# TriCom Card Technologies, Inc.

## ID-e User's Manual

### Key Definition

#### SET

- 1. Main menu entry, press and hold this key at least 3 seconds to enter menu mode.
- 2. Time adjusting, press this Key to switch to next field during time adjusting mode.

#### **ENTER / Power**

- 1. Power on.
- 2. Power off, press and hold this key at least 3 seconds to turn off power
- 3. Function execution.
- 4. Time adjusting, press this key to end of time adjusting mode

#### UP

- 1. View the last record, press this key to display the last cardholder's age.
- 2. Menu scroll up.
- 3. **Increase**, during time adjusting mode.

#### DOWN

- 1. **View the last record**, press this key to display the track 1 and track 3 data of last card swiped.
- 2. Menu scroll down.
- 3. Decrease. During time adjusting mode

#### SET & DOWN

1. 2D bar code reading, click both keys will trigger the scan function of Imager on.

### **Operation Sequence**

#### Power ON / OFF

- 1. Press [ENT / POWER] key to power on *ID-e* Reader.
- 2. Press and hold [ENT / POWER] key for 3 seconds to power off *ID-e* Reader.

#### Power Status

- 1. If the power is from USB or AC power adaptor, the power indicator will display a "plug" icon.
- 2. If the power is from battery, the power indicator will display a "battery" icon.
- 3. If the battery power is low, the power indicator will display an "empty battery" icon.

#### Notice:

*ID-e* will not immediately detect power jack or USB plug-in or plug-out. However, it checks the status of external power after key pressing or RTC (Real Time Clock) interrupt happened. In other word, if user does not press the key after plug-in power jack. The maximum delay for showing the "plug" icon may be up to 1 min.

#### Main Menu

- 1. Press [SET] key for 3 seconds at clock display to enter main menu.
- 2. Press [UP] or [DOWN] key to scroll up or down the selection bar.
- 3. Press [ENT] key to execute the function.
- If no any keys are pressed, after 6 seconds *ID-e* will exit main menu and back to clock display.

#### Set Time & Date

- Press [SET] key to set the real time calendar (including date/time). The setting sequence as follows.
   <Month>→<Date>→<Year>→<AM / PM>→<Hour>→<Minute>
- 2. The setting object will be blinking, then press [UP] or [DOWN] key to increase/decrease timer.
- 3. Press [ENT] key to exit. *ID-e* will reset "second" to zero at this moment.

#### Upload Data

- *ID-e* will send the first record and wait for an <ACK > (hex code: 06h) to send the next one or a NAK (hex code: 15h) to resend the record.
- 2. All of the records will not erase after uploading. Please refer to [Erase Record] section for record erased, if user intends to do that function.
- 3. When upload done, the display will go back clock display after idle 6 seconds, this is due to power saving.

#### View Report

- 1. Press [UP] or [DOWN] key to view the record.
- 2. Press [ENT] key to exit.

#### Name-Age-DL#

1. Set the display sequence for each card swiping.

#### Age-DOB-Exp

1. Set the display sequence for each card swiping.

### Age-DOB

1. Set the display sequence for each card swiping.

#### Erase Records

- 1. Press [ENT] key.
- 2. Select [Yes] to erase records.
- 3. Select [No] to exit.

#### Update Config

- 1. Press [ENT] key.
- 2. Insert SLE4428 card which state format included.
- 3. Press [ENT] to starting update or [SET] to exit.

#### Read 2D bar code

- 1. Press [SET] and [ENT] key to start the 2D Imager scanning.
- 2. The Imager will be turned on and wait for reading driver licenses.
- 3. If no cards to be read, the Imager will be turned off after 6 seconds.

#### Notice:

There are two setting of 2D barcode reader must be set before attaching it to *ID-e*.

- 1. Set the baud rate at **19200.**
- 2. Set the **Power Hold** mode to **ON** to keep the Imager always in ready state.

(The factory default settings of barcode reader are baud rate 38400 and power hold mode off. *ID-e* cannot talk to barcode reader for such setting. Please refer to HHP4410/4710 user's manual page 2-11 and 2-17. Press the button on the HHP 2D Imager and scan correct barcode pattern to change setting. This setting will store in nonvolatile memory that can keep forever.)

## ID-e Programmer's Manual

## **Communication Data Format**

For PC communication	
Baud rate:	19200
Parity:	None
Data bit:	8
Stop bit:	1
Hardware flow control:	None

#### For communication of 2D barcode imager

Baud rate:	19200
Parity:	None
Data bit:	8
Stop bit:	1
Hardware flow control:	None

## Definition

<stx></stx>	start of text	02h
<fs></fs>	form separator	1Ch
<etx></etx>	end of text	03h

<lrc></lrc>	longitudinal redundancy check	00h~FFh

For example: LRC = 0 xor 0 xor 0 xor 0 xor 1 xor <FS> 0 xor 2 xor - xor 0 xor 8 xor..... <FS> xor T xor K xor 1 xor ...xor <ETX> (All characters except <STX>)

<eot></eot>	end of transmission	04h
<time command="" setting=""></time>	RTC	
<time format=""></time>	YYMMDDHHMMSS (24 hour)	
<record number=""></record>	00001 ~ 99999	
<time stamp=""></time>	MM-DD-CCYY HH:MMPM(AM)	
<card type=""></card>	B (Barcode), C (Credit card), D	(Driver license) or O (ISO card)
<driver license#=""></driver>	driver license number	

<age></age>	age
<birth date=""></birth>	CCYYMMDD
<name></name>	Cardholder's name
<credit card#=""></credit>	Credit card number
<expiration date=""></expiration>	Expiration date (YYMM)
<track 1="" data=""/>	track one data
<track 2="" data=""/>	track two data
<track 3="" data=""/>	track three data

#### **Command Set Format**

#### Time setting

<STX><Time setting command><Time format><ETX><LRC>

#### Example

Time setting <STX>RTC020522162100<ETX><LRC>

#### Output Data Format

#### 2D barcode

<STX><Record Number><FS><Time Stamp><FS><Card Type><FS><Driver License#> <FS><Age><FS><Birth date><FS><Expiration Date><FS>2D barcode raw data<ETX> <LRC>

#### **Credit Card**

<STX><Record Number><FS><Time Stamp><FS><Card Type><FS><Name><FS><Credit Card#><FS><Expiration Date><FS>TK1<Track 1 data><FS>TK2<Track 2 data><FS>TK3 <Track 3 data><ETX><LRC>

#### **Driver License**

<STX><Record Number><FS><Time Stamp><FS><Card Type><FS><Driver License#> <FS><Age><FS><Birth date><FS><Expiration Date><FS>TK1<Track 1 data> <FS>TK2<Track 2 data><FS>TK3<Track 3 data><ETX><LRC>

#### **ISO Card**

<STX><Record Number><FS><Time Stamp><FS><Card Type><FS><FS><FS><TK1<Track 1 data><FS>TK2<Track 2 data><FS>TK3<Track 3 data><ETX><LRC>

#### Example

#### 2D barcode

<STX>00278<FS>06-10-2002 10:29PM <FS>B<FS>9336410<FS>37<FS>19650101 <FS>20010808<FS>@\_AAMVA AL001DL00290240 ?DAASAMPLE D DRIVER DAL500 DEXTER AVE DANMONTGOMERY DAOALDAQ9336410DARDMVDASA DAT DAU5-07DAW125DAYBRODAZREDDBA08-08-2001DBB01-01-1965DBCFDBD08-08-1997D **BF0DBHYDBK** \_\_00278\_06-10-2002 10:29PM B 9336410 37 19650101 20010808 @ AAMVA AL001DL00290240 ?DAASAMPLE D DRIVER DAL500 DEXTER AVE DANMONTGOMERY DAOALDAQ9336410DARDMVDASA DAT DAU5-07DAW125DAYBRODAZREDDBA08-08-2001DBB01-01-1965DBCFDBD08-08-1997D **BF0DBHYDBK** <ETX><LRC>

#### Credit Card

<STX>00002<FS>02-08-2002 12:01AM<FS>C<FS>Jerry Wang<FS>B0123456789<FS> 0311<FS>TK1B0123456789^Jerry Wang^111111111000<FS>TK20123456789=0311001 11111111000<FS>TK3<ETX><LRC>

#### **Driver License**

<STX>00001<FS>02-08-2002 12:00AM<FS>D<FS>0971018666<FS>28<FS>19741115 <FS>19971115<FS>TK1DSAM K DRIVER 2415 1ST AVE SACRAMENTO<FS>TK26006460971018666=9711=19741115<FS> TK3C CA95818 MBRNBRN510180 11151993131888819<ETX><LRC>

#### **ISO Card**

#### SLE 4428 Memory Map For State Format Update

#### Note:

The data that color in red cannot be modified. Total memory size for ID-e using is 976 bytes.

#### The way to write data into SLE4428 for update ID-e state format.

- 1. Will provide a binary file for writing this file into memory card.
- 2. The valid memory is from address

3. Write the binary file into memory card from 0xxxxo 0xxxxh.

## ID-e USB Driver Installation Guide

## For Windows XP



- 1. Select Install from a list or specific location (Advanced).
- 2. Click Next.



- 1. Specify the location of USB driver. (For example: \USB Driver\Win2K\_XP)
- 2. Click Next.

At the time of this product's release, Microsoft strongly encouraged companies to submit their hardware solutions for certification. If a hardware device driver is not submitted, or does not qualify, for Microsoft certification, a warning message appears. You may see this warning message when installing this driver or update. If you do, you may choose to click the Continue Anyway button. We have tested this driver or update on Windows XP, and it does not impair or destabilize your computer.



1. Click **Continue Anyway**.



- 1. Windows will detect a new USB device. For example: ID-e Reader.
- 2. Click Finish.

🖴 Device Manager	
<u>File Action View H</u> elp	
$\leftarrow \rightarrow   \blacksquare   \textcircled{2} \Leftrightarrow   \textcircled{2}   \textcircled{2}   \bigtriangledown [2] \Leftrightarrow \fbox{2}$	
	^
🗄 😼 Computer	
🗄 🧼 Disk drives	
🗄 😼 Display adapters	
🕀 🥝 DVD/CD-ROM drives	
🗄 🗃 Floppy disk controllers	
🗄 🖑 Floppy disk drives	
🗉 🚍 IDE ATA/ATAPI controllers	
E workeyboards	
Here and other pointing devices	=
H S Monitors	
General Science Back (COM1)	
General Communications Port (COM2)	
ECD Printer Dart (LDT1)	
De Reader (COM4)	
The Processors	
Execution of the second	
The Sound, video and game controllers	
E Sorage volumes	~

1. If no any virtual COM port is assigned to this device, you may need to re-install the driver.

## For Windows 2000



1. Click Next.

A devi an ope	ce driver is a software program that enables a hardware device to work with rating system.
This wi	zard will complete the installation for this device:
- Postal Andread Andre	USB Device
A devid needs installa	e driver is a software program that makes a hardware device work. Windows driver files for your new device. To locate driver files and complete the tion click Next.
What o	lo you want the wizard to do?
۰	Search for a suitable driver for my device (recommended)
C	Display a list of the known drivers for this device so that I can choose a specific driver

- 1. Select Search for a suitable driver for my device.
- 2. Click Next.

und New Hardware Wizard	
Locate Driver Files Where do you want Windows to se	sarch for driver files?
Search for driver files for the followi	ng hardware device:
USB Device	
The wizard searches for suitable dri any of the following optional search	ivers in its driver database on your computer and in I locations that you specify.
To start the search, click Next. If yo insert the floppy disk or CD before o	ou are searching on a floppy disk or CD-ROM drive, Slicking Next.
Optional search locations:	
Floppy <u>disk</u> drives	
🔲 <u>C</u> D-ROM drives	
Specify a location	
Microsoft Windows Update	
	< <u>B</u> ack <u>N</u> ext > Cancel

- 1. Specify the location.
- 2. Click Next.

ound Ne	w Hardware Wizard	<u>:</u>
	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Cancel
	Copy manufacturer's files from:	
	D:\Project\IDE0161C\Driver	Browse

- 1. Specify the location of USB driver.
- 2. Click OK.

Locate File					? ×
Look jn:	🔁 Driver		-	+ 🗈 💣 🎟•	
History	Win2K Win98_ME				
Desktop					
My Documents					
My Computer					
Mu Network P.	File <u>n</u> ame:	SERWPL		T	<u>O</u> pen
	Files of type:	Setup Information (*.inf)		<b>V</b>	Cancel

- 1. Select the file **SERWPL**.
- 2. Click **Open**.

The wit	and found a driver for the following device:
	USB Device
Windov	rs found a driver for this device. To install the driver Windows found, click Next.
-	d:\project\ide0161c\driver\serwpl.inf

1. Click **Next** to install the driver.

Found New Hardware Wizard		
	Completing the Found New Hardware Wizard <sup>ID-e Reader</sup> Windows has finished installing the software for this device.	
i o ciose triis wizard, click Finish.		
	< Back Finish Cancel	

1. Click Finish.



2. If no any comm. port is assigned to this device, you may need to re-install the driver.

## For Windows 98

Add New Hardware Wiza	rd
	This wizard searches for new drivers for:
	Unknown Device
	A device driver is a software program that makes a hardware device work.
	< Back Next > Cancel

1. Click Next.

Add New Hardware Wizard	d What do you want Windows to do?
	<ul> <li>Search for the best driver for your device. (Recommended).</li> <li>Display a list of all the drivers in a specific location, so you can select the driver you want.</li> </ul>
	< <u>B</u> ack Next > Cancel

- 1. Select Search for the best driver for your device.
- 2. Click Next.

Add New Hardware Wizar	rd
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
	< <u>B</u> ack Next > Cancel

- 1. Specify the location of USB driver.
- 2. Click Next.

Add New Hardware Wiza	d
	Windows driver file search for the device:
	ID-e Reader
	Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
<b>*</b>	Location of driver:
	< <u>B</u> ack Next> Cancel

- 1. You can see a new device of *ID-e* Reader.
- 2. Click **Next** to install the driver.

Add New Hardware Wizar	d
	ID-e Reader
	Windows has finished installing the software that your new hardware device requires.
	< Back Finish Cancel

- 1. Click Finish.
- 2. When finished, there is one more driver has to be installed.

System Properties
General Device Manager Hardware Profiles Performance
• View devices by type • View devices by <u>c</u> onnection
<ul> <li>Floppy disk controllers</li> <li>Hard disk controllers</li> <li>Keyboard</li> <li>Monitors</li> <li>Mouse</li> <li>Other devices</li> <li>Ports (COM &amp; LPT)</li> <li>Communications Port (COM1)</li> <li>Communications Port (COM2)</li> <li>ECP Printer Port (LPT1)</li> <li>ID-e Reader (COM3)</li> <li>SCSI controllers</li> <li>Iomega Parallel Port Zip Interface</li> <li>Sound, video and game controllers</li> <li>System devices</li> <li>Universal serial bus controller</li> </ul>
Properties Refresh Remove Print
OK Cancel

1. If no any comm. port is assigned to this device, you may need to re-install the driver.

## ID-e Firmware Update Instruction

- 1. Power on *ID-e*.
- After you see the firmware version displayed the second the unit boots-up,...for instance IDE01A5F.BIN..... displayed,.... press the correct key sequence to enter download mode. The key sequence for entering boot mode is from the "OFF" position,......ENT,- ENT UP SET ENT DOWN SET. Note: *ID-e* waits about 3 sec. (max) for key entry.

#### **Caution:**

If the firmware is corrupt, the firmware version will not be displayed. Power on *ID-e* again and press both [SET] & [ENT] key as soon as possible then release. If succeed, *ID-e* will display ENTER PASSWORD. The password is same as above. After enter password, the system will be forced to enter download mode.

- 3. *ID-e* prompts a dialogue message to make sure that you really want to do that.
- 4. Press [ENT] to select YES for flash erasing. Otherwise, press [DOWN] key to select "NO" to exit whole process.
- 5. The firmware will be erased and then display READY FOR DOWNLOAD.
- 6. Run the download program **IDEDLX1A.exe**
- 7. Click Load File.

Checksum	<pre>     Com 3     </pre> <pre>         </pre>	Auto Run
	0%	

# 8. Choose IDE01A5H.bin

Open		<u>? ×</u>
Look <u>i</u> n: 🔁	DE0161C	- 🖬 🍅 🖬 -
Driver EPROM Da Inc Lib Output SOURCE	STARTUP ata TestTool	
File <u>n</u> ame:	IDE0161C	<u>O</u> pen
Files of <u>type</u> :	Binary File(*bin)	Cancel

9. Select the correct comm. port that *ID-e* is using.

D-e f/w download Com port selection Load File Checksum	Com 3 Com 1 Com 2 Com 3 Com 4 Com 5 Com 6	Auto Run
	File size in bytes: 53232	
	0%	
CAUTION: 1. Plea 2. New 3. Doi	ase close all applictaions. er plug out the reader during on the reader during on the reader during on the reader during the second second	operation. while downloading.

10. Click Auto Run.

ID-e f/w download		<u> </u>
Com port selection Load File Checksum	Com 4	Auto Run
F	Firmware downloading	
	17%	
CAUTION: 1. Please close all applictaions. 2. Never plug out the reader during operation. 3. Do not run any other application while downloading.		

- 11. When download done *ID-e* will power off automatically.
- 12. Click No to exit.

Continue?	×
Yes: Download agair	n with the same F/W
No: Exit.	
<u> </u>	No