Sony BRC-H700 Robotic Camera

Requirements

- Robotic Camera Control software option.
- Serial Interface Cable (DB9 to VISCA)

Port Connections

	Switcher		Robotic Camera
Communications	REMOTE Port (female)	⇨	VISCA RS-422 Port (male)
Video	Input BNC	⇨	Output BNC

Cable Connectors

To Switcher
(male cable end)

To Device
(female cable end)

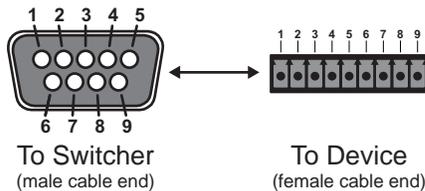***Figure 1** DB9 to VISCA Cable*

Pinouts

Switcher	BRC-H700
2 (Rx-)	9 (Tx-)
3 (Tx+)	6 (Rx+)
7 (Rx+)	8 (Tx+)
8 (Tx-)	7 (Rx-)

Note: *These pinouts do not match the Sony documentation but have been tested and verified by Ross Video.*

FlexDevice™ Installation

To Install the FlexDevice Driver

1. On your computer, open your Web Browser and, in the address bar, enter the IP address of your frame and press **Enter**.
2. Enter your username and password as follows when the **Login Dialog Box** appears. The default **Name** is **user** and **Password** is **password**.
3. Click **Other...** ⇨ **FlexDevices**.
4. Click **Browse**. A file selection dialog box is displayed.

5. Locate the FlexDevice driver file **Robo-Cam_Sony *x.x-###*.tar.gz**.
6. Click **Open/Choose** to select the file.
7. Click **Install Driver** to upload and install the selected driver to the switcher.

To Initialize the FlexDevice Driver

1. Press **HOME** ⇨ **Setup** ⇨ **Installation** ⇨ **Com Setup** ⇨ **FlexDevices**.
2. Press **Start Driver**.
3. Use the **Interface** knob to select **Panel0**.
4. Use the **Type** knob to select **FlexCAM**.
5. Use the **Driver** knob to select **Sony *x.x***.
6. Press **Accept**. You must initialize a separate instance of a driver for each device you want to control from the switcher.

Switcher Setup

To Set Up Communications

1. Press **HOME** ⇨ **Setup** ⇨ **Installation** ⇨ **Com Setup** ⇨ **Type**.
   - Use the **Com Port** knob to select the **REMOTE X** port that you connected the Sony BRC-H700 to.
   - Use the **Device** knob to select **FlexCAM**.
2. Press **Select Device**.
   - Use the **Device** knob to select ***x*_Sony *x.x***.
3. Press **Com Type**.
   - Use the **Type** knob to select **RS-422**.
4. Press **Com Settings**.
   - Use the **Baud** knob to select **9600**.
   - Use the **Parity** knob to select **NONE**.
5. Press **HOME** ⇨ **Confirm**.

To Set Up Video Inputs

1. Press **HOME** ⇨ **Setup** ⇨ **Installation** ⇨ **BNC** ⇨ **BNC Type**.
   - Use the **BNC** knob to select the input BNC that the Video output of the BRC-H700 is connected to.
   - Use the **Type** knob to select **Robotic Cam**.
   - Use the **Video Format** knob to select the video format of the Video output of the camera.
2. Press **More** ⇨ **Camera Setup**.

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- Use the **Controller** knob to select the BRC-H700.
- Use the **Port** knob to select the port that you are using on the BRC-H700.

3. Press **Camera Options** and use the knobs to set the options.

Option	Description
Pan Invert	Use the **Value** knob to invert the direction that the camera moves when using the positioner (**Yes**), or not (**No**).
Tilt Invert	Use the **Value** knob to invert the direction that the camera moves when using the positioner (**Yes**), or not (**No**).
Zoom Invert	Use the **Value** knob to invert the direction that the camera zooms when using the positioner (**Yes**), or not (**No**).
Focus Invert	Use the **Value** knob to invert the focus direction when using the positioner (**Yes**), or not (**No**).
Iris Invert	Use the **Value** knob to invert the iris direction when using the positioner (**Yes**), or not (**No**).
X Invert	Use the **Value** knob to invert the direction that the camera moves in the X-axis when using the positioner (**Yes**), or not (**No**).
Y Invert	Use the **Value** knob to invert the direction that the camera moves in the Y-axis when using the positioner (**Yes**), or not (**No**).
Z Invert	Use the **Value** knob to invert the direction that the camera moves in the Z-axis when using the positioner (**Yes**), or not (**No**).

4. Press **HOME ⇨ Confirm**.

Device Setup

The bottom switches on the BRC-H700 that is connected to the switcher must be set as follows:

Button	Value
1	Set to **ON** for 50i, or **OFF** for 59.94i signal format.
2	Set to **ON** for RS-422 communication
3	Set to **ON** for 38400 baud rate
4	Infra-red signal control (**OFF**) disables the control

Refer to the Sony manual for information on setting the other bottom buttons on the camera.

If you are daisy chaining multiple Sony BRC-H700s together, use the following pinouts to connect the one camera to the next.

VISCA Out	VISCA In
1 (Rx-)	8 (Tx -)
2 (Rx+)	9 (Tx+)
3 (Tx-)	6 (Rx-)
4 (Tx+)	7 (Rx+)
5 (Gnd)	5 (Gnd)

Device Operation

Available settings on the Sony BRC-H700 are dependent on the current configuration of the camera. Refer to the following table for settings and dependencies.

Setting	Description	Dependency
Focus Mode	Sets whether focus should be manually or automatically controlled.	
Auto Exposure	Sets which exposure parameters (Shutter, Gain, Iris/StepIris) can be controlled and which are automatically adjusted. • AUTO — all parameters are automatically controlled • MANUAL — all parameters are under manual control • SHUTTER — Shutter speed is manually controlled, all other are automatically controlled • IRIS — Iris size is manually controlled, all other are automatically controlled • GAIN — Gain is manually controlled, all others are automatically controlled	
Shutter	Adjust the shutter speed of the camera	Auto Exposure must be set to MANUAL or SHUTTER.
Gain	Adjusts the sensitivity of the camera.	Auto Exposure must be set to MANUAL or GAIN.

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Setting	Description	Dependency
White Balance	Sets the white balance, or how it is adjusted, for the camera. • AUTO — white balance is automatically controlled • OUTDOOR — fixed to 5,800K • INDOOR — fixed to 3,200K • MANUAL — RGain and BGain are unlocked	
RGain & BGain	Manually adjust the white balance	White Balance must be set to MANUAL.
Rshift & Bshift	Adjusts the white balance in AUTO mode. Less control than RGain & BGai.n	White Balance must be set to AUTO.
StepIris	Adjust the Iris in step values, rather than with the positioner.	Auto Exposure Mode must be set to MANUAL or IRIS.
Iris Limit	Limits the Iris settings when Iris is automatically controlled.	Auto Exposure is not set the IRIS.

Compatibility

Robotic Camera	Version
Sony BRC-H700	--
FlexDevice	
Sony FlexCAM Driver	1.0
MultiPanel	
MultiPanel Support	✖
Automation	
OverDrive	12.0
Port Expanders	
BSS4	✖
Comtrol DeviceMaster	✔

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