

**DYNAMAG, DYNAMAX, EDYNAMO,  
UDYNAMO, ADYNAMO, MDYNAMO,  
TDYNAMO, DYNAWAVE**

**SCRA Devices  
MTNET Demo Guide**

**May 2018**

**Manual Part Number:  
D998200163-11**

**REGISTERED TO ISO 9001:2015**

Information in this publication is subject to change without notice and may contain technical inaccuracies or graphical discrepancies. Changes or improvements made to this product will be updated in the next publication release. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of MagTek, Inc.

MagTek® is a registered trademark of MagTek, Inc.  
Dynamag™, DynaMAX™, eDynamo™, uDynamo™, aDynamo™, mDynamo™, tDynamo™, DynaWave™ are trademarks of MagTek, Inc.  
Bluetooth® is a registered trademark of Bluetooth SIG.  
Microsoft® and Windows® are registered trademarks of Microsoft Corporation.  
All other system names and product names are the property of their respective owners.

**Table 0.1 - Revisions**

<b>Rev Number</b>	<b>Date</b>	<b>Notes</b>
10	January 5, 2017	Initial release
11	May 24, 2018	Added support for tDynamo and DynaWave.

## SOFTWARE LICENSE AGREEMENT

IMPORTANT: YOU SHOULD CAREFULLY READ ALL THE TERMS, CONDITIONS AND RESTRICTIONS OF THIS LICENSE AGREEMENT BEFORE INSTALLING THE SOFTWARE PACKAGE. YOUR INSTALLATION OF THE SOFTWARE PACKAGE PRESUMES YOUR ACCEPTANCE OF THE TERMS, CONDITIONS, AND RESTRICTIONS CONTAINED IN THIS AGREEMENT. IF YOU DO NOT AGREE WITH THESE TERMS, CONDITIONS, AND RESTRICTIONS, PROMPTLY RETURN THE SOFTWARE PACKAGE AND ASSOCIATED DOCUMENTATION TO THE ADDRESS ON THE FRONT PAGE OF THIS DOCUMENT, ATTENTION: CUSTOMER SUPPORT.

### TERMS, CONDITIONS, AND RESTRICTIONS

MagTek, Incorporated (the "Licensor") owns and has the right to distribute the described software and documentation, collectively referred to as the "Software."

**LICENSE:** Licensor grants you (the "Licensee") the right to use the Software in conjunction with MagTek products. LICENSEE MAY NOT COPY, MODIFY, OR TRANSFER THE SOFTWARE IN WHOLE OR IN PART EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT. Licensee may not decompile, disassemble, or in any other manner attempt to reverse engineer the Software. Licensee shall not tamper with, bypass, or alter any security features of the software or attempt to do so.

**TRANSFER:** Licensee may not transfer the Software or license to the Software to another party without the prior written authorization of the Licensor. If Licensee transfers the Software without authorization, all rights granted under this Agreement are automatically terminated.

**COPYRIGHT:** The Software is copyrighted. Licensee may not copy the Software except for archival purposes or to load for execution purposes. All other copies of the Software are in violation of this Agreement.

**TERM:** This Agreement is in effect as long as Licensee continues the use of the Software. The Licensor also reserves the right to terminate this Agreement if Licensee fails to comply with any of the terms, conditions, or restrictions contained herein. Should Licensor terminate this Agreement due to Licensee's failure to comply, Licensee agrees to return the Software to Licensor. Receipt of returned Software by the Licensor shall mark the termination.

**LIMITED WARRANTY:** Licensor warrants to the Licensee that the disk(s) or other media on which the Software is recorded are free from defects in material or workmanship under normal use.

THE SOFTWARE IS PROVIDED AS IS. LICENSOR MAKES NO OTHER WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Because of the diversity of conditions and PC hardware under which the Software may be used, Licensor does not warrant that the Software will meet Licensee specifications or that the operation of the Software will be uninterrupted or free of errors.

IN NO EVENT WILL LICENSOR BE LIABLE FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE, OR INABILITY TO USE, THE SOFTWARE. Licensee's sole remedy in the event of a defect in material or workmanship is expressly limited to replacement of the Software disk(s) if applicable.

**GOVERNING LAW:** If any provision of this Agreement is found to be unlawful, void, or unenforceable, that provision shall be removed from consideration under this Agreement and will not affect the enforceability of any of the remaining provisions. This Agreement shall be governed by the laws of the State of California and shall inure to the benefit of MagTek, Incorporated, its successors or assigns.

**ACKNOWLEDGMENT:** LICENSEE ACKNOWLEDGES THAT HE HAS READ THIS AGREEMENT, UNDERSTANDS ALL OF ITS TERMS, CONDITIONS, AND RESTRICTIONS, AND AGREES TO BE BOUND BY THEM. LICENSEE ALSO AGREES THAT THIS AGREEMENT SUPERSEDES ANY AND ALL VERBAL AND WRITTEN COMMUNICATIONS BETWEEN LICENSOR AND LICENSEE OR THEIR ASSIGNS RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT.

QUESTIONS REGARDING THIS AGREEMENT SHOULD BE ADDRESSED IN WRITING TO MAGTEK, INCORPORATED, ATTENTION: CUSTOMER SUPPORT, AT THE ADDRESS LISTED IN THIS DOCUMENT, OR E-MAILED TO SUPPORT@MAGTEK.COM.

**Table of Contents**

Table of Contents ..... 5

1 Introduction ..... 6

2 How to Connect BLE devices to a Windows Host ..... 7

3 How to Connect to MTNET Demo ..... 11

    3.1 Connect via USB Interface ..... 11

    3.2 Connect via BLE EMV Interface..... 12

    3.3 Connect via Serial Interface ..... 13

4 How to use the MTNET Demo ..... 14

5 How to use the MTNET OEM Demo via USB Interface ..... 19

### 1 Introduction

This document provides instructions to use the MTNET Demo. It is part of a larger library of documents designed to assist Dynamag, DynaMAX, eDynamo, uDynamo, aDynamo, mDynamo, tDynamo, DynaWave and Secure Card Readers implementers, which includes the following documents available from MagTek:

- ***D99875723 UDYNAMO, DYNAMAG, DYNAMAX, EDYNAMO, MDYNAMO, INSERT, DYNAWAVE PROGRAMMER'S MANUAL ( .NET / UNIVERSAL WINDOWS )***

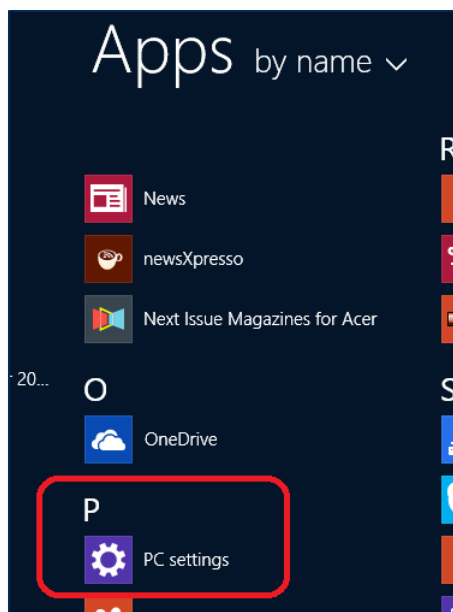
## 2 - How to Connect BLE devices to a Windows Host

---

### 2 How to Connect BLE devices to a Windows Host

To connect DynaMAX or eDynamo to a host with Windows 8.1 or higher and Bluetooth 4.0 hardware that supports BLE, follow these steps:

- 1) If you are using an external Bluetooth adapter, install any required drivers and connect it to the host.
- 2) On the host, install and configure the software you intend to use with DynaMAX or eDynamo:
  - a) Make sure the host software is configured to look for the device on the proper connection.
  - b) Make sure the host software knows which device(s) it should interface with.
  - c) Make sure the host software is configured to properly interpret incoming data from the device. This depends on whether the device is configured to transmit data in GATT format or streaming format emulating a keyboard.
- 3) Make sure the DynaMAX's batteries are installed and have adequate charge. If using eDynamo, make sure the device has an adequate charge.
- 4) Test the batteries by powering on the DynaMAX or eDynamo device. Provided the device is not already paired, the Bluetooth Status LED will flash blue every two seconds for up to 60 seconds until pairing is complete. If the Bluetooth Status LED is solid blue, the device is already paired with a host. Unpair from the host it is already paired with before continuing.
- 5) Enter app mode, scroll down to **Apps by name**, and launch the Windows **PC Settings** app.



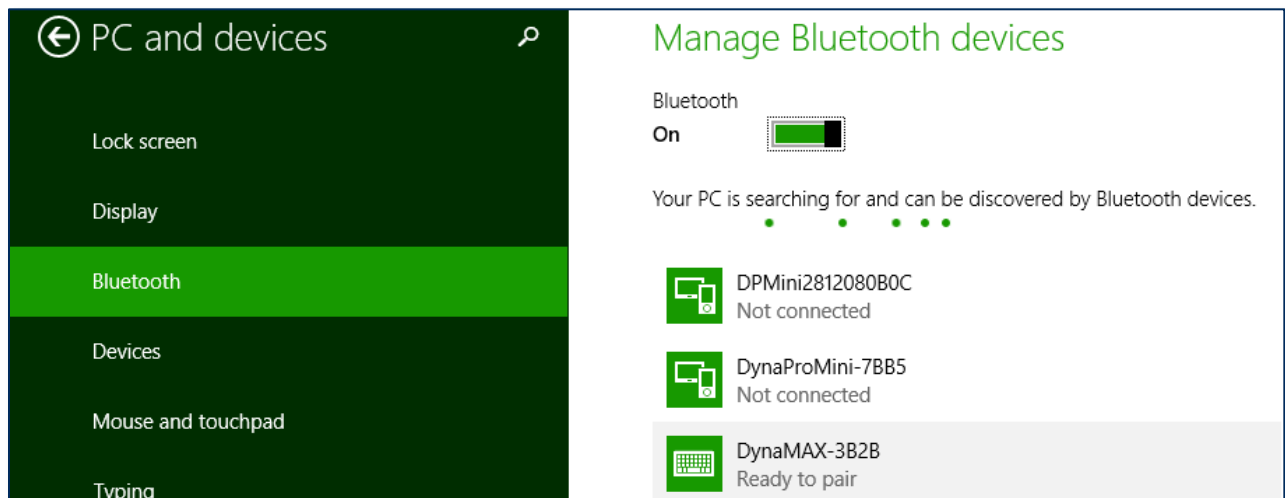
- 6) In the left side navigator, select **PC and devices** > **Bluetooth**.
- 7) Make sure Bluetooth is turned on and close the **PC and devices** app.
- 8) Launch the Windows **Manage Bluetooth Devices** app by following these steps:
  - a) Enter desktop mode by swiping in from the left side of the touchscreen.
  - b) Touch the Bluetooth icon in the system tray and select **Add a Bluetooth Device** (see Error! eference source not found.).

## 2 - How to Connect BLE devices to a Windows Host

---



Launch Manage Bluetooth Devices App from Desktop Mode



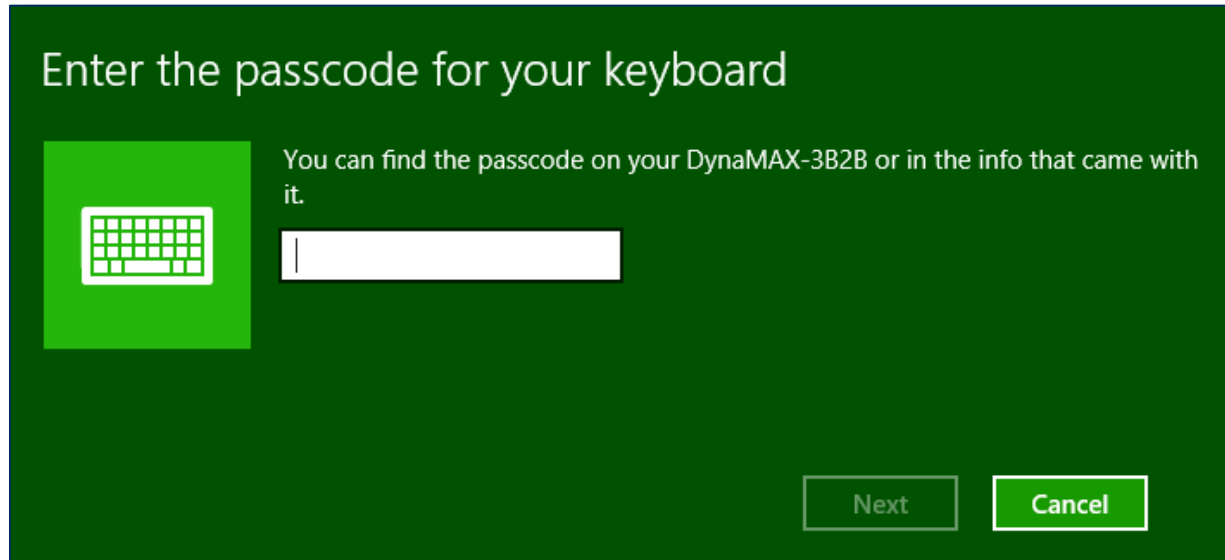
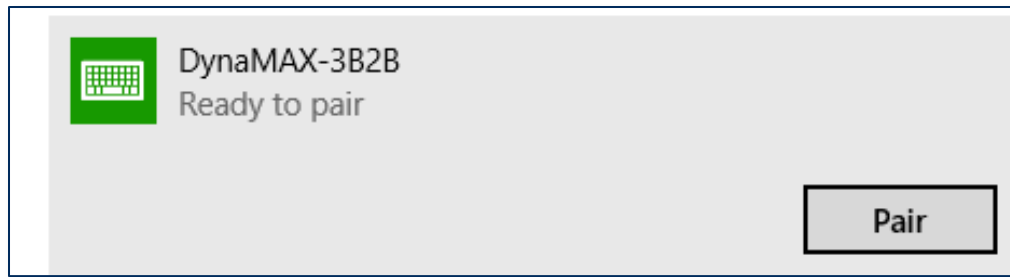
Windows 8 Manage Bluetooth Devices App

- 9) Locate the serial number on the label on the bottom of the device. Note the final four digits.
- 10) Read through the list of pairable devices and locate the device called **DynaMAX-nnnn** or **eDynamo-nnnn**, where nnnn is the last four digits of the device's serial number (if the device does not show in the list, power it off then power it back on). Below the device name you should see the text **Ready to pair**.
- 11) Select the device and press the **Pair** button. If the device is configured to run in KB mode, Windows will prompt you **Enter the passcode for your keyboard**.



## 2 - How to Connect BLE devices to a Windows Host

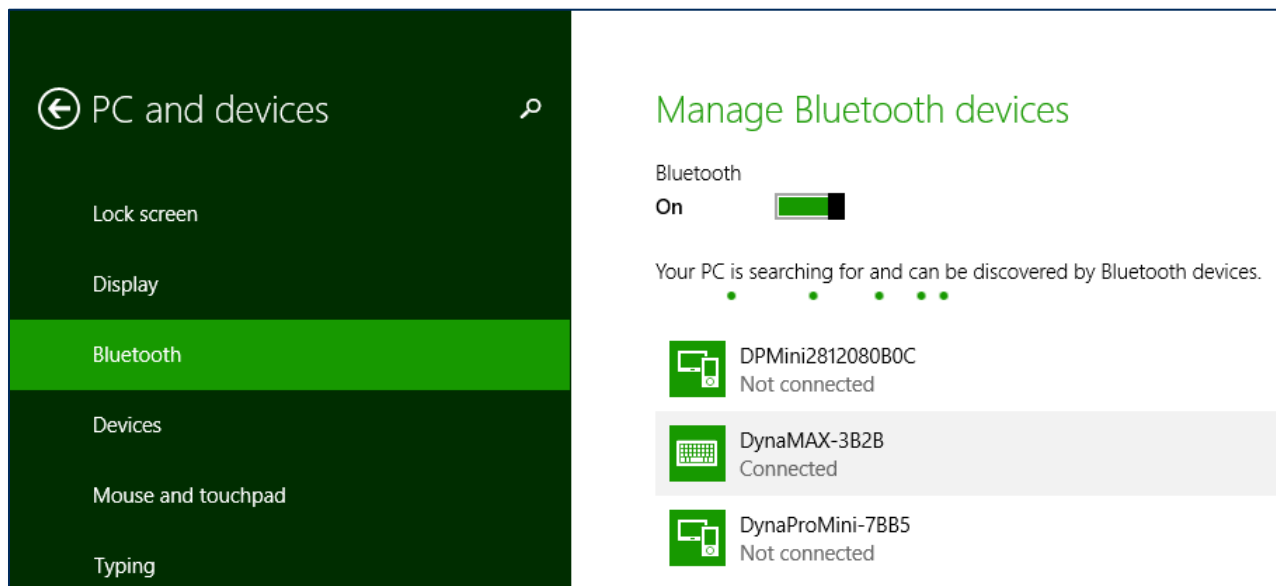
---



- 12) Enter default passcode **000000** (or the device's actual password if it has been configured differently), then press the **Next** button. Windows will return you to the **Manage Bluetooth devices** page. After a short period of time, you will see the text **Connected** below the device you are pairing with.

## 2 - How to Connect BLE devices to a Windows Host

After a few seconds the device will disconnect, which is normal power-saving behavior.



- 13) Use the host software to test swiping a card. If you do not yet have host software and the device is configured to run in KB mode, open any text editor and swipe a card. The card contents should appear in the text editor.
- 14) The device consumes very little power when not transmitting card data, so it is not necessary to power off the device to conserve power. If the device appears as **Not connected** in the Windows list of Bluetooth devices, swiping a card should cause the device to reconnect briefly, transmit the card data, then disconnect.
- 15) Remember to change the default password. See the DynaMAX Programmer's Reference documents for details.

To unpair from the device:

- 1) Locate the device in the **Manage Bluetooth devices** window.
- 2) Press the **Remove device** button.

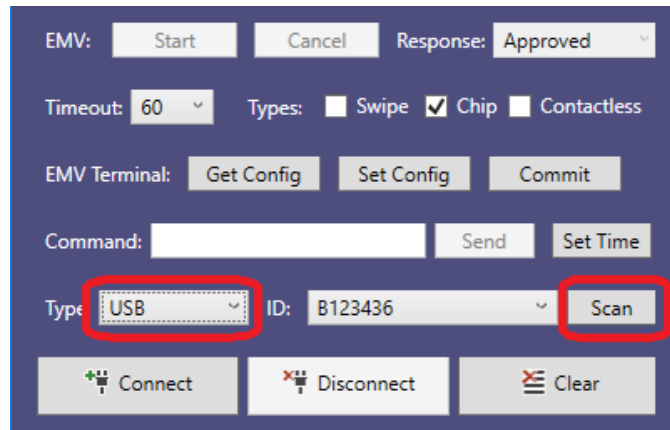
## 3 - How to Connect to MTNET Demo

### 3 How to Connect to MTNET Demo

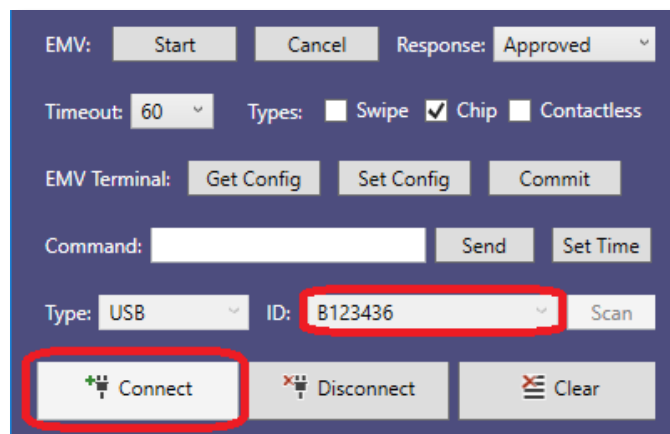
To connect via an interface listed in the Type box follow these steps:

#### 3.1 Connect via USB Interface

- 1) Connect the device to the USB port of the Windows PC.
- 2) Launch the MTNET Demo and select **USB** as the device type in the **Type** list box, press the **Scan** button to display a list of available USB devices.



- 3) Select the Device ID and press the **Connect** button to open the device.

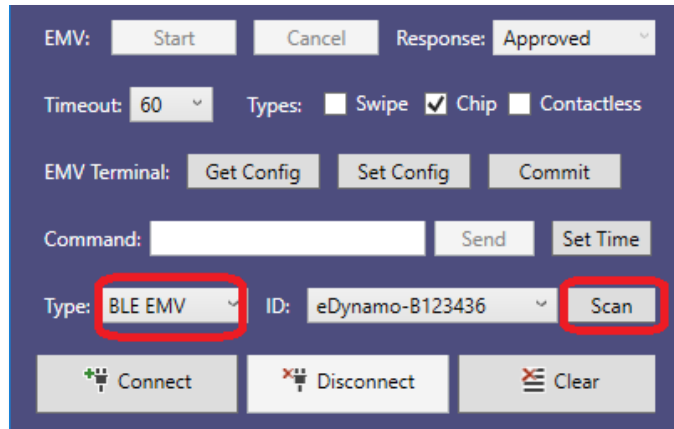


## 3 - How to Connect to MTNET Demo

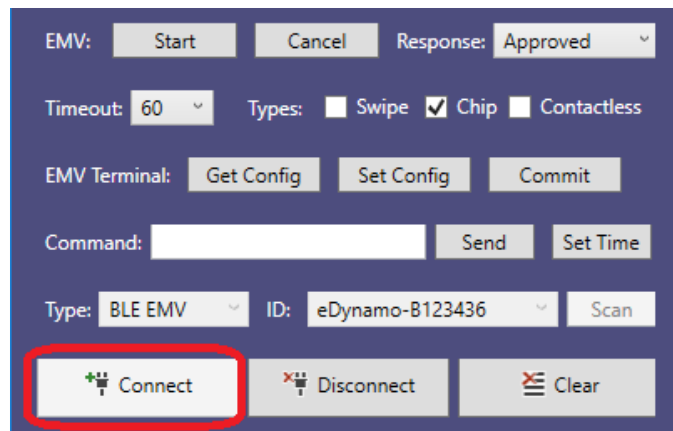
---

### 3.2 Connect via BLE EMV Interface

- 1) Pair the device to the Windows PC.
- 2) Launch the MTNET Demo and select **BLE EMV** as the device type in the **Type** list box, press the **Scan** button to display a list of available BLE EMV devices.



- 3) Select the Device ID and press the **Connect** button to open the device.

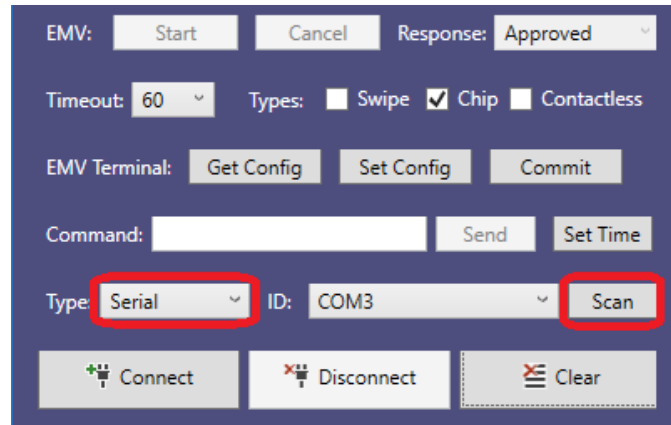


## 3 - How to Connect to MTNET Demo

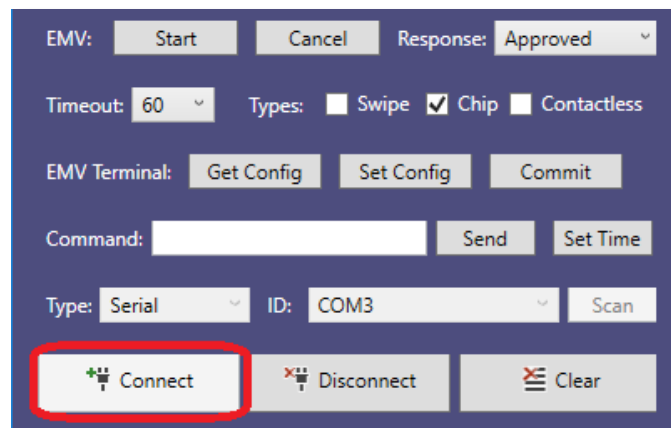
---

### 3.3 Connect via Serial Interface

- 1) Pair the device to the Windows PC.
- 2) Launch the MTNET Demo and select **Serial** as the device type in the **Type** list box, press the **Scan** button to display a list of available Ports.



- 3) Select the Device ID and press the **Connect** button to open the device.



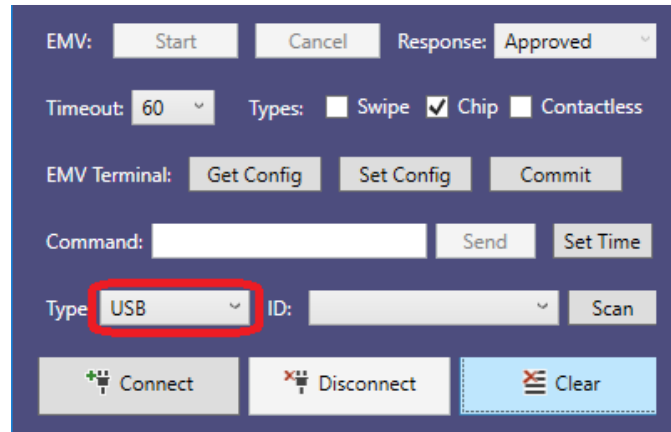
## 4 - How to use the MTNET Demo

---

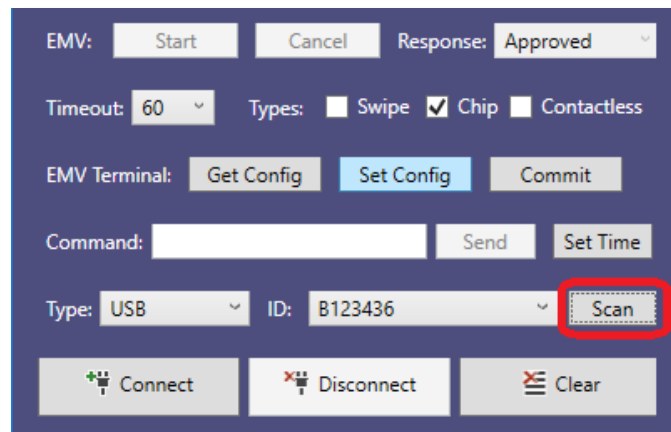
### 4 How to use the MTNET Demo

The following instructions detail how to use the MTNET Demo on Windows PC via USB interface. Same instructions apply to the other interface types. Some interface types do not support all features of the MTNET Demo, so use each feature accordingly.

- 1) Connect the device to the USB port of the Windows PC.
- 2) Launch the MTNET Demo and select **USB** as the device type in the **Type** list box.



- 3) Press the **Scan** button to scan for connected USB devices.



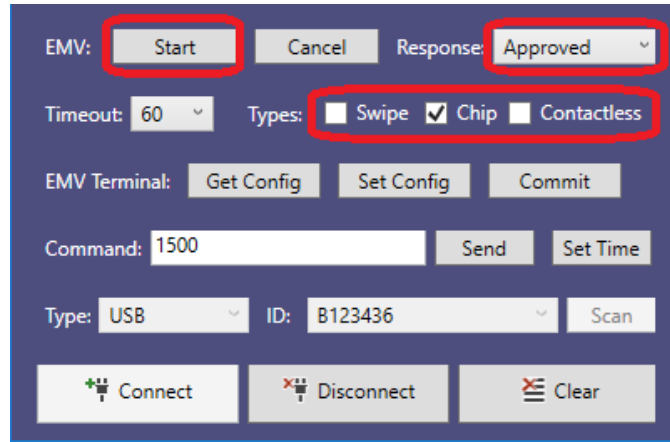




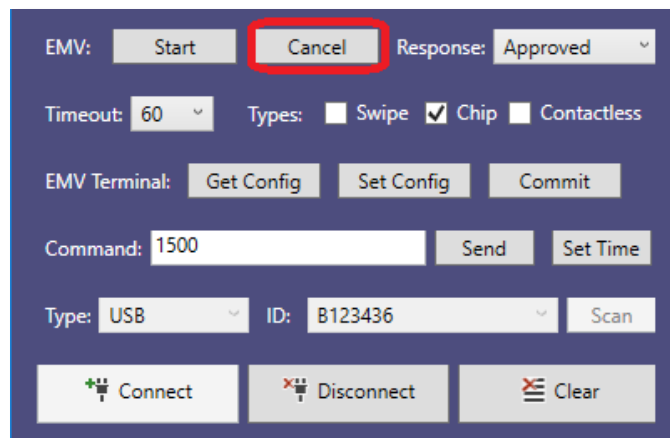


## 4 - How to use the MTNET Demo

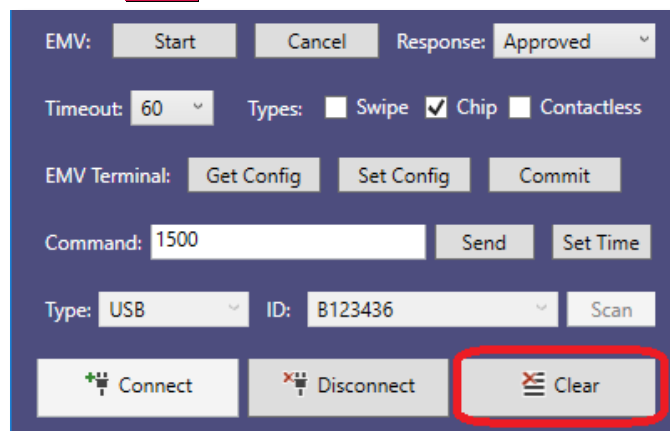
---



- 9) If you want to cancel the EMV transaction, press the **Cancel** button. Please note that the cancel feature will only work before the card is inserted.



- 10) To clear the screen, press the **Clear** button.



- 11) To close the device, press the **Disconnect** button.



## 4 - How to use the MTNET Demo

---

The screenshot displays the MTNET Demo interface with the following elements:

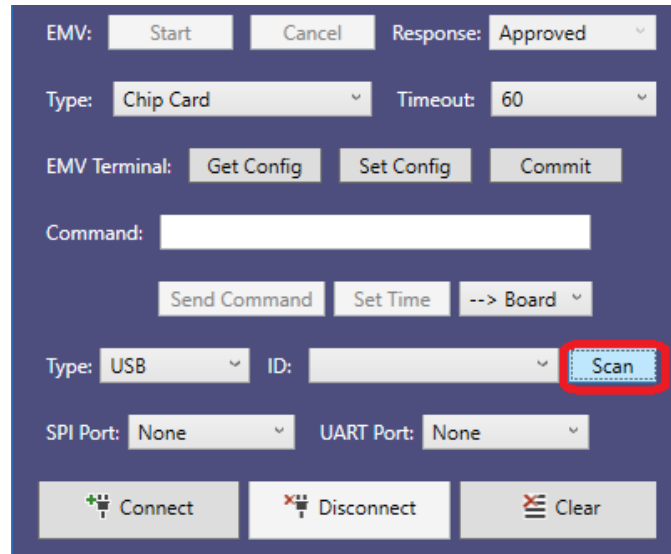
- EMV:** Start, Cancel, Response: Approved (dropdown)
- Timeout:** 60 (dropdown), **Types:**  Swipe,  Chip,  Contactless
- EMV Terminal:** Get Config, Set Config, Commit
- Command:** 1500 (input), Send, Set Time
- Type:** USB (dropdown), **ID:** B123436 (dropdown), Scan
- Buttons:** Connect, Disconnect (highlighted with a red circle), Clear

## 5 - How to use the MTNET OEM Demo via USB Interface

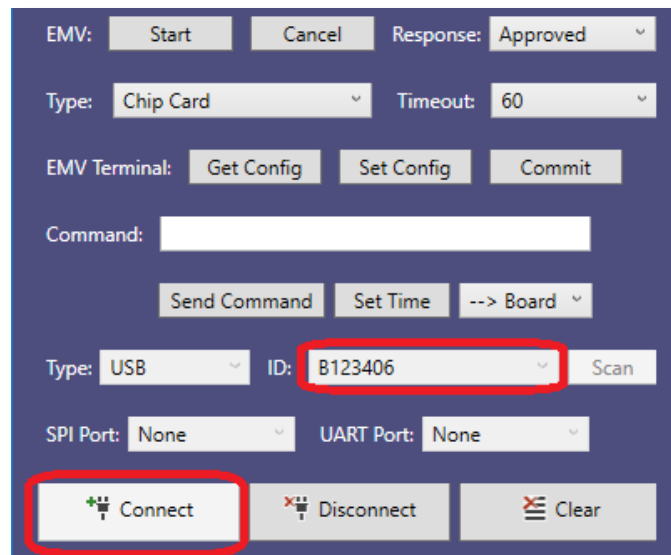
### 5 How to use the MTNET OEM Demo via USB Interface

The following instructions detail how to use the MTNET OEM Demo on Windows PC via USB interface. Same instructions apply to the other interface types. Some interface types do not support all features of the MTNET OEM Demo, so use each feature accordingly.

- 1) Connect the device to the USB port of the Windows PC.
- 2) Launch the MTNET OEM Demo and press the **Scan** button to scan for connected USB devices.



- 3) Select the Device ID and press the **Connect** to open the device.

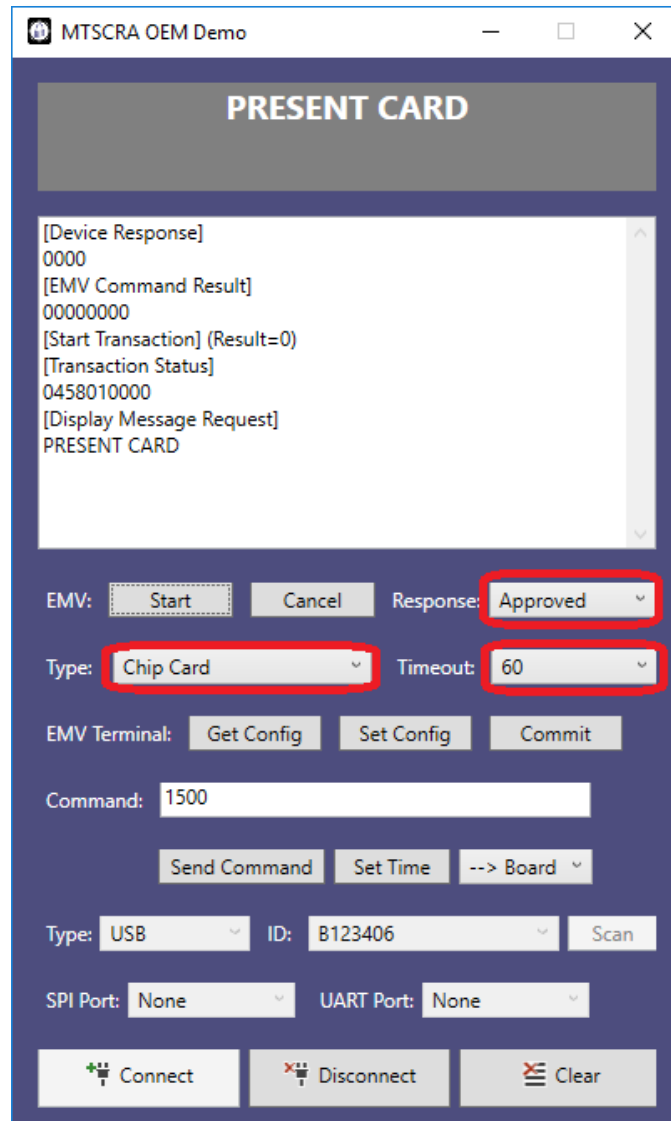






## 5 - How to use the MTNET OEM Demo via USB Interface

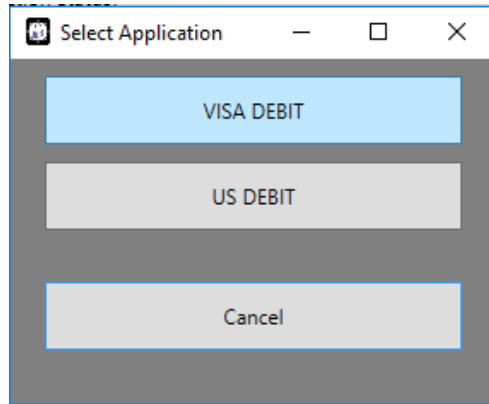
- 7) To begin an EMV transaction, select desired **Response**, press the **Start** button, and then insert the chip card when the **Present Card** message appears.



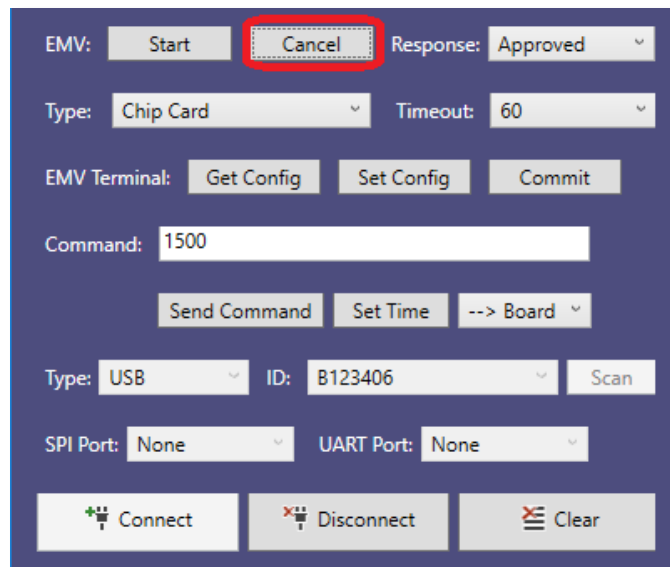
## 5 - How to use the MTNET OEM Demo via USB Interface

---

- 8) Select an Application in the **Select Application** window.



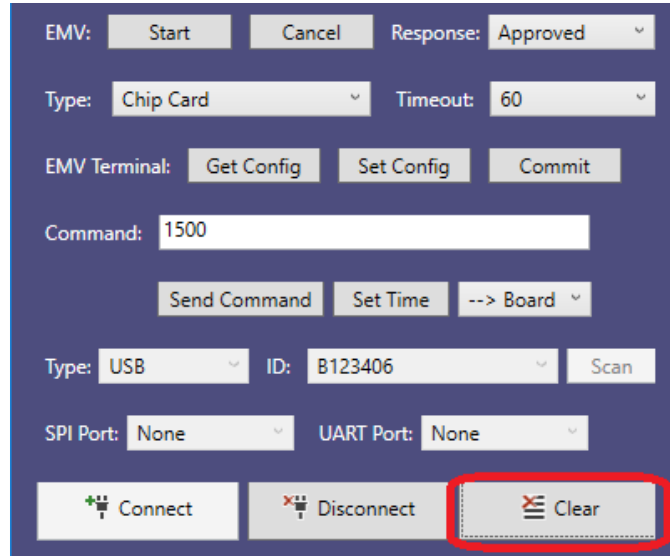
- 9) If you want to cancel the EMV transaction, press the **Cancel** button. Please note that the cancel feature will only work before the card is inserted.



- 10) To clear the screen, press the **Clear** button.

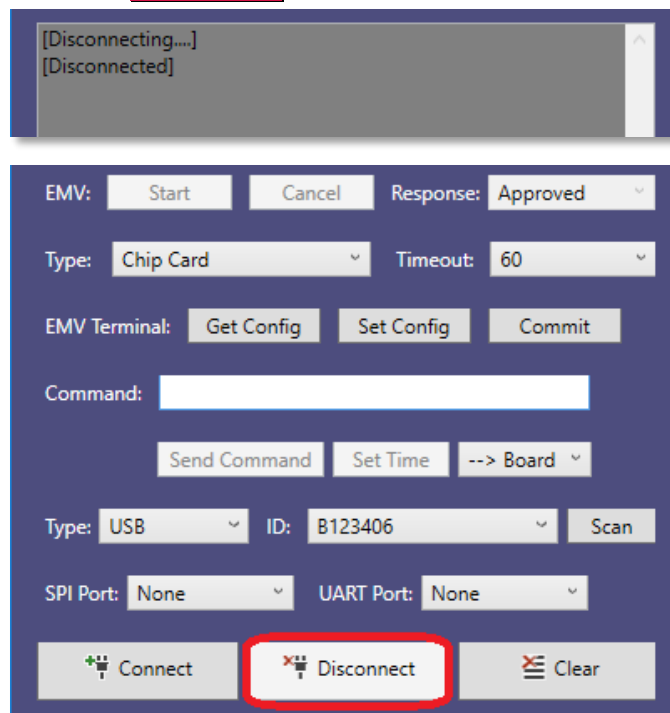
## 5 - How to use the MTNET OEM Demo via USB Interface

---



The screenshot shows the MTNET OEM Demo interface. At the top, there are buttons for 'Start' and 'Cancel', and a 'Response' dropdown menu set to 'Approved'. Below this, there are dropdown menus for 'Type' (set to 'Chip Card') and 'Timeout' (set to '60'). Underneath are buttons for 'Get Config', 'Set Config', and 'Commit'. A 'Command' input field contains the text '1500'. Below the command field are buttons for 'Send Command', 'Set Time', and '--> Board'. Further down, there are dropdown menus for 'Type' (set to 'USB') and 'ID' (set to 'B123406'), along with a 'Scan' button. Below these are dropdown menus for 'SPI Port' (set to 'None') and 'UART Port' (set to 'None'). At the bottom, there are three buttons: 'Connect', 'Disconnect', and 'Clear'. The 'Clear' button is highlighted with a red rectangular box.

11) To close the device, press the **Disconnect** button.



The screenshot shows the MTNET OEM Demo interface. At the top, there are buttons for 'Start' and 'Cancel', and a 'Response' dropdown menu set to 'Approved'. Below this, there are dropdown menus for 'Type' (set to 'Chip Card') and 'Timeout' (set to '60'). Underneath are buttons for 'Get Config', 'Set Config', and 'Commit'. A 'Command' input field is empty. Below the command field are buttons for 'Send Command', 'Set Time', and '--> Board'. Further down, there are dropdown menus for 'Type' (set to 'USB') and 'ID' (set to 'B123406'), along with a 'Scan' button. Below these are dropdown menus for 'SPI Port' (set to 'None') and 'UART Port' (set to 'None'). At the bottom, there are three buttons: 'Connect', 'Disconnect', and 'Clear'. The 'Disconnect' button is highlighted with a red rectangular box. Above the main interface, there is a log window with a scroll bar, containing the text '[Disconnecting,...]' and '[Disconnected]'.