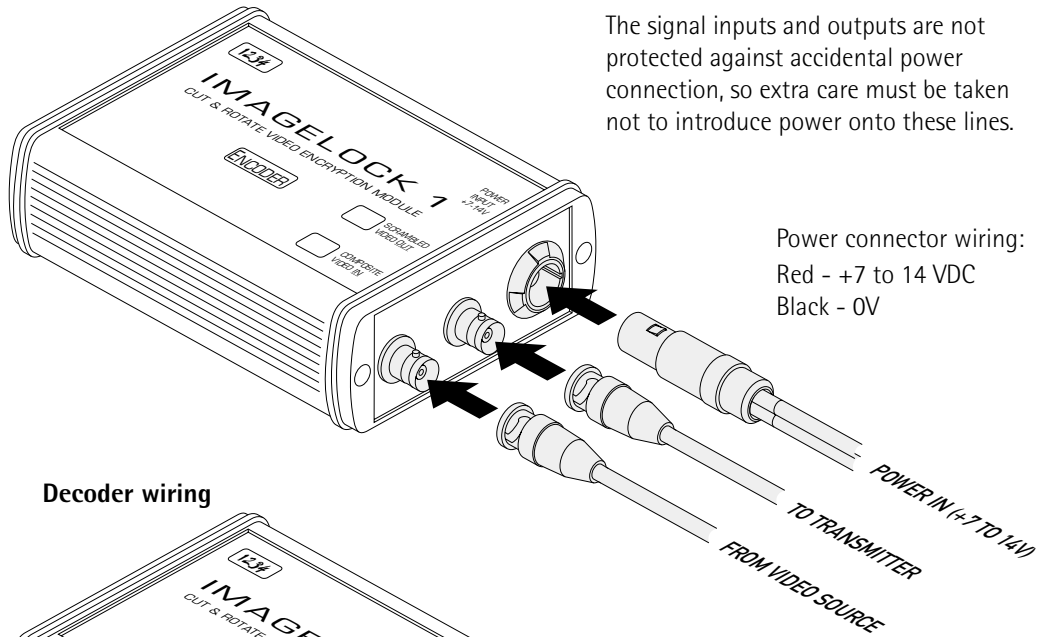


## Wiring boxed units

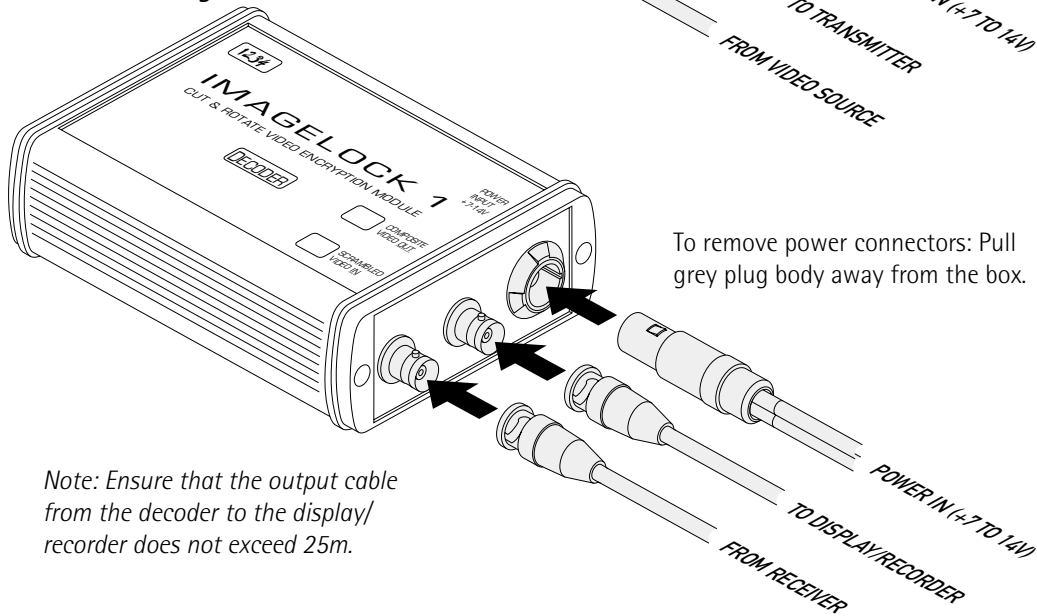
### Encoder wiring



### Important

The signal inputs and outputs are not protected against accidental power connection, so extra care must be taken not to introduce power onto these lines.

### Decoder wiring



Note: Ensure that the output cable from the decoder to the display/recorder does not exceed 25m.

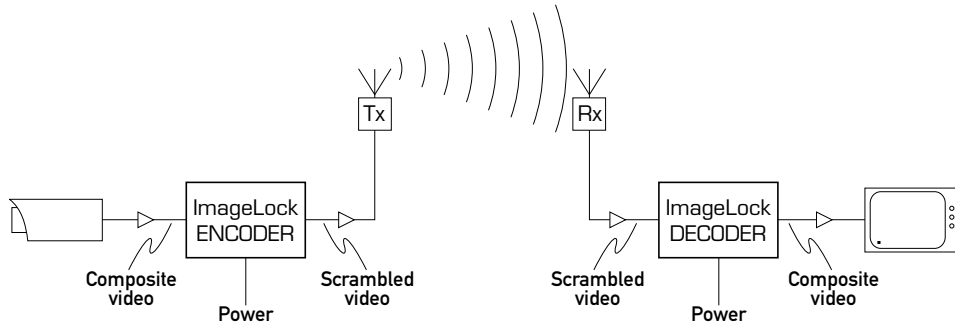
# ImageLock

## User's Guide

# Introduction

## The quick way to protect your video

ImageLock encoder and decoder units allow you to easily protect transmitted or cabled video images against unauthorised interception. ImageLock devices are supplied either as unique matched pairs or as custom groups, i.e. one encoder to two or more matched decoders.



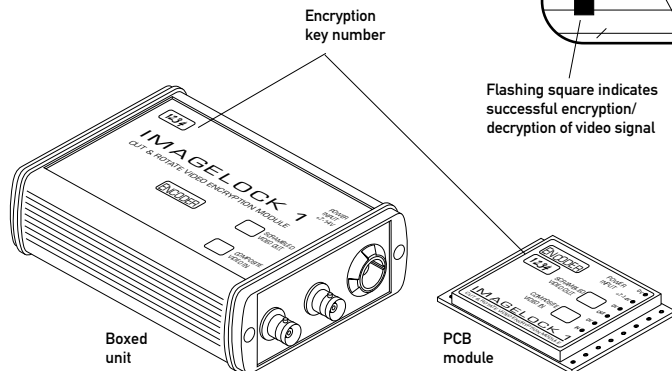
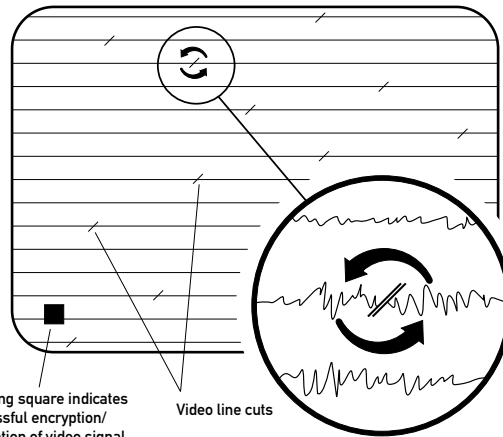
In use, composite video from a source (i.e. a camera) is fed through an ImageLock Encoder before being transmitted.

At the receiver, the scrambled images are sent to a matched decoder which recreates the original composite video feed.

## How it works

ImageLock uses an encrypted 'cut and rotate' algorithm to scramble every line of each frame in a manner that is fully reversible at the other end, providing the 128-bit encryption key is known.

At a predetermined point along each line of video, a cut is made and the order of the two halves of line are swapped. Only a matched decoder knows where each line is cut, and thus how to return the line to its original state. Interception of the scrambled video stream results in an unintelligible mess on screen.



## Matched pairs

ImageLock devices are available as PCB modules or boxed units. Each has a small box with a handwritten number to denote its encryption key.

# Specifications

|  |                                |
|--|--------------------------------|
| Measurements                                 | Storage temp: -15°C to +100°C  |
| Module: 61 x 41 x 6 mm                       | Operating temp: -10°C to +70°C |
| Boxed: 115 x 84 x 34 mm                      | Weight (module): 35g           |
| Video formats: PAL or NTSC (separate models) |                                |
| Power: 7 to 14 VDC - 65mA maximum            |                                |

## Connecting the units

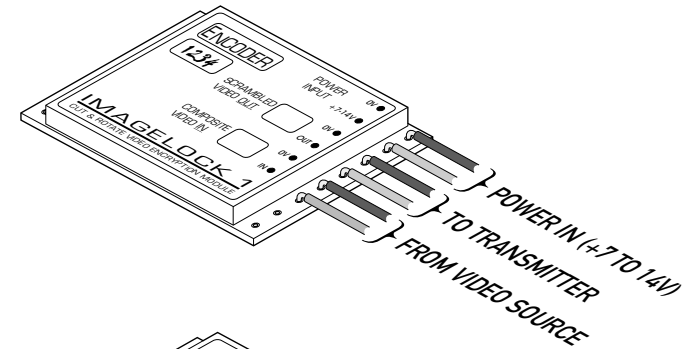
Wiring the units is straightforward. The encoder is placed between the video source (camera) and the transmitter unit. The matching decoder is situated between the receiver circuitry and the video monitor or recorder. In use, a flashing square in the lower left corner of the monitor screen indicates that the video stream has been successfully encrypted and decrypted.

## Power connections

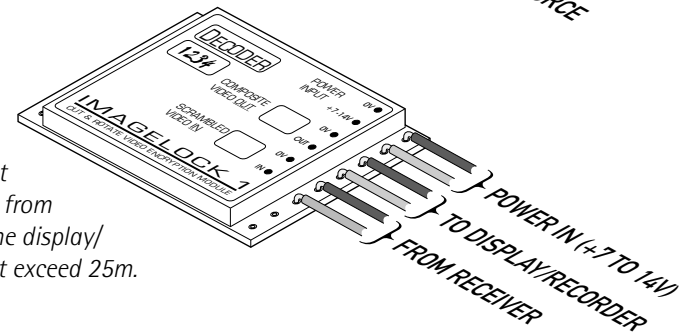
The units (in either PCB module or boxed formats) require a DC voltage supply of between 7 and 14V. Each unit contains a switched-mode power supply so that it can regulate its own inputs with maximum efficiency and minimum drain. Power supply inputs are reverse polarity protected.

## Wiring PCB modules

### Encoder wiring



### Decoder wiring



Note: Ensure that the output cable from the decoder to the display/recorder does not exceed 25m.

## Important

The signal inputs and outputs are not protected against accidental power connection, so extra care must be taken not to introduce power onto these lines.