
2572-A QUICK START – INSTALLATION GUIDE

Purpose of this Document

This document is designed to assist you in unpacking and installing a CTI 2572-A module. For additional information, see the *CTI 2572-A Installation and Operation Guide*, available on both the *CTI Catalog and Technical Library CD ROM* and on our CTI web site (www.controltechnology.com).

Introduction

The CTI 2572-A Ethernet Network Interface Module provides the capability to interface a Siemens® SIMATIC® 505 PLC to an Ethernet network using the TCP/IP protocol suite. The 2572-A module enables supervisory control applications to access PLC memory via the local area network. In addition, the module supports peer-to-peer communications for transferring data between PLCs.

Unpacking the Module

Open the shipping carton and remove the special anti-static bag that contains the module. After discharging any static build-up, remove the module from the static bag. Do not discard the static bag. Always use this bag for protection against static damage when the module is not inserted into the I/O base.

CAUTION:

The components on the 2572-A module can be damaged by static electricity discharge. To prevent this damage, the module is shipped in a special anti-static bag. Static control precautions should be followed when removing the module from the bag and when handling the printed circuit card during configuration.

Setting the 2572-A Switches

Switches on the 2572-A are used to select the following

- Serial Port Baud Rate
- Startup Option
- Security Features
- Diagnostic Startup Option

See *Figure 1* to locate the switchblocks. *Figure 2* shows the individual switch settings.

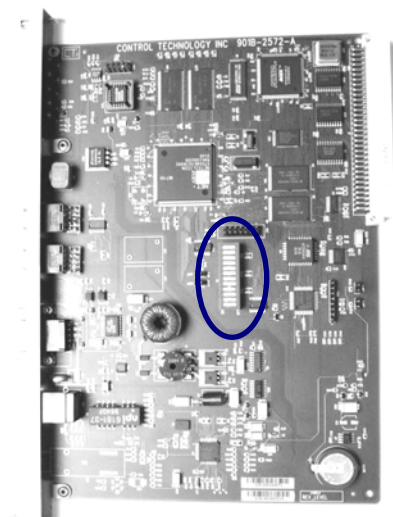


Figure 1. Switchblock Location

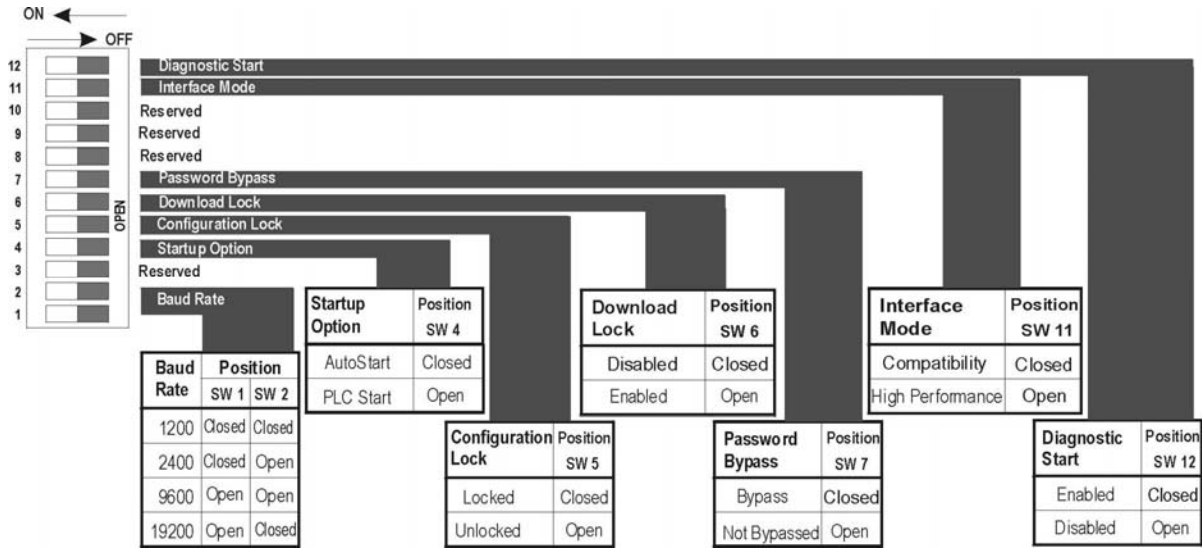


Figure 2. Option Switches

Baud Rate

For most applications, you should set the baud rate to 9600 (both switches off).

Network Startup Option

Switch 4 allows you to select how the 2572-A starts up the PLC Network Server function.

- If you set the switch to PLC START, then the 2572-A will wait for the PLC logic to trigger a Start Network Server command to set the module IP parameters.
- If you set the switch to the AUTOSTART position, then the 2572-A will *automatically* start the Network Server function, obtaining the IP parameters from EEPROM or from a DHCP server. This switch works in conjunction with the Module ID switches to select whether the IP data is read from EEPROM or from a DHCP server.

Before you can use the AUTOSTART option to start from EEPROM you must write the IP parameters in EEPROM via the module serial port. CTI provides a Windows program (CTIDiag) for this purpose. It may be found on the *CTI Catalog and Technical Library* CD ROM accompanying the module or downloaded from the CTI web site (www.controltechnology.com).

Configuration Lock and Download Lock

Switches 5 and 6 allow you to physically prevent the module configuration from being changed via the network or new firmware to be downloaded to the module. When the switch is On, the function will be disabled.

Password Bypass

Setting switch 7 to the ON position bypasses the module password verification function. This is provided so that, if passwords are inadvertently changed or forgotten, you can reset them. You can also set this switch to the On position if you do not wish to use passwords to protect configuration changes and firmware download.

Diagnostic Start

When switch 12 is set to the ON position, the module will conduct an extensive diagnostic test during startup. Because the diagnostic test consumes more time, use this function only when you are having a problem with the module and as directed by CTI product support.

Setting the Module ID Switches

The Module ID switches are used when the Startup Option is set to AUTOSTART. The switches are ignored when the Startup Option is PLC START.

- When the Module ID switches are set to a value of 00, the module will attempt to read network parameters from EEPROM.
- When they are set to a value of 01 through 98, the module will attempt to obtain the Network parameters from a DHCP server. Since the DHCP server will use the Module ID in assigning an IP address, you should make sure that the Module ID setting is unique among 2572-A modules on the network and that it matches an entry in the DHCP server. See the 2572-A Installation and Operation Guide for more information about DHCP.



Physical Installation and Test

After setting the module switches to meet your application requirements as described above, install the 2572-A module into the SIMATIC® 505 PLC rack.

Inserting the Module into the I/O Base

Ensure that power to the base is off. Hold the top and bottom of the bezel and slide the module carefully into the slot, pushing it all the way into the base. If you have inserted the module correctly, you will feel a slight increase in resistance as the module mates with the base backplane connector. Once the module is fully seated in the slot, tighten the captive screws at the top and bottom to hold the module in place. To remove the module from the I/O base, remove power from the base, loosen the captive screws then remove the module. Take care not to damage the connector at the back of the module when inserting or removing the module.

Connecting the Ethernet Cable

Insert Ethernet cable connector into the RJ-45 jack on the 2572-A module. Push the plug into the jack until the plug clicks into place. Attach the other end of the cable to an Ethernet hub or switch.

Power Up Sequence

Turn on the base power supply. The module should perform a startup sequence, during which the LEDs will change states. The Link Status (LS) LED should illuminate, indicating that a physical Ethernet connection has been established. If you are connecting to a 100Mb Ethernet link, the 100 Mb LED should illuminate. If the connection is full duplex, the FDX LED will also illuminate. After the module completes startup, observe the state of the Module Status (MS) and Network Status (NS) LEDs and compare to the table below.

Startup Option	LED States	Condition / Action
All Methods	MS – Steady Green NS – Steady Green	IP Parameters set and Network Server Started. Proceed with module check out procedure.
	MS – Steady Green NS – Solid Red	Another device on the network is using this IP address. Although the module will function, you must resolve the conflict to avoid unpredictable results.
PLC Start	MS – Steady Green NS – Off	Network Server not Started- Waiting on PLC Ensure that the PLC is in Run Mode, the module is configured in the I/O base, and that the correct PLC program is loaded.
	Other States	See 2572-A IOG, Chapter 6.
AutoStart from EEPROM	Other States	See 2572-A IOG, Chapter 6 .
AutoStart using DHCP	MS – Solid Green NS – Alternating Red/Green	Unable to contact a DHCP server. Using backup IP parameters stored in EEPROM. NOTE: This will be displayed at startup for about 10 seconds to provide a user alert.
	Other States	See 2572-A IOG, Chapter 6.

Checking PLC Login

The 2572-A module is a special function module with 2 WX and 6 WY words. To perform all functions, the module must be configured in the PLC I/O. You can view and change the I/O configuration using your PLC programming software.

```
I/O MODULE DEFINITION FOR CHANNEL . . . 1  BASE . . . . . 00
```

I/O SLOT	ADDRESS	NUMBER OF BIT		AND WORD I/O	WX	WY	SPECIAL FUNCTION
		X	Y				
01	00001	00	00		02	06	YES
02	00000	00	00		00	00	NO
..
15	00000	00	00		00	00	NO
16	00000	00	00		00	00	NO

Figure 4. Example I/O Configuration

The following example illustrates a module installed into slot 1 on I/O base 0 with a starting address of WX1.

Module Checkout

Ensure the network cable is connected and that the Link Status (LS) indicator is illuminated.

If functioning properly, the 2572-A will respond to an ICMP Echo Request message known as a *ping*. You can issue a ping from a PC using Windows by opening the Command Prompt window and typing **ping nnn.nnn.nnn.nnn**, where n represents a number in the module IP address. For example, **ping 192.186.123.1** would send a echo request to IP address 192.186.123.1. If the module does reply, this indicates that the module TCP/IP interface is operational.

If there is no reply, you will need to determine the cause of the problem and correct. Some of the possibilities are:

- The IP address and subnet mask of the PC is not on the same subnet as the 2572_A module. You will usually get a “network unreachable” message if this is the case.
- The IP address of the module has not been set correctly. You can determine the actual module IP address by connecting to the serial port using the CTIDiag and selecting SET NETWORK PARAMETERS.
- The 2572 did not start up properly.

Refer to the *2572-A Installation and Operation Guide* for troubleshooting assistance.

Accessing the Module using a Web Browser

Point your browser to the main 2572_A Menu page by entering <http://xxx.xxx.xxx.xxx>, where xxx represents the current IP address of the module. For example, <http://192.168.177.55> would point to the Main Menu web page of the 2572A module with IP address 192.168.177.55. From this page, you can select various functions, including module diagnostics, configuration, and firmware download.

Siemens® and SIMATIC® are registered trademarks of Siemens AG.