

EcoLeak

ECO-BCB

Branch Connector Box



**INSTALLATION  
OPERATION &  
MAINTENANCE  
INSTRUCTIONS**



**aquilar**  
leak detection solutions

# ECO-BCB

## EcoLeak Branch Connector Box

Please read these instructions carefully and keep them in a safe place (preferably close to the unit ) for future reference. These instructions must be followed carefully to ensure proper operation.

### A. ECO-BCB DESCRIPTION

The ECO-BCB is designed for use on Eco-Leak sensing circuits only.

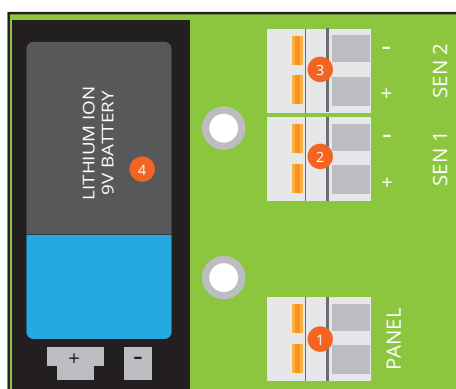
It allows the user the ability to split Eco-Leak sensing circuits and use two sensors on a single Eco-Leak panel zone while retaining full leak and fault functionality. The Eco-BCB is compatible with two types of environmental monitoring sensors: the Eco-Leak water detection cables and probes, and the AT-SRG Refrigerant Leak Detector.

**Important Note:** The ECO-BCB is seen by the panel as a single zone. Physical examination of the sensors will be required to establish which one is triggering the alarm. It is therefore essential that sensors are accessible.

The ECO-BCB is powered by a 9v Lithium Ion battery (spare part no: 7890) giving up to 5 years of operation. Do not use any other type of battery. Once the battery is depleted the ECO-BCB will trigger a fault alarm on the panel.

**Important Note:** The ECO-BCB must be positioned in an accessible location as battery replacement will be required.

### B. CONNECTIONS



1. Panel Connection - connect the leader/jumper cable coming from the Eco Panel to this terminal.
2. Sen 1 : connect the first leg of the branch, this terminal can take one sensor.
3. Sen 2 : connect the second leg of the branch, this terminal can take one sensor.
4. Lithium Ion 9V Battery required. (included)

**Important Note:** When replacing the battery, only replace using a Lithium Ion 9V Battery.

### C. OPERATION

The ECO-BCB will send leak alarms to the panel as normal if a sensor gets wet or if a refrigerant leak sensor is in alarm. There is no re-alarm. **IMPORTANT :** When an alarm is reset on a panel the ECO-BCB circuits can take up to 90 seconds to reset.

Example 1: Sen1 gets triggered by a leak event, a leak alarm is sounded. If Sen2 then also gets triggered nothing further will happen at the Eco-Leak panel as the zone is already in alarm.

Example 2: Sen2 becomes damaged, triggering a fault alarm on the Eco-Leak panel. If Sen1 is also triggered by a leak event this will show separately as a leak alarm.

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## D. INSTALLATION

The ECO-BCB should be mounted in a safe and accessible location.

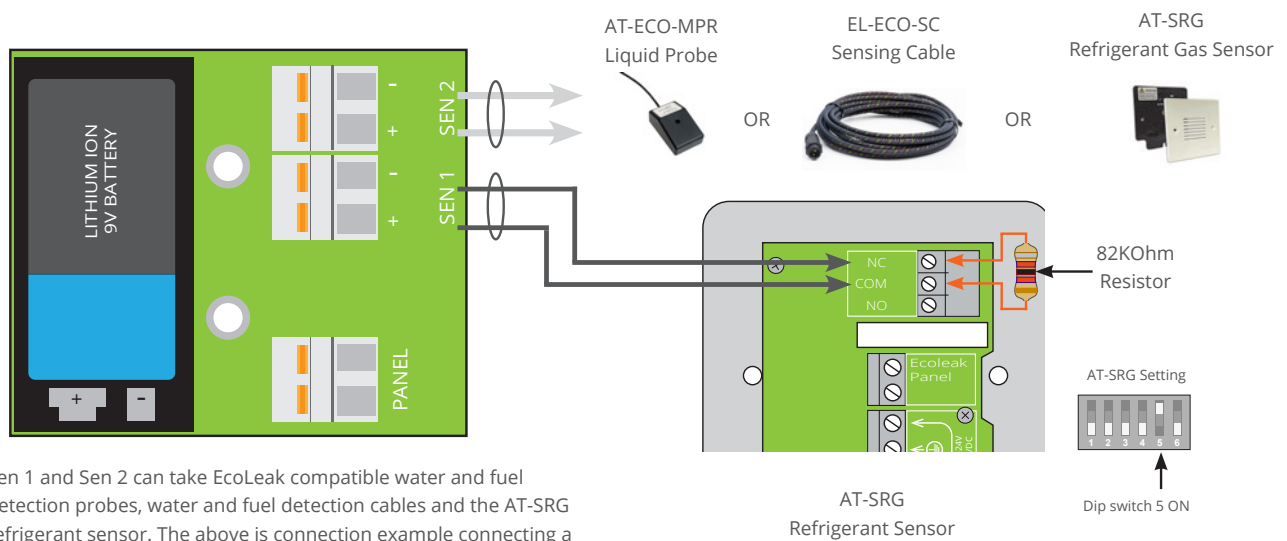
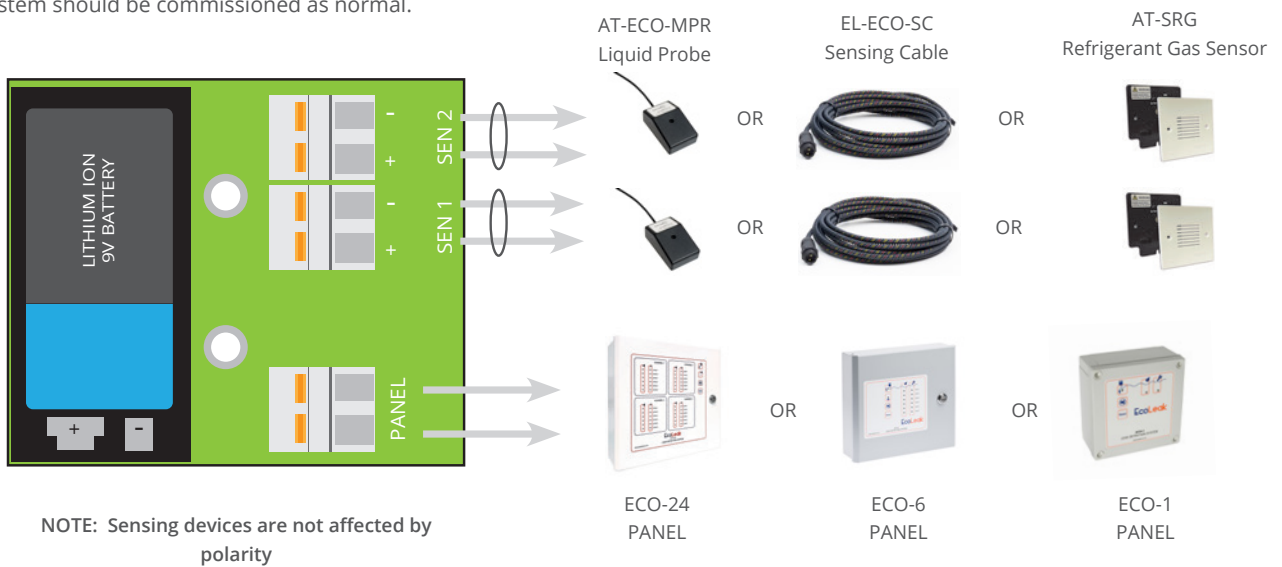
Eco-Leak jumper cable (AT-BJC-2C) should be used to connect the ECO-BCB with the required zone within the Eco-Leak panel being used. Within the ECO-BCB insert the two cores into the 'panel' connector (this connection is not polarity sensitive). Connect the cable within the panel as a normal Eco-Leak sensor using the two outer terminals.

The two Eco-Leak sensors should be connected to the terminals marked SEN1 and SEN2.

**Important Note:** Only Eco-Leak sensors and AT-SRG sensor for refrigerant gas can be used. Only one Eco-Leak/AT-SRG sensor can be used on each circuit from the ECO-BCB.

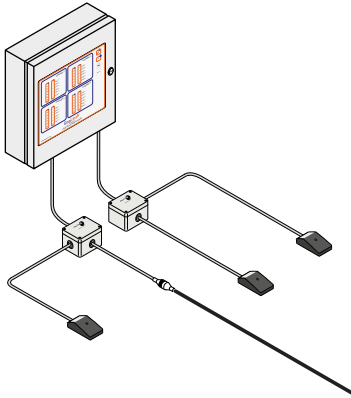
Once all connections are in place the battery should be inserted, taking care it is the correct way round.

The system should be commissioned as normal.

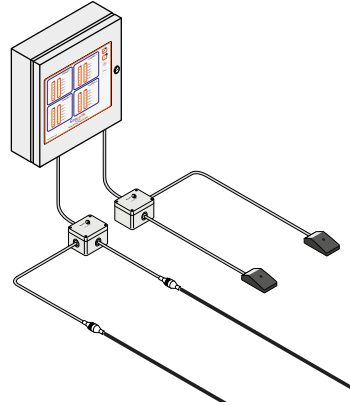


## E. CONFIGURATION EXAMPLES

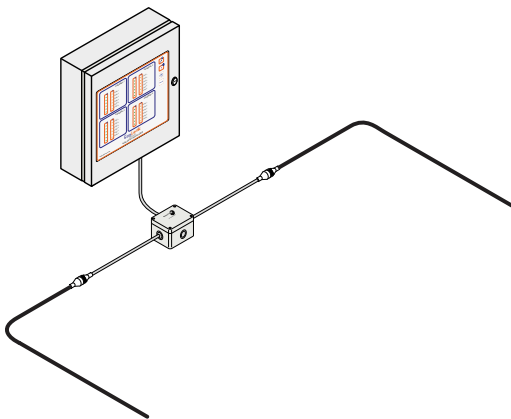
**EXAMPLE 1.**



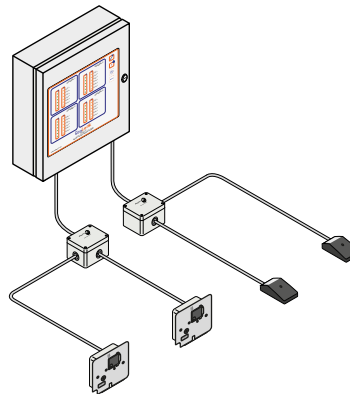
**EXAMPLE 2.**



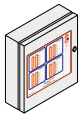
**EXAMPLE 3.**



**EXAMPLE 4.**



### LEGEND



ECO-24 PANEL - 24 Zone Panel  
*ECO-1 and ECO-6 can also be used*



AT-MPS-R - Mini Probe Sensor



ECO-BCB - Branch Connector Box



AT-ECO-SC-X - Sensing Cable



AT-BJC-2C - 2 Core Jumper Cable



AT-SRG - Refrigerant Sensor



AT-ECO-LC-X - Leader Cable

**Problem:**

Eco-Leak Panel shows Fault alarm on a zone

**Solution:**

1. Check sensing circuit is connected correctly.
2. Check the leader/jumper cable and sensor for damage. Any damaged cables/sensors should be replaced.
3. If ECO-BCB is connected check the battery and the correct type is inserted correctly.
4. Check ECO-BCB battery is in good condition and replace if necessary.
5. Both circuits on the ECO-BCB must be connected to an ECO-Leak sensor.

**Problem:**

Eco-Leak panel shows leak alarm on a zone

**Solution:**

1. Sensor has detected a leak. Repair the leak and dry the sensor in case of a water leak in case of a gas leak make sure the sensors is reset.
2. Check the water sensor is not shorting out on a conductive material.
3. Check the water sensor is dry/clear.

**Problem:**

No LED's on Eco-Leak panel

**Solution:**

4. Check power is present.
5. Check mains fuse integrity and replace if necessary.

**Problem:**

Intermittent/nuisance leak alarms

**Solution:**

1. Ensure the water sensor is not positioned where it will get damp or splashed.
2. Ensure the water sensor is positioned where it cannot be 'shorted out'.
3. Ensure connections are properly terminated.

**Problem:**

Intermittent/nuisance fault alarms

**Solution:**

1. Ensure all sensing circuit connections are tightened correctly.
2. Check sensing circuit for damage. Any damaged parts should be replaced.

## F. FAULT FINDING CONT.

**Problem:**

System will not reset after an alarm event

**Solution:**

1. Circuits with ECO-BCB's connected will take up to 90 seconds to reset.
2. Eco-Leak systems will only reset if the alarm event has been rectified. E.g. A leak alarm on the system will not reset if the sensor is still wet.

**Problem:**

System does not 'auto reset' after an alarm event has been rectified

**Solution:**

1. Eco Leak panels by default require the user to reset them after an event. This is simply carried out by pressing the 'Reset' button. Please consult your Eco-Leak panel documentation for how to enable auto reset.

**Problem:**

ECO-BCB battery does not last as long as expected


**Solution:**


1. The ECO-BCB requires 9V lithium ion battery for proper operation (available from Aquilar, part no: 7890).
2. High volume of alarm events will adversely affect battery life, as will leaving the system in alarm for extended periods.

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