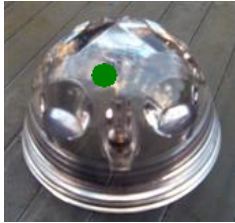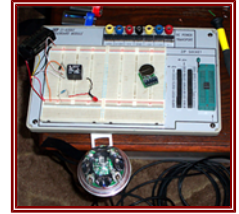Home

Welcome to Weather-Above

How to install a Non-Tipping Rain Gauge {with internal relay} to a DB9 serial connector

Home   www.rainsensors.com
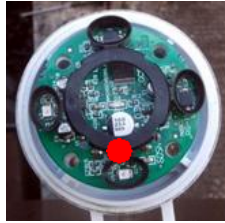
Webpage under development settings are not implemented in
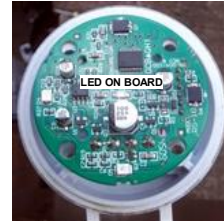Web display at the moment for the serial/UBS connections
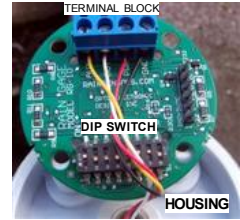
LENS ●   **O-ring** ●   **SHADE** ●   **Top (PCB)**   **Underside (PCB)**

TERMINAL BLOCK

LED ON BOARD

DIP SWITCH

HOUSING

Additional parts:

You will need to order a DB9 connector from ebay thay are about £1.95 and a DC power source ,you can use from 9-35v they are about £15.00, you need a cable which has 4 cores, I recommend using cat5 please read the non-tipping rain gauge manual and alter the dip switches to the settings you require.

DB9 Female connector

12v DC Power Source

Tools:

You're going to need a soldering iron,and solder, this is for soldering the two connections on the DB9 connector, a couple of screwdrivers.

The first thing is to mount the non-tipping rain gauge in a suitable location, you will need to run a 4 core cable, I would recommend cat5 cable , connect the cable to the non-tipping rain gauge each terminal, please remember to write down the cable colour you use to each of the connections, please see diagram fig 1, you will need this cable to run to your computer. Solder the connections to the DB9 female connector , please see diagram fig 2 , there are only two wires to solder pin {4} and pin {6} reassemble the connector housing . The next thing is to connect the DC power supply please see fig {1} if necessary use a electrical connector terminal block to join the transformer to your power feed.

USB 2.0 to RS232 Serial Port DB9
9 Pin Male Converter Adapter Cable

If you have no serial port/or would prefer to use a USB
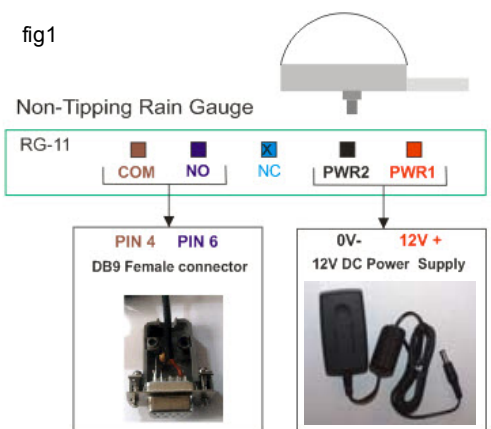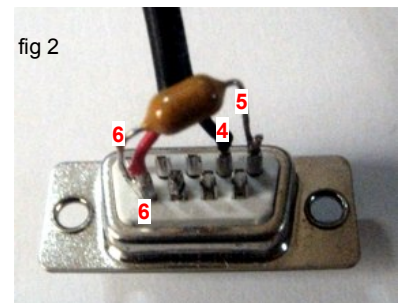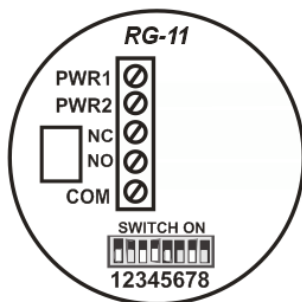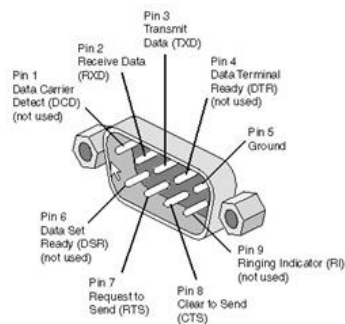slot use a USB to DB9 / serial connector

fig1

Non-Tipping Rain Gauge

RG-11				
COM	NO	NC	PWR2	PWR1

PIN 4   PIN 6
DB9 Female connector

0V-   12V +
12V DC Power Supply

fig 2

5
6
4
6

Non-tipping rain gauge terminal connection block

RG-11

PWR1
PWR2
NC
NO
COM

SWITCH ON
12345678

Serial DB9 9 Pin Male connector Pin out

Pin 3 Transmit Data (TXD)
Pin 2 Receive Data (RXD)
Pin 1 Data Carrier Detect (DCD) (not used)
Pin 4 Data Terminal Ready (DTR) (not used)
Pin 5 Ground
Pin 6 Data Set Ready (DSR) (not used)
Pin 9 Ringing Indicator (RI) (not used)
Pin 7 Request to Send (RTS)
Pin 8 Clear to Send (CTS)

The RG-10 may also provide drop detection. Use this mode if you want to do your own external data interpretation. The output will pulse once with each detected drop. Normally, it will produce longer pulses (in multiples of 200 mS) for larger drops. If set to multiple pulses per drop (SW 3 ON), each detected drop will generate one or more 100 mS pulses, depending on drop size.

Rain Tracker Rain Gage - Model RG-10

Information from suppliers website for more information please visit www.rainsensors.com

Maintenance free
Compact-- about the size of a tennis ball
DIP switch programs the function and outputs
Extremely sensitive. The sophisticated circuitry and DSP algorithms count
and totalize individual raindrops. If you need something to detect the first
raindrop, this can be your solution.
Internal heater for cold weather applications
9 - 35VDC Operation
Two Open collector outputs
No mechanical parts. It is not affected by jostling and motion. Can be
completely mobile, and mounted in any orientation
Round sensing surface is essentially self-cleaning
No exposed conductors to corrode. No openings for bugs to crawl into or
for spiders to build nests. The Rain Gage compensates for surface grime or
other degradation, so in most cases no maintenance is needed
Daylight and temperature sensing
Optical rain sensor can also detect other liquid