SiTime™

Time Machine II™

MEMS Oscillator Programmer

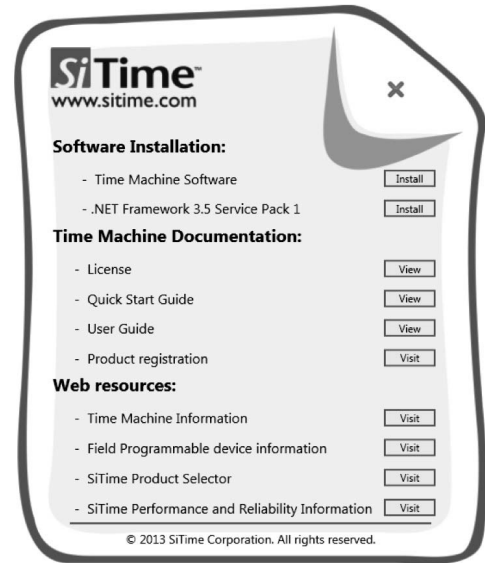# QUICK START GUIDE

Kit Contents

- MEMS Oscillator Programmer
- Socket card(s)
- USB cable
- USB flash drive with installation software and User's Manual
- Tweezers
- Field programmable device sample packs

Register your Time Machine II programmer at:
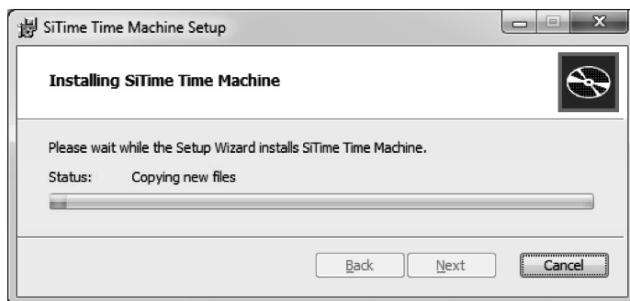**http://www.sitime.com/time-machine-registration**

Step 1: Install Time Machine Software

- Insert the USB flash drive into your PC.
- Run *Setup.exe* from flash drive root (top-most) directory.
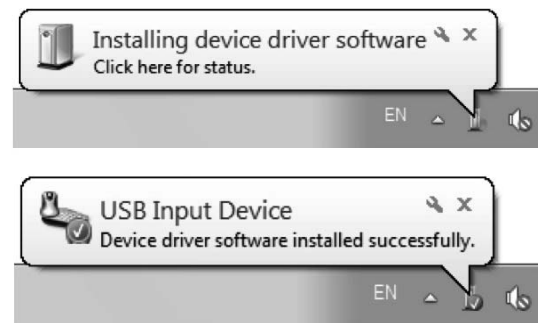- The following GUI will appear on screen:

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- If .NET Framework 3.5 Service Pack 1 is not installed on your PC, press the *Install* button (see screen on previous page). Web installer will start and install all required files directly from the Internet. If you do not have an Internet connection, obtain a copy of *.NET Framework* and install it on your PC.
- If .NET Framework 3.5 Service Pack 1 is installed on your machine, a green check mark will appear next to the *.NET Framework 3.5 Service Pack 1* line under *Software Installation*. *Install* button is grayed out.
- After *.NET Framework* is installed, press the *Install* button to start Time Machine Software installation.
- Read and accept the License Agreement and follow the onscreen instruction to complete the installation.

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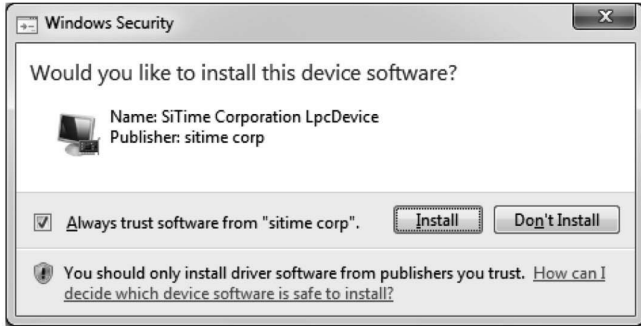## Step 2: Connect the MEMS Oscillator Programmer

- Connect the SiTime programmer to your PC with the USB cable.
- Check that the power light on the SiTime programmer is illuminated. The green light is located under the *Time Machine II* label on the programmer. If the power light does not appear, make sure the USB port on the PC is active.
- The *Windows Found New Hardware* notification will automatically appear on screen. Wait until the USB device driver installation is complete before continuing.
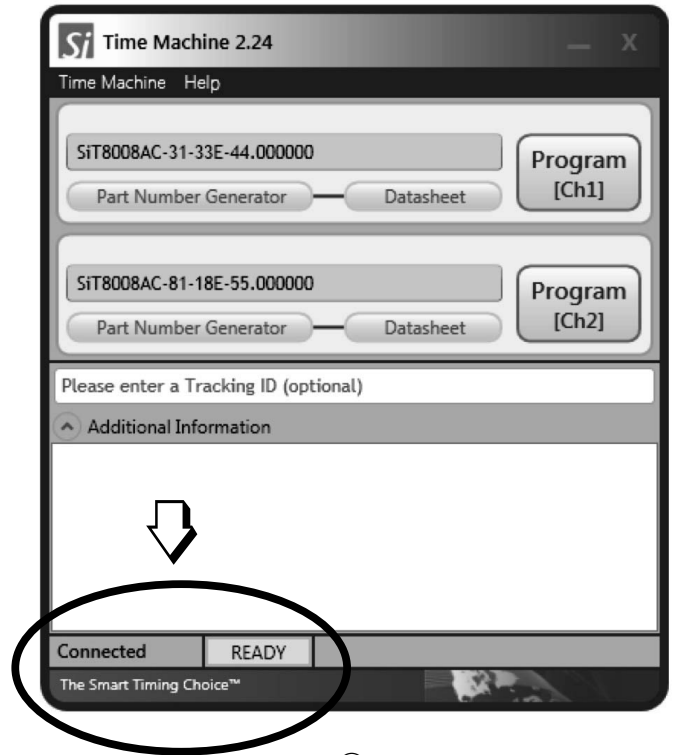

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Step 3: Launch Time Machine Software

- Click on the *SiTime Time Machine* icon to start the Time Machine software.
- Time Machine driver installation is required during first use. Select *Always trust software from "sitime corp"* and press the *Install* button.

- *Connected* and *READY* will be displayed in the bottom left corner of the Time Machine window to confirm that the programmer status is ready to run (See screen on next page).
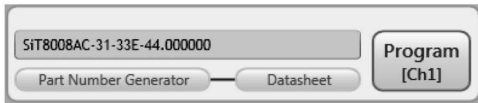
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Step 4: Program MEMS Oscillators

- Select and insert the socket card for the oscillator package size you need.
- Each socket card has two sockets for different package sizes. Use the tweezers to insert a field programmable device into the proper socket on the socket card. Align pin 1 (indicated with a small circle on top of package) with the small white triangle on the socket card.
- Enter the SiTime part number into the *part number* field in the programming software window. Or use the *Part Number Generator* to build the SiTime part number.

- Press the *Program* button to program the device.
- When the green *PASSED* indicator is displayed at the bottom of the Time Machine II window, you have successfully programmed the SiTime MEMS oscillator. Congratulations!

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Notice to Users

1. The Time Machine II Programmer and associated hardware (henceforth Platform) are intended for use only with SiTime's MEMS oscillators. This Platform will not program any other manufacturer's programmable oscillators and no attempt to do so should be made.

2. The Platform is intended for use for engineering development and evaluation of SiTime's MEMS Oscillators. SiTime does not guarantee or warranty the devices that are programmed on this Platform for qualification or production purposes.

3. The Platform should be used in a static free environment with good engineering practices.

4. This Platform does not fall under the scope of the European Union directives regarding electromagnetic compatibly, FCC, CE or UL and therefore may not meet the technical requirements of these directives.

5. THE PLATFORM AND ITS ACCOMPANYING SOFTWARE AND DOCUMENTATION ARE PROVIDED ON AN "AS-IS" BASIS, "WITH ALL FAULTS", AND WITH NO WARRANTY WHATSOEVER. SITIME AND ITS LICENSORS EXPRESSLY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. SITIME DOES NOT WARRANT THAT USE OF THE PLATFORM (OR ITS ACCOMPANYING SOFTWARE) WILL BE UNINTERRUPTED OR ERROR-FREE OR THAT DEFECTS WILL BE CORRECTED OR THAT THE PLATFORM (OR ITS ACCOMPANYING SOFTWARE) ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS.

6. The user assumes all responsibility and liability for [the] proper and safe handling of the Platform and the associated programmed MEMS Oscillators.

7. The user indemnifies SiTime from all claims arising from the handling or use of this Platform and the associated field programmable devices.

8. Please contact a SiTime representative if you have any issues or problems with using this Platform.