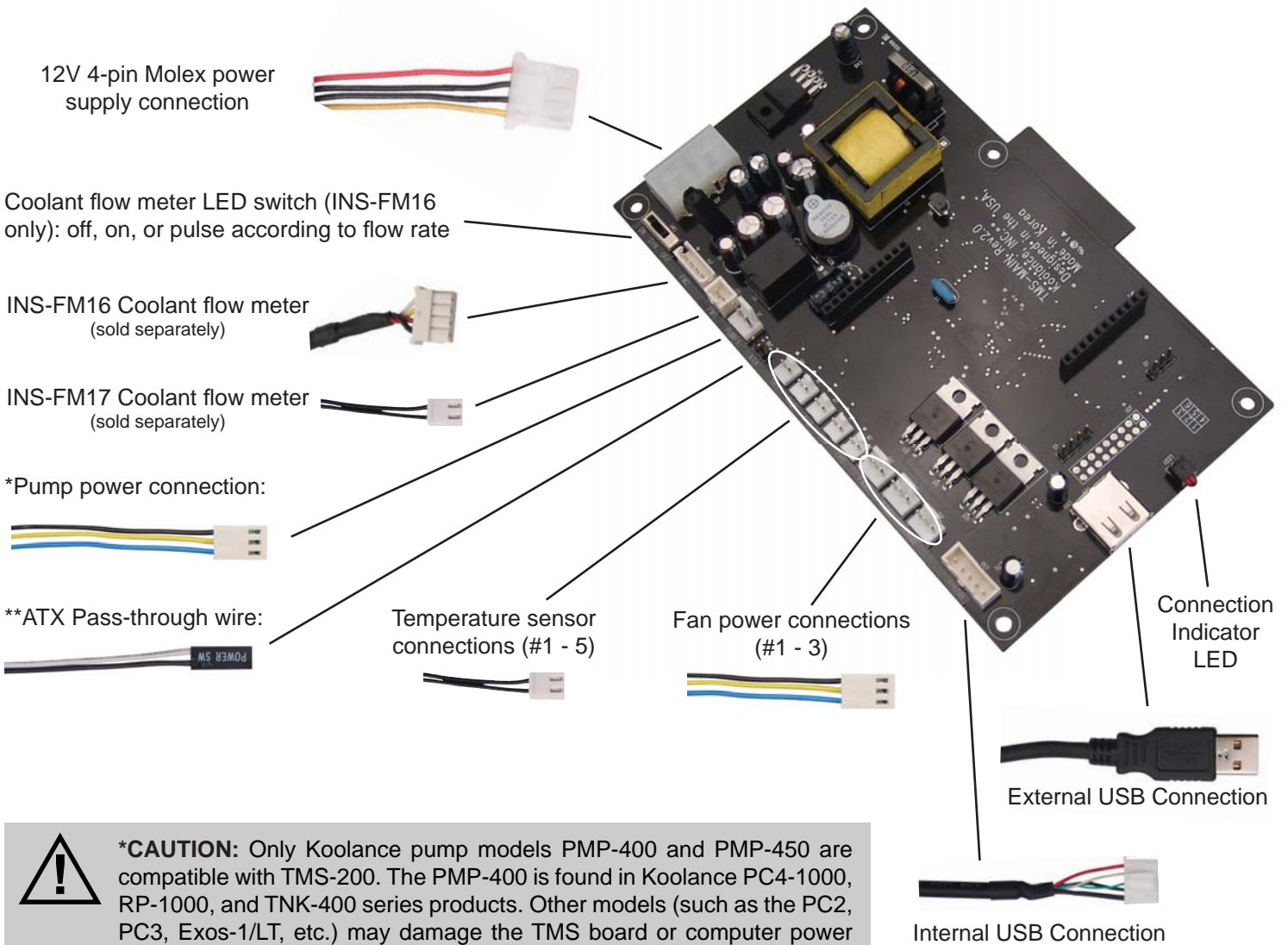


# 1 Koolance TMS-200 Installation Guide v1.02

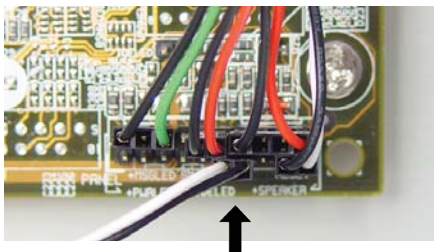
## Hardware Installation

The TMS interface card can be installed into a PCI or PCI-Express slot (with the included L-bracket), or mounted into a 5.25" bay (using the included tray). All communication occurs via an external or internal USB port, even when installed into a motherboard slot. The TMS hardware board is powered by a direct 12V power supply connection.

First, power-down the computer and connect all necessary wires to the TMS card. **DO NOT CONNECT THE USB CABLE TO THE COMPUTER.** The internal or external USB cable will be connected to the computer after software installation. If needed, extension wires for fans and the pump are included with the TMS board.



\*\*ATX pass-through wire: enables the hardware safety shutdown feature. Connect the male ATX power lead from the TMS board to the computer chassis main power switch.



Connect the other female ATX power lead to the motherboard's power switch connection (often marked "PWRSW", "PWSW", or "PWBTT").

This is the connection that would normally receive the chassis power switch lead directly.



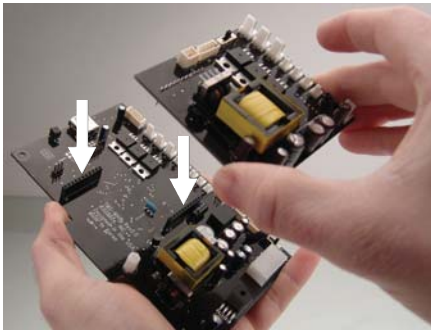
## 2 Koolance TMS-200 Installation Guide v1.02

### Expansion Board Installation

If you have purchased the optional daughter expansion board for TMS-200, please read this section. Otherwise, skip to "Mounting" below.

Connect all necessary wires to the TMS expansion board. If needed, extension wires for fans and the pump are included with the board.

The expansion board includes a standoff and two screws. Attach the standoff to the top side of the TMS main board in the hole near the dummy slot.



Pump #2 power (Same pump models allowed as the main board)

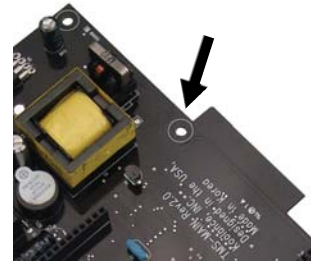
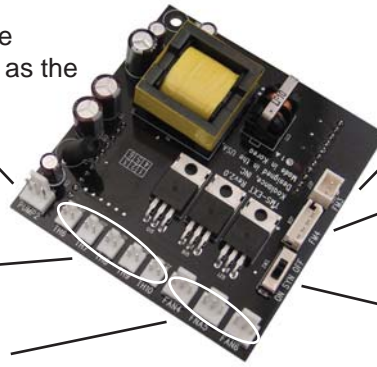
Temperature sensor connections (#6 - 10)

Fan power connections (#4 - 6)

INS-FM17 Coolant flow meter (sold separately)

INS-FM16 Coolant flow meter (sold separately)

Coolant flow meter LED switch (INS-FM16 only): off, on, or pulse according to flow rate



Make sure the connecting pins are aligned properly, and carefully insert the expansion board into the TMS main board.

The expansion board's fan and temperature connections should face in the same direction as the TMS main board connections. **DO NOT INSTALL IT BACKWARDS!**

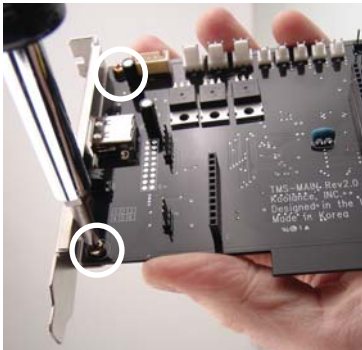


**CAUTION:** The TMS expansion board must be aligned properly (top fan connectors in the same direction as the main board fan connectors). Otherwise, permanent hardware damage could result.

Finally, install the second screw to secure the expansion board to the standoff.

### Mounting

Decide whether the TMS card will use the L-bracket (motherboard slot installation) or 5.25" tray (drive bay installation) and mount the appropriate piece with the included screws. To help avoid physical damage, it is suggested to attach all necessary cables to the TMS hardware before mounting the TMS board.



If the TMS-200 hardware board will be installed into an available motherboard slot, attach the included I/O L-bracket with the smaller supplied screws.

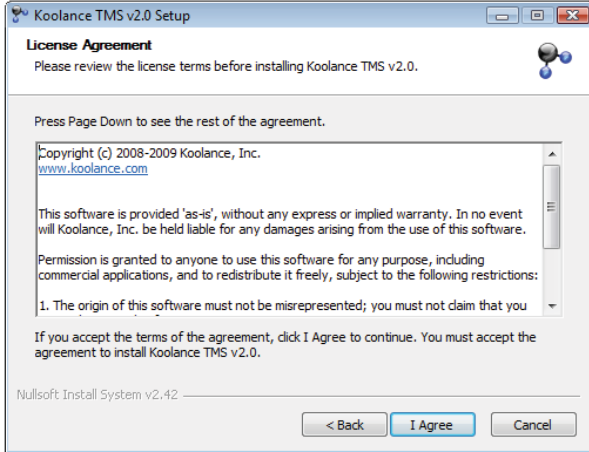
**NOTE:** If using the optional expansion board with TMS-200, the TMS hardware card will require two motherboard slots instead of one.

If the hardware board will be installed into an available 5.25" bay, attach the included metal tray with the larger supplied screws.

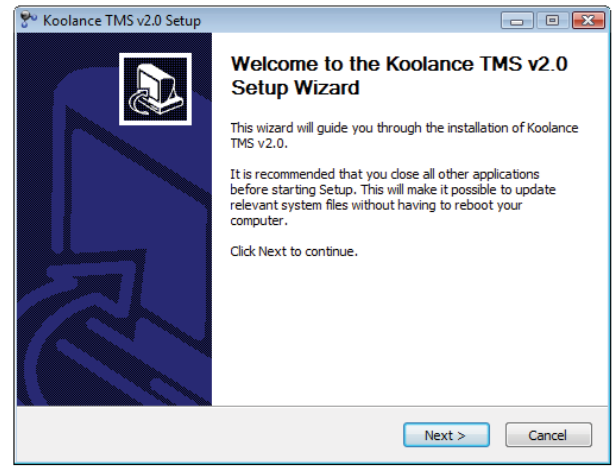


## Software Installation

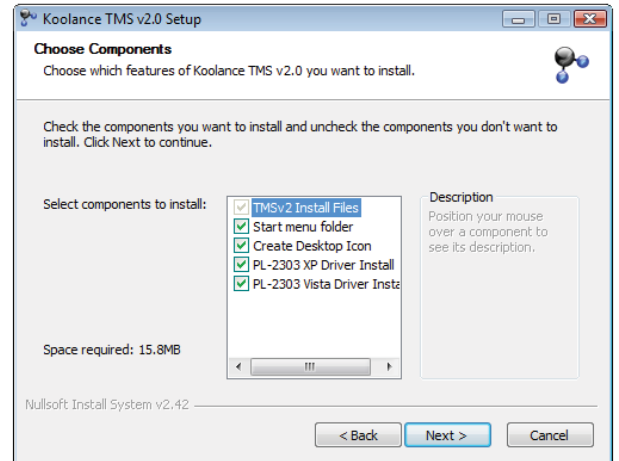
After connecting all wires to the TMS board and mounting it within the computer case, power-up the computer. Launch the TMS executable installation file for your OS (Windows Vista or XP). The USB plug should still remain disconnected from the computer at this time.



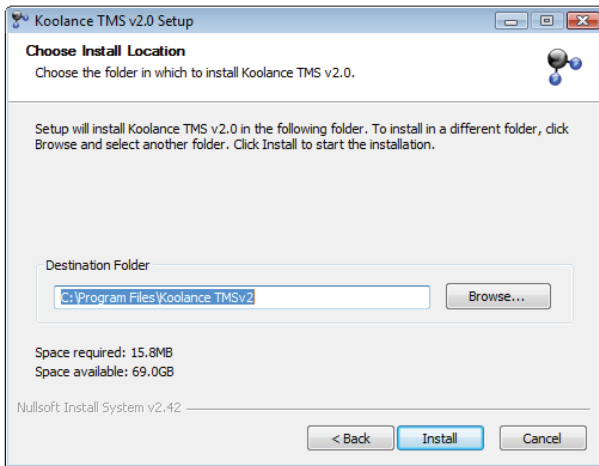
If you accept the license terms, select "I Agree".



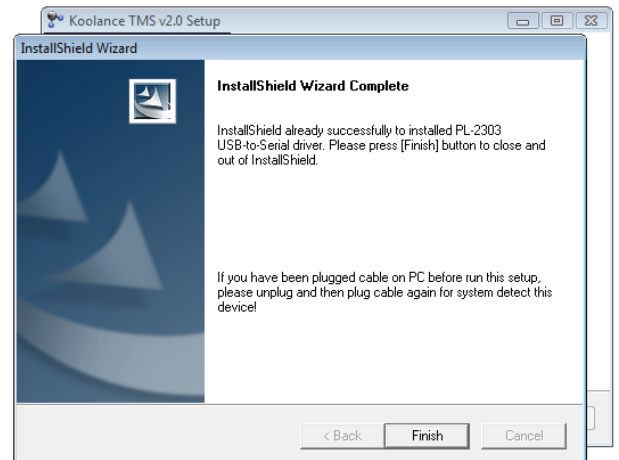
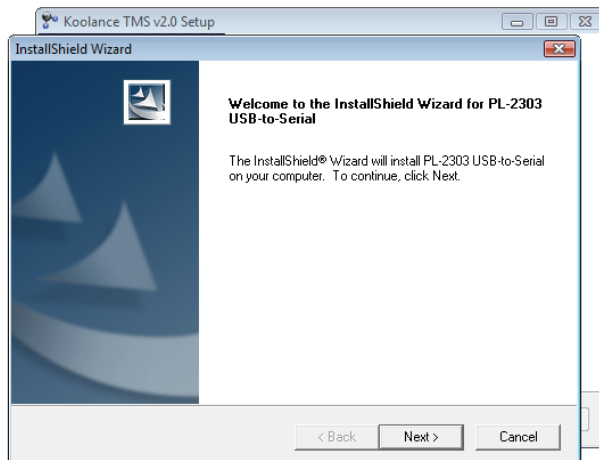
Select the features you would like to install. The PL-2303 Drivers will be necessary for the TMS software to communicate with the hardware card. Use the appropriate TMS installation file for your operating system: XP or Vista. (NOTE: Windows XP **64-bit** users must install separate PL-2303 drivers. These will be placed under /x64/ in the TMS folder after installation, and must be installed after TMS using Windows Device Manager.)



Select the desired hard drive installation location for TMS-200.



If PL-2303 drivers were selected, you will now be prompted to install these.





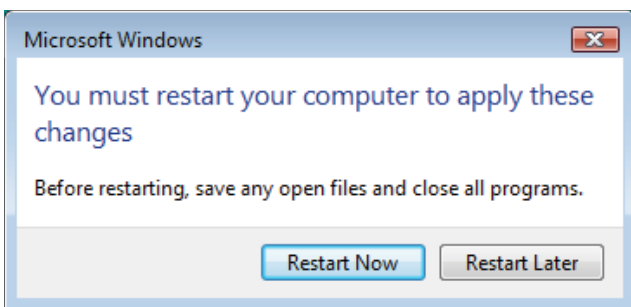
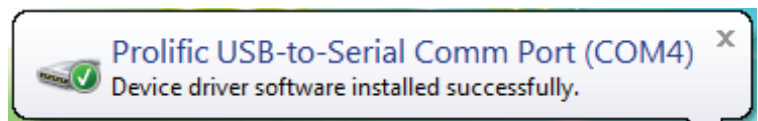
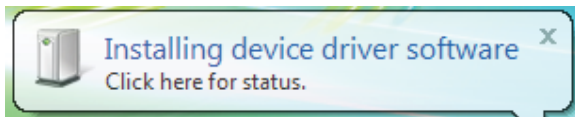
## 4 Koolance TMS-200 Installation Guide v1.02

After software installation, connect one USB cable to the TMS board. Either loop the external cable back to an available external port, or plug the internal cable from the TMS board to the motherboard's internal USB header (if available).



**CAUTION:** If using the internal cable, be sure the motherboard's USB pinout is compatible with the TMS cable. Some motherboards may not take this particular type of wire layout. Also be sure **NOT** to connect the TMS cable to a 1394 Firewire header, or hardware damage may result.

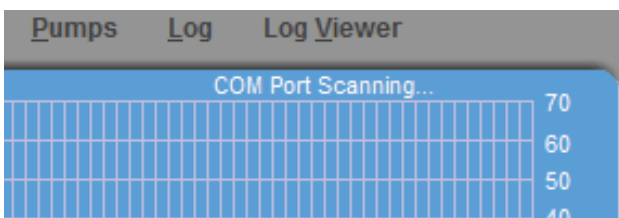
Windows should immediately begin loading drivers for the TMS device and Prolific PL-2303.



At this point, you may be prompted to reboot the computer.

(Reboot if requested.) After returning to Windows, launch the TMS installation via its desktop or startup menu shortcut.

NOTE: If not prompted to run as Administrator, Windows Vista users may need to launch the TMS program by right-clicking the shortcut and selecting "Run As Admin". To avoid excessive messages, UAC (User Account Control) could also be disabled using a program like Tweak-UAC.



The TMS main screen will display COM port communication. Initially, it will scan for this connection. Once established, the COM port will be displayed here. All available options in TMS will then be active.

If there are any alarms immediately sounding in TMS, the program will need some configuration (pump, flow meter, temperatures, etc.). Please refer to the in-program TMS help menu for assistance.

If the COM Port Scan fails or stops, make sure there are no conflicts with the PL-2303 component under the device manager. If so, try a different USB port. If there are no conflicts and TMS still cannot connect, follow this procedure:

1. Disconnect the USB cable from the TMS board.
2. Shutdown the computer using the Window's shutdown option.
3. Bootup the computer and log back into Windows.
4. Restart the computer using the Window's restart option.
5. After logging into Windows again, reconnect the USB cable to the TMS board.

This should fix most connection issues. If not, there may be a hardware conflict with the USB port that TMS is trying to use. The COM Port Scan can be repeated in TMS under "Settings"->"Rescan".

**To learn how to operate the TMS software, please select "Help" in the TMS tray icon right-click menu, or separately download the .CHM help file from Koolance's website.**