



## **Hardware Installation Instructions**

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## 1. PC Tools

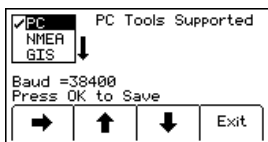
### 1.1. Introduction

- PC Tools is a software utility that allows users to upgrade and configure 3M Dynatel Locators.
- Unless your supplier has setup your hardware for you, you will have to use PC Tools to unlock some of your hardware's functionality.
- Some countries do not allow all marker frequencies. Therefore, CE model locators are shipped with all frequencies disabled.
- PC Tools is provided free of charge.

### 1.2. Installation

- For the latest version of the PC Tools:
  - Navigate to [3m.com/dynatel](http://3m.com/dynatel)
  - Click "Locating and Marking"
  - On the right hand side of the page, under "Software Downloads", click on the link that includes your locator model (usually 1420)
  - While the software downloads, click on "Get activation key for GPS communications"
  - You will be prompted to enter the locator's serial number (8 characters, found under the locator's front panel) and some additional information.
  - You will then be given a 4 digit code. Make a note of this number, it will be used later.
- When the executable is downloaded, run it. Follow the on-screen instructions.
- If PC Tools is already installed on your PC, the install will automatically over-write it with the most current version.
- You can now run the software. Click on the desktop shortcut (if created) or from the location where the software was installed.
- You can remove the software from "Add/Remove Programs" in the control panel.

## 2. Communication with Locator



- To communicate with a locator from your PC, connect the serial cable to the underside of your locator and switch it on.
- If your PC does not have a serial port, use the USB adapter and CD that were shipped with the locator. Once you have installed the drivers from the CD, you can start using the adapter.
- By default, the locator is ready to talk to a PC.
- If you experience problems, press Menu, then COM Setup. Use the scroll arrows to set it to PC and then press the Locate/OK button.

## 3. Configuration

### 3.1. *Initial*

- On the PC Tools main screen, click Upgrade Software. You will be prompted to pick a COM port. If unsure you can find this out in the Device Manager (Control Panel > System > Hardware). Baud rate should be 38400.
- The upgrade will take a few minutes. You will then be prompted to run initial configuration.
- Select United Kingdom from the pick list on the main screen, then click Initial Configuration.
- When prompted, click Download.

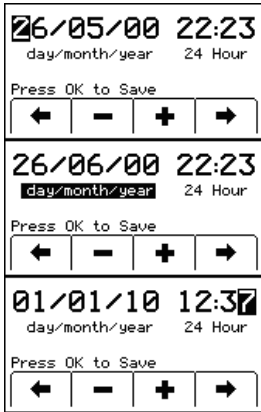
### 3.2. *Language*

- Locators can hold two display languages. One of these is always English.
- To select an alternative language, click Language Configuration. Select the desired language from the pick list. Glossary language should be left to English Glossary.
- Then click download.
- To select the alternative language on a locator, press Menu, then More, then Setup. Finally, press the lang button to cycle between languages.

### 3.3. *Units*

- From the PC Tools main screen, click on Configure Receiver. You need to select the right locator model from the pick list (typically it will be 1420E-iD).
- On the Units and Date tab, you can select measurement units and date format.
- The Marker types tab allows you to pick which marker frequencies are enabled. It is recommended that General Purpose markers should always be used for Intelligent Trench purposes, disabling other frequencies will reduce confusion. If you wish operators to check all frequencies before excavations, then you should allow all frequencies.
- The locate and tone frequency tabs refer to cable tracing locator models and are not relevant to Intelligent Trench. Please contact 3M if you require more information.
- When you've finished, save your configuration and click the Send Config button to apply the configuration to the locator.

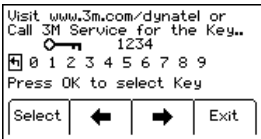
## 3.4. Clock



- The Locator's internal clock can only be set on the locator. Press Menu, then More, then Setup, then Clock.
- Press the arrows to cycle between days, months, years, hours and minutes. Use plus and minus to change the values shown.
- If you attempt to cycle around off the edge of the screen, you can change the date format. Press Locate/OK to confirm the date and time.
- If you attempt to enter an invalid date, changes will not take effect and you will be prompted change it.
- Only a 24 hour clock is available.
- If a locator is ever switched on without batteries or if batteries are removed during operation, the internal clock will be reset.

## 4. Hardware concurrence

### 4.1. Communication



- After you've setup your locator, you will need to change the on-board communication settings in order to talk to a PDA.
- Press Menu, then COM Setup. Scroll down until PDA is highlighted, then click OK.
- If you are doing this for the first time, you will be prompted to enter a GPS activation Key.
- Enter the 4 digit code obtained previously. Do this by using the arrow keys followed by Select to enter each digit. Once this is done, press Locate/OK.
- If you do not have the 4 digit code, refer to section 1.2 for instructions on how to obtain it.
- Once the code has been entered, you will be returned to the menu screen, press COM Setup again; you can now scroll down in the COM Setup menu.

### 4.2. Connection

- You can connect locator and PDA using a serial cable or Bluetooth.
- A serial cable is shipped with your locator.
- In order to connect via Bluetooth, you will need a Bluetooth (dongle) serial adapter, which is not provided.
- The baud rate should be set to 4800.
- It is recommended to use serial connection as a first choice. If a Bluetooth dongle is to be used, Roving Networks' BluePortXP has been successfully tested.
- Other serial adapters have not been tested and may not work.

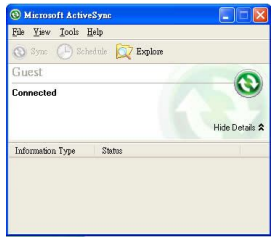
## 5. PDA SETUP

### 5.1. Preparation

- Designate a PC to use for installing U-Track onto the PDA
- Download the current version of the U-Track software from the Intelligent Trench website [www.intelligenttrench.com](http://www.intelligenttrench.com)

### 5.2. Preparing the PDA

- Boot the PC which contains the U-Track software
- Connect the PDA to the PC using the USB cable supplied with the PDA
- The PDA will power up when connected
- Microsoft Activesync should start automatically, if not, start it manually. Note: If you are not sure how to do this, consult your Microsoft Windows documentation.
- Connect to Activesync in guest mode



### 5.3. Software Installation

- Once the PDA is connected, click on the **Explore** tab in Activesync
- Navigate to the folder where the U-Track software is located
- Select the file "Track-IDvx.xx.CAB"
- Right click on the file and select **Copy**
- Next, Select the **Mobile Device** from the menu on the left
- Right click on the file and select **Paste**
- The file will now be in the **My Device** directory on the PDA
- Click on **Start** and select **File Explorer** from the menu
- Locate the file in the **My Device** directory
- Click on the file and the software will install

### 5.4. Using U-Track

- Connect the PDA to the Locator using the Serial Cable
- Turn on the Locator and PDA
- To start the software, click on **Start** and select **Programs**
- For instructions on how to use U-Track, download the U-Track User Guide from the Trac-ID website, [www.trac-id.co.uk](http://www.trac-id.co.uk)

