

# TC500 Host 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)



## 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](mailto: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 device. 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 attached terminal. The TC500 terminal uses two addresses (Address 1 and Address 2). The Gateway will use the selected addresses to poll the attached device.

**Proceed to Step 4 (page 6) 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 attached Poll/Select device.

## 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.

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**.

Slow Poll Timeout (**30 sec**, 1 min, 2 min, 3 min): \_\_\_\_\_

This setting determines how often to poll a specific terminal that has been moved to the slow poll list due to non-response.

Group Slow Poll (**30 sec**, 1 min, 2 min, 3 min): \_\_\_\_\_

This setting determines how often to poll a group of terminals that are not answering polls.

Status Poll Timer (**30 sec**, 1 min, 2 min, 3 min, 4 min, 5 min, 6 min, 7 min): \_\_\_\_\_

This setting determines how often to poll active terminals to determine if they are still active and if they have information for transmission

**Step #3 – TC500 Addresses**

This section is used to specify the addresses used by the attached terminal(s). 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](mailto: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.