

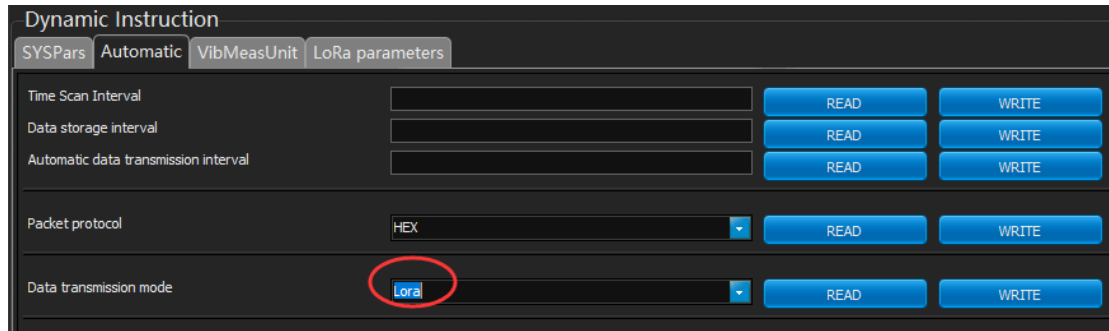
The prerequisites for reading this accessory are:

You can already use SETP\_Tool to connect, read, and modify VS4XX parameters (see "VS1xx\_VS4XX (EUR)User Manual V1.24 For HW201 sf300.pdf").

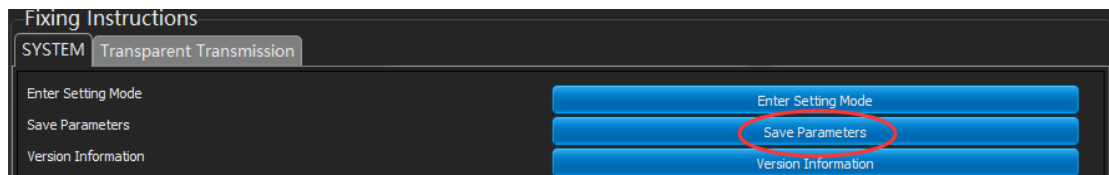
## Data transmitter

➤ Step 1: Set the data transmission mode of VS4XX

In Setp\_Tool, change the "Data transmission Mode" in the "Automation" panel to "LORA", as shown below.



Note: After modifying the parameters, be sure to click the "Save Parameters" button in SETP\_Tool. (The same below)



➤ Step 2: Modify the LORA parameters



It's a good idea to keep the default values.

Note: In any case, the LORA parameters of the sender and receiver must be exactly the same.

## Data receiver

If you have a LORA receiver, configure the LORA parameters of the receiver to be exactly the same as the transmitter.

If you do not have a LORA receiver, you can make VS4XX a receiver by modifying the parameters as follows:

➤ Step 1: Modify the working mode

Modify “Next time start working mode” Is “Set Mode”。

The screenshot shows the 'Dynamic Instruction' window with the 'LoRa parameters' tab active. The parameters are as follows:

Parameter	Value	READ	WRITE
Device Name		Button	Button
Device Address		Button	Button
Communication rate	9600bps	Button	Button
Communication parameters	N,8,1	Button	Button
Next time start working mode	Set mode	Button	Button

After this parameter is modified, VS4XX will automatically enter "Parameter Setting Mode" at each startup, and the indicator will flash quickly.

➤ Step 2: Set the data transmission mode of VS4XX

The screenshot shows the 'Dynamic Instruction' window with the 'LoRa parameters' tab active. The parameters are as follows:

Parameter	Value	READ	WRITE
Time Scan Interval		Button	Button
Data storage interval		Button	Button
Automatic data transmission interval		Button	Button
Packet protocol	HEX	Button	Button
Data transmission mode	Lora	Button	Button

➤ Step 3: Modify the LORA parameters

The screenshot shows the 'Dynamic Instruction' window with the 'LoRa parameters' tab active. The parameters are as follows:

Parameter	Value	READ	WRITE
Spectrum Factor	8	Button	Button
?Coding Rate	2	Button	Button
Bandwidth	125kHz	Button	Button
Channel Number	7	Button	Button
transmitting power	15dBm	Button	Button

Note: To prevent the receiver from shutting down automatically, you can set a read instruction to VS4XX every 1 minute in the upper right corner of the SETP\_Tool interface (in parameter mode, VS4XX will not start the automatic shutdown process as long as it receives any data).

## TEST

VS4XX automatically starts every period of time (the default is 8 minutes), collects sensor data, then sends data and shuts down.

In particular, you can use VS4XX's [Test] button to force a data transmission.

The screenshot shows the 'Dynamic Instruction' window with the 'LoRa parameters' tab active. The parameters are as follows:

Parameter	Value	READ	WRITE
Time Scan Interval	2	Button	Button
Data storage interval	4	Button	Button
Automatic data transmission interval	8	Button	Button

When the receiver receives the data, it outputs the received data at the RS232 interface. If you use VS4XX as the receiver, you can see the content of the received data on the left side of the SETP\_Tool interface.

When VS4XX outputs LORA data from RS232, it is prefixed with “LoraRecev:\t”.

There are three packet formats for VS4XX, please refer to “VS10x\_VS4xx Data Protocol Description.pdf”.

The screenshot shows the 'Dynamic Instruction' window of the SETP\_Tool interface. It has four tabs: 'SYSParams', 'Automatic', 'VibMeasUnit', and 'LoRa parameters'. The 'LoRa parameters' tab is selected. It contains several configuration fields and buttons:

Parameter	Value	READ	WRITE
Time Scan Interval	2	READ	WRITE
Data storage interval	4	READ	WRITE
Automatic data transmission interval	8	READ	WRITE
Packet protocol	String1.0 (selected)	READ	WRITE
Data transmission mode	String1.0 (selected)	READ	WRITE

The 'Packet protocol' dropdown menu is open, showing three options: 'String1.0' (highlighted in blue), 'HEX', and 'String2.0'. A red rectangle highlights the dropdown menu and the 'Data transmission mode' field.