

# SPOTCHECK



## Software Specification

SPOTCHECK provides the CCTV operator with an advanced tool for instant replay of events, for marking events whilst they are happening, for pausing live and for instantly jumping to marked events for playback.

The key functions of SPOTCHECK are :

- 1) Marking an event for later instant replay
- 2) Instant reverse playback from live video
- 3) Jump forwards and backwards between events during playback

This document specifies how the software will operate.

## System Operation

On power-up, SPOTCHECK immediately enters record mode, with live output.

Recording should be fixed at 25fps for PAL, 30 fps for NTSC.

Resolution is normally fixed at maximum (720 x 576 for PAL, 720 x 480 for NTSC)

Image compression is JPEG2000

Image quality is variable between 12KB/image and 32KB/image.

SPOTCHECK continues to operate when the CF card is pulled out (but with no recording).

SPOTCHECK continues to display live when the CF card is pulled out.

SPOTCHECK continues to display live and resumes recording automatically when a new CF card is inserted.

A new card will need to be formatted first, and that may take a minute or two.

If the card is already formatted then the data is kept and then recorded over in the normal way (oldest data first).

This is to allow cards to be taken out after an incident then re-inserted for playback.

## Keyboard Control

SPOTCHECK has a standard PS2 keyboard connector.

The following keyboard controls are currently defined :

- ESC : LIVE : This performs exactly the same function as F7. The reason for duplicating the button is that ESC is such a logical choice for resetting back to normal operation.
- F1 : PREV MARK : This jumps the playback point to the previous marked point. The playback always play forwards from an event, even if the playback was in reverse before.
- F2 : <<JUMP (10 mins) : This jumps the playback point 10 minutes backwards from the current point.
- F3 : <<JUMP (1 min) : This jumps the playback point 1 minute backwards from the current point.
- F4 : < PLAY : This plays backwards from the current point. Pressing this button again switches the playback to x2 speed, then x4 speed, then x8 speed before reverting back to x1 speed. When playing forwards at higher speeds, pressing this button should slow the speed down by one notch.
- F5 : STEP BACK : This button only works when the display is paused. It steps backwards one frame and remains paused. Holding the button produces repeated steps backwards whilst the button is pressed.
- F6 : PAUSE : This pauses live video in live mode, or pauses playback in playback mode. Repeated presses of the Pause button will display the image in the following cycle : Full-frame blended, odd field, even field, full-frame unblended, then bal to full-frame blended.
- F7 : LIVE : This switches the unit back to live display and normal recording mode.
- F8 : STEP FORWARD : This button only works when the display is paused. It steps forwards one frame and remains paused.

F9 : PLAY > : This plays forwards from the current point. Pressing this button again switches the playback to x2 speed, then x4 speed, then x8 speed before reverting back to x1 speed.

F10 : (1 min) Jump >> : This jumps the playback point 1 minute forward from the current point.

F11 : (10 mins) Jump >> : This jumps the playback point 10 minutes forwards from the current point.

F12 : NEXT MARK : This jumps the playback point to the next marked point. The playback always play forwards from an event, even if the playback was in reverse before.

RETURN : INSTANT BACKPLAY : This button operates at all times (assuming a CF card is present) and provides reverse playback at x1 speed from wherever the current time point was, either live or playback. Thus this function is slightly different from F4, as F4 may be also used to increase speed of reverse playback or decrease speed of forwards playback. RETURN does nothing except provide the INSTANT BACKPLAY feature.

SPACE: MARK : This function only works when in normal live/recording mode. It marks the point in time when the button was pressing by flagging the image files with an event marker.

There are no country-specific keyboard compatibility issues with this layout.

ESC	LIVE
F1	PREV MARK
F2	<<JUMP (10 mins)
F3	<<JUMP (1 min)
F4	< PLAY x2 x4 x8
F5	STEP BACK
F6	PAUSE
F7	LIVE
F8	STEP FORWARD
F9	x2 x4 x8 PLAY >
F10	(1 min) JUMP>>
F11	(10 mins) JUMP>>
F12	NEXT MARK
RETURN	INSTANT BACKPLAY
SPACE	MARK

### SPOTCHECK use as Playback-Only device

Some customers request an additional SPOTCHECK for review purposes. Most CCTV operations have review suites, where video tapes and digital recordings are played back and where copies of recordings are prepared for the Police.

Obviously there is the separate software for playing back the data from a SPOTCHECK CF card on a PC, (automatically copied onto any new CF card by SPOTCHECK itself), but the best quality will be maintained by playing back the proper interlaced video signal onto a composite video monitor. This is also ideal for playing back onto video tape for use in courts.

Therefore nothing is recorded onto the CF card if there is no input video present. Thus a SPOTCHECK may be used without any video input at all.