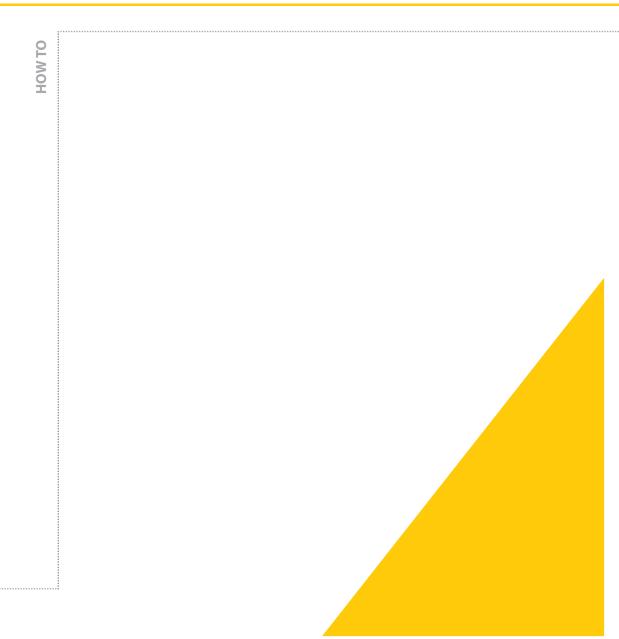


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# How to Flash BL67/BL20 RFID

# Using a Universal Programming Dongle and Memtool 3



G1011 Revised 1/14/2014

# **MATERIALS LIST**

### BL 20 Materials Hardware list:

- 1) RS 232 cable
- 2) RS 232 to Universal Dongle converter
- 3) Universal Programming Dongle
- 4) Card Connector
- 5) 5V power supply
- 6) BL 67 cards your flashing
- 7) Soldering iron
- 8) Solder
- 9) Scalpel
- 10) Clamp

## BL20 Material Software List:

- 1) Windows XP operating system
- 2) Memtool 3
- 3) Most recent version of the 2RFID-A or 2RFID-S firmware file

### BL 67 Materials Hardware list:

- 1) RS 232 cable
- 2) RS 232 to Universal Dongle converter
- 3) Universal Programming Dongle
- 4) Card Connector
- 5) 5V power supply
- 6) BL 67 cards your flashing

## **BL67 Material Software List:**

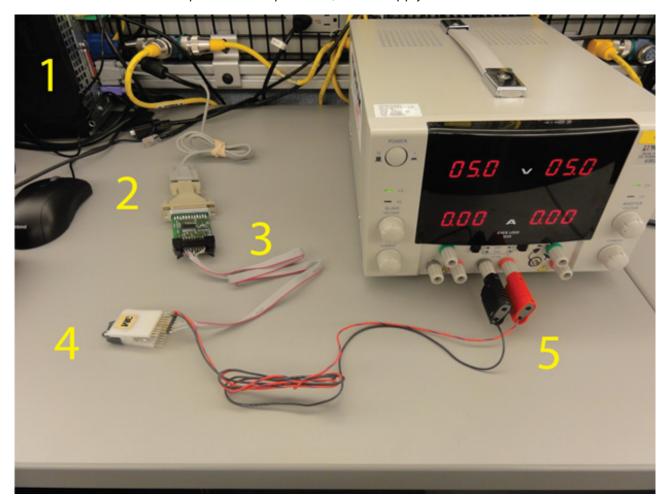
- 1) Windows XP operating system
- 2) Memtool 3
- 3) Most recent version of the 2RFID-A or 2RFID-S firmware file

# **IMPORTANT NOTES:**

- 1. The Universal Programming Dongle can **ONLY handle 5 Volts**. (Please do not burn up your dongle by putting too much voltage through it.)
- 2. I've have only been able to flash using a Windows XP operating system. (It appears that my Windows 7 64 bit operating system is to new of a computer perform flashing.)

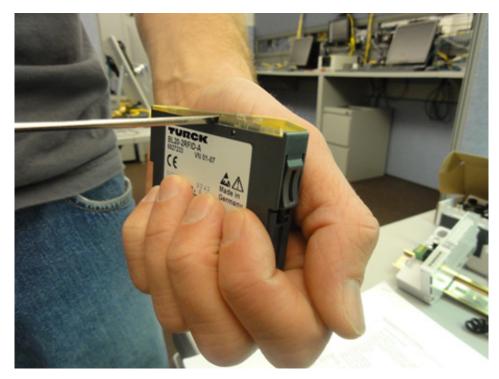
## **SETUP THE STATION:**

-> Hook the 1) RS232 cable to the back of your computer -> Hook the other end of the RS 232 cable to the 2) RS232 to Universal Dongle converter -> Hook the converter to the 3) Universal Dongle itself -> Leave the 4) Card Connector alone for the moment -> Hook the power leads up to the 5) Power Supply.

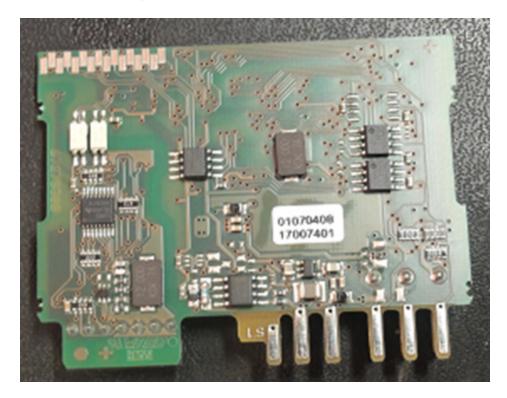


# LET'S FLASH A BL20 CARD.

-> Remove the card from the casing



-> Bring the card to your solder station and find pin 1 of the top right micro chip (Look at the pictures)



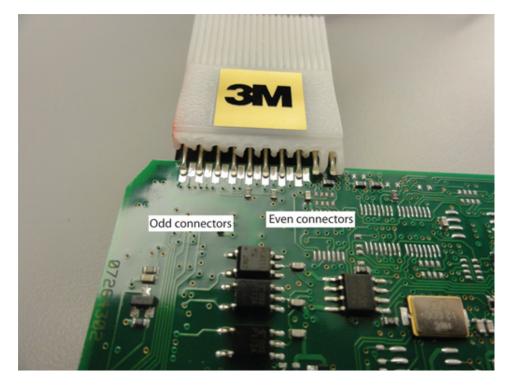
-> Gently remove pin 1 using your soldering iron and scalpel



-> This is what your chip should look like once pin 1 is removed

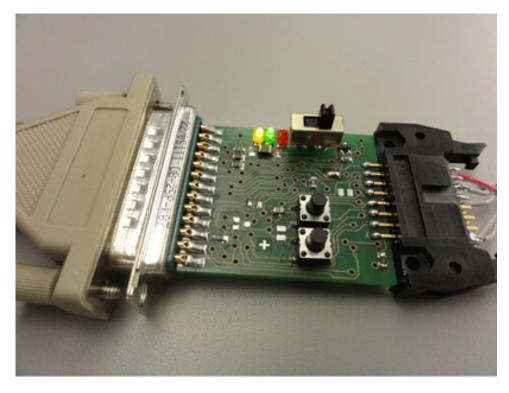


-> Bring the card back to your flashing station and hook it up to the Card Connecter (Note: If the Card Connecter is touching the even connectors on the card it will not flash.)



# SET UP THE UNIVERSAL PROGRAMMING DONGLE

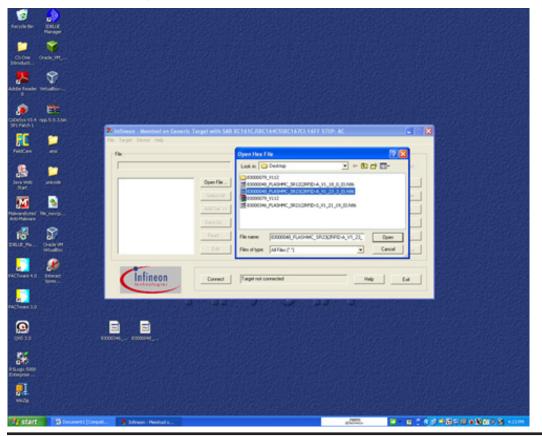
-> Make sure the switch is to the right -> Hit reset before you begin programming in Memtool 3 (You also must hit the reset switch before every card you program)



## -> Open Memtool 3

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-> Open file -> Choose your firmware file -> Open



le : C:\Documents and Settings\nclute\Desktop\83000346_	FLASH/OTP - Memory Device : 128 KByte OnChip Program FLASH ROM (not ready)	F Enabled
00c00000h - 00c172/l/h Open File	Remove All	Erase
Deselect All	Remove Set	Program
Add Sel. >>	Edt	Verify
Save As		Protect
Read		State
Edit	* Sector is locked	Setup
Edit		Setup

## -> Add Set -> Program

Infineon - Memtool on Generic Target with SAB X Ele Iarget Device Help File : C:\Documents and Settings\nclute\Desktop\83000346_	FLASH/OTP - Memory Device :		Enabled
00c00000h - 00c172ith Deselect All Add SeL >> Save As Read	Sector 0         : 00c00000h - 00c01fffh         (8K)           00c00000h - 00c01fffh         Sector 1         : 00c02000h - 00c03fffh           Sector 2         : 00c02000h - 00c03fffh         (8K)           00c02000h - 00c03fffh         Sector 2         : 00c04000h - 00c03fffh           Sector 2         : 00c04000h - 00c03fffh         (8K)           00c05000h - 00c07fffh         Sector 4         : 00c08000h - 00c07fffh           Sector 4         : 00c08000h - 00c07fffh         (32K)           00c08000h - 00c0fffhh         Sector 4         : 00c08000h - 00c1ffffh           Sector 5         : 00c10000h - 00c1ffffh         (64K)	Remove All Remove Sel Edit	Erase Program Verify Protect State
Edit Disgonnect	* Sector is locked Ready for Memtool Command	Info	Setup

#### -> Let the program run

Execute Memtool Command	Execute Memtool Command		
Current FLASH/OTP Module : 128 KByte OnChip Program FLASH ROM	Current FLASH/OTP Module : 128 KByte OnChip Program FLASH ROM		
Operation : Programming C02800h - C02FFFh	Operation : success		
Operation Progress :	Operation Progress :		
Cancel	[Exit]		

# **IMPORTANT NOTES:**

- 1. When the programming has finished, remember to solder pin 1 back down. (BL20 users)
- 2. Every time you flash and new a new card you must hit the reset on the Universal Programming Dongle.

## **TROUBLE SHOOTING SOLUTIONS**

-> If you get an error message in Memtool 3, here are some possible faults.

- 1. You forgot to hit the reset button on the Universal Programming Dongle. Hit the reset.
- 2. The Card Connecter is touching the even connections on the card. Readjust it.
- 3. You did a poor job unsoldering pin 1. Check your work and try it again.
- 4. You allowed the soldering iron to touch the microchip, which in turned burned up the card's circuitry. Throw it away.
- 5. You didn't set up the Universal Programming Dongle correctly. Recheck it.
- 6. You ran more than 5V through the dongle and the dongle burned up. Try a different one.
- 7. Maybe the card is bad to start. Check it in PACTware of Xion Tool.
- 8. If one card just won't connect, try a different card.

# **IMPORTANT NOTE:**

EVERY TIME YOU DO A TROUBLE SHOOTING SOLUTION YOU MUST COMPLETELY CLOSE OUT AND RESTART MEMTOOL.