

Intech XU Programming Software



Installation Guide.

INTECH XU USB PROGRAMMING SOFTWARE

Software Download

Download the latest version of XU Programming Software from Intech Instruments website: www.intech.co.nz/downloads/software-installation/xu-programming-software

XU Programming Software Supports (Ver 1.50):

- XU2.
- XU4.
- XU2HN.
- XU2HI.
- Z-2400-A2I.
- Z-2400-Sleeper.

Installation Notes:

- Install software before attaching XU-USB programming cable, the driver is included in the setup software and will auto install when the XU-USB is plugged in for the first time.
- The XU-USB plugs into a Standard size computer USB port.
- The XU software requires Microsoft .NET Framework 2.0 to be installed first (Microsoft .NET 3.5 SP1, which includes .NET 2.0, can be downloaded free).
 - Note: Windows 10/8.1/8 require Internet access to install .NET Framework 3.5/2.0
- Windows users:
 - Installation requires the user to be an administrator.
 - Desktop shortcut icon will only be installed to the currently logged on user.
 - ♦ Extract all files to a folder.
 - A Right click on setup.exe and click 'run as administrator'.

WARNING: Ensure that all programming is carried out BEFORE any wiring takes place!

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Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

Software Installation

To install the XU programming software, double Click XUInstall.msi

Start Screen





All options have been set, click Next to begin installation.

岃 XU Setup	
Installation Complete	
XU Setup has been successfully installed.	
Click "Close" to exit.	
Please use Windows Update to check for any critical updates to the .NE	T Framework.
Cancel < <u>B</u> a	ck <u>Close</u>

Installation completed.

Note: some time may be required for windows to install the XU-USB drivers.

Double click the XU Setup icon 🥨 on your desktop to begin using the software.

VERY IMPORTANT! Before you plug anything into your PC USB port, ensure that all cables and adaptors are securely connected to both the USB programmer and the transmitter. Always use the windows 'Safely remove hardware' function before unplugging from your PC. Failure to follow these instructions may result in damage to your PC!

XU Setup Software

First, attach XU-USB programming cable and wait for windows to auto install the USB driver. Double click the XU Setup icon.

Note: To setup the	Transmitter, o	nly the USB	connection is	required (i.e.	power via	a 4~20mA (output loop is
not required).							

Intech XU USB Setup Program			₽ – □ X
Connect	Model Details Module ID 1 - XU2 Loop Powered Transmitter Version Status	Wiring	ars
Input & Output Setup Input Pt100 RTD DIN Units Deg C Deg F Filter None <td>Test Input CJC Sensor Output Output Trace mA 16 12 8 4</td> <td>Z-2400 Wireless</td> <td></td>	Test Input CJC Sensor Output Output Trace mA 16 12 8 4	Z-2400 Wireless	
Program Read Input Zero Adjust Value Help Information Transmitter Installation Guide Software User Guide	Comms TX Idle RX Idle View Data Logs Tools File Load File Save	Supplied By	ech [®]
	History	Windows 10	1.50

Connect the XU transmitter to the USB plug and click Connect. Wait for the software to establish a connection.

Connecting To Auto	Cancel
ecking COM3 Connected	
Unit Found ModuleId = 1 - XU2	
USB Ports Found:COM3 Silabs USB Driver Version 6.3	
Silabs USB Driver Version 6.3	

The settings will then be read from the transmitter and displayed.

Connection Panel

Depending of the transmitter connected, you can get different connection panels, this example shows the **XU2**:

Connection	Model Details	Wiring	
Connect Disconnect Connected on COM4	Module ID 1 - XU2 Loop Powered Transmitter Version 3.7 Serial 00000000 Status NO LOOP	78	INPUT KEY 3-wire RTD (A) USB (D) 2ero
Input & Output Setup Input Pt100 RTD DIN Units Deg C Deg F Sensor Fail High (US) Filter 1 Second Range O to 100	Test Scaled Input 1802.6°C Output 21.00 mA Disconnected Output Trace mA 16 12 8 4 Comms TX <ok, 332="" messages<="" td=""> 1/6</ok,>		(A) (A) (C) (C) (C) (C) (C) (C) (C) (C
Program Read Input Zero Adjust Value Value 0.0 °C Date 3/01/1980 Help Information Transmitter Installation Guide Software User Guide	RX OK, 331 Messages View Data Time 12:00 AM Calibrate Logs Tools File Load File Save	Supplied By	Itech



Click Connect to connect to a Transmitter, or disconnect to stop communications.

Click Disconnect to stop the communications to the transmitter.

If you disconnect the transmitter from the XU-USB, the connection will timeout and close automatically. If you connect another transmitter before the timeout period expires the settings will be read out of the new transmitter and communications will start again.

Input & Output Setup

For input type and range selection.

Select the options required and click Program to write changes to the transmitter. The Program button will change to Bold text if changes need to be written to the controller.

Input & Output Setup			
Input	Pt100 RTD DIN 🔹		
Units	◉ Deg C 💿 Deg F		
Sensor F	ail High (US) 🔻		
Filter	None 💌		
Range	0 to 100 👻		
P	rogram Read		

If you close the software or click the Disconnect button with unwritten changes, the following will be displayed:



Click Yes to program changes to the TX. The software will program the changes and then close.

Programming status

🖳 TX Progre	155	
Program	ning Data Completed	

When the programming is complete, the Test and Wiring panels will be updated to reflect the new changes.

WARNING! Do not disconnect the transmitter while programming is taking place.

If you do so, the transmitter will be left in an unknown state and may not operate properly. The following display appears to show comms errors during programming:



The software closes the connection, connect the transmitter to the computer again then click Connect and do the programming operation again.

Output:

Adjusting the Zero pot on the transmitter will affect factory output calibration. Adjusting the Zero pot does NOT affect Test Panel values - Input and Output values and output trace.

Help Information	
Transmitter Installation	Guide
Software User Guide	
	Web Manua

If the computer is connected to the internet, the Help links will look for the help manuals from the web locations giving you the most up to date information. If an internet connection cannot be found, the latest manuals production at time of software update will be shown. Once a link is clicked "Web Manuals" or "Local Manuals" will be shown to indicate the source of the manual.

Click **Transmitter Installation Guide** to view the installation guide for the attached transmitter. If no transmitter is attached a page will display in your web browser with links to each XU transmitter Installation Guide.

Click Software User Guide to view this manual.

These files are in Adobe® PDF format.

Model Details

Model Details				
MOUCH DOLL	10			
Module ID	1 - XL	12		
	Loop Powered Transmitter			
Version	1.20	Serial 35100023		
Status	NO LO	OP		

Shows a panel giving transmitter name, software version and status.

Example Status Values

OK	Input and Output OK
NO LOOP	No 4~20mA output connected
SENS	Input sensor High or Low

INIT, BUSY Internal Error Codes, please advise. FLASH ERR

Test

Shows a panel giving current input and output value, and a short duration trend graph of the output.

This panel will show a live input reading when the transmitter is only powered by the USB connection.



Model Details indicating No 4~20mA output connected

Status shows "NO LOOP".

Model Details				
Module ID	1 - XL	J2		
Loop Powered Transmitter				
Version	1.20	Serial 35100023		
Status	NO LO	OP		

Test Panel indicating No 4~20mA output connected

Output Value shows in gray text, with "Disconnected" text added.

Test Input	1802.6°C	
Output Ou	21.00 mA Discor tput Trace	mA 20 16
		12 8 4

Comms

TX OK, 64 Messages

RX OK, 63 Messages

View Data

Comms

Shows TX and RX message counts, indicating good communications to the unit.

Wiring

Example showing **XU2HI**:



This panel shows the connections to the Transmitter required for the input type selected.

Tools	
File Load	File Save
	History
	History

Click File Load to load a txcal file into the TX.

Click File Save to save current settings to a txcal file.

Click History button to see a text file history of all transmitters programmed so far. This can be used to review the settings of transmitters programmed on this computer (File name txhistory.txt)

Save Settings To File	Rear Seals	-			×
U Libraries	Documents		- 4 ₇	Search Documents	٩
Organize 🔻 New folder	r			: :::::	• 📀
Recent Places	Documents library Includes: 2 locations			Arrange by: F	older 🔻
Libraries	Name	Date modified	Туре	Size	
Music Pictures Videos Computer & Boot (C:) Data (D:) Archive (Backup) Intech Web (ints	🎍 CaptureWiz	30/08/2010 4:42 p 31/08/2010 3:34 p	File folder File folder		
File name: Pt100 Save as type:	RTD DIN 0 to 100 C US.txcal			Save	▼ ▼ Cancel

When saving, the file name will be auto named based on the current range settings from the example above

Pt100 RTD DIN	Input Type
0	Zero Value
100	Span Value
С	Centigrade (or F Fahrenheit)
US	Upscale Sensor Break.

Note: Once a txcal file has been saved, this can be used to auto program transmitters to the same settings as follows:

Close XU Setup program.

Attach new XU Transmitter to the computer.

Double click on the txcal file. The XU Setup program will auto start, connect and then program the XU Transmitter and then close again.

To repeat program several transmitters with the same ranges:

- 1. Connect to the first transmitter, make the range selections and click Program.
- 2. Click File Save and save the file. Close the XU setup program.
- 3. Attach the new transmitter to the computer, locate the txcal file an double click on it.
- 4. Repeat step 3 for each transmitter required.

Input Zero Adjust

The Input Zero Adjust allows you to apply an offset calibration value to the input.

Input Z	ero Adjust		
Value	0.0 °C	Calibrate	Logs

Click the Calibrate button to begin calibration.

nput Zero Adju	st
Calibration	OK Cancel
Input Reading	20.3°C Limits -10 to +10 °C Format X.X
Notes	After adjusting calibration value, please allow a couple of seconds to allow the input value to stabilize.
	If you change the input type of the transmitter (i.e RTD to TC), the calibration value will be cleared.
	In Deg C, Calibration is a "best fit" because of internal maths of the transmitter, and input resolution. You may therefore need to adjust the value a few times to get the best result.

To make the input reading go up, enter a positive value.

To make the input reading go down, enter a negative value.

Input can only be Calibrated when a correct input signal is applied.

Click OK to write the change to the transmitter and wait for the display to show Waiting, and then Input Updated.

Limits are shown for the range of figures that can be entered, also the data format is shown (i.e. in Deg C a 0.1 degree offset is the smallest offset that can be entered; trying to enter 0.05 as an offset will not work).

Click Close to exit the calibration screen.

It is not necessary to program changes to the transmitter after calibration, as this panel does the whole operation for you.

At the time of calibration, a date and time stamp is recorded to the transmitter, and you can see this in the Input Zero Adjust panel.

Input Z	ero Adjust				
Value	0.0 ℃	Date 16/09/2010	Time 12:01 p.m.	Calibrate	Logs

The Calibration information is also stored to a text file on the computer doing the calibration using the file name "cal serialnumber.txt". Click Logs to view this file.

If no transmitter is connected, a folder will be shown with all calibration logs calibrated so far. These files are located in "My Documents\XU Setup" folder.

When you change the Input Type of the transmitter (i.e. from RTD to TC etc) the calibration value is cleared as the transmitter uses the same offset for all ranges in the transmitter. Changing the Range Scaling does not clear the calibration information.

*This software requires transmitter software 1.20 or later (as shown in the Model Details Panel)

Model Detai	le	
Model Deta		
Module ID	1 - XU	12
	Loop P	owered Transmitter
Version	1.20	Serial 35100023
Status	NO LO	OP

If the transmitter does not have the correct software installed, the following will be shown:

	Model Details		
	Module ID	3 - XU In Head	12HI d Transmitter Iso
	Version	1.13	Serial 24100061
	Status	NO LO	OP
Input Zero Adjust			
Calibration Not Avail	able in this transr	nitter vers	ion

If you desire this feature, you must obtain a replacement transmitter. It is not possible to upgrade the software for older transmitters.



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