RAIN BIRD.

PT322 Pulse Transmitter Programming

Contents

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Install the Rain Bird® software onto a PC

Note: To install and use the Rain Bird® PT322 software package, your personal computer (PC) must run either Windows 3.1® or Windows 95/98®.

1. Turn on the PC.

2. At the desktop screen, follow the specific installation instructions printed on the programming software diskette.

3. Remove the diskette once you install the Flow Meter Manager program.

Follow installation instructions
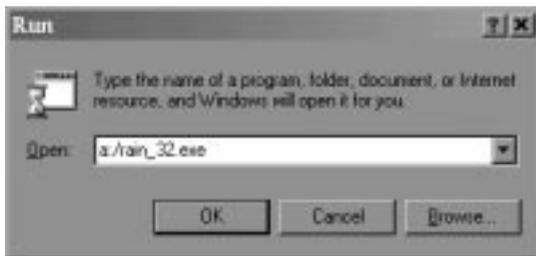
Open the Flow Meter Manager screen

1. At the desktop screen, select *Start*.
2. Selecting *Programs, RainBird* and *Rain* from the pull-up menus opens the *Flow Meter Manager* screen.

Select Programs, RainBird and Rain
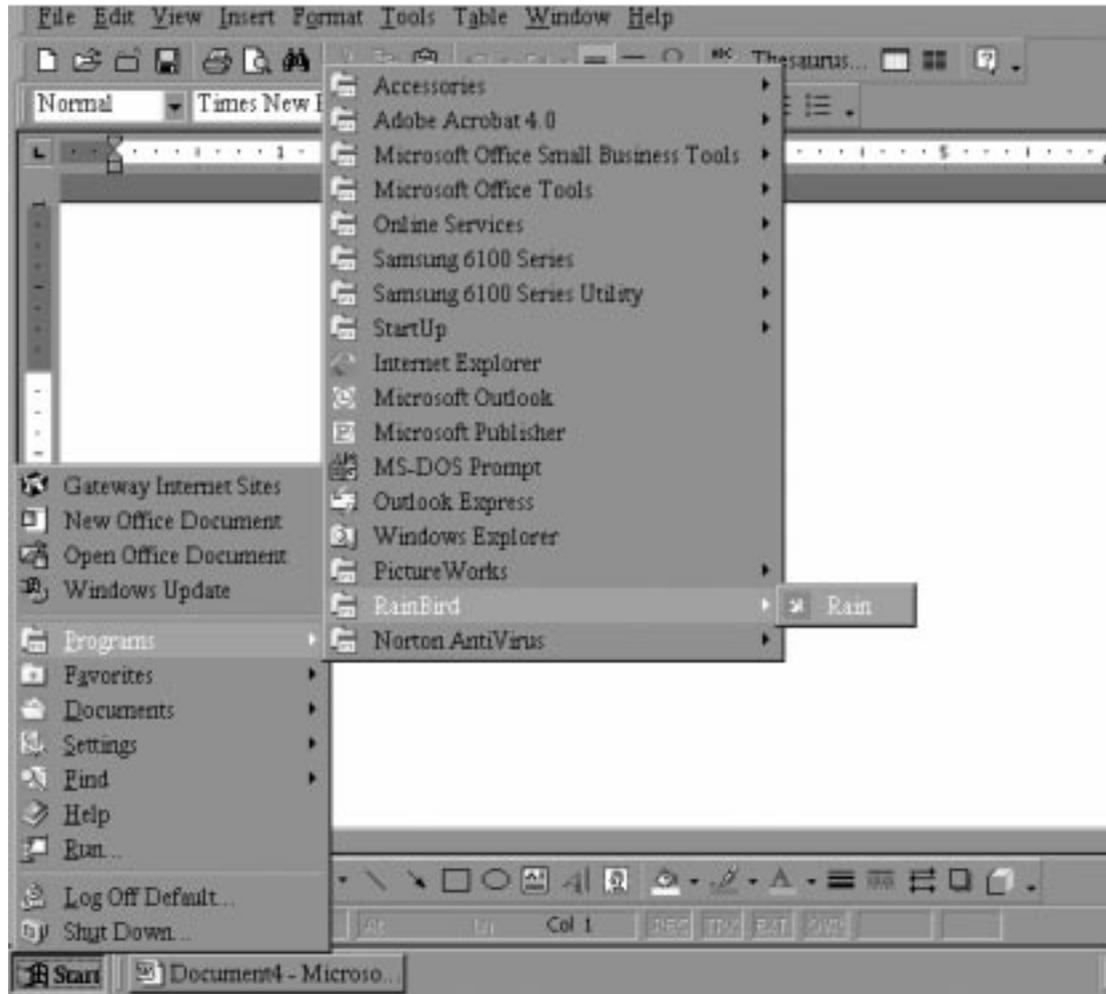
Set up a communications link

Note: If the *Flow Meter Manager Status* line reads *Communications established* or *Waiting for next update* please see the next section.

1. At the *Flow Meter Manager* screen, select *Configuration.*
2. Select *Port* from the pull-down menu to reach the *Computer Configuration* screen.
3. Select one of the four *Com Ports* (Communications Ports) listed to link the transmitter to the PC.

4. Select *FINISH.* The Rain Bird software automatically tests the link to see if it can recognize the port you chose.
5. Read the *Status* line to make sure it reads either *Communications established* or *Waiting for next update.* Both messages show a successful communications link.
6. If the *Status* line still shows an unsuccessful link between the PC and transmitter, you should check the system connections, check the power to the transmitter, or select another port.

Select Port
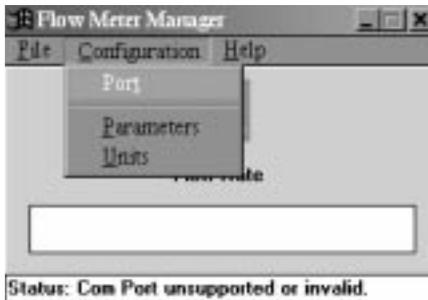
Select a Com Port
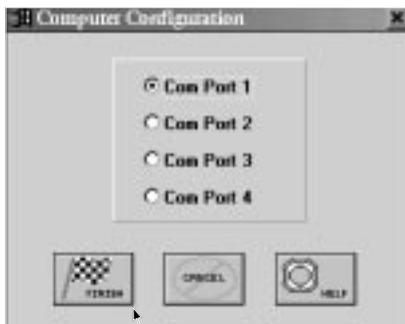
Read the status line
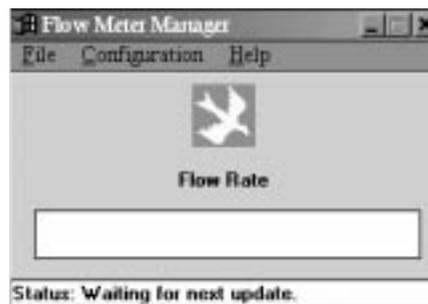
Select the sensor

1. Select *Configuration* from the *Flow Meter Manager* screen.

2. Select *Parameters* from the pull-down menu to reach the *Unit Parameters* screen.

3. Select the specific sensor or sensor category your system uses.

4. If your system uses Tee mounted sensors, select the *Tee mounted* sensor category and choose the specific model number from the drop-down box.

5. If your system uses the 200 series Insert sensors, select the *Insertion* sensor category and choose the proper sensor by the pipe size and class from the drop-down box.

Note: Once you pick a flow or wind sensor, the Rain Bird software automatically calculates the *K* and *Offset* factors (unique numbers specific to the pipe's inside diameter) for the sensors you choose. If your pipe size and class of insert sensor is not listed, please see the next section.

Selecting a tee mounted sensor
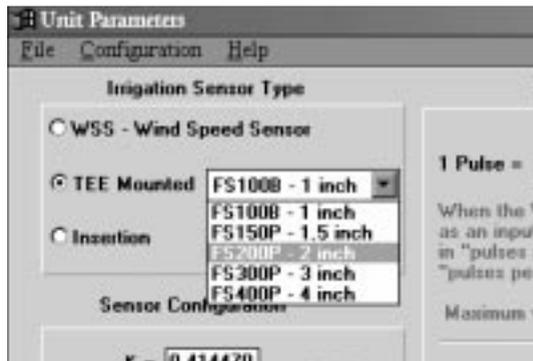
Selecting an insertion screen
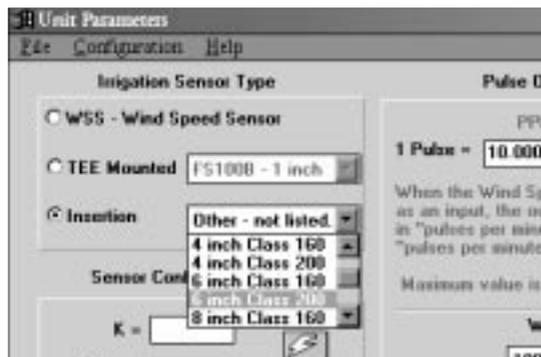
Note: When you use a pipe size and class of insert sensors that are not listed in the drop-down box, you must then enter the *K* and *Offset* factors for that sensor. You can enter these factors manually (you will find the factors for specific sizes and classes of pipes inside the Flow Sensor Owner's Manual) or automatically using *AUTO* from the *Unit Parameters* screen. The following steps are for the automatic selection.

1. Select *Other-not listed* from the *Insertion* sensor drop-down box. This activates *AUTO* selection under *Sensor Configuration*.

2. Select *AUTO* to reach the *Calculate K and Offset* screen.

3. Enter the pipe's *inside diameter* (above 3" and below 60") in the space provided.

4. Select *FINISH* to automatically adjust the *K* and *Offset* factors for your sensor.

Select Other - not listed
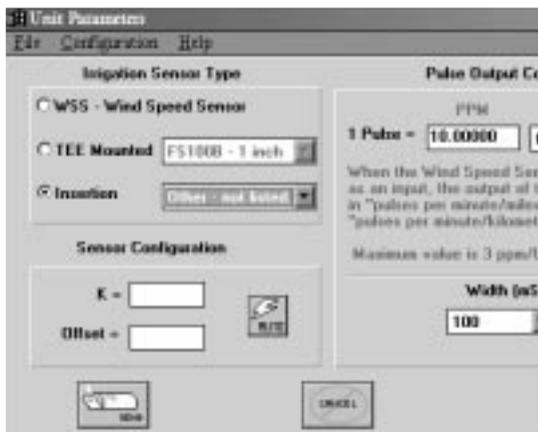
K and Offset factors automatically adjust

Enter the pipe's inside diameter

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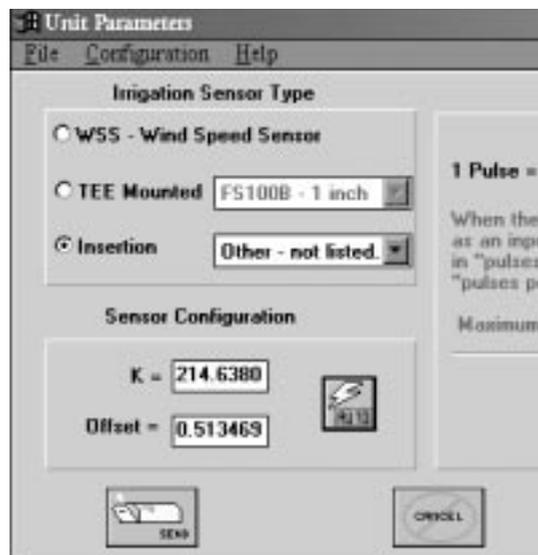
Calculate the PPM

Note: *PPM* (pulses per minute) shows how much flow or wind speed you need before the flow monitor produces and sends a pulse signal to the central control system. To calculate pulses per minute, you must divide the maximum sensor volume by the maximum number of pulses your system reads.

1. Calculate your system's maximum volume through the sensor.
2. Determine the maximum number of pulses per minute *(PPM)* your Maxicom Central Control System reads.

Note: For a two-wire path system, the maximum number of pulses per minute is 10. For either an ESP-Site satellite or a ESP-SAT Link system, the maximum is 100 pulses per minute.

3. Divide the maximum flow by the maximum number of pulses to determine your system's pulses per minute setting.

Example: If your system's maximum flow was 500 gallons per minute (gpm), and you are using a two-wire path system, you divide 500 (gpm) by 10 (ppm) for a setting of 50 PPM. If the maximum flow is 800 gpm with an ESP system, then your setting is 8 PPM (800 ÷ 100).

Determine the maximum number of ppm

> **2-wire path = 10 ppm**
>
> **ESP-SAT LINK/ESP SITE Satellite = 100 ppm**

Divide maximum flow by maximum number of pulses

> **800 (gpm) ÷ 100 (ppm) = 8 (ppm)**

Set the PPM

Note: When possible, use the drop-down boxes or buttons to adjust any parameter setting. If necessary, use the PC keyboard to enter the parameter inside the corresponding box, using no more than 8 characters. The Rain Bird software warns and prevents you from entering incorrect data.

Note: With the Wind Speed Sensor, the maximum pulse per minute setting is 3 mph (km/h).

1. Using the box provided, enter the *PPM* setting you calculated in the previous section.

2. Select the pulse output *units* of measure from the drop-down box.

Note: Make sure the pulse width, which is the duration of the pulse the transmitter sends, is set at the default setting of 100 mS (milliseconds). If it isn't, use the drop-down box to set it.

3. Select *SEND* to forward the changes and settings to the pulse transmitter.

4. Check that the *Status* bar is not showing an error message. The flow should update every 5 seconds.

Select the pulse output units

Check the status bar

Set the flow rate units

Note: The pulse transmitter monitors, displays and updates the flow rate every 5 seconds. Use the following procedures to set the flow rate units of measure. You can choose between 8 liquid flow and 2 wind flow units of measure.

1. At the *Flow Meter Manager* screen, select *Configuration.*
2. Select *Units* from the pull-down menu to reach the *Units of Measure* screen.
3. Select a *Unit of Measure* you prefer to read on the *Flow Meter Manager* screen.
4. Select *FINISH* to accept the change.

Select a Unit of Measure
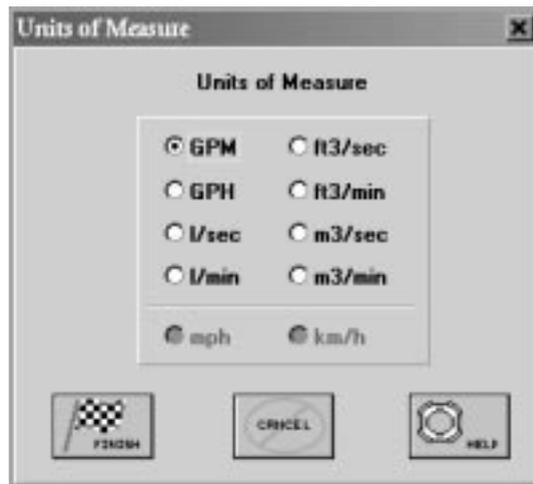
Screen appears after selecting FINISH
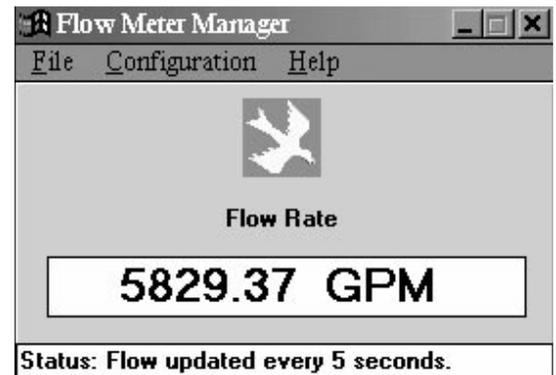
Save the parameter settings

Note: The Rain Bird PT322 software allows you to save, load and print the parameter settings from the *Unit Parameter* screen.

1. At the *Unit Parameter* screen, select *File* then *Save* from the pull-down menu.

2. At the *Save As* dialog box clear the file name box, key in a name and select *OK*.

3. To retrieve these parameter settings, select *File* then *Load* from the pull-down menu.

4. Select the file name then *OK* from the dialog box.

5. To print a copy of the parameter settings for your files, select *File* then *Print* from the pull-down menu.

Name file and select OK
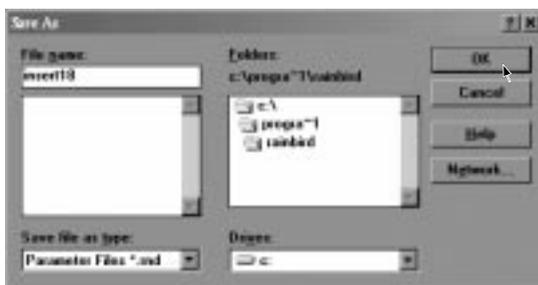
Select file name and OK
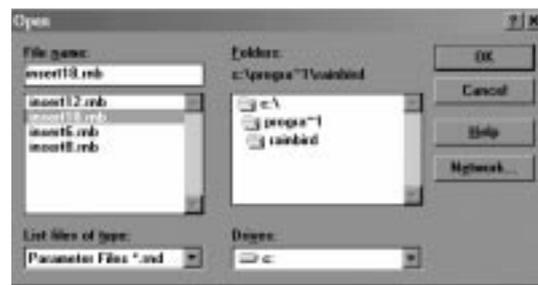
Close the Flow Meter Manager screen

1. At the *Flow Meter Manager* screen, select *File* then *Exit,* or select the *X* at the top corner of the screen.

2. Shut down the PC.