

1. INTRODUCTION

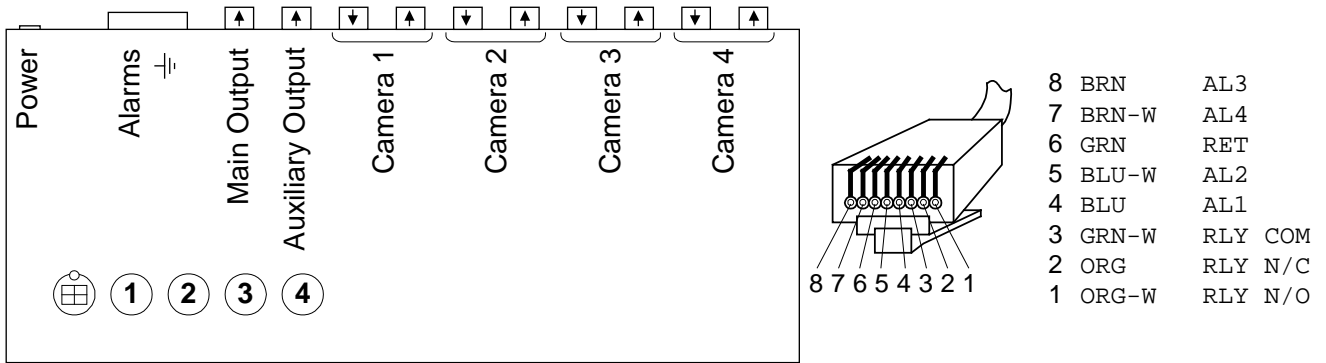
The Nortek DQ94 real-time colour quad is presented as a desktop unit with loop-through connections to offer not only a stand-alone quad function to display four cameras simultaneously on a CCTV monitor but also to provide an auxiliary display in conjunction with multiplexers or PC based CCTV systems.

The DQ94 will accept up to four non-synchronous video inputs and offers a choice of live displays to suit most applications for 4, 3, or even 2 cameras. The on-screen menu is easy to follow and provides variable alarm alert and auxiliary sequence periods, audible alert on/off, flashing borders (in alarm state) and numeric camera identifier on/off.

The auxiliary (spot monitor) output may be used for either quad or full-screen sequencing display and can be programmed to react in a number of different ways to an alarm alert. Alarm contacts are either all *normally open* or *normally closed* with an alert period of 4 to 120 seconds with an audible alarm alert sounder on/off option.

2. INSTALLATION

Video and Alarm Connections

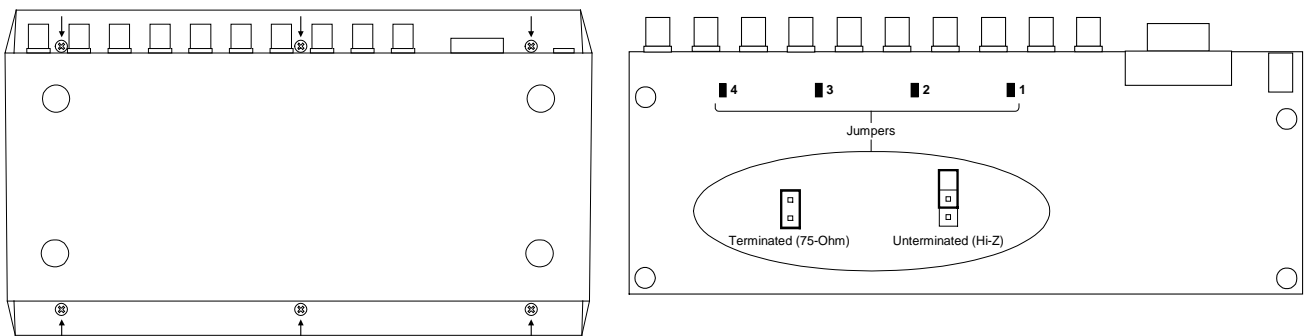


Connect your alarm contacts (floating, voltage free) to AL1-AL4 and connect their commoned returns to RET. See section *Specifications* for alarm relay contact details.

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

Video Terminators

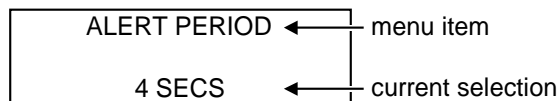
If you are looping your camera signals through the DQ94 then you need to remove the associated 75Ω terminations; this is done by opening the DQ94 case and adjusting the termination jumpers.



3. CONFIGURING THE DQ94

Entry into Set-up Mode

Hold down ← and → together for 4 seconds, you'll then hear a double beep which confirms that the unit is now in set-up mode and you will see something like this ...



Menu Items

You step through the various menu items by using the ← and → keys, if you step past the last item then you'll simply wrap around to the first (a short beep occurs when this happens).

You change a menu item's setting by using the **SELECT** key.

If no key is touched during a 2 minute period the unit will time-out and revert back to its normal operating mode, any configuration changes are discarded.

The default settings can be loaded by holding down the **SELECT** key for 4 seconds, after which the factory set defaults will be restored.

Exiting Set-up Mode

Tap either **STORE** or **CANCEL**, the latter will discard any changes and revert back to the original settings.

Setting the Default Layout

Before executing the above set-up procedure - first select your preferred split-screen layout (see section *Operation*), completion of the set-up procedure results in this layout being stored as the new default. Subsequently this layout will automatically be selected at power-up.

Description of Each Menu Item

Alert Period

4, 8, 10, 20, 30, 40, 60, 120 seconds	defines the length of an alert in response to an alarm event.
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Alarm Type

Normally Open	alarm contacts are of type: 'Normally Open'
Normally Closed	alarm contacts are of type: 'Normally Closed'

Main Output

Split-Screen Alert	split-screen is displayed during an alert; the border of alarmed segments flash; returns to original state when alert ends.
Full-Screen Alert	alarmed cameras displayed full-screen during an alert; the most recently alarmed camera will be displayed; returns to its original state when alert ends.
Ignore Alerts	alarms are ignored.

Auxiliary Output

Full-Screen Alert	alarmed cameras are displayed full-screen during an alert; the most recently alarmed camera will be displayed; returns to split-screen display when alert ends.
Always Sequencing	full-screen sequencing of cameras; missing cameras are skipped; alarms are ignored.
Always Split-Screen	split-screen is displayed, alarms are ignored.

Auxiliary Sequence Period

4, 8, 10, 20, 30, 40, 60, 120 seconds	defines the dwell period for the auxiliary channel's auto-sequencer; this is only relevant if 'Auxiliary Output' behaviour is set to 'Always Sequencing'.
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Sound During Alert

Yes / No	defines whether beep tones are made at the start of an alert.
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Flash Borders

Yes / No	defines whether segment borders are flashed when alarmed.
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Show Identifiers


Yes / No	defines whether camera identifiers are displayed in each segment of the split-screen display.
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Lock Layout

Yes / No	when set to YES the layout is locked into the 'classic' quad style; when set to NO the operator is allowed to select the layout via the keyboard.
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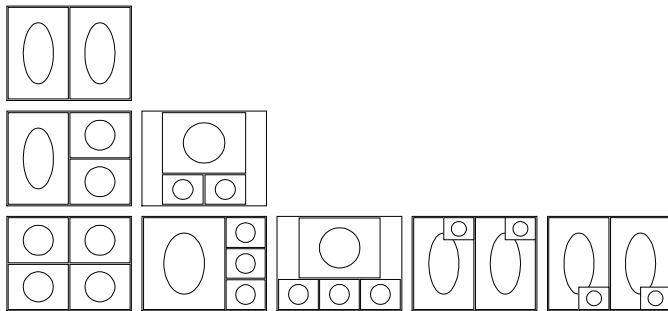
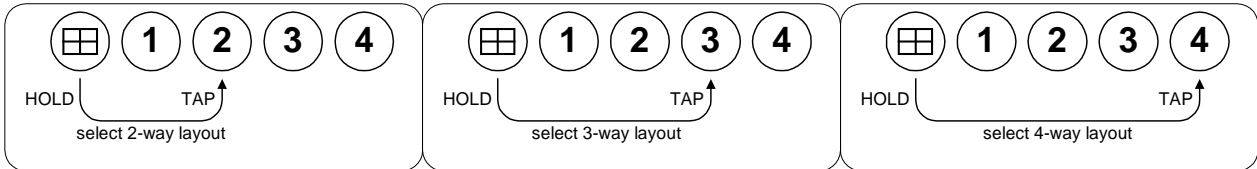
4. OPERATION

Camera Selection

You tap a **number** key to view the corresponding camera at full screen and tap  to view all cameras simultaneously in a split screen format.

Selection of Layout

Tap one of the following key combinations to step through the available layouts.



Circles have been drawn to illustrate aspect ratio distortion in the displayed image.

Note that the layout can only be altered if the unit has been configured such that the 'LOCK LAYOUT' option is set to 'NO'.

Status Lamp

Lamp State	Indication
on	main channel is showing a split-screen display
off	main channel is showing a full-screen display
flashing	the unit is in an alert state

5. SPECIFICATIONS

Video

Camera Inputs:	4; loop-through for each; jumpers for 75 Ω terminators
Video Outputs:	2
Format:	composite 625-line PAL video, 75 Ω terminated, 1V _{pk-pk}
Connectors:	10 x BNC

Main Video Output

Basic Behaviour:	full-screen / split-screen selected via keyboard
Configurable Behaviour:	full-screen on alarm, or ... split-screen on alarm, or ... ignore alarms

Auxiliary Video Output

Configurable Behaviour:	permanent split-screen, or ... normally split-screen, but full-screen on alarm, or ... permanent full-screen sequencing (for a spot monitor)
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Keyboard

Keys:	5; tactile switches flush with panel; panel covered with a membrane
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Alarms

Alarm Inputs:	4; programmable as either 'all N/O' or 'all N/C'
Alert Period:	programmable - from 4 seconds up to 2 minutes
Alert Tone:	can be silenced
Alert Relay:	single-pole changeover; contacts are floating; max. ratings: 24V, 200mA, 2W
Connector:	RJ-45 connector

Power

Supply Requirements:	12V; < 5W
Connector:	D.C. Socket 2.1mm

Power Adapter

Input:	230Vac +/- 10%; 50Hz
Output:	12Vdc @ 500mA; unregulated; class II

Dimensions

L x D x H:	254 x 150 x 43 (mm)
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