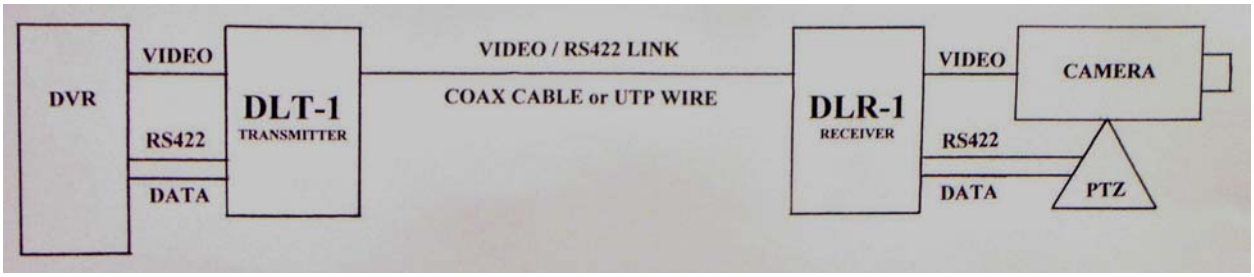
HOW TO ADD PTZ TO A CAMERA WITHOUT RUNNING WIRES

If you need to get PTZ Pan Tilt and Zoom control to a camera without any easy way to run the wires out to it, or you want to add a PTZ camera and use the existing cables, this article will help you do just that.

There are several ways to install or add PTZ camera control to a system. You can use a set of wires carrying RS422 (one way data) or RS485 (two-way data) to make the link to communicate between the DVR and the camera, or you can use vertical Interval type equipment to make the link. Vertical Interval type equipment uses the existing coax cable and is easy to install, but it can be quite expensive to buy and may not be compatible with your DVR's PTZ system.

One of the most common types of PTZ control in use is RS422 data run on two wires. The RS422 is a Balanced Voltage Digital Interface mode of data communication where current flowing in one direction in the wire represents a "one" and current flowing in the other direction represents a "zero". The cable run length can be over 2000 feet and longer because of the inherent noise isolation of the balanced twisted pair wire used to make the connection. RS422 can send data at a rate of up to 10 Mbit/s using a 6 Volt signal terminated at 100 Ohms +/- 10%. The maximum current in the wires should not exceed 150 mA with a short circuit on the wires.

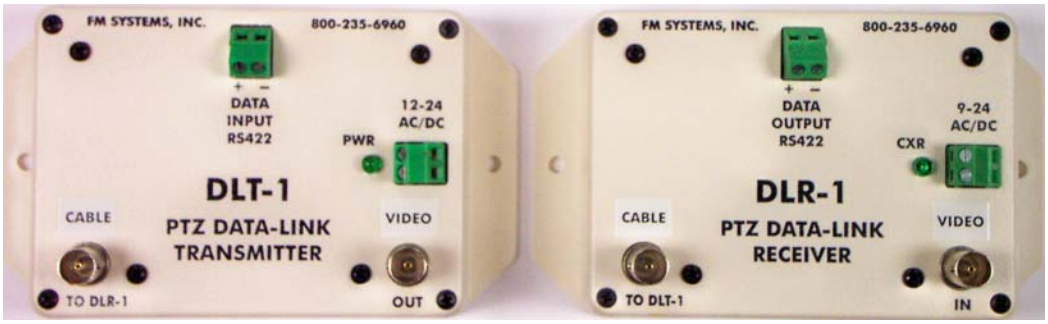
However if you do not have PTZ wires running out to the camera or the wires are already being used for another purpose and the cost of running a new set of wires is prohibitive, then you can use the existing coax cable carrying the video to transmit the RS422 signal also. This is possible because the video signal uses the first 5MHz of bandwidth on the cable and the RS422 can be sent at a higher frequency on the same cable. Because the signals occupy different frequency bands on the cable they do not interfere with one other and the data can be transmitted in either direction.



The equipment used to transmit and receive the RS422 signal is called DLT-1 and DLR-1, RS422 PTZ data link. There is a transmitter and a receiver used to provide an RS422 PTZ Data Link on any coaxial cable or UTP twisted pair wire video path. Use it to add (PTZ) control to any existing video camera without running additional wires or the expense of vertical interval control equipment. The RS422 control signal shares the video path in the opposite direction to control the camera without interfering with the video image.

The units can also be used in the reverse direction to deliver RS422 data from the camera location back to the monitor location. Applications like cash register data or card access data can ride on the existing video return without the need to pull extra wires. This is particularly useful when cable access is limited and the expense of digging up sidewalks or breaking into walls is prohibitive. You can insert your data anywhere on the cable and recover the data at any location along the cable path up to 3000 feet on coax and up the 1000 feet for UTP.

The system is housed in Bone colored ABS enclosures that have a UL frame rating of 94-VO and is powered by 24 Volt AC power Cubes supplied with each unit. Both the units have LED indicators for easy set-up.



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