7 Operation

Auto-Sequence

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). The switcher will always 'power-up' in auto sequence.

Manual Selection

Any camera (including any not included the auto-sequence) can be selected by pressing camera button. This cancels the auto-sequence function.

Spot Monitor

The spot monitor function allows the operator to control a second (spot) monitor by depressing spot monitor key and selecting individual cameras or auto-sequence.

Alarms

When an alarm is triggered, the switcher is forced to the alarmed camera. The switcher will remain on this camera for a programmed period before returning to auto-sequence (unless disabled by option 1 link). A short 'bleep' will sound when an alarm is triggered. (unless disabled by option 3 link). Note: If a second alarm is activated during a time-out period the first alarm will be overridden.

8 Programming

Hold down the auto-sequence key for about 3 seconds, until a 'bleep' is heard (and then release) to enter program mode. All camera LEDs will be extinguished (showing no cameras are selected and dwell times are set to 0), and the Auto LED will flash once a second.

Main Sequence

Any cameras can then be selected for the auto-sequence and its dwell time set by pressing its associated camera button. Each of the first 10 presses adds 1 second to the dwell time. The camera LED will light after the first press to indicate that it is selected (beginning with a dwell of 1 second). Further presses each add 5 seconds to the dwell time (up to a maximum of 250 seconds). For example if a dwell time of 15 seconds is required for camera 2, press the Camera 2 button 11 times. (1+1+ 1+ 1+ 1+ 1+ 1+ 1+ 1+ 1 +5).

Spot Monitor

The spot monitor sequence can be programmed by holding down the Spot Monitor button, while using the camera buttons as described above for the main auto-sequence. If the spot monitor sequence is not programmed it will default to it's factory set sequence (all cameras on for 1 second).

Completion of sequence times

Once camera selection and dwell time programming is complete, press and hold the auto-sequence button again until a 'bleep' is heard. Non-alarmed switchers will then return to normal operation with the new timings, but alarmed switchers will then enter the alarm program mode (and the Auto LED will flash twice a second).

Alarm Times

In the alarm program mode the alarm time-out periods are programmed in the same manner as the normal camera dwell times, described above.

Completion of alarm times

When the alarm settings are complete, again hold down the auto-sequence button until a 'bleep' is heard, to return the switcher to normal operation with the new settings in place.

Note: If at any time there is no programming activity for 20 seconds, the switcher will return to its operating mode. If this happens or if the program sequence is completed with unsuitable values the old settings will be retained.

Nortek

VS88/VS88A Desktop Video Switchers

1 Models

Model No.	Video Inputs	Video Outputs	Alarms
VS88	8	2 - Main & Spot	No
VS88A	8	2 - Main & Spot	Yes

2 Specifications

Video

- Camera Inputs — 8 75Ω No DC offset. (Internal jumper allows removal of 75Ω termination)
- Format — Composite video 75Ω $1V_{pk-pk}$
- 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 — 255 x 150 x 40

Alarms

- Alarm Inputs — NO or NC contacts, set by link in 26 way 'D' connector. Max. contact resistance 100Ω
- Audible Alarm — May be silenced by link in 26 way 'D' connector.
- Contact Relay — Single pole changeover, voltage free contacts, Max. Ratings: 24V 200mA 2W.

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3 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.

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

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

4 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

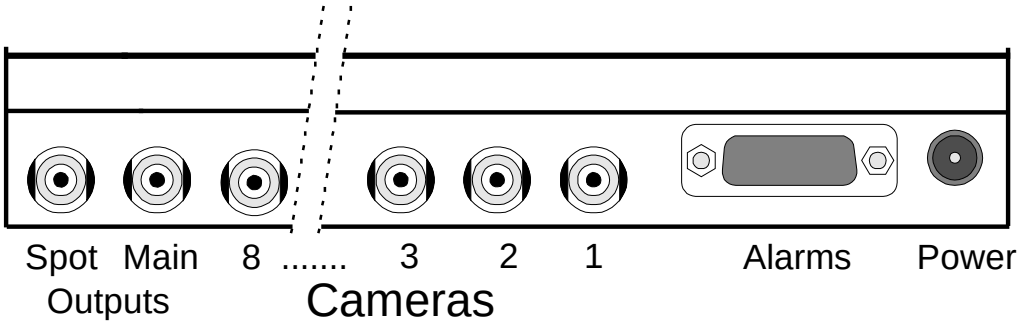
Subject to the following conditions:

- the installer must observe the recommendations contained within this document

5 Connections

Video

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



Alarms

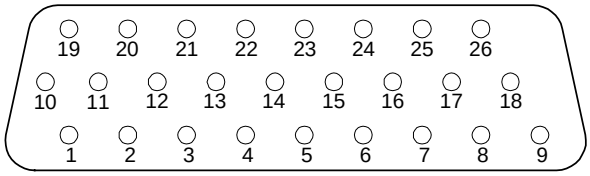
Alarm and contact relay connections are made to the 26-way 'D' connector. Pin positions are shown below (viewed from rear of unit, or inside connector). Alarm contacts are connected between the required alarm input and any 0V/ground pin.

There are also three alarm options that may be set within the 26 way 'D' connector. Connect the required option pin to any of the 0V/ground pins to select the option. 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	Camera 1 alarm
2	Camera 2 alarm
3	Camera 3 alarm
4	Camera 4 alarm
5	Camera 5 alarm
6	Camera 6 alarm
7	Camera 7 alarm
8	Camera 8 alarm
9-17	0V/Ground
18	Relay NC
19	0V/Ground
20	Option 1 (Return to auto-sequence inhibit)
21	0V/Ground
22	Option 2 (Alarms normally open)
23	0V/Ground
24	Option 3 (Sounder Inhibit)
25	Relay NO
26	Relay Common



View of socket/View from rear of connector

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

6 Removing Terminations

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