

Following are three different scenarios and the methods used to reset the rain in the FTS FWS-12S Datalogger.

I POWERED DOWN THE DATALOGGER - IT ZEROED OUT THE ACCUMULATED RAIN AMOUNT (RNIN VALUE) NOW I WANT TO PUT IT BACK IN

After the datalogger is powered down it takes the value that was in RnCnt and copies it into RnAtStrt.

Need to know what your total accumulated rain (RNIN) amount was before power down.

1. Need to be in the Toolbox Program.
2. In the far left window click on the "**Advanced Tab**".
3. Under the Advanced tab functions. Click on "**Data by Tag Names**".
4. Then in the middle window click on "**Load Tags**" button.
5. Once the call has been completed and the tag options are displayed. Select by clicking on "**User Variables**" and "**All Built In**".
6. Click on the "**Get Data**" button.
7. Record the number displayed under "**RnCnt**".
8. Take your total accumulated rain amount (RNIN) before power down, times 100. Subtract that number from the RnCnt number displayed after power down, which you recorded in Step 7. Enter that answer in Step 9.
9. In the upper left hand corner of the large window, select "**RnAtStrt**" in the drop down box labeled "Set DLP Tag Value". In the equals box to the right enter your new "**RnAtStrt**" number. Click on the "**Set Tag Value**" button.
10. When the call has completed at the bottom of the screen it will tell you "Set Tag Value/RnAtStrt:done".
11. To confirm that all values have been set, click on the "**Get Data**" button. View data in large window.

I ACCIDENTALLY PUT TIPS IN THE TIPPING BUCKET HOW DO I TAKE THOSE UNWANTED TIPS OUT?

You need to know how many accidental tips you entered, or have looked at the RnCnt value before working on the station, or know what your total accumulated (RNIN) value was before the tips were entered.

1. Need to be in the Toolbox Program.
2. In the far left hand window click on the "**Advanced Tab**".
3. Under the Advanced tab functions, click on "**Data By Tag Names**".
4. In the middle window click on "**Load Tags**".
5. When the call has completed, the tag options will be displayed in the middle window below the Load Tags button, to select click on "**User Variables**" and "**All Built In**". Then click on "**Get Data**".
6. You will be reducing the "**RnCnt**" value by the number of tips that were entered. (Example: if you entered 3 tips you will reduce the "RnCnt" number by 3. If the "RnCnt" value was 2624 after entering the 3 tips, you would subtract 3, to return it back to the original total of 2621).
7. In the upper left hand corner of the large right hand window, in the drop down box called "Set DLP Tag Value" select "**RnCnt**". In the equals window to the right enter the RnCnt value you determined in Step 6 (our example of 2621). Then click on "**Set Tag Value**". When the call has completed at the bottom of the screen it will tell you "Set Tag Value/RnCnt:done".
8. Confirm that your changes have been made by clicking on "**Get Data**" in the middle window.
9. The datalogger will remove the unwanted tips from the total accumulated value (RNIN), and from the one hour rain count (Rn_1).

I HAVE A DIFFERENT DATALOGGER - I WANT TO ENTER THE RNIN VALUE FROM THE OLD DATALOGGER INTO THE NEW DATALOGGER

Before starting this process, make sure you have plenty of time before the station records its next set of data, either the FTS formatted data at the top of the hour or the BLM formatted data that gets transmitted.

From your old datalogger record the value for RNIN.

With The Old Datalogger

1. Need to be in the Toolbox Program.
2. In the far left window click on the "**Advanced Tab**".
3. Under the Advanced tab functions. Click on "**Data by Tag Names**".
4. Then in the middle window click on "**Load Tags**" button.
5. Once the call has been completed and the tag options are displayed. Select by clicking on plus symbol in the box "+" before each of "**User Variables**" and "**All Built In**". Scroll through the lists shown and select by clicking on the box to place a check mark in "RNIN", "RnAtStrt", "Rn_1", "RainAtHr" and "RnCnt".
6. Click on the "**Get Data**" button.
7. Record the number displayed under "**RNIN**" (total accumulated rain amount).
8. Change out the old and new dataloggers.
9. Follow steps 1 through 5 to get the above values from the new datalogger. Notice the numbers for RnAtStrt, RainAtHr, and RnCnt are all the same in the new datalogger, and the numbers for RNIN and Rn_1 are 0.00.
10. Take your total accumulated rain amount (RNIN) from the old datalogger, times 100 (you're moving the decimal point two places to the right). Add that number to the RnCnt value in the new datalogger. This sum will be your new RnCnt and RainAtHr values you will enter into the new datalogger. In the upper left hand corner of the large window, select "**RainAtHr**" in the drop down box labeled "**Set DLP Tag Value**". In the equals box to the right enter your new "**RainAtHr**" number from step 10. Click on the "**Set Tag Value**" button.
11. Repeat step 11 but select "**RnCnt**" and enter the new RnCnt value from step 10. Click on the "**Set Tag Value**" button.

12. When each call has completed at the bottom of the screen it will tell you that the Set Tag Value is done.

13. To confirm that all values have been set correctly. Wait approximately one minute then, click on the "**Get Data**" button. View data in large window. If you did everything correct your RNIN value from your old datalogger will be displayed as the RNIN value in the new datalogger. The value for Rn_1 should still be at 0.00.

Note: The RnCnt value range is 0 to 65535, it then rolls over to 0. If after adding the RNIN value from your old datalogger to the RnCnt value in the new datalogger (under Step 10), and that value becomes larger than 65535. Take the difference between 65535 and that larger number, then use that number as your new RnCnt and RainAtHr values in your new datalogger.

Other Facts

To calculate the hourly rain amount (Rn_1), the program uses the following formula: $Rn_1 = RnCnt - RainAtHr/100$

To calculate the total accumulative rain amount (RNIN), the program uses the following formula: $RNIN = RnCnt - RnAtStrt/100$

At the top of each hour the datalogger updates the RainAtHr number making it equal to the