Technical Note

Document Number		CTN0012	
Title		HD-VCS Camera Installation Recommendations	
Approved By		JA	
Revision	Date	Prepared By	Change History
2	28/03/2013	OK/TL	

Scope

The HD-VCS camera is connected to the HD-VCS recorder via a high speed data cable. This cable needs to be treated with care to ensure the maximum performance and picture quality from the system.

If you experience any of the following symptoms, the cable may be damaged or fitted incorrectly.

- Picture fades to white
- Picture fades to black
- Horizontal line of colour across the image
- Video files that won't play

Cable Installation

When fitting the cable to your vehicle please ensure that the cable does not rub on any hard or sharp edge surfaces as vibrations will cause wear or damage to the cable.

In the majority of installations the cable will need to be routed around or along roll cages. Please ensure that any bends in the cable are gentle and wide. The radius of any bends should be no tighter than that of a 50 cent piece (approximately 32mm). Any turns that result in a 90 degree bend will cause permanent damage to the internal EMI shield of the cable and will make the system more susceptible to the above mentioned symptoms. Figure 1 shows the correct bend on the cable. Figure 2 and 3 overleaf show examples of damaged cables from over-bending.

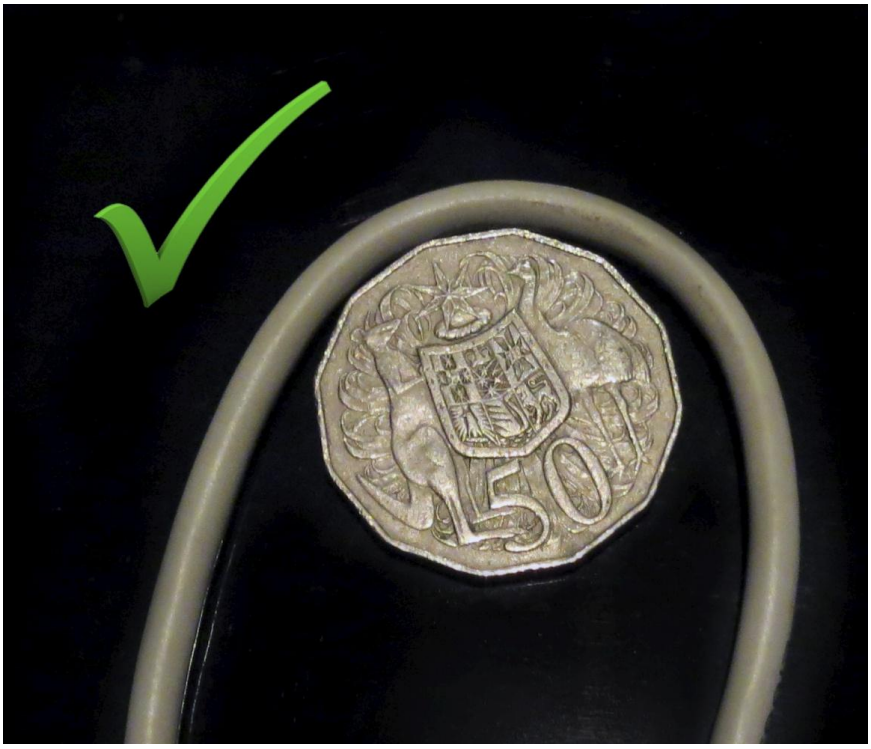

Figure 1

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Figure 2

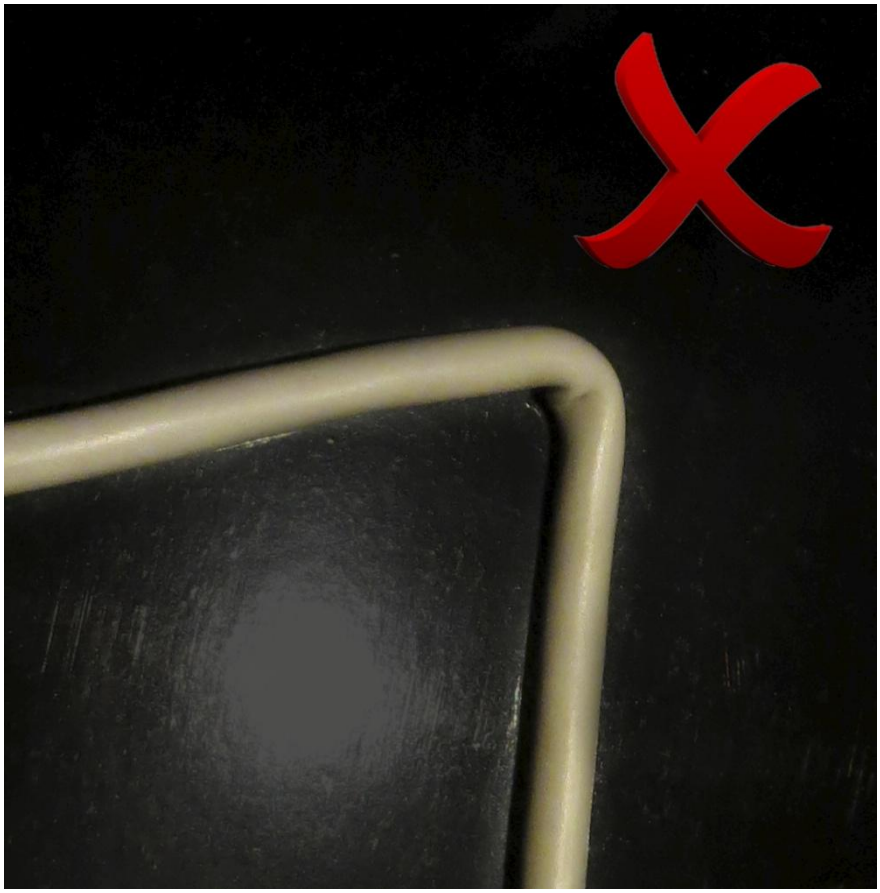

Figure 3

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Using Cable Ties

Fixing of the cable is generally done with cable (zip) ties; ensure these are not over-tightened. When over-tightening occurs, the EMI shield within the cable is compressed and as a result the braid opens, making the system more susceptible to the previously mentioned symptoms. If you are using cable (zip) ties then you should ensure that there is no deformation of the cable as shown in Figure 4, unlike Figure 5.

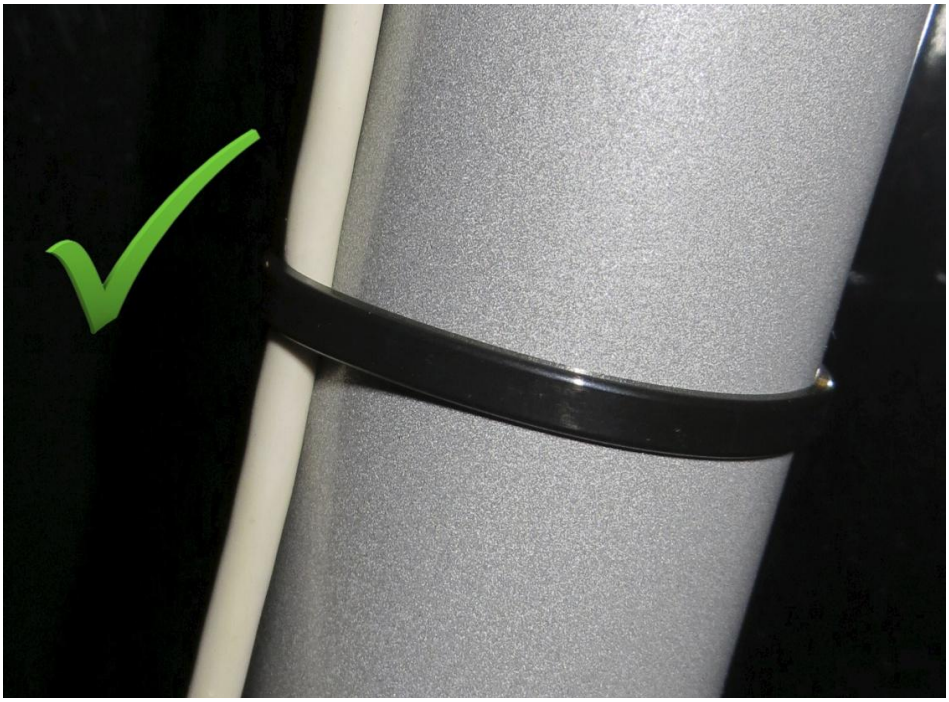

Figure 4

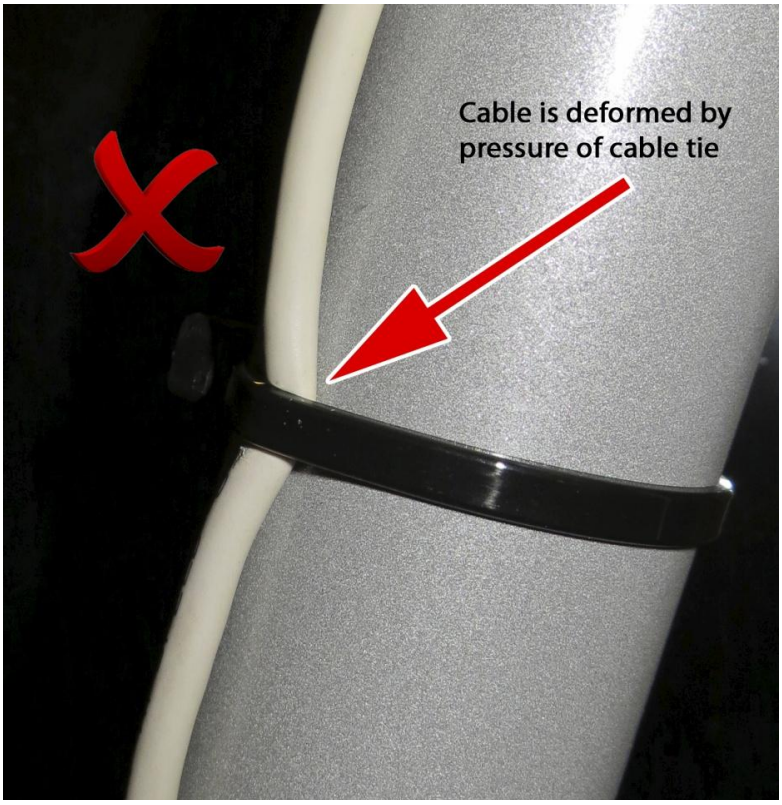

Figure 5

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Connectors

Periodically you should check that the cables are secured tightly to the camera and the recorder. The thumb screws should be done up tightly and there should be no movement between the connector and the camera body or recorder. Any movement in this connector can lead to the above mentioned symptoms. Figure 6 shows the correct connector assembly installation. Figures 7 and 8 show inadequate connector tightening, which will impact the grounding of the EMI shield.

Figure 6

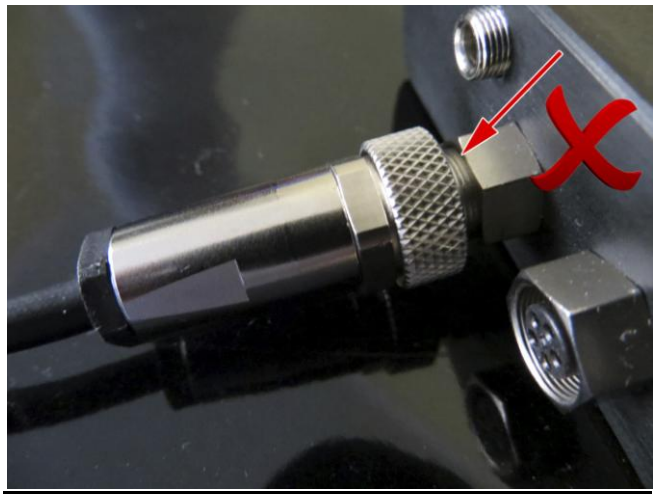

Figure 7

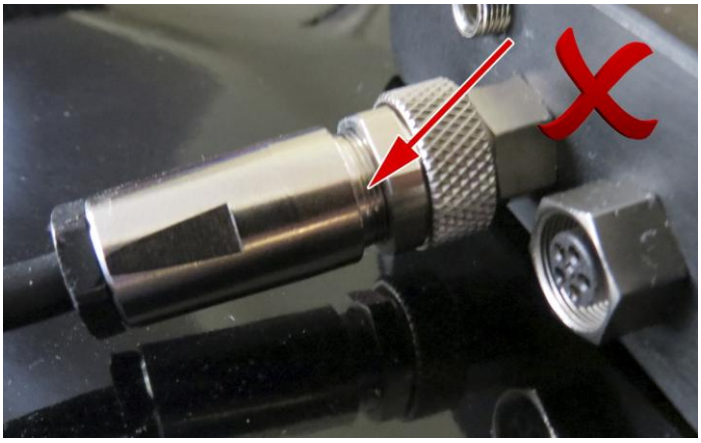

Figure 8

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