




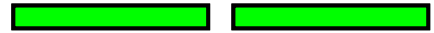






STACK DVR Frequently Asked Questions. (Faqs)

Q1. What do the front panel Light (LED) flashes mean?

A. The table below describes the DVR's front panel status LED.

A green LED generally indicates the unit is functioning correctly and a red LED indicates a fault or reset condition.

Operation	Ext LED	Internal LED Flash sequence	Internal LED Operation	Description
Ready			Static green	The Stack Digital Video Recorder is ready to record (video and memory card OK).
Video OK – No Card			Flashing long red / short green	In stand-by or unable to record with memory card not present or full. Video input OK If card present, then re-Format with FAT32 (NB Deleting files does NOT clear card)
No Video - Card OK			Flashing long green / short red	In stand-by (or unable to record) with video not present but memory card OK. Check Camera connection & power, or check DVR PAL/NTSC setting are OK
No Video – No Card			Flashing red (fast)	Unable to record as video and disk not present or full. Or system fault.
PC Connected			Flashing equally green / red (0.5s red / 0.5s green)	Digital Video Recorder is under external control of the PC Configuration software.
Recording Memory Remaining		90%  50%  10% 	Flashing green External Recording Status Lamp also illuminated	Recording OK. The longer the green flash the greater the memory remaining. With a new card the LED will flash for approx. 3 seconds. With 50% card capacity remaining the LED will flash 1.5 sec on, 1.5 off. With 10% remaining LED will flash for 0.3 sec on, 2.7 sec off.
Record – No Video			Fast flashing green / red	Recording but video is not present, audio only is being recorded.
Resetting or Busy			Static red	System reset / preparing to record or card / disk format.

Q2. What do the on screen display messages mean?

A. The table below describes the DVR's, On Screen Display (OSD) messages.

Note: These messages are available only on the recorded video & are not applied to the video monitor signal.

On Screen message	Cause	Solution
No Disk	Disk not fully inserted, or simply not there.	Insert new disk
Disk Fail	Disk is not FAT32 format, or has failed.	Check the disk format, & run ScanDisk to recover
No Video	Intermittent video connection or signal.	No video causes the monitor screen to be blank.
Disk Full	Recording memory full.	Re-Format the disk to erase old files.

Q3. Can I get better quality video by manually setting the bit rate?

A. We can offer a variable bit rate vers of the DVR. (8Mbs max) Call STACK for pricing.

Our experience so far with VBR is :-

The VBR version needs very fast memory cards.

Sometimes even the recommended cards have a small % of sectors that don't work & these will cause pixellation in the video picture.

Unfortunately you can't even be sure that once you have found a good one it will remain OK.

This is because some manufacturers have a wear levelling scheme which moves (re-allocates) file locations each time a new file is made.

Q4. Do you recommend a CF Card or PCMCIA card for use with this unit?

A. Both types of media has its good & bad points. Generally the following is true:

PCMCIA for: Ruggedness = Best temperature & Vibration spec.

CF for: Read speed & low price.

Generally cards with greater than a x25 **write** speed (>4MB/s) will work, but read the answers to Q5 for reasons why they may not. Note: Card manufactures usually quote the read speed for a card, which can be 10 to 20 times faster than the write speed. So take care to choose a card with a fast **write** speed.

Q5. What causes the picture to Pixellate (Pixellation)?

A. This can be caused if the memory card write speed is insufficient

Memory card speed is related to the byte locations, hence pixelation will tend to be at the same location on the card. E.g. Pixellation occurs 5mins from the start of the card.

Notes. Static pictures are less likely to pixellate than a full action video picture, especially if recorded in Variable Bit Rate (VBR) mode.

Memory cards that have a wear-levelling scheme will pixellate at a different location each time a new file is created.

Q6. How can I speed up the video file transfer into my PC?

A. PCMCIA ports on PCs tend to be much slower than a USB2 based reader or a dedicated CF slot.

All PC are different so try the available options to find out which is best on your PC.

Q7. What can I do if memory card media is not recognised by the DVR?

Answers:-

a) With the card in the PC check that the card is Formatted with 'FAT-32' & the sector size is set to 'Default' If the card is Not FAT-32, then Re-Format.

b) The DVR should not be switched off, or the memory card removed from the DVR, when recording is active as this can create corrupted files.

Use the PC, ScanDisk utility, set to 'Fix errors automatically', to check for errors on the memory card.

Note: May succeed on the original file but will not work on a copy of the file.

If this does not recover the file then re-format the media with FAT-32 and try another recording.

Make sure that the recording is stopped at least 2 sec. before the DVR is switched off and the card removed.

c) Check that the memory card is at least 512Mbytes, Smaller cards are formatted with a sector size that is too small for the DVR.

d) Set the DVR back to 'factory defaults', & then re-program with your required configuration.

Now see if the DVR will recognise your media & records successfully.

e) Sometimes the video file format is not recognised by the media player.

1. Try downloading a new 'Codec' from the Web. or use a different media player.

2. Use different settings on the DVR for video picture size and quality.

**Q8. The Bullet camera only gives 480 lines in either format, which is less than the DVR will support. Can I get a better image by using a higher resolution camera?
Also, how come there are more pixels than lines?**

Good question, the answers a little involved, but here we go...

DVR: Video standards supported PAL (625 lines), NTSC (525 lines)
Bullet Camera: High resolution 480 TV Lines
Effective Pixels: PAL 752(H) x 582 (V) / NTSC 768 (H) x 494 (V)

It easy to get confused because:

1. The PAL/NTSC standard refer to lines as the Horizontal resolution &...
Cameras (bullet + others) refer to lines as the Vertical resolution.

2. Another twist is the Effective Pixels, where:

The Horizontal pixel count tells you how many Vertical Lines you can display &...
The Vertical pixel count tells you how many Horizontal Lines you can display.

3. Also a PAL/NTSC horizontal line = 1 vertical pixel. But...

Camera Vertical line = a minimum of 2 horizontal pixels. E.g. 1x white, 1x black

4. The PAL/NTSC standard defines the total number of lines transmitted = PAL (625 lines), NTSC (525 lines) but some lines are used for Line & Field sync, leaving the remaining lines for the picture.
Displayed lines = PAL (576 lines), NTSC (486 lines).

NB This is 6 less than the Effective pixels as some sync schemes put the actual picture a line or two higher or lower than expected.

If you do a quick sum to calculate the picture vertical line resolution (2x pixels) you get:

PAL 752 (H) x 582 (V) = 752 / 2 = 367 vertical lines
NTSC 768 (H) x 494 (V) = 768 / 2 = 384 vertical lines

Hence, at first glance, a 480 line camera is should not be the limiting factor.

In practice there is a small improvement if you use a greater than 480 line camera.

This improvement gets less & less with even higher resolution cameras because the number of effective pixels in the DVR eventually limit the resolution.