

Description

The TCP/IP220 is a daughter board that can be fitted to either a CRC220 PCB or a CRC221 PCB. This enables TCP/IP communications to the Norpass3 hosting PC, effectively replacing the integral RS485 communications interface. Once fitted, the TCP adaptor can be connected to a network point using a standard Ethernet patch cable (see 'Setting Up a TCP/IP Connection' for network settings). The adaptor also facilitates an RS485 bus to allow other controllers to be linked to the TCP port in a daisy chain, thereby enabling the management of them by Norpass3 via this network port.

Fitting Instructions



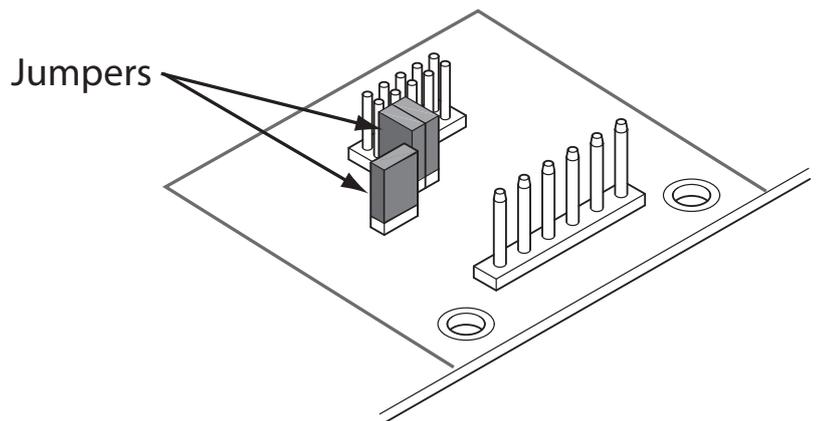
ATTENTION

Observe precautions for handling ELECTROSTATIC SENSITIVE DEVICES

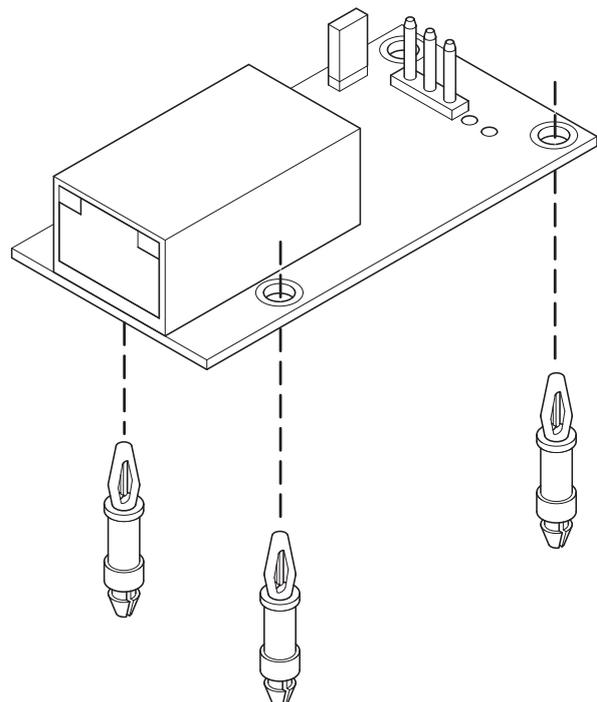
Three nylon circuit board supports are supplied with the adaptor to secure it in place on the controller PCB. Electrical connection between the two boards is provided by 10 pins on the controller connected to an 10-way socket on the underside of the adaptor PCB.

Fit the adaptor as follows :-

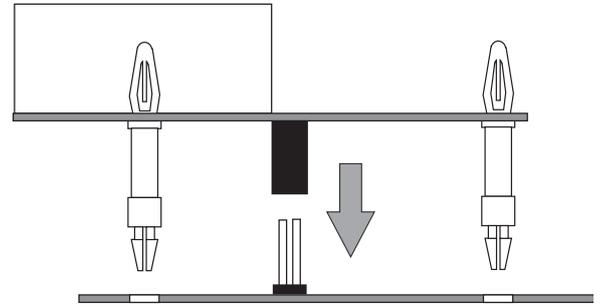
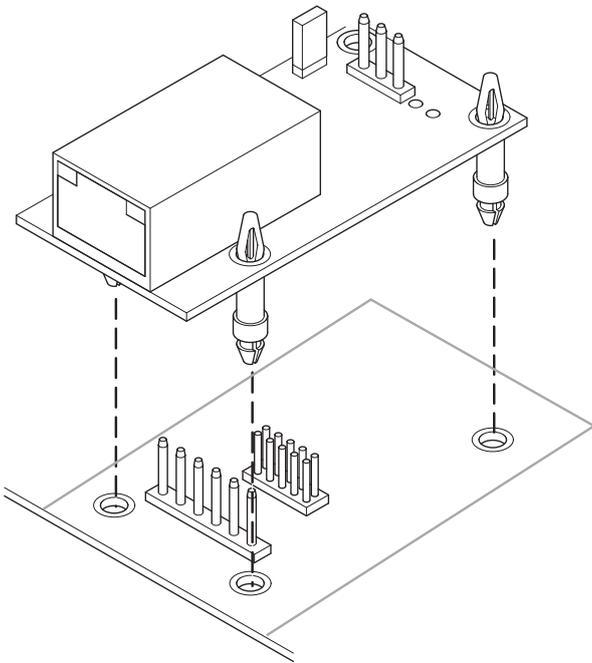
- 1 Check that the RS485 terminal connector block is not fitted, and remove all jumpers from the RS485 interface.



- 2 Fit the 3 circuit board supports to the adaptor PCB as shown on the right.

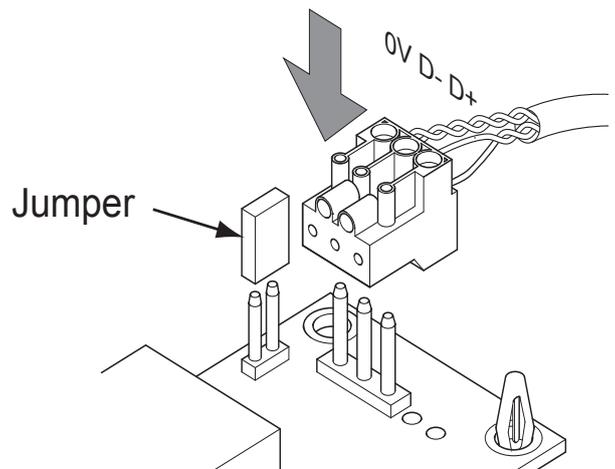


- ③ Carefully engage the connector block on the underside of the adaptor PCB with the dual row of pins on the controller PCB (do not push it all the way down at this stage). Align each of the 3 nylon supports with their corresponding holes in the controller PCB.



- ④ Push the adaptor PCB firmly until all 3 supports have clicked into place. Ensure that the connector is fully engaged by pressing firmly on the centre of the adaptor PCB.

- ⑤ Fit the RS485 terminal connectors to the terminal pins on the adaptor. If the TCP adaptor is going to be at one end of an RS485 daisy chain, ensure that the terminal resistor jumper is fitted.



Setting Up a TCP/IP Connection

Preparation

Before you start, make a note of the MAC address (physical address) of the device. This is printed on the label on the thin server and appears something like: 00-80-A3-00-00-F8.

You will also need to run the Lantronix Device Installer program on a PC connected to the network. The program is supplied on the Norpass3 disk or you can download it from:

<http://www.lantronix.com/support/downloads/?p=DEVICEINSTALLER>

Setting Up the Device

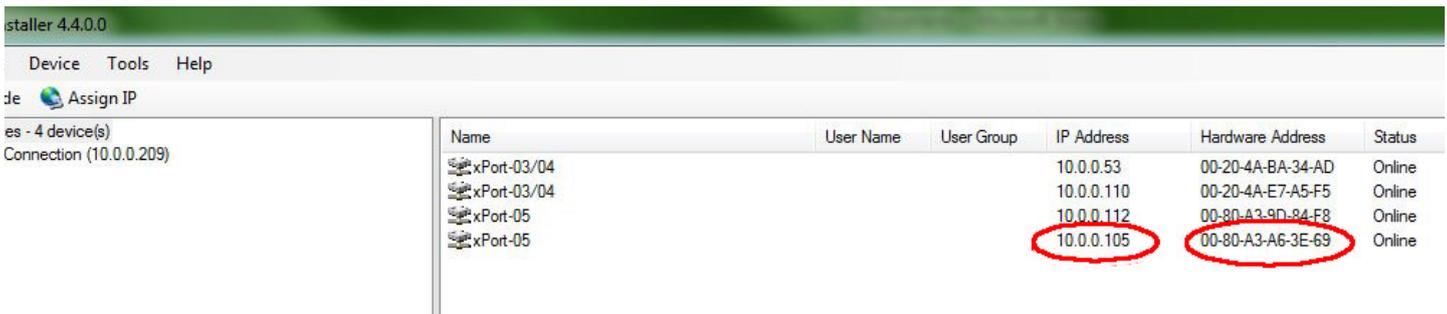
For Norpass3 to communicate with the TCP/IP adaptor, you need to add a corresponding TCP/IP port to Norpass3, which requires the IP address and Port number of the adaptor. Each adaptor is factory set to obtain an IP address automatically, and the Port number is set to '10001'. There are two ways in which to assign an IP address to the adaptor depending on the customer's network:

Where The Network Uses DHCP To Assign An IP Address To A Connected Device

While the controller is powered down, use a standard Ethernet cable to connect the device to a network port and then power up the controller.

Within a few seconds, the DHCP server will detect the device and assign a free IP address to the device. You now need to find out which IP address has been assigned.

Connect your PC to the network and run Device Installer. The program will identify all Lantronix devices connected to the network and display them as shown here:



Name	User Name	User Group	IP Address	Hardware Address	Status
xPort-03/04			10.0.0.53	00-20-4A-BA-34-AD	Online
xPort-03/04			10.0.0.110	00-20-4A-E7-A5-F5	Online
xPort-05			10.0.0.112	00-80-A3-9D-84-F8	Online
xPort-05			10.0.0.105	00-80-A3-A6-3E-69	Online

Look for the MAC address of your device in the device list and make a note of the IP address that has been assigned to it. You now have the information that you need to add the port to Norpass3.

Note: We recommend that you arrange with the Network Administrator that each device always receives the same IP address (Reservations). This will prevent any future disconnection and connection of devices on the network causing a new IP address to be assigned to this device, which would then require an update to the settings in Norpass3.

If this is not possible, we recommended that you use Device Installer to assign a fixed IP address to each device (see below).

Assigning A Fixed IP Address To The Device (Recommended)

While the controller is powered down, use a standard Ethernet cable to connect the device to a network port and then power up the controller.

Note: If you wish to connect to the TCP/IP-CRC220 device directly from your PC, remember to use a cross-over cable instead of a patch cable.

If DHCP is enabled on the network, the device will be automatically assigned an IP address on that network (see above).

Run the Device Installer. If DHCP is enabled, the device will be shown with a valid IP address against the MAC address. Otherwise it will be displayed in red with the comment 'unreachable'. The device will be assigned a default IP address from the range 169.254.x.x.

Choose an unassigned IP address on the network (check with the Network Administrator for available addresses). Select 'Assign IP' from the toolbar. Choose 'Assign a specific IP address' and follow the instructions to add the required address and subnet mask.

Once you have completed the procedure, click 'Search' on the Toolbar. The device should now be listed with the correct IP address. You are now ready to add the corresponding port to Norpass3.

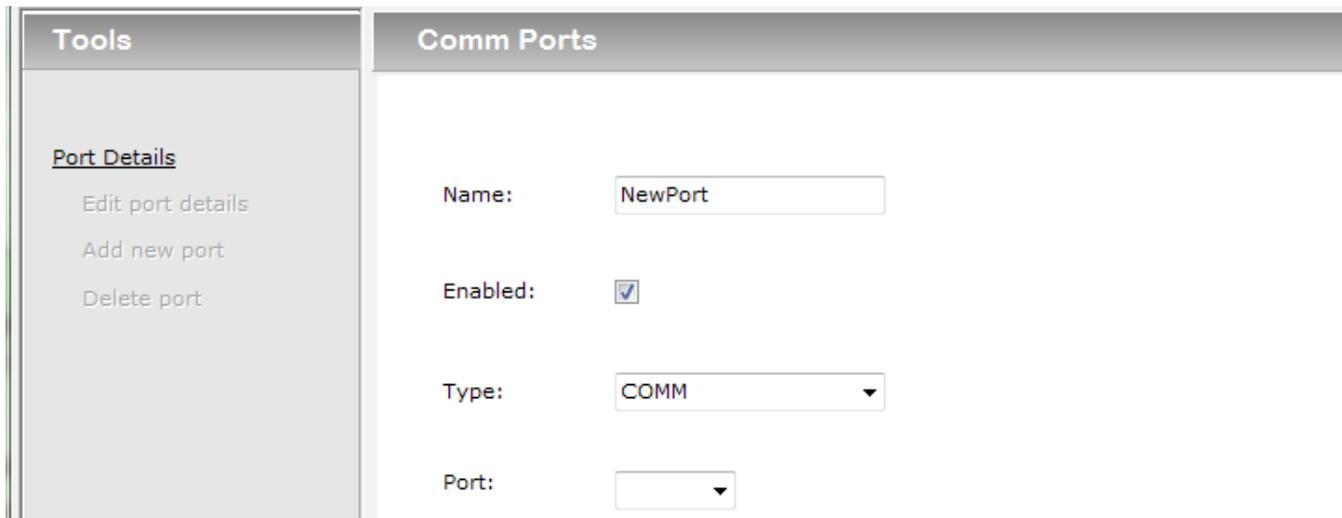
Note: If you experience problems with the setup, you may have inadvertently altered one or more of the settings. It is recommended that you reset the settings to the factory default and start again. To reset to the factory settings, please follow the procedure described in the following document:

<http://www.nortechcontrol.com/media/40175/lantronix-device-default-settings-for-crc220.pdf>

Adding the Network Port to Norpass3

In Norpass3, choose 'Communication Ports' from the Installer/System Settings menu. The Comm Ports screen is displayed.

To add the port, click on 'Add new port' from the 'Tools' pane on the left. The right-hand pane is enabled for editing:



Tools	Comm Ports
Port Details Edit port details Add new port Delete port	Name: <input type="text" value="NewPort"/> Enabled: <input checked="" type="checkbox"/> Type: <input type="text" value="COMM"/> Port: <input type="text"/>

Fill in the appropriate details as follows:

Name:

Enabled:

Type:

IP Address:

Port:

Give the port a descriptive name, select 'TCP' in the 'Type' box and enter the IP address of the device and the port number (10001). Once the port has been configured, tick the enable box to make it active.

Click the save (diskette) button in the bottom left of the window.

Click the 'Done' button when complete.

Finally, select the controller associated with the adaptor and set its Comm Port to the one that you have just added. You must also select each controller connected to the adaptor via RS485 in turn and set their Comm Port in the same way.