Specifications

Input Power Requirements

Powered through ACU/ECU—NETCOM2P 140 mA + ACU/ECU 130 mA = 270 mA

Powered through CIM—NETCOM2P 140 mA + CIM 150 mA + ACU/ECU 130 mA = 420 mA

Network Interface

RJ45 (10/100 Base-T) Ethernet

LAN/WAN (TCP/IP protocol—default port 3001)

Agency Approvals—Ethernet Socket

Complies with Class B limits of EN 55022: 1998 Direct & Indirect ESD.

Complies with EN55024:1998

Dimensions

1 9/16" x 1 15/16" (41 mm x 49 mm)

Environmental

Suitable for industrial and commercial applications.

Operating temperatures: 5 to 70 °C (41 to 158 °F)

RJ45 Ethernet (Xport) LED States

The RJ45 Ethernet terminal has two bi-colour LEDs:

Link LED (left side)		Activity LED (right side)	
Amber – solid	10 Mbps	Amber – flashing	Half-duplex
Green – solid	100 Mbps	Green – flashing	Full-duplex

Address Settings

*IP Address:
*Subnet Mask:
Gateway:
**Ethernet Connection Type:

* Required fields for device configuration with software

** If other than Automatic Negotiation

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NETCOM2P Installation Guide (DIP Switches) – KD10103-E-0123

NETCOM2P Installation Guide – DIP Switches

This guide outlines how to install and program the NETCOM2P for network communication on PC1097 or newer ACU/ECUs via a network crossover cable (not included). The NETCOM2P can be configured through a CIM or directly to the ACU/ECU.

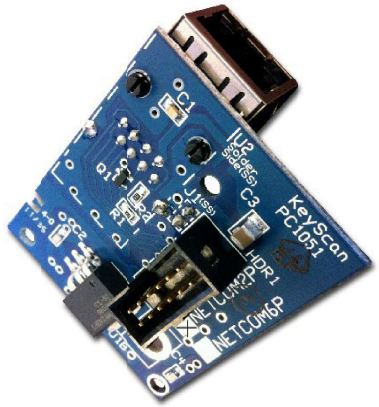
Before You Start

- Verify that you have all the parts as outlined below.
- Obtain a static IP address, subnet mask, and, if applicable, a gateway from the network administrator for each NETCOM2P. Space is provided at the back of this document for recording addresses.
- Ensure the latest Keyscan NETCOM Program Tool utility is installed on a computer that can be connected directly to the NETCOM2P for programming.

Contents

Parts List

NETCOM2P	1
Utilities & Drivers CD	1



NETCOM2P ACU/ECU Installation

Default IP for Network Crossover Cable Programming

The NETCOM2P is programmed using a network crossover cable connected to the NETCOM2P's RJ45 terminal. The NETCOM2P must be mounted to the M1 slot of a PC1097 or newer ACU/ECU or on a CIM.

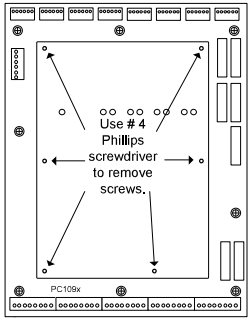
The default IP address of the NETCOM2P is 192.168.100.254. The default subnet is 255.255.255.0.

Note: Ensure the computer is set to a static IP address within the same IP and subnet range as above in order to program the NETCOM2P (no gateway).

Program and Install a NETCOM2P

The NETCOM2P can be plugged directly into a PC1097 or newer control board or indirectly on a CIM.

1. Touch the earth ground lug in the ACU/ECU metal enclosure to discharge body static.
2. Power down the ACU/ECU control board.
3. Using a #4 Phillips screwdriver, unfasten the 6 screws holding the ACU/ECU protective cover. Remove the cover and set it aside with the 6 screws.



4. Mount the NETCOM2P into M1 in the correct orientation, as shown in Figure 1. For information on how to connect a CIM with a NETCOM2P attached, read the CIM Setup Guide (Document #KD10027).
5. Connect the network crossover cable from the computer to the RJ45 terminal on the NETCOM2P.
6. Enable M1 for communication with the NETCOM2P as follows:
   - S2 – switch 7 = ON / switch 8 = OFF
7. Apply power to the ACU/ECU control board.
8. Launch the Keyscan NETCOM Program Tool.

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Reset IP on Tamper

PC1097 or newer ACU/ECUs with firmware 9.45 or higher can reset the attached NETCOM's IP to 192.168.100.254/255.255.255.0. This feature is used to revert to a known IP address for reprogramming. The IP can only be reset if the NETCOM2P is attached directly to the ACU/ECU's M1 slot, not on a CIM.

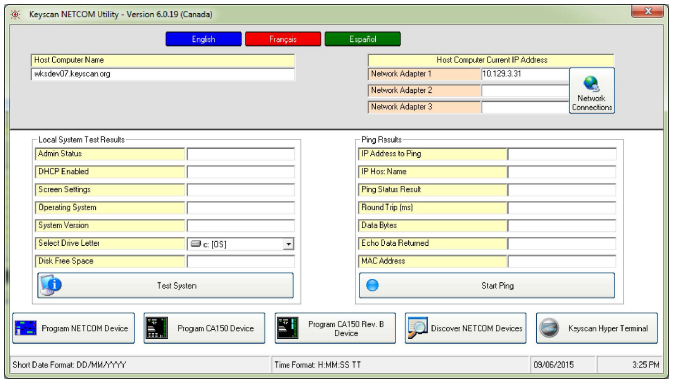
NOTE: The ACU/ECU must have communications switches set to S2.7-ON/S2.8-OFF prior to using this feature. PC1097-PC1095 ACU/ECUs with older firmware will not possess the ability to rewrite a default IP address. We recommend avoiding Steps 1 – 3 below for older version ACU/ECUs. For older ACU/ECUs, follow the regular Keyscan NETCOM Utility IP enrollment method with the appropriate cables.

Follow these steps to default the IP address of the NETCOM2P module:

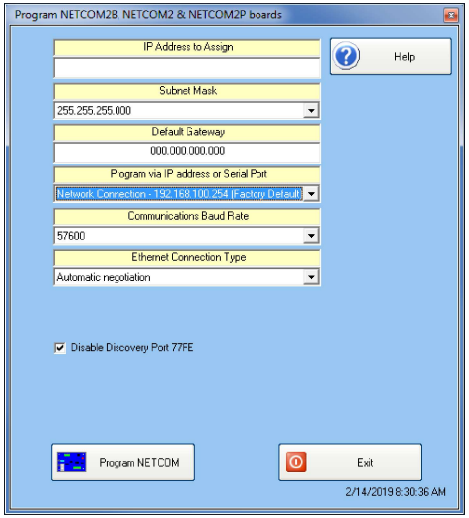
1. Perform a system reset by pressing and releasing the S1.
2. Press and release the tamper button 3 times in a row (within 15 seconds of the reset). The programming will begin and can take up to 20 seconds.
3. Once successful, the ACU will beep once.

Program and Install a NETCOM2P…cont'd

9. From the Keyscan NETCOM Utility screen, click the Program NETCOM Device button.



10. From the Select NETCOM Device Type screen, click on the Program NETCOM2 Family of Boards button.
11. From the Program NETCOM2B, NETCOM2 & NETCOM2P Boards screen, enter the IP address, the Subnet Mask, and a Gateway (if required).



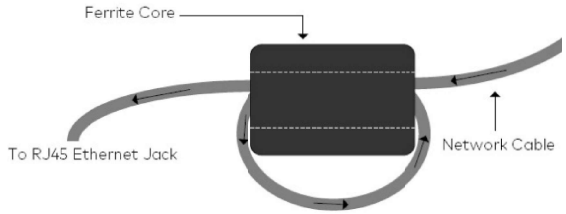
12. From Program via IP Address or Serial Port, select Network Connection via 192.168.100.254 (Factory Default).
13. Select the baud rate that corresponds to the control board communication S2 setting. The recommended ACU/ECU bit/s (baud rate) is 57,600.
14. Leave Ethernet Connection Type set on Automatic Negotiation unless the IT administrator gives a specific setting.
    - If the NETCOM device experiences network communication difficulties, you may have to alter the Ethernet Connection Type from automatic negotiation. (The Ethernet Connection Type is the network speed & duplex setting). Set the NETCOM so it matches the network equipment setting. If the network equipment was on an automatic setting, then reconfigure both the network equipment, which may include routers or switches, and the NETCOM to a matching fixed speed and duplex setting. As an example, NETCOM = 100 Mbit/Half Duplex – Network equipment = 100Mbit/Half Duplex.

15. Click on the Program NETCOM button.
16. Wait while the NETCOM Program Tool utility programs the NETCOM device.
17. Disconnect the cable from the NETCOM2P and the computer, then power reset the NETCOM2P.
18. Connect an Ethernet cable from a network jack to the RJ45 terminal on the NETCOM2P.
19. If the computer has a network connection, verify network communication with the NETCOM2P. Select the Start PING button on the Keyscan NETCOM Utility screen.
    - If the computer does not have a network connection, close the NETCOM Program Tool utility, complete any remaining connections for permanent operation, re-locate to a computer connected to the network and PING the NETCOM2's IP address using the Command Prompt. The Average Round Trip Times should be less than 100 milliseconds and the Packets Sent should equal the Packets Received with 0% loss. Continue to Step 23.

    Note: Ensure the computer being used to PING the NETCOM2P is within the same IP and subnet range from the programming step.
20. Wait for the PING Status result message:
    - IP Success indicates the NETCOM2P has network communication.
    - IP Timed Out indicates the NETCOM2P does not have network communication—verify settings and connections.
21. Click on the **x** in the upper right corner of the Keyscan NETCOM Utility screen to close the application.
22. Disconnect the power from the ACU/ECU control board.
23. Re-mount the ACU/ECU protective cover.
24. Re-apply power after the ACU/ECU protective cover is re-mounted.
25. Close and secure the ACU/ECU enclosure door.
26. Depending on the type of installation do one of the following steps:
    - If this is a new installation, install the Keyscan software, set up the site, and perform a full panel upload.
    - If this is an existing installation, log on to a Client software module, edit the hardware setup screens and perform a panel upload.

Ferrite Core Installation

Network cables must be fed through a ferrite core (as detailed in the diagram below). Feed the network cable through the open ferrite core, loop the cable back around and feed it through again. Clamp the ferrite core shut and connect the network cable into the RJ45 ethernet port on the ACU. The ferrite core should be within 5 inches of the RJ45 ethernet jack on the NETCOM.



NETCOM2P/Control Board Operational Connections

Figure 1 illustrates NETCOM2P operating connections when mounted directly onto a PC1097 or newer control board. Figure 2 illustrates a connection with a NETCOM2P attached to a CIM.

Multiple Building Communication on a WAN
Keyscan requires a point-to-point private network where NETCOMs are used on a LAN/WAN (TCP/IP) that integrates building to building communication.

Figure 1 - NETCOM2P/PC1097 (or newer) Direct Connection

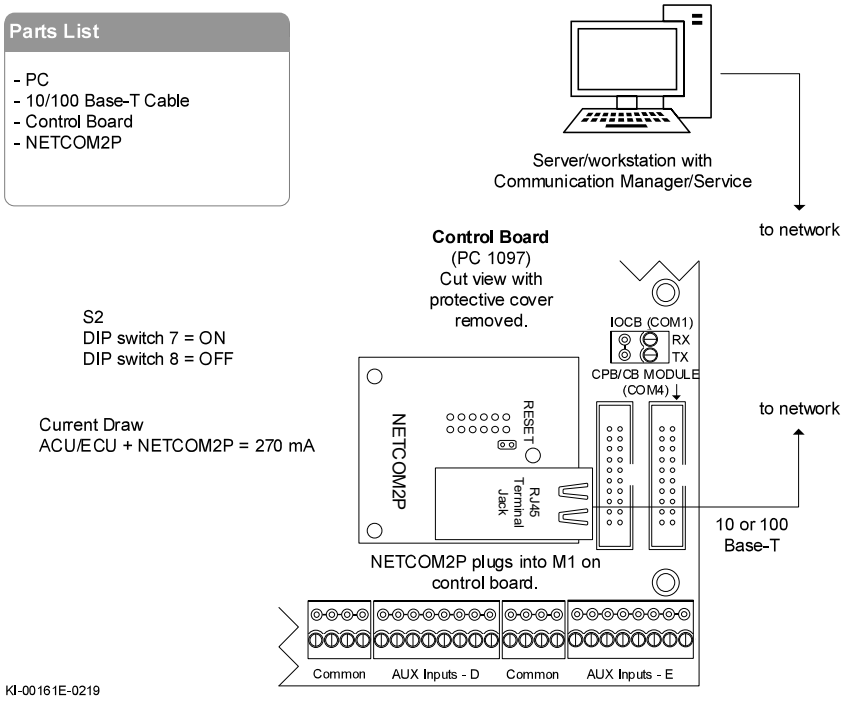


Figure 2 - NETCOM2P/CIM Secondary Connection