

TC500 Terminal to TCP/IP Configuration Worksheet

Overview

JBM Electronics provides a free configuration service for a sixty-day period, which starts as soon as you contact us for support. We will use the site information that you provide to build a configuration file for the Gateway.

The worksheet lists the required information to successfully configure the unit. Proper completion of the worksheet will help ensure a smooth installation.

Typical Application

TC500 protocol is a polled (Poll/Select) protocol originally developed by Burroughs (now Unisys) and is normally used in the financial industry between ATMs and teller terminals and the host. The devices communicate through leased phone lines, async dial modems or connection to terminal concentrator. The normal mode for the terminals is async transmission with several devices sharing the same communications line.

Applicable Units

TC500 protocol can be transmitted using async or sync transmission. The different Gateways support either one or both methods. The Async transmission method is the most popular as it can use less expensive transmission facilities. Please verify that you have ordered the correct unit for your network transmission type.

Each Gateway supports a different set of Poll/Select capabilities. The support is determined by the Gateway's circuitry.

- The C Series Gateways only support full-duplex async connections for one TC500 terminal. This connection is supported through the Gateway's DE-9 connector or through the CO-Modem port's RJ-11 connector.
- The G Series Gateways with a DB-25 connector support all modes of the TC500 protocol. These models include the DB-25 ports of the C Series units (C102 and C202)

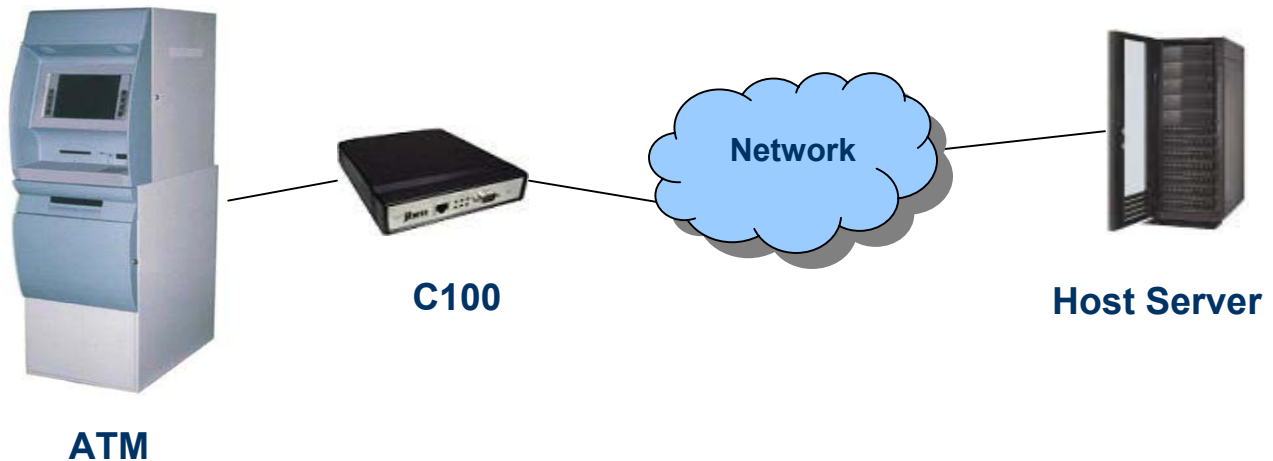
Model	Async TC500 Single Address	Async TC500 Multiple Addresses
C100 Series	All	C102 (DB-25 port)
C200 Series	All	C202 (DB-25 port)
C3000 Series	All	-
G500 Series	All	All
G700 Series	All	All
G800 Series	All	All
G900 Series	All	All
G1000 Series	All	All

Note: G1000 support is determined by the selected expansion Cards.

The C Series Gateways are designed for edge applications where the data for a single device is converted to TCP for transmission to the network. This focused application limits the configuration options available for these units.

The Gateways with a DB-25 connector support all modes of the TC500 protocol. The enhanced capabilities provide more flexibility as the units can be adapted to any type of Poll/Select installation.

SAMPLE Installation



GENERAL INFORMATION

Contact Information

Company Name: _____

Your Name: _____

Phone Number: _____

Cell Number: _____

Fax Number: _____

Email Address: _____

Your Name: _____

Street Address 1: _____

Street Address 2: _____

City: _____

State / Province: _____

Zip Code: _____

Country: _____

Delivery Instructions

Please indicate how you would like the configuration file provided to you:

Email as an attachment: _____

Sent to your FTP Server: _____

Placed on our FTP Server: _____

Special Instructions: _____

(For example: Rename the file from .zip to .zi to bypass email attachment scanning.)

Unit Identification

Model Number _____

Serial Number _____

Note: This information is on the serial number sticker on the bottom of the unit.

Special cables _____ (for example: G50 Adapter)

Worksheet Instructions

In the following sections, you will find many configuration questions. The majority of the questions are defaults (defaults are in **Bold Blue**) and can be safely ignored. They are listed for the few installations that have specially modified their networks.

Please review the options and make any changes on the form to match the information provided by your network administrator. If you have any questions, please contact us for guidance.

Once this document is complete, email it to support@jbmelectronics.com. You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected below.

Step #1 – C Series TC500 Port Parameters

These parameters in this section are installation dependent and must match your specific host requirements. This section should only be completed if the Gateway's DE-9 port will be used.

Line Speed (57600, 38400, 28800, 25600, 19200, 14400, **9600**, 7200, 4800, 3600, 2400, 1800, 1200): _____

The selected line speed must match the speed of the attached Poll/Select device.

TC500 Address: _____

This option is used to specify the addresses used by the host to poll the Gateway. The TC500 terminal uses two addresses (Address 1 and Address 2). The Gateway will use the selected addresses to respond to poll the host.

Proceed to Step 4 (page 7) to specify the TCP parameters.

Step #1 – G Series Mandatory TC500 Port Parameters

These parameters in this section are installation dependent and must match your specific device. This section should only be completed if the Gateway's DB-25 port will be used.

Port Mode (DCE, **DTE**): _____

This option determines if the Gateway RS-232C Connector will provide clocking to the attached device. If so, select **DCE**. If the attached device (for example: modem) will provide clocking to the

port, select **DTE**. The port setting on the Gateway must be the opposite of the attached device. If a **DTE** interface is required, a special adapter is required. Refer to the unit's cable wire list supplied on the installation CD or on our home page.

Line Speed (57600, 38400, 28800, 25600, 19200, 14400, **9600**, 7200, 4800, 3600, 2400, 1800, 1200): _____

The selected line speed must match the speed of the Poll/Select network.

Step #2 – G Series Optional TC500 Port Parameters

The parameters in this section are normally not modified during the installation. The values are provided in the event your specific network has been modified from the normal defaults. This section should only be completed if the Gateway's DB-25 port will be used.

Duplex (Full Duplex, **Half Duplex**): _____

This option specifies whether a delay is required for the modems to turn around the Transmit and Receives lines. If you are not sure of the type of duplex used the attached device, select **HDX**.

Line Type (**Leased**, Dial): _____

This option specifies how the connection to the Poll/Select device handles Carrier Detect. If the Option is **LEASED**, the port expects a leased modem connection (Carrier Detect is constant). If the option is **DIAL**, the port expects a dial modem connection (Carrier Detect is controlled by the modem). If the port provides clocking (DCE MODE), the port will handle Carrier Detect appropriately. If the port is connected through a Full-Duplex connection, then Constant Carrier Detect is assumed.

Delivery Confirmation: (Enable, **Disable**) _____

Throughput is an integrity option that specifies how the Gateway will process blocks received from the network. If the option is **Disabled**, the Gateway will only accept one block at a time. The Gateway will not accept another block until the first block has been transmitted to the other device and the Gateway has received a protocol level acknowledgement for the block.

If the option is **Enabled**, the Gateway will accept blocks until the buffer becomes filled. Once this occurs will the Gateway stop accepting blocks. As buffer space becomes available, the Gateway will accept further blocks. If this option is not implemented, the port will provide greater integrity and is more consistent with normal operation since the host is informed after each block is received. If this option is implemented, it is possible that data may be lost (for example: a power failure). However, since the Gateway will buffer several blocks, faster throughput may be achieved.

Poll Delay (**No Delay**, .1 sec, .3 sec, .5 sec, 1 sec, 2 sec, 3 sec): _____

This setting determines the delay introduced by the Gateway before sending a poll to the attached device. The default is **No Delay**.

Terminal Type: (**Burroughs**, NCR 2770) _____

This setting determines which terminal type is supported by the Gateway.

Attachable protocols: (**None**, Pure VISA, MPS VISA 1, MPS VISA 2, NCR ATM, Xmodem, BuyPass, NCR/NDP, SNTP/NTP v4) _____

This option determines if the Gateway adds special protocol level processing to the data portion of the message. If this processing is required, select the appropriate protocol.

Step #3 – TC500 Addresses

This section is used to specify the addresses used by the Gateway. This table is only valid when the Gateway's DB-25 port will be used.

Terminal #	Address 1	Address 2	Group Select	Group Poll 1	Group Poll 2	Independent Activation
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Independent Activation (Yes, **No**):

This option determines if the Gateway will start the TC500 link before the connection to the IP Application is established. The normal default is **NO**.

Note: The Gateway's port can support more than 20 terminals. However, response time and turn around requirements usually limit a port to no more than 15 devices. If you need to support more than 20 terminals, just expand the table to add the additional addresses.

Step #4 - TCP Port Parameters

This section is used to specify the information used to communicate with the IP network and application.

Port Definition Name: _____

This is the text description that will be associated with this port. When viewing statistics this is the port name that will be displayed. We recommend a name that will be easily recognizable. If you leave this field blank, we will assign a generic value.

Will the JBM Gateway act as a Client or a Server? _____

If the JBM Gateway is acting as a Client, the unit will initiate a connection to a remote TCP server at a specific IP address and Port number. *If the Gateway needs to act as a Client, please fill out the client information section.*

If the JBM Gateway is acting as a Server, the unit will be in a listening state at a specific port waiting for a remote client to make a connection to it. *If the Gateway needs to act as a Server, please fill out the server information section.*

TCP Client Configuration

Independent Activation: (**Yes**, No) _____

This option determines if the Gateway will start the TCP link before the connection to the TC 500 device(s) is established.

IP Address of the Gateway: _____

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Destination IP Address and Port Number: _____

This refers to the IP Address and Port Number of the remote Server to which the unit will connect.

Headers: _____

The option determines if the Gateway adds special headers when communicating with TCP applications. This is needed if framing of the data is required and the TCP application supports the headers. The most commonly used header is JBM standard. This is a 2-byte length header in network order format that does not include itself in the length.

TCP Server Configuration

Independent Activation: (Yes, No) _____

This option determines if the Gateway will start the TCP link before the connection to the TC 500 device(s) is established.

IP Address of the gateway: _____

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Listening Port Number: _____

This is the Port Number at which we will be listening for a connection from a remote TCP client.

Allow Peer to Re-attach While Connected (Yes, No): _____

If a remote client's connection is interrupted and does not disconnect gracefully, this option can allow a new connection to override the previous (old) connection. This procedure will only work when a single connection is expected from a remote IP device. If multiple Clients attempt to establish connections from the same remote IP Address, this option must be set to No.

Fallback Routing

One of the major capabilities available with the Gateways is the ability to route the data to different destinations in the event that the primary connection is disrupted. The data can be routed to another destination on the same connection, or if an alternate path is available, through another media (for example: a POTS modem). If fallback is required, you can specify the destinations and when the fallback is attempted.

Because of the numerous options available with fallback routing, we recommend that you contact JBM support for guidance. We will prepare the appropriate worksheets after consultation and then add to the Gateway's configuration.

Summary

Once this document is complete, email it to support@jbmelectronics.com. You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected above.