

# **TeleMET II™**

## **User's Guide**

Cellular Interface  
&  
Optional Remote Solar Power Pack

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## 1) Introduction

The TeleMET II is the latest technology in remote connectivity offering a standalone data access module for wireless weather stations. The TeleMET II uses cell phone link-up for optimal remote placement. The TeleMET II will upload data even without an internet connection. It also offers customizable upload rates to fit project constraints.

The TeleMET II cellular interface facilitates a way of gathering and transmitting weather data to multiple formats through a cellular signal. RainwiseNet is our web data hosting service designed to monitor and forecast weather data received from RainWise weather stations. RainwiseNet also provides live links to many other online weather portals, including Weather Underground, to share data. iPhone and Android apps are also available to view your data anytime, anywhere.

**The TeleMET II is only available for LR versions of Rainwise weather stations.**



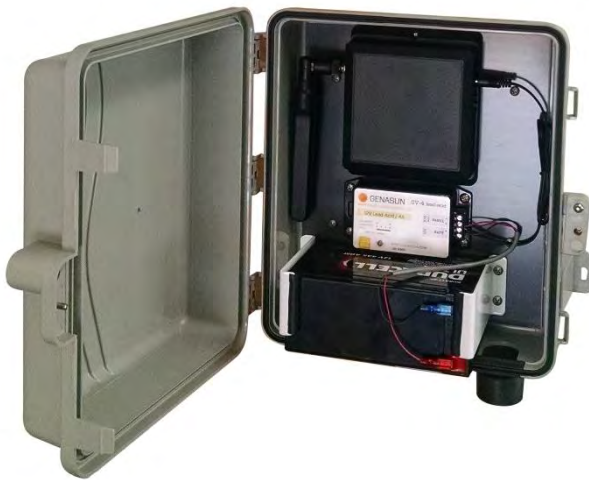
## 2) Unpacking the System

### TeleMET II Cellular Interface – Line Powered



Includes Power Supply & USB Cable

### TeleMET II Optional Remote Solar Power Pack with Cellular Interface Installed.



#### Cellular Interface Housing

Cellular Interface  
12 Volt Battery  
Charging Regulator



#### Solar Panel & Bracket

### 3) Installation and Mounting Options

#### 3.1) Selecting a Location

The Cellular Interface and MKIII LR sensor assembly should be mounted as close to each other as practically possible to ensure uninterrupted communication. 300 feet is recommended as the maximum distance between transmitter and receiver. Things that may reduce or disable communications are:

- Metal roofing or siding
- Brick, stone or cement structures
- Trees or dense foliage

When utilizing the Remote Solar Power Pack, the TeleMET II enclosure should face the weather station to optimize communications.

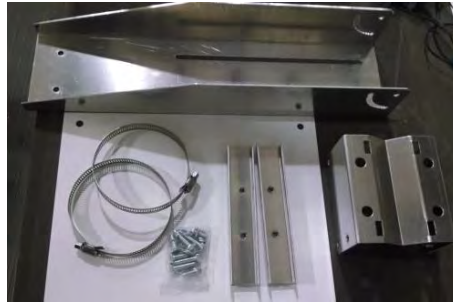
#### 3.2) Remote Solar Power Pack Mounting

The Remote Solar Power Pack can be attached to a mast or mounted directly to a flat surface. When mounting to a mast use the U-Bolt clamps provided as shown below. These clamps can accommodate a pipe up to one inch in diameter.



### 3.3) Solar Panel Installation

A solar panel and solar panel bracket are supplied with the Remote Solar Power Pack. The mounting bracket provided will allow for mounting to a post or flat surface.



#### 3.3a) Adjusting Solar Panel Angle

The solar panel angle must be set to provide the maximum power for the desired location. Use the two bolts shown below to set the angle.

Rotate panel to face:

- True North in Southern Hemisphere
- True South in Northern Hemisphere



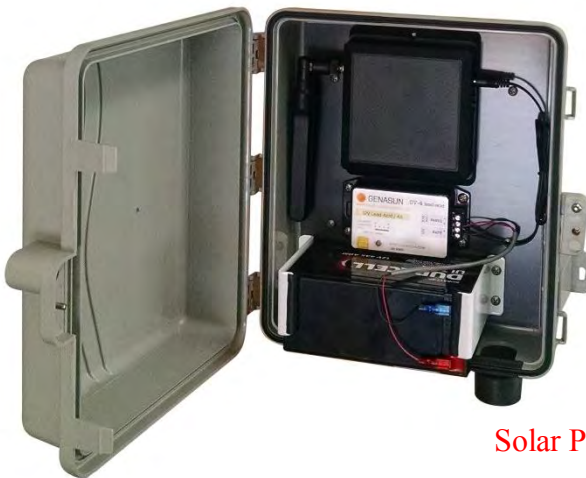
Match the angle of the panel to the latitude of your location using the following chart.

Latitude	Panel Angle (from Vertical)
0° - 22.5°	60°
22.5° - 55°	30°
55° - 90°	15°

### 3.3b) Connect Solar Panel

**CAUTION:** If the installation is being performed outside the solar panel will generate power. It is recommended to keep the solar panel covered if installing outdoors. If it is not covered, avoid shorting the solar panel wires by keeping the positive and negative wires away from each other.

The solar panel wire should be fed through the entry portal on the bottom right side of the enclosure as shown below.



Solar Panel Cable Entry

Connect the solar panel wires to the solar regulator shown below. Confirm that the black solar panel wire is connected to the negative PANEL terminal and red solar panel wire is connected to the positive PANEL terminal.





## 4) Powering Up

The TeleMET II is shipped with the negative terminal disconnected from the battery. Connect this terminal to power up the system. When the TeleMET II is not in use disconnect the battery to prevent unnecessary drain.

### 4.1) Status LED Indicator

Red Light - Indicates Communication from weather station. Blinks every 2 seconds.

Yellow Light - Modem is in a powered state and active.

Green Light - Cellular Activity

### 4.2) Verifying Communication of Your Device

To verify communication of your TeleMET II to the weather station, verify that the RED LED on the side of the TeleMET II is blinking. This LED should blink approximately every 2 seconds.

## 5) Registering Your Device

Registering your TeleMET II will give you your own weather web page and the ability to edit settings.

1. Visit <http://www.rainwise.net/>.
2. Register on the home page.
3. Follow the on screen instructions. You will need your serial number and MAC address located on the top of the TeleMET II Cellular Interface. ***Do not include the dashes between numbers in the MAC address.*** The Mac Address and Serial Number contains zeroes; not the letter "O".

**RainWiseNet registration help** is located by clicking on the green question marks. Your information can be edited after registration under the settings tab of your weather page.

Once you have completed the registration you should now be able to see your weather webpage. You will receive notices via email as we update our webpage and add features.

## 6) Settings

### 6.1) RainwiseNet Settings

To customize settings of your RainwiseNet weather page, click on the Settings tab of your home page.



From the settings page you may change your URL address, upload rate, and other options.

You may also add **sensors and parameters** depending on your model weather station. It is recommended to only select the sensors that are on your particular weather station in order to receive accurate data. Be sure to select “save changes” before returning to your weather dashboard.

### 6.2) TeleMET II Settings

**Important:** For most users, TeleMET II settings are already set by RainWise. If you wish to have your own contract with a cellular service, contact your cell phone provider for the information needed such as the APN name, username, and password.

To edit your TeleMET II settings, you will need to connect to the Cellular Interface with a USB cable.

USB Cable - Is only used to communicate and adjust settings in the TeleMET II. Under normal operations this cable is left unplugged. If the USB cable is left plugged in the modem will not transmit data.

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## 6.2a) GPRS

GPRS stands for General Packet Radio Service. GPRS enables data transfers through a cellular network. For the average user, no GPRS intervention is needed.

**Example AT&T Settings:** (Contact cellular provider for their settings information)

APN Name: wap.cingular

APN User: [wap@cingulargprs.com](mailto:wap@cingulargprs.com)

APN Pass: CINGULAR1

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## 6.2b) SIM Cards – GSM/GPRS ONLY

If your TeleMET II is equipped with a GSM/GPRS modem, a micro SIM card will need to be installed and an account should be set up on your behalf. If you have only the cellular modem, start from step 4.

1. Open the gray TeleMET II enclosure.

2. Unplug the power cable to the TeleMET II cellular interface enclosure.

3. Remove the two mounting screws that are holding the TeleMET II cellular interface enclosure in place. Take cellular interface enclosure out of unit.

4. Remove the 4 case screws on the back of the cellular interface enclosure.

5. Carefully remove top cover. Be sure to look out for the antenna wire, which is connecting the top cover and the bottom cover.

6. The SIM card port is located directly underneath the antenna cable. Carefully slide SIM card into port with gold connection brackets facing up. Be sure to follow instructions from SIM card manufacturer as well.

7. Follow steps 1-5 in reverse to re-assemble the unit.

Steps 1-3



Step 4



Step 5



Step 6

## 6.2c) TeleMET II CDMA

CDMA stands for Code Division Multiple Access. It is used for multiple transmissions over a single channel. For the average user, no CDMA intervention is needed.

**Type modem settings to get results below** (Contact cellular provider for settings information)

- Modem Settings:
- APN Name:
- APN User:
- APN Pass:
- Host: rainwise.net
- URL: /data/pushcell.php
- MAC: ?????????????? (To change Mac Address type Mac= then enter the 12 digit number without the dashes, then hit enter. You will get a response “ok”).

To change any of the modem settings you type in the setting name for example “APN”.

- Name= rainwise

Results of the change:

- Modem Settings:
- APN Name: rainwise
- APN User:
- APN Pass:
- Host: rainwise.net
- URL: /data/pushcell.php
- MAC: 000000000000
- “OK”

**To delete the APN Name:**

1. Type in APN Name=-
2. Hit the space bar a few times

### To change the logging interval:

1. Type in logint=
2. Enter desired logging interval

## 6.3) Weather Station/TeleMET II Channel

For most users setting the radio channel on your weather station and TeleMET II is not needed since it is pre-programmed. However, if there are two stations within distance of your TeleMET II, you may wish to change the channel in order to only receive data from the weather station of your choice.

**Changing channel on your weather station:** To change the channel on your weather station, take the cover off the enclosure. Locate the circuit board shown in the picture below. The switches highlighted in the circle control which channel the station is on.

- Channel 0: Switches 1 and 2 down
- Channel 1: Switch 1 up
- Channel 2: Switch 2 up
- Channel 3: Switches 1 and 2 up

**Changing the channel on your TeleMET II:** To correspond with your weather station's new channel, you need to change your TeleMET II channel.

1. Connect to the Cellular Interface with a USB cable.
2. Type in: Station =
3. Enter the desired channel number after the = sign in step 2.



## 7) 3<sup>rd</sup> party Data Services

Your RainwiseNet data can be configured to send to multiple 3<sup>rd</sup> party services. As we evolve our registration process we hope to have check off boxes of the desired 3<sup>rd</sup> party services you would like to host your data to in order to save time.

### 7.1) Weather Underground

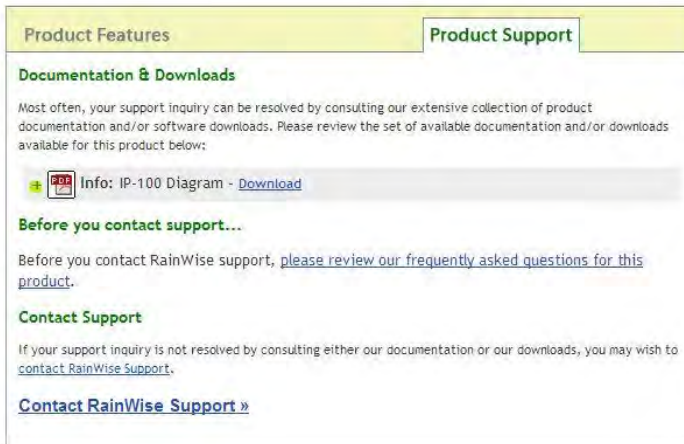
Weather Underground is one of the portals where people around the globe share and see weather data.

1. To send data from your weather webpage, click on the “Settings” tab in RainwiseNet and scroll down. A link is provided here to register an account.
2. Once you have your station ID and password, enter the information.

Weather Underground will receive updates from your weather webpage shortly after the data transmissions from your TeleMET II which are every 15 minutes.

## 8) Product Support

Product support can be found on Rainwise.com at the bottom of your products web page. Documents are available here along with frequently asked questions. If your support inquiry is not resolved by troubleshooting or our product support, you may wish to contact Rainwise.



### 8.1) Contact Information

RainWise Inc.

23 Creek Circle, Boothwyn, PA 19061

Phone: (207) 288-5169

Toll Free: (800) 762-5723

Online: <http://www.rainwise.com/>

Contact Form: <http://www.rainwise.com/about/contact>

## 9) Warranty

RainWise, Inc. warrants RainWise, Inc. manufactured TeleMET II products against defects in materials and/or workmanship for a period of **2** years from the date of purchase and agrees to repair or replace any defective product without charge. Equipment supplied by RainWise but not manufactured by RainWise is covered by the particular warranty of that manufacturer.

**IMPORTANT:** This warranty does not cover damages resulting from accident, misuse or abuse, lack of reasonable care, the fixing of any attachment not provided with the product or damage due to a lightning strike. RainWise, Inc. will not reimburse for take-down or installation charges. RainWise, Inc. will not pay for warranty service performed by a non-authorized repair service and will not reimburse the consumer for damage resulting from warranty service performed by a non-authorized repair service. No responsibility is assumed for any special, incidental or consequential damages.

To return a unit under this warranty, call (800)762-5723 within the continental US or (207)288-5169. The service department will document the need for repair/replacement and arrange such. Shipping costs from the customer to RainWise are borne by the customer, RainWise will cover return shipment. It is the customer's responsibility to see that the unit is properly packed, preferably in the original box, because damage occurring during return shipment is not covered by this warranty.

**NOTE:** No other warranty, written or oral, is authorized by RainWise, Inc. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above exclusion and limitations may not apply to you.



