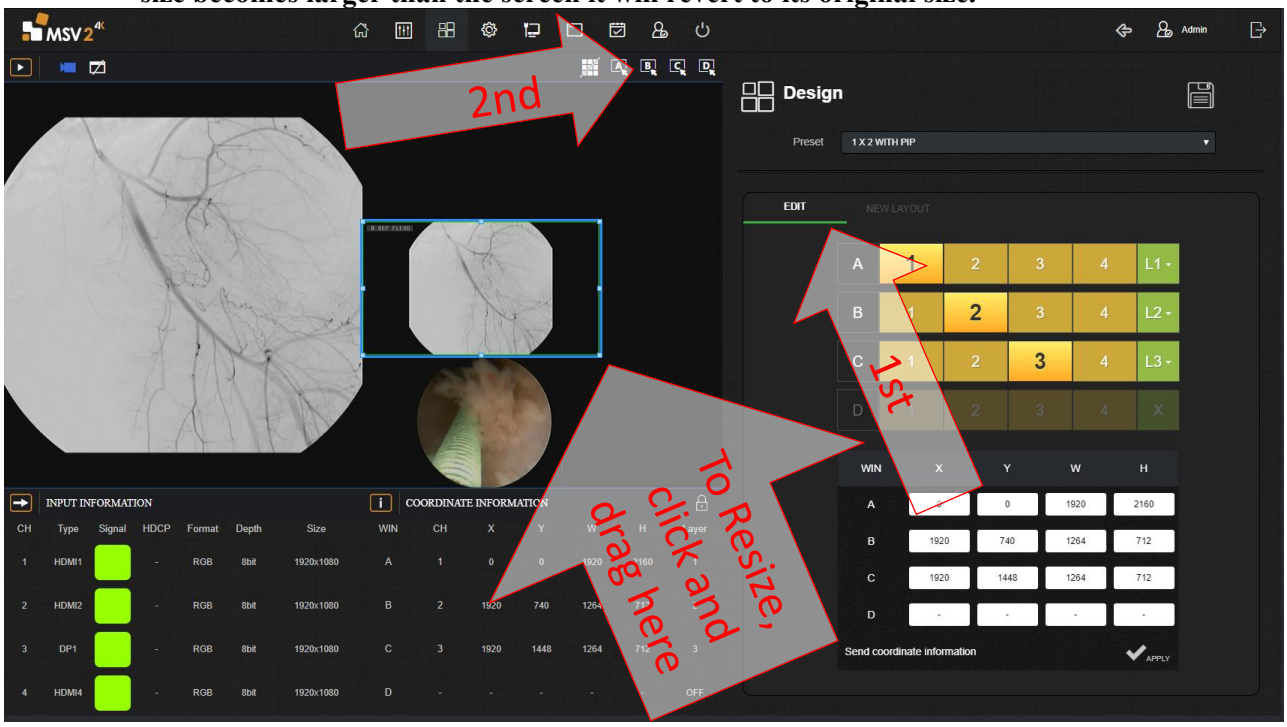
3.1.3. Click save at the top

3.1.3.1. **Note: Failure to click save will result in lost work**

3.1.4. Re-arrange the windows using the following steps.

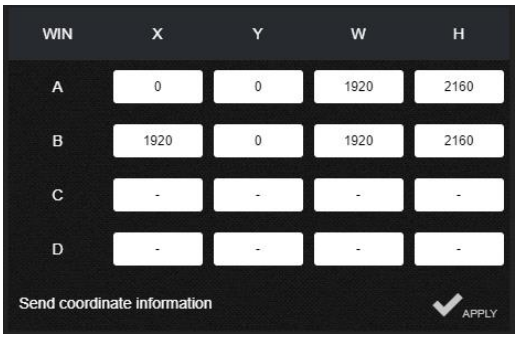
3.1.4.1. Click save, click in the desired window A, B, C, or D

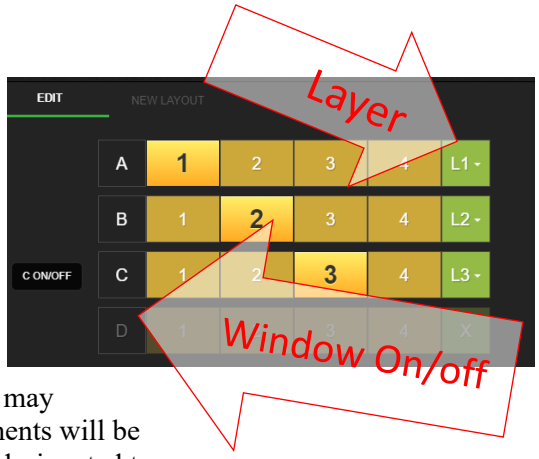
3.1.4.2. Click and hold any corner of the desired window to change window size. **Note: if the window size becomes larger than the screen it will revert to its original size.**



3.1.4.3. Click and hold in the center of a window to drag location around the screen. Note: dragging a **window past the edge of the screen is not allowed and will return to its original location. In most cases, change the size of the window to be smaller prior to moving the window around the screen, then enlarge if needed.**

3.1.4.4. Sizing and moving can also be done via numerical data at the bottom of the page. See Coordinate information. X & Y are the coordinate points relating to the overall location of window in the monitor. W and H are the width and height of the desired window. Enter the height and width of the window first, then adjust location. Values that are invalid will revert to original state. If there is not data in a given row, that signifies that window is not active in the given layout.





3.1.4.5. In the edit tab, set the layer requirements as needed by clicking on the green box and selecting a layer in the drop-down menu. L4 is considered the top layer, L1 is bottom most layer.

3.1.4.6. To add a channel to a given layout click on the letter in the edit tab and select turn on or off.

3.1.4.7. Click apply and save

3.1.5. Cropping may be required to make the image fill the entire window. Since aspect ratio is turned on, the image may not be correctly cropped/and or scaled. Cropping adjustments will be made in the next few steps, after the channels have been designated to the appropriate window locations.

3.1.6. Layout has been configured and now the channels can be assigned to window locations and channels can also be cropped at this time.

3.1.7. Before changing tabs click apply and save, failure to do so will result in lost work.

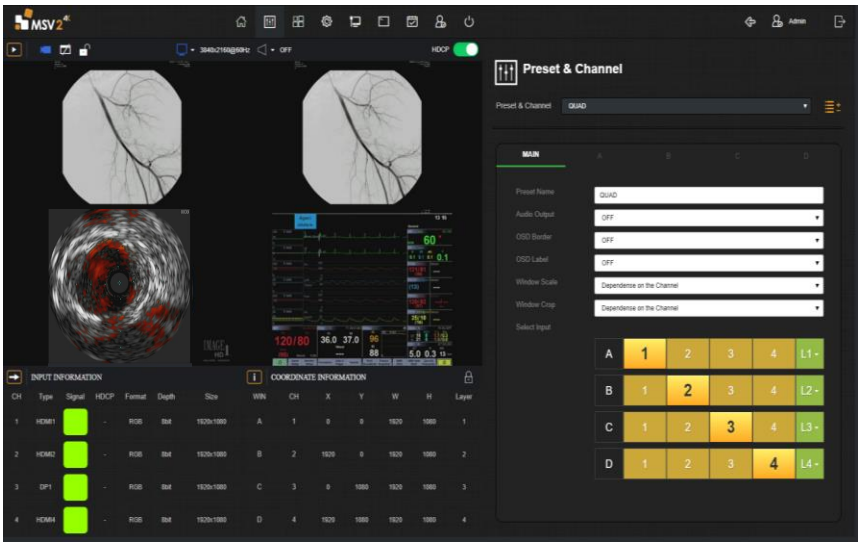
Assigning Channels to Window Location

4. Each channel input 1,2,3,4 can be assigned to a window, A, B, C, or D. Channels can also be duplicated on to different windows

4.1. Go to preset and channel mode (2nd tab looks like slider buttons)

4.2. Select QUAD, from the dropdown menu

4.3. Change A to reference Channel 1, B>CH2, C>CH3,D>Ch4



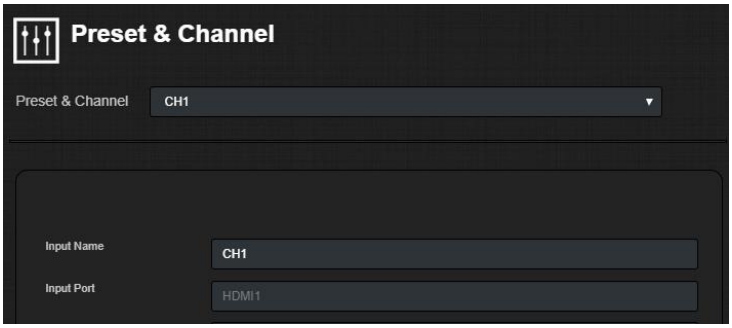
4.4. Click a different channel in row A, notice the screen changes.

4.5. Assign channels to the appropriate window as needed.

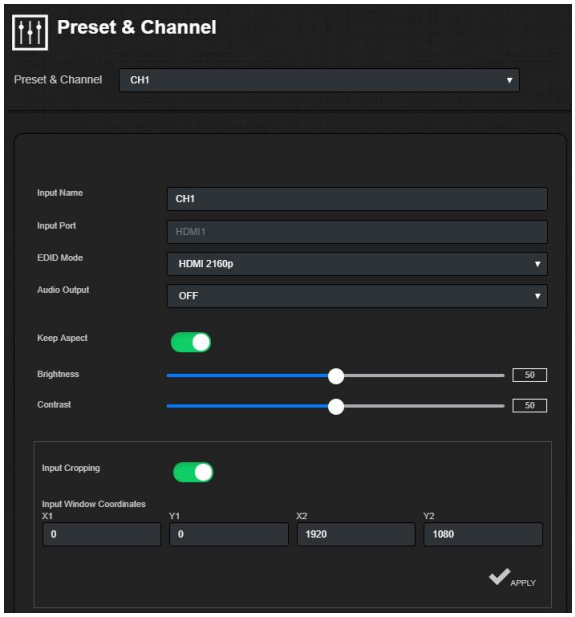


Cropping Windows

5. Steps used to crop windows and channels
   5.1. Go to Preset and channel mode (2nd tab, pencil icon)
   5.2. Locate the drop-down menu called preset and channel
   5.3. Drop down and select CH1

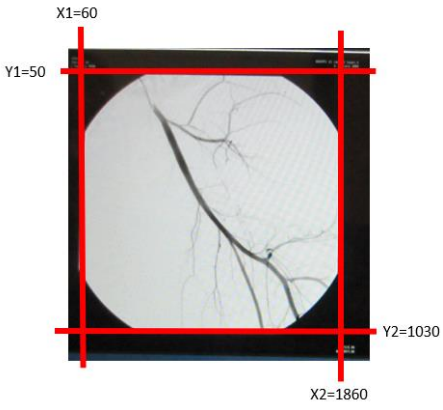


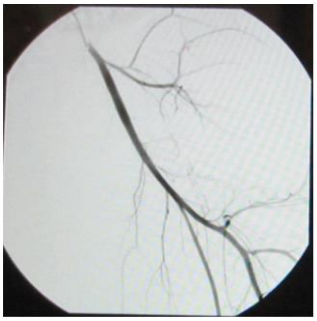
   5.4. Click on the input cropping slider to activate cropping



   5.5. Enter the desired values:
      5.5.1. X1 = crop left side of image
      5.5.2. Y1 = crop top of image
      5.5.3. X2 = crop right side of image
      5.5.4. Y2 = crop bottom side of image
      Example:







Typical cropped sizes for a 1920 x 1080 starting aspect ratio, which is what the DAUs are set to output. This should be a starting point and can be adjusted as required for each window/channel

1920	1080				
X1	**Y1**	**X2**	**Y2**	**Aspect**	**multiplier**
240	0	1680	1080	4:3	1.33
0	0	1920	1080	16:9	1.777778
420	0	1500	1080	Square	1
285	0	1635	1080	1280x1024	1.25

DisplayPort inputs are directly connected to the back of the MSV2 and should output the exact aspect ratio of the video source.

5.6. Click apply and note changes on the video screen. Adjust values as required.
5.7. Repeat for each channel CH2, CH3, & CH4
5.8. Verify keep aspect ratio is turned on for each channel as well

Rename Layouts and Channels

6. Renaming will occur in the Preset & Channel tab
   6.1. Click on the preset & Channel tab
   6.2. In the top click on the drop-down menu and navigate to the desired preset & channel.
   6.3. Click in the Preset Name textbox
   6.4. Type in the desired name.
   6.5. Note: Use only letters and numbers, symbols are not allowed and will create errors in the programming



   6.6. Click apply
   6.7. Rename each of the layouts as required, remember to click apply after renaming each of the layouts.
   6.8. Channels can also be renamed in the same fashion.
   6.9. Repeat steps 6.2 through 6.7, except select the desired channel in step 6.2

Saving and returning to guest mode

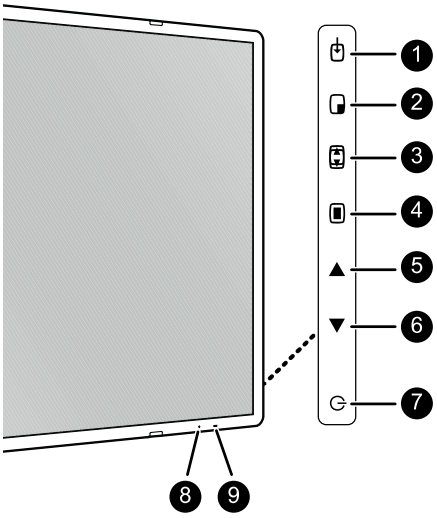
7. Go to the design tab
   7.1. Hit the save button
   7.2. Click on the sign out button at the top right of the page
   7.3. Sign back into software using the following (case sensitive on both username and password)
      7.3.1. **Username:** idi
      7.3.2. **Password:** Password55

Monitor Video Setting Menu Navigation

Barco Monitor

(taken from the monitor's User Guide #K5902133 (451920612483)-02)

View showing the front controls of the Barco Monitor



1. Input Selection Key
2. Scroll to Desired Page/Down Key
3. Image Zoom/Up Key
4. Brings up OSD Menu /Saves or Enter Key
5. Brightness -/Left Key
6. Enter Key/ Brightness Increase +
7. Stand-by Key
8. Power Mode LED
9. IR Remote (future)

To navigate through the OSD menu



Image 4-2

- Press the ▭ key to open the OSD menu.
- Use the ◔ or ⇔ key to scroll to the desired menu page.
- When the desired Menu page is highlighted, press the ▶ key to select the top menu item that will be highlighted.
- Use the ◔ or ⇔ keys to move to other Menu Items, then press the ▶ key to select it.
- If the selected menu item is controlled by a slider use the ◀ or ▶ keys to adjust the item value, then press the ▭ key to confirm.
- If the selected menu item is a multiple choices menu use the ◔ or ⇔ keys to select the desired option then press the ▭ key to confirm.
- Press again ◔ or ⇔ key to select other Menu items or exit from the Menu page by pressing the ▭ key.

Overview of shortkeys

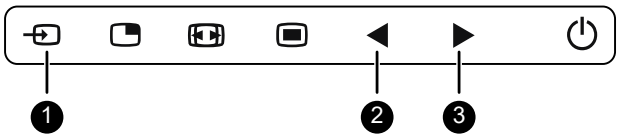
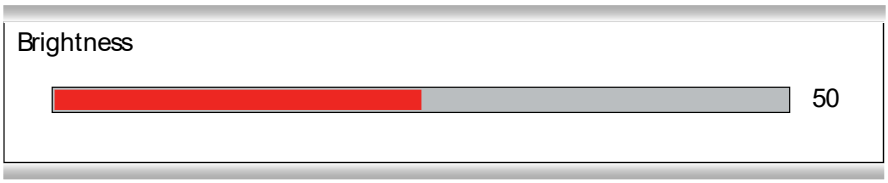


Image 4-3

1. Main source selection
2. Brightness decrease
3. Brightness increase

To quickly adjust the brightness

While no OSD menu is on the screen, press the ◀ or ▶ key to adjust the brightness as desired.



About color space presets

The available color space presets for your display are:

- Native (LCD primaries uncalibrated)
- ITU709 — Older RGB color Settings
- BT.2020 — Newer UHD Color Setting
- DCI-P3 D65 — Newer Digital Movie Color Space

About gamma presets

The available gamma presets for your display are:

- 1.8
- 2.2
- 2.4
- Video (transfer function adapted for video cameras with dark levels enhancement)
- Native (no correction curve is applied)
- DICOM (grayscale levels are following closely the DICOM curve – for reference only, not for diagnostic purposes)

To select a gamma preset

1. Bring up the OSD main menu.
2. Navigate to the *Picture* menu.
3. Enter the *Gamma* submenu.
4. Select one of the available gamma presets and confirm.

About screen resolution

This function allows you to adjust the image resolution of the preferred timing detailed in the EDID exposed to the DP input and to the integrated Nexxis decoder.

The available options are:

- 4K (17:9) (for image resolution of 4096 x 2160)
- UHD (16:9) (for image resolution of 3840 x 2160)



Image resolution of the preferred timing detailed in the EDID exposed to HDMI-1 and HDMI-2 are predefined as follows: HDMI-1 = 16:9; HDMI-2 = 17:9.

To select the main source

1. Bring up the OSD main menu.
2. Navigate to the *Input Select* menu.
3. Enter the *Main Source* submenu.
4. Select one of the available main sources and confirm.

FSN Monitor

(taken from FSN User Manual FSN1995-7/2019)

After entering the OSD, use the UP ∧ and DOWN ∨ buttons on the front of the display monitor to navigate to a main menu category.


The ADJUST menu controls brightness, contrast, and more.


The COLOR SETTING menu controls preset or customized color settings.


The OTHER SETTING menu controls image aspect ratio and over scan.


The SETUP menu controls language, OSD behavior, and more.


The PIP menu controls picture in picture layouts.

After selecting a main menu category, press the + button to enter the associated submenus as shown below. Next, use the UP ∧ and DOWN ∨ buttons to navigate to the desired submenu, then adjust as needed with the + and - buttons. Select the MENU button to exit from the submenu or main menu.



Submenus under the COLOR ADJUSTMENT menu

1. BRIGHTNESS Increases or decrease the brightness. (Range : 0~100)
2. CONTRAST Increases or decreases the contrast. (Range : 0~100)
3. SATURATION Increases or decreases the saturation. (Range : 0~100)
4. SHARPNESS Increases or decreases the sharpness. (Range : 0~4)
5. GAMMA Select the appropriate gamma. (BYPASS,1.8, 2.0, 2.2, 2.4, 2.6, DICOM). Gamma cannot be changed when color space is sRGB.
6. COLOR SPACE (FM-D5801DV only) Select the color space. (sRGB or NATIVE). Gamma cannot be changed when color space is sRGB.
7. VIVIDNESS Sets image vividness. (Off, Low, Mid, High) Enhances image quality with minimal artificial effects.



Submenus under the COLOR TEMPERATURE menu

1. COLOR TEMP Changes the image color setting. (C1, C2, C3, USER)
2. RED Red balance. (Only works with USER mode) (Range : 0~100)
3. GREEN Green balance. (Only works with USER mode) (Range : 0~100)
4. BLUE Blue balance. (Only works with USER mode) (Range : 0~100)



Submenus under the OTHER SETTING menu

1. ASPECT RATIO Changes aspect ratio of the displayed image. (Full, Auto, Fill-H)
2. FREEZE Keeps the image still.
3. POWER ON DC5V Enables or disables the DC5V output.
4. OVER SCAN Adjusts the displayed size. (0~6)
5. DUAL DVI SOURCE or SDI SOURCE SELECT
   FM-C5501DV, FM-D5801DV: Select Dual-link DVI input source. (DVI-1, DVI-2, Dual)
   FM-C5501DG: Select SDI input source. (SDI-1, SDI-2, SDI-3, SDI-4, SDI-QUAD, SDI-2SI)

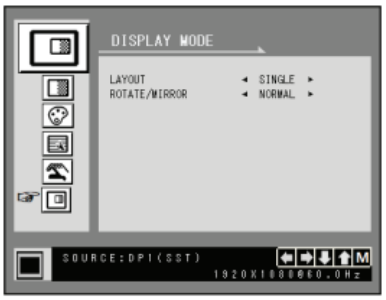
Note: SDI-QUAD or SDI-2SI will support 4K quadrant and 2-sample interleave division when using SDI-1 through SDI-4 input signal connectors.



Submenus under the OSD SETTING menu

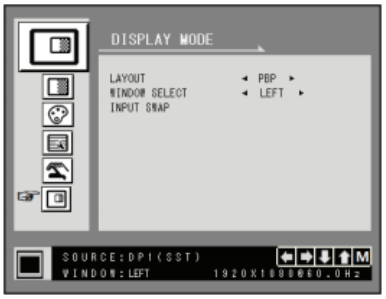
1. LANGUAGE Changes the OSD language. (10 languages)
2. OSD TRANS Adjusts the OSD transparency.
3. OSD POSITION Changes the OSD position. (9 Positions)
4. OSD MENU TIME Adjusts the length of time the OSD Menu is present on the screen. (range: 10~60 seconds)
5. RESET Changes all the OSD values to factory default.

After selecting a main menu category, press the + button to enter the associated submenus as shown below. Next, use the UP ∧ and DOWN ∨ buttons to navigate to the desired submenu, then adjust as needed with the + and – buttons. Select the MENU button to exit from the submenu or main menu.



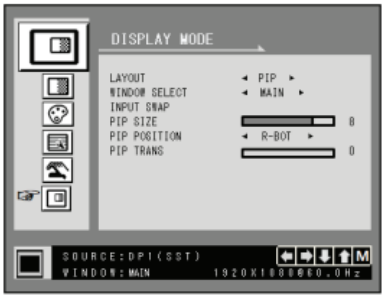
Submenus under the PBP/PIP menu - Single

1. LAYOUT Changes the image layout. (SINGLE, PBP, PIP)
2. ROTATE/MIRROR Changes the displayed image direction. (NORMAL, 180, H-MIRROR, V-MIRROR)



Submenus under the PBP/PIP menu - PBP

1. LAYOUT Changes the image layout. (SINGLE, PBP, PIP)
2. WINDOW SELECT Selects the active window during PBP or PIP.
3. INPUT SWAP Swaps the position of the primary and secondary images.



Submenus under the PBP/PIP menu - PIP

1. LAYOUT Changes the image layout. (SINGLE, PBP, PIP)
2. WINDOW SELECT Selects the active window during PBP or PIP.
3. INPUT SWAP Swaps the position of the primary and secondary images.
4. PIP SIZE Changes the PIP size. (range : 0~10)
5. PIP POSITION Changes the PIP position. (L-Top, R-Top, Mid, L-Bot, R-Bot)
6. PIP TRANS Change the transparency of PIP image. (range : 0~8)