

## **Dometic WeatherPro / Weather Pro Plus Electric Control Box Testing**

### **ATTENTION SERVICE TECHNICIANS:**

The purpose of this Bulletin is to alert you to the proper testing procedure of the control box on Dometic electric patio awnings.

### **BULLETIN INSTRUCTIONS**

This manual has safety information and instructions to help users eliminate or reduce the risk of accidents and injuries.

### **RECOGNIZE SAFETY INFORMATION**





This is the safety-alert symbol. When you see this symbol in this manual, be alert to the potential for personal injury.


Follow recommended precautions and safe operating instructions.

### **UNDERSTAND SIGNAL WORDS**

A signal word, **WARNING** OR **CAUTION** is used with the safety-alert symbol. They give the level of risk for potential injury.

 **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** indicates a potentially hazardous situation which, if not avoided may result in minor or moderate injury.

 **CAUTION** used without the safety alert symbol indicates, a potentially hazardous situation which, if not avoided may result in property damage.

Read and follow all safety information and instructions.

**This bulletin must be read and understood before performing test on the awning. The testing must be performed by a Dometic Service Center or a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.**

## Common Faults Symptom/Cause Chart

SYMPTOM	POSSIBLE CAUSE
1. Awning will only extend for approximately four seconds while pressing & holding the extend button. Symptom repeats.	1. Wind sensor disabled
2. Awning rolls up after awning has been extended and button has been released.	1. Wind sensor is not communicating with the control board. 2. Low incoming DC power 3. Wet wind sensor 4. Outside ambient temperature at approximately 32° F. or below. 5. Wind sensor activated by wind
3. Awning won't roll out.	1. Patio awning and door awning plug reversed on control board 2. DC voltage present on pink ignition lock wire 3. Wind sensor is not communicating with the control board. 4. Low incoming DC power 5. Wet wind sensor 6. Outside ambient temperature at approximately 32° F. or below. 7. Wind sensor activated by wind 8. Motor or harness failure, see awning bulletin AE-8-7A or awning service manual

# Dometic WeatherPro / Weather Pro Plus Electric Control Box Testing

## A. GENERAL INFORMATION

**Important:** To ensure proper operation, the Electronic Control must have 12.5 VDC at the Electronic Control during awning operation. It may be necessary to increase the wire size if voltage is below 12.5 VDC.

### Ignition Interlock Wire

The ignition interlock wire when correctly installed will prevent the awning from opening when the ignition key is in the on position. This wire is routed between the ignition isolator (Pink) wire of the control box to the ignition isolator of the vehicle. It should be a 16 gauge wire. Make sure wire connections are tight and corrosion free.

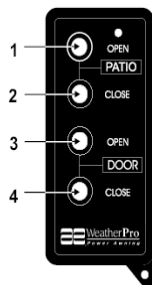
The Dometic WeatherPro awning is equipped with a wind sensing device that will automatically close the awning when wind conditions are present that may damage the awning. The factory preset setting is 18 MPH. To activate the wind sensor feature, locate the control box (usually mounted in a storage compartment), and simultaneously depress and hold buttons 1 & 2 on the Remote Control (KeyFOB) for 3 seconds. One of the wind speed LEDs will illuminate. The wind sensor is activated when shipped from the factory. The wind sensor should be enabled whenever possible.

To de-activate the wind sensor feature, simultaneously depress and hold buttons 3 & 4 on the Remote Control (Key FOB) for 3 seconds. There are no wind speed LEDs illuminated when de-activated. **Damage to the awning can occur in high winds if the awning is left in the open position with this feature de-activated.**

**Important:** Do not attach or hang any objects from the awning or tie the awning down. If the sensor is activated or the retract button is depressed and the awning rolls up, damage to the awning and attached objects can occur.

To activate the wind sensor, simultaneously press and hold buttons 1 & 2 for 3 seconds.

To de-activate the wind sensor simultaneously press and hold buttons 3 & 4 for 3 seconds.



The wind sensor is specifically designed to allow air to pass across the sensor probe. Obstructions in the proximity of the wind sensor can diminish the sensitivity. **If the wind sensor is de-activated and damage to the awning occurs, the awning warranty will be void.**

**Important:** The wind sensor will only function correctly if the airway to the sensing probe is clear. Keep airway clear of dust, insects, ice, snow, or other debris. The sensing probe can be cleaned with a mild soap solution and a small soft bristle brush.

There are six (6) LEDs in the WeatherPro control and one (1) button for selecting the wind speed. (see Fig. 1)

A. 12 VDC Power Indicator/Fault Indicator (ON)

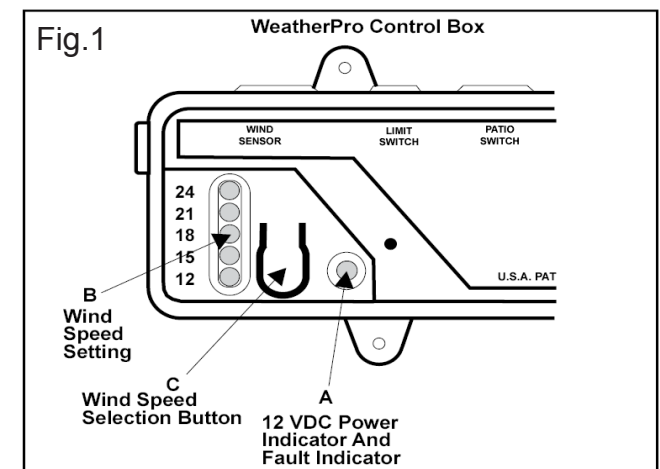
B. Wind Speed Setting

1. The LED that is lit indicates the wind speed currently selected.

C. Wind Speed Selection Button

1. Wind speed is preset from the factory at 18 MPH.
2. The wind speed can be adjusted by pressing the wind speed selection button. To increase or decrease the sensor sensitivity, press and release the wind speed selection button until the desired wind speed LED is lit. The recommended setting is 18 MPH.

**Note:** Awning is not intended for cold weather operation. Awning will automatically close when the wind sensor detects temperatures at approximately 32° F or below.



**Important:** Harnesses should not be connected to the control box until after all wiring to the awning hardware has been fully completed. The 12V/Ignition harness must be the last in the sequence to be connected to the control box. Do not attempt to re-wire, splice, or cut any wires while the 12V/Ignition harness is connected to the control box. Failure to follow these instructions may result in accidental grounding of "hot" wires, which will cause the internal fuse to blow.

## B. Replacing Internal Control Box Fuse:

**Important:** If the awning does not respond to the key FOB or the wall switch, locate the control box and verify that the "ON" LED (and possibly a wind speed setting indicator LED) is on. If all LEDs are off, verify adequate voltage at control box. Check internal fuse and replace if necessary. See below for replacement instructions.

A. If the control box is not operational (all LEDs on the front of the control box are off) even after adequate voltage supply has been verified, the internal fuse may have blown during installation and may need to be replaced.

1. Disconnect 12V/Ignition harness from control box.
2. Remove control box front cover. Use a flat-bladed screw driver to gently pry the three tabs on the edge of the cover past the corresponding snaps on the control box base. Be careful not to break the tabs. Gently pull the cover straight off the base.

3. Locate the fuse. Gently pull the fuse from the mounting clips and inspect for damage. If it is necessary to replace the fuse, make sure to replace it with a new part that conforms to the following specification:  
0.5A, 250V, Fast Acting Fuse, 5mm X 20mm Glass Tube (Reference Cooper-Bussmann GMA-500mA or equivalent)  
You may order replacement fuses from Dometic under the following kit numbers:  
3312252.004 (single fuse)  
3312253.002 (20-pack)
4. Replace control box cover. Connect 12V/Ignition harness to control box. Verify the awning is operational.

**Important:** If the control box continues to blow fuses when power is restored, this is an indication of a short or some other fault in the electrical circuit.

**Important:** Harnesses should not be connected to the control box until after all wiring to the awning hardware has been fully completed. The 12V/Ignition harness must be last in the sequence to be connected to the control box. Do not attempt to re-wire, splice, or cut any wires while the 12V/Ignition harness is connected to the control box. Failure to follow these instructions may result in accidental grounding of "hot" wires, which will cause the internal fuse to blow.

## C. CONTROL BOX (WeatherPro)

**Note:** Dometic uses two different control configurations for the WeatherPro/WeatherPro Plus Awnings. The first control (Fig. 2) has 6 molded connection points on the electronic control box. This control kit can only be used on the WeatherPro awning. If used on the WeatherPro Plus awning damage can occur. The second control (Fig. 3) has 7 molded connection points on the electronic control box. The additional plug is to provide power to the drop shade brake on the WeatherPro Plus awning.

## TEST PROCEDURE

Test the incoming DC voltage between pins 1 & 2 on the plug labeled Power 12VDC shown in Fig. 2. To ensure proper operation, the control box must have a minimum of 12.5 VDC at the control box during operation. Check voltage input on the red and black wire at the control.

If voltage is below 12.5, check voltage at supply. If okay, it may be necessary to increase the wire size going to the control box.

Wire Gauge	Wire Length
14	10 Feet
12	20 Feet
10	30 Feet
8	50 Feet

\*Lengths are the total lengths from power supply, through the control box, and on to the awning hardware harness.

## Patio Awning

With the extend or retract button on the key fob engaged test the DC voltage out of the control board between pins 1 & 2 on the plug labeled Patio Motor shown in Fig. 2. If no voltage is present remove the cover and check the fuse. If the voltage is below 10.5 VDC test the incoming DC voltage with the switch engaged.

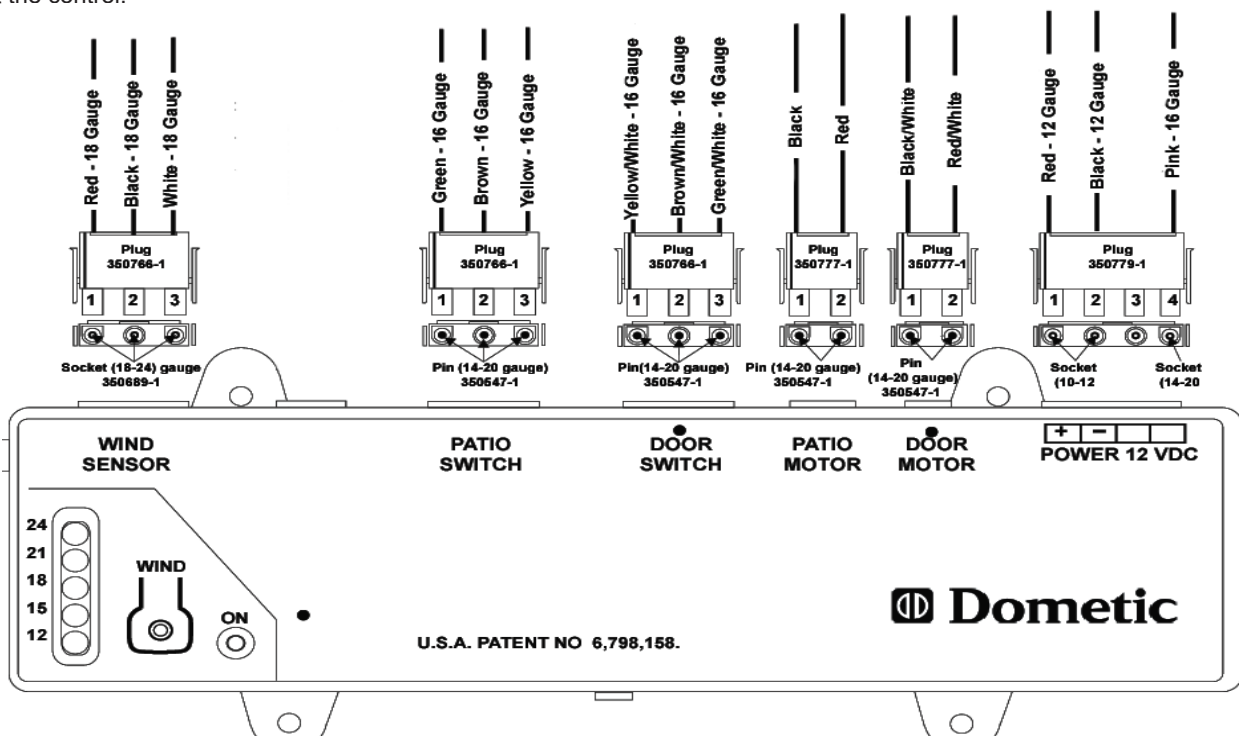
Repeat the same test only this time use the remote switch to engage the motor rather than the key FOB. You should have a minimum output of 10.5 VDC. With the switch engaged, you should also get power between the brown wire and the green wire on the plug labeled Patio Switch while in the extend position, and between the brown wire and yellow wire in the retract position. Lack of power in either test would indicate a faulty switch or wiring issue.

## Door Awning

With the extend or retract button on the key fob engaged, test the DC voltage out of the control board between pins 1 & 2 on the plug labeled Door Motor shown in Fig. 2. If there is no voltage present, remove the cover and check the fuse. If the voltage is below 10.5 VDC, test the incoming DC voltage with the switch engaged.

Repeat the same test only this time use the remote switch to engage the motor rather than the key FOB. You should have a minimum output of 10.5 VDC. With the switch engaged, you should also get power between the brown/white wire and the yellow/white wire on the plug labeled Patio Switch while in the extend position, and between the brown/white wire and green/white wire in the retract position. Lack of power in either test would indicate a faulty switch or wiring issue.

Fig. 2



## C. CONTROL BOX (WeatherPro Plus)

### TEST PROCEDURE

Test the incoming DC voltage between pins 1 & 2 on the plug labeled Power 12VDC shown in Fig. 3. To ensure proper operation, the control box must have a minimum of 12.5 VDC at the control box during operation. Check voltage input on the red and black wire at the control. If the voltage is below 12.5, check voltage at supply. If okay, it may be necessary to increase the wire size going to the control box.

Wire Gage	Wire Length
14	10 Feet
12	20 Feet
10	30 Feet
8	50 Feet

\*Lengths are the total lengths from power supply, through the control box, and on to the awning hardware harness.

### Patio Awning

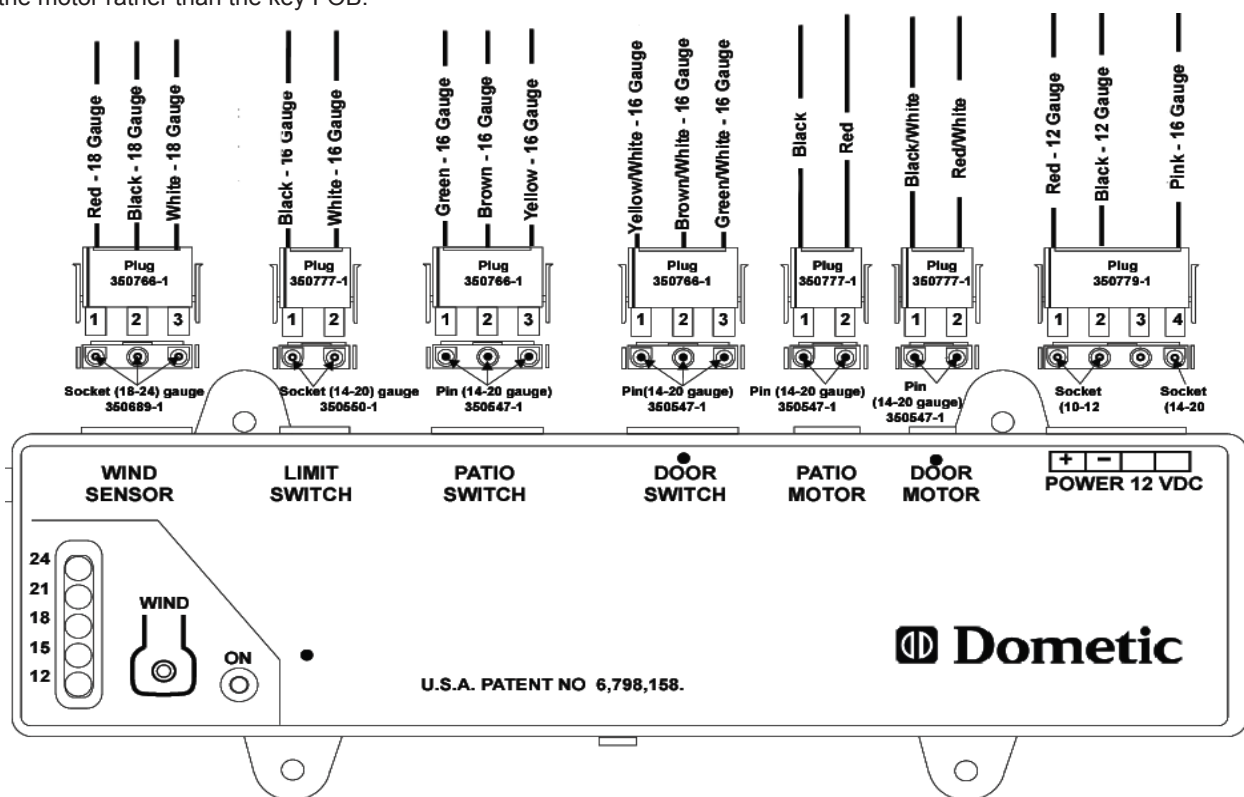
With the extend or retract button on the key fob engaged test the DC voltage out of the control board between pins 1 & 2 on the plug labeled Patio Motor shown and between pins 1 & 2 on the plug labeled Limit Switch shown in Fig. 3. If no voltage present then remove the cover and the check fuse. If the voltage is below 10.5 VDC test the incoming DC voltage with the switch engaged. Repeat the same test only this time use the remote switch to engage the motor rather than the key FOB.

If the voltage is below 10.5 VDC test the incoming DC voltage with the switch engaged. Repeat the same test only this time use the remote switch to engage the motor rather than the key FOB. You should have a minimum output of 10.5 VDC. With the switch engaged, you should also get power between the brown wire and the green wire on the plug labeled Patio Switch in the extend position, and between the brown wire and yellow wire in the retract position. With the remote switch in the retract or extend position, you should get DC voltage between 1 & 2 on the plug labeled Limit Switch shown in Fig. 3. Lack of power in either test would indicate a faulty switch or wiring issue.

### Door Awning

With the extend or retract button on the key fob engaged, test the DC voltage out of the control board between pins 1 & 2 on the plug labeled Door Motor shown in Fig. 3. If no voltage present, remove cover and check fuse. If the voltage is below 10.5 VDC, test incoming DC voltage with the switch engaged.

Repeat the same test only this time use the remote switch to engage the motor rather than the key FOB. You should have a minimum output of 10.5 VDC. With the switch engaged, you should also get power between the brown/white wire and the yellow/white wire on the plug labeled Patio Switch while in the extend position, and between the brown/white wire and green/white wire in the retract position. Lack of power in either test would indicate a faulty switch or wiring issue.



For further diagnostic assistance, please call:

**Dometic LLC**  
 Technical Service Dept.  
 509 South Poplar St.  
 LaGrange, IN 46761  
 (800) 216-5115



## WeatherPro Awning Control - Diagnostics Guide

	Wind Speed LEDs	"ON" LED	Meaning	Reaction by Control	Reaction by User
1	SELECTED WIND SPEED ON	ON	<ul style="list-style-type: none"> <li>Proper voltage is detected at Control and Wind Sensor is enabled</li> </ul>	<ul style="list-style-type: none"> <li>Normal operation of control.</li> </ul>	<ul style="list-style-type: none"> <li>No user reaction required.</li> </ul>
2	ALL LEDs OFF	ON	<ul style="list-style-type: none"> <li>Wind Sensor has been disabled with the Key FOB</li> </ul>	<ul style="list-style-type: none"> <li>Control will retract the awning after 5 seconds, if the awning is extended when wind sensing is disabled..</li> <li>Control disables the "normal" extension routines for awning</li> </ul>	<ul style="list-style-type: none"> <li>User can extend awning by pressing and holding the extend button. Awning will extend for approximately 4 seconds and stop. User can repeat as necessary to obtain full extension.</li> <li>User should re-enable the Wind Sensor whenever possible</li> </ul>
3	SELECTED WIND SPEED BLINKING	ON	<ul style="list-style-type: none"> <li>Wind Sensor has been activated by wind</li> </ul>	<ul style="list-style-type: none"> <li>Control retracts awning if awning is extended.</li> <li>Control monitors for sensor activation during retraction and at awning closure to determine if activation continues after awning closure.</li> <li>Control will reset after awning closure, if sensor activation is no longer detected.</li> </ul>	<ul style="list-style-type: none"> <li>User should observe wind conditions before attempting to extend the awning after any automatic closure.</li> <li>User can extend awning as normal (after control resets)</li> <li>User should use caution if they choose to disable the wind sensor with wind present. Disabling the sensor is not recommended here.</li> </ul>
4	LEDs SEQUENCE ON, THEN OFF FROM TOP DOWN	ON	<ul style="list-style-type: none"> <li>Wet Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Control retracts awning if awning is extended.</li> <li>Control monitors for sensor activation during retraction and after awning closure to confirm Wet Sensor condition exists.</li> <li>Control disables the wind sensor.</li> <li>Control disables the "normal" extension routines for awning</li> <li>Control will automatically re-enable wind sensor when it determines the sensor is no longer activated (no longer wet)</li> <li>If sensor activation condition is observed for longer than 12 hours, and awning is extended, then control will retract awning.</li> </ul>	<ul style="list-style-type: none"> <li>User should observe wind conditions before attempting to extend the awning after any automatic closure.</li> <li>User can extend awning by pressing and holding the extend button. Awning will extend for approximately 4 seconds and stop. User can repeat as necessary to obtain full extension.</li> <li>User should re-enable the Wind Sensor whenever possible</li> </ul>
5	SELECTED WIND SPEED BLINKING (alternating)	BLINKING (alternating)	<ul style="list-style-type: none"> <li>Sensor fault/ Communication issue between the Wind Sensor and the Control Box.</li> </ul>	<ul style="list-style-type: none"> <li>Control retracts awning after 5 seconds if awning is extended when communication issue is detected.</li> <li>Control disables extension of the awning by the user while the wind sensor is enabled</li> <li>Control will reset if communication is re-established.</li> </ul>	<ul style="list-style-type: none"> <li>User should observe wind conditions before attempting to extend the awning after any automatic closure.</li> <li>User can disable wind sensor with Key FOB to extend awning.</li> </ul>
6	BOTTOM TWO LEDs BLINKING	ON	<ul style="list-style-type: none"> <li>Wind Sensor is detecting temperatures below 32° F</li> </ul>	<ul style="list-style-type: none"> <li>Control retracts awning if awning is extended when low temperature is detected.</li> <li>Control disallows any extension of the awning until temperature goes above 32° F.</li> </ul>	<ul style="list-style-type: none"> <li>User should observe temperature before attempting to extend awning again.</li> <li>User can disable wind sensor with Key FOB to extend awning.</li> </ul>
7	OFF	BLINK	<ul style="list-style-type: none"> <li>Power detected by control is less than 10.5 VDC (tolerance is +.5 VDC and -0.0 VDC)</li> </ul>	<ul style="list-style-type: none"> <li>Control retracts awning if awning is extended when low voltage situation is detected.</li> <li>Control disallows any extension of the awning until proper voltage is detected.</li> </ul>	<ul style="list-style-type: none"> <li>User will not be able to extend awning.</li> <li>Check voltage at house battery gauge or other gauge as necessary to confirm low voltage condition.</li> <li>If voltage is low, then start coach engine to charge batteries.</li> <li>User should contact service center if low battery condition reoccurs.</li> </ul>
8	OFF	OFF	<ul style="list-style-type: none"> <li>No Power</li> </ul>	<ul style="list-style-type: none"> <li>No reaction by control</li> <li>Awning(s) cannot be operated</li> </ul>	<ul style="list-style-type: none"> <li>Suggest user to contact service center.</li> <li>Check voltage source at control, correct as necessary</li> <li>Check internal fuse at control box. Replace if necessary.</li> </ul>