Using a Static IP Address
In An 8742 or 8743 Picomotor Controller

For those who can make changes to the router through its configuration software
The easiest way to set up your system for use with a static IP address is to:
1. In the router configuration software, reserve an IP address for the picomotor controller. Try to reserve an IP address outside of the range used by the DHCP server because this will eliminate the possibility of address conflicts now and in the future.
2. Set the picomotor controller to use a dynamic IP address by sending the "IPMODE 1" command.

For those who cannot make changes to the router or for a peer to peer connection
1. Open a DOS command window and run "IPCONFIG".

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Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . :
    IPv4 Address. . . . . . . . . . . : 192.168.1.123
    Subnet Mask . . . . . . . . . . . : 255.255.255.0
    Default Gateway . . . . . . . . . : 192.168.1.1
```

2. Note the first two octets of the IPv4 Address (192.168 in the example above).
3. Set the picomotor controller to use a static IP address by sending the "IPMODE 0" command.
4. Send "GATEWAY 192.168.0.0" (where the first two octets match those of the IPv4 Address or the host address from the log file ("CreateUDPSockets: Host Address = 192.168.1.123").
5. Send "NETMASK 255.255.255.0". This will allow for 256 IP addresses.
6. Set the static IP address by sending "IPADDR 192.168.1.150" (where the first two octets match those of the IPv4 Address or the host address from the log file ("CreateUDPSockets: Host Address = 192.168.1.123"). If the host address is being automatically generated by a DHCP server then try to select a static IP address outside of the range used by the DHCP server because this will eliminate the possibility of address conflicts now and in the future.
7. Send the "SM" command to the picomotor controller to save the information entered.
8. Send the "RS" command to reset the controller so that all entered information will take effect.

For more information, see the following links:
http://en.wikipedia.org/wiki/Default_gateway
http://en.wikipedia.org/wiki/IPv4_subnetting_reference