ISHIDA AC-4000 Series Wireless Communications



Symbol CB3000 Client Bridge Quick Setup Procedure



These directions begin with the CB3000 Wireless Ethernet Client Bridge already installed in the AC-4000 scale. If the device has not been installed refer to the separate Installation procedure.

Initial Setup

- The initial setup of the CB3000 must be made through a hard wired connection.
- If the CB3000 has already been configured proceed to sections WLAN Settings, Ethernet Settings, or Security.
 - 1. Turn off the AC-4000.
 - 2. Remove the keyboard to access the CB3000. Note: for the AC-4000D and AC-4000H remove the appropriate covers.
 - 3. Disconnect the cable at the CB3000 port marked "LAN" (see Figure 1).
 - 4. Connect a standard Ethernet cable to the "LAN" port. A cross cable can also be used due to the auto sensing capabilities of the "LAN" port.
 - 5. Connect the other end of the Ethernet cable to the computer.
 - 6. Turn on the AC-4000.



Figure 1. AC-4000 with CB3000 installed. LAN port is indicated by the red circle.

Initial Connection via the Symbol Discover Tool program

- 1. Insert the Symbol CD that was sent with the CB3000.
- 2. Click CB3000 Discovery Tool on the menu (see Figure 2).



Figure 2. Symbol CB3000 Client Bridge configuration program.

- 3. The program will scan for the client bridge but not find it.
- 4. Wait approximately <u>60 seconds</u> and click the *Refresh* button (see Figure 3).
- 5. Double click the CB3000 that appears on the list.

| IP Address | Device name | Mac Address |
|------------|-------------|--------------|
| 10.10.1.1 | CB3000 | 00:A0:F8:67: |
| | 100% | Version:2.1 |
| Scan | | VCI 31011.2 |

Figure 3. Discovery Tool scan list.

- 6. Click Yes when the prompt appears to change device's IP Address.
- Enter the IP Address and corresponding Subnet Mask (see Figure 4).
 IMPORTANT: Enter an IP Address that is not used by any device on the network. <u>Do</u> not use the same address as the AC-4000 scale. Duplicate addresses prevent or disrupt communications.
- 8. Click OK when done.

| Bridge IP Address | PC IP Address Network Broadcom NetXtreme 57x | |
|--|--|--|
| Use following IP Address P address 192.168.10.22 Subnet mask 255.255.255.0 | IP address: 192.168.10.214 Subnet 255.255.255.0 IP FIXED | |

Figure 4. Initial setup of IP Address and Subnet Mask.

- 9. Enter the password *symbol* when prompted.
- 10. The program will scan for the client bridge but not find it.
- 11. Wait approximately <u>60 seconds</u> and click the *Refresh* button.
- 12. At the prompt enter the default User name as *admin* (see Figure 5).
- 13. Enter the default Password as *symbol*
- 14. Click OK



Figure 5. CB3000 configuration Login screen.

WLAN Settings

1. Click *WLAN Setting* from the main CB3000 Information screen (see Figure 6).

| CB3000 | |
|-------------------|---|
| 00:A0:F8:67:32:F7 | |
| 1.0.0.5 | |
| 5.8 | |
| United States | |
| | |
| 192.168.10.22 | |
| 255.255.255.0 | |
| | |
| No | |
| | |
| Not Associated | |
| 00:00:00:00:00:00 | |
| | |
| | |
| Open | |
| Infrastructure | |
| | |
| 0 | |
| | |
| | |
| Refresh Help | |
| | CB3000 00:A0:F8:67:32:F7 1.0.0.5 5.8 United States 192.168.10.22 255.255.0 No Not Associated 00:00:00:00:00 Open Infrastructure 0 Help |

Figure 6. Main CB3000 Information screen.

- 2. Set the <u>Network Mode</u> to *Infrastructure (AP)* (see figure 7).
- 3. Click *Specify the ESSID*.
- 4. Click *or pick from the list of available ESSID* to select the wireless network.
- 5. If the network is not listed, enter the network name in the "Specify the ESSID" field. **IMPORTANT**: Do not leave the ESSID selection set as "Attach to any ESSID automatically". This will cause intermittent communications.
- 6. Click the *APPLY* button to send the configuration changes to the CB3000.

| Changing the Wireless LAN Service Area settings may cause this CB3000 to associate with a different access point. This may temporarily lisrupt your configuration session. | | | |
|---|--|--|--|
| Network Mode | Infrastructure (AP) | | |
| ESSID (Wireless LAN Service Area) | Attach to any ESSID automatically Specify the ESSID: WaveLAN Network or pick from the list of available ESSID: WaveLAN Network | | |
| Available Networks | View | | |
| | Apply Cancel Help | | |

Figure 7. WLAN Settings -- specify the wireless network.

Ethernet Settings

- 1. Click *Ethernet Setting* from the main CB3000 Information screen
- 2. Enter a Device Name to identify the CB3000 from a list of similar devices. For example, rename the RF bridge to "Deli #3". See Figure 8.
- 3. Select Use the Following IP Address
- Enter an IP Address, Subnet Mask and if necessary a Gateway IP Address IMPORTANT: Enter an IP Address that is not used by any device on the network. Do not use the same address as the AC-4000 scale. Duplicate addresses prevent or disrupt communications.
- 5. Enter a Subnet Mask
- 6. If necessary, enter a Gateway IP Address
- 7. Click the *APPLY* button to send the configuration changes to the CB3000.

| Ethernet Settings | | | |
|---|--------------------------------------|--|--|
| | | | |
| | | | |
| Changing the IP network settings for this CB3000 will disrupt your configuration session when the new settings are applied. If you want to continue configuring it after you apply this change, you must close your proviser and start a new configuration session. | | | |
| | | | |
| | | | |
| Device Name | CB3000 | | |
| DHCP | O Obtain an IP address automatically | | |
| | Use the Following IP Address | | |
| IP Address | 192 . 168 . 10 . 22 | | |
| Subnet Mask | 255 . 255 . 0 | | |
| Gateway IP Address | | | |
| × | Spanning Tree Protocol | | |
| | | | |
| | Apply Cancel Help | | |

Figure 8. Ethernet Settings -- enter a unique IP Address for the CB3000.

Security

- 1. Open the *Settings* folder from the left side bar.
- 2. Open the *Wireless Settings* folder from the left side bar.
- 3. Click *Security* on the left side bar.

| Security | |
|---|--|
| | |
| | |
| Changing the security settings may cause this C | CB3000 to associate with a different access point. This may temporarily disrupt your |
| configuration session. | |
| | |
| Security Mode: | WEP • |
| Authentication Type: | Shared Key |
| Default Transmit Key | © 1 © 2 © 3 © 4 |
| WEP Encryption: | 64 bits 💌 |
| Passphrase Algorithm: | C Symbol PassKey Generic Passphrase |
| Passphrase: | Generate Keys |
| Key1: | ***** |
| Key2: | ****** |
| Кеу3: | ****** |
| Key4: | ******* |
| | |
| | Apply Cancel Help |
| | , the second start |

Figure 9. Security settings -- configure WEP encryption.

- 4. Set the <u>Security Mode</u> to *WEP* (see Figure 9).
- 5. Set the <u>Authentication Type</u> to *Shared Key*.
- 6. Set the Default Transmission Key to "1".
- Set the <u>WEP Encryption</u> to either *64 bits* or *128 bits*.
 Note: the encryption keys are hexadecimal which use characters *0* to *9* and *a* to *f*.
 - a. Enter 10 characters for 64 bit encryption.
 - b. Enter 26 characters for 128 bit encryption.

IMPORTANT: the Symbol CB3000 does not support ASCII encryption keys.

- 8. Set the Passphrase Algorithm to Generic Passphrase.
- 9. Leave the *Passphrase* field blank.
- Enter the <u>Key1</u> encryption key value.
 IMPORTANT: Use extreme care when entering the encryption key. An incorrect key will prevent the device from communicating and requires a direct hard wired connection to repair.
- Enter the same encryption key value in the three remaining <u>Key</u> fields.
 IMPORTANT: the CB3000 will not apply the Security settings unless key values are entered in all four <u>Key</u> fields.
- 12. Click the *APPLY* button to send the configuration changes to the CB3000.

Note: To disable encryption set the Security Mode to Open.

Connection via Web Browser

(Requires either Microsoft Internet Explorer 5.0 or later or Netscape Navigator 6.0 or later)

Initial Connection

- 1. The default IP Address of the CB3000 is 10.10.1.1
- 2. Change the computer's IP Address to 10.10.1.2
- 3. Open the web browser.
- 4. Enter the address: *https://10.10.1.1* in the browser
- 5. At the prompt enter the default User name as *admin*
- 6. Enter the default Password as *symbol*
- 7. Click OK
- 8. Enter WLAN Settings, Ethernet Settings, and Security as needed.

Subsequent Connections

After initial setup, the CB3000 configuration can be accessed via a web browser by entering the CB3000's new IP Address.

Example: https://192.168.10.22

Notes

- 1. If the Symbol CD is not available go to <u>http://www.symbol.com/services/downloads</u> and download and launch the Discovery Tool program.
- 2. If the Discovery Tool program is to be used often, it can be copied to the computer.
 - a. Start Windows Explorer and navigate to the Program Files folder.
 - b. Create a folder named "Symbol".
 - c. Navigate to the CD.
 - d. Copy the file Discovery.exe.
 - e. Paste the file into the new "Symbol" folder.
 - f. Right click on the Discovery.exe file and send a shortcut to the Desktop.

Troubleshooting

- 1. If the CB3000 cannot be found wirelessly by the Discovery Tool program follow the directions in the **Initial Setup** section.
- 2. When connecting to the CB3000's LAN port both the scale and CB3000 must be powered down. The CB3000 will not recognize the connection if it is powered up.
- 3. Firewall and other security programs can interfere with setup of the CB3000. If the device is not displayed in the Discovery Tool window and not accessible via the web browser then disable/close any firewall, anti-virus, Virtual Private Network (VPN), or other security features that may be blocking access to the CB3000.
- 4. If the CB3000 cannot be configured it may be reset by the two following methods. Power should be supplied to the CB3000 for both procedures.
 - a. Press the **Reset button** on the CB3000 for less than 10 seconds to reset the device.
 - b. Press the **Reset button** for more than 10 seconds to restore the factory default configuration.
- 5. During initial testing of a single CB3000 the WLAN ESSID setting may be left at "Attach to any ESSID automatically". For final installation and when multiple devices are present the <u>ESSID</u> setting must be changed to *Specify the ESSID*.
- 6. To test a connection to the Access Point or Wireless Router open the *Tools* folder from the left side bar and select *Troubleshooting*. Enter the IP Address of the AP and click <u>ICMP Ping Test</u>. The ping statistics are displayed in the Status window at the bottom of the screen. Any device on the network can also be pinged in this manner.
- 7. If the Discovery Tool opens the web browser program directly instead of displaying a list of scanned devices (see Figure 3), change the computer's IP Address type. Change from a dynamic address ("Obtain an IP Address automatically") to a static address ("Use the following IP Address").

- 8. If the web browser program displays the message "Page cannot be found" try one of the following.
 - a. Install the Discovery Tool on the PC. Refer to item #2 in the Notes section above.
 - b. Clear the Java memory cache.
 - Explorer 5.x/6.x:
 - Select "Tools", "Internet Options..." from the main menu
 - Change to the "General" tab
 - Click on "Delete Files" button
 - Check "Delete all offline content", click OK

Navigator 6.x or later:

- Select "Edit", "Preferences" from the main menu
- Select the "Cache" option, "Advanced"
- Click on "Clear Memory Cache Now" and "Clear Disk Cache Now" buttons to clear memory and disk cache
- 9. If the CB3000 connection is lost after some time, follow the steps below.
 - a. Upgrade the CB3000 firmware to version 1.0.1.0 or later. Download the firmware update and installation instructions (release notes) from http://www.symbol.com/legacy_downloads/cb3000_client_bridge.htm
 - b. Enter a Gateway IP Address on the *Ethernet Setting* page. Enter the address of the local Router, Access Point, or computer running ScaleLink Pro. The CB3000 will ping this address every 10 minutes to maintain an active connection to the network.
 - c. Associate the scale's MAC Address with the CB3000. Open the *Settings* folder from the left side bar and select *Client Management*. Enter the scale's MAC Address and click <u>Add</u>.
- 10. If the Discovery Tool does not connect to the CB3000 disable the computer's wireless network connection. The CB3000 will not communicate properly when there are two simultaneous connections to the device: hard wired and wireless.

Reference

The complete menu tree as displayed in the left side bar (see Figure 10).



Figure 10. CB3000 menu tree.