

VS82/VS84 Desktop Video Switchers

1 Models

| Model No. | Video Inputs | Video Outputs | Alarms |
|-----------|--------------|---------------|--------|
| VS82 | 2 | 1 | No |
| VS82A | 2 | 1 | Yes |
| VS84 | 4 | 1 | No |
| VS84A | 4 | 1 | Yes |

2 Specifications

Video

- Camera Inputs 2/4 75 Ω No DC offset. (Internal jumper allows removal of 75 Ω termination)
- Format Composite video 75 Ω 1V_{pk-pk}
- Connectors BNC

Power

- Supply Requirements 12V +/- 10% <2W
- Connector DC Socket 2.1mm (centre +)

Power Adapter

- Input 230V AC +/-10% 50Hz
- Output 12V DC @ 300mA unregulated class II.

Dimensions (mm)

- L x W x H 157 x 110 x 40

Alarms

- Alarm Inputs NO or NC contacts, set by link in 15 way 'D' connector. Max. contact resistance 100 Ω
- Audible Alarm May be silenced by link in 15 way 'D' connector.
- Contact Relay Single pole changeover, voltage free contacts, Max. Ratings: 24V 200mA 2W.

SAFETY

Please read these instructions carefully and keep them for future reference. Any queries should be furthered to Nortek technical support on +44 (0) 1260 276 409.

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| WARNING ! • This unit should only be installed by qualified personnel. |
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Power Supply

- The provided power supply unit (Class II double insulated/Isolated) should be used to power the unit.

Requirements

- The unit should be used within the boundaries of its specifications.
- The unit's environment must be dry and dust-free.
- Shield from direct sunlight and keep away from sources of intense heat.
- Avoid humid conditions.
- Ensure free ventilation.

Hazards

Remove power from the unit and refer to authorised service personnel in the event of any of the following:

- liquid is spilled onto the unit
- the unit is damaged in any way

Electromagnetic Compatibility (EMC)

This product is intended for use in residential, commercial or light industrial EMC environments.

Warning! This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Manufacturer's Declaration Of Conformance

The manufacturer declares that this product is compliant with EC Directives 89/336/EEC and LVD 73/23 EEC, relating to the following standards:

- EN50081-1 (EN55014, EN55022) for emissions
- EN50082-1 (IEC801-2, IEC801-3, IEC801-4) for immunity
- EN60950 for electrical equipment safety

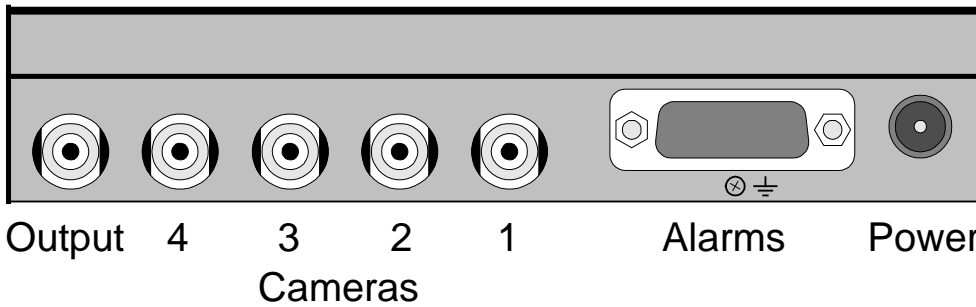
Subject to the following conditions:

- the installer must observe the recommendations contained within this document

3 Connections

Video

The camera inputs and monitor/VCR output are shown below (viewed from rear).



A supplementary earth (screw) connection is provided, located below the alarm connector.

Alarms

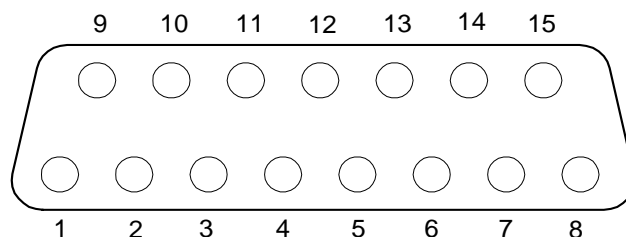
Alarm and contact relay connections are made to the 15-way 'D' connector. Pin positions are shown below (viewed from rear of unit, or inside connector). Alarm contacts are connected between the required alarm input and any 0V/ground pin.

There are also three alarm options that may be set within the 15 way 'D' connector. Options are set by connecting the required option pin to any of the 0V/ground pins. The options are as follows:

1. Return to auto-sequence inhibit - Stops switcher returning to auto-sequence after an alarm condition.
2. Alarms normally open - Sets all alarm inputs to normally open.
3. Sounder inhibit - Silences the audible alarm.

| Alarm connector pin | Description/Function |
|---------------------|-----------------------------------|
| 1 | Option 2 (Alarms normally open) |
| 2 | Option 3 (sounder inhibit) |
| 3 | Camera 4 alarm |
| 4 | Camera 3 alarm |
| 5 | Camera 2 alarm |
| 6 | Camera 1 alarm |
| 7 | Relay NO |
| 8 | Relay Common |
| 9 | Option 1 (return-to-auto inhibit) |
| 10-14 | 0V/Ground |
| 15 | Relay NC |

When normally closed alarms are selected, unused alarm inputs should be connected to 0V/Ground.



4 Operation & Programming

Operation

Pressing the auto-sequence button causes the switcher to sequence through the chosen cameras. Cameras and their individual dwell times are selected during programming, (see below).

Cameras can be selected manually by pressing camera buttons. This cancels the auto-sequence function.

(Cameras not included in the auto-sequence can always be selected manually.)

(Switcher will always 'power-up' in auto-sequence mode)

Operation with alarms

When an alarm is triggered, the switcher is forced to the alarmed camera. The switcher will remain on this camera for a set time before returning to auto-sequence; (Alarm dwell times are set during programming). A short 'bleep' will sound when an alarm is triggered. (Unless disabled, see option 3)

Programming

Hold down the auto-sequence key until a 'bleep' is heard, (approx. 4 sec.,) then release. All LEDs will be extinguished. Cameras are then selected by pressing the required camera buttons. As each camera is selected, the associated LEDs will light. Dwell times are determined by the number of times each camera button is pressed. Each press adds one second to the dwell time for a particular camera, after 10 presses of a camera button, 5 seconds are then added for each press of the camera button. (Max. dwell is 250 sec.)

For example, if a dwell time of 15 seconds were required for camera 2, the camera 2 button would be pressed 11 times. (1+1+1+1+1+1+1+1+1+1+5).

If at any time there is no programming activity for 10 seconds, the switcher will return to its operating mode with the previous settings.

Once camera selection and dwell time programming is complete, press and hold the auto-sequence button once again until a 'bleep' is heard, then release. Non-alarmed switchers will return to operating mode with the programmed settings. Alarmed switchers however will then allow alarm dwell times to be programmed. Alarm dwell times are programmed in the same manner as the camera dwell times, (see above). Camera LEDs will light as each camera dwell time is selected. (Minimum alarm dwell time for each camera is 1 sec.)

When alarm dwell time programming is complete, press and hold the auto-sequence key until a 'bleep' is heard, then release. The switcher will now return to the operating mode with the programmed settings.

The whole programming routine must be completed to store the new settings.

5 Removing Terminations

To 'loop-through' the switcher, the 75Ω terminations for each camera must be removed. Terminations are removed by removing jumper pin headers inside the unit. Open the switcher by inverting it and removing all four screws. Lift the front panel away from the box, lifting at the front edge of the front panel, (the edge closest to the buttons). The pin headers are found next to camera inputs. When 'looping-through' the unit, the 'stub' from any 'T' connection should be kept as short as possible.