

Connect ZW-REC with UW Series End Device

1. Introduction

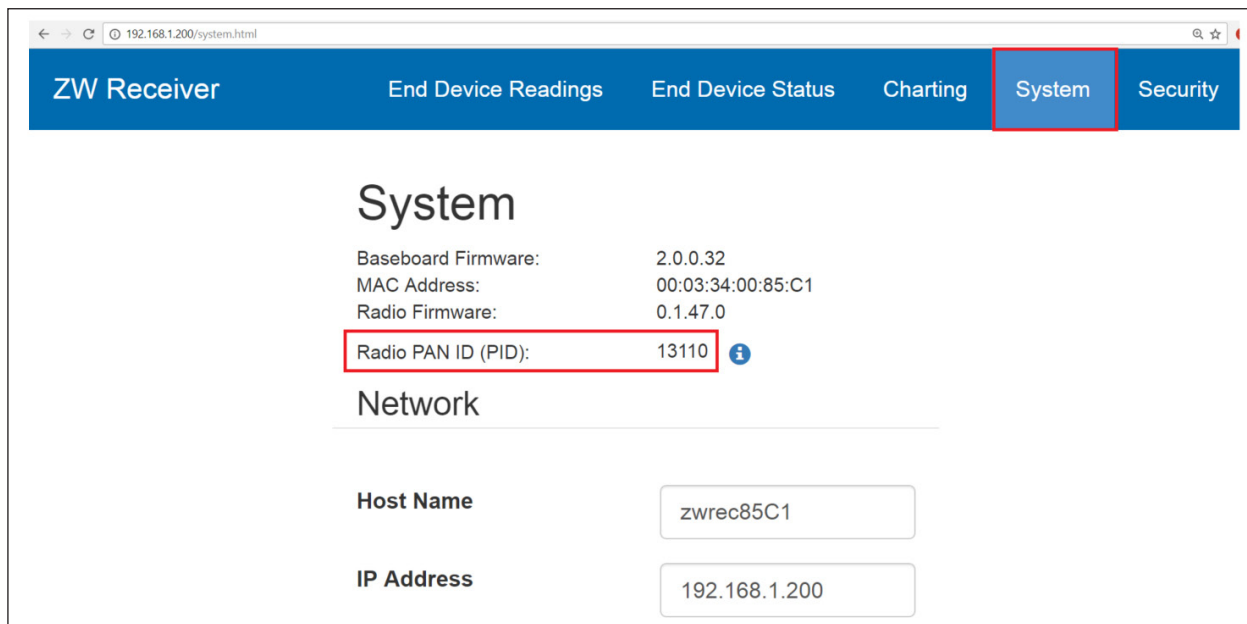
This application note provides step-by-step instructions on how to connect the ZW-REC receiver with UW series end devices. The ZW-REC can connect up to 127 compatible wireless end devices. Before you can connect your wireless receiver and end device(s), OMEGA's TC Central measurement and data logging program is required to configure the

UW series end devices, to then connect to the ZW-REC. TC Central can be found at <http://www.omega.com/software/>. For details on how to properly install and use TC Central, please refer to the UW Series manual. <http://www.omega.com/Manuals/manualpdf/M4432.pdf>

2. ZW-REC Configurations

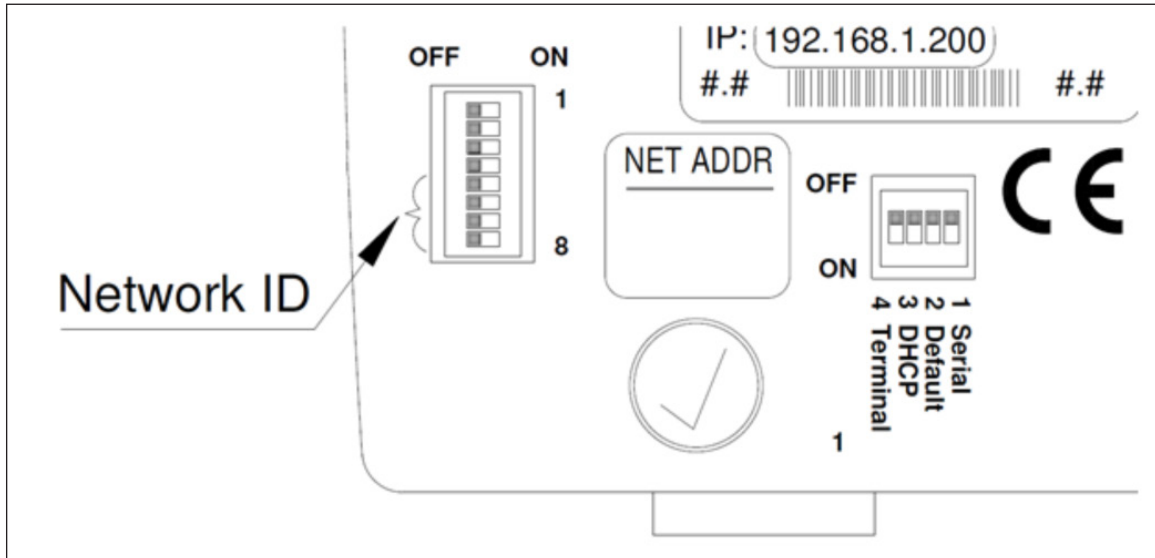
The radio PAN ID (PID) from the ZW-REC, is similar to the Network ID, and is required for setting up the UW series end devices. The PID can be found on the ZW-REC webpage <http://192.168.1.200/system.html>.

- Default user name: **admin**
- Password: **00000000**.



In the figure above the PID is 13110.

The figure and table below show another option to obtain the PID from the DIP switches located on the back of the ZW-REC.

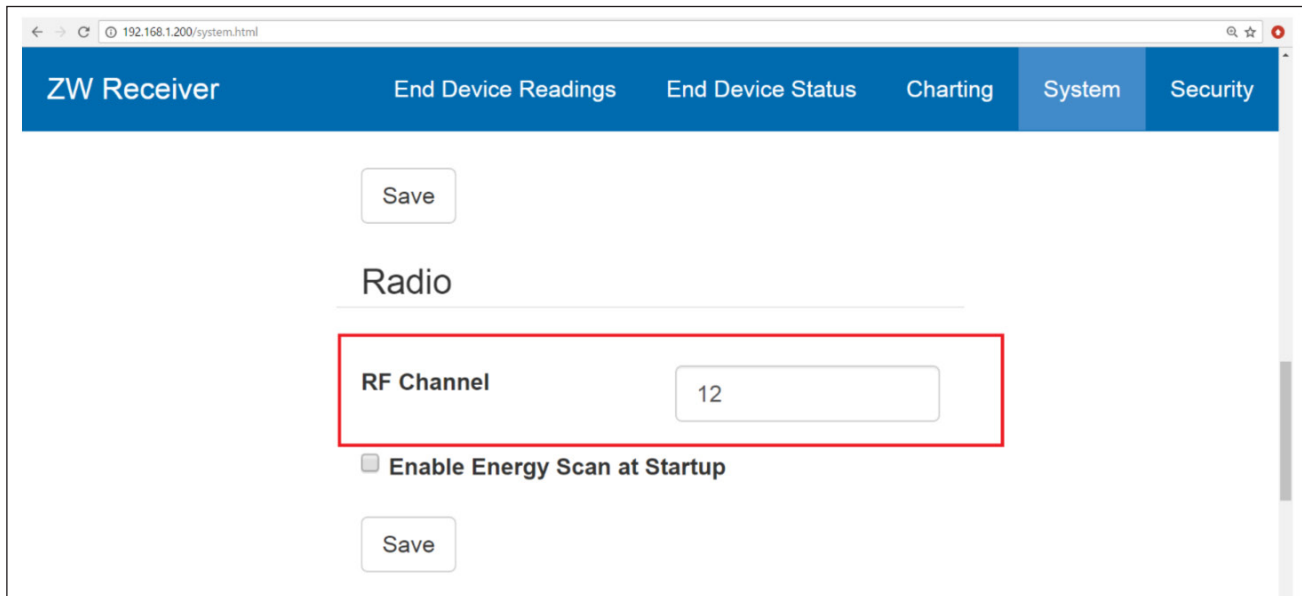


Switch				NID	PAN ID
8	7	6	5		
OFF	OFF	OFF	OFF	0	13106
OFF	OFF	OFF	ON	1	13107
OFF	OFF	ON	OFF	2	13108
OFF	OFF	ON	ON	3	13109
OFF	ON	OFF	OFF	4	13110
OFF	ON	OFF	ON	5	13111
OFF	ON	ON	OFF	6	13112
OFF	ON	ON	ON	7	13113

Switch				NID	PAN ID
8	7	6	5		
ON	OFF	OFF	OFF	8	13114
ON	OFF	OFF	ON	9	13115
ON	OFF	ON	OFF	10	13116
ON	OFF	ON	ON	11	13117
ON	ON	OFF	OFF	12	13118
ON	ON	OFF	ON	13	13119
ON	ON	ON	OFF	14	13120
ON	ON	ON	ON	15	13121

Record the PID, this will be entered as the network ID for the UW end device.

On the webpage, scroll down to the Radio section:

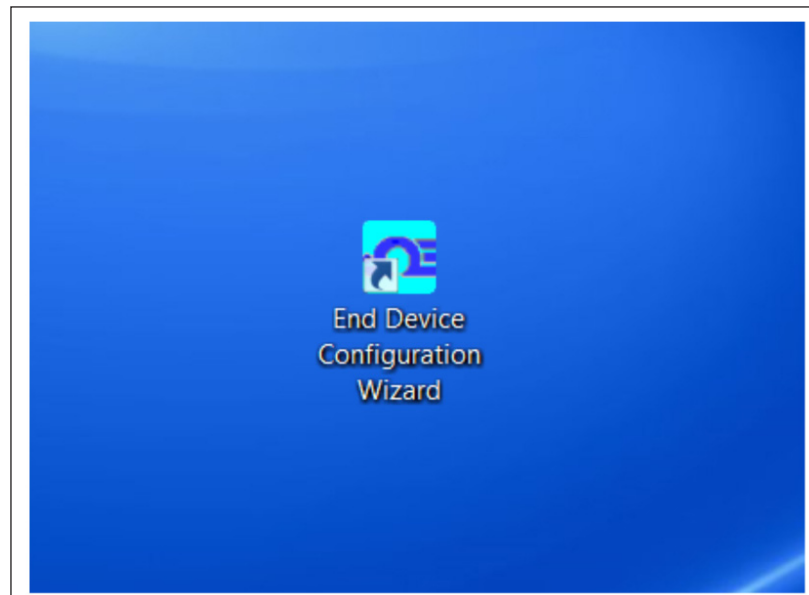


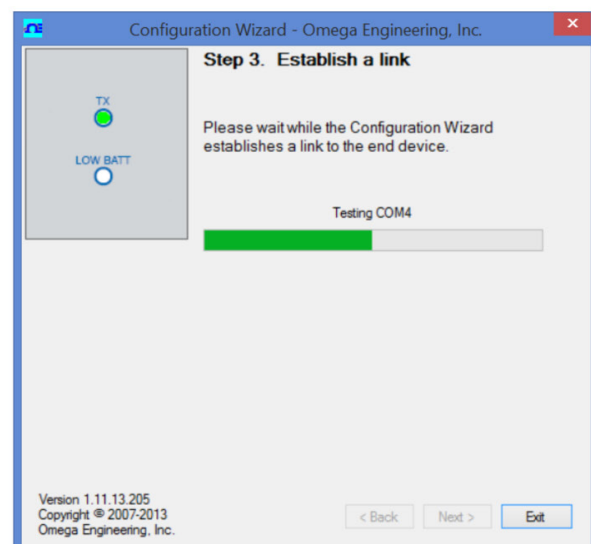
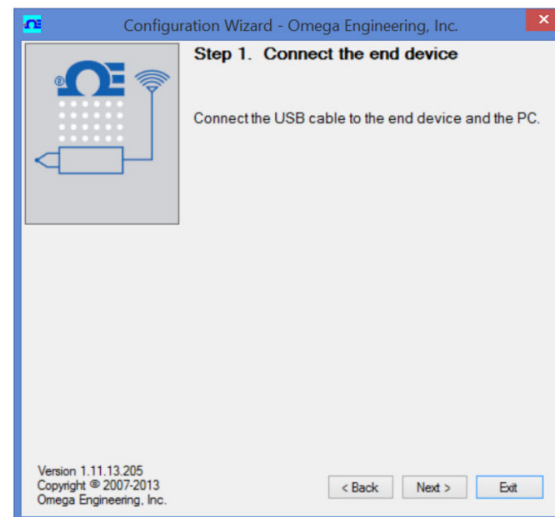
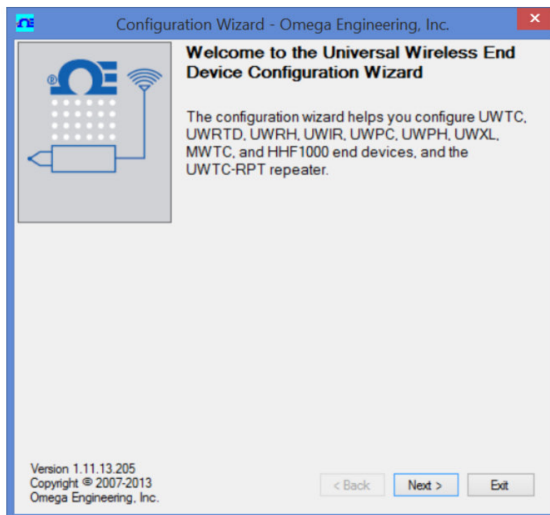
The screenshot shows a web browser window with the address bar displaying "192.168.1.200/system.html". The page has a blue header with navigation tabs: "ZW Receiver", "End Device Readings", "End Device Status", "Charting", "System", and "Security". The "System" tab is selected. Below the header, there is a "Save" button, followed by the "Radio" section title. A red rectangle highlights the "RF Channel" label and its corresponding input field, which contains the value "12". Below this, there is a checkbox labeled "Enable Energy Scan at Startup" which is currently unchecked, and another "Save" button.

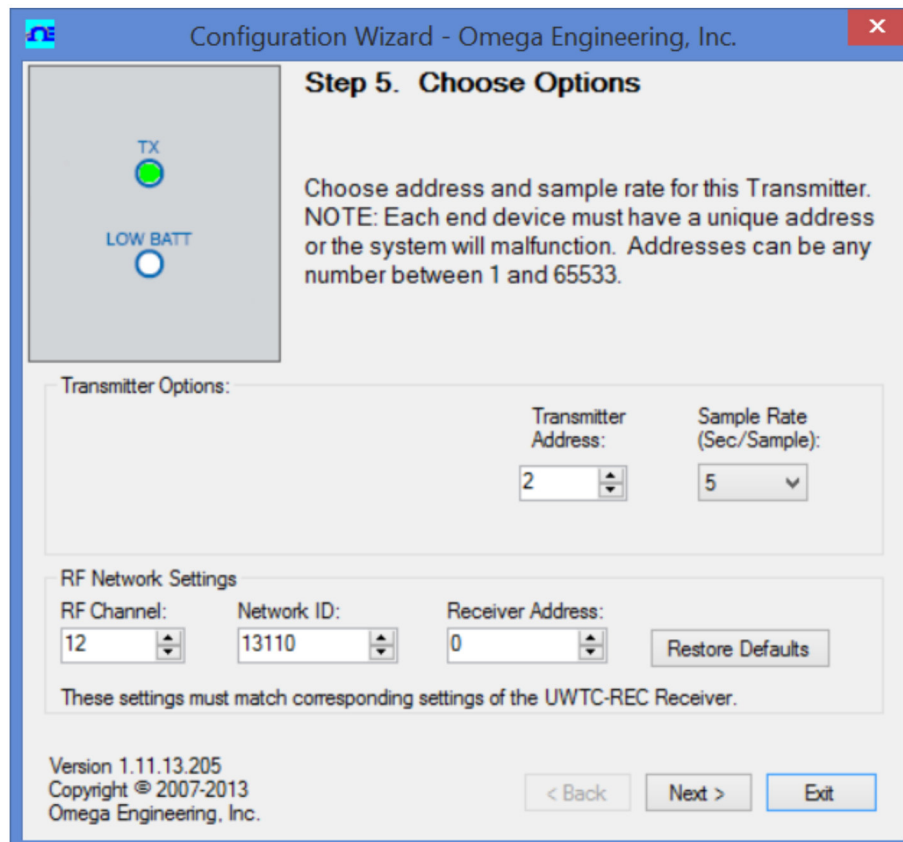
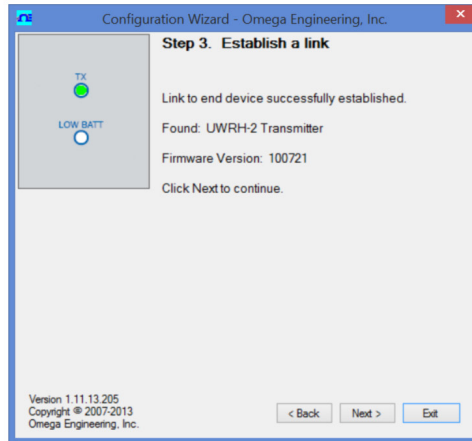
Since the UW end device only operates on RF channels 12 to 23, the RF Channel on the ZW-REC should also be entered and set accordingly.

3. UW Series End Device Configurations

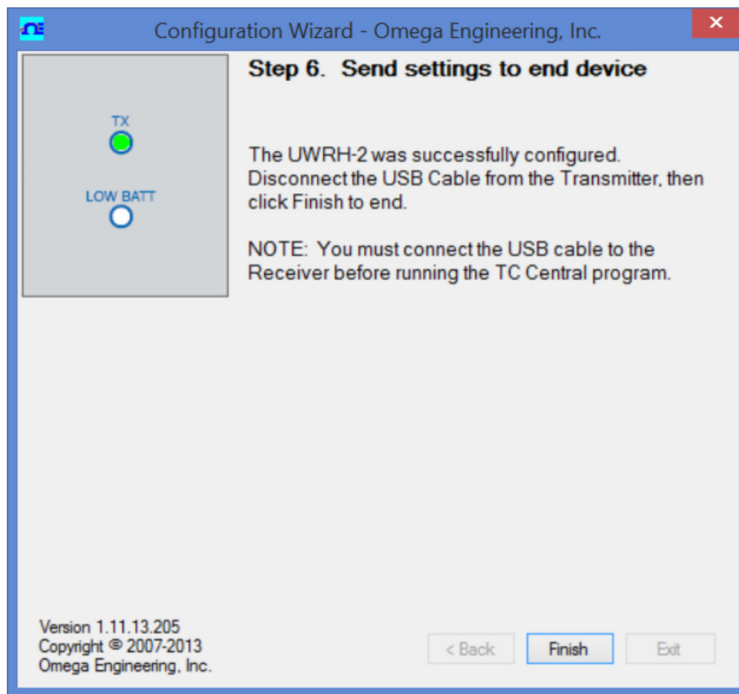
Once the PID and RF Channel have been obtained from the ZW-REC, the UW end device configurations must match. After TC Central has been installed, open "End Device Configuration Wizard" and follow the instructions.







In this window enter a Transmitter Address from 1 to 127; the ZW-REC will use this as the device ID. Enter the RF Channel from the ZW-REC, and the PID for the Network ID. Enter 0 for the Receiver Address. Click "Next" to send the configurations to the UW end device.



4. Verify the UW end device is connected.

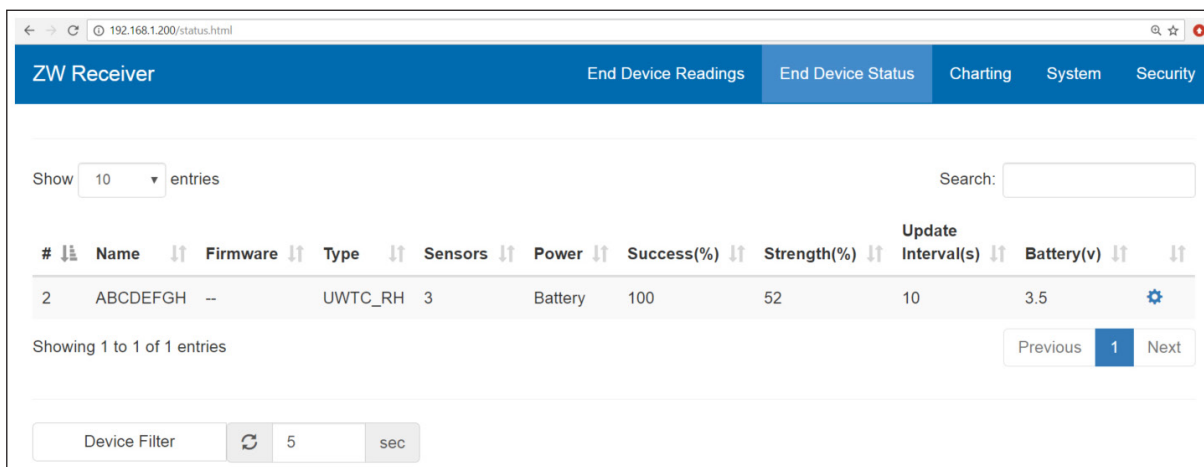
Click “Finish” and turn ON the UW end device. To verify that the UW end device has connected to the ZW-REC, go to: <http://192.168.1.200/readings.html> or <http://192.168.1.200/status.html> and the readings from the UW end device should appear on the screen, as shown below.

#	Name	Status	Sensor 1	Sensor 2	Sensor 3	Sensor 4	Last Update
2	ABCDEFGH	Good	41.00 %RH	24.61 °C	10.48 °C	--	12:08:06

Showing 1 to 1 of 1 entries

Device Filter: 5 sec

The End Device Status screen shows the sensor type, percent of successful transmissions, signal strength, update interval, and battery life (as shown below). The sensor type should be a UW Series end device.



The screenshot shows a web interface for a ZW Receiver. The top navigation bar includes 'End Device Readings', 'End Device Status' (selected), 'Charting', 'System', and 'Security'. Below the navigation bar, there is a search bar and a 'Show 10 entries' dropdown. The main content area displays a table with the following data:

#	Name	Firmware	Type	Sensors	Power	Success(%)	Strength(%)	Update Interval(s)	Battery(v)
2	ABCDEFGH	--	UWTC_RH	3	Battery	100	52	10	3.5

Below the table, it says 'Showing 1 to 1 of 1 entries'. At the bottom, there is a 'Device Filter' section with a refresh button, a value of '5', and a unit of 'sec'.