CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

TSTWP2000FATR01

WP2000 Final Acceptance Test Form

Technician	Date	WP S/N	RMA#
P.G.	Nov 6, 2020	1361	32759

Test Equipment

Device	S/N	Calibration Due Date
Temp/RH Reference	J2910005	Dec 3 2020
Barometric Pressure Reference	69042	4/22/2021
RF wattmeter w/10W 400-1000 MHz element	247593	2/21/11
Zenosoft Version:	V2.02 Sep 10 2002 11:29:41 CS B97B	

Equipped Sensors

Sensor	Model	S/N
WS/WD	Gill Windsonic 1	09470040
Compass	Navico	
Air Temp / RH	Vaisala HMP60	
Barometric Pressure	Honeywell PPT (analog i/f)	27051

High Current Drain Test

*All sensors and radio connected, no terminal.

Current W/Radio (mA)	Limit	Current No Radio (mA)	Limit	Pass?
N/A	750mA – 1000mA	130	<240mA	☒ Pass

Station Date and Time

Date	Time	Time Zone
20/11/07	00:41:03	GMT
Notes:		

Wind Speed and Direction

Model	Test Form	Pass?
Gill Windsonic 1	TSTWINDSONICR01	☒ Pass
Verify sensor functions when connected to Weatherpak		☒ Pass

Compass				
Model: Navico				
Table	**Clockwise**	**Counter-Clockwise**	**Limits**	**Pass?**
0	0	0	357-3	☒ Pass
60	61		±3°	☒ Pass
120	121	121		☒ Pass
180	179			☒ Pass
240	240	240		☒ Pass
300	300			☒ Pass
360	0	0		☒ Pass

Temp/RH								
Model:	**As Received**				**As Returned**			
Vaisala HMP60	**Ref**	**WP**	**Limits**	**Pass?**	**Ref**	**WP**	**Limits**	**Pass?**
Temperature (°C)	24.6	24.7	±.6°C	☒ Pass	23.6	23.8	±.6°C	☒ Pass
Rel Humidity (%)	18.8	18.7	±3%	☒ Pass	17.2	16.5	±3%	☒ Pass
Work performed:	None, sensor was within specifications							

Barometric Pressure								
Model:	**As Received**				**As Returned**			
Honeywell PPT (analog i/f)	**Ref**	**WP**	**Limits**	**Pass?**	**Ref**	**WP**	**Limits**	**Pass?**
Pressure (mBar)	865.30	865.53	±0.6mB	☒ Pass	865.30	865.53	±0.6mB	☒ Pass
Work Performed:	None, sensor was within specifications							

Radio Test (N/A)					
Radio S/N	**Tx Power (W)**	**Limit (W)**	**Reflected Power (W)**	**Limit (W)**	**Pass?**
N/A	N/A	1.6 - 2.0	N/A	< .1W	☐ N/A

Display (N/A)			
S/N	N/A		**Pass?**
Default WP S/N	N/A	See Attached Document if Applicable	☐ N/A

Tower (N/A)			
	Test Requirement	**Remarks**	**Pass?**
Tower Battery Voltage	Voltage levels are 13.0V-13.9V		☐ N/A
Buzzer Operation	Buzzer sounds.		☐ N/A
Diode Check	14.5V – 15.0V		☐ N/A
Up-light Test On	Light on w/ WPAK connected.		☐ N/A
Up-light Test Off	Light off w/ WPAK removed		☐ N/A

Quick Release Test	
	Pass?
Check fit and condition of 17-Pin Connector / Quick Release	☒ Pass

GPS (N/A)			
	WP	**Limits (Logan UT)**	**Pass?**
Latitude	N/A	4145.xxx	☐ N/A
Longitude	N/A	-11151.xxx	☐ N/A

Parameters As Shipped		
BP Offset (mBar)	**Compass Offset (°)**	**Unit ID**
220.63	0	1361

Evaluation		
All steps must be completed and all tests must be passed.		
Technician	**Date**	**Remarks**
TZ	November 11, 2020	All steps passed. All settings returned as received.

X_____

CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

TSTWINDSONICR01

Gill WindSonic Sensor Test

Technician	Date	S/N	RMA#
P.G.	November 11, 2020	09470040	32759

Test Equipment

Device	S/N	Calibration Due Date
Power Supply w/ current limit	N/A	N/A
Host System (Zeno or Weatherpak)	1361	N/A

Sensor Communication Formats

Option 1	Option 2	Option 3	Option 4*	Baud Rate
☒	☐	☐	☐	9600

* Option 4 is used in older sensors for SDI-12 comms

Customer Requirements

Unit of Measurement:	[☒ M/S] [☐ Knots] [☐ MPH] [☐ KPH] [☐ FPM]

Bench Test

Couple the WindSonic to the host system and power supply using a known working test cable. Use the terminal and record the configuration by going into Configuration mode and using the D3 command. See Manual Section 10.3 Checking the configuration for more information.
A typical configuration looks like: M2,U1,O2,L1,P3,B3,F1,H1,NQ,E3,T1,S3,C1,

Configuration:	M2,U1,O2,L1,P3,B3,H1,NQ,F1,E3,T1,S4,C2,G0,K50,

Check for normal output data, and that the Status Code is OK - 00 (or A for NMEA format). If the status code is other than 00, refer to Manual Section 12.5 Status (error) codes for more information.

Item	Value	Limit	Remarks	Pass?
Status Code	00	OK [00 -or- A]		☒ Pass

Use an office fan or similar to check that the unit is sensing wind, turning the unit to simulate changing wind direction and to check that both axes are functioning.
*Note: This a quick functional test. There are no calibration adjustments; the unit is designed NOT to require re-calibration within its lifetime.

Item	Value	Limit	Remarks	Pass?
Changing wind direction	Changes	Direction must change		☒ Pass

Bench Test (continued)

Self-Test (Still Air). This test checks Alignment, Gain and Checksums.
Alignment tests: The unit performs a transducer geometry check and compares the result with its factory setting.
Gain tests: The unit performs a check of its operating gain against its factory setting.
Checksum tests: The unit performs a check of its program and data memory.
*Note: This test is a stringent laboratory test which will only be passed if carried out under still air conditions at room temperature (17-23°C).

Use the original packing box (inner and outer) to enclose the unit. (The packaging was designed as a zero wind enclosure). Go into Configuration Mode * ENTER. Carry out the Self-test by entering D 6 ENTER. A message similar to that shown below in the table will be generated. For each of the Alignment and Gain tests a Pass or Refer to Manual message is generated. For each of the Checksum tests a Pass or Fail message is generated (except the first message "Alignment Limit:")

Item	Value	Limit	Remarks	Pass?
ALIGNMENT LIMITS:0D59,0CF5	N/A	PASS		☒ Pass
ALIGNMENT U:OD15 *PASS*	PASS	PASS		☒ Pass
ALIGNMENT V:OD16 *PASS*	PASS	PASS		☒ Pass
CHECKSUM ROM:AB7D AB7D *PASS*	PASS	PASS		☒ Pass
CHECKSUM FAC:04F4 04F4 *PASS*	PASS	PASS		☒ Pass
CHECKSUM ENG:082A 082A *PASS*	PASS	PASS		☒ Pass
CHECKSUM CAL:A9C1 A9C1 *PASS*	PASS	PASS		☒ Pass

If any of the tests fail, contact your supplier. If a "refer to manual" message appears please see *Section 12.3 Fault Finding*. **Note that it will only pass if the specified temperature and zero wind conditions are met.** Check that there are no visible obstructions or damage to the unit before contacting Gill or your authorized distributor for further advice.

Evaluation

All steps must be completed and all tests must be passed.

Technician	Date	Remarks
TZ	November 11, 2020	All steps passed.

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