

## Troubleshooting Guide

### **Data Transfer Condition Indicator**

The console's reception status displays at the lower right corner of the screen.

- An "X" flashes for every data packet received by the console.
- An "R" displays when the console is trying to re-establish a lost connection. The console tries for 10 minutes to re-establish a connection before going into L Mode. When no data packets have been received for 10 minutes, the console dashes-out any missing sensor readings.
- An "L" displays when the signal is lost. The console stays in this mode for 15 minutes until returned to "R" mode. Enter and exit Setup Mode to force the console into "R" mode, making the console manually exit "L" mode.

### Troubleshooting

#### **Display**

*Display is blank:*

Unit is not receiving power. Check the power adapter connections and/or replace batteries.

*Display shows dashes in place of weather data:*

- (cabled station) ISS not plugged in. Please check cable on both sides.
- (wireless station) Console not receiving well. Change location or antenna direction of console / ISS.
- (wireless station) ISS run out of battery. Please replace the battery inside the white box.
- Sensors not transmitting. Check if cables plugged firmly in the white box.
- A reading has exceeded the limits indicated in the specifications table.
- Calibration numbers may cause readings to exceed display limits. Check calibration number and adjust if necessary.

*Display "locks up"*

Reset the console by removing AC and battery power then restoring power. If this occurs frequently in an AC-powered console, plug the AC power-adaptor into a surge suppressor.

#### **If a Sensor Functions Intermittently**

Loose connections account for a large portion of potential problems. Carefully check if all connections are firmly seated in receptacles and plugged in straight in the ISS in the white box.

To check for a faulty connection, try jiggling the cable while looking at the console display. If a reading displays intermittently on the console as the cable is jiggled, the connection is faulty. Try removing and then reinstalling the cable to correct the faulty connection. If the sensor still functions intermittently contact your supplier.

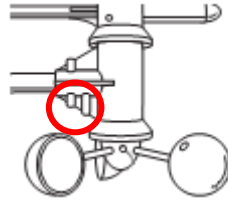
#### **Most Common Rain Collector Problem**

1. If the rain collector seems to be under-reporting rainfall, remove the rain collector cone to clean the tipping bucket and clear out any debris.
2. Make sure the cable tie around the tipping bucket has been cut and removed.

## Most Common Anemometer Problems

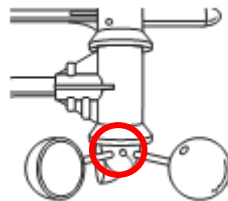
“The anemometer head is tilted when I mount the anemometer.”

With the Allen wrench provided in the supplied hardware, loosen the screws holding the anemometer head on the arm. (The screws are on the bottom of the anemometer head, by the wind cups, circled in red below.) Turn the anemometer head so it is straight and then tighten the screws.



“The wind cups are spinning but my console displays 0 km/h.”

The signal from the wind cups may not be making it back to the display. Remove the cups from the anemometer (loosen the set screw in hole circled in red below). Put the cups back onto the shaft and make sure to slide them up the shaft as far as possible. Check your cables for visible nicks and cuts. Look for corrosion in the WIND connector plug in the white box and on splices in the cable. If using an extension cable, remove it and test using only the anemometer cable. Contact your supplier and ask for a wind test cable if the problem has not been resolved. Note: If the anemometer is sending no data, the wind display indicates 0 speed and a orth direction.



“The wind cups don’t spin or don’t spin as fast as they should.”

The anemometer may be located where wind is blocked by something, or there may be friction interfering with the cups’ rotation. Remove the wind cups (loosen the set screw) and clear out any bugs or debris. Turn the shaft the cups rotate on. If it feels gritty or stiff, contact your supplier.

Note: Do not lubricate the shaft or bearings in any way. When replacing the cups, make sure they are not rubbing against any part of the anemometer head.

“The wind direction is stuck on north, or displays dashes.”

It is likely that there is a short somewhere between the wind vane and the display. Check the cables for visible nicks and cuts. Look for corrosion in the “WIND” socket and on splices in the cable (if any). If possible, remove any extensions and try it with the anemometer cable only. If none of these steps get the wind direction working, contact your supplier and ask for a wind test cable.

“Readings aren’t what I expected them to be.”

Comparing data from your ISS to measurements from TV, radio, newspapers, or a neighbor is NOT a valid method of verifying your readings. Readings can vary considerably over short distances. Use another accurate standard to check. If you have questions, contact your supplier.

## Case study

1.	Member:	FKLMSTSS
	Problem:	Weather data were only available during day time, in between working hour of school (around 8 to 5)
	Investigation:	Checking their own weather webpage, there was no data for most of the sensors except pressure, indoor temperature and indoor RH.
	Cause:	For wireless version, There is a battery in the white box complementary with a solar cell maintaining ISS of the station working. The battery was already empty. There will only be data back to console when there is sunlight. While Pressure and indoor temp & indoor RH sensors are in console powered with a/c adapter, so those data are available all the time.
	Solution:	Replace a new 3V battery in the white box.
	Remark:	The battery should be replaced about half yearly as suggested by the manufacturer.

2.	Member:	LHYMSS
	Problem:	Wind speed always gave 0 value and wind direction only varied in between 290° and 294°.
	Investigation:	The cable of the anemometer was shortened. RJ11 (telephone) adapter and extra cable was added to extend the wiring to the ISS.
	Cause:	The wiring order of the extra cable was wrong. Not all the telephone cables purchased were of the same wiring order.
	Solution:	Rearrange the cable wiring and assemble a new plug at one end.
	Remark:	Length of cable of anemometer should not be more than 40m. Adapter / convertor / connector for extension purpose should not be used (consideration of weathering). When not using the original cable, please beware of the wiring order.