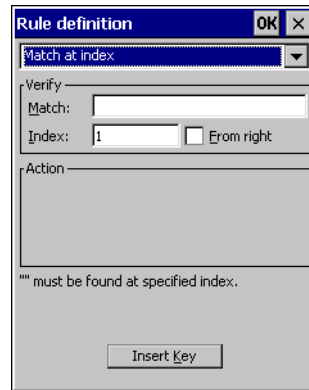


When you choose a rule, an associated screen is displayed in which you can define the rule.



4.20.3.1 Case Rules

The case rules are defined as follows:

- **No rule** – ignored.
- **Search and replace** – replaces all instances of the match string. (Note that this rule cannot fail.)
- **Match at index** – matches the match string at a specified index.
- **Match and replace at index** – matches the match string at a specified index and replaces/changes it.
- **Replace at index** – replaces/changes unspecified data in a given range.
- **Add barcode prefix/suffix** – adds a global prefix or suffix.
- **Verify barcode size** – verifies the barcode size. This rule should generally be assigned first, before creating subsequent rules.

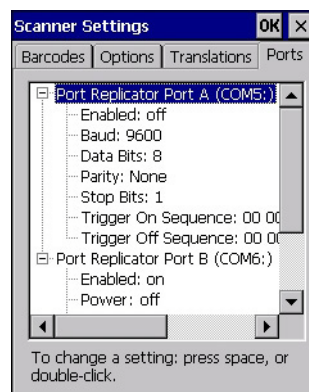


Note: Keep in mind that the effects of previously applied rules must be taken into account when creating subsequent rules. For example, if the barcode size is important, it should be checked before any rules that might change the size are applied.

Translation information about the status of each case/rule is displayed in the scan log file (see “Scan Log File” on page 88) when enabled. This is useful if a case fails, and you are trying to determine why a rule is failing.

4.20.4 Ports

Figure 4.5 Console and Port Replicator Port Settings



While you cannot configure the scanner, you can configure communications with a serial decoded scanner using the options in this tab.

Use these settings to ensure that the communication ports on the 8516 match the settings of the serial devices to which they are connected. If the settings do not match exactly, the devices may not function.

Note that some devices can auto-detect serial port settings (such as baud rate), and in this case the 8516 will dictate the settings. Baud rates often have a direct impact on performance—they should be set as high as possible while still ensuring reliable communication.

4.20.4.1 Port Replicator Port A (COM5) and Port B (COM6)

Port Replicator Port A (COM5) and Port B (COM6) are standard RS-232 DE-9 DTE ports on the 8516 port replicator module, available on some snap modules and cradle types.

Enabled

This parameter must be set to ON in order for the 8516 to recognize the device connected to the Port Replicator 9-pin (COM5).

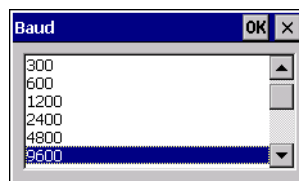
Power (COM6 only)

Pin 9 on the 8516 COM6 is reserved for 5V power out and is defaulted to OFF. This parameter must be set to ON to enable power to a Snap Module or Vehicle cradle.

Baud

Double-tapping on this parameter displays a pop-up window in which you can choose an appropriate rate of data transfer.

Figure 4.6 Port Baud Rates

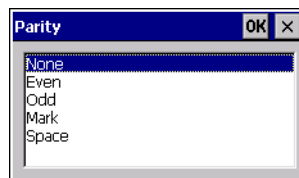


Data Bits

This parameter determines the number of data bits included in each asynchronous data byte. Most devices use 8-bit data bytes. Double-tapping on this option displays a pop-up window in which you can choose either 7 or 8 data bits.

Parity

This parameter determines the type of parity checking used on the data going through the port replicator port. Double-tapping on this option displays a pop-up window in which you can choose the appropriate parity.

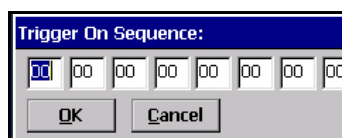


Stop Bits

This parameter specifies the number of stop bits—1, 1.5 or 2—used for asynchronous communication.

Trigger On Sequence And Trigger Off Sequence

If a SICK scanner connected to an 8516 port requires a serial stream of data bytes to trigger the scanner on and another to trigger the scanner off, the *Trigger On Sequence* and *Trigger Off Sequence* parameters allow you to define these serial streams.



Double-tapping on *Trigger On Sequence* or *Trigger Off Sequence* displays a screen with a hex array of 10 elements.

These parameters work in conjunction with *Manage Triggers* sending on and off data streams to the trigger module you assigned. For example, suppose you launch *Manage Triggers* and choose *Decoded Scanner* as the 'module to trigger'. Next, you assign a 'trigger key'—for this example, . (period). To define the serial stream of data bytes to control the *on* and *off* function of the 'trigger key', enter a hex value in the *Trigger On Sequence* and the *Trigger Off Sequence* fields. When you press the trigger key, the *Trigger On Sequence* is sent and when you release the trigger key, the *Trigger Off Sequence* is sent, turning the trigger key *on* and *off*.

4.21 Storage Manager

The Storage Manager allows you to view information about the storage devices that are present in the 8516, such as SD-MMC flash cards and Compact Flash cards.

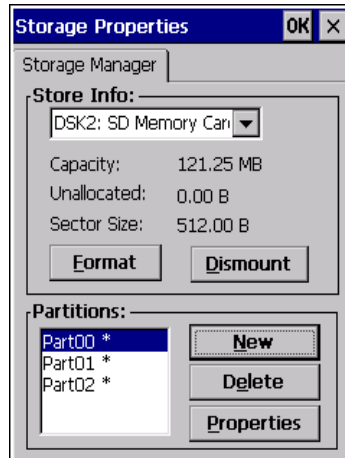


4.21.1 Formatting a Memory Card

Formatting a memory card bulk-erases it. Once a card is erased, partitions may be created in it, similarly to those on a hard drive. Memory-card devices are normally 'mounted' (made available to the system) automatically when they are inserted. They must be dismounted before they can be formatted.

To format an entire memory card:

1. Select **Start> Settings>Control Panel**.
2. In Control Panel, double-click on the **Storage Manager** icon. The Storage Manager menu opens:



1. Select the memory card from the drop-down list.
2. Press the **Dismount** button to dismount the memory card. All partitions on the card will be dismounted.
3. Press the **Format** button to format the memory card.

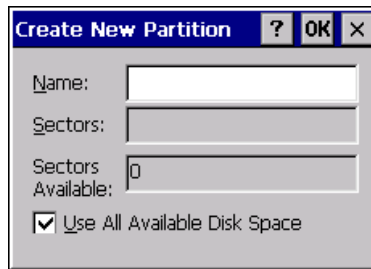
All partitions and information on the card will be erased during the formatting process.

4.21.2 Creating Partitions

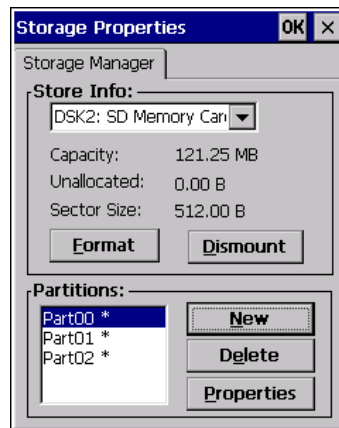
Once the card is formatted, new partitions can be created in it. The default is to create one partition that occupies the whole card, but a card can be divided into more than one partition if desired. Each partition appears as a separate folder in Windows Explorer.

To create new partitions:

1. Press the **New** button next to the *Partitions* list box. The Create New Partition dialog box appears:



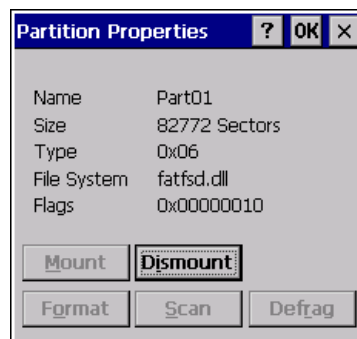
1. Type a name for the partition.
2. If more than one partition is desired, uncheck the *Use All Available Diskspace* checkbox, then specify the desired number of sectors to be used by the partition.
1. Press **OK**. The new partition appears in the *Partitions* list.



The new partition is automatically mounted. This is indicated by an asterisk (*) next to its name in the partition list. Any unallocated space on the card is indicated at the left, and additional partitions can be created in it.

4.21.3 Partition Management

Partitions can be individually dismounted, mounted, deleted, or formatted as well. These and additional tasks are available from the *Partition Properties* dialog:



To dismount a partition:

1. Choose the desired partition.
2. Tap the **Properties** button. The *Partition Properties* dialog appears.
3. Tap the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.

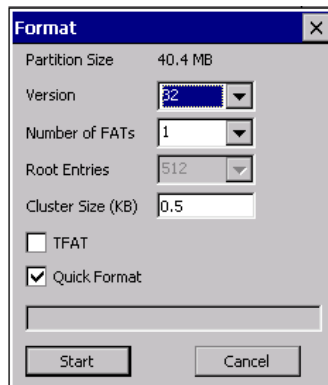
To delete a partition:

1. Select the desired partition.

2. Tap the **Delete** button. A warning dialog appears.
3. Tap the **OK** button. The partition is deleted.

To format a partition:

1. Choose the desired partition.
2. Tap the **Properties** button. The *Partition Properties* dialog appears.
3. Tap the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.
4. Tap the **Format** button. The *Format* dialog appears:



5. Choose your format options. These options include:
 - Version of file system (FAT-16, for devices holding up to 4 GB; or FAT-32, for devices containing up to 32 GB).
 - Number of FATs (File-Allocation Tables).
 - Number of entries allowed in the root directory.
 - Cluster size (.5 KB to 64 KB).

There are also two checkboxes, which govern:

- Whether to use the transaction-safe FAT file system (TFAT). This file system keeps multiple copies of the file-allocation table, changing one while maintaining another as a backup.
- Whether to perform a quick format. Quick formatting removes all reference to data in the partition without erasing the actual partition. The partition will be treated as empty, and new data will overwrite it.

6. Tap **Start**. The partition is formatted.

To mount a partition:

1. Choose the desired partition.
2. Tap the **Properties** button. The *Partition Properties* dialog appears.
3. Tap the **Mount** button. The partition is mounted. The asterisk appears next to its name in the partitions list.

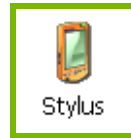
The Partition Properties dialog has buttons for additional functions. Partitions can be defragmented, and their file structure can be scanned.

4.22 Stylus Properties



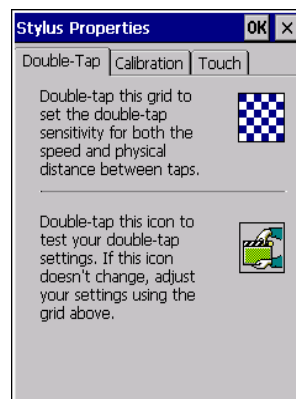
Note: Touchscreen calibration may not be enabled on your unit. If your screen appears to require recalibration, contact your supervisor.

- In the *Control Panel*, choose the **Stylus** icon.



4.22.1 Double-Tap

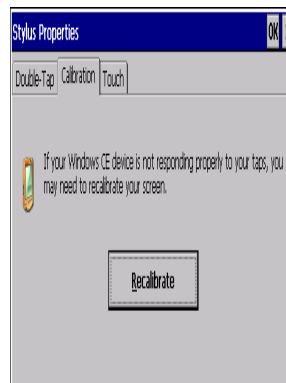
- In the *Double-Tap* menu, follow the directions to tailor the sensitivity of the stylus when you tap on the touchscreen.



4.22.2 Calibration

Touchscreens rarely require recalibration. However, if your touchscreen has never been calibrated or if you find that the stylus pointer is not accurate when you tap on an item, follow the directions below.

- Choose the **Calibration** tab, and then tap on the **Recalibrate** button.



- Follow the directions in the *Calibration* tab to recalibrate the screen. You will be prompted to save the calibration data.



Note: If you do not receive a prompt to save your data, there could be a problem with your touchscreen hardware. Contact your Psion representative.

4.22.3 Touch

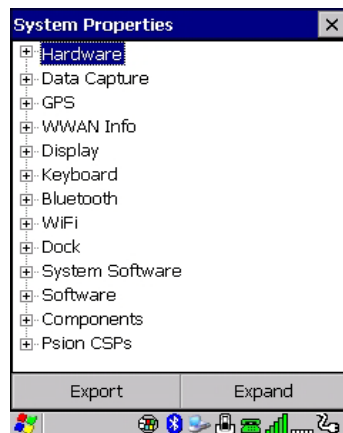
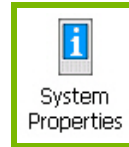
This tab allows you to disable the touchscreen.

- Choose the **Touch** tab. Select the checkbox next to *Disable the touch panel*.

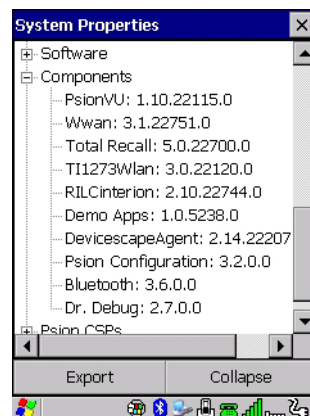
4.23 System Properties

This program identifies the computer's software and hardware components, indicating which components are installed, their identification, version or pa numbers, and whether they are enabled or disabled.

- In the *Control Panel*, choose the **System Properties** icon.



- By choosing the *Export* button, you can create a log (*SystemPropeies.xml*) of your current components, which will be placed in the *My Device* folder in Windows Explorer.



- Instead of expanding each section of items individually, you can also choose to open all the lists at once by choosing the *Expand* button, which will then change to a *Collapse* button to enable you to collapse all the sections as well.

4.24 Total Recall

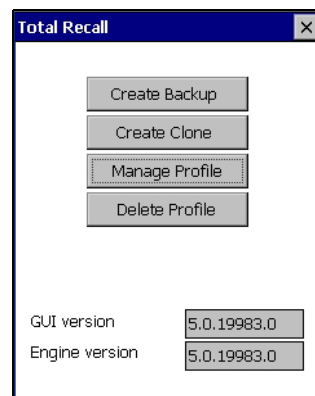
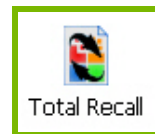
Total Recall is a Psion utility developed to maintain applications and settings during a cold boot, as well as clone settings to other devices. This utility creates a restore point of a device at a known state. This can be used as a backup of the device (the administrator can clean the terminal and restore the profile at any time), or a clone (the administrator can store different configurations for different uses to clone to other Vehicle-Mount computers).



Note: Total Recall works differently (e.g. restore on cold boot or on clean boot) on different OS platforms and versions (e.g. Windows CE 5.0, 6.0, Windows Mobile, Windows Embedded Vehicle-Mount). For detailed information and other updates on Total Recall information, please go to the Ingenuity Working website at:

<http://community.pSION.com/knowledge/w/knowledgebase/total-recall.aspx>

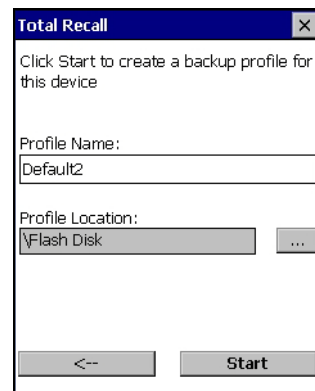
- In the *Control Panel*, choose the **Total Recall** icon.



In the startup up screen, you can choose from four options: *Create Backup*, *Create Clone*, *Manage Profile*, and *Delete Profile*.

4.24.1 Creating a Backup

- Tap on the **Create Backup** button to begin the process.



This dialog box displays the Profile Name and the storage destination for the profile file.

- In the *Profile Name* field, type a name for a profile.
- If you want to choose another location for your backup file (optional), tap on the **[...]** button to the right of the *Profile Location* field and choose one of a number of folders.



Important: Any profile not stored in persistent memory (Flash Disk, external USB drive) will be erased during a clean boot, therefore you should store profiles on a persistent drive.

When performing an autorestore, the program only searches for the profile located in the \Flash Disk\TotalRecall folder. If you store your profile anywhere else it will not be restored. Only one profile can reside in that folder.

- Tap on **Start**. A backup of the current settings will be created and saved to the specified location. The unit will then reboot.

To view profiles and choose restore options, refer to “Managing Profiles” on page 99.

4.24.2 Creating a Clone

Cloning allows you to copy settings or configurations from one computer to another. There are two types of clones to choose from: a *Full Clone* and a *Settings Only Clone*.

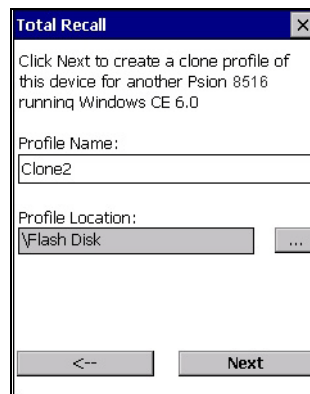
A *Full Clone* contains all files, most of the registry, and the settings files.



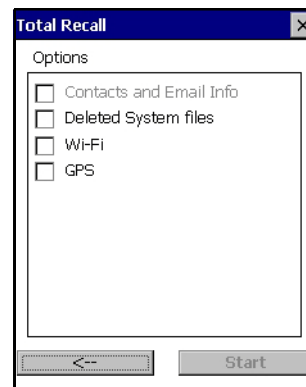
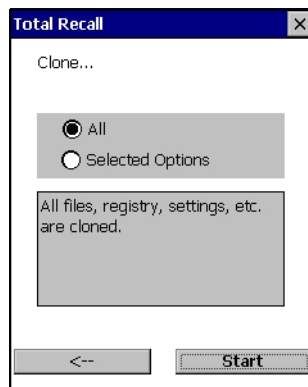
Important: The target device for a *Full Clone* **MUST** have the same model type and OS build as the source, otherwise problems can occur. For example, if the target device has a newer build of the OS, the new build may have a different set of registry keys that may conflict with the source.

A *Settings Only Clone* can be copied to a wider array of devices, but it should not be used as an autorestore profile.

- Tap on the **Create Clone** button to begin the process. Your 8516 model type and OS will be identified in the cloning statement to ensure that you target devices of the same type. Give the clone profile a name and location, then tap on **Next**.



- In this menu, select **All** for a *Full Clone*, or **Selected Options** for a *Settings Only Clone*. If you choose *Selected Options*, a menu will open to enable you to decide which options you want cloned.

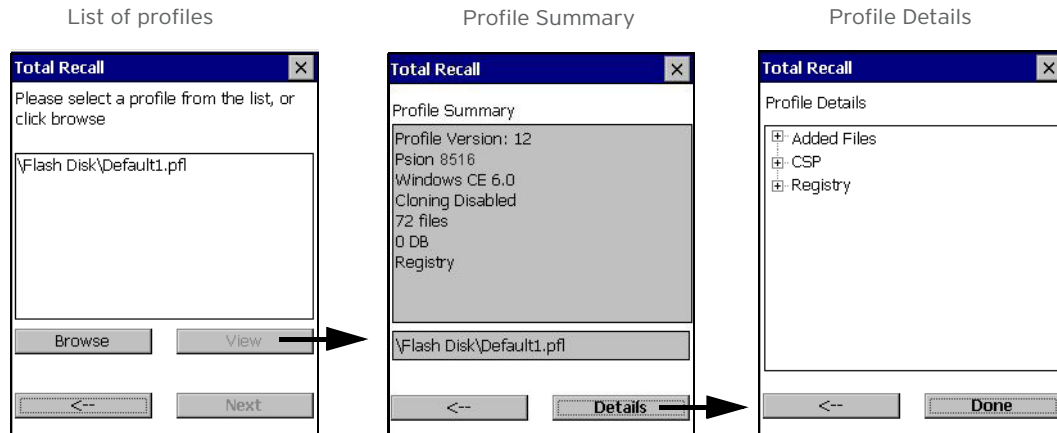


4.24.3 Managing Profiles

You can view profiles and choose profile options from the menus in this section.

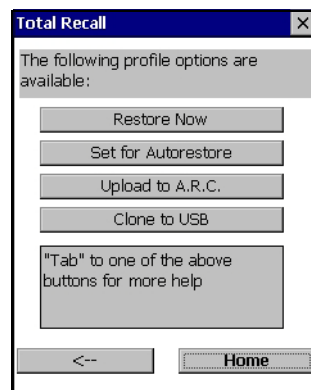
4.24.3.1 Viewing a Profile

- Tap on the **Manage Profile** button to see your list of profiles. Highlight a profile, and then you can choose to **View** the Profile Summary and go on to the next menu, Profile Details.



4.24.3.2 Profile Options

- Tap on the **Manage Profile** button to see your list of profiles, as shown above. Highlight a profile, and tap on the **Next** button to choose from options to restore or clone the profile. You can choose from four profile options: *Restore Now*, *Set for Autorestore*, *Upload to A.R.C.*, and *Clone to USB*.

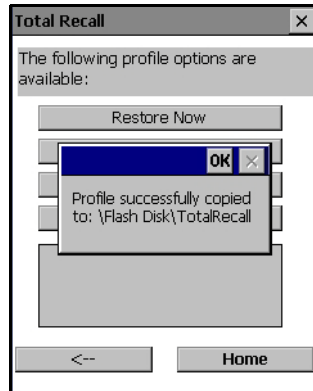


- Next, tap on the option button you want to use:
 - Restore Now** - restores the profile immediately. If you are restoring a profile that is a backup or Full Clone, the computer will clean reset first; if the profile is a Settings Only Clone, it will not.
 - Set for AutoRestore** - creates a profile that is automatically restored following a cold reset or a clean start. The profile is stored in the \Flash Disk\TotalRecall folder.

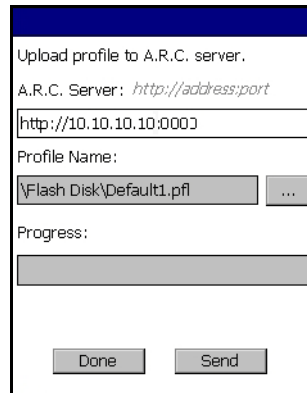


Important: After setting an autorestore profile, that profile will overwrite any other profile already placed in the \Flash Disk\TotalRecall folder.

In an autorestore, Total Recall only restores the profile located in the \Flash Disk\TotalRecall folder. If you store your profile anywhere else it will not be restored.



Upload to A.R.C - uploads the profile to the Active Remote Configuration server. After you tap on **Send**, a message will come up either confirming that the upload was complete or that the connection to the server failed.

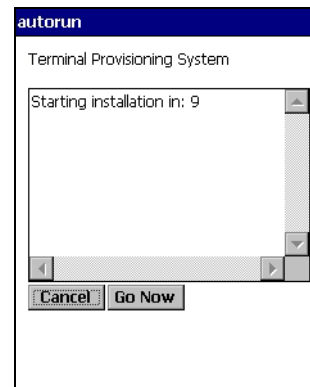


Clone to USB - writes a clone of the profile to the USB drive. After you tap on the button, a message will come up either confirming that the USB drive is ready for deployment, or that it is not available. When you are ready to install the profile on another unit, turn on the next computer to be cloned and insert the USB key. The profile will be automatically installed to the computer's *\Flash Disk\TotalRecall* folder. There is a short delay in deployment so that you can cancel the process if needed.

USB drive prepared for cloning

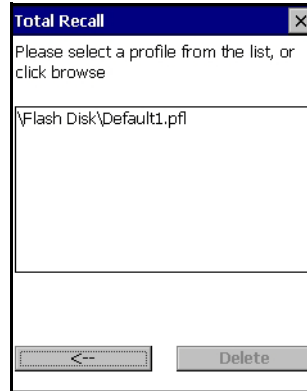


Autorun installation on next 8516



4.24.4 Deleting a Profile

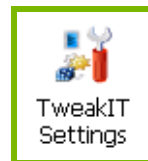
- In the *Total Recall* home screen, tap on **Delete Profile**.
- In the next screen, locate your backup file, and tap on **OK**.



A warning pop-up screen appears asking if you're certain that you want to delete this file.

- Tap on **Yes** to delete the file.

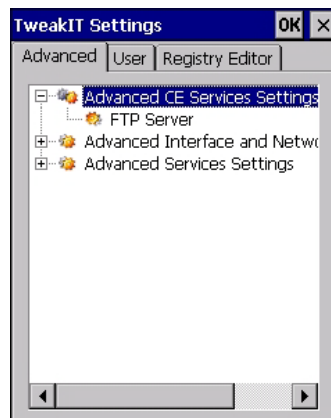
4.25 TweakIt



This utility allows you to 'tweak' or adjust *Advanced* system settings (interface, network, servers, driver, and radio) and provides a *Registry Editor*.

4.25.1 Advanced

4.25.1.1 Advanced CE Services Settings

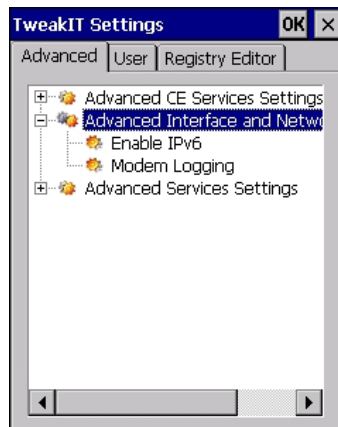


FTP Server

This option is enabled by default to allow file transfers. Keep in mind that data transfer in either direction is restricted to the Temp folder—that is, data are always loaded from the *FTP Server* to the *Temp* folder and from the *Temp* folder to the *FTP Server*.

If this option is disabled, a warm reset must be performed to accept the change.

4.25.1.2 Advanced Interface and Network Settings



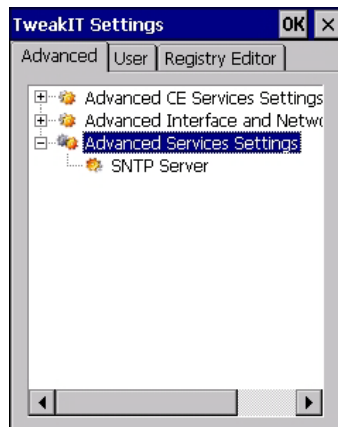
Enable IPv6

This option allows you to enable Internet Protocol specification, version 6, that has been published to enable 128-bit IP addresses (replacing version 4).

Modem Logging

When this option is enabled, the 8516 logs AT commands (e.g., dial-out information, password string, etc.) that the administrator can monitor for debugging purposes. Modem commands are stored in: \MdmLog.t.

4.25.1.3 Advanced Services Settings



SNTP (Simple Network Time Protocol) Server

The *SNTP Server Name* typed in this dialog box is used to synchronize 8516 time with the server time. A warm reset must be performed once the server name as been entered.

4.28 Wi-Fi Config

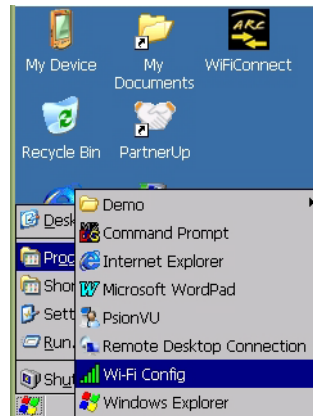
The *Wi-Fi Config* application is used to configure the 8516 802.11a/b/g/n radio for one or more wireless network profiles. A network profile contains settings for SSID (Service Set Identifier) and security options.



Note: In most situations, the configuration of your 802.11 radio will require parameter setting and access keys from a network administrator.

To launch the *Wi-Fi Config* application:

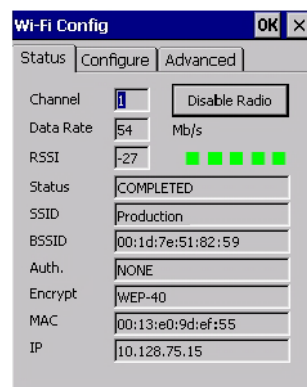
- Tap on **Start>Programs>Wi-Fi Config**.



The *Wi-Fi Config* screen is displayed.

4.28.1 Wi-Fi Config: Status

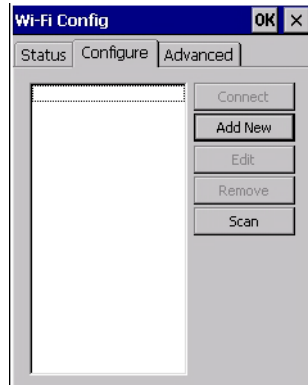
The *Status* tab displays information about the wireless network to which the 8516 is configured to connect. When there are no network profiles configured, this tab is not populated.



Disable/Enable Radio: This button toggles between *Disable Radio* and *Enable Radio* depending on whether the radio is turned off or on.

4.28.2 Wi-Fi Config: Configure

- To configure the radio for a wireless network, tap on the **Configure** tab.



Connect: Used to connect to an already existing wireless network configuration.

Add New: Used to create a new wireless network configuration.

Edit: Used to change values in an already existing wireless network configuration.

Remove: Used to delete a wireless network configuration.

Scan: Used to detect and list available wireless networks. You can highlight a network in the list, and tap on *Add New* to activate the network.

There are two methods available when configuring a radio network—you can either scan for an existing network or manually create a network. If you tap on the **Scan** button, a list of networks detected by the radio is displayed. Highlighting one of the listed networks and tapping on the *Add New* button creates a new profile that is completed based on the security capabilities detected by the radio. You may need to add additional information, depending on your network requirements.

4.28.2.1 Manually Creating a Network

If you tap on the **Add New** button rather than the *Scan* button, you can create a network manually.



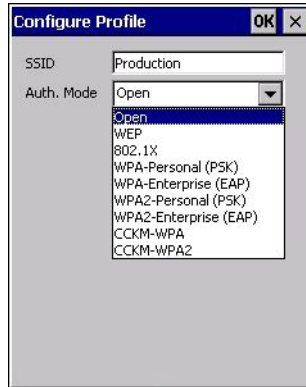
Important: *The steps below describe how to manually create a network. Keep in mind that this is intended only as an example and may vary from your own network requirements. If, for example, you are using a different type of security for your network, the fields you complete may not match those described here.*

- Enter the **SSID** (Service Set Identifier) for your network.



4.28.2.2 Authentication Mode

The 8516 supports several classes of authentication—*Open*, *WEP*, *WPA/WPA2 (Personal PSK, Enterprise, CCKM-WPA, CCKM-WPA2)*, and *802.1x with EAP*. Tapping on the *Auth. Mode* menu displays your authentication options.



Note: Each Auth. Mode has a unique Configure Profile screen attached to it with fields appropriate to the authorization mode you've chosen.

Open Authentication

Open authentication does not provide security. When this option is chosen, the 8516 will connect to wireless networks which do not use authentication or encryption.

WEP (Wired Equivalent Privacy)

WEP provides static security to prevent others from accidentally accessing your network. If you choose this option, you can specify the type of WEP authentication—*Open* or *Shared*, the WEP security key length—*64 bit* or *128 bit* and the key type—*ASCII* or *Hex*. WEP Key fields are also provided where you can specify a 5 or 13 ASCII character sequence or an equivalent 10 or 26 Hexidecimal digit sequence that matches the active WEP key on the access point.

WPA & WPA2 Personal PSK (Pre-Shared Key)

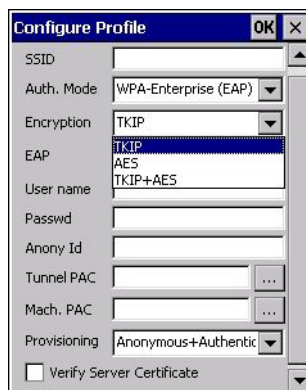
When PSK is selected, either *WPA Personal PSK* or *WPA2 Personal PSK*—a shared key must be configured on both the access point and the Vehicle-Mount computer. One of the following can be chosen from the *Encryption* drop-down menu: *TKIP*, *AES* or *TKIP+AES*.

802.1X, WPA & WPA2 Enterprise, CCKM-WPA & CCKM-WPA2

These authentication modes use *802.1X* with *EAP* authentication. When *802.1X* is selected, the 8516 uses *WEP* encryption with automatic (as opposed to static) keying. For the others, the user may choose *TKIP*, *AES* or *TKIP+AES* encryption.

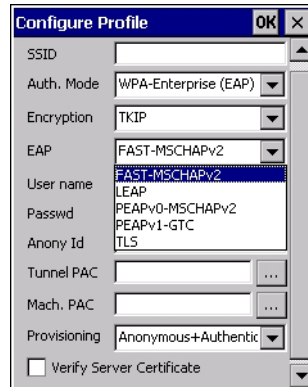
4.28.2.3 Encryption

The *Encryption* menu allows you to choose the type of encryption that will be used to protect transmitted data. Choose an *Encryption* method valid for your network from the drop-down menu. Only the *Encryption* options that are compatible with the type of *Auth. Mode* you've chosen will be listed. In fact, in some cases, this menu will not be available at all.



4.28.2.4 EAP

This menu allows you to choose the EAP (Extensible Authentication Protocol) type used for 802.1x authentication to an access point.



The following EAP types are supported by *Wi-Fi Config*:

- **TLS:** Provides strong security via the use of client certificates for user authentication.
- **PEAPv0-MSCHAPv2:** Provides secure user authentication by using a TLS tunnel to encrypt EAP traffic. *MSCHAPv2* is used as the inner authentication method. This is appropriate for use against Windows Active Directory and domains.
- **PEAPv1-GTC:** PEAP authentication using GTC as the inner method which utilizes one time passwords (OTPs) for authentication against OTP data bases such as SecureID.
- **LEAP:** Is an authentication method for use with Cisco WLAN access points. LEAP does not require the use of server or client certificates. LEAP supports Windows Active Directory and domains but requires the use of strong passwords to avoid vulnerability to off-line dictionary attacks.
- **FAST-MSCHAPv2:** Is a successor to LEAP and does not require strong passwords to protect against off-line dictionary attacks. Like LEAP, EAP-FAST does not require the use of server or client certificates and supports Windows Active Directory and domains.
- Complete the fields in the **Configure Profile** screen. If you're uncertain about some of the options, your system administrator will be able to provide the correct information for your wireless network.
- Once you've completed the necessary fields, tap on **OK**.

4.28.2.5 Verify Server Certificate

When the *Verify Server Certificate* box is checked, the 8516 will verify the certificate provided by the authentication server during the authentication process. This requires that an appropriate certificate be manually installed on the 8516 for the verification.

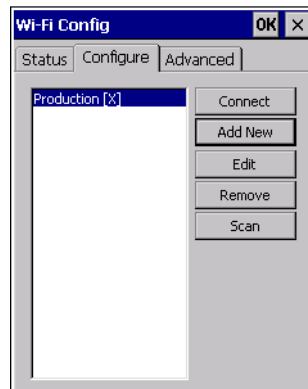
4.28.2.6 Enable OPMK

When used with compatible wireless infrastructure, Opportunistic Key Caching (OPMK) reduces the number of full authentications required when roaming. Only available with WPA2-Enterprise (EAP) authentication mode.



4.28.2.7 Connecting the Wireless Network

Your configured network is listed in the *Configure* tab. An *[X]* next to a network indicates that this is the network to which the 8516 will connect.



- Tap on the **Connect** button to activate your network.

The *Status* tab is displayed. The *Status field* displays *ASSOCIATING* while the 802.11a/b/g/n radio attempts to connect to the network. Once the association is complete, the *Status* tab is populated with the appropriate information about your network.



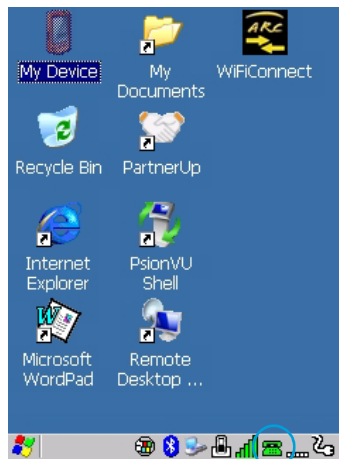
4.28.3 Configuring TCP/IP

If your network is not using a DHCP server, you will need to assign an IP address.

4.28.3.1 IP Address

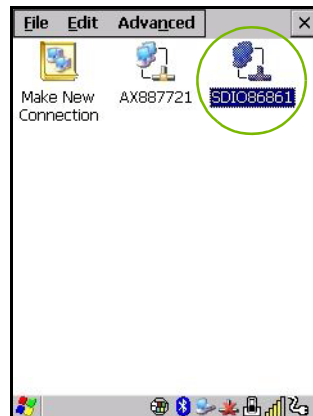
To assign an *IP address* for your 8516:

- Tap on the **radio icon** in the taskbar,



or

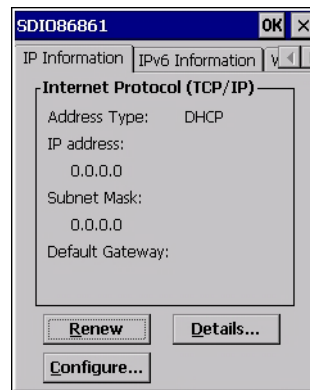
Tap on **Start>Settings>Network and Dial-up Connections**. Tap on the **radio icon** for which you want to assign an IP address—in the sample screen below, the icon is labelled **SDIO86861**.



The *Wireless Statistics* screen is displayed.

- Tap on the **IP Information** tab.

Figure 4.7 SDIO86861 IP Information



Note: When DHCP is enabled, tapping the 'Renew' button forces the 8516 to renew or find a new IP address. This is useful if, for example, you are out of communication range for a longer period of time and your Vehicle-Mount is dropped from the network.

To define a static IP address:

- Tap on the **Configure** button.

The screenshot shows a dialog box titled "Marvell SDIO8686 Wireless..." with "OK" and "X" buttons. It has two tabs: "IP Address" (selected) and "Name Servers". Below the tabs, it says "An IP address can be automatically assigned to this computer." There are two radio buttons: "Obtain an IP address via DHCP" (which is selected) and "Specify an IP address". Below these are three input fields: "IP Address:", "Subnet Mask:", and "Default Gateway:", each with a dotted pattern for input.

- Tap on the radio button next to **Specify an IP address** to select it.
- Type an **IP**, **Subnet Mask** and **Default Gateway** address in the appropriate fields. Press **[ENTER]** to save your information.

4.28.3.2 Name Server



Note: If DHCP is enabled, name server addresses are assigned automatically.

- In the *SDIO86861 IP Information* tab (see Figure 4.7), tap on the **Configure** button.
- Tap on the **Name Servers** tab.

The screenshot shows the same dialog box as before, but with the "Name Servers" tab selected. It displays "Name server addresses" and four input fields: "Primary DNS:", "Secondary DNS:", "Primary WINS:", and "Secondary WINS:", each with a dotted pattern for input.

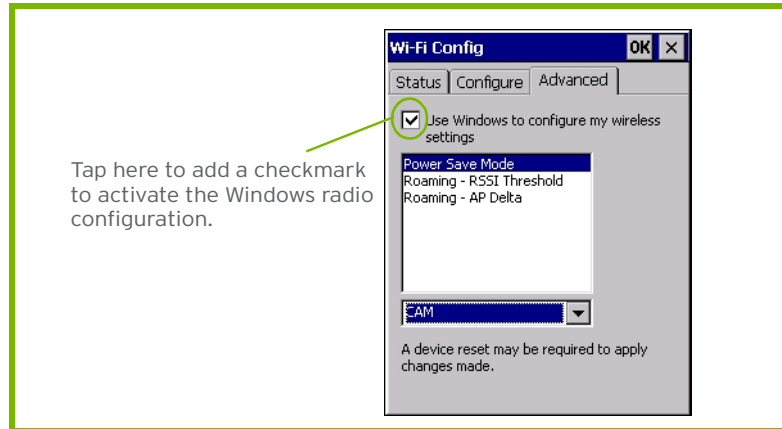
The DNS and WINS fields in the *Name Servers* tab allow you to specify additional WINS and DNS resolvers. The format for these fields is ###.###.###.###.

4.28.4 Wi-Fi Config: Advanced

Use Windows to configure my wireless settings

In the *Advanced* tab you can set Windows to configure the radio, using *Wireless Zero Config*.

- Tap on the checkbox to the left of **Use Windows to configure my wireless settings** to enable this option.



Power Save Mode

This allows you to set the 802.11 power saving mode of the radio to: *CAM* (continuous access—always on) (recommended); or *MAX_PSP* (maximum power saving mode).

Roaming - RSSI Threshold

This sets the RSSI threshold value, below which the radio will start scanning for new access points when roaming. Values range from *-55 to -90 dBm*.

Roaming - AP Delta

This sets how much greater (in dBm) the RSSI of a new access point must be than the RSSI of the currently associated access point in order for the Vehicle-Mount to initiate a roam. Values range from *5 to 30 dBm*.

Concluding the Wi-Fi Configuration

If you've made changes in the Advanced menus, you will need to warm reset your 8516.

- Choose **Start>Shutdown>Warm Reset**.
- A dialog box is displayed letting you know that you will lose all unsaved data. Tap on **OK**.

Once the reset is complete, if you checked the box next to **Use Windows to configure my wireless settings**, the *Wireless Zero Config* screen is displayed on the Vehicle-Mount. Refer to Appendix F: "Wireless Zero Config Settings" for details.

4.28.5 Monitoring the Network Connection

The radio signal icon in the taskbar indicates the strength of the communication link with an 802.11 access point.

To access the radio signal icon:

- Tap on the radio icon in the taskbar to display the wireless statistics dialog box.

To access the radio signal icon using the keyboard:

- Press the [Windows] key to display the *Start Menu*.
- Highlight **Shortcuts** and then choose **System Tray** from the sub-menu.
- Use the [LEFT] and [RIGHT] arrow keys to highlight the **radio signal** icon in the taskbar.
- Press [ENTER] to display the *Wireless Statistics* dialog box.



Note: Moving in and out of the radio coverage area can have varying effects on a network session. At times, you may need to renew your connection by logging in again.

4.29 WiFi Connect A.R.C.

The WiFiConnectARC utility on the desktop provides a quick method to configure a device for use on a private network, primarily for use with Active Remote Configuration (A.R.C.).

When you click on this icon, WiFiConnect A.R.C. configures the default WiFi interface. The WEP key is set to **PsionPsion123**. The SSID is set to **Psion**. The default interface becomes the active interface. Keep in mind that you must configure the access point and the Vehicle-Mount(s) to use the same settings.

Refer to the *Active Remote Configuration (A.R.C.) Administrators Guide*, PN 8000252, for details about updating devices on your network. This manual is available at:

<http://community.psion.com/knowledge/w/knowledgebase/1189.aspx>



- Connect your network Ethernet cable to the Ethernet port on the adaptor cable.

5.4.1 Network Access

The 8516 automatically loads the appropriate drivers to communicate with the USB-Ethernet converters.

Network Addressing

The host application uses standard TCP/IP protocol to name, locate, and communicate with a specific 8516 on the network.

If a link is established between an 8516 and a host, the application on the host and on the computer must have a recovery mechanism in the event that the 8516 is disconnected, interrupting the link.

5.5 8516 Mounting Accessories: Installing the RAM Mounting Kit

The 8516 is installed using an articulating RAM Mount (Model MT34XX - 4 in. or 12 in. arm) secured to either a Vesa or circular base.



Warning: *Failure to install the mount correctly, or modifications to the mount, may result in serious injury or damage to property. Contact Psion Technical Support or your Psion representative if you have problems installing this mount. To ensure operator safety, you must use a calibrated torque wrench and the supplied mounting hardware when fastening the cradle and mount. Use of this mount in vehicles driven on public roads or highways is prohibited. Contact Psion for further details.*

Before mounting an 8516 in a vehicle, there are a number of operator safety issues that require careful attention. When mounting an 8516 use only approved Psion mounting hardware and mounting parts which are specific to the 8516 model purchased. An improperly mounted 8516 or use of non-approved parts may result in one or more of the following: operator injury, property damage, operator visibility obstruction, operator distraction, and/or poor ease of egress for the operator. Psion strongly recommends that you seek professional mounting advice from the vehicle manufacturer.

If it is necessary to mount the 8516 overhead, or in any position that could cause injury to the operator should the unit fall, it is critical that a secondary tether or other failsafe device be installed.

The following restrictions must be strictly enforced:

Do not use the mount and/or the 8516 as a hand-hold. Using the mount in this manner may cause the person to fall or dislodge the mounting hardware and/or mounts.

Do not add weight or attach any other items to the mount or 8516. Additional elements may fall causing injury, or may increase the chance of failure and/or damage in mounting hardware and/or mounts.

Mounts used in industrial or vibration generating environments may be subjected to fatigue, stress, and/or part wear. A periodic inspection of the mounting hardware and mounts should be performed to ensure parts are retightened to the correct torque, free of fractures, excessive wear, and/or other environmental damage. Any parts found to be unsafe should be removed and replaced immediately. After inspection or replacement of parts, readjust the mount as outlined in step 4 below and tighten with the approved tightening tool (P/N 9000594).

Cable routing within a vehicle cab also requires careful consideration, especially for separately connected scanners and other devices with loose cables. If you are unable to obtain suitable advice, contact Psion for assistance. Note also that for better protection, the equipment should be mounted inside the vehicle roll cage.

Use of the Powered Fork Lift Cradle while charging the fork truck battery is prohibited.

**Important: Safeguards**

To avoid possible injury, this device must be properly secured when in a moving vehicle.

Keep this device away from magnetic fields.

Do not place the computer near a television or radio receiver.

Do not disassemble your 8516 computer – there are no user-serviceable parts inside.

5.5.1 Component Part Numbers

The table below lists the mounting component part numbers and legend for Figure 5.10 on page 129.

Table 5.1 Mounting Components and Figure Legend

Figure Legend	Description	Part Number
A	8516 Vehicle-Mount Computer	
B	RAM Vesa Base	9001934
C	Washer M8 Internal Tooth	9008800
D	Screw M8 x 12 Pan Head	9004517
E	RAM Standard Arm	9001805
F	RAM Circular Base	9001804
G	Screw M8 x 25 Pan Head	9004518
H	Screw M8 x 25 Flat Head	9004522
J	Nut M8 x 1.25	9008801
L	Mounting Kit MT3505 (Clamp base (for 4" or 12" RAM arm, 2" max. width)	9007505
M	Mounting Kit MT3507 (Clamp base (for 4" or 12" RAM arm, 3" max. width)	9007507
N	Mounting Kit MT3509 (Rail base (for 4" or 12" RAM arm, 1 ¹ / ₄ " to 1 ⁷ / ₈ ")	9007509
P	Mounting Kit MT3510 (Rail base (for 4" or 12" RAM arm, 2" to 2 ¹ / ₂ ")	9007510

5.5.2 MT33XX RAM Mounting Kit Specifications

- Max. Load: 15kg
- Articulating Range: Spherical through 180 degrees.
- Shock Rating: Meets IEC60721-3-5 CLASS 5M2
- Test Method IEC60068-2-64 Fh
- Vibration Rating: Meets IEC60721-3-5 CLASS 5M2
- Test Method IEC60068-2-27 Ea

Figure 5.4 Bolt Hole Pattern For RAM Vesa Base

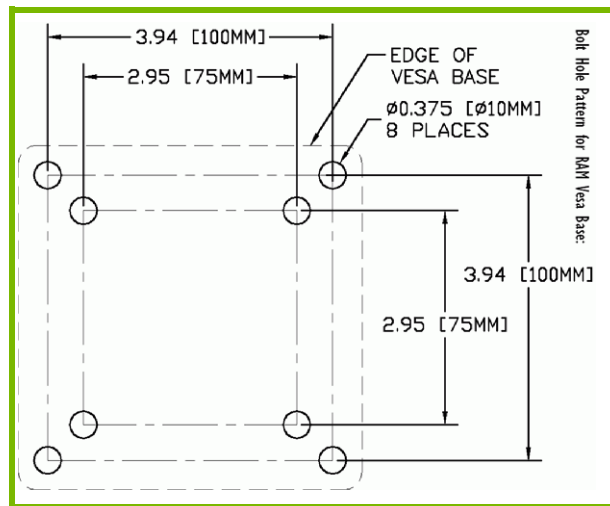
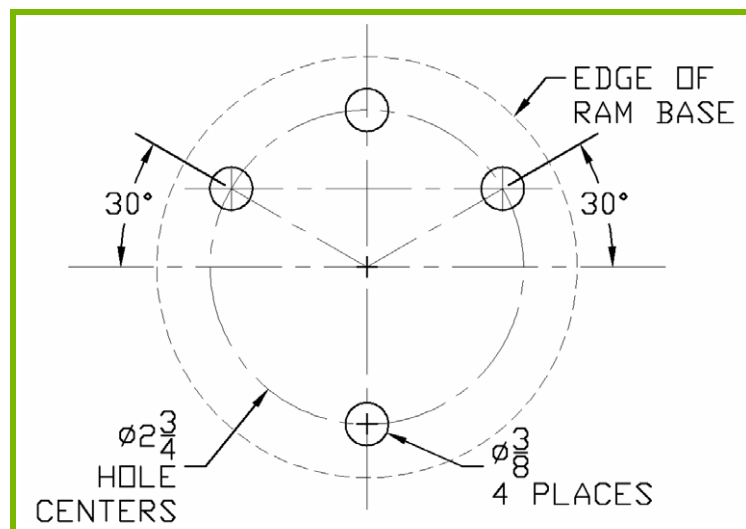


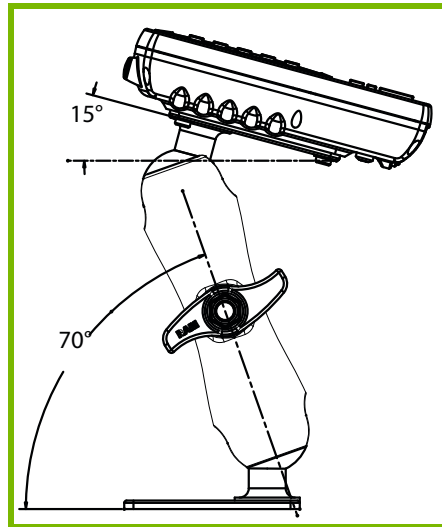
Figure 5.5 Bolt Hole Pattern For RAM Circular Base



5.5.3 Preparation

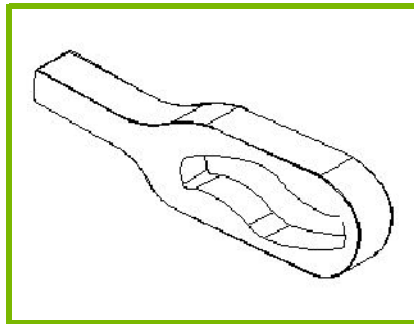
The RAM articulating mount can be installed in a variety of orientations (see Figure 5.6 on page 127). Select the best orientation for your specific application. Preferred orientations maintain the centre of mass of the computer assembly, directly over the centre of the base (see Figure 5.6).

Figure 5.6 Orientation Of Vehicle-Mount Assembly



Important: The tilt and rotation of the cradle can be easily adjusted by the operator. Ensure that if the handscrew is loosened and the cradle slips, the operator and any equipment cannot be damaged by it. Also note that under extreme vibration, the mount may slowly 'settle', requiring readjustment and tightening of the handscrew. Psion offers a tightening tool (P/N 9000594) which can be used to minimize settling.

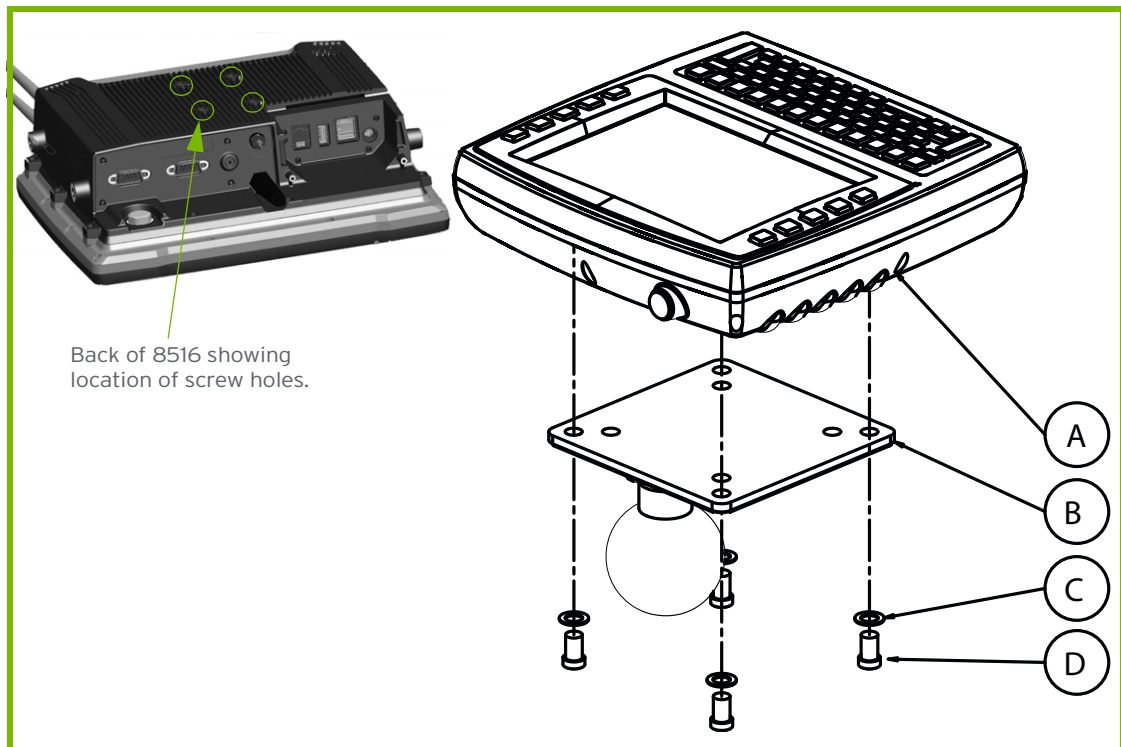
Figure 5.7 Tightening Tool P/N 9000594



The mounting platform on which you secure the computer must be strong enough to support 25 kg. Never attach the mount to a plastic dash or a wooden platform without the appropriate backing plate and bracing. When selecting a mounting location, you must provide the operator access at the top, bottom, and sides.

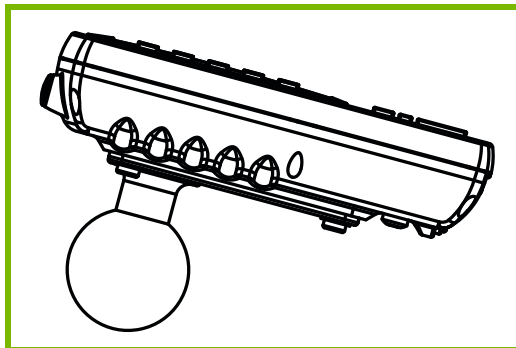
5.5.4 Installation

Figure 5.8 8516 Vehicle-Mount Computer With Mounting Bracket



1. Attaching the mounting bracket and RAM base to the computer:
 1. The kit provides four screws and washers that are used to secure the mounting bracket to the computer. Figure 5.8 provides a diagram and a legend to help you attach the mounting bracket and the RAM Vesa base to the computer. To do this:
 - Apply Loctite 243 to the screw threads (Note: Loctite is not supplied by Psion). Match the four screw holes on the back of the 8516 with the appropriate pairs of holes on the bracket and screw them together by placing the Screw (D) through the Washer (C) and the RAM Vesa Base (B), and then affixing it to the 8516 (A).
 - Torque to 26 in-lbs.

Figure 5.9 Mounting Bracket Attached To The 8516



1. Secure the RAM Base to the local platform and attach RAM Standard Arm:

1. Use the supplied bolt hole pattern to drill the required holes in the local platform. Hole diameters must not exceed 10mm [13/32 inches]. Hardware (G, H, C, and J) for securing RAM Bases (B or F) to the local platform are in the recommended sizes (see Table 5.1 on page 125). If replacement hardware is required, it should be consistent with these diameters. All fasteners must use a suitable locking mechanism to ensure that they do not loosen under shock and vibration.
 - If you are assembling with the RAM Vesa Base, see Section 5.5.4.1:“RAM Vesa Base”.
 - If you are assembling with the RAM Circular Base, see Section 5.5.4.2:“RAM Circular Base”.

5.5.4.1 RAM Vesa Base

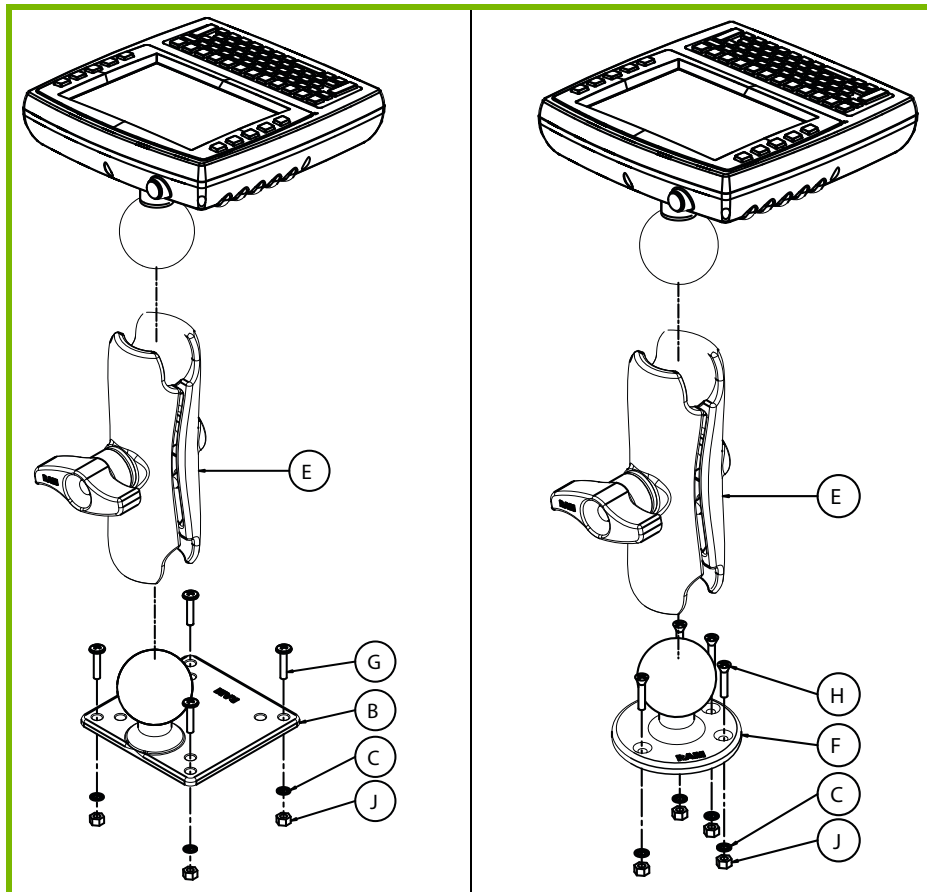
See Figure 5.10 on page 129. In four places, insert screw (G) through the RAM Vesa Base (B), the local platform and the washer (C). Affix with nut (J). Torque to 26 in-lbs. Secure RAM Standard Arm (E) by inserting RAM Balls into both ends of arm sockets.

5.5.4.2 RAM Circular Base

See Figure 5.10 on page 129. In four places, insert screw (H) through the RAM Circular Base (F), the local platform and the washer (C). Affix with nut (J). Torque to 26 in-lbs. Secure RAM Standard Arm (E) by inserting RAM Balls into both ends of sockets.

Figure 5.10 RAM Vesa Base

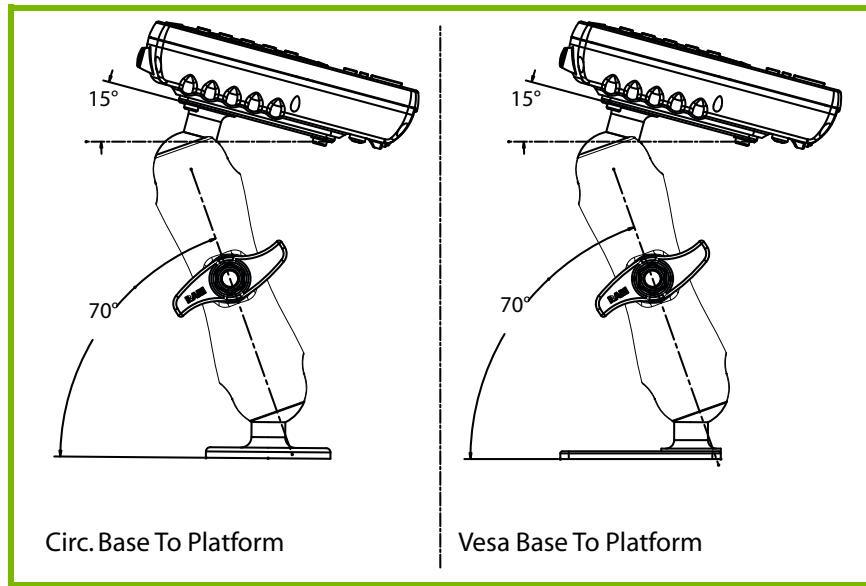
RAM Circular Base



5.5.5 Positioning the 8516

Place the 8516 into the position best corresponding to the RAM hardware used (see Figure 5.11 on page 130) and tighten by hand until secure. Refer to “8516 Mounting Accessories: Installing the RAM Mounting Kit” on page 124 for warnings and proper tightening technique. Mount orientations shown in Figure 5.11 are considered the preferred configurations for the Circular Base to Platform and the Vesa Base to Platform.

Figure 5.11 Circular Base and Vesa Base Mount Orientations



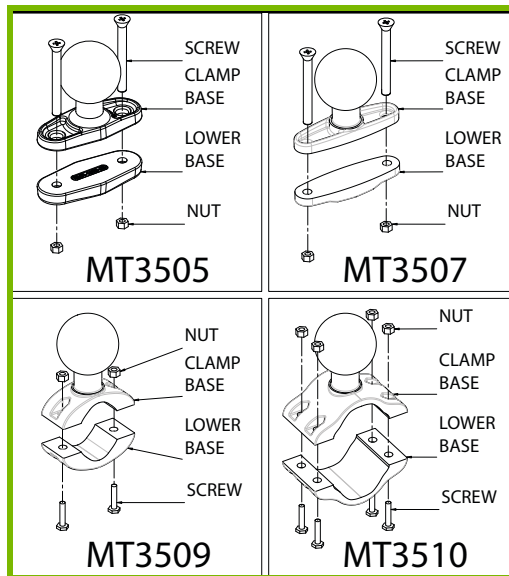
5.5.6 Optional Mount Kits

One of the mounting kits shown in Figure 5.12 on page 130 may be substituted for the Vesa Base (B) or the circular base (F) when mounting to a post or forklift roll cage.

To Install:

Mount the Clamp Base and Lower Base around the shaft. Place the Screw through the Clamp and the Lower Base, and affix with the Nut. Torque to 26 in-lbs. Secure the RAM Standard Arm (E) by inserting the RAM Balls into both ends of the arm sockets.

Figure 5.12 Optional Mount Kits



5.6 MT3250 Quick Release Mount "Turn & Lock"

The Quick Release Mount "Turn & Lock" option allows a dismount with a quick flick of the wrist and without the need of tools. It can be used alone or in combination with the RAM mounts. The Quick Release Mount can be used direct with the 8516 without the need for an adaptor plate.

Figure 5.13 MT3250 Quick Release Mount "Turn & Lock"



5.7 8516 Vehicle-Mount Computer Installation

5.7.1 Wiring Guidelines

Before installing the cables between the cradle and other devices, consider the following:

- Ensure that drilling holes will not damage the vehicle or its wiring.
- Protect cable runs from pinching, overheating and physical damage.
- Use grommets to protect cables that pass through metal.
- Use plastic straps and tie-downs to secure cables and connectors in their desired location, away from areas where they may get snagged or pulled.
- Keep cables away from heat sources, grease, battery acid and other potential hazards.
- Keep cables away from control pedals and other moving pas that may damage the cables or interfere with the operation of the vehicle.



Note: Make sure the cables run inside the roll cage of the vehicle.

5.7.2 Non-Vehicle Installations

Using AC power, the 8516 Vehicle-Mount Computer can be mounted at fixed locations adjacent to cross-dock doors, manufacturing stations, or in offices.

The 110/220V Psion AC adaptor Model PS1400 should be used to power the computer from an AC source.

A.1 The 8516 Vehicle-Mount Computer



Note: Performance specifications are nominal and subject to change without notice.

A.1.1 Hardware

Physical Dimensions

- 275 mm W x 235 mm H x 90 mm D (10.83"x 9.25" x 5.54").

Weight

- 4.3 kg (9.5 lbs), includes integrated UPS battery.

Processor and Memory

- Texas Instruments® OMAP3® Processor 800 MHz.
- RAM: 512 MB RAM standard.
- Flash ROM: 1 GB.

Operating System

- Microsoft Windows® Embedded CE 6.0

A.1.2 User Interface

Colour Display

- | | |
|---------------|---|
| • Size | 20.32 cm (8") diagonal |
| • Resolution | 800 x 480 pixels |
| • Brightness | 640 cd/m ² |
| • Touchscreen | Rugged 5-wire technology
Passive stylus or finger operation
Optional heater |

Indicators

- Power LED
- Warning LED

Keyboard

- | | |
|-------------------------|------------------------------------|
| • Alphanumeric keyboard | 67-key QWERTY and AZERTY available |
| • Function Keys | 12 dedicated function keys |
| • Key Illumination | LED backlight |

Voice and Audio

- High volume 93 dBA beeper
- Optional push-to-talk speaker/microphone

Communication Ports

- | | |
|---------------|--|
| • 8516 top | 1 x USB host port |
| • 8516 bottom | 2 x full function UART RS-232 with 5V / 1000mA for external devices
1 x USB host port
1 x powered USB host port with 12V / 1.5 A
1 x 3.5mm audio jack |

A.3 Wireless Radios

A.3.1 Model RA2070 802.11a/b/g/n Radio

Parameter	Sub-parameter	Specification
Manufacturer		Murata LBEH1Z9PFC
Form Factor		Embedded surface mount module, 11.4 X 9.4 mm *This is combo module containing both Wi-Fi 802.11a/b/g/n and Blue tooth V2.1+EDR radio
Antenna Port	802.11b/g/n	U.FL jack. Non-diversity. Multiplexed Between 802.11b/g/n (2.4 GHz) and Bluetooth radio.
	802.11a/n	U.FL jack. Non-diversity.
Transmitter Power Rating (FCC)	Bluetooth	4 dBm
	2412-2462 MHz LAN	21.3 dBm
	5745-5828 MHz WLAN	18.8 dBm
	5186-5240 MHz U-NII	13.7 dBm
	5260-5320 MHz U-NII	19.6 dBm
	5500-5700 MHz U-NII	18.9 dBm
Frequency Range	802.11b/g/n	2400-2483.5 MHz
	802.11a/n	5150-5350 MHz, 5480-5720 MHz, and 5725-5845 MHz
Channels	802.11b/g/n	1 to 13 Up to 13 channels (depending on country) Only 3 channels are non-overlapping
	802.11a/n	36, 40, 44, 48, 52, 56, 60, 64 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140 149, 153, 157, 161, 165 Up to 24 channels (depending on country) All channels are non-overlapping
RX Sensitivity	802.11b	-78 dBm @ 11 Mbps
	802.11g	-67 dBm @ 54 Mbps
	802.11a	-67 dBm @ 54 Mbps
	802.11n (2.4 GHz)	-66 dBm @ 65 Mbps
	802.11n (5GHz)	-66 dBm @ 65 Mbps
Data Rate	802.11b	1, 2, 5.5, 11 Mbps
	802.11a/g	6, 9, 12, 18, 24, 36, 48, 54 Mbps
	802.11n	6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps
EVM	802.11b	32% max
	802.11g	-26 dB max
	802.11a	-26 dB max
	802.11n (2.4 GHz)	-29 dB max
	802.11n (5 GHz)	-29 dB max

B

APPENDIX: PORT PINOUTS

B.1	Serial Port Interface Pinout (DB-9 male)	B-3
B.2	Enhanced USB1 Port Interface Pinout	B-3
B.3	Enhanced USB2 Port Interface Pinout.	B-4

B.1 Serial Port Interface Pinout (DB-9 male)

Table B.1 RS-232 Pinout*

Signal #	Function	Signal	Type	Notes
1	RS-232 Serial Port Data Carrier Detect	DCD	RS-232D	Loopback for PCON/CON
2	RS-232 Serial Port Receive Data	RXD	RS-232D	
3	RS-232 Serial Port Transmit Data	TXD	RS-232D	
4	RS-232 Serial Port Data Terminal Ready	DTR	RS-232D	Loopback for PCON/CON
5	Ground	GND	Power	
6	RS-232 Serial Port Data Set Ready	DSR	RS-232D	Loopback for PCON/CON
7	RS-232 Serial Port Ready to Send	RTS	RS-232D	Loopback for Console
8	RS-232 Serial Port Clear to Send	CTS	RS-232D	Loopback for Console
9	Power Output		Power	Switched 5V @ 1000mA max (see Warning below)

* Signal definitions are with respect to the 8516 Vehicle-Mount Computer side.



Warning: *If enabled (software configurable), 5V power will appear on this line, which may be the Ring Indicator line on some devices such as modems. 1/2 Amp Max.*

B.2 Enhanced USB1 Port Interface Pinout

Table B.2 Enhanced USB1 Pinout*

Signal #	Function	Signal	Type	Notes
1	USB- VBUS	DCD	USB	Switched 5V @ 0.5A max
2	USB- D-	RXD	USB	Standard or enhanced USB port
3	USB- D+	TXD	USB	Standard or enhanced USB port
4	Ground	DTR	USB	
5	RS-232 Serial Port Transmit Data	GND	PCON console	Customized cable to DE-9
6	RS-232 Serial Port Receive Data	DSR	PCON console	Customized cable to DE-9
7	Ground	RTS	PCON console	
8	Port Detection ID	CTS	PCON console	3K0 pull-down resistor for PCON console detection
9	PCON Programming Switch		PCON console	Switch to Ground for programming

* Signal definitions are with respect to the 8516 Vehicle-Mount Computer side.

B.3 Enhanced USB2 Port Interface Pinout

Table B.3 Enhanced USB2 Pinout*

Signal #	Function	Signal	Type	Notes
1	USB- VBUS	DCD	USB	Switched 5V @ 0.5A max
2	USB- D-	RXD	USB	Standard or enhanced USB port
3	USB- D+	TXD	USB	Standard or enhanced USB port
4	Ground	DTR	USB	
5	RS-232 Serial Port Transmit Data	GND	PXA console	Customized cable to DE-9
6	RS-232 Serial Port Receive Data	DSR	PXA console	Customized cable to DE-9
7	Ground	RTS	PXA console	
8	Port Detection ID	CTS	PXA console	23K2 pull-down resistor for PXA console detection
9	NC		PXA console	Open for PXA console port
* Signal definitions are with respect to the 8516 Vehicle-Mount Computer side.				



APPENDIX: IMAGER & CAMERA SETTINGS

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The *Imagers* applet is used to create, modify, delete, and activate imager settings. The principal uses of the application are to decode barcodes and to capture images. This imager services application is used for cameras and imagers to configure linear (1D), stacked linear, matrix (true 2D) and postal barcodes. A *Demonstration Application* is provided to demonstrate how the imager works. Refer to “Demo” on page 27 for details.

C.1 Required Applets

In order to configure imaging, the *Manage Triggers* applet must be present in the Control Panel, along with the *Imagers* applet.



Note: The Imagers icon is only displayed when the appropriate imager is installed in your 8516. If there is an imager installed but this icon is not present, additional software (ICS) may need to be installed.

To enable a newly-installed imager, press and hold down the [FN] key and the [ENTER/Power] key simultaneously for a minimum of three seconds.

C.2 Presets

There are two methods that can be used to configure an imager using the *Imagers* applet:

- Use a predefined preset.
- Create a custom preset based on a predefined preset.



Important: It is strongly recommended that a predefined preset is used whenever possible. Each predefined preset contains a coherent group of settings that are known to work together in the intended environment. In almost all situations, at least one of the predefined presets results in a satisfactory outcome.

A *preset* is a group of exposure and image correction settings. Each preset configures the imager for a specific purpose such as barcode decoding or image capture.

Presets also allow easier and faster configuration of the imager after power-on or resume from suspend.

The predefined presets are generic and satisfy most user requirements. A custom preset can be created for a specific user application, such as: include only specified barcodes, read only a specified number of barcodes or for reading unusual media.

Every preset belongs to a preset type. The following preset types are available:

- Imaging for photo capture.
- Imaging for barcode decoding.
- Symbology selection.

At any time, only one preset of each type can be designated as the user-selected *active* preset.

C.2.1 Predefined Presets

Predefined presets are built into the imaging software and cannot be changed. The predefined presets allow you to use the imager to perform specified tasks without having to understand and set numerous variables. In almost all cases these predefined presets are sufficient.

C.2.2 Barcode Predefined Presets (Barcoding Menu)

These presets encompass the majority of the most popular barcodes and their subtypes. The *barcode decoding symbology* predefined presets define which barcodes can be decoded. The *barcode decoding camera* predefined presets determine how the barcode images are captured.

C.2.2.1 Barcode Decoding Symbology Predefined Presets

The following presets select groups of similar barcodes for decoding.



Note: It is recommended that the default preset be used whenever possible.

My Default

This preset uses the *Symbology Settings* menu to define the preset. For details about the *Symbology Settings* menu, refer to “Barcoding Menu - Configuring Symbologies” on page C-12.

Factory Default

This preset enables the decoding of frequently used barcodes.

All

This preset enables the decoding of all barcodes that the imager can decode.

Linear

This preset enables the decoding of all the 1D symbologies that the imager can decode.

Linear and PDF417

This preset enables the decoding of all the 1D and PDF symbologies that the imager can decode.

Matrix

This preset enables the decoding of all 2D symbologies that the imager can decode.

Postal

This preset enables the decoding of all the postal symbologies that the imager can decode.

C.2.2.2 Barcode Decoding Camera Predefined Presets

The following presets enable successful barcode image capture in almost all conditions.



Note: It is recommended that the default preset be used whenever possible.

Default

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

Low Light

This preset is designed for very dark conditions such as inside a warehouse where the lights are kept low, or inside an unlit truck. This preset increases either the exposure time or the gain.

Low Power

This preset minimizes the use of the flash so as to conserve the battery power on the Vehicle-Mount.

Glossy Surface

This preset minimizes the use of the flash so as to reduce reflection. This preset is used to read barcodes that are behind glass, or inside the plastic window of an envelope.

C.2.3 Image Capture Predefined Presets (Imaging Menu)

The following presets enable successful image capture in almost all conditions.



Note: It is recommended that the default preset be used whenever possible.

Default

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

Motion

This preset uses a shorter exposure time so as to freeze motion.

Low Light Near

This preset is designed for dark conditions, it uses a longer exposure time and includes the flash.

C.3 Using the Imagers Applet

C.3.1 Configuring the Image Capture Presets (Imaging Menu)

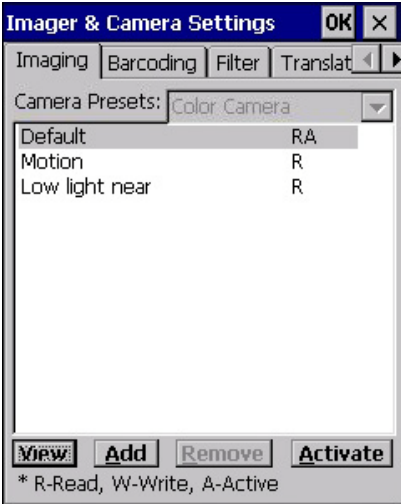
To configure the image capture presets, open the dialog box as follows:

- Tap on **Sta>Settings>Control Panel**.
- Tap on the **Imagers** icon, and if it's not already selected, tap on the **Imaging** tab.



The following screen is displayed.

Figure C.1 Imaging Menu



This window lists all the presets, both predefined and custom. Presets are identified as follows:

- Predefined presets are marked as 'R' *read-only*.
- Custom presets are marked as 'RW' *read and write*.
- One preset—either predefined or custom—is marked as 'A' *active*.

C.3.1.1 Selecting a Camera

To select a camera:

- Tap on the **Camera Presets** drop-down menu to view the camera options.
- Choose a **camera**—specifically, *Front Imager* which is located at the top of the unit.

C.3.1.2 Setting the Active Preset

An active preset has an A to the right. To set an active preset:

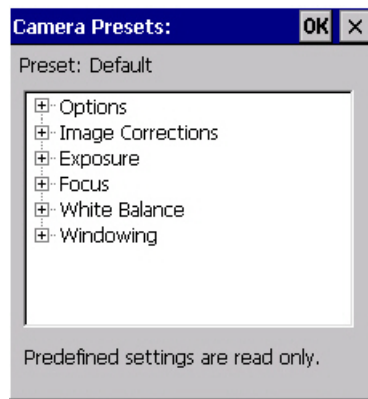
- Highlight the preset, and tap on the **Activate** button.

C.3.1.3 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and double-tap on the **View** button.

The associated preset window is displayed.



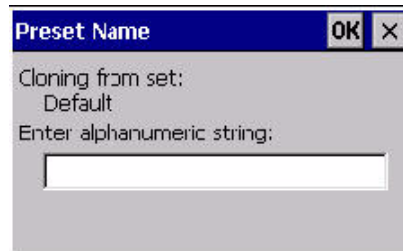
- Tap on the + sign to expand the lists so that you can view the parameter settings.

C.3.1.4 Creating a Custom Preset

A new custom preset is created by modifying a preset—either a predefined preset or an existing custom preset. To create a custom preset:

- Highlight a preset, and tap on the **Add** button.

A screen like the sample below is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.

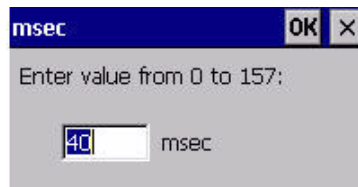
C.3.1.5 Modifying a Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

- Highlight the custom preset, and double-tap on the **Edit** button.



- Tap on the **+** symbols to expand the lists so that you can view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
 - Highlight the parameter, and then press the **[SPACE]** key or double-click on the parameter.
 - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
 - For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
 - Highlight the parameter and then press the **[SPACE]** key, or double-click on the parameter. Either method toggles between the two available values.
 - When you've completed your edits, tap on **OK**.
- The parameter list is displayed; the new value for the changed parameter is shown.
- Tap on **OK** to exit to the preset list and save the changes.

C.3.1.6 Removing a Custom Preset

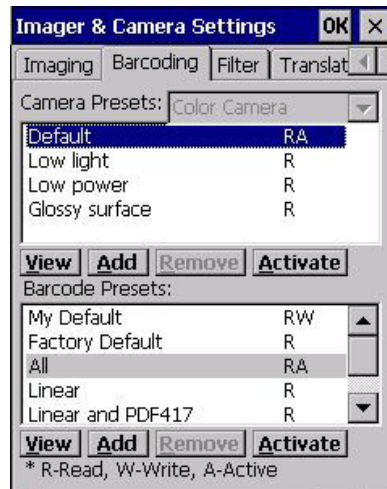
- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

C.3.2 Configuring the Barcode Decoding Camera Presets (Barcoding Menu)

To configure the barcode decoding camera presets:

- Tap on **Sta>Settings>Control Panel>Imagers**.
- Tap on the **Barcoding** tab.

Figure C.2 Camera Presets



Note: The top portion of the window displays the barcode decoding camera presets.

This window lists all the presets, both predefined and the custom. Presets are identified as follows:

- Predefined presets are marked as read-only. For a description, review “Predefined Presets” on page C-3.
- Predefined presets are marked as ‘R’ *read-only*.
- Custom presets are marked as ‘RW’ *read and write*.
- One preset—either predefined or custom—is marked as ‘A’ *active*.

C.3.2.1 Selecting a Camera

To select a camera:

- Tap on the **Camera Presets** drop-down menu to view the camera options.
- Choose a **camera**—specifically, *Front Imager* which is located at the top of the unit.

C.3.2.2 Setting the Active Preset

An active preset has an A to the right; in Figure C.3 on page C-10, the active preset is *Default*. To set an active preset:

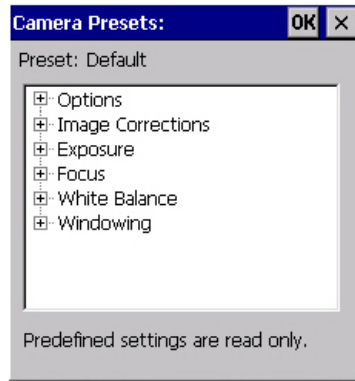
- Highlight the preset, and tap on the **Activate** button.

C.3.2.3 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and double-tap on the **View** button.

The associated preset window is displayed.



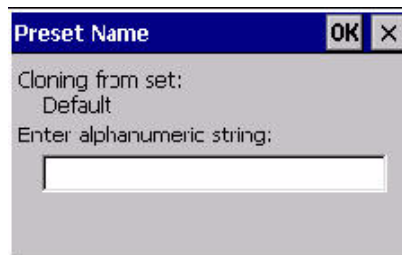
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

C.3.2.4 Creating a Custom Preset

A new custom preset is created by modifying a preset—either a predefined preset or an existing custom preset. To create a custom preset:

- Highlight a preset, and tap on the **Add** button.

A screen like the sample following is displayed.



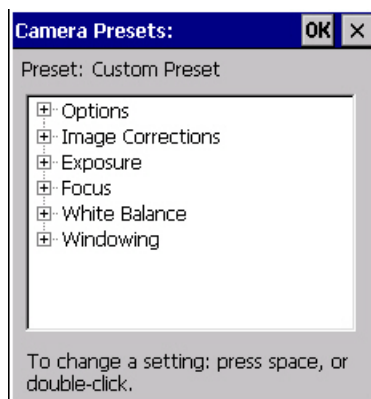
- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.

C.3.2.5 Modifying a Custom Preset

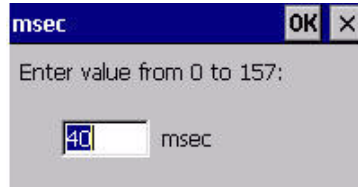
The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

- Highlight the custom preset, and double-tap on the **Edit** button.



- Tap on the + symbols to expand the lists and view the parameter settings.

- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
 - Highlight the parameter, and then press the **[SPACE]** key or double-click the parameter.
 - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
 - Highlight the parameter and then press the **[SPACE]** key, or double-click on the parameter. Either method toggles between the two available values.
- When you've completed your edits, tap on **OK**.

The parameter list is displayed; the new value for the changed parameter is shown.

- Tap on **OK** to exit to the preset list and save the changes.

C.3.2.6 Removing a Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

C.3.3 Configuring the Barcode Decoding Symbologies (Barcoding Menu)

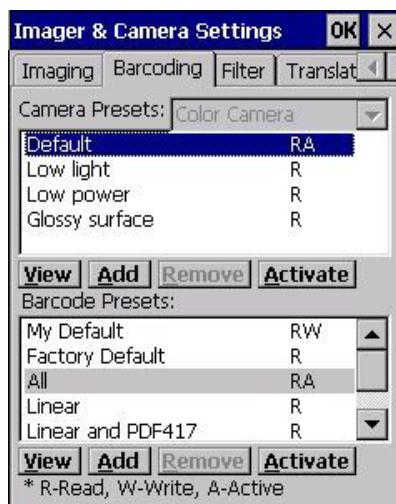
To configure the barcode decoding camera presets:

- Tap on **Sta>Settings>Control Panel>Imagers**.



- Tap on the **Barcoding** tab.

Figure C.3 Viewing Barcode Decoding Symbologies





Note: The bottom portion of the window displays the barcode decoding barcode presets.

C.3.3.1 Setting the Active Preset

An active preset has an **A** to the right; in Figure C.3 on page 10, the active preset is *Default*. To set an active preset:

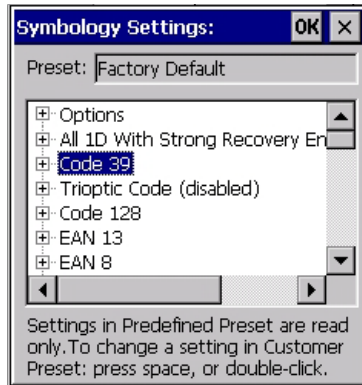
- Highlight the preset, and tap on the **Activate** button.

C.3.3.2 Viewing a Preset

To view the parameter settings in a preset:

- Highlight a preset, and double-tap on the **View** button.

The associated preset window is displayed.



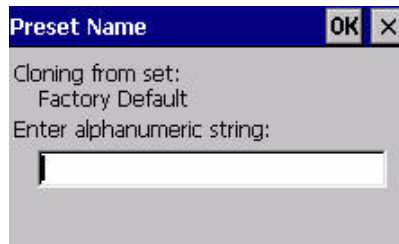
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

C.3.3.3 Creating a Custom Preset

A new custom preset is created by modifying a preset—either a predefined preset or an existing custom preset. To create a custom preset:

- Highlight a preset, and tap on the **Add** button.

A screen like the sample following is displayed.



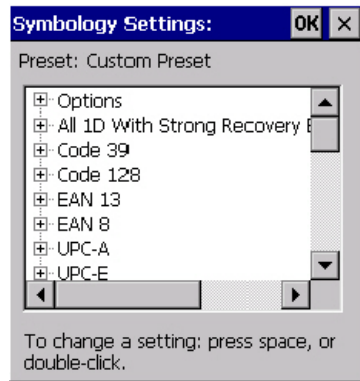
- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.

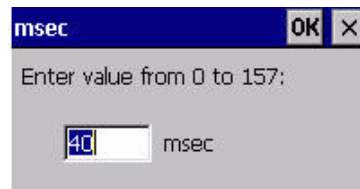
C.3.3.4 Modifying a Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

- Highlight the custom preset, and double-tap on the **Edit** button.



- Tap on the + symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
 - Highlight the parameter, and then press the **[SPACE]** key or double-click the parameter.
 - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
 - Highlight the parameter and then press the **[SPACE]** key, or double-click on the parameter. Either method toggles between the two available values.
- When you've completed your edits, tap on **OK**.

The parameter list is displayed; the new value for the changed parameter is shown.

- Tap on **OK** to exit to the preset list and save the changes.

C.3.3.5 Removing a Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button. A window is displayed warning you that you are about to remove a preset.
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

C.3.4 Barcoding Menu - Configuring Symbolologies

To view the *Symbology Settings* options:

- Tap on the **Barcoding** tab, highlight **All** and then double-tap the **View** button.

To edit a default preset, you must first *activate* it:

- Tap on **My Default**, and tap on the **Activate** button - an *A* appears to the right of *My Default*. Once the preset is activated, you can enable or disable the barcodes the imager will read.
- Highlight **My Default** in the *Barcoding* tab.
- Double-tap on the **Edit** button.

None of the other barcode decoding predefined presets are changed.

C.3.4.1 Symbology Settings

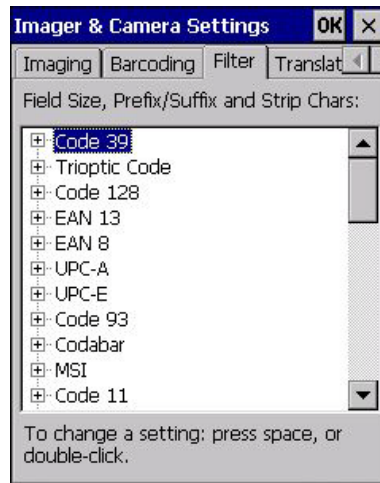


Note: For descriptions of the barcode symbolologies, review "Barcode Symbolologies" on page C-15.

C.3.5 Filter Menu - Manipulating Barcode Data

To configure rules for manipulating barcode data:

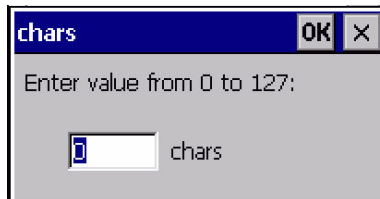
- Tap on **Sta>Settings>Control Panel**.
- Tap on the **Imagers** icon, and then tap on the **Filter** tab.



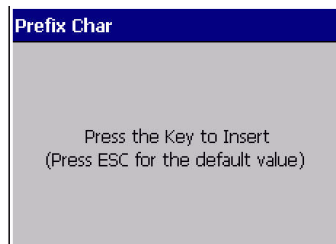
C.3.5.1 Modifying a Barcode Setting

The rules for manipulating data from selected barcode symbologies can be modified. To change the settings for a symbology:

- Tap on the **+** symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
 - Highlight the parameter, and then press the **[SPACE]** key or double-click the parameter.
 - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.
- For a parameter that takes a single character:
 - Highlight the parameter and then press the **[SPACE]** key, or double-click the parameter. The following screen is displayed:



- When you've completed your edits, tap on **OK**.

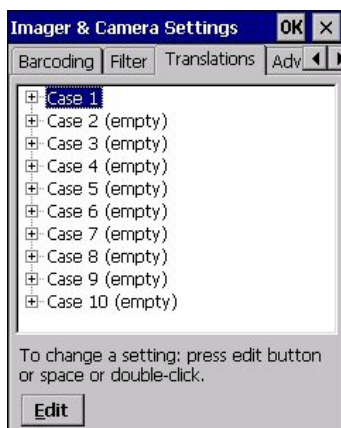
C.3.6 Translation Menu - Configuring Rules

Translation rules enable the automatic processing of barcode data. Up to 10 cases can be defined, each consisting of up to 10 sequential rules.



Note: Changes made to the translations configuration using the Scanner Control Panel program are synchronized with changes made here. Changes made in either place affect both translation tables.

- Tap on **Sta>Settings>Control Panel**.
- Tap on the **Imagers** icon, and then tap on the **Translations** tab.



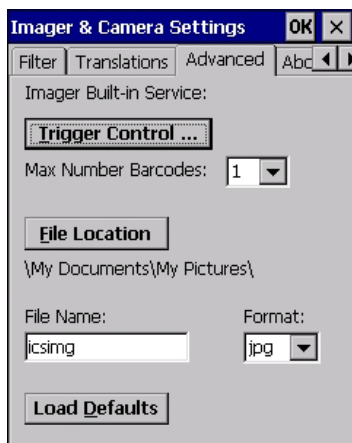
For instructions on adding, editing, and removing translation rules, refer to “Translations” on page 89.

C.3.7 Advanced Menu

C.3.7.1 File Locations for Captured Images

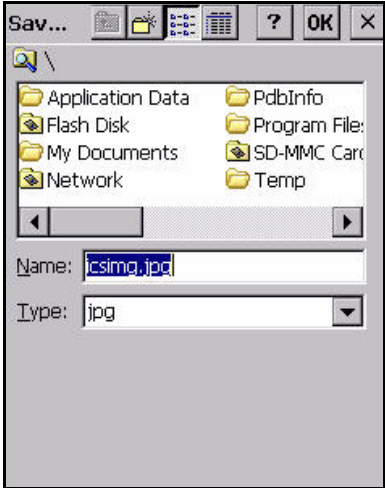
To configure the location for saved images, open the dialog box as follows:

- Tap on **Sta>Settings>Control Panel**.
- Tap on the **Imagers** icon, and then tap on the **Advanced** tab.



To define the location where imager files will be stored:

- Tap on the **File Location** button.



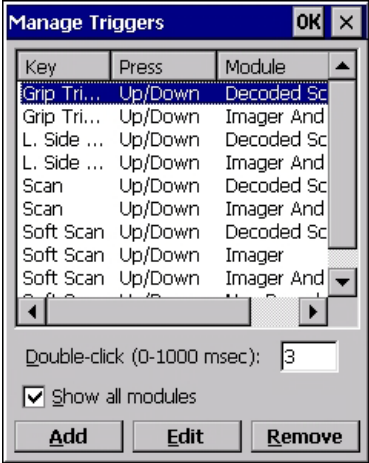
- Type the file **Name**, choose the **Folder** and file **Type**.
- Choose the **Location** in which your files will be saved.
- When you have completed all the changes, tap on the **Save** button.

C.3.7.2 Configuring Triggers

Viewing the Trigger Configuration

The trigger on the 8516 is configured using the *Manage Triggers* applet. The *Imagers* applet provides a shortcut to the *Manage Triggers* applet.

- In the *Advanced* tab, tap on the **Trigger Control** button.
- To view all the triggers and the hardware devices that are configured to use them, tap in the checkbox next to **Show all modules**.



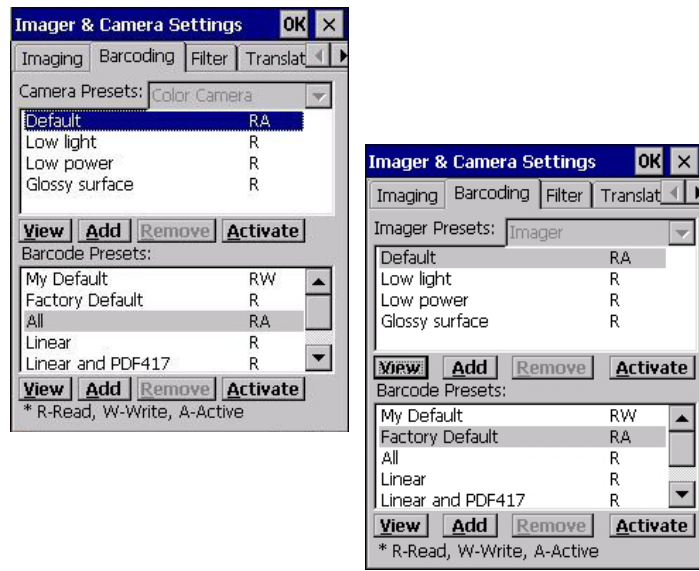
Adding, Editing and Removing Triggers

For instruction about adding, editing and removing triggers, refer to “Manage Triggers” on page 71.

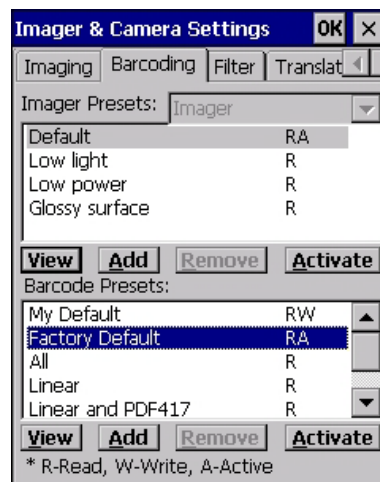
C.4 Barcode Symbolologies

There are two sets of barcode symbolologies, one for *Imager* and one for *Color Camera*. To display the barcodes available:

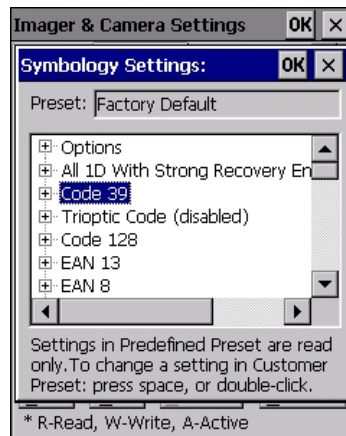
- In the *Imager & Camera Settings* screen, go to the **Barcoding** tab.
- In the *Camera Presets*: drop-down menu at the top of the *Imager & Camera Settings* screen, choose **Imager** or **Color Camera** depending on which set of barcodes you want to work with.



- Go to the **Barcode Presets**.



- Tap on an **Barcode Preset** to display the barcode symbolologies.



C.4.1 Imager Barcode Symbologies

The barcode symbologies for the *Imager* are listed in this section.

Table C.1

Imager Barcode Symbologies
All 1D With Strong Recovery Enabled
Code 39
Code 128
EAN 13
EAN 8
UPC-E
UPC-A
UPC/EAN Sharing Settings
Code 93 (disabled)
MSI Plessey (disabled)
Code 11 (disabled)
Interleaved 2 of 5 (disabled)
Matrix 2 of 5 (disabled)
Discrete 2 f 5 (disabled)
Telepen (disabled)
Gs1 DataBar (disabled)
TLC-39 (disabled)
2D PDF-417
2D micro PDF-417
CodaBlock F (disabled)
CodaBlock A (disabled)
2D Data Matrix
2D QR Code
2D Maxicode (disabled)
2D Aztec (disabled)
Postal: PlanNET (disabled)
Postal: PostNET (disabled)
Postal: China (disabled)
Postal: Japanese (disabled)
Postal: Kix (disabled)
Postal: Royal (disabled)
Gs1

C.4.2 Color Camera Barcode Symbologies

The barcode symbologies for the *Color Camera* are listed in this section.

Table C.2

Color Camera Barcode Symbologies
All 1D With Strong Recovery Enabled
Code 39
Code 128
EAN 13
EAN 8
UPC-E
UPC-A
Code 93 (disabled)
Codabar
Interleaved 2 of 5 (disabled)
Gs1 DataBar (disabled)
Gs1 Composite
2D PDF-417
2D micro PDF-417
2D Data Matrix
2D QR Code
2D Maxicode (disabled)
2D Aztec (disabled)
Postal: PlanNET (disabled)
Postal: PostNET (disabled)
Postal: Australia (disabled)
Postal: Canadian (disabled)
Postal: Japanese (disabled)
Postal: Kix (disabled)
Postal: Korean (disabled)
Postal: Royal (disabled)

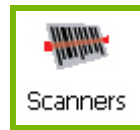
D

APPENDIX: SCANNER SETTINGS

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D.1 Barcode Settings

The *Scanners* icon in the *Control Panel* provides dialog boxes in which you can tailor barcode scanner configurations and choose the barcodes your scanner will recognize.



The parameters are preset with the default settings of the decoded scanner installed in the unit. For a listing of available scanners and their specifications, please refer to Chapter A: "8516 Specifications".

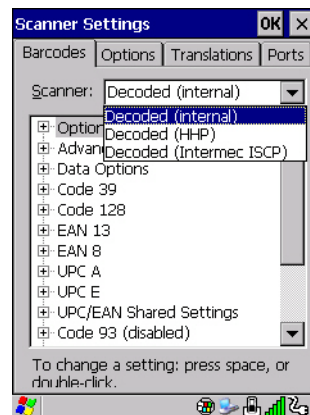


Important: To enable a newly-installed scanner, press and hold down the [FN] key and the [ENTER/Power] key simultaneously for a minimum of three seconds.

For information on configuring the Options, Translations, and Ports settings, see "Scanners" on page 86.

D.1.1 Scanner Options

The drop-down menu to the right of the *Scanner* option allows you to choose configurations for one of the following scanner types, depending on what is installed in/on your Vehicle-Mount: *Decoded (internal)*, *Decoded (HHP)*, *Decoded (Intermec ISCP)*, and *Non-decoded Scanners*.



The symbologies listed change to reflect the scanner you choose and the barcodes it supports. Always defer to your barcode scanner's programming manual when in doubt about the availability or settings for any parameter.



Note: Your 8516 comes preconfigured from the factory for internal scanner types. The type of scanner installed can be determined from the **System** icon in the *Control Panel*, under the *System Properties* tab.



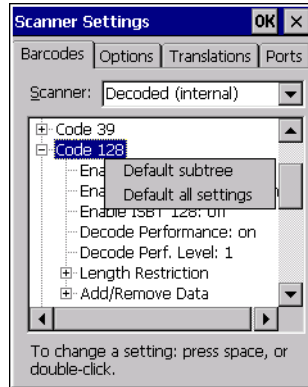
Important: To improve the decode speed and performance, enable (set to 'on') only those codes that are required by the application.

Keep in mind that some barcode types are only available when an internal imaging scanner is installed. All internal scanners can be configured using these dialog boxes.

D.1.2 Restoring Default Settings

If you want to restore the factory defaults after making changes, the defaults can be applied to a selected parameter, sub-tree of parameters, or all scanner parameters.

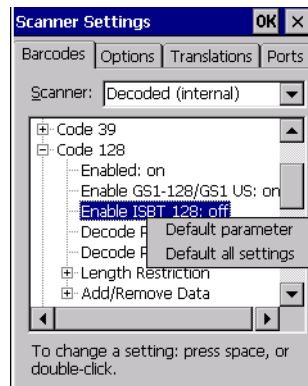
- Press and hold on a symbology (e.g., Code 128) to display a pop up a menu.



- Choose **Default subtree** to reset only the parameters in the symbology you selected, or choose **Default all settings** to reset all scanner parameters to default settings.

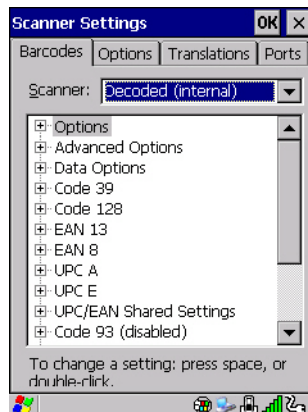
To reset a single parameter to its default setting:

- Press and hold on the parameter you want to reset.



- Choose **Default parameter** to reset the parameter to the default setting.

D.2 Decoded (Internal) Scanners



- Tap on the **Scanner** drop-down menu, and choose **Decoded (internal)**.

D.2.1 Options



Note: Some options are available only for specific scanners. Refer to the option names in this section for scanner model identification.

Dot Time (msec)

The value selected for Dot Time (msec) determines (in milliseconds) how long the targeting dot remains on before the scanner switches to a normal scan sweep. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value of *0 msec*, *200 msec* or *400 msec*. A value of **0** (zero) disables the target dot.

Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 5 and 99. The value is measured in tenths of seconds.

D.2.2 Decoded (Internal) Advanced Options**Scan Mode**

You can set the method of scanning by setting this parameter to *Scan beam only*, *Aim with Scan: 1 trigger pull*, *Aim with Scan: 2 trigger pulls*, *Aim with Scan on trigger release*, and *Continuous Scan Mode*. Default is *Scan beam only*.

Aim Duration

This parameter determines the total time the aiming pattern appears before the scanner laser begins sweeping. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 30 (0 to 3 sec.). A value of **0** (zero) disables the aiming-dot.

Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when you quickly trigger on/off.

Power Mode

This parameter is a power-saving option. Tapping on it displays a screen listing two power mode options: *Continuous Power* and *Low Power*.

In *Continuous Power* mode, the scanner is always on, waiting for a trigger pull or serial communication.

In *Low Power* mode, the scanner is in a suspend state, drawing minimal power until a trigger pull or serial communication wakes it. Keep in mind that while this option is more suitable for battery powered applications, there will be a slight delay while the scanner powers up to scan a barcode.

Low Power Timeout

To extend laser life, you can select the time the scanner remains active following a successful decode. The scanner wakes from low power mode when a barcode is scanned—a successful decode restores normal flashing.

This is only used if the unit's *Trigger Mode* has been changed to *Continuous On*. If the unit is used in a fixed mount this parameter might be used, but not if the unit is used as a *Vehicle-Mount*.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of *30 sec.*, *1 min.*, *2 min.* or *3 min.*



Note: This parameter is only used if the Trigger Mode has been set to Continuous On and the 8516 is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.

Parameter Scanning

Setting this parameter to **on** enables decoding of parameter barcodes.

Linear Security Level

This parameter allows you to select the security level appropriate for your barcode quality. There are four levels of decode security for linear code types (e.g., Code 39, Interleaved 2 of 5). Higher security levels

should be selected for decreasing levels of barcode quality. As security levels increase, the scanner's decode speed decreases.

Double-tapping on this parameter displays a dialog box in which you can enter a value from **1** to **4**.

Linear security level 1 specifies that the following code types must be successfully read twice before being decoded:

Code Type	Length
Codabar	All
MSI Plessey	4 or less
D 5 of 5	8 or less
I 2 of 5	8 or less

Linear security level 2 specifies that all types of codes must be successfully read twice before being decoded.

Linear security level 3 specifies that code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:

Code Type	Length
MSI Plessey	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

Linear security level 4 requires that all code types be successfully read three times before being decoded.

Bi-Direction Redundancy



Note: This parameter is only valid if a "Linear Security Level" is enabled.

When this parameter is enabled, a barcode must be successfully scanned in both directions (forward and reverse) before being decoded.

D.2.3 Decoded (Internal) Data Options

Transmit Code ID Char

A code ID character identifies the scanned barcode type. In addition to any single character prefix already selected, the code ID character is inserted between the prefix and the decoded symbol.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a transmit code: *None*, *AIM* or *Symbol*.

Scan Data Format

This parameter allows you to change the scan data transmission format.

Double-tapping on **Scan Data Format** displays the following options from which you can choose a data format: *data (as-is)*, *data [S1]*, *data [S2]*, *data [S1][S2]*, *[P] data*, *[P] data [S1]*, *[P] data [S2]* and *[P] data [S1][S2]*.

Prefix [P], Suffix [S1] and Suffix [S2]

A prefix and/or one or two suffixes may be appended to scan data for use in data editing. When you double-tap on these parameters, dialog boxes are displayed in which you can enter a value from **0** to **255**.

Delete Char Set ECIs

Setting this parameter to **on** enables the scanner to delete any escape sequences representing Character Set ECIs (Eended Channel Interpretations [also known as GLIs]) from its buffer before transmission.

When this parameter is enabled, the scanner transmits data from PDF417 and MicroPDF417 barcodes containing Character Set ECIs, even when the ECI Protocol is disabled.

ECI Decoder

Setting this parameter to **on** enables the scanner to interpret any Eended Channel Interpretations (ECIs) supported by the scanner. This parameter has no effect on symbols that were not encoded using ECIs.

If this parameter is set to **off** and a symbol that was encoded using an ECI escape is scanned, the scanner transmits the ECI escape followed by the uninterpreted data.

The barcode symbologies for the scanner are listed in Table D.1.

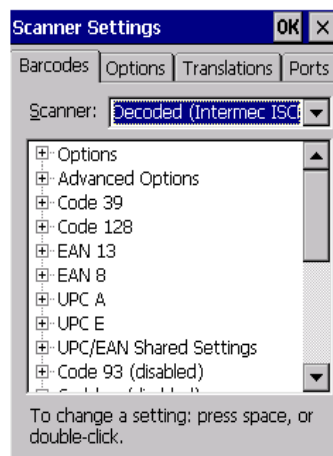
Table D.1

Decoded (Internal) Barcode Symbologies	
Code 39	UPC/EAN Shared Settings
Trioptic Code (disabled)	Code 93 (disabled)
Code 128	Codabar (disabled)
EAN 13	MSI Plessey (disabled)
EAN 8	Interleaved 2 of 5 (disabled)
UPC-A	Discrete 2 f 5 (disabled)
UPC-E	Gs1 DataBar (disabled)

D.3 Decoded (HHP)

To configure imagers, please see Appendix C: "Imager & Camera Settings".

D.4 Decoded (Intermec ISCP)



- Tap on the **Scanner** drop-down menu, and choose **Decoded (Intermec ISCP)**.

D.4.1 Decoded (ISCP) Options

Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between **1** and **10** seconds.

D.4.2 Decoded (ISCP) Advanced Options

Continuous Scan Mode

Setting this parameter to **on** keeps the laser on and continuously decoding as long as the scanner button is pressed and held down.

Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when you quickly trigger on/off.

Low Power Timeout

To extend laser life, you can select the time the scanner remains active following a successful decode. The scanner wakes from low power mode when a barcode is scanned—a successful decode restores normal flashing.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of *30 sec*, *1 min*, *2 min*, or *3 min*.



*Note: This parameter is only used if the Trigger Mode has been set to **Continuous On** and the unit is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.*

Parameter Scanning

Setting this parameter to **Enabled** allows decoding of parameter barcodes.

Same Read Validate

The data is only transmitted after repeated reads give the same result. The value assigned at this parameter determines the number of reads required, from *0* to *10* times.

Same Read Timeout

Prevents the same barcode from being read more than once. The value assigned determines after what time period the scanner will timeout, from *0* to *2550 msec*.

Diff Read Timeout

Prevents unwanted reading of other barcodes on the same label. The value assigned determines after what time period the scanner will timeout, from *0* to *2550 msec*.

Add AIM ID Prefix

The *AIM ID* (Association for Automatic Identification and Mobility) is an international barcode identifier. When this parameter is enabled, the *AIM ID* is inserted at the beginning of the decoded barcode.

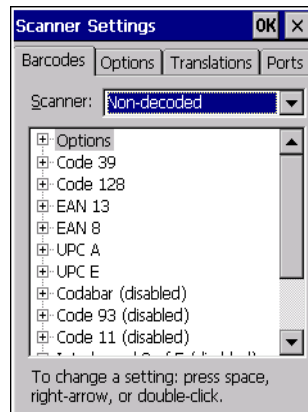
The barcode symbologies for the scanner are listed in Table D.2.

Table D.2

Decoded (Intermec ISCP) Barcode Symbologies	
Code 39	TLC-39 (disabled)
Code 128	2D PDF-417
EAN 13	2D micro PDF-417
EAN 8	Discrete 2 of 5 (disabled)
UPC-A	Telepen (disabled)
UPC-E	Gs1 DataBar (disabled)
UPC/EAN Shared Settings	Composite
Code 93 (disabled)	TLC-39 (disabled)
Codabar (disabled)	PDF-417
MSI Plessey (disabled)	micro PDF-417 (disabled)
Code 11 (disabled)	CodaBlock F (disabled)
Interleaved 2 of 5 (disabled)	CodaBlock A (disabled)
Matrix 2 of 5 (disabled)	

D.5 Non-Decoded Scanners

Figure D.1 Non-Decoded Scanner Options



- Tap on the **Scanner** drop-down menu, and choose *Non-decoded*.
- All the available barcode symbologies for this type of scanner can be selected in this tab.
- A 'plus' sign (+) to the left of the menu item indicates that a sub-menu of parameters is attached.
- Tap on the **+** sign to display the sub-menu.
 - To change a parameter value, double-tap on the parameter. If you need to type a value, a dialog box is displayed in which you can type a new value. If you need to change a *yes* or *no* value, double-tapping on the parameter toggles between *yes* and *no*.

If you're using the keyboard:

- Highlight the barcode you want to work with, and press the [RIGHT] arrow key to display the sub-menu.
- Use the [UP] and [DOWN] arrow keys to highlight a parameter.
- To change a parameter value, press [SPACE] or the [RIGHT] arrow key. If a field requires text entry, a text box is displayed in which you can enter the appropriate value.

D.5.1 Options

- Tap on the + sign next to *Options* to display these parameters.

Dot Time (msec)

The value selected for “Dot Time (msec)” determines (in milliseconds) how long the targeting dot remains on before the scanner switches to a normal scan sweep. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 3000. A value of 0 (zero) disables the target dot.

Sho Code

When enabled, this parameter allows scanning of sho 12 of 5 barcodes (2 characters). When disabled, these sho barcodes are rejected.

Enabling “Sho Code” may reduce the robustness of the decoding since the Vehicle-Mount must decode more potential barcodes; it is therefore not recommended for general-purpose barcodes with 4 or more characters.

Verify

The value entered for this parameter determines the number of correct additional decodes required after the initial decode, prior to a barcode being accepted. Higher values significantly increase the time it takes to decode a barcode but also improve the reliability of the decoded barcode.

Security

This parameter controls the tolerance for decoding edge-to-edge barcodes (Code 93, Code 128, UPC/EAN). Lower values have a lower tolerance for misreads, but they also increase the time it takes to decode the barcode. The default value of 30 is generally a good compromise setting.

The barcode symbologies for the scanner are listed in Table D.3.

Table D.3

Non-Decoded Barcode Symbologies	
Code 39	Code 93 (disabled)
Code 128	Code 11 (disabled)
EAN 13	Interleaved 2 of 5 (disabled)
EAN 8	MSI Plessey (disabled)
UPC-A	Discrete 2 of 5 (disabled)
UPC-E	IATA 2 of 5 (disabled)
Codabar (disabled)	