



VISCA & DMX Connectivity

AJA • ARRI • Blackmagic • Canon • Datavideo
GoPro • JVC • Marshall • Panasonic • RED
Sony • Vaddio (and others)

The PTX Universal PanTilt heads are compatible with VISCA and DMX controllers, integrating pan and tilt functionality with available camera control parameters.

For DMX control: connect to the heads using standard three-conductor XLR cables, and download the published Profiles that let you integrate the PTX fixtures into your lighting universes.

For VISCA control: connect to the heads using a 9-pin Phoenix connector on CAT5 or similar cable. The PTX heads use RS422 full-duplex communications protocol from the controller.

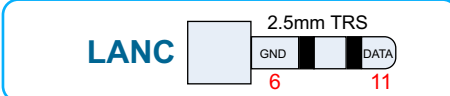
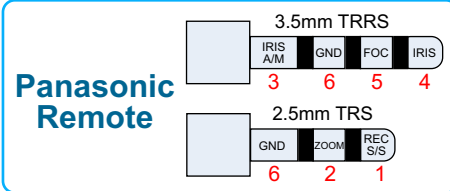
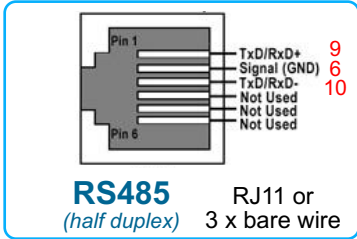
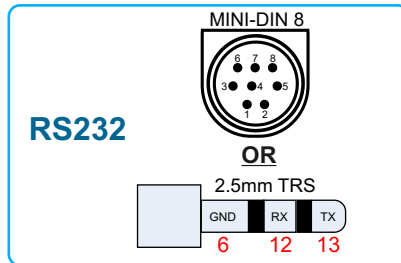
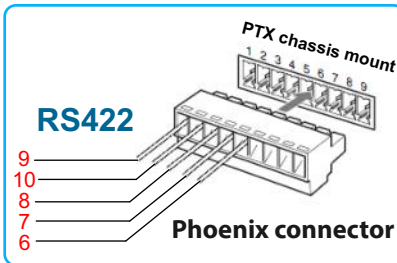
Connecting your Camera

PTX-to-camera control connections are available on the HD15 connector on the arm of the fixture. Use the information on the right to configure the appropriate short cable from the HD15 to your camera.

Cables can also be ordered from RUSHWORKS. These support camera connections using RS422, RS232, RS485, LANC and Panasonic Remote.



OUTPUT CONNECTORS (from HD15 to cameras)

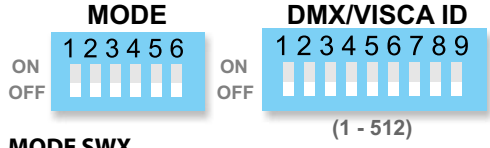


| | | |
|---------------------------|--------------|----------------|
| 1 = PANA Rec Start/Stop | 6 = Ground | 11 = LANC Data |
| 2 = PANA Zoom | 7 = 422 TX+ | 12 = 232 TX |
| 3 = PANA Iris Auto/Manual | 8 = 422 TX- | 13 = 232 RX |
| 4 = PANA Iris | 9 = 422 RX+ | 14 = none |
| 5 = PANA Focus | 10 = 422 RX- | 15 = none |

CONTROLLER

DMX
CONSOLES & SOFTWARE

Use standard XLR microphone cable for DMX IN and OUT.



| MODE SW | ON | OFF | Set the DMX ID DIP swx to match the ID number you set for the fixture using the menu on the front panel of the PTX. |
|---------|---------|------|--|
| 1 | VISCA | DMX | Download the DMX / DIP SWITCH CALCULATOR on the PTX page of the RUSHWORKS website: www.RUSHWORKS.tv |
| 2 | VISCA | L/P | |
| 3 | 38400 | 9600 | |
| 4 | 422/485 | 232 | |
| 5 | 422 | 485 | |
| 6 | NORM | FW | |

MODE SWX FUNCTIONS

- 1 Sets the **CONTROLLER** device type
- 2 Identifies the **CAMERA** device type: VISCA or LANC/Panasonic Remote
- 3 Sets the BAUD rate of the connected camera *if Camera is VISCA*.
- 4 Sets the serial communications protocol the VISCA camera requires
- 5 IF SW4 is 422/485, select which protocol the camera requires
- 6 Set to FW for firmware upgrades

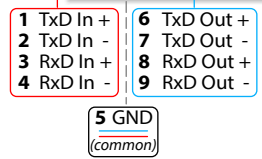
CONTROLLER

VISCA
RUSHWORKS
VDESK, REMO & Ctrl+R

OTHER SWITCHERS & HARDWARE DEVICES

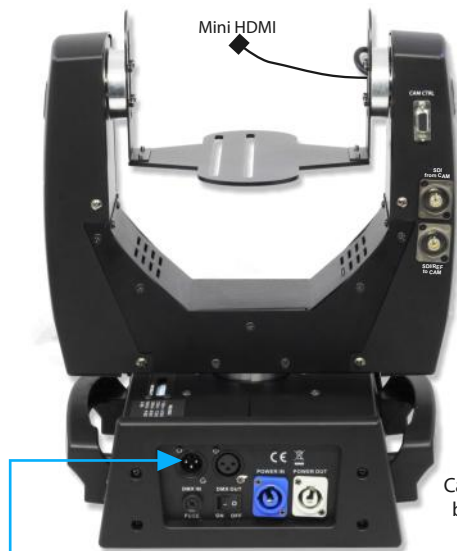


Use CAT 5 or similar cable that supports RS422 (5 pin) data communications.



| MODE SW | ON | OFF | VISCA RS422 |
|---------|--------|---------|--------------------------|
| 1 | VISCA | DMX | 1 Tx D In + 6 Tx D Out + |
| 2 | 38400 | 9600 | 2 Tx D In - 7 Tx D Out - |
| 3 | VISCAM | OTHER | 3 Rx D In + 8 Rx D Out + |
| 4 | 232 | 422/485 | 4 Rx D In - 9 Rx D Out - |
| 5 | 485 | 422 | 5 GND |
| 6 | FW | NORM | |

Reference label on PTX head



CONTROLLER

**DMX
CONSOLES
&
SOFTWARE**

Use standard XLR microphone cable for DMX IN and OUT.



CONTROLLER

**VISCA
RUSHWORKS
VDESK, REMO
& Ctrl+R**

**VISCA
OTHER SWITCHERS
&
HARDWARE DEVICES**

Use CAT 5 or similar cable that supports RS422 (5 pin) data communications.

| MODE SWX | | |
|----------|--------|---------|
| SW | ON | OFF |
| 1 | VISCA | DMX |
| 2 | 38400 | 9600 |
| 3 | VISCAM | OTHER |
| 4 | 232 | 422/485 |
| 5 | 485 | 422 |
| 6 | FW | NORM |

| VISCA RS422 | | |
|-------------|----------|-------------|
| 1 | TxD In + | 6 TxD Out + |
| 2 | TxD In - | 7 TxD Out - |
| 3 | RxD In + | 8 RxD Out + |
| 4 | RxD In - | 9 RxD Out - |
| 5 | GND | |

Reference label on PTX head



SDI from CAM

To minimize stress on the internal wiring bundle during head activity, the two BNCs for the coax lines coming TO the camera are on the base of the PTX.

These are connected internally to the two BNC connectors on the rotating arm of the head.

Blackmagic cameras use the SDI out from ATEM switchers for multi-function camera control. For other cameras that support external genlock, use the SDI/REF connections on the base and arm.



Use DIP switches to set MODE and DMX/VISCA ID



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