

ENFORCER®

Passive Video Transceivers

Installation Manual



EB-P104-01Q



EB-P116-01Q

Model Number	Channels
EB-P104-01Q	4
EB-P116-01Q	16

- Transmits up to 1,300ft (400m) color video or up to 1,950ft (600m) B/W video
- Built-in surge protection
- Passive operation – No external power required
- Transmits video over Cat5e/6
- Removable terminal blocks or RJ45 connectors
- Connects to cameras, DVRs, multiplexers, and other devices

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Introduction:

ENFORCER Passive Video Transceivers allow CCTV cameras to connect to a DVR, video switcher, or multiplexer connect via inexpensive Cat5e/6 unshielded twisted pair (UTP) cable. These transceivers are a great way to cut the cost and complexity of security networks by eliminating the need to run expensive coaxial cable to multiple CCTV cameras.

Parts List:

EB-P104-01Q:

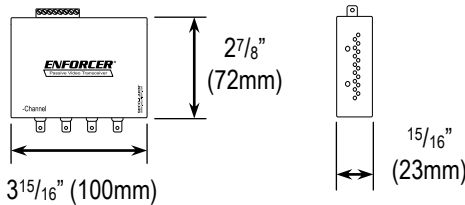
- | | |
|----------------------|----------------|
| 1x Transceiver | 4x Rubber feet |
| 2x Mounting brackets | 1x Screwdriver |
| 4x Mounting screws | 1x Manual |

EB-P116-01Q:

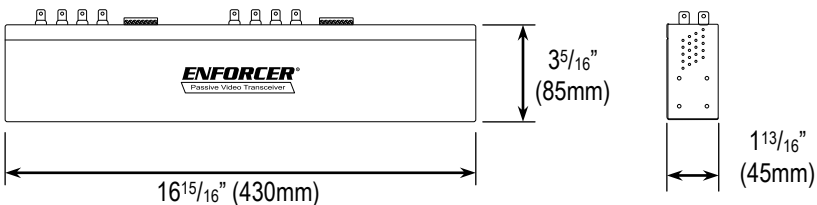
- | | |
|----------------------|----------------|
| 1x Transceiver | 4x Rubber feet |
| 2x Mounting brackets | 1x Screwdriver |
| 8x Mounting screws | 1x Manual |

Dimensions:

EB-P104-01Q:



EB-P116-01Q:



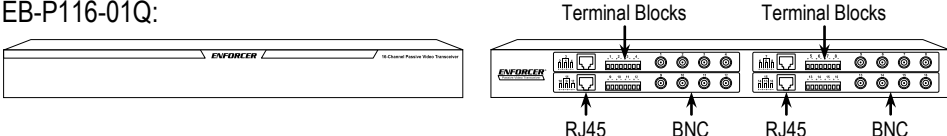
Specifications:

Model		EB-P104-01Q	EB-P116-01Q	
Video	Number of channels	4	16	
	Range*	B/W	1,950' (600m)	
		Color	1,300' (400m)	
	Video format	NTSC, PAL, SECAM		
	Maximum input	1.1Vp-p		
	Insertion loss	<2dB per pair from DC~6MHz		
	Return loss	>15dB from DC~6MHz		
	Frequency response	DC~6MHz		
Common mode rejection	>40dB, 15kHz~6MHz			
Connections	Wire type	UTP (Unshielded Twisted Pair) 24~16 AWG		
	Wire category	Cat2~Cat6		
	UTP Connection	Silver plated		
	Attenuation	DC~6MHz, 6.6dB max.		
	Impedence	Coax, male BNC	75Ω@1MHz	
		Terminal block	100Ω@1MHz	
RJ45		100Ω@1MHz		
Other	DC Loop resistance	52Ω/1,000' (52Ω/305m)		
	Differential capacitance	19pF/ft max. (62pF/m max.)		
	Power	No power required		
	Operating temperature	32°~131° F (0°~55° C)		
	Storage temperature	-4°~158° F (-20°~70° C)		
	Humidity range	0~95 % (Non-condensing)		
	Case	Galvanized steel		
	Weight	7-oz (200g)	44-oz (1,250g)	
Dimensions	3 ¹⁵ / ₁₆ "x2 ⁷ / ₈ "x1 ⁵ / ₁₆ " (100x72x23 mm)	16 ¹⁵ / ₁₆ "x3 ⁵ / ₁₆ "x1 ¹³ / ₁₆ " (430x85x45 mm)		

*Shorter range may occur when used with a DVR.

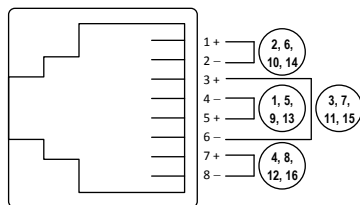
Overview:

EB-P104-01Q: 

EB-P116-01Q: 

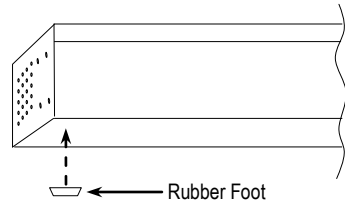
T568-B Wiring Specification:

Pair #	Wire	Pin #	Configuration
1, 5,	White/Blue	5	Video (+)
	Blue	4	Video (-)
2, 6,	White/Orange	1	Video (+)
	Orange	2	Video (-)
3, 7,	White/Green	3	Video (+)
	Green	6	Video (-)
4, 8,	White/Brown	7	Video (+)
	Brown	8	Video (-)



Shelf/Table Mounting:

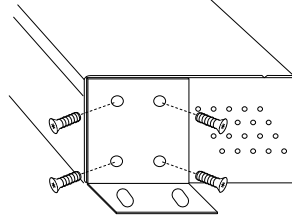
1. Units may be stacked one on top of the other, or with other equipment.
Note: Do not stack more than 70-lbs on top of the passive video transceiver.
2. Make sure the rubber feet are firmly attached to the base of the passive video transceiver.



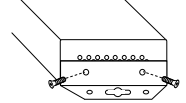
Wall Mounting:

1. Screw the mounting brackets on, facing downward.
 2. Use mounting screws or bolts (not included) to mount the unit in the desired location.
- Note:** Make sure that the screws/bolts and mounting surface can support the weight of the unit.

16-Channel Passive Video Transceiver (EB-P116-01Q)

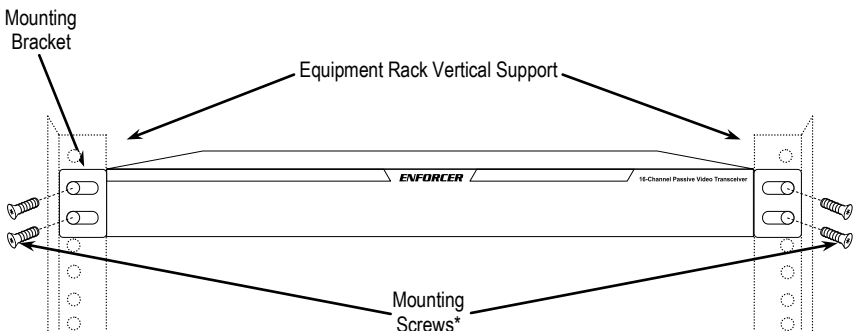


4-Channel Passive Video Transceiver (EB-P116-01Q)



Rack Mounting (EB-P116-01Q only):

1. Screw the mounting brackets onto the unit facing forward.
 2. Find 1U of space in your equipment rack and screw the unit in place.
- Note:** No rear support rails are needed. The unit can be fully supported using the mounting brackets provided.

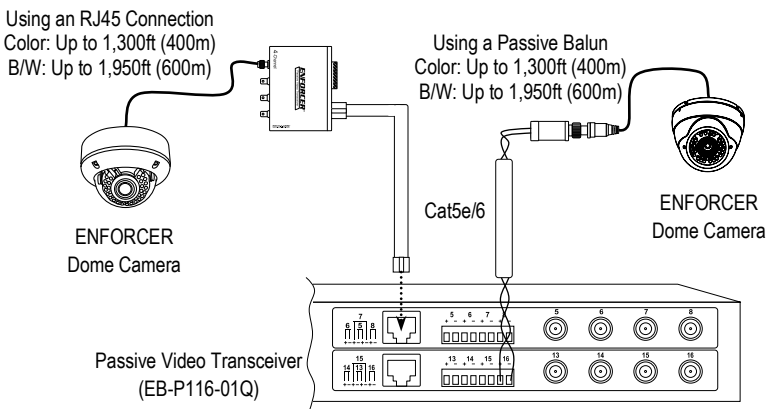


*The screws included with the unit are for installing the mounting brackets. Screws for mounting the unit to an IT rack are not included.

Wiring:

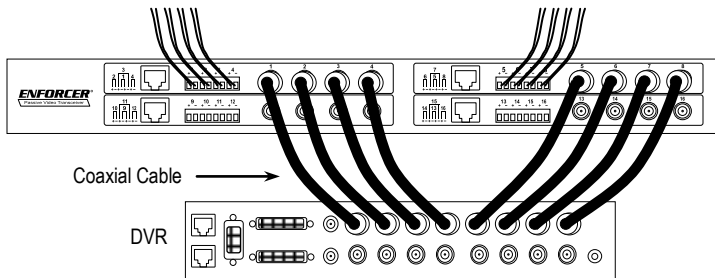
1. Run a Cat5e/6 UTP cable from each camera through the wall or through a conduit to the EB-P104-01Q or EB-P116-01Q.
- Note:** If existing telecom or data UTP cables are available, they can be mixed and matched with new cables. Running two or more cables together should not affect the video signals.
2. Connect a video balun or multi-channel passive video transceiver to a pair of wires from the UTP cable near the CCTV camera, and then connect the video balun to the camera.
3. Connect the matching pair of wires on the other end of the cable to the desired terminal blocks on the back of the EB-P104-01Q or EB-P116-01Q.

Note: ENFORCER Passive Video Transceivers also have the option of connecting Cat5e/6 cable through RJ45 instead of terminal blocks. Please see pg. 3 for wiring specifications.



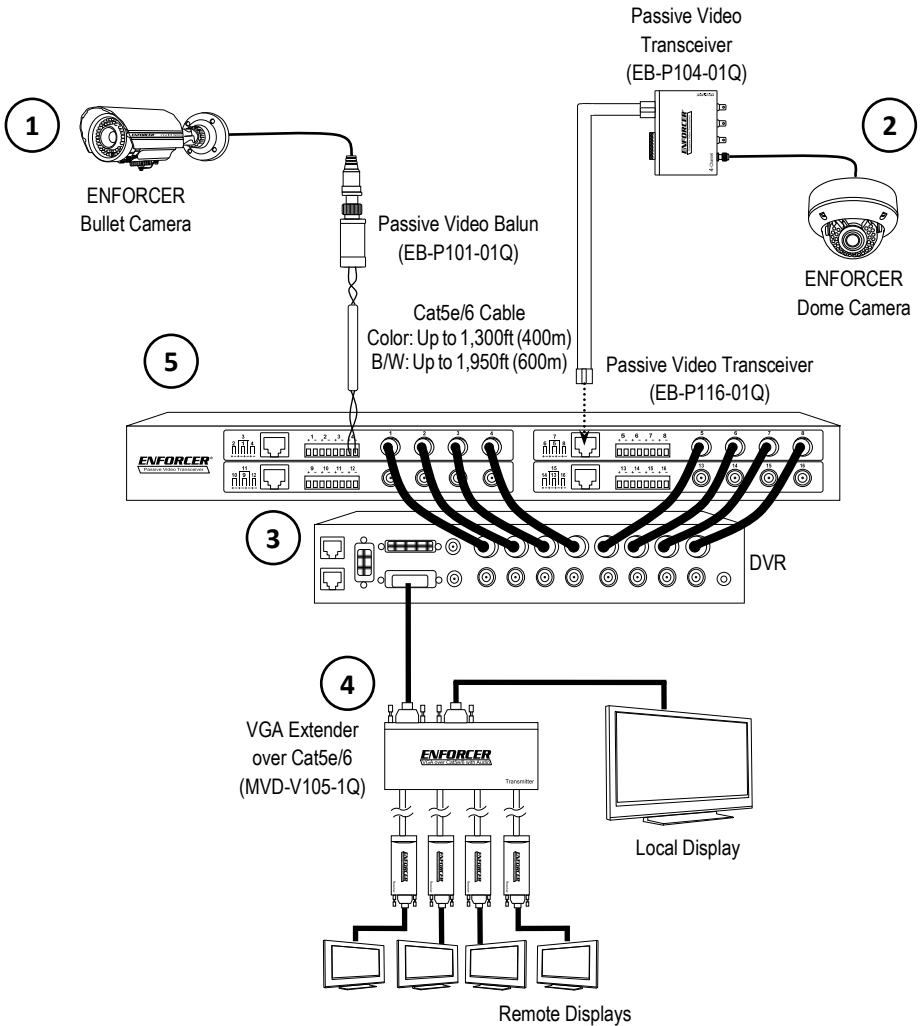
Connecting to a DVR, Video Switcher, or Multiplexer:

1. Run one coaxial cable (not included) from the Video Out on the EB-P104-01Q or EB-P116-01Q to the corresponding Video In port of the DVR, video switcher, or multiplexer (not included).
2. Repeat the above as necessary until each occupied channel is connected to the DVR, video switcher, or multiplexer.



Sample Application:

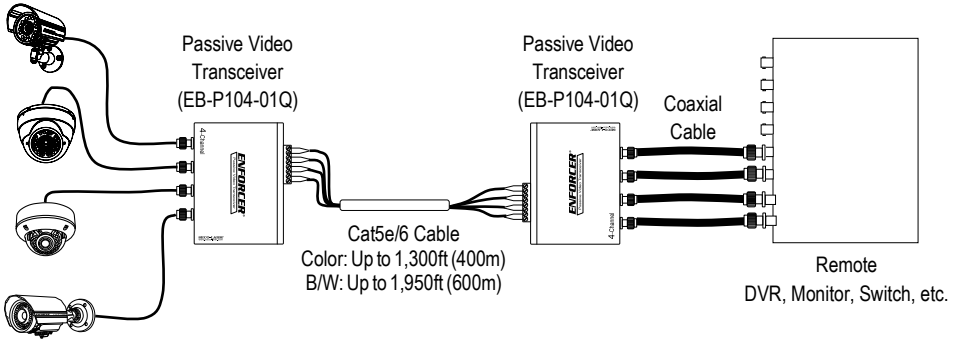
16-Channel Passive Video Transceiver (Rear View)



1. The ENFORCER Bullet Camera is connected to the 16-Channel Passive Video Transceiver (EB-P116-01Q) through a Passive Balun (EB-P101-01Q).
2. The ENFORCER Dome Camera is connected to the 16-Channel Passive Video Transceiver (EB-P116-01Q) through a 4-Channel Passive Video Transceiver (EB-P104-01Q) via the RJ45 port. Terminal blocks may be used instead.
3. The 16-Channel Passive Video Transceiver is connected to a DVR.
4. The VGA Extender over Cat5e/6 (MVD-V1501-1Q) connects to the DVR's VGA output, allowing the connection of up to five displays.

Sample Application:

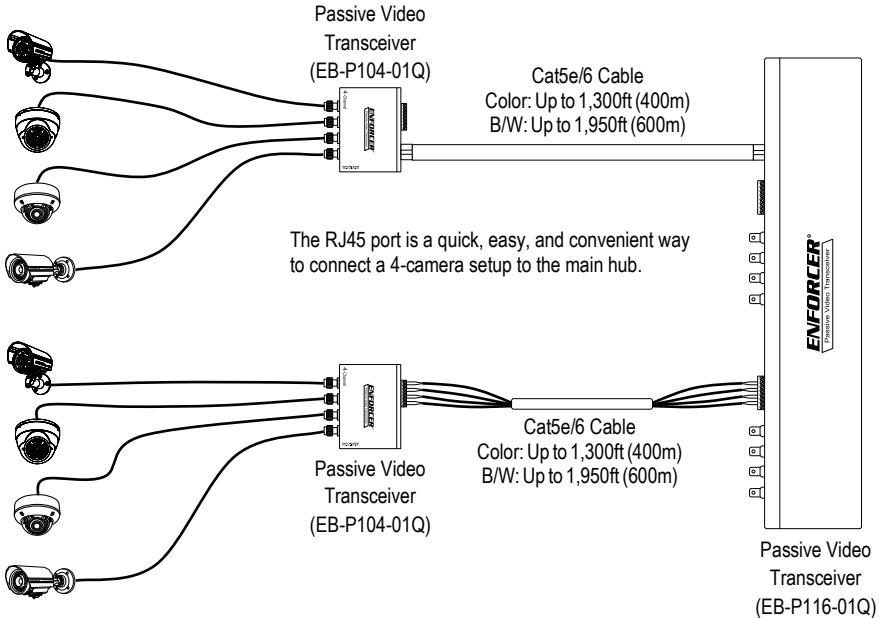
4-Channel Passive Video Transceiver



Four ENFORCER Cameras are connected to a remote display device via two 4-Channel Passive Video Transceivers (EB-P104-01Q).

Sample Application:

Connecting with RJ45 vs. Terminal Block



Troubleshooting:

The screen is blank	<ul style="list-style-type: none">• Check that the monitor is powered up.• Check that the CCTV camera is powered up.• Check that the video cable connecting the camera to the transceiver is connected properly.• Check that the cable(s) connecting the transceiver to the monitor, switcher, DVR, or multiplexer are connected properly.• Double-check the connections to any passive or active baluns.
The screen image is dim	<ul style="list-style-type: none">• Clean the camera lens (using a soft, clean cloth).• Check that the camera light source is adequate.• Clean the camera dome (if applicable).• If the backlight control (BLC) DIP switch on the camera is set to OFF, try setting it to ON.
The screen image is dark	<ul style="list-style-type: none">• Check that the automatic electronic shutter (AES) DIP switch on the camera is turned OFF.
The screen image has poor contrast	<ul style="list-style-type: none">• Adjust the monitor's contrast knob.• Change the position of the camera so that the scene is better lit.
The screen image flickers	<ul style="list-style-type: none">• Check all connections.• Change the position of the camera so that the scene is better lit.
The screen image rolls	<ul style="list-style-type: none">• If multiple cameras are used, make sure the polarity of the power connections is consistent.
The screen image is distorted	<ul style="list-style-type: none">• (24VAC only) If more than one camera is attached to the same power source, adjust the other camera's linelock sync.• Change the position of the camera.

IMPORTANT: Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or statutes.

WARNING: Incorrect mounting which leads to exposure to rain or moisture inside the enclosure could cause a dangerous electric shock, damage the device, and void the warranty. Do not open the case of this device, as there are no field-serviceable components inside.

WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for a period of two (2) years from the date of sale to the original consumer customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM.

This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair, or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship.

The sole obligation of SECO-LARM, and the purchaser's exclusive remedy, shall be limited to replacement or repair only, at SECO-LARM option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damages of any kind to the purchaser or anyone else.

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