



Proxcheck User's Guide

This user guide provides information on how to use and operate the Proxcheck Proximity Card Verifier.

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Revision pages of this manual are marked in the lower center of each page, noting the current revision level, and revision date.

IBC Document ID: PROXCHECK
Version: 1.00
Revision: 0.0
Date: 29 SEP 11

The Proxcheck



Package Contents

Included in your package should be:

- 1 Proxcheck
- 1 AC Adaptor
- 1 USB cable
- 1 "ProxCheck" Proximity Card

Please inspect your package to be sure that you have all of the items listed.

Proxcheck Features

The proxcheck contains a 2-line backlit led display on the front of the unit for displaying proximity card information. On the right side of the Proxcheck is a usb connector, a receptacle for the supplied ac adapter, and an on/off switch.

The proxcheck can be powered from the ac adapter, the usb cable, or 2 AA batteries. The usb cable and ac adapter can be connected at the same time and will not harm the proxcheck, even if there are batteries in it.

Proxcheck can be used to verify or analyze the bit structure of a proximity card, and decode the data from the card using preloaded data formats.

Proxcheck can read Farpointe, Hid, and Awid cards, up to 64 bits in length.

The Bit Dump displays 16 bits on each screen. The 1st 16 bits are shown first, then each additional scan of the card shows another 16 bits, until all bits have been displayed.

The Hexadecimal dump shows all of the bits (in hex) on one display line.

Getting Started

Connect the ac adapter to the proxcheck and plug in the ac adapter.

The Proxcheck screen should display:

ProxCheck V1.0

Present any supported (Hid,Farpointe,Awid) proximity card to the ProxCheck and the Proxcheck will display the card manufacturer on the display along with the number of bits on the card.

Hid Card
26 Bits

Press the button on the side of the Proxcheck to move to the next menu. Proxcheck will now display a bit dump of the card. The first screen will display bits 1 through 16. Pressing the button again will display additional bits, 16 at a time, until all the bits on the card have been displayed:

Bits 1 Thru 16
1000111001101001

Bits 17 Thru 26
1000111001

Pressing the button again moves to the next screen which displays the card data in hexadecimal:

Hex Dump 26 Bit
8E698E4

Note that each hexadecimal character represents 4 bits. Cards that contain a number of bits not evenly divisible by 4 will be left justified in the hexadecimal data.

Following the hexadecimal dump, the next display will show a decode of the card data. The Proxcheck comes with a number of pre-defined formats for 26,30,32,34,35,37, and 50 bit cards. For 26 bit cards, there are 3 pre-defined formats. The first format is the standard 26 bit format with a site code and id number. Proxcheck will show this format first.

(26-1) FC:5
ID:2

The (26-1) means this is the first pre-defined format for 26 bits. Pressing the button again will display the next pre-defined format for this card if there is one. For 26 bit cards, there are three pre-defined formats.

(26-2)
ID:327681

(26-3)
ID:655362

Once all decoded formats have been displayed, Proxcheck will then go back to the welcome screen.

ProxCheck V1.0

You can present another card at any time to start a new card analysis and display. You do not have to wait for all display screens to be shown before reading a new card.

You can also program the Proxcheck to display only the decoded data for a card, using one of the pre-defined formats. This is discussed in the programming section.

Proxcheck Features

Auto Shutoff

The Proxcheck can be programmed to shut off automatically after a period of inactivity. The available options are:

- Shut off after 30 seconds of inactivity
- Shut off after 60 seconds of inactivity
- Shut off after 90 seconds of inactivity
- Never shut off

This feature should be used if operating Proxcheck using battery power.

Proximity Powersave

The proximity circuitry in the Proxcheck can be set to a power saving mode. In the power saving mode, less power is used however the read range for proximity cards becomes shorter. You will also have to hold the card in front of the reader for a longer period of time to read the card. Power saving mode is suggested only if operating under battery power.

The available options are:

- Power save always ON
- Power save always OFF
- Normally ON, but turn OFF for 1 minute following a card scan
- Normally ON, but turn OFF for 5 minutes following a card scan

In the bottom two modes, the power saving option is turned on, but once a card is read, it will be turned off for 1 or 5 minutes. This allows the Proxcheck to go into the power saving mode if there is no activity, and stay out of the power saving mode for a short period of time if there is activity.

Backlight

In low light environments it may be difficult to read the display without the use of the backlight.

The programmable backlight options are:

- Backlight always ON
- Backlight always OFF
- Backlight stays on for 10 seconds after a card scan
- Backlight stays on for 20 seconds after a card scan

Proximity Card Locks

The Proxcheck can be programmed to bypass the card analysis displays and show only the decoded data display. If you are using the Proxcheck solely for identifying the ID numbers from cards which have worn off printing, this is the mode you will want the Proxcheck to be in. Once in this mode, every time you present a card the decoded data will be displayed.

There are a number of pre-defined card formats programmed into the Proxcheck. These pre-defined formats are:

26 Bit:		
(26-1)	FC: 2-9	ID: 10-25
(26-2)		ID: 2-24
(26-3)		ID: 1-26
30 Bit:		
(30-1)		ID: 14-29
(30-2)		ID: 15-30
(30-3)		ID: 1-30
32 Bit:		
(32-1)		ID: 16-31
(32-2)		ID: 17-32
(32-3)		ID: 1-32
34 Bit:		
(34-1)	FC: 2-17	ID: 18-33
(34-2)		ID: 19-34
(34-3)		ID: 1-34
35 Bit:		
(35-1)		ID: 19-34
(35-2)	FC: 3-14	ID: 15-34
(35-3)	FC: 3-14	ID: 16-34
(35-4)		ID: 1-35
37 Bit:		
(37-1)	FC: 2-17	ID: 18-36
(37-2)		ID: 2-36
(37-3)		ID: 1-37
50 Bit:		
(50-1)	FC: 2-17	ID: 18-49
(50-2)		ID: 1-50

You can lock the Proxcheck to any 1 format for each of the available bit counts. For example, you can lock 26 bits to the 26 bit standard format which is (26-1). You can also lock a 35 bit format to the standard which is (35-3).

Once you lock a format or formats, only cards that match the bit counts for those formats will be read. All other cards will be ignored.

On/Off Button

When operating in the battery mode with no usb cable or ac adapter connected, the button on the side of the Proxcheck is pushed to turn it on. To turn the Proxcheck off, push the button and hold it for a few seconds until the Proxcheck turns off.

Programming the Proxcheck

The Proxcheck is programmed by going through menus and selecting the options that you want to program. There are two main menus, shown below:

Autooff	Pwrsave
Bklight	Next

26	30	32	34
35	37	50	END

The menu system is entered by presenting the "Proxcheck Menu" card supplied with the Proxcheck. Once you are in the menu system, you can move around the menu by depressing the side button. To select an option, hold the button for a while on that option. When the display changes you can let the button go. To get to the 2nd menu screen, hold the button for a while on the "Next" option. Note that you cannot turn the Proxcheck off while in the Menu system by using the button. You must go through the menu to the last option "END" and select that option to return to the welcome screen in order to turn the Proxcheck off using the button. You can also present the "Proxcheck Menu" card at any time while you are in the menu, in order to exit the menu and go back to the welcome screen.

The menu options are self-explanatory. The Auto Shutoff, Power Save, and Backlight Menus show all of the options discussed earlier. To select any of the options, move to that option and then hold the button in for a period of time until the option is selected (the arrow will point to that option when it is selected).

The options for locking specific proximity formats are labeled F1 (for format 1), F2, F3, and F4 if used. Refer to the table on the prior page for the bit formats for each of the options.

Loading New Firmware in Proxcheck

When new firmware is available, you can download the firmware into the Proxcheck using the IBC Firmware Flash Utility. The Utility and firmware are available on IBC's Proxcheck page.

The Proxcheck must be connected to your pc using a usb cable, and the IBC usb drivers must have already been loaded on your pc.

Install the utility software on your pc. When complete, run the utility program. You will find it in your "programs" menu, Programs -> ibc -> IBC Flash Utility.

The utility program will ask for the file to download into Proxcheck. Select the binary file which you have downloaded from the site, and click on "Start Download". The Proxcheck will now be flashed with the new firmware.