255-100 Analog Evaporation Gauge Quick Start

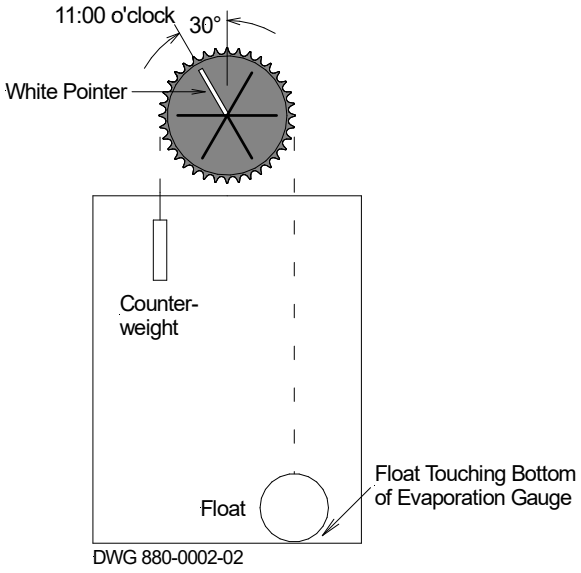
The 255-100 Gauge measures water level in the evaporation pan by means of a float and chain that turns a precision potentiometer housed at the top of the gauge. The sprocket and chain must be synchronized so that the full range of the potentiometer is utilized without entering the electrical dead band of the potentiometer.

Install the Analog Evaporation Gauge according to the instructions in the user manual. Connect the Gauge to the Evaporation Pan but do not fill the pan with water. Level the gauge. Remove the four screws that hold the Evaporation Gauge cover to the body and set the cover aside.

IMPORTANT: *Be careful when removing the packing material not to hit the sprocket, because that might damage the potentiometer. Do not attempt to remove the float from the body of the sensor.*

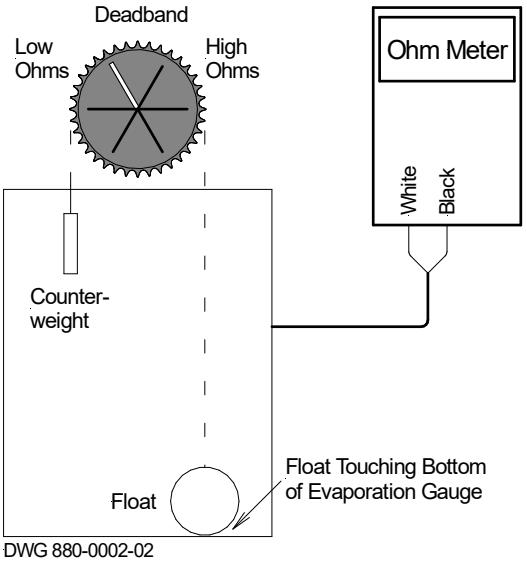
Chain Installation Using the Pointer

1. Make sure the gauge is empty of water.
2. Turn the sprocket until the white pointer is at the 11:00 o'clock position (30 degrees to left).
3. Lift the chain until all the slack is taken up, but the float is still resting on the bottom of the gauge. Drape the chain over the sprocket so that the float is on the right and the counterweight is on the left.



Chain Adjustment Using a Volt/Ohm Meter

1. Make sure the gauge is empty of water.
2. Set your meter to read 1000 ohms. Connect the meter to the white and black wires.
3. Turn the sprocket until the meter reads 40 to 80 ohms.
4. Lift the chain until all the slack is taken up, but the float is still resting on the bottom of the gauge. Drape the chain over the sprocket so that the float is on the right and the counterweight is on the left.
5. Check the meter to ensure the reading is between 40 to 80 ohms when the float is resting on the bottom of the gauge. If not, lift the chain and rotate the sprocket by one or two teeth.



When the evaporation pan is full of water (about 8" deep), the white pointer on the sprocket should point to 1:00 o'clock, approximately. As water evaporates the sprocket turns clockwise. The amount of evaporation is the difference between readings taken at regular intervals, typically once every 24 hours.

Evaporated water must be replaced. Ideally, the water level should be maintained from 7 to 8 inches deep (175 to 200 mm) in the evaporation pan. In practice, keeping the level between 5 and 8 inches deep (125 to 200 mm) is adequate. Do not overfill because the potentiometer may enter the dead band where the readings would be "floating", resulting in meaningless data.