



SCSI Data Encryption Device

Turbo Start Guide

Version 1.0.1



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Pre-Requisites:

- Q³ pack which includes:
 - 1 x Q³_e unit
 - 1 x 2m SCSI cable
 - 1 x LVD SCSI terminator
 - 1 x Crossover Cable
 - 1 x Spare key chip
 - 1 x Power cable
 - 1 x Manual
 - 1 x Installation CD
- A Windows based PC with a CD-ROM drive and either a USB Port or Network Connection
- Physical access to the Q³_e unit from the Windows based PC
- Sufficient access rights on the Windows PC to allow software installation

- *** MAKE A NOTE OF THE Q³ SERIAL NUMBER IN THE SPACE PROVIDED ON THE ENCLOSED WORKSHEET *****

Pre-Installation:

Before installing the Q³_e into your environment perform the following steps. This will ensure that your current backup procedure works correctly and you are working within a stable operating environment:

- The Q³_e device is not operating system version specific however, depending on the host operating system, you should reboot the server to ensure any automatically downloaded patches and drivers are applied to the system. This is particularly relevant to systems with an automatic update function e.g. Microsoft Windows
- Perform a test backup and restore to ensure the tape hardware and backup software are working correctly
- When complete eject any tapes from the tape device
- Power down the host
- Power down the tape device

Q³_e Installation:

- For rack installation locate the Q³_e in the rack utilizing the supplied rack mounting brackets. Due to rack manufacturer variations, rack mounting bolts are not supplied
 - Locate the cable that connects the host / server to the tape device. Disconnect this cable from the tape device and connect it to one of the Q³_e ports labelled SCSI to Host
 - Connect the supplied 2m SCSI cable from the Q³_e port labelled SCSI to Tape to the tape device
 - On the Q³_e, the second SCSI to Host port must be terminated using the supplied SCSI terminator or used to daisy chain additional devices without data encryption
 - Power up the tape device
 - When the tape device has completed its power on self test routines, power up the Q³_e. When the Q³_e power on self tests have completed information about the attached tape drive will be displayed
 - When the Q³_e has completed its power on self test routines, power up the host.
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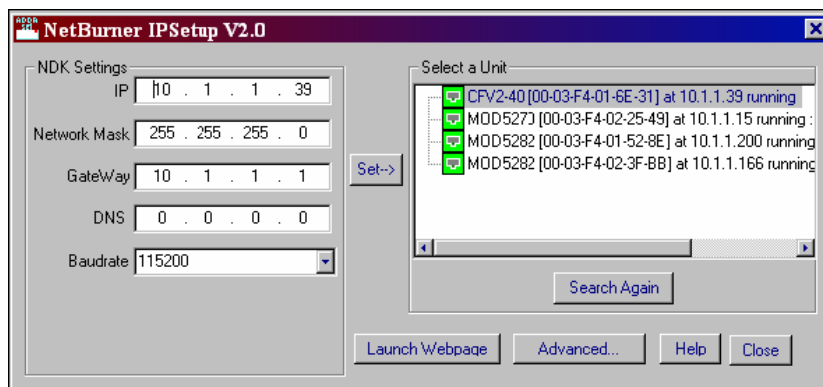
Setting the IP address

The unit is supplied with an Ethernet cross over cable which can be used to connect a laptop or PC directly to the unit without the need of a hub or switch. If you have access to the network the unit can be connected in the normal way with standard cables. *Do not try to use the supplied cross over cable to connect to a standard network!*

Once you are connected follow the procedure below.

Network Configuration

1. From the CD run IPSetup.exe. You will see a dialog box like the one below:



2. Click the "Search Again" button to locate your unit in the "Select a Unit" pane. If your Q3 fibre unit does not appear, verify the power and link LED's on your MNGT connection on the front panel are illuminated; if not, correct any cabling errors. Note that IPSetup uses a UDP broadcast protocol similar to BOOTP and will **not** operate through a router.

3. **A.** If your network **supports** DHCP:

The assigned IP address will appear in the "Select a Unit" pane

B. If your network does **not** support DHCP:

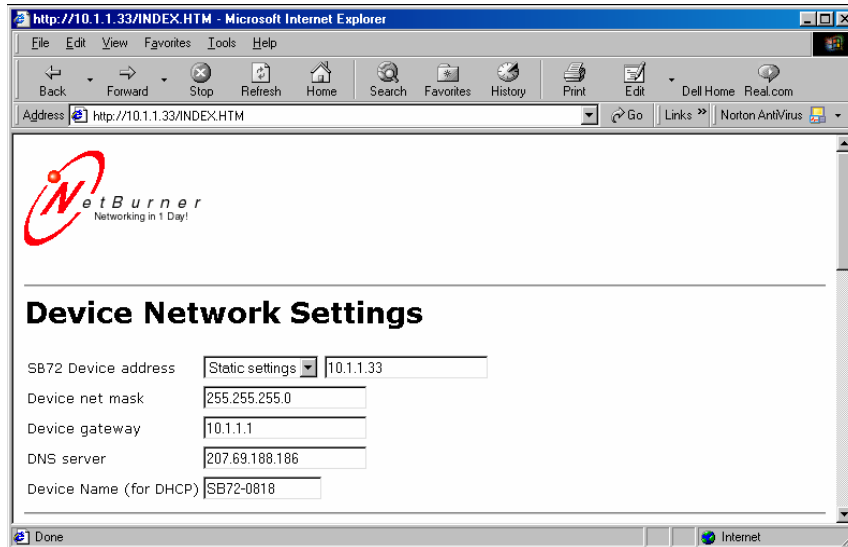
Configure the IP Address and Mask fields. If you need help selecting values, see the Selecting an IP Address section of this manual. After you have entered the values, select the "Set" button to configure the Q3 fibre unit with the new parameters.

4. Verify the network connection is working properly by executing the following command from a command prompt: "ping <ip address>" For example type "ping 10.1.1.33" (without the quotes) at the command prompt and press the Enter key on your keyboard.

Operational Configuration

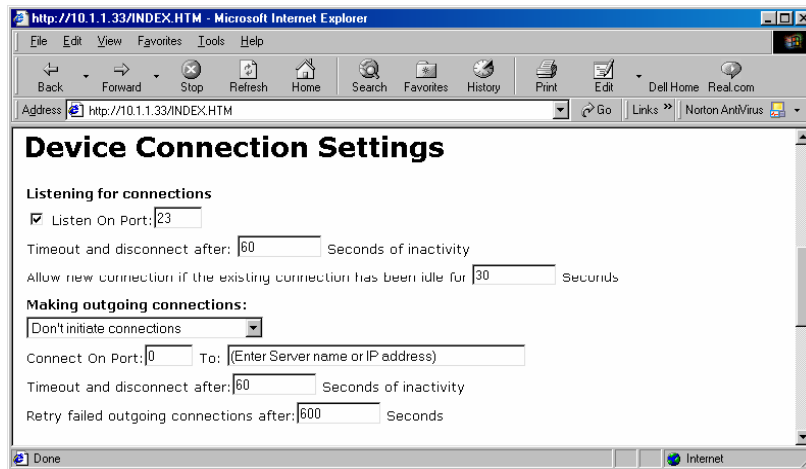
Once the network parameters have been configured, you can use the web server interface to modify setting of the Q³_e. To access the web page on the unit, open a web browser and enter the numeric IP Address in the address field.

Device Network Settings



SB72 Address	Device	Selects the IP address of the Q ³ _e unit. If DHCP is selected, the Q ³ _e will obtain IP address information automatically, including the net mask, gateway, and DNS server. If Static is selected, you need to supply the static IP address in the edit box to the right, as well as the other device network settings.
Device net mask		When using a static IP address, enter the net mask in this field.
Device Gateway		When using a static IP address, enter the IP address of the Gateway in this field.
DNS Server		When using a static IP address, enter the IP address of the DNS Server in this Field.

Device Connection Settings



Server Listen Port:	Select the checkbox and enter the listening port number you want the TCP serial server to listen on for incoming connections. The default is set to 1000
Client Activity Timeout and Disconnect	If no activity is detected on a TCP/IP connection the TCP server will drop the connection. The factory setting is 0 seconds
Client Override Timeout	If no activity is detected on a TCP/IP connection within this timeout period, the TCP server will disconnect the current TCP/IP connection and allow the new incoming connection request to connect. The factory setting is 0.
Outgoing Connections	If this option is enabled, the Q ³ _e will initiate a connection to an outside destination when the selected conditions are met The three options are: <ul style="list-style-type: none"> • Don't Initiate Connections • Connect on Power-up • Connect when receiving serial data This will be set to Don't Initiate Connections. <i>Do not change.</i>
Outgoing Port Number	Destination port number (Not normally used)
Outgoing Address	Either the name (e.g. www.theQ3.com) or numeric IP address (e.g. 10.1.1.2) of the destination. (Not normally used)
Outgoing Timeout	Inactivity timeout for the outgoing connection (Not normally used)

Software Installation:

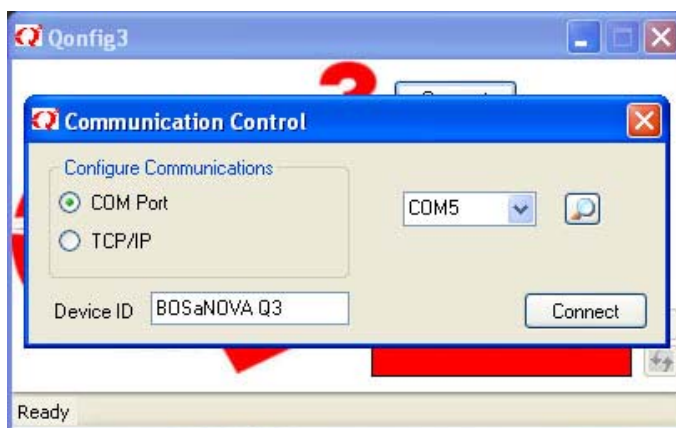
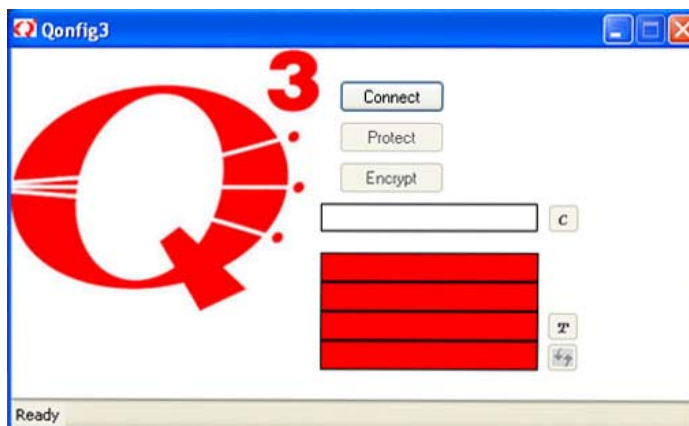
The Q³ GUI enables configuration of the Q³_e device. The software runs on Microsoft Windows and may be installed on a Windows server or client

- Place the Q³_e GUI CD into your CD-ROM drive
- In Windows click 'Start', click 'Run' and type d:\setup.exe (where 'd' is the drive letter of your CD-ROM drive)

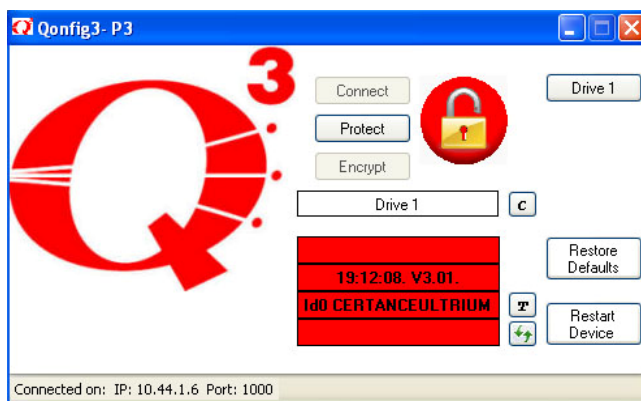
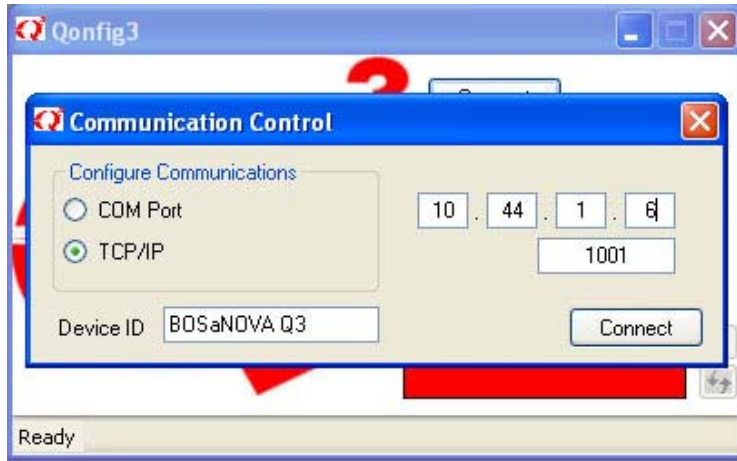
Follow the on-screen instructions to install the software

Configuring the Q³_e:

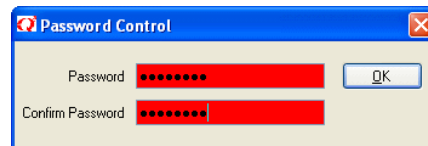
- Connect the USB-to-serial cable (supplied) from a free USB port on your PC, to the serial port on the rear of the Q³_e unit. You may need to install drivers for the USB-to-serial cable
- Or you can connect to the Q³_e via the network or the supplied crossover cable
- To start the configuration software click 'Start', 'All Programs', 'BOSaNOVA', 'Qonfig3'



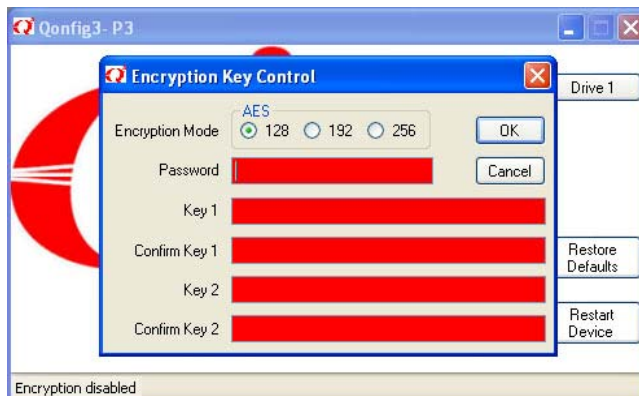
- To select the network device select TCP/IP and then enter the IP address and port number you have configured as shown below.
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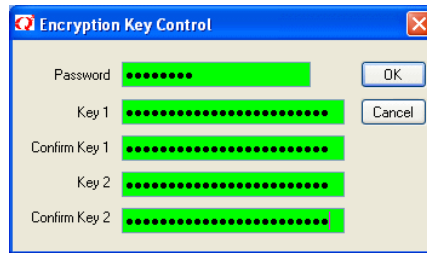
- If a password is not already set select the Protect button to be prompted to set a password



- Enter an access password of eight characters or more, verify the password – this password is to allow access to the Q³_e unit for configuration purposes
- Click the Encrypt button

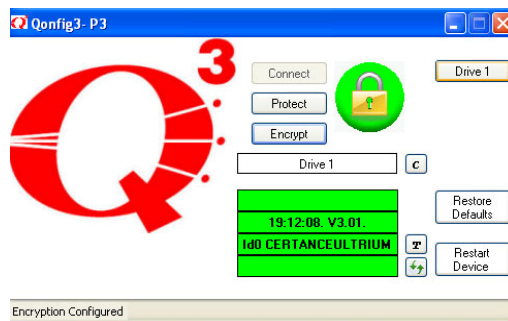


- Select the Encryption mode and the enter the password and the encryption keys – for AES 128 two 16 character keys, for AES 192 two 24 character keys and for AES 256 two 32 character keys,

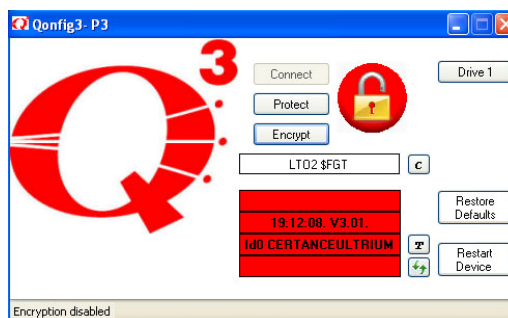




- ***** MAKE A NOTE OF THE ENCRYPTION MODE AND THE KEYS USED IN THE SPACE PROVIDED ON THE ENCLOSED WORKSHEET *****

- Clicking OK will set the Encryption Keys and set encryption on



- In a multi-Q³_e environment you may wish to visually identify each Q³_e device.
- Type the text you wish to use to identify the Q³_e unit on 3rd display line e.g. Tape Library 1



- Click the  button to set the text
- Encryption can now be toggled on and off using the 'Encrypt' button
- During tape operations click the  button to update the GUI with the Q³_e LCD display text
- Padlock icons on the top line of the Q³_e LCD indicate whether the device is in secure or un-secure mode. Secure mode is indicated by closed padlock icons and un-secure mode by open padlock icons
- When the Q³_e has been configured the USB to Serial cable can be removed

Important Notes:

- When the Q³_e device is in secure mode, media created or written before the Q³_e device was installed will not be recognized by your system and your backup software may suggest that the media should be initialized. To read previously written media set the Q³_e unit to un-secure mode using the Q³_e GUI configuration software



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