

VCM-10 VCR Conversion Module Installation Guide

Features

- Converts an ordinary VCR into a motion activated real time security recorder
- Once motion is detected, starts the VCR recording. It will pause and finally stop the VCR after a set period of non-activity.
- Analyses video signal to detect motion
- Automatically adjusts to the scene light level
- Automatically adjusts to the camera signal quality
- Eliminates the effects of video noise to minimise false alarms
- Compatible with NTSC, PAL, EIA, CCIR and SECAM video standards
- 50mW Low power consumption
- Small size minimises space requirement and simplifies installation.
- Very easy to install into most VCRs by soldering 6 wires to easy to find locations on the VCR electronics circuit.

Description

VCM-10 VCR conversion module is installed inside a VCR to transform it into a security video event recorder.

Once power is applied to the VCM-10, there will be 5 seconds of arm delay before the VCR is triggered to record motions.

Following the arm delay, If a video signal source is connected to the Video Input of the VCR:

1. Once a motion is detected the VCR starts recording.
2. If no more motion is detected within approximately 30 seconds the VCR will pause, otherwise it will continue recording.
3. If no motion is detected following a pause for approximately 150 seconds, then the VCR will stop recording.

This cycle repeats once a further motion is detected.

If video signal at the VCR video Input is not present or is lost, the VCR will stop if it is not already stopped.

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Electrical Specification

Parameter	min	max	unit
Supply voltage	4.75	5.25	V
Current	8	10	mA
Video Input	0.5	2	Vpp
Operating Temp.	0	75	°C

Wire Description

Wire	Symbol	Function
Black	GND	Ground
Red	VCC	5VDC \pm 250mv
Orange	Record	Record control signal
White	Pause	Pause control signal
Blue	Stop	Stop control signal
Yellow	Video In	Video input NTSC, PAL, EIA, CCIR and SECAM video standards. All coupling circuitry included. Just connect a composite video signal directly to this wire.

Installation:

WARNING: VCM-10 must not be used for unlawful purposes

Installation has to be performed by a qualified electronic technician to avoid safety risks and electric shock.

It is likely that the standard warranty on the VCR that you intend to modify will be void once you add anything to its circuitry. Check this with the manufacturer or distributor of the brand of the VCR in your market.

Also ensure that the manufacturer and the distributor of the brand of the VCR that you intend to modify will have no objection to this modification.

Installation involves soldering the 6 wires of the VCM-10 VCR conversion module to easily identifiable locations on the VCR circuit board:

1. Unplug the VCR from mains the power.
2. Remove the VCR cover.
3. Find a point on the VCR PCB with 5VDC voltage. You are likely to find this close to the power supply section of the VCR circuitry. Measure points on the PCB with a voltmeter until you find a 5VDC supply. Now solder the Red wire to the 5VDC

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supply point. **WARNING: Voltages greater than 5VDC will permanently destroy the VCM-10 module.**

4. Find the GND on the PCB. Normally the metal shield on the RF tuner section is at GND voltage level. Find a convenient point on the PCB that is electrically connected to the metal shield and GND (ie. Measures zero ohms resistance to the RF metal shield). Solder the Black wire to this GND location on the PCB.
5. Find the video line input connection on the PCB. This will be close to the VCR video input connector. The camera is expected to be connected to this video input on the VCR. Solder the yellow wire to this location.
6. Find the push button switches on the PCB for record, pause and stop functions. There are two electrical connections on each push button switch. One of these electrical connections is connected to the GND voltage level. Solder the corresponding wires (Record-Orange, Pause-White, Stop-Blue) to the connection on the switch which is **NOT** at the GND level.

NOTE: VCM-10 may not work with a VCR that does not have a GND connection on its control push buttons.

7. Firmly fix the VCR Conversion module in a location well clear from the rest of the circuitry of the VCR.
8. Tie all the wires neatly away from the rest of the wiring and circuitry of the VCR.
9. Put the VCR cover back.

1. Warranty

VCM-10 has a warranty of 12 months against defects in workmanship and materials after the original date of purchase. In the event of failure, the supplier will replace or repair it at its option providing there is no evidence of customer misuse, incorrect installation or alteration. Customer is responsible for all charges incurred in removing the VCM-10 from the VCR and reinstalling it to the VCR. Customer is also responsible for shipping costs to and from the supplier.

2. Disclaimer

VCM-10 MUST NOT BE USED FOR UNLAWFUL PURPOSES. FARCO TECHNOLOGIES LTD MAY NOT BE HELD LIABLE FOR INJURY, LOSS OR DAMAGE, DIRECT, INDIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE, OR INABILITY TO USE THE VCM-10. THIS INCLUDES, BUT IS NOT LIMITED TO, THE FAILURE OF THE VCM-10 TO PERFORM AS ADVERTISED.

