

1. Begin configuration by touching the **MENU** button in the lower right hand corner of the screen. This will bring up the main menu bar. Touch the **PROG** button to enter into the main program menu.



2. Once in the main program menu use the up/down arrow keys to select **Points**, then touch **ENTER**.



3. **Prog point** and **Constants** will appear. Using the up/down arrow keys select **Prog point** and touch **ENTER**.



4. The numbers **1 – 9** and letters **A, B, C, D, E and F** represent the 15 channels that can be set up*. Touch the number or letter that represents the input or channel you wish to configure. For this example use number **1** and touch **ENTER**.

* Version 2.5f and Higher have up to 12 direct inputs plus 3 math channels for a total of 15.



5. If you are configuring the Data-Chart for the first time a menu having **Setup**, **Copy** and **Restore** will appear. If you are changing a point that you have already configured the menu will have **Modify pt** and **Delete pt**. Depending on which menu appears, use the up/down arrow keys to select **Setup** or **Modify** then touch **ENTER**.



6. The menu containing types of inputs should now be displayed. Use the up/down arrow keys to select **Linear** then touch **ENTER**.



7. The menu displaying types of linear inputs should now appear. For this example use the up/down arrow keys to select 4-20mA and touch **ENTER**.



8. The menu starting with **Point tag** will appear. Using the up/down arrow keys select **Point tag** and touch **ENTER**. An alphanumeric keypad will be displayed. This is where you enter a word or phrase (up to 10 characters*) that describes this particular point. For this example enter the word **EFFLUENT** and touch **ENTER**.

* Only 6 characters will be displayed in certain Views although all ten will be recorded and can be displayed in Companion.



9. The menu starting with **Point tag** will appear again. Using the up/down arrow keys select **Output scale** and touch **ENTER**.



10. A menu prompting you **places?** will appear. Use the up/down arrow keys to select the number of decimal places you wish to be displayed and recorded. For this example select **0** and touch **ENTER**.



11. A numeric keypad will now be displayed prompting you with **lo**→. Here is where you enter the low end of your range or the equivalent value for 4 mA. For this example (0 to 150 gpm) select **0** and touch **ENTER**.



12. You will now be prompted with **hi**→. Here is where you enter the high end of your range of the equivalent value for 20mA. For this example select 150 and touch **ENTER**.



13. Using the up/down arrow keys select **Eng units** and touch **ENTER**. An alpha-numeric keypad will appear prompting you **units**→. You can enter up to 5 characters. Using the **PAGE**, **PAGBK** and **SHIFT** keys if needed, select the desired engineering units. For this application enter **GPM** and touch **ENTER**.



14. You should now be back at the menu beginning with **Point tag**. Using the up/down arrow keys select **Alarms** and touch **ENTER**.



15. Using the up/down arrow keys select **Alm limits** and touch **ENTER**.



16. You will be prompted with **alarm #?** Each point has 5 internal alarm set points. You can use the up/down arrow keys to scroll select 1, 2, 3, 4, or 5. Since this is the first alarm set point for channel one, select **1** and touch **ENTER**.



17. The alarm types menu will now be displayed. Using the up/down arrow keys you can select the type of alarm you wish to configure. For this example we want to know when the flow exceeds 120 gpm. Select **Type=high** and touch **ENTER**



18. A numeric keypad will now be displayed prompting you with **high→**. Select **120** and touch **ENTER**.



19. You will next be prompted **contact #?** If your recorder is fitted with alarm contact outputs you can select which contact will change state when the internal high alarm activates. Using the up/down arrows you can select 0, 1, 2, 3, 4, 5 or 6. For this example select 2 and touch **ENTER**.

Note: This menu will display whether you have relays or not. If you do not have relays or do not wish to activate a relay select **0** (0 is the default setting).



20. You will now be back at the menu beginning with **Point tag**. Using the up/down arrow keys select **Chart scale** and touch **ENTER**. Using the up/down arrows you can select A, B, C, D, E, F, G or H. For this example select **A** and touch **ENTER**



21. You have completed configuration of this point and will be prompted with **keep setup?** Touch **ENTER** to permanently save these changes.



22. You should now be back at the main program menu. Using the up/down arrow keys select **Chart/Pens** and touch **ENTER**



23. You will now be in the Chart/Pens menu beginning with **Speed**. Using the up/down arrow keys select **Scales** and touch **Enter**.



24. You will now be prompted with **Scale?** Using the up/down arrow keys you can select scales **1A** through **2H**. For this example select **1A** and touch **ENTER**.



25. You will now be prompted with **places?** Here you can select the number of decimal places that will be displayed on the virtual chart display. For this example use the up/down arrow keys to select **0** and touch **ENTER**.



26. You will be prompted with **lo** → Enter the low value of your scale. For this example (0 to 150 gpm) select 0 and touch **ENTER**.

NOTE: You do not necessarily have to use the same scale values that you selected in the point setup (0 to 150) you could display a smaller portion of your full span, 90 to 150, for instance.



27. You will now be prompted with **mid** → Here you can select the value that will be displayed at 50% of your span. For this example select **75** (which is 50% of our full span, 150) and touch **ENTER**.

NOTE: You do not necessarily have to enter the exact half way point of your span. You could enter 30 for instance, where 30 would be exactly half way between 0 and 150. This would give you a high resolution side (0 to 30 gpm) and a lower resolution side 30 to 150.



28. Finally, you will be prompted with **hi** → Here you enter the high end of your span. For this example select **150** and touch **ENTER** then EXIT to get completely out of the programming menus.



29. The display to the right shows the results of our efforts. As you can see the scale displayed is linear from 0 to 150 GPM and the Point tag is EFFLUENT. You will also notice that our high alarm set point is marked at 120 with an arrow ↓.



30. The photo to the right shows the proper connectivity for a 4-20mA signal. To reduce ambient noise a properly shielded cable should be used.

NOTE: The 3600 and 4600 require that a 50 ohm precision resistor be placed across the + and - terminals in parallel with the input signal wires. The DC3000 has an internal resistor which can be switched into place using the corresponding DIP switches on the right of the input terminals.

