

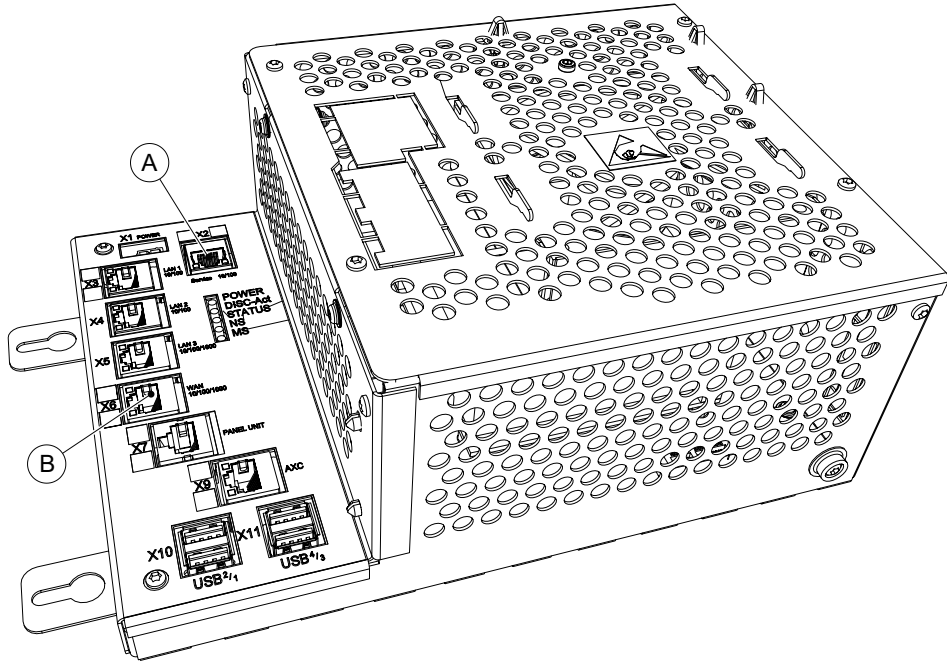
1 Getting Started

1.4 Connecting a PC to the controller

Continued

Ports on the computer unit DSQC1000/DSQC1018/DSQC1024

The illustration below shows the two main ports on the computer unit DSQC1000/DSQC1018/DSQC1024, the service port and the WAN port.



xx1300000609

A	Service port on the computer unit (connected to the service port on the controller front through a cable).
B	WAN port on the computer unit (connects to the factory network).



Note

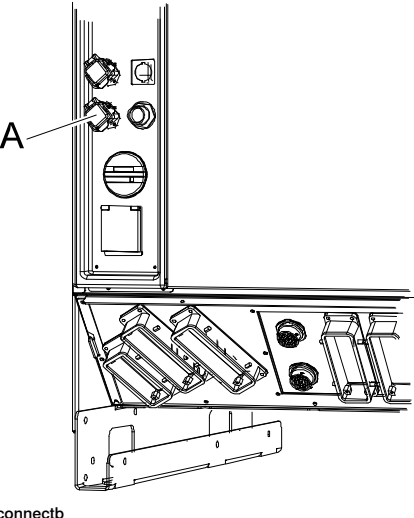
The WAN port is the only public network interface to the controller, typically connected to the factory network with a public IP-address provided by the network administrator. LAN1, LAN2, and LAN3 can only be configured as private networks to the IRC5 controller.

Connecting a PC to the controller

	Action	Note
1	Make sure that the network setting on the PC to be connected is correct. When connecting to the service port: - The PC must be set to <i>Obtain an IP address automatically</i> or set as described in Service PC Information in the Boot Application on the FlexPendant. When connecting to the factory network port: - The network settings for the PC depend on the network configuration setup by the network administrator.	Refer to the system documentation for your PC, depending on the operating system you are running.

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Action	Note
2	Connect a network cable to the network port of your PC.
3	When connecting to the service port: - Connect the network cable to the service port on the controller, or to the service port on the computer unit. When connecting to the factory network port: - Connect the network cable to the factory network port on the computer unit.



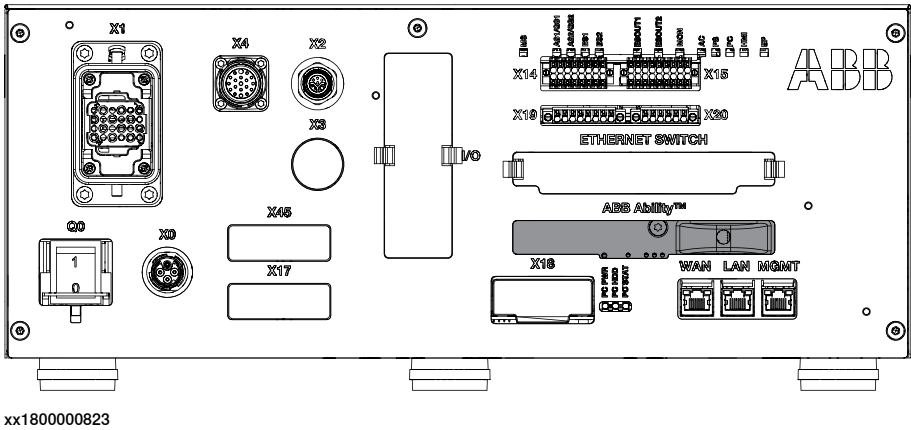
connectb

A Service port on the controller

Connecting RobotStudio to OmniCore

Connectors in Omnicore

The following diagram shows the connectors on the front panel of the OmniCore controller.



MGMT port

The MGMT port(management port) is intended for service engineers and programmers connecting directly to the controller with a PC.

The management port is configured with the fixed IP address 192.168.125.1, which is the same for all controllers and cannot be changed, and has a DHCP server that automatically assigns an IP address to the connected PC.



Note

Do not connect another DHCP server to this port.

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1 Getting Started

1.4 Connecting a PC to the controller

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WAN port

The WAN port is a public network interface to the controller, typically connected to the factory network with a public IP address provided by the network administrator.

The WAN port can be configured with fixed IP address, or DHCP, from **RobotStudio** or the FlexPendant. By default the IP address is blank.

Some network services, like FTP and RobotStudio, are enabled by default. Other services are enabled by the respective RobotWare application.



Note

The WAN port cannot use any of the following IP addresses which are allocated for other functions on the controller:

- 192.168.125.0 - 255
- 192.168.126.0 - 255
- 192.168.127.0 - 255

The WAN port cannot be on a subnet which overlaps with any of the above reserved IP addresses. If a subnet mask in the class B range has to be used, then a private address of class B must be used to avoid any overlapping. Contact your local network administrator regarding network overlapping.

LAN port

The I/O Network is needed when an Industrial Ethernet network must be isolated from the Public Network. The LAN port is connected to the controller's I/O Network and is intended for connecting the robot controller to a factory wide industrial network isolated from WAN.

A factory wide I/O Network should be connected to the WAN port on the controller, or to the LAN port if the I/O network needs to be isolated from the network already connected to WAN.

1.5 Network Settings

Prerequisites

The PC can be connected to the controller through an Ethernet network in the following ways:

- Local network connection
- Service port connection
- Remote network connection

Local network connection

You can connect your PC to the same Ethernet network that the controller is connected to. When the PC and the controller are connected correctly and to the same subnet, the controller will be automatically detected by RobotStudio. The network settings for the PC depend on the network configuration. Contact the network administrator for setting up the PC.

Service port connection

When connecting to the controller's service port, obtain an IP address for the PC automatically, or specify a fixed IP address. Contact the network administrator for setting up the service port connection.

Automatic IP address

The controller's service port has a DHCP server that will automatically give the PC an IP address if it is configured for this. For detailed information, see the Windows help on configuring TCP/IP.

Fixed IP address

Instead of obtaining an IP address automatically, you can also specify a fixed IP address on the PC you connect to the controller.

Use the following settings for a fixed IP address:

Property	Value
IP address	192.168.125.2
Subnet mask	255.255.255.0

For detailed information about how to set up the PC network connection, see Windows help on configuring TCP/IP.



Note

Obtaining an IP address automatically might fail if the PC already has an IP address from another controller or Ethernet device. To ensure the accuracy of the IP address if the PC was connected to an Ethernet device, do one of the following:

- Restart the PC before connecting to the controller.
- Run the command `ipconfig /renew` from the command prompt after connecting the PC to the controller.

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1 Getting Started

1.5 Network Settings

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Remote network connection

To enable connection to the controller on a remote subnet or over the local network, the relevant network traffic must be allowed through any firewall between the PC and the controller. The firewall must be configured to accept the following TCP/IP traffic from the PC to the controller:

- UDP port 5514 (unicast)
- TCP port 5515
- Passive FTP

All TCP and UDP connections to remote controllers are initiated by the PC, that is, the controller only responds on the given source port and address.

Connecting to the controller

- 1 Make sure the PC is connected to the controller's service port and that the controller is running.
- 2 On the **File** menu, click **Online** and then select **One Click Connect**.
The **Controller** tab opens.
- 3 Click **Add Controller**.
- 4 Click **Request Write access**.

If the controller is in mode	Then
Auto	You will now get <i>Write Access</i> if it is available.
Manual	A message box on the FlexPendant will allow you to grant remote <i>Write Access</i> to RobotStudio.