

# HD Mule Instructions

## Installation

1. Ensure that the HD or analogue camera is connected to the Mule Transmitter (**marked Tx**). The Mule units are not waterproof and must be installed in water proof boxes if installed outdoors.
2. Connect the camera video feeds to the BNC connections marked IN 1 and IN 2 on the Mule Tx. If using the unit as a combiner for RS485 data transmission, connect to IN 1 using a BNC to terminal adapter (CON380) at each end.
3. Take a coax cable from the single video out BNC connection on the back of the transmitter to the single BNC in connection on the Mule Receiver. Connect BNCs from the respective video outputs on the Mule Receiver to a compatible DVR or suitable equipment.
4. If using the RS485 connection, only one video stream can be used as well. The RS485 works in the alternate direction to the video. i.e. from receiver to transmitter.



## Powering The Units

The MULE102 units are powered with a 12V DC input connected to the 2.1mm DC socket. The **Transmitter** requires a minimum of 60mA and the **Receiver** requires a minimum of 275mA. To power the units we recommend 12V DC PSU supplying no less than 500mA to each unit.

## Technical Specification

	Transmitter (Tx)	Receiver (Rx)
Compatibility	TVI (3MP) / CVI / AHD / Analogue	
Video Connection	2x BNC Inputs / 1x BNC Output	1x BNC Input / 2x BNC Outputs
Data Connection	BNC Socket	
Power	12V DC (PSUs Required)	
Consumption	60mA	275mA
Max Transmission	500m (Standard RG59)	
Operating Temperature	-30°C ~ +50°C	
Case Material	Aluminium Alloy	
Weight	67.5g	
Dimensions	64 x 42 x 23mm	

All specifications are approximate. We reserve the right to change any product specifications or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, CCTVmule cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the equipment that these instructions refer to.



WEE/CG078355

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.



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# HD Mule<sup>TM</sup> 2 Instructions

"Send 2 HD Video Signals Or  
Data Down 1x Co-ax Cable..."



...with a **HD Mule<sup>TM</sup>**

**1x RG59  
OUT**



Compatible with  
TVI, CVI, AHD  
& Analogue

**HD  
MULE 2**

- TVI, CVI, AHD & Analogue
- Up to 2 videos down co-ax\*
- Data combiner\*
- Wall mount design
- Up to 500mtrs\*
- Easy to setup



Scan the QR code for  
more information or  
visit [CCTVmule.com](http://CCTVmule.com)

**It's the easy way to add extra  
cameras to an existing installation!**

HD Mule2 Instructions  
Order Code: **MULE102**

\*as per instructions

**Instructions - Instructions - Instructions**

# HD Mule Instructions



Carries multiple HD video signals - even data  
- down ONE RG59 cable!

**On installations where you have only one co-ax cable installed, the HD Mule makes it really easy to add extra cameras - it saves time, saves money & saves mess.**

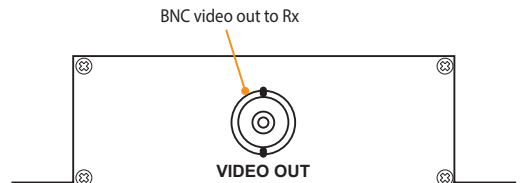
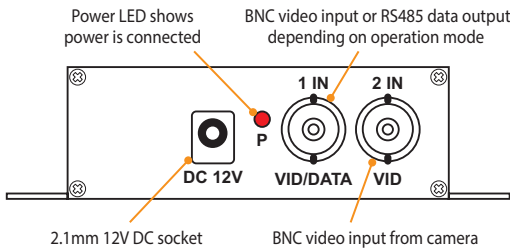
Perfect if you don't have access to run any more cables, even data cables, underground. The clever electronics of the MULE102 allow it to carry the RS485 data along the same RG59 Co-ax cable enabling the operator to monitor and control the system from a different location.

Using multi-signal technology the HDMule works with TVI, CVI, AHD and even analogue cameras for maximum flexibility.

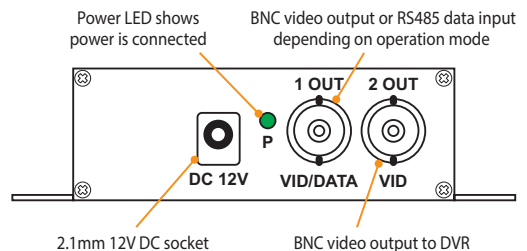
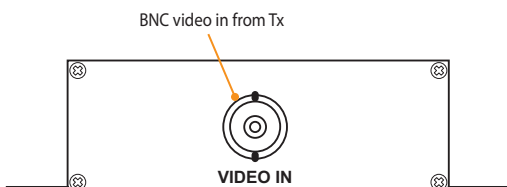
**Please Note** - some HD cameras (TVI, CVI and AHD) use "up the co-ax" menu control, because of how the HDMules work this "Co-axitron" will not work through the Mule, however on PTZ and similar cameras you can use the Mule's RS485 transmission to operate the camera.

Higher resolutions than the stated ones may work on shorter cable lengths but with so many variables involved like camera technology, distance, cable quality and frame rate, the maximum resolutions are stated for guidance. On most HD cameras you can adjust the output to suit and we suggest setting this to 2MP.

## Connections - Transmitter (Tx)



## Connections - Receiver (Rx)



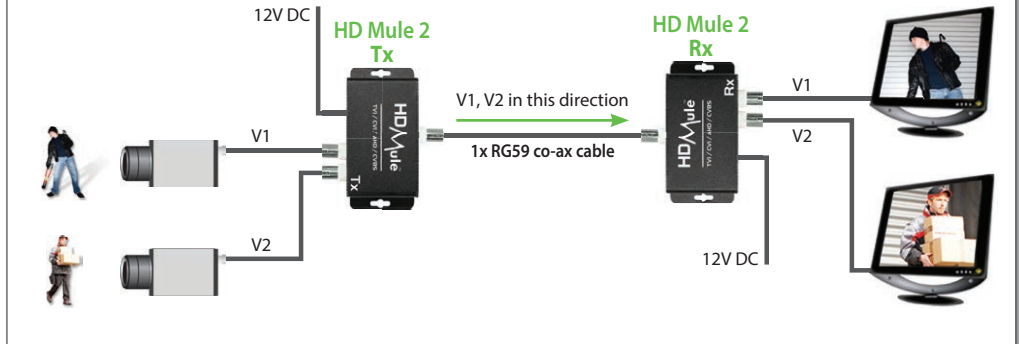
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## Operation Modes

### The HD Mule 2 has the following 2 operation modes...

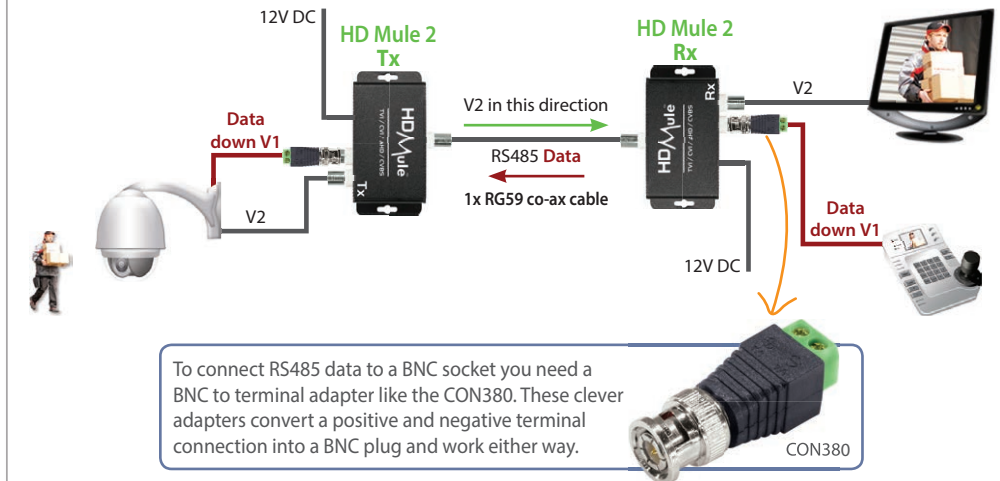
#### Mode 1

2 Video signals down 1 co-ax cable



#### Mode 2

1 Video signal in one direction, 1 RS485 signal in the opposite direction



The HD Mule 2 can also be used as a combiner to view and control a PTZ down 1 co-ax cable