

# I-PLUG IPMH20 User Manual

**Company**: Switrace SA **Brand Name**: I-PLUG TH **Product Description**: Temperature and humidity Data Logger, multi or single use

#### Features and Advantages:

- Dimensions: 7.5 cm x 4 cm x 0.5 cm
- Temperature measurement range: -35 to +65 Degrees Celsius
- Temperature resolution: 0.01 °C
- Data storage capacity: 20 000 Measurements (10 000 for temperature, 10 000 for humidity)
- Log cycle: 1 days to 365 days
- Program and read the device using free MANAGER software
- Track and trace of settings, graph and readings in web portal.

#### Standard available durations:

	Total Time (Days)	Log Cycle (Minutes)
1	6	1
2	12	2
3	41	6
4	62	9
5	69	10
6	104	15
7	208	30

Appearance of I-PLUG IPMH20 :





# How does it work?

#### How to START it?

When you are ready to use **I-PLUG TH Logger**, press and hold the START button. The 4 LEDs will light sequentially, release only when the GREEN LED only is lighted. If the device failed to start the 4 LEDs blink together, in this case repeat the operation.

Once started, the GREEN LED will <u>blink</u> every 2 seconds, for the <u>first 30 minutes</u>. *NOTE: on older devices the GREEN LED remained lighted during the first 2 minutes, without blinking.* 

After this phase, if you want to read the device status press briefly any of the two buttons (see the section <u>Understanding the LEDs indicators</u>).

#### Start Delay

As a factory setting, I-PLUG TH will start recording 30 min after pressing the START button.

#### How to STOP it?

I-PLUG TH is programmed with a typical trip duration, and will keep recording until the end of this trip duration

There are two different ways to STOP the device before the end of the trip duration:

- Press the **STOP** button during 6 seconds till the 4 LED's flash release only when the RED LED is active and fixed.
- **Connect** the device on the USB port of the computer

Once stopped, pressing any button will briefly activate The RED LED as an indication that the device has finished recording.

## Configuring I-PLUG TH

# I-PLUG TH data logger comes already configured to standard formats according to your purchase.

The standard trip duration is **90 days**.

Nevertheless if you wish to change the configuration like

- Changing the recording time
- Temperature scale ( $C^{\circ}/F^{\circ}$ )
- Adding alarms (for temperature only)
- Changing start delay
- Entering text in the device memory

You just need to plug it in a computer before being activated and use the *iPlug Manager* software. Contact your SWITRACE distributor to receive this free software.



# Understanding the LEDs indicators

The LEDS will give you valuable information of the conditions of your shipment as indicated in below table.

If you press START or STOP button briefly, while I-PLUG is running, LEDs will blink.

Here are the meanings:

Appearance of I-PLUG <i>pdf</i>	Meaning		
	<ul> <li>4 blinking LEDs Ready state / Device has not been started.</li> <li>NOTE: When the device is in a Ready state, only the start button is active.</li> </ul>		
	In a RUNNING state, when a button is pressed: <b>Blinking Green</b> This confirms that the device is already started. NOTE: <u>there is a fixed green LED during the first 2</u> <u>minutes of recording</u> .		
	Fixed Red Device is in a STOP state.		
	In a STOP state, when a button is pressed: <b>Blinking Blue</b> Low alarm has been triggered. <b>Fixed Blue</b> Ultra-low alarm has been triggered.		
	In a STOP state, when a button is pressed: <b>Blinking Orange</b> High alarm has been triggered <b>Fixed Orange</b> Ultra-high alarm has been triggered.		
	SAMPLING state. Orange LED automatically lights for 2 seconds every time the device performed a temperature record.		



### Connecting to the computer

I-PLUG TH will be detected by the computer as a USB disk drive and will be recognized without any specific driver. There are, however, <u>two possible situations</u>.

- **Device is not started:** If you need to modify any of the parameters before starting the I-PLUG TH, plug the device in a USB port then **press the START button**, for the computer to detect it.
- **Device is working or stopped**: As soon as the I-PLUG TH is connected to the PC via the USB port the computer will automatically detect the device.

The first time I-PLUG TH is plugged in, it will trigger the creation of the PDF report (**4 LEDs on and fixed**). <u>DO NOT remove the I-PLUG *pdf* in this situation</u>.

Once the device is ready, a new USB disk drive will appear on your PC allowing you to download the PDF report.

**IMPORTANT**: keep in mind that, the more measurements the I-PLUG TH *pdf* took, the more it will take for the PDF report to open. It could take as long as a 45 seconds if the I-PLUG TH *pdf* is completely full. While the PDF report is downloading, LEDs will be lit in a circular way.

# Using I-PLUG Manager for immediate readings

- 1.Connect the device to your computer
- 2. open SWITRACE MANAGER for immediate readings
- 3. select "Read Temperatures" for immediate readings

Switrace - iPlug Manager	4	:
Device : IPMH30	System Status : Stopped	Device ID : 160209135001
Settings Serial Number : 45990017		Save settings
Sample Time 30	00h:00m:30s	Reset device
Measures 100	00 Days 00h:50m:00s	
Celsius      Fahrenheit	Start Delay (s) 0	Upload Temperatures
H Alert L Alert D	First Row	
HHAlert LL Alert	Second Row	Read Temperatures
0 1		

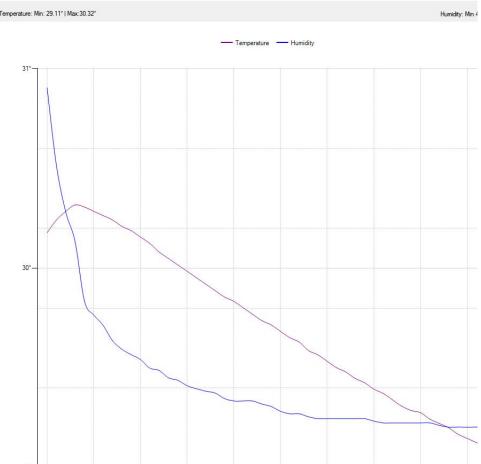
Pic.1

Temperature and humidity information will be displayed on the same page, Humidity graph in BLUE, and temperature graph in RED



#### 🖳 Measures

Date	Temp	RH	^
9-Sep-16 11:24:40	30.18	48.76	
9-Sep-16 11:24:46	30.24	47.78	
9-Sep-16 11:24:52	30.28	47.20	
9-Sep-16 11:24:58	30.32	<b>46.8</b> 3	
9-Sep-16 11:25:04	30.32	46.52	
9-Sep-16 11:25:10	30.32	46.29	
9-Sep-16 11:25:16	30.31	46.09	
9-Sep-16 11:25:22	30.28	45.91	
9-Sep-16 11:25:28	30.26	45.78	
9-Sep-16 11:25:34	30.24	45.59	
9-Sep-16 11:25:40	30.21	45.49	
9-Sep-16 11:25:46	30.19	45.42	
9-Sep-16 11:25:52	30.16	45.36	
9-Sep-16 11:25:58	30.12	45.25	
9-Sep-16 11:26:04	30.08	45.22	
9-Sep-16 11:26:10	30.05	45.13	
9-Sep-16 11:26:16	30.02	45.10	
9-Sep-16 11:26:22	29.98	45.03	
9-Sep-16 11:26:28	29.95	44.99	
9-Sep-16 11:26:34	29.92	44.96	
9-Sep-16 11:26:40	29.89	44.94	
9-Sep-16 11:26:46	29.86	44.87	
9-Sep-16 11:26:52	29.83	44.84	
9-Sep-16 11:26:58	29.80	44.84	
9-Sep-16 11:27:04	29.77	44.84	
9-Sep-16 11:27:10	29.74	44.80	
9-Sep-16 11:27:16	29.72	44.77	
9-Sep-16 11:27:22	29.68	44.71	
9-Sep-16 11:27:28	29.65	44.68	
9-Sep-16 11:27:34	29.63	44.68	
9-Sep-16 11:27:40	29.59	44.64	
9-Sep-16 11:27:46	29.57	44.62	
9-Sep-16 11:27:52	29.53	44.62	
9-Sep-16 11:27:58	29.50	44.62	
9-Sep-16 11:28:04	29.48	44.62	
9-Sep-16 11:28:10	29.45	44.62	



Pic.2



### Track and trace of I-PLUG TH:

Once the device has been stopped, and plugged into the PC, with **iPlug Manager** you could send the data recorded to the web, and allow yourself to export data in excel files, zoom on the graph and many other features.

Just press the **UPLOAD TEMPERATURES** button (see in Pic.1) and your preferred browser should open, bringing you directly to the web-application.

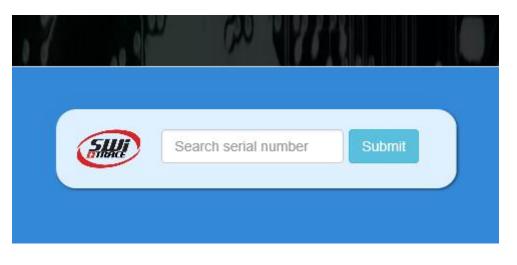
#### **Online view requires internet connection**

If you want to access your saved data remotely, go to the <u>www.switrace.com</u> then insert the serial number of the logger in the SEARCH field, and you will have access to the web-application again (Pic.4)



Pic.3







### Modify settings of I-PLUG TH:

iPlug Manager allows you to modify all the pre-programmed setting and choose your own.

Just modify all the parameters you need, then press the **Save settings** button (Pic.1). You can change hereafter parameters (Pic.1)

- trip duration
- sample frequency size
- Start delay
- Temperature alarms

#### Restarting I-PLUG TH :

If the device is in a **STOP** state, **iPlug Manager** allows you to reset I-PLUG TH for as many time as you want. By default, it will read the last configuration used.

You can modify the parameters again (if needed), then just check the **Reset device** flag (Pic.1), then press the **Save settings** button (Pic.1) : green LED will flash 1 time to to indicate that new settings have been recorded.

The device will be in a **READY** state again.

Battery is NOT changeable by user, please bring the device back to your distributor once the battery runs out of power for recycling.

**IMPORTANT**: When you reset I-PLUG TH, all the previous recording will be erased. If you need to store them, be sure, before resetting, to upload them in the web-application (press **Read Temperatures**).



# For further questions

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