RFID Reader / Writer Setup & Instructions

Setup:

Note: The RFID Reader/Writer is a standalone unit and requires no external equipment to operate other than the 9V DC power adapter (provided).

1. Plug the 9Vdc power adapter into a 120 VAC power source. Insert the 5.5mm female plug into the left side of the RFID Reader/Writer unit.
2. Turn on the unit using the small slide switch located on the top of the LCD display. A banner message should be displayed if power has been correctly applied.

To Read a Card:

1. Hold a 125 Khz RFID access card approximately 1-3 inches from the antenna. If the card is properly formatted using Frequency Shift Key (FSK) modulation then the LED below the display should blink and the card data should be displayed on the LCD display.

- The first line of the LCD display shows all 44 data bits read from the card (in a hexadecimal format).
- The second line of the display indicates the card format/length and also displays the card information with header and parity bit information removed.
- The third line displays the hexadecimal facility code of the card (only displayed for 26-bit, 35-bit, and 37-bit cards.)
- The fourth line displays the hexadecimal user code of the card (only displayed for 26-bit, 35-bit, and 37-bit cards.)

Note: If a card is present, the reader continuously reads the card and updates the display at a rate of approximately 10 times per second. The LED blinks each time the card is read successfully.

To Write a Card:

Note: The information written to a card is always whatever is currently being displayed on the LCD. As a result, a card being duplicated should always be read prior to writing a blank card or unknown data could accidently be programmed into the blank card.

1. Verify the the data shown on the display is what is desired to be written into the T5567 read/write card.
2. Depress the pushbutton on the top of the display and "hold" it in the down position while performing step 3 below.
3. Bring a T5567 card near the RFID antenna.
4. Release the pushbutton to initiate the programming sequence. The LED will flash to indicate that the card programming sequence has completed.
5. Move the card away from the reader antenna.
6. Bring the T5567 card back near the antenna to read the card and verify that the correct card data was written.

Note:
In step 3, It is **very important** that the T5567 card is not placed near the antenna until "after" the button is pressed or else the unit will attempt to read the T5567 card which will wipe out the data that was read from the original card.
Each T5567 card can be written over and over again (a minimum of 100,000 times) .

If there are any questions or concerns, please contact Carl at info@proxclone.com

RFID Keypad Spoofer
Setup & Instructions

Setup:

Note: The RFID Spoofer is a portable standalone unit and requires no other external equipment to operate.

1. Make sure that a fresh 9V battery has been installed into the 9V battery holder on the unit.
2. Turn on the unit using the small slide switch located on the bottom right hand side of the unit. The green LED located above the switch should blink three times if the unit is operational.

Keypad Spoofer Operation:

The keypad spoofer uses a 3x4 matrix of miniature tactile switches to allow the operator to key in the RFID tag parameters including card format, facility code and card number. All parity bits are automatically calculated and inserted by the microcontroller based on the card format entered. The functions assigned to each of the keys is as shown in the keypad figure on the next page. To minimize the number of keys required the keys each serve two functions. The primary key function is shown in black and the secondary key function is shown in red. A key press preceded by pressing the key labeled "2nd" selects a secondary key function while any key press that is NOT preceded by the "2nd" key selects a primary function.

Following power-up the operator has the choice of whether to key in the card parameters that the spoofer will use or to simply recall card parameters that were previously saved in EEPROM.

Card Parameter Entry Sequence:

The sequence for entering tag parameters is simply as follows:
Facility code + Card Code + Card Format + "Enter"

Using the 26/35/37-bit card format chart shown at the end of this section as a guide, the operator

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can determine the sequence of keys required to enter a specific set of card parameters.
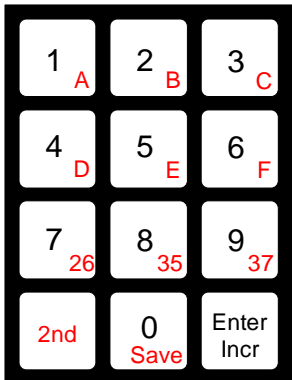
Keypad Arrangement

26-bit Data Entry Example:

To enter data for a 26-bit card with a facility code of 26 (0x1A hex) and a card number of 4660 (0x1234 hex) the operator would simply use the keypad sequence shown below:

35-bit Data Entry Example:

To enter data for a 35-bit card with a facility code of 3119 (0xC2F hex) and a card number of 720911 (0xB000F hex) the operator would simply use the keypad sequence shown below:
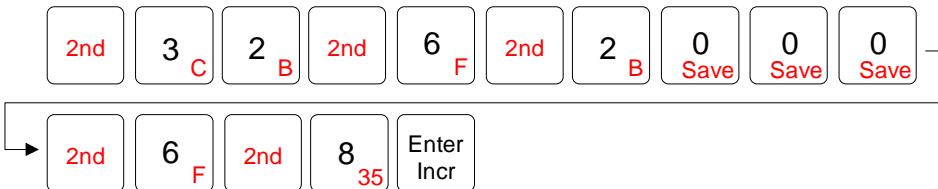
Data Recall Sequence:

To recall previously saved data the operator simply presses the "Enter" button after powering up the unit. The saved parameters are loaded into the microcontroller and the LED on the unit turns on to signify that the unit is ready to be presented to a card reader.

Data Save Sequence:

To save a set of card parameters the operator simply enters the card parameters followed by the "2nd" + "SAV" keys +"Enter" .

26-bit Parameter Save Example.

To save the parameters shown in the 26-bit Data Entry example shown above, the operator would simply invoke the key sequence shown below.

| 1 A | 2nd | 1 A | 1 A | 2 B | 3 C | 4 D | 2nd | 7 26 | 2nd | 0 Save | Enter Incr |
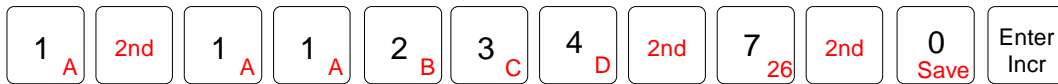
Card Number Increment Sequence:

After card data has been entered (or recalled from memory) the operator has the option to increment the card number simply by pressing the "INCR" key. The card number is incremented by one for each press of the key.
Note: The reader/cloner display can be used to show the incremented data values as the key is pressed. The "INCR" key must be held a minimum of 300 msec to be recognized.

NOTE: To conserve battery life, the spoofer unit should be powered down when not being used. A normal 9V alkaline battery will only provide about 2 to 3 hours of continuous use.

If there are any questions or concerns, please contact Carl at info@proxclone.com

Standard 26-bit Card Format H10301
8-bit Facility Code
16-bit Card Number

44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	EP	F	F	F	F	F	F	F	F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	OP

1st Value Entered   2nd Value Entered   3rd Value Entered   4th Value Entered   5th Value Entered   6th Value Entered
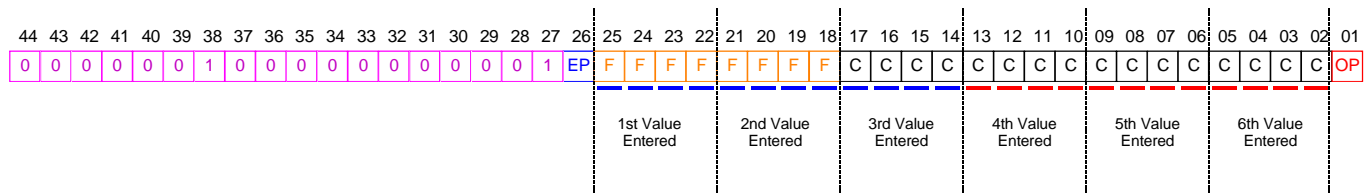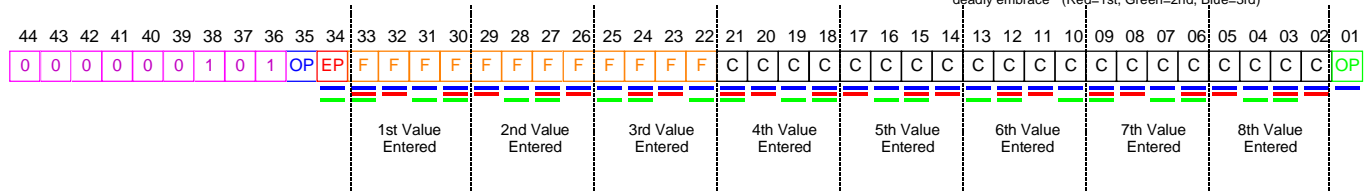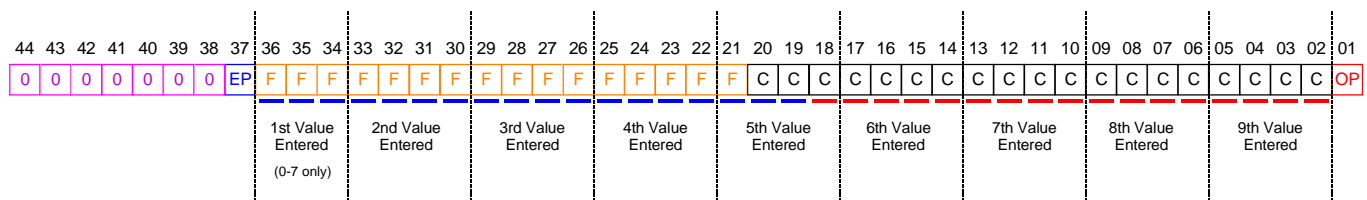
Note: Parity bit 2 is included in parity 35's calculation and that parity bit 35 is included in parity 1's calculation. This means that parity bit 2 must be calculated before parity bit 35 and parity bit 35 must be calculated before parity 1 or else there could be a "deadly embrace" (Red=1st, Green=2nd, Blue=3rd)

Corporate 1000 Card Format (35-bit)
12-bit Fixed/Facility Code
20-bit Card Number

44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
0	0	0	0	0	0	1	0	1	OP	EP	F	F	F	F	F	F	F	F	F	F	F	F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	OP

1st Value Entered   2nd Value Entered   3rd Value Entered   4th Value Entered   5th Value Entered   6th Value Entered   7th Value Entered   8th Value Entered

37-bit Card Format H10302/H10304
16-bit Facility Code
19-bit Card Number

44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
0	0	0	0	0	0	0	EP	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	OP

1st Value Entered (0-7 only)   2nd Value Entered   3rd Value Entered   4th Value Entered   5th Value Entered   6th Value Entered   7th Value Entered   8th Value Entered   9th Value Entered

Note: Keypad values are NOT aligned to facility code and card number "nibble" boundries for 37-bit card format

RFID Spoofer - Keypad Version
Keypad Entry for Facility Code & Card Number
(HID 26-bit, 35-bit, and 37-bit Card Formats)