Intermec

User's Manual Addendum

CK30 Handheld Computer

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Contents

What's New in Service Pack 2

This addendum covers the new features available in service pack 2 for the CK30 Handheld Computer. Use this addendum in combination with the CK30 Handheld Computer User's Manual (P/N 073528-003) for complete information for service pack 2. These features have been added or modified:

- CCX v1.0 compliance
- EAN.UCC Composite symbology
- Funk Odyssey™ security
- Ability to disable or modify some keypad key functions
- Radio Power Management
- Energy Saving mode with the 1551E or 1553 scanner

What Does CCX Compliance Mean?

The CK30 is now CCX v1.0 compliant. The Cisco Compatible Extensions (CCX) Program for WLAN devices provides tested compatibility with licensed Cisco infrastructure innovations. The Cisco Compatible Extensions Program enables you to take advantage of the Cisco Aironet® wireless network.

What is EAN.UCC Composite Symbology?

The EAN.UCC Composite symbology combines a linear component (EAN-128) with a 2D component (PDF417) to encode data. EAN.UCC Composite bar code symbols are used for encoding identification numbers and data supplementary to the identification in accordance with EAN and UCC application guidelines. You must have the IT4000 imager in your CK30 to be able to use the EAN.UCC Composite symbology.

Setting Funk Odyssey Security

Funk Odyssey security provides everything that you get with Microsoft security with the addition of CCX compliance. Funk security enables you to use LEAP and TTLS authentication on your CK30.

The type of security you choose is not dependent on your authentication server. For example, you can use Funk security with a Microsoft server.

To use Funk security, you need to:

- Select Funk security as your security choice
- Select a profile
- Set profile settings
- Download a certificate (if necessary)

Selecting Funk as Your Security Choice

The default security choice is Microsoft. If you want to use Funk security, you need to select it as your security choice.

To select Funk security as your security choice

1. Press ▭● and then ●▭. The System Main Menu appears.
2. Select the **Configuration Utility**.
3. Select **Communications** > **802.11 Radio** > **Security Choice**.
4. From the Security Choice dialog box, choose **Funk Security**. An alert box appears asking if you want to warm boot now.
5. Press **Enter**. Your CK30 warm boots.

Selecting a Profile

You can define up to four profiles for your Funk Odyssey security. Different profiles let your CK30 communicate in different networks without having to change all of your security settings. For example, you might want to set up one profile for the manufacturing floor and one for the warehouse.

To select a profile

1. Press ▭● and then ●▭. The System Main Menu appears.
2. Select the **Configuration Utility**.
3. Select **Communications** > **802.11 Radio** > **Select Profile**.
4. Select **Active Profile** and choose the profile you want to name.

5 (Optional) Select **Change Profile Label** to give the active profile a meaningful name.

6 Repeat Steps 4 and 5 for as many profiles as you want to define.

7 Select the profile you want to configure with security settings.

8 Press **Esc** to return to the 802.11 Radio menu.

9 Configure your security settings.

Configuring WPA Security

Wi-Fi Protected Access (WPA) is a strongly enhanced, interoperable Wi-Fi security that addresses many of the vulnerabilities of Wired Equivalent Privacy (WEP). Instead of WEP, WPA uses Temporal Key Integrity Protocol (TKIP) for its data encryption method.

Currently, WPA satisfies some of the requirements in the IEEE 802.11i draft standard. When the standard is finalized, WPA will maintain forward compatibility. WPA runs in Enterprise (802.1x) mode or PSK (Pre-Shared Key) mode:

- In Enterprise mode, WPA provides user authentication using 802.1x and the Extensible Authentication Protocol (EAP). That is, an authentication server (such as a RADIUS server) must authenticate each device before the device can communicate with the wireless network.
- In PSK mode, WPA provides user authentication using a shared key between the access point and the CK30. WPA-PSK is a good solution for small offices or home offices that do not want to use an authentication server.

To use WPA security, you need:

- An authentication server (Enterprise mode only)

Note: You can also use a MobileLAN access point with software release 1.80 or later as an authentication server. For help, see the *MobileLAN access System Manual* (P/N 067150) or *MobileLAN access WA2X System Manual* (P/N 073915).

- An access point with an 802.11b/g radio that supports WPA

- CK30 with the 802.11b/g radio and the 802.1x/WPA security option

To enable WPA security on your CK30

1. Make sure you have selected Funk as your security choice.
2. Make sure you have configured the communications and radio parameters on your CK30.
3. Press ▭■ and then ■▭ to open the System Main Menu.
4. Choose **Configuration Utility** > **Communications** > **802.11 Radio** > **Profile Settings**.
5. For **Association**, choose **WPA** and press **Enter**.
6. For **Encryption**, choose **TKIP** and press **Enter**.
7. For **Authentication**, choose **TTLS**, **PEAP**, or **TLS** and press **Enter**.

   If you choose TTLS or PEAP:

   a. Select **User name**, type your user name, and then press **Enter**.

   b. Select **Password prompt**, choose **Enter password now**, and then press **Enter**.

Note: You can use **Prompt for password** to troubleshoot your connection to the network if you have problems.

   c. Select **User Password**, type a user password, and then press **Enter**.

   d. For **Validate Server Certificate**, choose **Enabled** and press **Enter**.

Note: You must have the date on the CK30 set correctly when you enable Validate Server Certificate..

   If you choose TLS:

   a. Load a user and root certificate on your CK30. For help, see “Loading a Certificate” on page 13 for help.

b For **Validate Server Certificate**, choose **Enabled** and press **Enter**.

c You must enter a **User Name** and **Subject Name**. You can also enter a **Server Common Name** if you want to increase your level of security.

8 Exit the Configuration Utility.

To enable WPA-PSK security on your CK30

1 Make sure you have selected Funk as your security choice.

2 Make sure you have configured the communications and radio parameters on your CK30.

3 Press ▭■ and then ■▭ to open the System Main Menu.

4 Choose **Configuration Utility** > **Communications** > **802.11 Radio** > **Profile Settings**.

5 For **Authentication**, choose **None** and press **Enter**.

6 For **Pre-Shared Key**, enter the pre-shared key or the pass phrase.

The pre-shared key must be a value of 32 Hex pairs. The pre-shared key must be preceded by 0x. The value must match the key value on the access point. The pass phrase must be from 8 to 63 characters.

7 Exit the Configuration Utility.

Configuring 802.1x Security

802.1x security provides centralized user authentication using an authentication server, authenticators (access points), and supplicants. These components communicate using an EAP authentication type, such as TLS (Transport Layer Security) or PEAP (Protected Extensible Authentication Protocol). 802.1x security provides data encryption using dynamic WEP key management.

To use 802.1x security, you need:

- An authentication server

Note: You can also use a MobileLAN access point with software release 1.80 or later as an authentication server. For help, see the *MobileLAN access System Manual* (P/N 067150) or *MobileLAN access WA2X System Manual* (P/N 073915).

- An access point with an 802.11b/g radio
- A CK30 with an 802.11b/g radio and the 802.1x/WPA security option

To enable 802.1x security on your CK30

1. Make sure you have selected Funk as your security choice.
2. Make sure you have configured the communications and radio parameters on your CK30.
3. Press ▭■ and then ■▭ to open the System Main Menu.
4. Choose **Configuration Utility** > **Communications** > **802.11 Radio** > **Profile Settings**.
5. For **Association**, choose **Open** and then press **Enter**.
6. For **Encryption**, choose **WEP** and then press **Enter**.
7. For **Authentication**, choose **TTLS, PEAP**, or **TLS** and then press **Enter.**

   If you choose TTLS or PEAP:

   a. Select **User name**, type your user name, and then press **Enter**.

   b. Select **Password prompt**, choose **Enter password now**, and then press **Enter**.

Note: You can use **Prompt for password** to troubleshoot your connection to the network if you have problems.

   c. Select **User Password**, type a user password, and then press **Enter**.

   d. For **Validate Server Certificate**, choose **Enabled** and press **Enter**.

If you choose TLS:

a Load a user and root certificate on your CK30. For help, see “Loading a Certificate” on page 13 for help.

b For **Validate Server Certificate**, choose **Enabled** and press **Enter**.

c You can also enter a **User Name**, **Subject Name** and **Server Common Name** if you want to increase your level of security.

8 Exit the Configuration Utility.

Configuring LEAP Security

Lightweight Extensible Authentication Protocol (LEAP), also known as Cisco-Wireless EAP, provides username/password-based authentication between a wireless client and a RADIUS server. In the 802.1X framework, a LAN station cannot pass traffic through an Ethernet hub or WLAN access point until it successfully authenticates itself.

The station must identify itself and prove that it is an authorized user before it is actually allowed to use the LAN. LEAP also delivers a session key to the authenticated station, so that future frames can be encrypted with a key that is different than keys used by others sessions

To use LEAP security, you need:

- A RADIUS server
- Cisco access points

To enable LEAP security on your CK30

1 Make sure you have selected Funk as your security choice.

2 Make sure you have configured the communications and radio parameters on your CK30.

3 Press ▭■ and then ■▭ to open the System Main Menu.

4 Choose **Configuration Utility** > **Communications** > **802.11 Radio** > **Profile Settings**.

5 For **Authentication**, choose **LEAP** and then press **Enter**.

6 For **Association**, choose **Open** or **Network EAP** and then press **Enter**.

7 For **Encryption**, choose **WEP** and then press **Enter**.

8 Select **User name**, type your user name, and then press **Enter**.

9 Select **Password prompt**, choose **Enter password now**, and then press **Enter**.

Note: You can use **Prompt for password** to troubleshoot your connection to the network if you have problems.

10 Select **User Password**, type a user password, and then press **Enter**.

11 Exit the Configuration Utility.

Configuring Static WEP Security

The CK30 uses the Wired Equivalent Privacy (WEP) protocol to add security to wireless local area networks (WLANs) based on the 802.11b standard.

To use WEP security, you need:

- A CK30 handheld computer with an 802.11b/g radio.
- An access point with an 802.11b/g radio.

To enable WEP security on the CK30

1 Make sure you have selected Funk as your security choice.

2 Make sure you have configured the communications and radio parameters on your CK30.

3 Press ▭■ and then ■▭ to open the System Main Menu.

4 Choose **Configuration Utility** > **Communications** > **802.11 Radio** > **Profile Settings**.

5 For **Association**, choose **Open** and then press **Enter**.

6 For **Encryption**, choose **WEP** and then press **Enter**.

7 For **Authentication**, choose **None** and then press **Enter**.

8 Select **WEP Key** and then define a value for each WEP key. You can define up to four WEP keys.

Enter an ASCII key or a hex key that is either 5 bytes or 13 bytes long depending on the capability of the radio. Set a 5-byte value for 64-bit WEP or a 13-byte value for 128-bit WEP. Hex keys must be preceded by 0x and contain 5 or 13 hex pairs.

9 Press **Esc** to return to the Profile.

10 Select **Network Key Index**, choose the WEP key you want to use, and press **Enter**.

11 Exit the **Configuration Utility**.

Loading a Certificate

If you choose to use transport layer security (TLS) with WPA or 802.1x security, you need to have a unique client certificate on the CK30 and a trusted root certificate authority (CA) certificate. You can use a third-party CA to issue unique client certificates and a root certificate.

If you are using Active Directory® to issue certificates, you can use the Enroll Certificates application to load the certificates. If you are using a third-party CA, you can use the Import Root or User Certificates programs to load the certificates.

Note: Do not cold boot the CK30. Cold booting the computer resets the time and date.

To load certificates on the CK30 if you are using Active Directory

1 Configure the network and radio settings for the CK30 to communicate with your certificate authority.

2 From the Configuration Utility, Select **Communications** > **802.11 Radio** > **Certificates**.

3 Select **Enroll Certificates**.

The Enroll Certificates dialog box appears.

4 In the Enroll Certificates dialog box, enter the **User Name, Password,** and **Server** (IP address) to log into the CA server.

5 Press **Enter**. A dialog box appears asking if you want to load the root certificate.

6 Press **Enter** for yes. The Enrollment Tool message box appears telling you that the user certificate has been added.

7 Press **Enter** to close the Enrollment Tool message box.

8 Configure your CK30 for WPA or 802.1x security.

To load certificates on the CK30 if you are using a third-party CA

1 Copy your .cer file to the \temp\root folder on the CK30.

2 Copy your .der and .pvk files to the \temp\user folder on the CK30.

3 From the Configuration Utility, select **Communications** > **802.11 Radio** > **Certificates**.

4 Select **Import Root Certificates** to load the .cer file. A dialog box appears asking if you want to add the certificate to the root store.

5 Press **Enter** to add the certificate. A message box appears telling you that the root certificate has been imported.

6 Press **Enter** to close the Success message box.

7 Select **Import User Certificate** to load the .der and .pvk files. A message box appears telling you that the certificate has been imported.

8 Press **Enter** to close the Success message box.

9 Configure your CK30 for WPA or 802.1x security.

Disabling or Modifying Keypad Functions

You can disable the functionality of several keys on the keypad if you want to restrict the ability to perform adjustments made from the keypad, such as changing the contrast.

You can disable these keypad functions:

- Beeper volume
- Display contrast
- Backlight on and off
- Task Manager (opened by pressing **Alt** and then **Tab**)

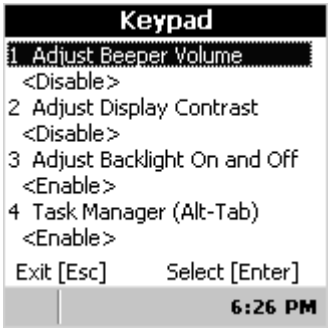
You can modify this keypad function:

- The behavior of the ⅟₀ key. You can configure the boot functionality to either warm or cold boot when you press and hold the ⅟₀ key for five seconds.

Note: This function is only available on CK30s with a PSC of 51 or higher. To find your PSC version, go to the System Main Menu and choose **Diagnostics** > **Hardware Diagnostics** > **PSC Utility**.

To disable keypad functions

1. Press ▭■ and then ■▭. The System Main Menu appears.
2. Select the **Configuration Utility**.
3. Select **Device Settings** > **Keypad**. The Keypad settings screen appear:



4 Choose the function you want to disable from the Keypad menu, select **Disable** from the function dialog box, and then press **Enter**.

5 Exit the Configuration Utility.

To change the ⅛ key functionality

1 Press ▭■ and then ■▭. The System Main Menu appears.

2 Select the **Configuration Utility**.

3 Select **Device Settings** > **Keypad**.

4 From the **Keypad** menu, select **Configure Boot Functionality**.

5 Choose **Warm Boot** or **Cold Boot** and then press **Enter**.

6 Exit the Configuration Utility.

Using the CK30 With a Low Battery Condition

If the Battery light blinks or turns on solid, you cannot restore factory defaults or perform a warm or cold boot on your CK30 using the ⅛ key. You must replace the battery with a fully charged battery before you can restore factory defaults or boot your CK30.

Note: This function is only available on CK30s with a PSC of 51 or higher. To find your PSC version, go to the System Main Menu and choose **Diagnostics** > **Hardware Diagnostics** > **PSC Utility**.

Caution

Removing the main battery when the backup battery low or critically low icon displays in the status bar may cause your CK30 to cold boot and you may lose data.

Attention: L'enlèvement de la batterie principale quand le bas de secours de batterie ou les affichages en critique bas d'icône dans la barre de statut peut causer votre CK30 à la botte froide et de vous peut perdre des données.

Understanding Radio Power Management Settings

There are now only two choices for radio power management settings on the CK30. These radio power management settings apply to Microsoft security. Use this table to understand the new power management settings.

New Settings	Description
Disabled (CAM)	Specifies continuous access mode (CAM) and is the default.
Enabled (FAST PSP)	Specifies a fast power saving mode that provides the best combination of performance and power usage.

Using Energy Saving Mode With Your 1551E or 1553 Scanner

Use Energy Saving mode with your 1551E or 1553 scanner to save battery power on your CK30. When you use Energy Saving mode, the scanner is active while you are pressing the trigger and goes into Standby mode after a good read. With Energy Saving mode enabled, the current consumption drops to zero during standby. Full energy is restored when you scan the next label.

To use Energy Saving mode, you need:

- An energy saver cable. On a 10-pin scanner port, cable P/N 3-606034-02 is required.
- Firmware version 2.13 or later on the scanner.

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