



PROGRAM KEY

The Program Key is an electronic card which allows transfer of the program from the key to the pCO² controller and vice-versa. The Key contains a two position switch, a LED on the top of the key, and a connector to place the key on the memory card to transfer the program. The following step by step directions are for downloading a program.

DOWNLOADING A PROGRAM

Downloading a program is taking a program from the key and putting it on the pCO² controller. Each controller must have the new program installed for the chiller to perform properly. To download the program to the controllers, a remote display and a program key are needed.

1. Record all *SYSTEM VARIABLES* from the current program.
2. Command the chiller **off**.
3. Unplug the pLan connections from **all** controllers at the J11 port.
4. Set the Manual/Off/Auto switch in **all** modules to **off**.
5. In the module to be programmed, turn **off** the power to the controller at CB5, the 6 amp, single pole circuit breaker (see wiring diagram for further identification).
6. Set the dipswitches to **off** on the controller being programmed.
7. Remove the “Expansion Memory” cover with a small screwdriver.
8. Set the switch on the Program Key to the “key to pCO” position. 
9. Insert the key connector onto the memory card inside the “Expansion Memory” port.
10. Connect the remote display to the J10 port. Prior to connecting the display, make sure the dipswitches are in the off position on the remote display.
11. Press simultaneously the **UP** and **DOWN** arrow buttons located beside the **ENTER** button on the remote display, while cycling the power on to the controller at CB5.
12. Check the color of the LED on the Program Key; it should be **red** at this time. If the LED is green, cycle power off; carefully remove the Program Key and position the switch to the “key to pCO” position.  Then repeat steps 9 through 12.
13. Continue holding the buttons until confirmation of copying the program appears on the display. There should be 2 long beeps before the confirmation screen appears.
14. Release the buttons and confirm to copy the program by pressing the **ENTER** button.
15. The display will run through a series of numbers and letters and then return to a self test screen.
16. When the self test screen is reached, cycle the power off at CB5.
17. Remove the remote display from the J10 port.
18. Carefully remove the Program Key.
19. Replace the “Expansion Memory” port cover.
20. Return the dipswitches for that controller to their original positions.
21. Cycle the power on at CB5.
22. Repeat steps 5 through 21 for all remaining controllers.
23. After all controllers have been programmed, plug in the pLan connections of **all** controllers at the J11 port.
24. Cycle the power off at CB5, of the master controller module only, for 5 seconds.
25. Cycle the power on at CB5.
- ★ 26. While on the 12 second delay screen of the program, simultaneously press the **PRG** and **UP** arrow buttons, and hold until the backlight dims, then release. Then simultaneously press the **DOWN** arrow and **ALARM** buttons. This resets the program to all default values.
27. Reset the *SYSTEM VARIABLES* to the values recorded before downloading the new program.
28. Set the Manual/Off/Auto switch in all modules to **Auto**.
29. The chiller is now ready to be commanded **on** again.

NOTE: If absolutely necessary, the modules not being programmed can be run in *Manual Mode*, by switching the Manual/Off/Auto switch into **Manual** instead of **Off**. Please keep in mind that there is **NO FLOW PROTECTION** or **POWER PHASE PROTECTION** in *Manual Mode*. The Manual/Off/Auto switch should be switched to **off**, when programming that module.