

# Soundcraft Vi / Studer D21m CobraNet® Card Setup Guide

## ZM0363-01

This guide describes how to use a laptop PC running the CobraNet Discovery® utility, to configure the settings of the CobraNet card (applies to all versions of the card).

The configuration of the card will be dictated by the network or other devices that are being connected to the card, so it is not possible to give exact details for individual parameters, but this guide shows how to access and edit those parameters.

It is recommended that setting up a CobraNet® network is carried out by an experienced person, but if more information is required, useful documents can be downloaded from the CobraNet website, on [www.cobranet.info](http://www.cobranet.info).

### 1. Installing CobraNet Discovery software to allow configuration of the CobraNet card.

CobraNet Discovery is a free utility provided by the manufacturers of CobraNet hardware, Cirrus Logic. The latest version of the program (V4.0.2 or above) allows not only the monitoring of CobraNet device parameters, but also the configuration of settings such as bundle numbers, latency and bit depth.

The program can be downloaded from the website [www.cobranet.info](http://www.cobranet.info) – follow the Downloads link on this page. The installation is straightforward.

*If you have an older version of CobraNet Discovery, eg V3.0.2 or V3.4.2, you should remove this and install the latest version, as some older versions require special configuration changes in order to access the bundle configuration of the CobraNet card.*

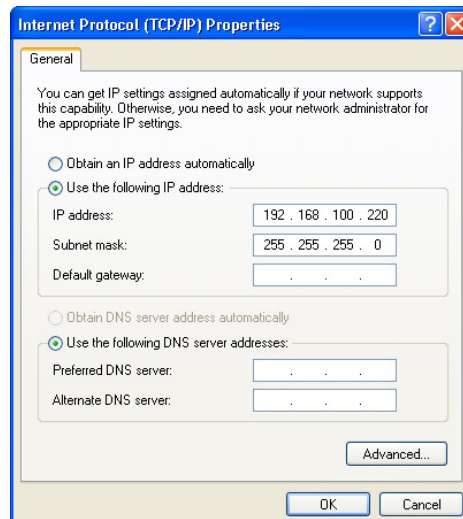
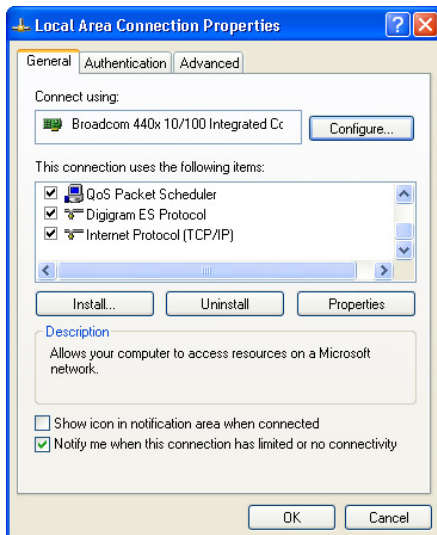
### 2. Setting up the Ethernet port on the Laptop PC

First the laptop PC needs to have its network port configured to have a fixed IP address in order to communicate with the CobraNet card:

1. On the laptop (Windows XP™ shown):

Start\Connect to\Show all connections\Local Area connection

Right-click the Local Area Connection icon and select Properties:

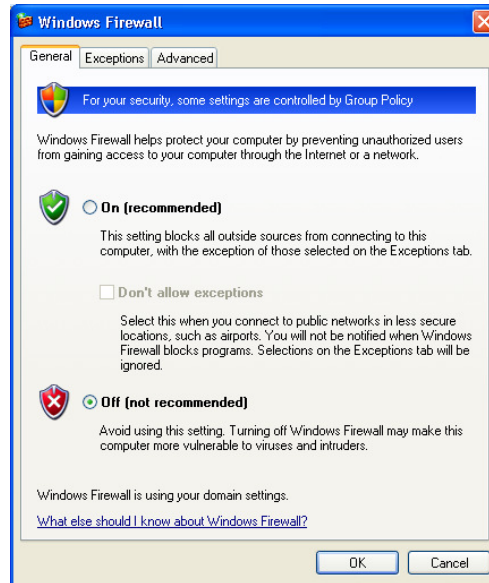
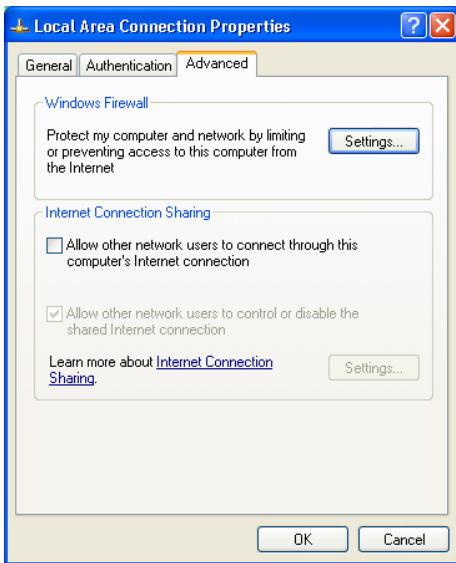


2. Select Internet Protocol (TCP/IP) and click on Properties

3. Select 'Use the following IP address' and type in the IP address and subnet mask as shown. *If you are only connecting to the CobraNet card it does not really matter what the actual IP address is, but it is recommended to set it as above.*

Click OK to close the TCP/IP dialogue box.

4. In the Local Area Connection box, select the 'Advanced' tab at the top, and then click the Windows Firewall 'Settings' button:



Make sure the firewall is set to OFF.

Click OK on all dialogues to exit the Local Area Connection properties.

*Note you will have to reverse the above settings 1-4 if you subsequently need to connect the laptop to a business LAN, so it is best to use a separate network port if available.*

### 3. Setting up CobraNet Discovery to Configure the CobraNet Card

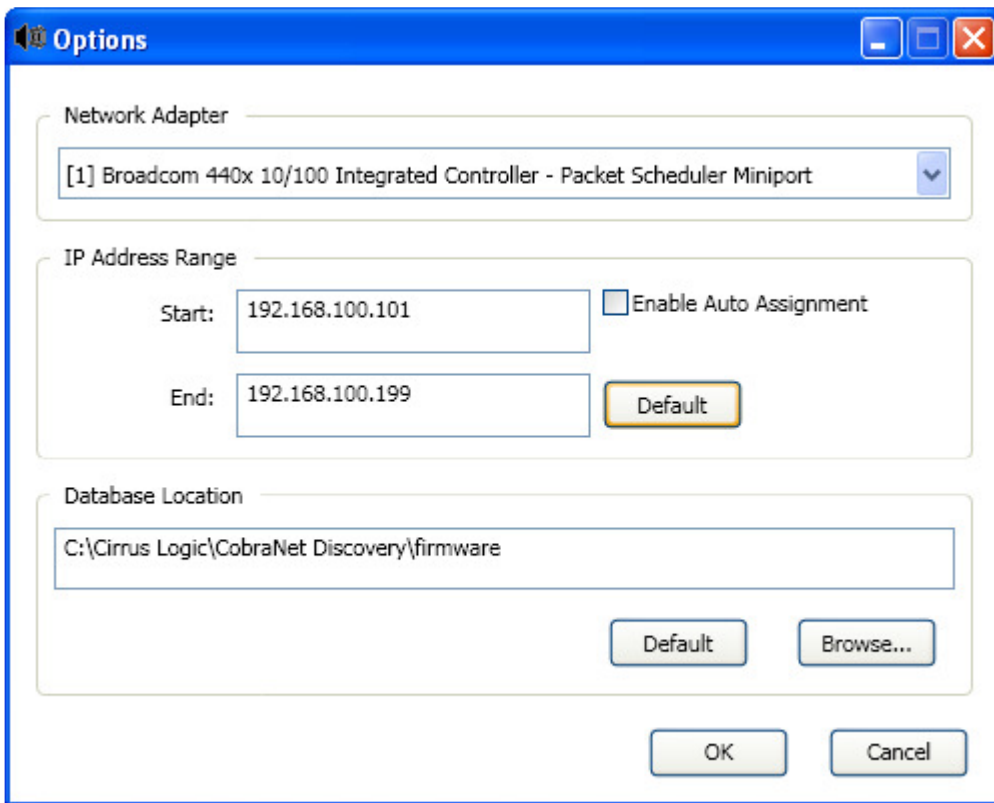
1. Power up the console and connect the laptop's Ethernet port to the Primary port on the CobraNet card. This should be done with a crossover Ethernet cable, but depending on the laptop, a 'straight' cable can be used, if the laptop supports both cable types (most recent laptops do).

Alternatively, a network switch can be connected between the Laptop and the CobraNet card, in this case 'straight' cables would be used.

Using a switch also enables several other CobraNet devices to be connected to the laptop at the same time as the console, and their configuration inspected and changed if necessary to match the console (*Note: do not change BSS London's CobraNet parameters using CNDISCOVERY*).

Both LEDs on the CobraNet card should start flashing when connected to the laptop.

2. Start the CobraNet Discovery program and go to Tools/Options.



In the top section of the dialogue, select the network controller that your laptop is using for the Ethernet port you have connected the module to.

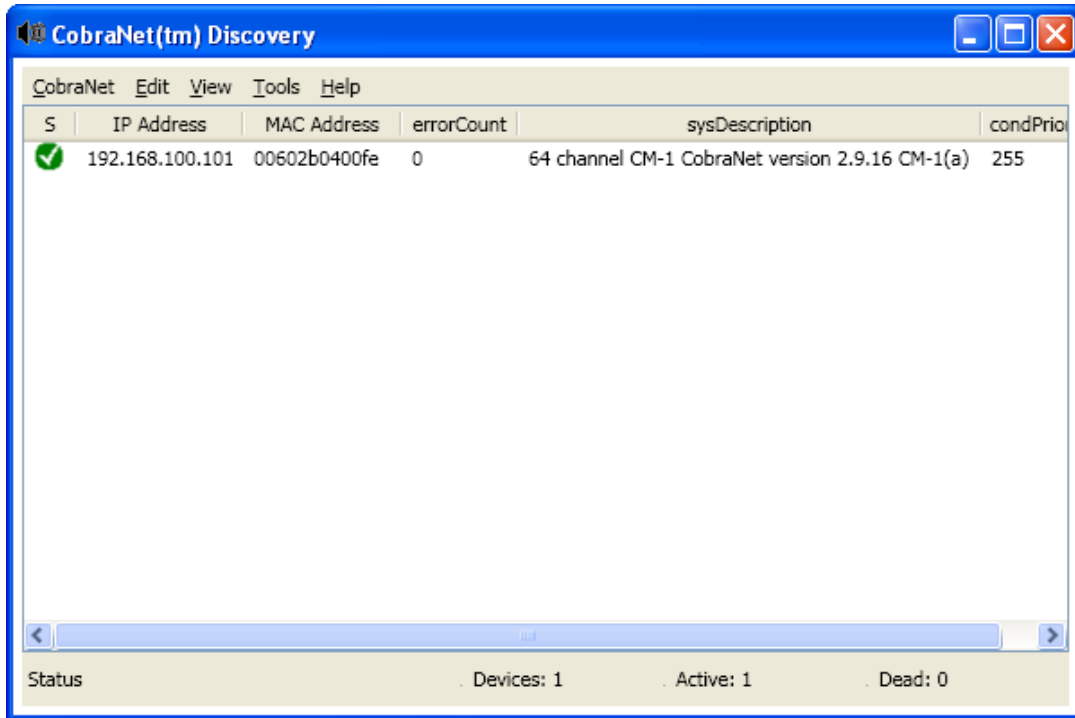
In the IP Address range enter values as above, and then check the 'Enable Auto Assignment box'.

Click OK and return to the main Discovery window.

*Note – you only have to carry out this step the first time you connect to the CobraNet card.*

3. You should now see the CobraNet module in the Discovery window, with a green 'tick' icon on the left and an IP address similar to that shown:

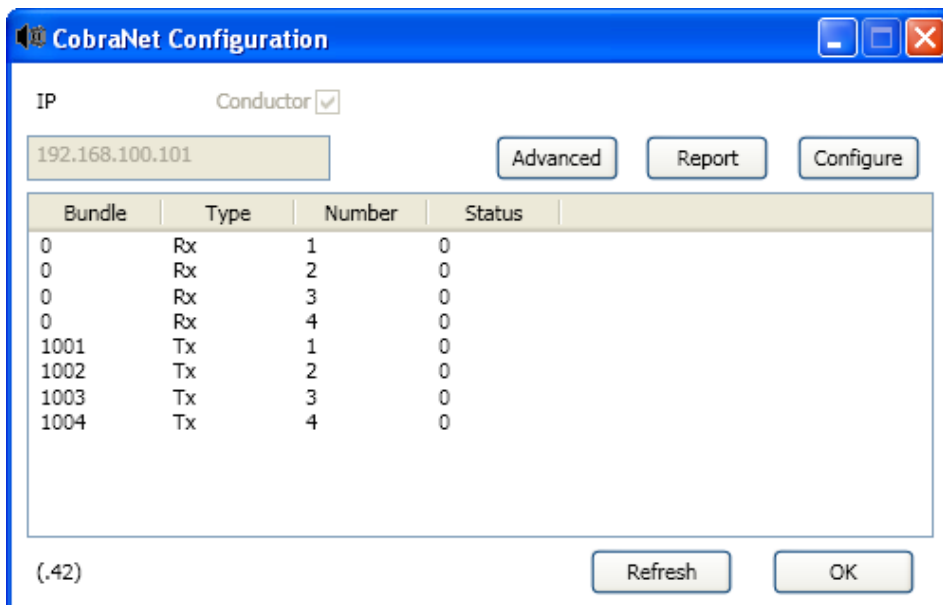
*The IP address is only used for the purposes of connecting to the configuration computer, so what the actual address is does not matter, as long as it is in the same subnet as the laptop's Ethernet port – and if you've followed the previous instructions correctly, it will be!*



4. To configure the CobraNet card, click on the CobraNet device to select it, then choose Tools/Configure – or just double-click the device.

The Configuration box appears, showing the current bundle number setup.

You will need to change the bundle configuration of either the CobraNet card or the external equipment so that the transmit number of one matches the receive number of the other, in order to pass audio.



5. The bundle numbers can now be changed as required by either directly editing the bundle number field, or selecting one of the four transmit or receive bundles and clicking the 'Configure' button, which opens a more detailed Configuration dialogue box:

Ch.	SubMap	SubFormat
1	1	20
2	2	20
3	3	20
4	4	20
5	5	20
6	6	20
7	7	20
8	8	20

**IMPORTANT!**

The CobraNet card is set from the factory to have 4 transmit bundles (32 channels) and no receive bundles active.

The number of transmit and receive channels is also set on the CobraNet card PCB via DIP switches. These switches determine how many channels are available in the consoles Input and Output patching touchscreens.

**Therefore if the number of transmit and/or receive channels is changed from the default, the DIP switches on the CobraNet card should also be changed to match.**

The **SubFormat** parameter allows the bit depth to be changed to match the network – but note that if this is changed to 24 bits, it is not possible to use all 8 channels in the bundle.

6. Changing the Latency, sample rate and card name

The **Advanced Configuration** dialogue box is used to set the Latency and Sample rate of the CobraNet card (this is the parameter called 'modeRate Control')

**These MUST match the other devices in the network, otherwise the system will not work!**

Note that with latency setting of 1.33ms, only 7 channels per bundle are allowed.

**IMPORTANT!**

The Vi6 consoles currently run at **48kHz only**. The Conductor Priority parameter **must be left at a value of 255**. This is the highest priority and indicates that the console will always be the clock master for the entire network.

If necessary, the Name, Location and Contact fields can be changed to identify the console in more detail.

**Do not change any other fields!**

In particular, the 'Persistence' box must not be unchecked, otherwise all setup data will be erased.

**For more information on CobraNet parameters, see the website [www.cobranet.info](http://www.cobranet.info)**