16.0 (TAB A) ET1 CONTROLLER PROGRAM DATA

Controller Program Data: This is four interlaced screen setups that allow you to program all required schedule information for a particular controller. The four screens are comprised of Controller Schedule, Controller Flow, Controller Weather, and Controller Setup.

16.1 ET1 CONTROLLER SCHEDULE

Controller Schedule: Controller Schedule is used to program start times, water days, controller setup, and station setup.

Note: It is highly recommended to always retrieve Program Data before you make any changes so that you do not send old data back to the controller.

1. In the toolbar at the top of the screen select **Program Data** and then scroll down to the words **Controller Schedule** and click on it (Figure 16.1.1A).

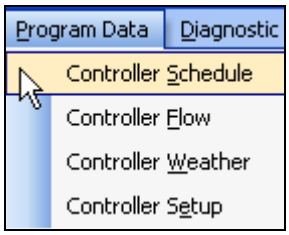


Figure 16.1.1A

Note: This will take you to the "**Program Data**" screen (Figure 16.1.2A).

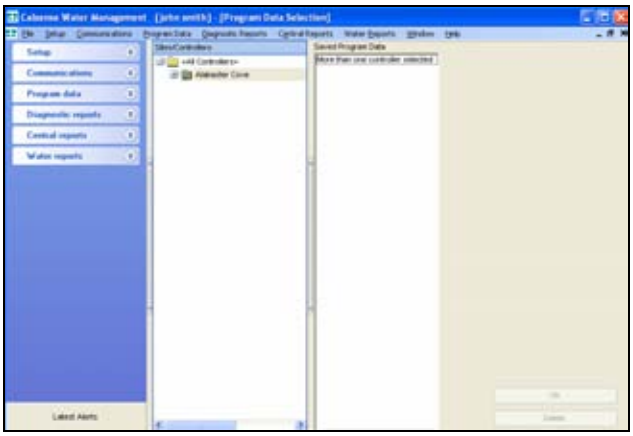


Figure 16.1.2A

2. Next select a controller by clicking on it to highlight (Figure 16.1.3A).

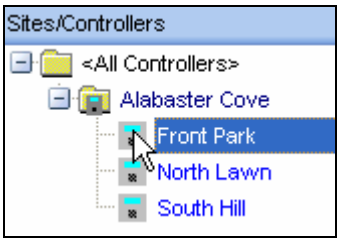


Figure 16.1.3A

Note: If any historical Program Data is saved and available for you to view it will appear in the "**Saved Program Data**" window.

3. Select the most recent date in the "**Saved Program Data**" window by clicking on it (Figure 16.1.4A).

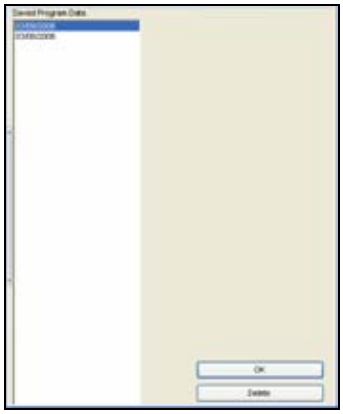


Figure 16.1.4A

Delete: Clicking on **Delete** button will delete the highlighted date choice.

CAUTION:

Once the data is deleted it cannot be recovered.

Note: Clicking on the **OK** button will take you to the "**Controller Schedule**" screen (Figure 16.1.5A).

Note: If **no** **Saved Program Data** exists you will have to use Speed Communications to retrieve the latest Program Data from this controller.

SEE SECTION 16.9 FOR MORE DETAILS

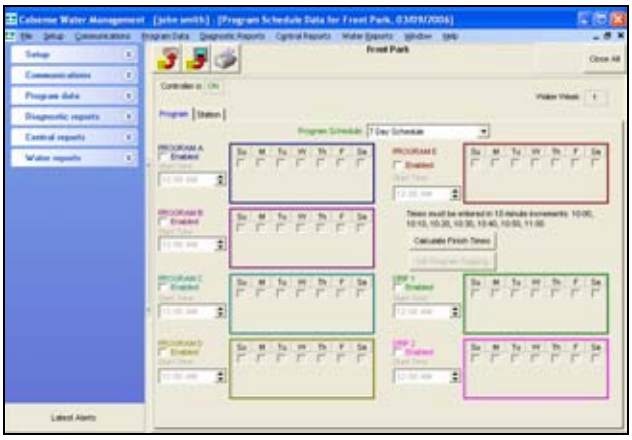


Figure 16.1.5A

4. You will automatically start in the **Program** tab section of **Controller Schedule** (Figure 16.1.6A).

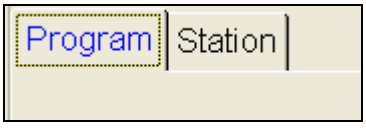


Figure 16.1.6A

5. In the **Program Schedule** box using the drop down arrow to the right choose which type of schedule that you want (Figure 16.1.7A).

Figure 16.1.7A

Note: To simplify matters we will use a seven day schedule throughout this section.

6. Next check the **Enable** box for each program that you want to use (Figure 16.1.8A).

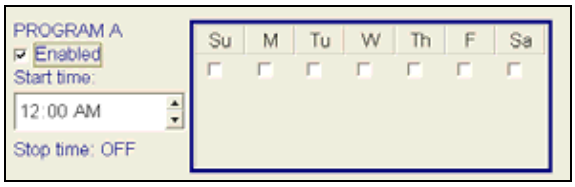


Figure 16.1.8A

7. Check a box for each day of the week that you want the program to irrigate on (Figure 16.1.9A).

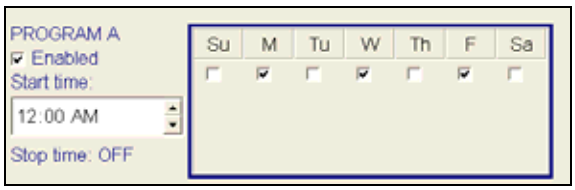


Figure 16.1.9A

8. Click on the **Start time:** box and use the **UP** and **DOWN** arrows to set the time that you want this schedule to begin (Figure 16.1.10A).

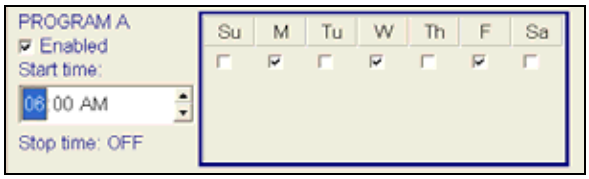


Figure 16.1.10A

Note: Schedule **Start time** must be in 10 minute increments.

Note: Follow these same steps for each of the programs that you want to activate. They are:

- **Program A**
- **Program B**
- **Program C**
- **Program D**
- **Program E**
- **Drip 1**
- **Drip 2**

Note: Any time that you change the schedule on the screen a reminder will appear under the controller name (Figure 16.1.11A).

Figure 16.1.11A

9. You can calculate finish times by clicking on the **Calculate Finish Times** button (Figure 16.1.12A).

Figure 16.1.12A

Note: This will take you to the "**Finish Times**" screen (Figure 16.1.13A).

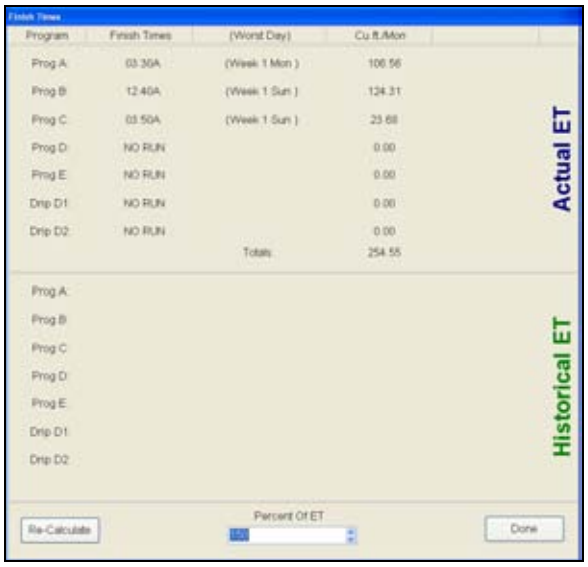


Figure 16.1.13A

Note: This screen will show you the finish times for all of the programs that are actively scheduled. The screen is split in to two categories:

Actual ET: The actual ET section of the screen contains the following information:

- **Program:** each of the controller programs are listed and cannot be edited (Figure 16.1.14A).
- **Finish Times:** This column will either have a Finish Time across from the appropriate program or state "**NO RUN**" meaning this program is not in use. The Finish Time shown is the Worst Day Finish Time (Figure 16.1.14A).
- **Worst Day:** This column will show you the longest irrigation day and on which week that it occurs for each program using actual ET (Figure 16.1.14A).

Note: Worst Day calculation is useful in figuring out if the schedule that you have for that specific day will or will not fit into your water window.

- **Cubic Feet Per Month:** This column calculates the cubic feet of water that will be used for this specific program for the entire month (Figure 16.1.14A).
- **Percent of ET:** This is the average percent of ET that you have all of the stations set within this specific program (Figure 16.1.14A).

Note: The percent of ET option will only show up if you are calculating run times using ET.

Figure 16.1.14A

Note: At the bottom of the screen you will see a total for the cubic feet per month and the percent of ET will show as an average of all of your stations ET.

Historical ET: The Historical ET section of this screen contains the same information as the Actual ET section. The only difference is that it uses Historical ET and is adjustable.

10. Adjust the **Percent of ET** using the **UP** and **DOWN** arrows to the right of the **Percent of ET** box (Figure 16.1.15A).

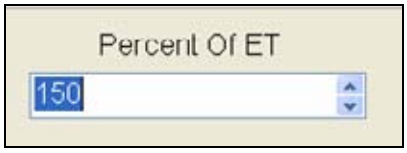


Figure 16.1.15A

11. Click on the **Re-Calculate** button (Figure 16.1.16A).

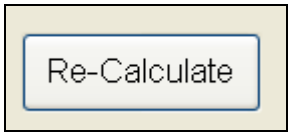


Figure 16.1.16A

Note: Depending on what percentage you enter the Finish Time, Worst day, Cubic Feet per Month, and percent of ET will change (Figure 16.1.17A).

Figure 16.1.17A

Note: At the bottom of the screen you will see a total for the cubic feet per month and the percent of ET shown as an average of all of your stations ET.

12. Click on the **Done** button when finished in this screen.

16.2 ET1 CONTROLLER SCHEDULE STATION ASSIGNMENT

1. In the "**Controller Schedule**" screen click on the **Station** tab (Figure 16.2.1A).

Figure 16.2.1A

Note: This will take you to the **Station** portion of the "**Controller Schedule**" (Figure (16.2.2A).

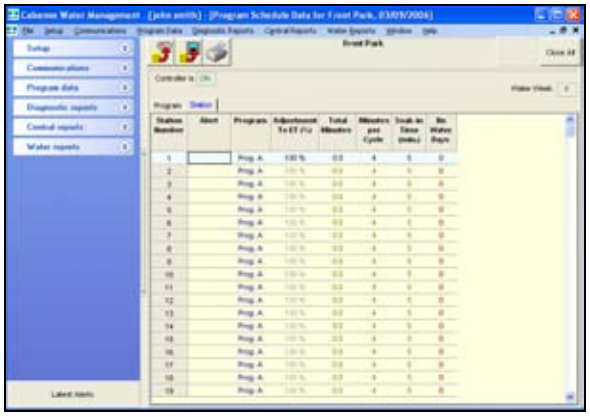


Figure 16.2.2A

Station Number: This column lists the stations in this controller in order from lowest to highest and is non-adjustable (Figure 16.2.3A).

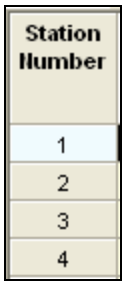


Figure 16.2.3A

Alert: This column will show a station specific alert in **RED**. Example: (No Flow, High Flow, Short, No Current) (Figure 16.2.4A).

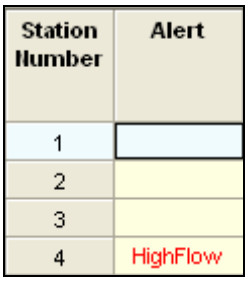


Figure 16.2.4A

Program: Use the drop down arrow to select a program that you want each station assigned to (Figure 16.2.5A).

Note: A station can only be assigned to one program.

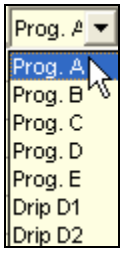


Figure 16.2.5A

Adjustment to ET (%): This box can only be adjusted if you are using ET. Adjusting this box will automatically adjust the total minutes. If you are not using ET the box will read 100% and cannot be adjusted (Figure 16.2.6A).

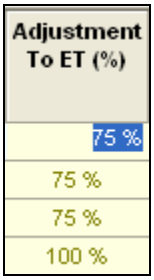


Figure 16.2.6A

Total Minutes: The total amount of irrigation time that will be applied in each 24 hour watering period. This box can only be adjusted if you are not using ET. Change the time by highlighting the box and typing in the information (Figure 16.2.7A).

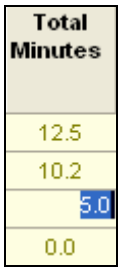


Figure 16.2.7A

Minutes Per Cycle: The amount of irrigation time applied in each cycle of a 24 hour watering period. This box allows you to fill in the amount of time that you want to apply to each irrigation cycle for that particular station (Figure 16.2.8A).

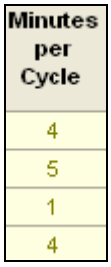


Figure 16.2.8A

Soak In Time (min.): The amount of time, (in minutes), between cycle starts (if there are multiple cycle starts). If there are no multiple cycle starts, this setting will be ignored by the program (Figure 16.2.9A).

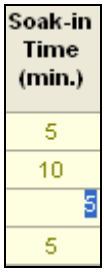


Figure 16.2.9A

No Water Days: This column allows you to set an amount of consecutive days, starting from now, that you **do not** want this station to water (Figure 16.2.10A).

Figure 16.2.10A

Note: This screen will also indicate whether or not the controller you are looking at is currently ON or OFF (Figure 16.2.11A).

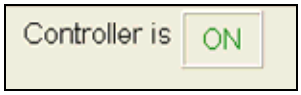


Figure 16.2.11A

Note: You can double click on the **Controller is** box to change the status.

Note: On this screen you can also tell what water week you are in according to your schedule (Figure 16.2.12A).

Figure 16.2.12A

16.3 ET1 CONTROLLER FLOW

Controller Flow: The Controller Flow screen is comprised of Flow Meter, Master Valve, Pump, and Mainline Break setup, Program Flow setup, and Station Flow rates.

1. In the toolbar at the top of the screen select **Program Data** then scroll down to **Controller Flow** and click on it (Figure 16.3.1A).

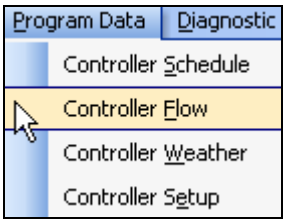


Figure 16.3.1A

Note: This will take you to the "**Controller Flow**" screen (Figure 16.3.2A).

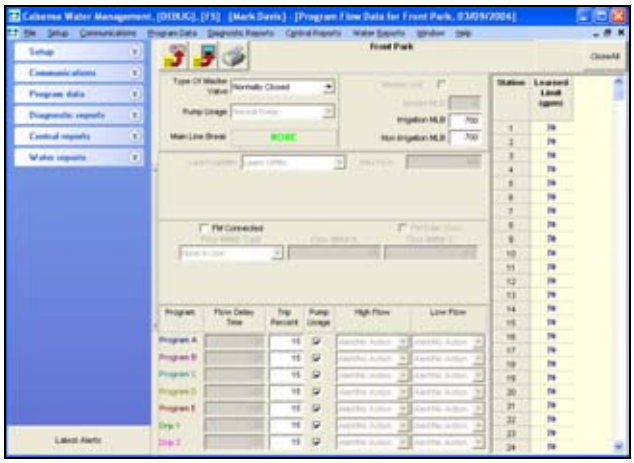


Figure 16.3.2A

2. Click on the **Type Of Master Valve** box and select from the drop down list the type of Master Valve that you have for this controller (Figure 16.3.3A).

Figure 16.3.3A

3. Next check and see what the **Pump Usage** box is set at (Figure 16.3.4A).

Figure 16.3.4A

Note: This can only be changed at the controller but can be a useful tool if used in conjunction with a light to alert the user to a problem. The three settings are:

- **Normal Pump Output:** You are using the pump output to turn a pump ON and OFF.

- **Blinking Alert Light:** You are using the pump output to power a blinking light installed at the controller to alert you of any of the following:

    - Main Line Break
    - High flow
    - No flow
    - Unstable flow
    - Low flow
    - Short detected
    - No current

- **Steady Alert light:** You are using the pump output to power a steady light installed at the controller to alert you of any of the following: (see Blinking Alert Light).

Note: Look at the **Main Line Break** box. This will tell you if there is a main line break (Figure 16.3.5A).

Figure 16.3.5A

4. Now check the **Flow Meter** box if a flow meter is assigned to this controller (Figure 16.3.6A).

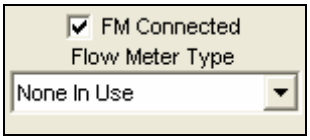


Figure 16.3.6A

5. Use the drop down list to choose the type of flow meter that you are using (Figure 16.3.7A).

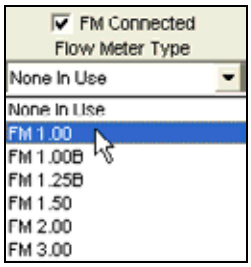


Figure 16.3.7A

The flow meter sizes are as follows:

- **None In Use:** Select this if no flow meter is assigned to this controller.
- **FM 1.00:** This is a one inch PVC flow meter.
- **FM 1:00B:** This is a one inch brass flow meter.
- **FM 1.25B:** This is a one and a quarter inch brass flow meter.
- **FM 1.50:** This is a one and a half inch PVC flow meter.
- **FM 2.00:** This is a two inch PVC flow meter.
- **FM 3.00:** This is a three inch PVC flow meter.

Note: A (**-F**) option is required when two or more flow meters are connected to a single controller. Three flow meters per controller is the maximum.

Note: If you are using a flow meter that is larger than three inches, or is not predefined you will have to fill in the **Use your own K & Offset** box (Figure 16.3.8A).

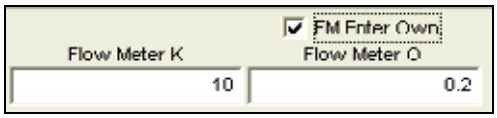


Figure 16.3.8A

Note: Contact Calsense for assistance in determining the "K" and Offset values.

6. Next edit the **Learned Gal/Min** box. Use the drop down arrow to the right (Figure 16.3.9A).

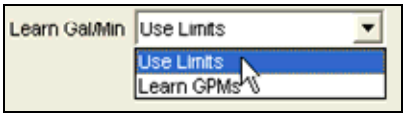


Figure 16.3.9A

- **Use Limits:** This setting is used once the controller has learned each stations flow rates. This feature will convert the station flow rate to a fixed number, or a high and low based on the trip percent (Figure 16.3.20A).

- **Learn GPM's:** Use this setting first if you have not learned the flow rate for each station.

Max Flow: Set this number to the maximum amount of gallons per minute that you think your entire system is capable of. This will keep your stations from exceeding this number when two or more valves are on (Figure 16.3.10A).

Figure 16.3.10A

7. If this is a Master Unit click on the box titled **Master Unit**. If you do not know leave this box unchecked (Figure 16.3.11A).

Note: Master Unit refers to the master controller in a chain of controllers sharing a single point of connection.

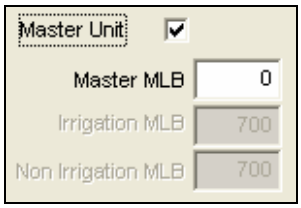


Figure 16.3.11A

8. Next set the **Master MLB** (Main Line Break). This is the number of gallons per minute that you want the Main Line Break to trip at (Figure 16.3.12A).

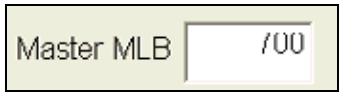


Figure 16.3.12A

Note: If this is not a Master Unit leave the box unchecked and fill in the **Irrigation MLB** (Main Line Break) and **Non-Irrigation MLB** (Main Line Break) numbers (Figure 16.3.13A).

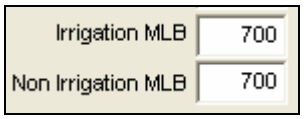


Figure 16.3.13A

9. In the **Flow Delay Time (sec.)** fill in the amount of time in seconds per program that you want the controller to delay checking flow due to line fill and / or valve closing (Figure 16.3.14A).

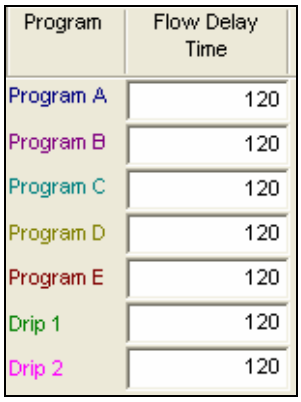


Figure 16.3.14A

10. Next enter the **Trip Percent** for each program that you want the controller to trip a flow alert. This setting equals a percentage of your stations flow rate (Figure 16.3.15A).

Note: This only has an effect when in learn mode

Figure 16.3.15A

Example:

If Station flow rate equals 40 then the Trip Percent (15%) would equal:

34 to 46 gallons per minute.

34 gpm or below would trip a Low Flow alert.
46 gpm or above would trip a High Flow alert.

11. If a pump is in use check the box next to each program that it applies to (Figure 16.3.16A).

Figure 16.3.16A

12. Next using the drop down arrow for each box select the **High Flow Action** alert of you choice (Figure 16.3.17A).

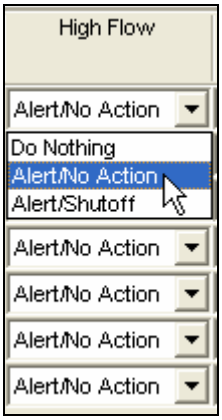


Figure 16.3.17A

Note: Depending on which choice you make will depend on how you are notified and what action if any is taken. See the definitions below:

- **Do Nothing:** This means that no matter what happens you will receive no alert and no action will be taken.
- **Alert / No Action:** This means that you will be alerted if a High Flow occurs but the controller will take no action.
- **Alert Shutoff:** This means that the controller will alert you and also will shutoff the valves assigned to this alert group.

13. Use the same method to choose the **Low Flow** action for each program (Figure 16.3.18A).

Figure 16.3.18A

Note: If you have had the controller learn each stations flow rate, the number will appear in the **Learned Limit (GPM)** column (Figure 16.3.19A).

Station	Learned Limit (gpm)
1	141
2	141
3	141
4	141
5	141
6	141

Figure 16.3.19A

Note: If you use the **Use Limits** setting in the "**Learn Gal/Min**" box. The upper and lower limits will show up next to the stations. These numbers are derived from each programs trip percent based on your learned flow rate (Figure 16.3.20A).

Station	Upper Limit (gpm)	Lower Limit (gpm)
1	162	120
2	162	120
3	162	120
4	162	120
5	162	120
6	162	120

Figure 16.3.20A

16.4 ET1 CONTROLLER WEATHER

Controller Weather: Controller Weather includes ET, rain/wind, budget, and crop coefficients.

1. In the toolbar at the top of the screen click on **Program Data** then scroll down to the words **Controller Weather** and click on it (Figure 16.4.1A).

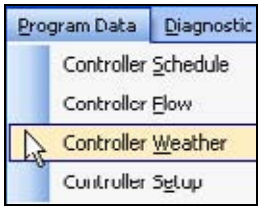


Figure 16.4.1A

Note: This will take you to the "**Controller Weather**" screen (Figure 16.4.2A).

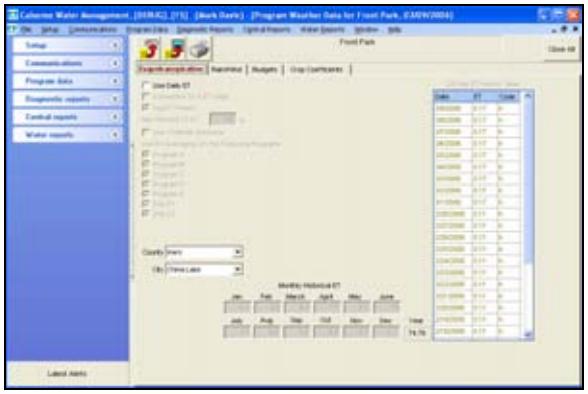


Figure 16.4.2A

EVAPOTRANSPIRATION

Note: When you first enter the "**Controller weather**" screen you will be on the **Evapotranspiration** tab.

2. If you plan on using Daily ET check the **Use Daily ET** box (Figure 16.4.3A).

Figure 16.4.3A

Note: When you check this box a "**Confirm**" screen will appear (Figure 16.4.4A).

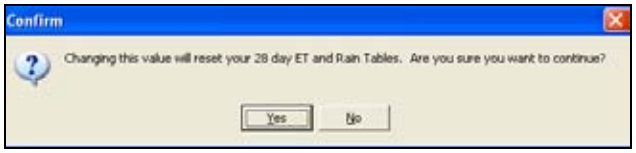


Figure 16.4.4A

Note: If you want to reset your 28 day ET and Rain tables click **Yes.**

Note: If you **do not** want to reset your 28 day ET and Rain tables click **No**.

3. If this controller is going to be connected to an ET gage check the "**Connected to A ET Gage**" box (Figure 16.4.5A).

Figure 16.4.5A

Note: This will cause the **Log ET Pulses** box to become available. Click on this box if you want the ET pulses logged in the alerts page (Figure 16.4.6A).

Figure 16.4.6A

Note: By using the **Max Percent Of ET** box you can set the controller to never go over a certain percentage of ET (Figure 16.4.7A).

Figure 16.4.7A

Example:

If your historical ET for August is .35 and your Max Percent Of ET is set at 150% then the controller will never let your daily ET be greater than .52

4. Click on the **Use 12 Month Schedule** if you want to set up an irrigation program for each month of the year (Figure 16.4.8A).

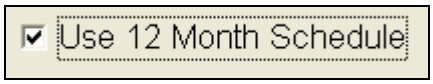


Figure 16.4.8A

Caution:

Checking this box will cause a box to open up at the top center of the "Controller Schedule" screen. You will have to go to that screen and fill out a schedule for each individual month. Keep in mind that if you skip filling out a month no irrigation will take place for that month (Figure 16.4.9A)

Figure 16.4.9A

5. Next check the box next to each program that you want to **Use ET Averaging On The Following Programs** (Figure 16.4.10A).

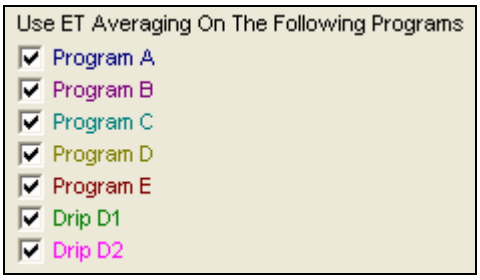


Figure 16.4.10A

ET Averaging: ET averaging is used to smooth out the long station run times caused by OFF water days.

6. Use the drop down arrow next to **County** to select a compatible county (Figure 16.4.11A).

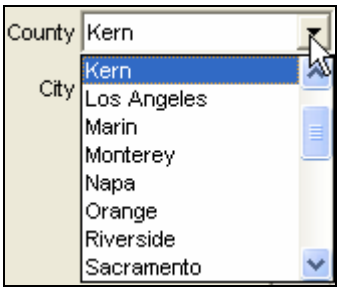


Figure 16.4.11A

7. Next use the drop down arrow next to **City** to select a city within that county (Figure 16.4.12A).

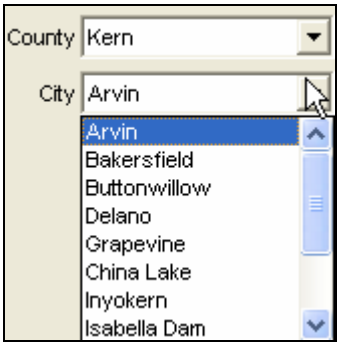


Figure 16.4.12A

Note: You can enter your own ET numbers in the **Monthly Historical ET** blocks (Figure 16.4.13A).

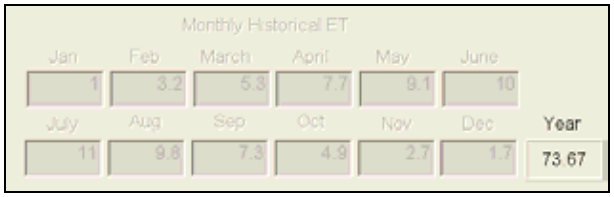


Figure 16.4.13A

Note: These boxes can be edited by selecting "**Your Own**" in the drop down box for **County** (Figure 16.4.14A).

Figure 16.4.14A

Note: The **Year** box is the total ET for the year (Figure 16.4.15A).

Figure 16.4.15A

Note: The 28 Day ET Historical Table shows the ET averages for the last 28 days consecutively (Figure 16.4.16A).

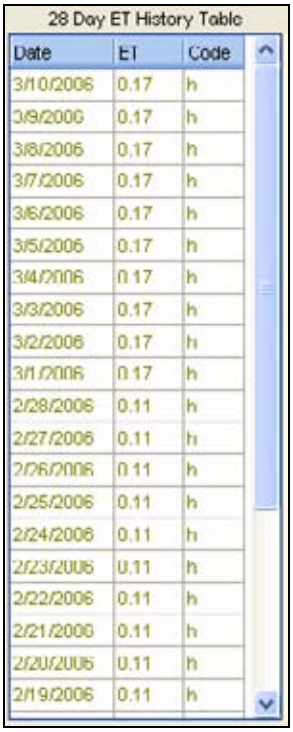


Figure 16.4.16A

ET TABLE CODE DEFINITIONS

e – Edited, This means the (ET) number was edited at the controller by a user.

g – ET Gage This means the (ET) number was retrieved from actual real-time (ET).

h – Historical, This means the (ET) number was retrieved from the historical (ET).

c – Central, This means the central created the (ET) number due to the real-time (ET) being below the minimum (ET) allowed by the user.

RAIN / WIND

1. Select the **Rain / Wind** tab at the top of the screen.

Note: This will take you to the "**Rain / Wind** "screen (Figure 16.4.17A).

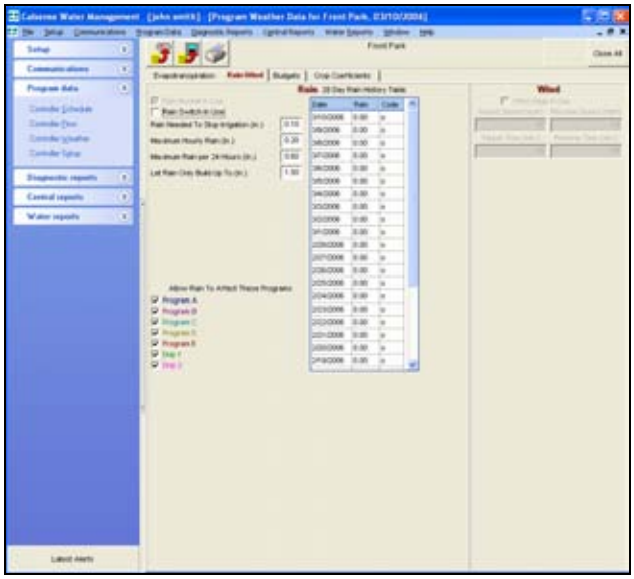


Figure 16.4.17A

Note: If a Rain Bucket (**-RB**) option is installed in this controller the **Rain Bucket In Use** box will be checked automatically (Figure 16.4.18A).

Figure 16.4.18A

2. If you are using a Rain Switch check the **Rain Switch In Use** box (Figure 16.4.19A).

Figure 16.4.19A

Rain Needed To Stop Irrigation (in.): This setting determines how much rain must fall, before the controller will start accumulating rainfall values in the rain table. It also determines when to halt any ongoing irrigation. In Figure 16.4.20A .10 inches of rain will have to fall before any rain data starts to accumulate in the rain table.

Maximum Hourly Rain (in.): This setting determines the maximum amount of rain that will be put in the rain table after a period of one hour of rain. In figure 16.4.20A a maximum of .20 inches of rain will be put into the rain table, no matter how much rain falls in a 1 hour period. The amount of rain from this setting, put into the rain table, will increase only until it reaches the next setting.

Maximum Rain per 24 Hours (in.): This setting determines the maximum amount of rain that will be put into the rain table in a 24 hour period. In figure 16.4.20A a maximum of .60 inches of rain will be put into the rain table, no matter how much rain falls in a 24 hour period. The amount of rain from this setting, put into the table, will increase only until it reaches the next setting.

Let Rain Only Build Up To (in.): This setting determines the maximum amount of rain that will be used in the rain table.

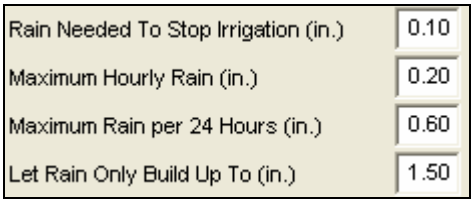


Figure 16.4.20A

3. In the "**Allow Rain To Affect These Programs**" section check the box next to each program that you want rain to factor into (Figure 16.4.21A).

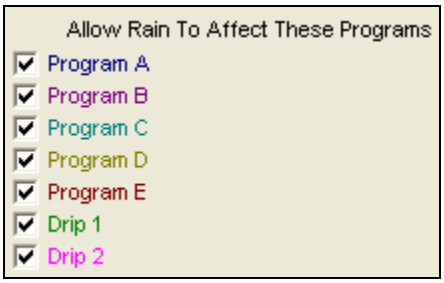
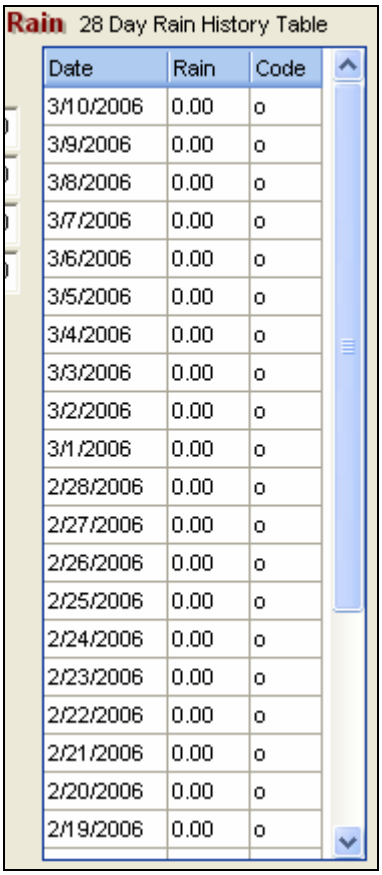


Figure 16.4.21A

Note: The "**28 Day Rain History Table**" shows the rain averages for the last 28 days consecutively (Figure 16.4.22A).



Date	Rain	Code
3/10/2006	0.00	o
3/9/2006	0.00	o
3/8/2006	0.00	o
3/7/2006	0.00	o
3/6/2006	0.00	o
3/5/2006	0.00	o
3/4/2006	0.00	o
3/3/2006	0.00	o
3/2/2006	0.00	o
3/1/2006	0.00	o
2/28/2006	0.00	o
2/27/2006	0.00	o
2/26/2006	0.00	o
2/25/2006	0.00	o
2/24/2006	0.00	o
2/23/2006	0.00	o
2/22/2006	0.00	o
2/21/2006	0.00	o
2/20/2006	0.00	o
2/19/2006	0.00	o

Figure 16.4.22A

RAIN TABLE CODE DEFINITIONS

o – Original, This value is zero (no usable rain) it has no effect on irrigation run times.

m – Below Minimum, The below minimum value is measured rain but not enough to offset irrigation run times or stop irrigation.

r – Usable Rain, This value is rain that is used to offset irrigation run times.

s – Shutdown, This means irrigation was stopped due to rain polling being shared with this controller.

p – Polling, This means weather sharing has either failed or has not occurred yet since polling shutdown occurred.

Note: If a Wind Gage (**-WG**) option is installed in this controller the **Wind Gage In Use** box will be checked automatically (Figure 16.4.23A).

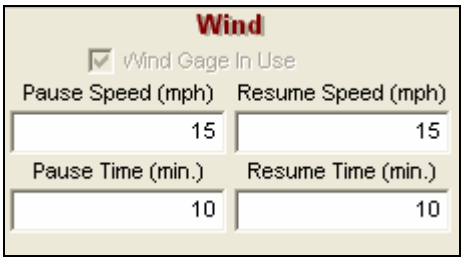


Figure 16.4.23A

4. You can change the settings for each box by clicking on them and entering the appropriate number.

Note: The settings in figure 16.4.23A are read as follows:
If the wind speed is 15 miles per hour for 10 minutes irrigation will pause.

When the wind speed is less than 15 miles per hour for 10 minutes irrigation will resume.

BUDGETS

1. Select the **Budgets** tab at the top of the screen.

Note: This will take you to the "**Budgets**" screen (Figure 16.4.24A).

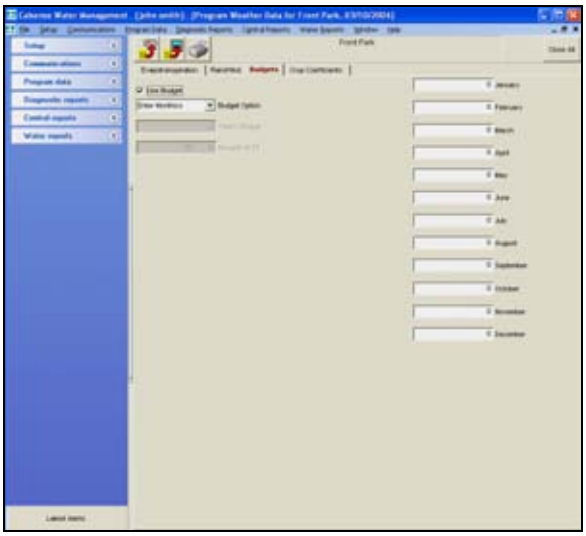


Figure 16.4.24A

Note: You will need to select a County, City, and enter your square footage numbers prior to selecting **Enter Yearly**, or **Enter % of ET**.

2. Click on the **Use Budgets** box if you want to use budgets (Figure 16.4.25A).

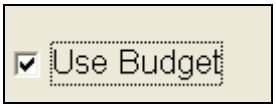


Figure 16.4.25A

3. Next use the drop down arrow next to the **Budget Option** box to select the type of budget desired (Figure 16.4.26A).

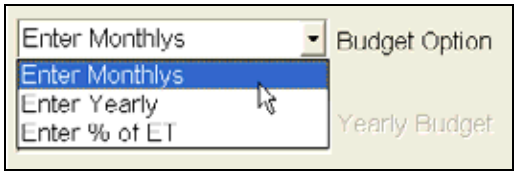


Figure 16.4.26A

Enter Monthlys: This option allows you to enter your own budget gallons per month (Figure 16.4.27A).

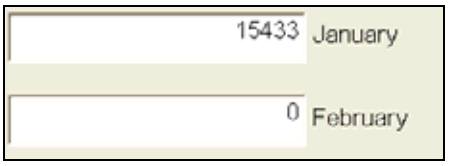


Figure 16.4.27A

Enter Yearly: This option allows you to set a budget number in gallons for the year (Figure 16.4.28A).

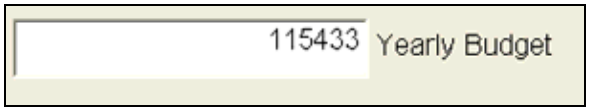


Figure 16.4.28A

Note: This will automatically calculate all of the month entries based on ET (Figure 16.4.29A).

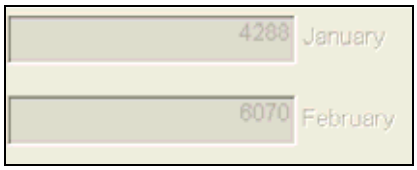


Figure 16.4.29A

Enter % of ET: This option allows you to set up a budget with your existing numbers multiplied by percent of ET. The numbers in the **Enter Yearly** and individual **Month** boxes will change automatically (Figure 16.4.30A).

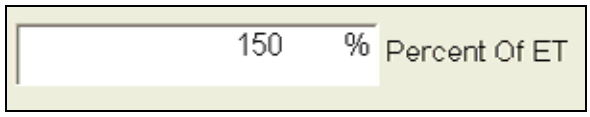


Figure 16.4.30A

CROP COEFFICIENTS

1. Select the **Crop Coefficients** tab at the top of the screen.

Note: This will take you to the "**Crop Coefficients**" screen (Figure 16.4.31A).

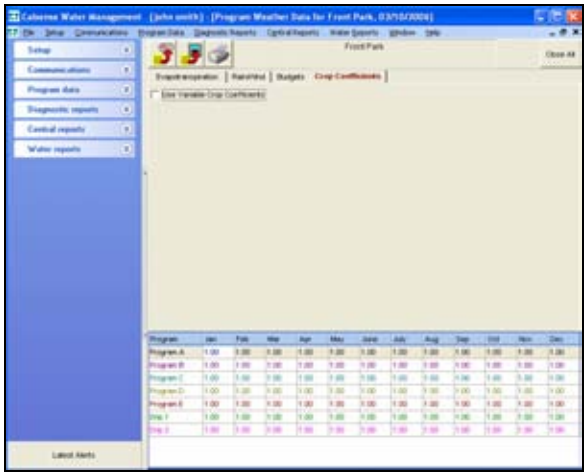


Figure 16.4.31A

2. Click on the **Use Variable Crop Coefficients** button to use Crop Coefficients (Figure 16.4.32A).

Figure 16.4.32A

Note: This will allow you to enter a multiplier number, by program, for each month allowing you to alter calculated run times (Figure 16.4.33A).

Program	Jan
Program A	1.50
Program B	1.00
Program C	1.00
Program D	1.00
Program E	1.00
Drip 1	1.00
Drip 2	1.00

Figure 16.4.33A

Example:

If your Calculated Run time for program "A" Station 1 is 20.0 minutes then for the month of January the run time would now be 30.0 minutes. (1.5 times 20.0 minutes).

16.5 ET1 CONTROLLER SETUP

Controller Setup: Controller Setup includes station in use, flow rate, covered area, precipitation, and descriptions.

1. In the toolbar at the top of the screen click on **Program Data** then scroll down to the words **Controller Setup** and click on it (Figure 16.5.1A).

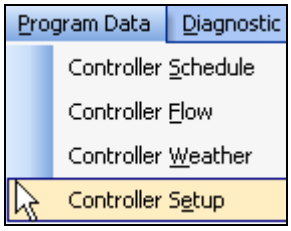


Figure 16.5.1A

Note: This will take you to the "**Controller Setup**" screen (Figure 16.5.2A).

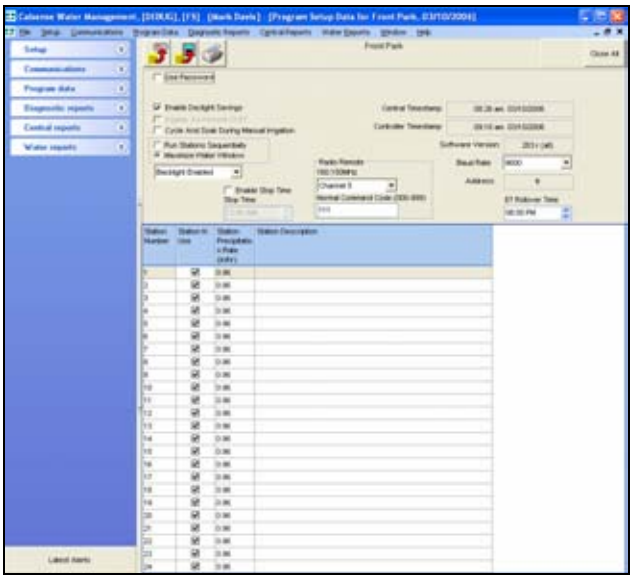


Figure 16.5.2A

2. If you want to use a password for this controller click on the **Use Password** box (Figure 16.5.4A).

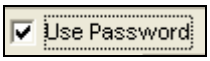


Figure 16.5.4A

Note: This will open up three drop down windows that you can choose a three key password from (Figure 16.5.5A).

Figure 16.5.5A

Note: Each drop down window has the 24 individual key pad words from the controller to choose from. Any combination of the 24 words in the three separate windows is acceptable.

Example:

In Figure 16.5.5A the password is now set at

NO WATER COPY SCHEDULE

3. Next check the **Enable Daylight Savings** box if you want the controller time to change along with daylight savings (Figure 16.5.6A).

Figure 16.5.6A

Central Timestamp: This was the computers time when you received the Program Data (Figure 16.5.7A).

Controller Timestamp: This was the controller's time when you received the Program Data (Figure 16.5.7A).

Figure 16.5.7A

Software Version: This is the current ROM version that the controller is running on (Figure 16.5.8A).

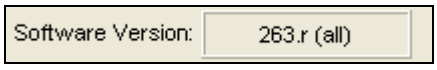


Figure 16.5.8A

Baud Rate: This is the rate at which the controller transfers data when communicating (Figure 16.5.9A).

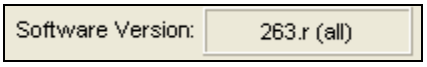


Figure 16.5.9A

Address: This is the current central communications address for this controller (Figure 16.5.10A).

Figure 16.5.10A

Note: The communications address can only be changed at the controller itself.

ET Roll Over Time: This is the time when your controller will roll the days ET gage number into the ET table. Set the time by using the **UP** and **DOWN** arrows or by clicking on the block and entering the time. All (ET) pulses recorded during the past 24 hours will be rolled over into the (ET) table (Figure 16.5.11A).

Note: Make sure that the (ET) roll over time occurs prior to the irrigation start times. This will ensure that your irrigation run time will be calculated using the most current ET data.

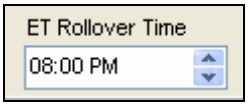


Figure 16.5.11A

Radio Remote: If you are using a Radio Remote select the channel from the drop down list that your hand held radios are tuned to (Figure 16.5.12A).

Note: The frequency will automatically appear directly below the words **Radio Remote** depending on which channel you select. There are nine channels to choose from (Figure 16.5.12A).

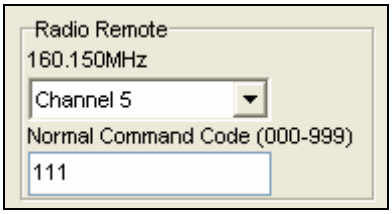


Figure 16.5.12A

Normal Command Code: This is the code that you have selected to communicate via Radio Remote to this particular controller. Enter a three digit number that is different for each of your individual controllers. This is used to "activate" the Radio Remote (Figure 16.5.13A).

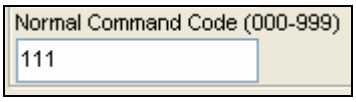


Figure 16.5.13A

Enable Stop Time: Check this box if you want to establish a stop time for all irrigation. Use the **UP** and **DOWN** arrows to adjust the time in the box (Figure 16.5.14A).

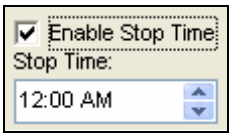


Figure 16.5.14A

Run Stations Sequentially: This will run the stations in order from lowest to highest numerically (Figure 16.5.15A).

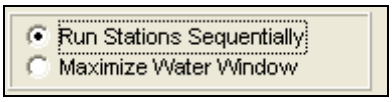


Figure 16.5.15A

Maximize Water Window: This will allow you to run the stations in an order that will fit as many stations as possible into your water window (Figure 16.5.16A).

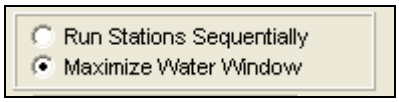


Figure 16.5.17A

Backlight Enabled: Selecting this option will turn on the backlight at the controller which will light up the screen whenever a key is pressed (Figure 16.5.18A).

Backlight Disabled: This selection will turn off the backlight option at the controller so that the screen stays unlit during key usage (Figure 16.5.18A).

Figure 16.5.18A

Station Number: This is the numerical sequence of stations and cannot be adjusted (Figure 16.5.19A).

Figure 16.5.19A

Station In Use: This allows you to select the stations that you currently have connected to the controller, or gives you the ability to temporarily include or exclude stations from your station listing (Figure 16.5.20A).

Station Number	Station In Use
1	☑
2	☑

Figure 16.5.20A

Station Flow Rate: This is the rate at which the station flows at in gallons per minute. The controller can learn this flow over approximately seven irrigations (Figure 16.5.21A).

Note: The following (Proceeded by a *) are only visible if you are using ET.

Station Number	Station In Use	Station Flow Rate (gpm)
1	☑	12
2	☑	1

Figure 16.5.21A

***Station Covered Area (sq.ft):** This is the amount of area that this station covers in square feet (Figure 16.5.22A).

Station Number	Station In Use	Station Flow Rate (gpm)	Station Covered Area (sq. ft.)
1	☑	12	100
2	☑	1	100

Figure 16.5.22A

***Station Precipitation Rate (in/hr):** This is the precipitation rate in inches per hour for this particular station (Figure 16.5.23A).

Station Number	Station In Use	Station Flow Rate (gpm)	Station Covered Area (sq. ft.)	Station Precipitation Rate (in/hr)
1	☑	12	100	11.55
2	☑	1	100	0.96

Figure 16.5.23A

Note: The precipitation rates for all types of sprinkler heads can be found in the manufacturers catalog.

Station Description: You can use this box to enter a brief description of where the station is located or what type of plant matter that it is irrigating (Figure 16.5.24A).

Station Number	Station In Use	Station Flow Rate (gpm)	Station Covered Area (sq. ft.)	Station Precipitation Rate (in/hr)	Station Description
1	☑	12	100	11.55	Shrubs next to parking lot
2	☑	25	200	12.03	South ball field

Figure 16.5.24A

16.6 ET1 CONTROLLER SCHEDULE SAVE PROGRAM DATA

Save Program Data: Saving Program Data will allow you to store the controller schedule that you are currently viewing. You only need to save if changes have been made. You can view this data by following the steps in section 16.1 "**ET Controller schedule.**"

1. Click on the **Save Program Data** icon located in the Toolbar at the top of the screen (Figure 16.6.1A).

Figure 16.6.1A

Note: No further action is required. Your Data is saved under Today's date.

16.7 ET1 CONTROLLER SCHEDULE SEND PROGRAM DATA

Note: It is quite easy to accidentally send ***old*** Program data to a controller. Make sure that the Program data that you intend to send to the controller of choice is in fact the Program data that you are currently looking at.

1. Click on the **Send Program Data** icon located in the toolbar at the top of the screen (Figure 16.7.1A).

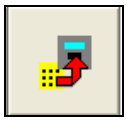


Figure 16.7.1A

Note: A "**Communications screen**" will appear letting you know that you are communicating with the controller of choice (Figure 16.7.2A).

Figure 16.7.2A

Note: After the communication has taken place the "**Communications Completed**" screen will appear (Figure 16.7.3A).

Figure 16.7.3A

2. Click on the **OK** button.

16.8 ET1 CONTROLLER SCHEDULE PRINT PROGRAM DATA

Print Program Data: You can print a copy of your entire Program Data for a selected controller.

1. Click on the **Print** icon located in the toolbar at the top of the screen (Figure 16.8.1A).

Figure 16.8.1A

Note: This will take you to the "**Controller Schedule Print**" screen (Figure 16.8.2A).

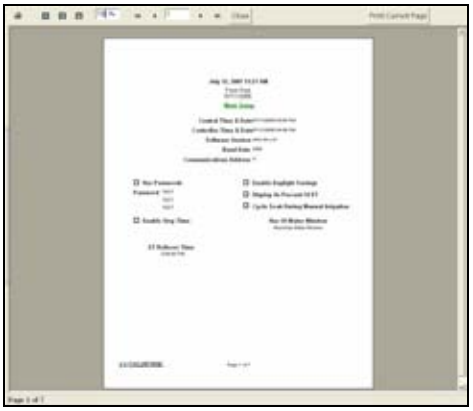


Figure 16.8.2A

SEE "HOW TO PRINT REPORTS" SECTION FOR MORE INFORMATION.

16.9 ET1 GET PROGRAM DATA

Get Program Data: The Get Program Data command is used to gather all of the programming information of the controller. The controller's program data is divided into four different categories, the Controllers Schedule, Controller Flow, Controller Weather, and Controller Setup.

1. In the toolbar at the top of the screen select **Communications** then scroll down to **Speed Communications** and click on it (Figure 16.9.1A).

Figure 16.9.1A

Note: This will take you to the "**Speed Communications**" screen (Figure 16.9.2A).

Note: When using Speed communications to call up a single controller the data will display after the communications has been completed. When communicating to a site or multiple controllers, the program data will not be displayed after the communications is completed.

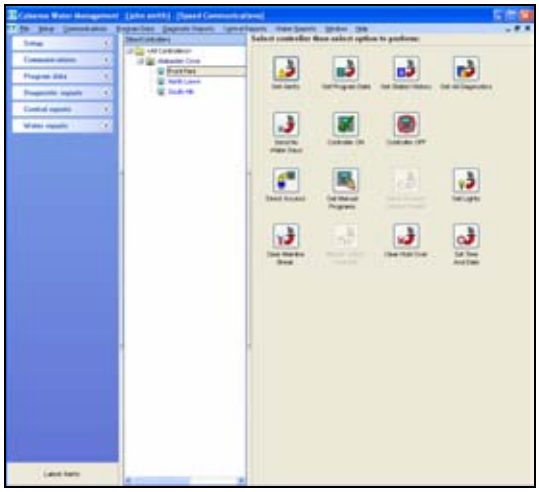


Figure 16.9.2A

2. Next click on the **Get Program Data** icon to the right of the screen (Figure 16.9.3A).

Figure 16.9.3A

Note: This will take you to the "**Program Data**" screens for this particular controller.

SEE SECTION 16.1 FOR MORE DETAILS

NOTES