Introduction
The LeWL Wind Logger can optionally log rainfall data when connected to a tipping bucket rain collector. The Davis Instruments 6465/6465M rain collector is ideal, and available from Logic Energy.

Rainfall is recorded in the LeWL's CSV data files as the number of bucket tips during each logging interval. This value can be scaled by the rain collector's scaling factor to get amount of rainfall, or simply used directly as an indication of when there was any rainfall.

Installation and Wiring
Install the rain collector as per the Davis instruction leaflet, except for wiring.

The 6465 rain collector has a cable with 2 wires from the internal switch. The sensor cable should not be extended, but it can be cut shorter if required.

If not already done, cut off any connector and strip the wire ends.

Pass the cable through the LeWL gland, and connect the wires into the screw terminals as follows:
G = BLACK and RED
A2 = GREEN and YELLOW

The other terminals are used for wind and temperature sensors – refer to the LeWL or sensor documentation for details.

Caution
Additional sealing such as self-amalgamating rubber tape may be required in the cable gland to prevent moisture ingress with 2 sensor cables (eg rain and wind sensors). Do NOT use silicone sealant as this gives off corrosive vapours!

Rainfall Data Handling
The rainfall data is included in the LeWL's CSV data files as an extra column with the heading "A2 pulse count". This data can be imported to the wind analysis Excel spreadsheet, but will not be used by the wind analysis template.

The values are simply the number of collector bucket tips per logging interval, and must be manually converted to mm/inches using the sensor's scaling factor (0.01 inch for Davis 6465, or 0.2 mm for 6465M). You can sum the values to get total rainfall over longer periods, or simply use the unscaled values as an indication of when it was raining.

Troubleshooting
If the rainfall readings are all zero, then check that the sensor is correctly wired and there are no broken wires/connections.

The rain collector cone should be checked periodically and any debris cleaned out.

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