

Encompass[®] 1d Handheld Reader Quick Start Guide



TransCore

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Safety/Regulatory/Compliance



To comply with RF exposure limits, bystanders should stay away from the front of this product, at least 7.9 inches (20 cm), when it is operating. This product complies with all other RF exposure requirements while the unit is operating, including specific absorption rate (SAR) limits for the user's hand.



The TransCore RFID End Cap Reader has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate RF energy and may cause harmful interference to radio communications if not installed and used in accordance with the instruction manual. Operating this equipment in a residential area is likely to cause harmful interference, in which case, depending on the regulations in effect, the user may be required to correct the interference at their own expense.

The RFID End Cap Reader may not be modified, altered, or changed in any way without permission from TransCore, LP. Unauthorized modification may void the equipment authorization from the FCC and will void the TransCore warranty.

See the DAP *CE5000B Handheld Mobile Computer User Guide* for pertinent regulatory information for the CE5240B or CE5240BWE equipment. This document is available online at www.daptech.com.

Introduction

This guide describes the operation of the TransCore RFID End Cap Reader when used with the DAP Model CE5000B-series (CE5240B or CE5240BWE) Mobile Computer. These components, which combined, comprise TransCore's Encompass 1d Handheld Reader. This document describes procedures to set up and read from and/or write to tags using the Encompass 1d Handheld Reader.

Please refer to *CE5000B Handheld Mobile Computer User Guide* for comprehensive user information about the DAP Model CE52400B or CE5240BWE Mobile Computer.

Before Getting Started

TransCore's Encompass 1d Handheld Reader is designed to read from TransCore eGo^{®1} tags, ATA, Wiegand, and CALTRANS Title 21 tags; and read from or write to eGo Plus tags and TransCore Intellitag 2000 (Allegro) tags,

Handheld Reader Setup Instructions

To set up the basic Encompass 1d Handheld Reader, you will need the following items:

- TransCore Encompass 1d Handheld Reader
- TagReader Demo software program preloaded on the DAP CE5000B-series (CE5240B or CE5240BWE) Mobile Computer
- Encompass 1d reader Ethernet office cradle with AC adapter and power cord

1 eGo tags are fully compliant with the American National Standards Institute INCITS 256-2001 and International Organization for Standardization 18000-6B standards.

Charging the Encompass 1d Handheld Reader

Before you can use the Encompass 1d Handheld Reader, you must charge its battery. The charging process takes approximately 5 hours. There are two ways to charge the battery:

- Plug the modular charger directly into the Encompass 1d Handheld Reader
- Place the handheld reader in the Ethernet office cradle and plug the cradle into a power outlet

Note: To preserve battery integrity, recharging must only take place when the battery is at a temperature between 41°F (5°C) to 113°F (45°C). The battery status indicator glows yellow if the battery is too hot or too cold to be charged and the charging system is disabled.

To charge the Encompass 1d reader using the modular charger

1. Plug the modular charger into the handheld reader (Figure 1) then plug modular charger into a grounded outlet.



Figure 1. Modular Charger Connector

The battery status LED (Figure 2) will glow red within five seconds of connecting the handheld reader indicating that the unit is charging. The LED will change to green when charging is complete, which can take up to five hours.

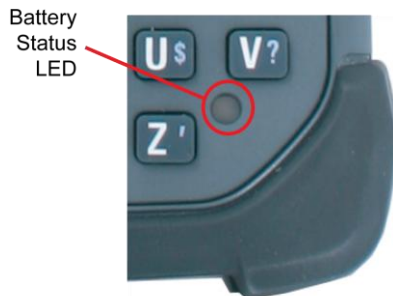


Figure 2. Battery Status LED

Note: When charging the reader, tag read performance may be degraded. TransCore recommends that you do not attempt to read tags while the reader is charging.

Battery Status Light-Emitting Diode Indicator

The charger LED indications are as follows:

Color	Definition
Red	Charger is connected and charging
Green	Battery is fully charged
Blinking Red	Warning, low battery
Yellow	Charger detected but the battery charger temperature is too high or too low to recharge. Charging will start when battery temperature is within specifications
Blinking Yellow	Charging disabled by the application program.
No Light	Power from the charger not detected.

TransCore recommends that you charge the Encompass 1d reader after each shift.

To charge the Encompass 1d reader using the Ethernet office charger

2. Power up the office cradle by plugging the round connector of the modular charger into the office cradle (Figure 3).



Figure 3. Ethernet Office Cradle with Charger

3. Slide the Encompass 1d Handheld Reader into the cradle (Figure 4).



Figure 4. Encompass 1d Reader in Office Cradle

4. Plug modular charger into a grounded outlet.

The battery status LED will glow red within five seconds of connecting the office cradle and handheld reader to power. The LED will change to green when charging is complete, which can take up to five hours.

Using Your Encompass 1d Handheld Reader

Before reading tags, check the Encompass 1d battery capacity by checking the Battery Status LED indicator (Figure 2).

To start the Encompass 1d reader

5. Press the F1 key for 2 seconds (Figure 5).



Figure 5. On/Off Key

6. Once the Welcome screen displays, click on the Start button in the lower left corner and select Programs > TagReaderDemo. You can also create a shortcut to the TagReaderDemo as shown in Figure 6 and Figure 7.



Figure 6. Startup Menu



Figure 7. TagReaderDemo in Programs

Reading Tags

To read tags

7. Tap the Tag/Reader Demo icon or select TagReader Demo from the Start menu.
8. Aim the handheld reader at the tag and press any non-function key. Do not press yellow function keys to read tags. These are F1 to F4 keys, arrow keys, ALT, CTL, BKSP, SP, and so on. To obtain a good first-time read, the front edge of the handheld reader needs to be within 3.5 to 12 feet (approximately 1.1 to 3.7 meters) of the tag.
9. Check the mobile computer screen to see if the tag type and ID displayed.

Note: Windshield sticker-type tags are designed for optimal performance when mounted to a windshield. Tags that are not mounted to glass will not perform to the specifications listed in this guide.

Figure 8 shows an example of an ATA tag read.



Figure 8. Sample Display of ATA Tag Read

Figure 9 shows a half-frame Wiegand tag read.



Figure 9. Sample Display of Half-Frame Wiegand Tag Read

Figure 10 shows an example of an eGo or eGo Plus tag read.

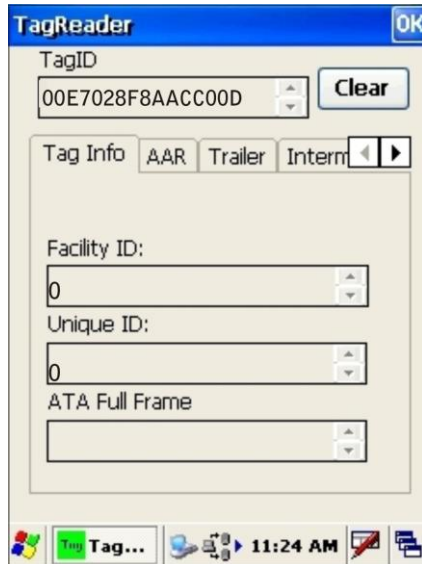


Figure 10. Sample Display of an eGo or eGo Plus Tag Read

Figure 11 shows an example of an IT2000 (Allegro) tag read.

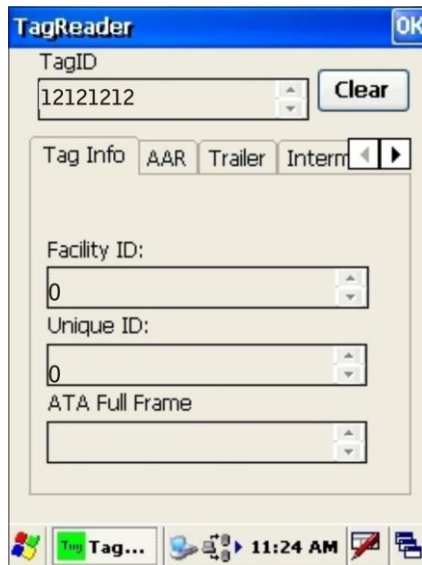


Figure 11. Sample Display of an IT2000 (Allegro) Tag Read

Figure 12 shows an example of a Title 21 tag read.

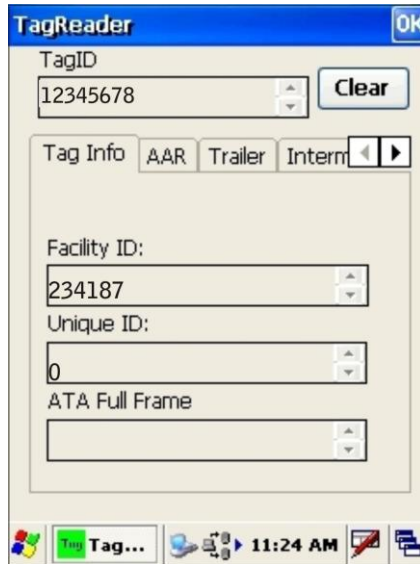


Figure 12. Sample Display of a Title 21 Tag Read

Resetting Your CE5000B-series Mobile Computer

Applications operating on your CE5000B-series Mobile Computer may stop responding to the system. Should this occur, you may need to reset the computer. There are two ways to reset the CE5000B.

- You can click on the Start button in the lower left corner and select Programs > DAP Utilities. Select "Soft Reset" from the utilities menu. This resetting takes approximately 1 minute.
- You can also press the **F1 + 0 + 9** keys simultaneously for approximately 5 seconds to reset the CE5000B computer.

Encompass 1d Handheld Reader Specifications

Specifications for the Encompass 1d Handheld Reader are printed on the back side of the *Encompass 1d Handheld Reader Product Profile* (TransCore document number 600006). The Encompass 1d Handheld Reader product profile can be found at www.transcore.com. Select downloads then RFID PRODUCTS and Readers.

Two easy ways to contact us:

- Call Dealer Technical Support at 214.461.6449
- Visit us on the Web at www.transcore.com

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