THORNTON
Leading Pure Water Analytics

M200 easy Transmitter Configuration Tool

Quick Start Guide

METTLER TOLEDO

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Overview of operation

The M200 easy Transmitter Configuration Tool (TCT) is a simple to use software program that allows for rapid parameter configuration of single or multiple M200 easy transmitters. Additional features of the TCT include data logging functionality, and a single screen display of all current measurements and outputs status. Simple connection through the M200 easy USB port provides fast and easy setup.

Installation
System Requirements

Operating System Requirements:

Microsoft® Windows® NT 4.0 (Workstation or Server) with Service Pack 6.0a or later.
Microsoft® Windows® 2000 Professional
Microsoft® Windows® 2000 Server
Microsoft® Windows® 2000 Advanced Server
Microsoft® Windows® 2000 Datacenter Server
Microsoft® Windows® XP Home Edition
Microsoft® Windows® XP Professional
Microsoft® Windows® Server 2003 family

Minimum Software:
Microsoft® .NET Framework 2.0
Microsoft® Internet Explorer 6.0 with Service Pack 1.
Windows® Installer version 3.0.

Minimum Hardware Requirements:
Pentium 90 MHz processor with a minimum of 32 MB of memory (96 MB recommended); USB communications port.

Software Installation

Double click the M200 easy TCT install file located on the operation documentation CD included with the M200 easy transmitter. Follow the on screen instructions to install the TCT software onto your PC.

Connection of the M200 easy Transmitter to a PC

NOTE:
Follow the steps below in order to properly establish communication between the M200 easy transmitter and PC.

STEP 1:
Connect power to the M200 easy transmitter

STEP 2:
Connect the M200 easy transmitter to a high power USB port on your PC using a type A/B USB cable.

NOTE:
Low power USB ports are not supported, such as the USB port on your keyboard or monitor.

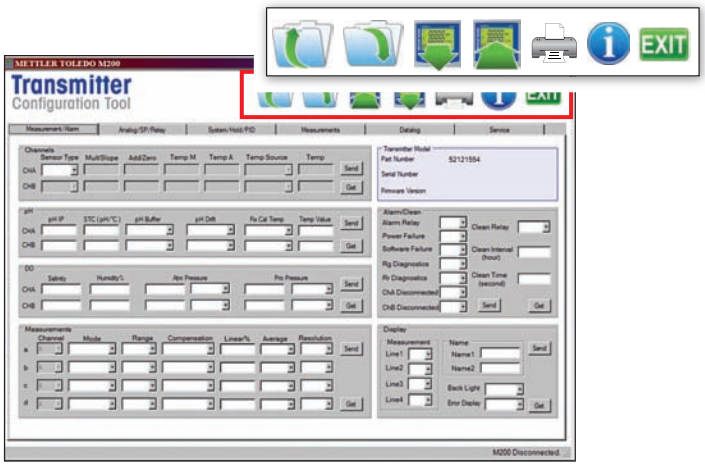
STEP 3:
Launch the M200 easy Transmitter Configuration Tool software.

TCT Main Window

The main components of the TCT software program are outlined below.

1. Toolbar

The TCT toolbar contains several powerful buttons for fast configuration of a single or multiple M200 easy transmitters. A brief description of the function of each button is outlined below.



Save Button click this button to save the current M200 easy transmitter setup to a file.

Open Button click this button to open a saved M200 easy transmitter setup file.

Send All Setup Button click this button to send current TCT setup to M200 easy transmitter. (sends all setup from all tabs).

Get All Setup Button click this button to load current M200 easy transmitter setup for display in the TCT.

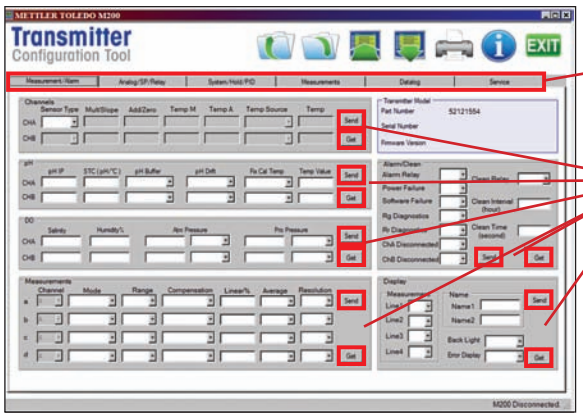
Print Button click this button to print the current M200 easy transmitter setup. A print preview window opens automatically when the button is clicked.

Info Button click this button to display the TCT version number and Mettler-Toledo contact information.

Exit Button click this button to close the TCT software program.

2. Tabs

All M200 easy parameters are configured using three tabbed pages within the main TCT window, Measurement/Alarm, Analog/SP/Relay, and System/Hold/PID. Three additional tabbed pages include an M200 easy current status screen, data logger and service page. Click each tab to bring it into the foreground for configuration. A dotted box ⋮⋮⋮ will appear along the border of the currently active tab. Send and Get buttons which are located in the gray boxes, paired with individual parameter sets allow for only specific parameters to be sent and retrieved from the M200 easy transmitter.



Tabs

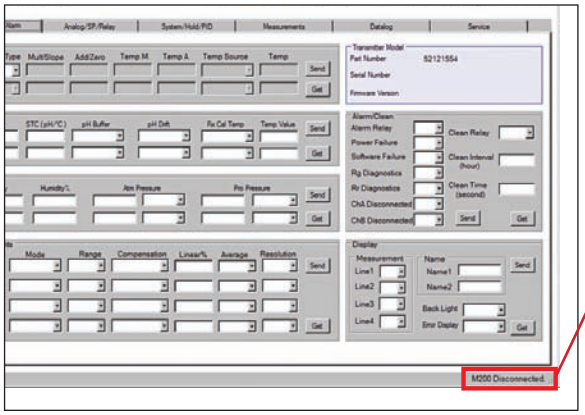
Measurement/Alarm | Analog/SP/Relay | System/Hold/PID | Measurements | Datalog | Service

Send & Get Buttons

Send Get

3. Connection Status

Notifies user whether or not the M200 easy transmitter and PC have established connection.

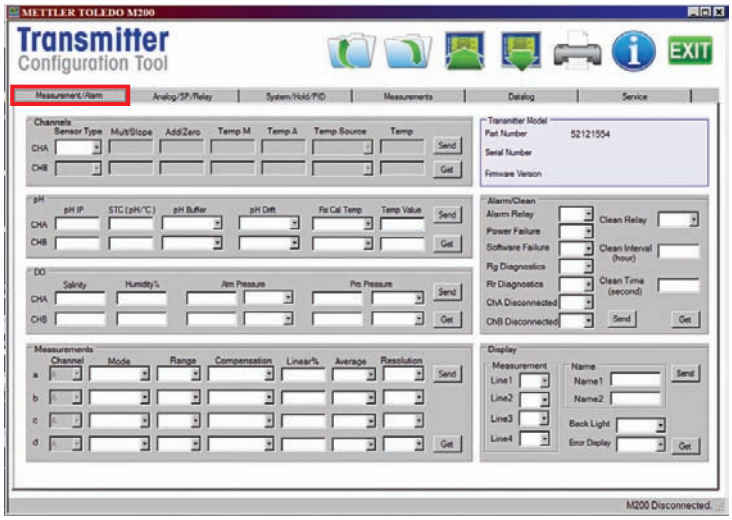


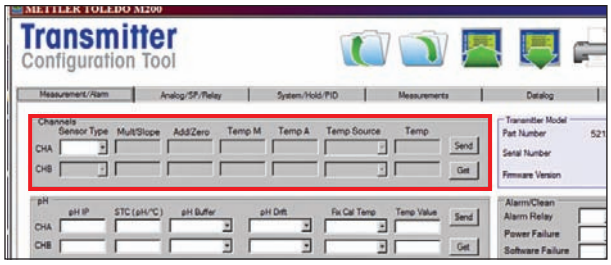
Connection Status Indicator

M200 Disconnected

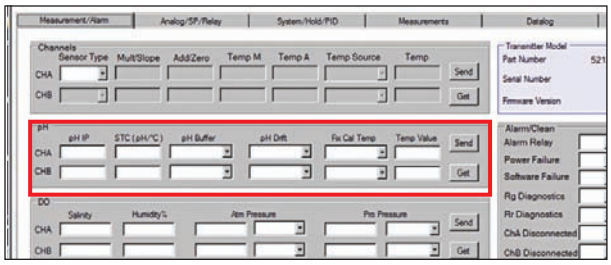
Measurement/Alarm Tab

Configures channel setup, display, and alarm function. Also displays M200 easy part number, serial number, and firmware revision. The components of the Measurement/Alarm tab are outlined below.

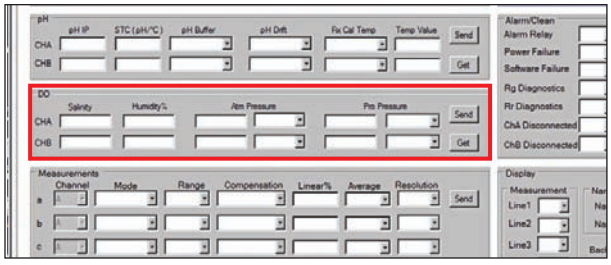




1. **Channel Setup** select sensor type [Cond(2), Cond(4), O2 Hi, pH/ORP], enter sensor calibration constants, and select temperature source.

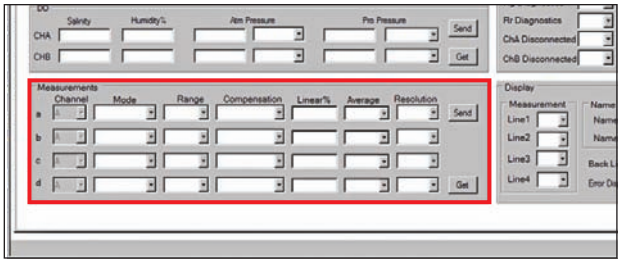


2. **pH Sensor Setup** select pH sensor specific parameters, isothermal point value (IP), solution temperature coefficient in units of pH/°C (STC), buffer solution set for automatic buffer recognition, drift control for calibration, and fixed calibration temperature.

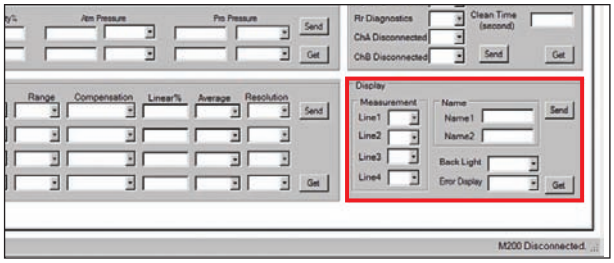


3. **DO Sensor Setup** select dissolved oxygen sensor specific parameters, salinity of measured solution, relative humidity of the calibration gas, atmospheric pressure, and process pressure.

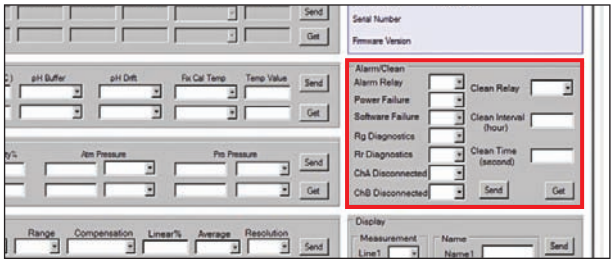
Measurement/Alarm



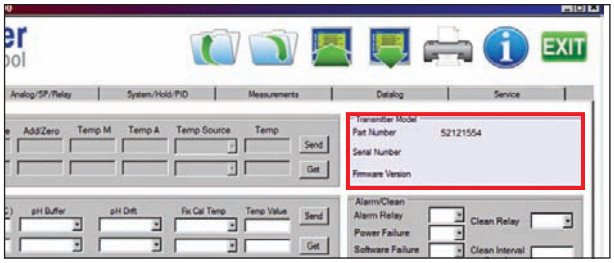
4. Measurements Setup select a channel (A, B), mode (units of measure), and range factor for each M200 transmitter display line. (M200 easy default setting: line a on top and line d on the bottom). Select compensation algorithm, averaging, and display resolution.



5. Display Setup select the values (Measurement a, b, c, d) to be displayed on each line of the M200 easy display, assign an alphanumeric name which is displayed using the first 9 characters on lines 3 and 4 of the display, adjust back light settings, and turn error display on/off.



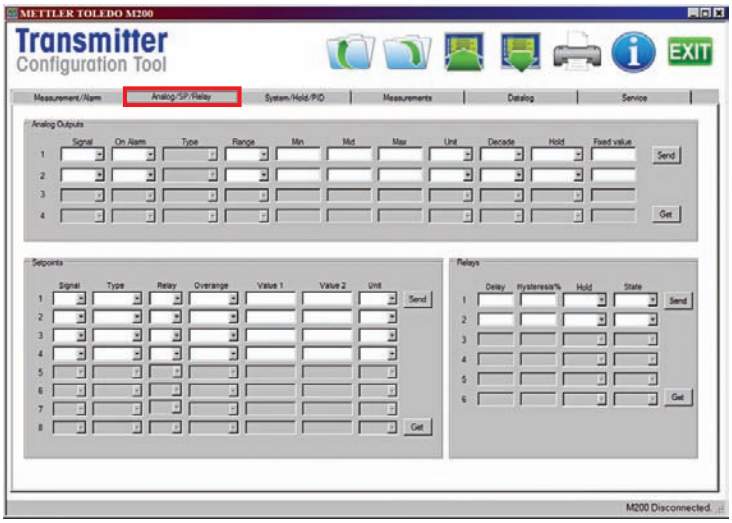
6. Alarm/Clean Setup assign relays to the alarm and clean functions, turn alarm events off/on, and set clean time and interval.

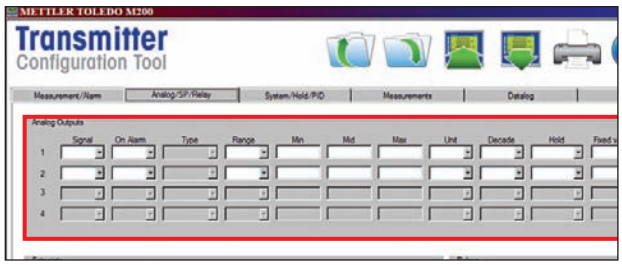


7. M200 Transmitter Information displays M200 easy transmitter part number, serial number, and firmware revision.

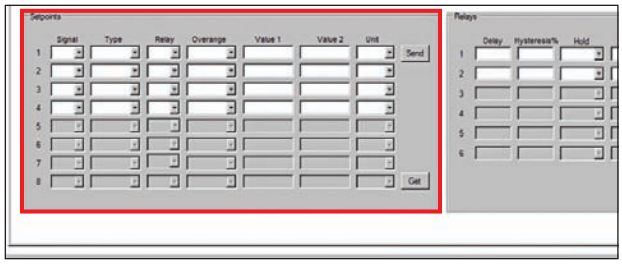
Analog/SP/Relay Tab

Configures analog outputs, setpoints, and relays. The components of the Analog/SP/Relay tab are outlined below.

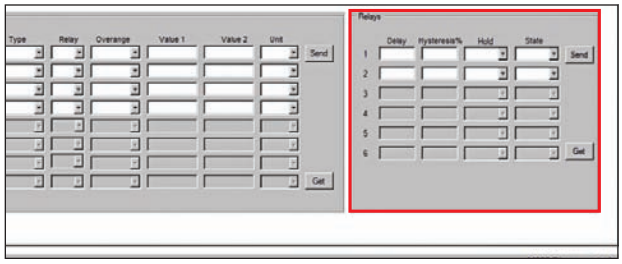




1. **Analog Outputs Setup** assign analog outputs (1-2) to measurement signal (a-d), select scaling type, range (0/4-20mA), enter required values for selected scaling type (min, mid, max, decade), and configure analog output hold settings.



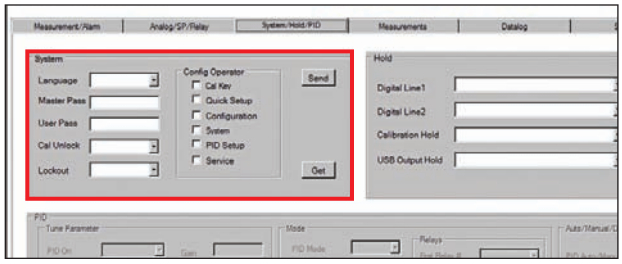
2. **Setpoints Setup** assign setpoints (1-4) to measurement signal (a-d), select setpoint type, assign relay (1-2) to setpoint, and enter required values for selected setpoint type.



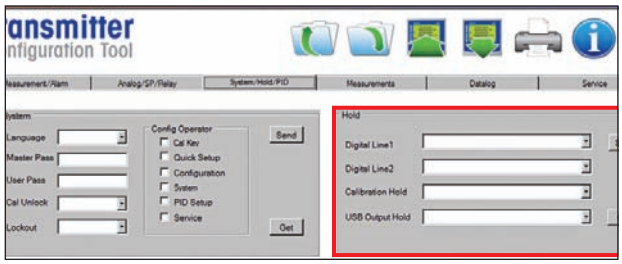
3. **Relays Setup** enter delay time (sec), enter hysteresis (%), configure relay hold settings, and set relay state (normal/invert).

System/Hold/PID Tab

Configures system settings and hold functionality. The components of the System/Hold/PID tab are outlined below.



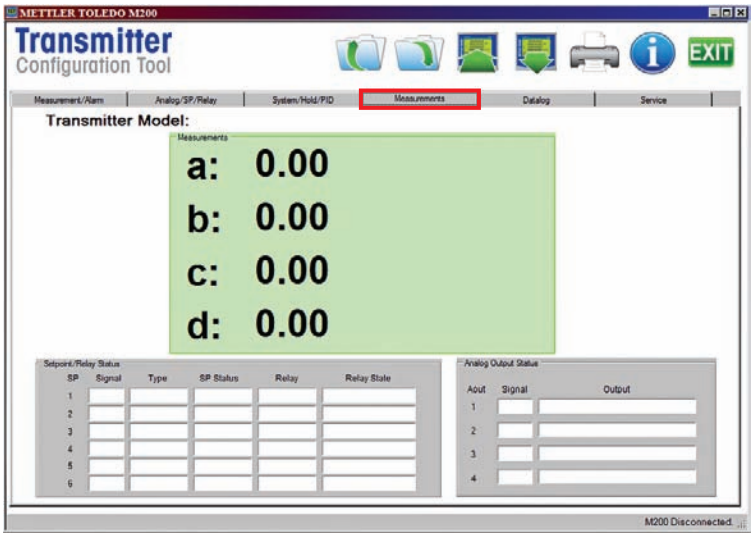
1. **System Setup** set language and configure security lockout settings.

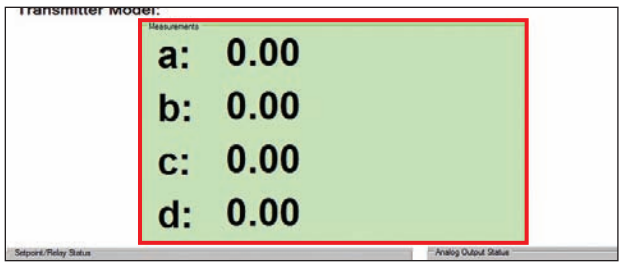


2. **Hold Setup** configure digital input settings for external hold and turn calibration/USB output hold mode on/off.

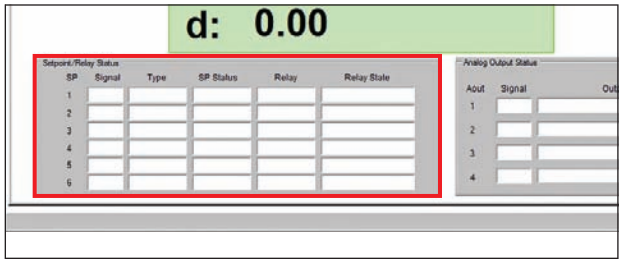
Measurements Tab

Shows M200 easy current display, analog output status, and setpoint/relay status. The components of the Measurements tab are outlined below.

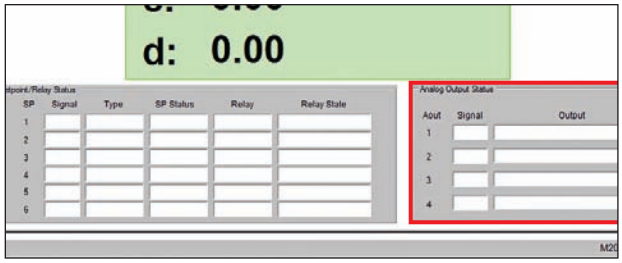




1. **Current M200 easy Display** view live updated measurements from the M200 easy transmitter display in this window.



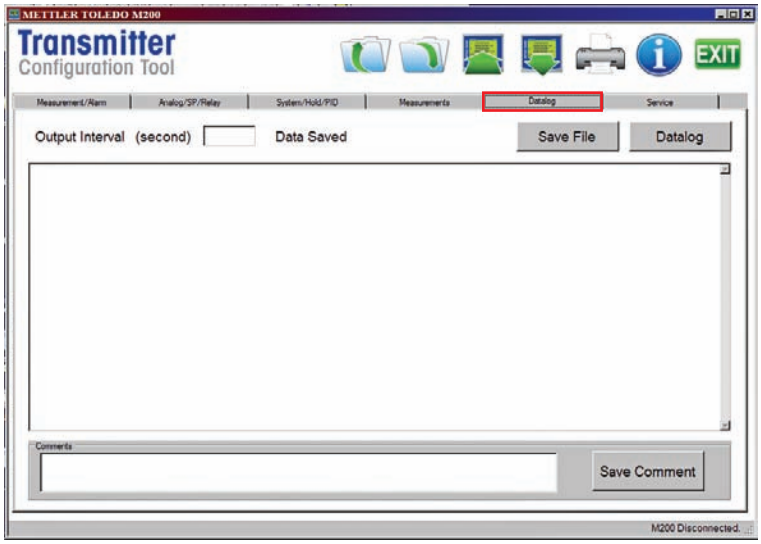
2. **Setpoint/Relay Status** view current setpoint/relay signal assignment and status.

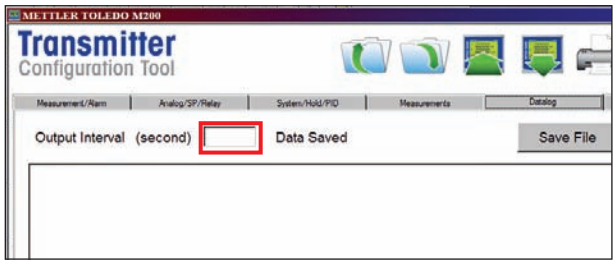


3. **Analog Output Status** view current analog output signal assignment and output current in mA.

Datalog Tab

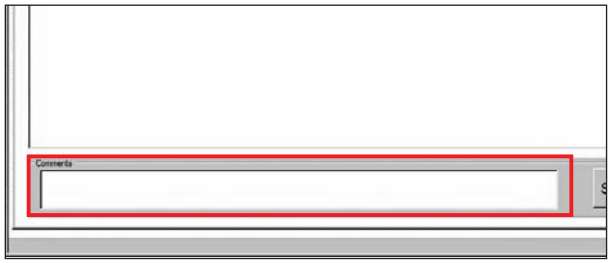
Data log feature that can collect all measurement data from a single M200 easy into a CSV file compatible with Excel. The data collection interval can be set from 1 to 999 seconds and comments can be written into the data file at any time. The components of the Datalog tab are outlined below.





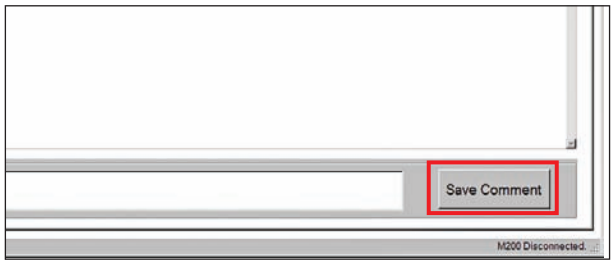
1. **Output Interval** enter the M200 easy transmitter data output interval from 1-999 seconds.

2. **Current Measurement Data Display** view the current measurement data appending to the log file in this window.

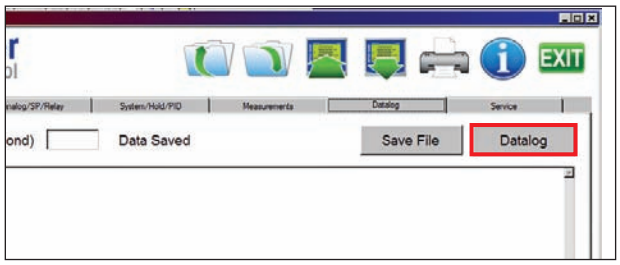


3. **Comment Textbox** enter comments to be added to M200 easy log file in this textbox.

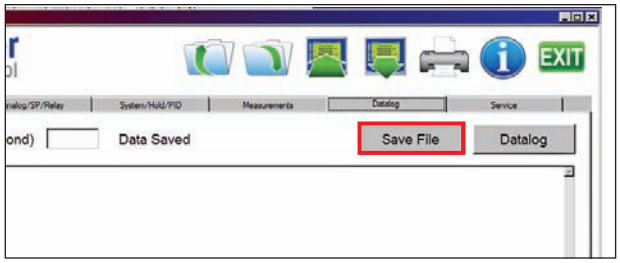
Datalog



4. Save Comment Button click this button to add comments from the comment textbox to the M200 easy log file.



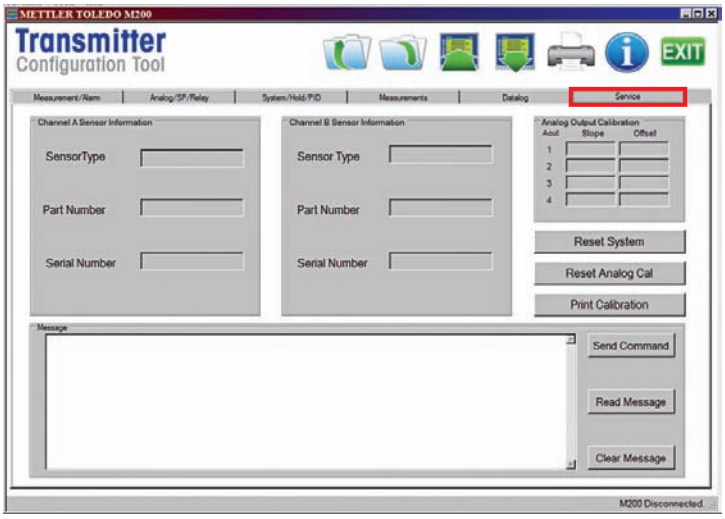
5. Datalog Button click this button to start the datalog function.

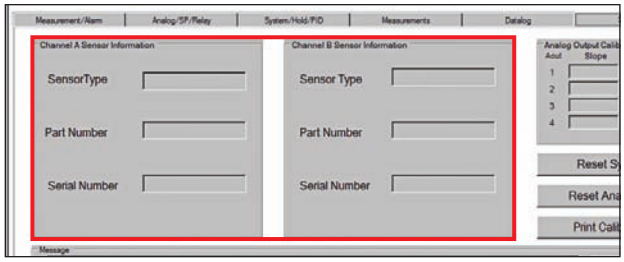


6. Save File Button click this button to save the datalog file to disk.

Service Tab

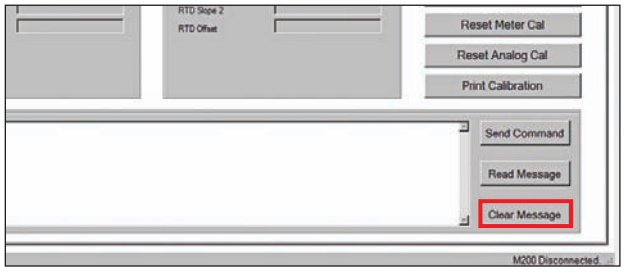
Contains diagnostic information and tools for technical service personnel. The components of the Service tab are outlined below.





1. **Sensor Information displays** sensor type, part number, and serial number for sensors connected to the M200 easy transmitter.

2. **Message Box** current messages from the M200 easy are displayed in this window. Also used for the input of serial commands to be sent to the M200 easy transmitter.



3. **Clear Message Button** clears all the messages from the message box and from the M200 easy transmitter.

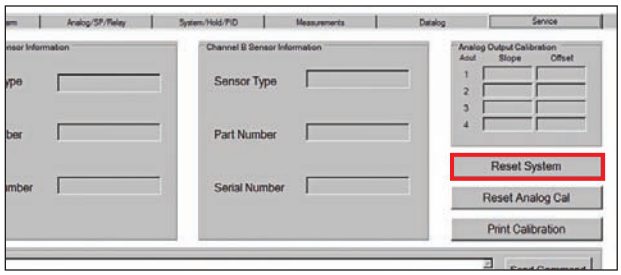
Service

4. Read Message Button click this button to retrieve current messages from the M200 easy transmitter and display them in the message box.

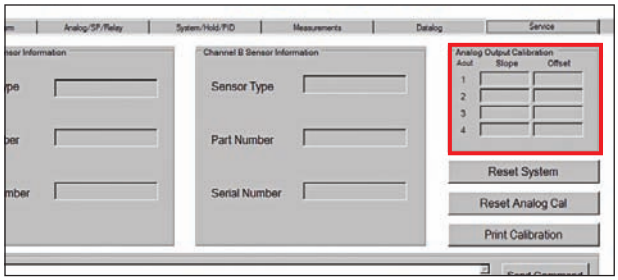
5. Send Command Button click this button to send a command entered into the message box to the M200 easy transmitter.

6. Print Calibration Button click this button to print a copy of all M200 easy transmitter calibration factors displayed in the service tab.

7. Reset Analog Cal Button click this button to reset the analog output calibration factors to their initial factory calibration values.



8. Reset System click this button to reset the M200 easy to the factory default settings (Setpoints off, analog outputs off, etc.). The M200 easy transmitter calibration and analog output calibration are not affected.



9. Analog Output Calibration Factors displays current analog output calibration factors. For factory service personnel.

Notes

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58130138 Rev A 11/09