

**Installation Guide****HubWayEX1 - Single Channel Active UTP Transceiver Module****Overview:**

Altronix HubWayEX1 Active UTP Transceiver Module employs *automatic gain control (AGC)* to transmit UTP video and RS422/RS485 data over a single CAT-5 or higher structured cable. Unit provides a single camera channel in a compact insulated housing. Video transmission range is up to one (1) mile max.

**Specifications:****Agency Listings:**

- UL Listed for Commercial CCTV Equipment (UL 2044).  
CUL Listed - CSA Standard C22.2 No.1-04, Audio, Video and Similar Equipment.

**Input:**

- 16VAC-24VAC or 12VDC-24VDC, 1W.  
These products shall only be powered by a UL Listed Class 2 power Supply or Class 2 transformer.

**Video:**

- One (1) channel of video over twisted pair up to a distance of 5000 ft.

**Video (cont'd):**

- Active balun combiners not required.
- One (1) 75 ohm video output.

**Data:**

- RS422/RS485 data input.

**Visual Indicators:**

- Video signal LED indicator.

**Features:**

- Automatic picture and gain control.
- Automatic compensation for reverse polarity wiring (video).

**WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. This installation should be made by qualified service personnel and should conform to all local codes.**

**Installation Instructions:**

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.

1. Mount HubWayEX1 in desired location utilizing the mounting hole (*Fig. 1, pg. 2*). Use a proper fastener and/or wall anchor when securing HubWayEX1 with screw through its mounting hole to the wall.
2. Connect UL Listed Class 2 power Supply or Class 2 transformer to terminals marked [AC/DC Input] (*Fig. 1, pg. 2*). Use 22AWG-16AWG wire for this connection.
3. Connect the BNC video output for HubWayEX1 to the corresponding video input on the head end equipment (DVR) (*Fig. 4, pg. 3*).
4. Connect the RS422/RS485 output of the head end equipment (DVR) to the data input terminal block of the HubWayEX1 unit (polarity must be observed) (*Fig. 1, pg. 2*).  
When using a fixed camera disregard this step.
5. Connect HubWayAv Video Balun/Combiner (*Figs. 2a-2b, pg. 2*) (or any Video Balun/Combiner or camera with built-in Video Balun (*Fig. 5, pg. 3*) with similar PIN configuration (*Fig. 3, pg. 2*)) at the camera to the HubWayEX1 unit utilizing CAT-5 or higher structured cable.  
Plug the RJ45 connector at one end of the structured cable into the RJ45 jack marked [Channel] of the HubWayEX1 (*Fig. 1, pg. 2*). Plug the RJ45 connector at the opposite end of the structured cable into the RJ45 jack of the Video Balun/Combiner located at the camera.
6. Connect an external power source to the power inputs of the camera (*Fig. 4, pg. 3*). Polarity must be observed.
7. Connect the terminals marked [+ DATA -] of the HubWayAv Video Balun/Combiner to the data terminals of the camera for PTZ control (*Figs. 2a-2b, pg. 2*). Polarity must be observed.  
When using a fixed camera disregard this step.
8. Connect the BNC connector of the HubWayAv Video Balun/Combiner to the BNC video outputs of the camera (*Figs. 2a-2b, pg. 2*).
9. The video signal indicator LED (Red) of the HubWayEX1 will illuminate when video signal is present (*Fig. 1, pg. 2*). If the LED is not illuminated, no video signal is present.

Fig. 1

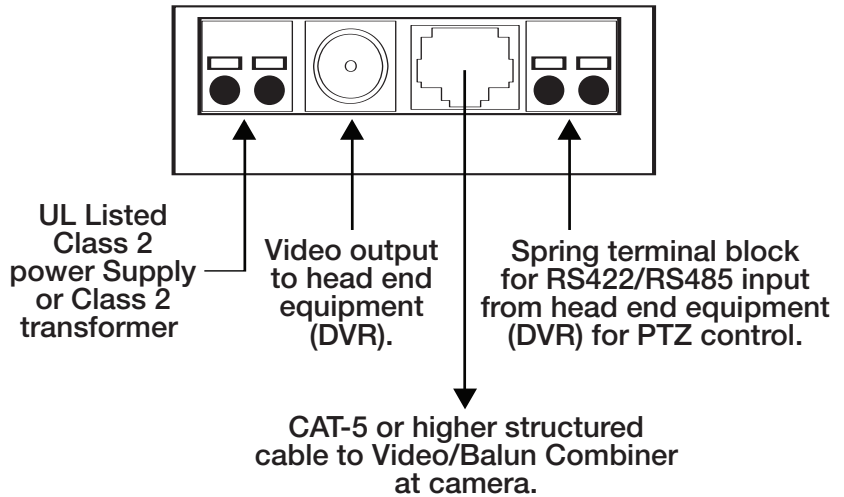
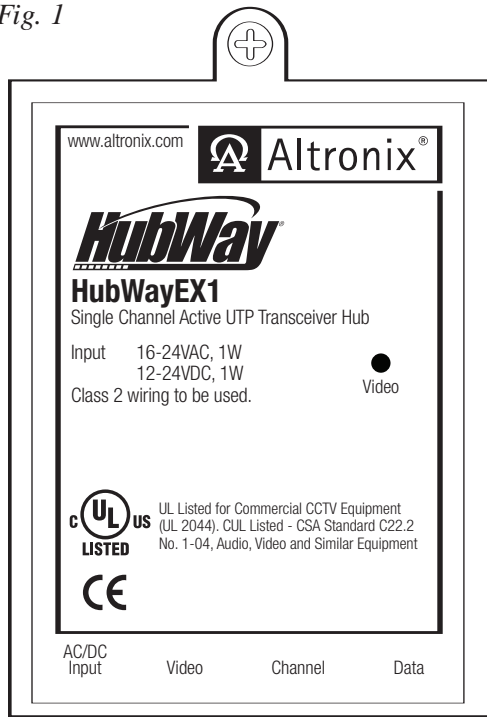


Fig. 2

Fig. 2a

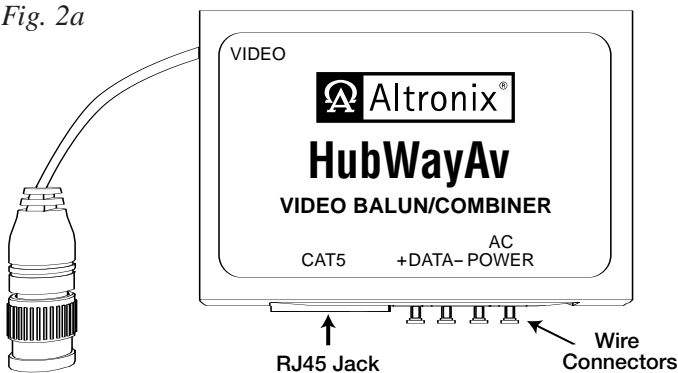


Fig. 2b

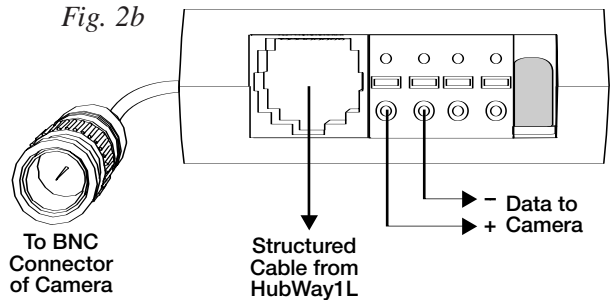
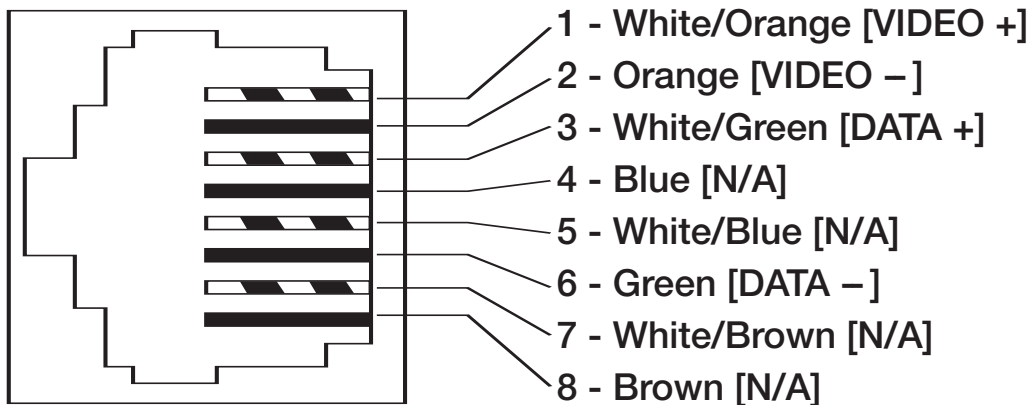


Fig. 3 - CAT-5 Structured Cable Wiring Color Codes and PIN Configurations



## Typical Applications:

Fig. 4

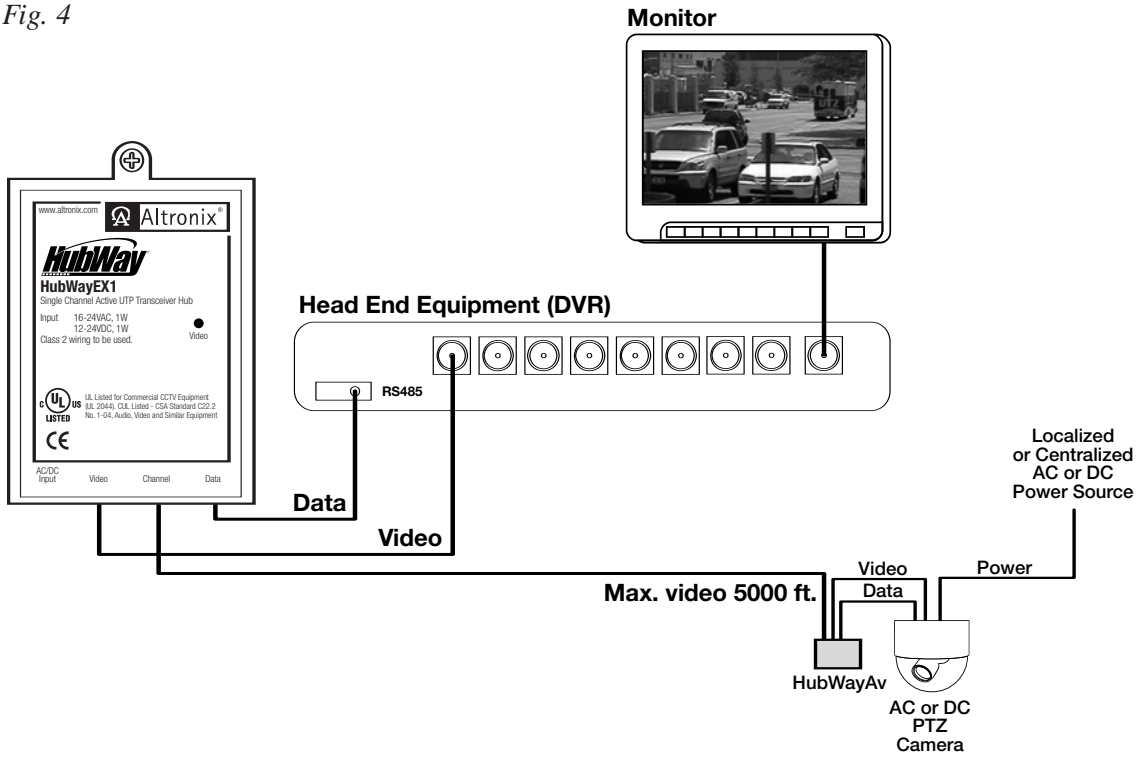
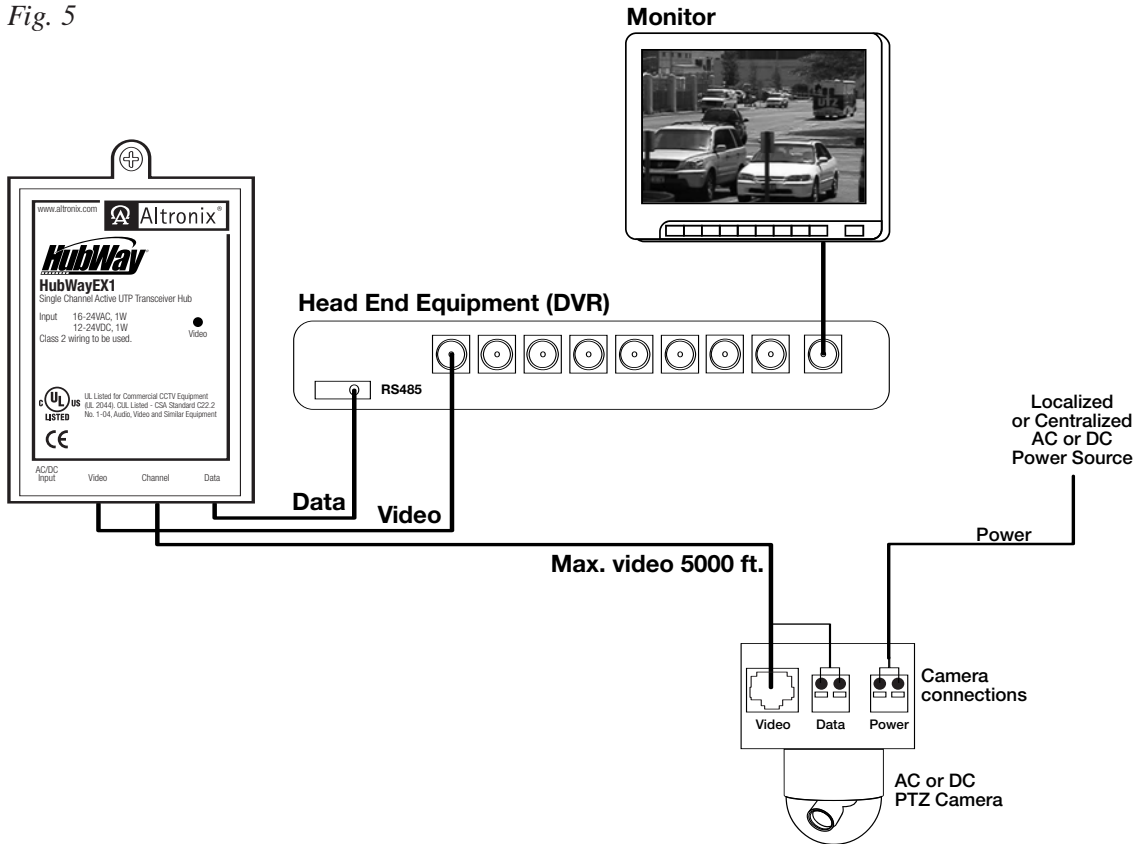


Fig. 5



## **Notes:**

Altronix is not responsible for any typographical errors.

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