

Programming the iVAC Pro System

There are two types of addressing in the iVAC Pro System: the System Address (SA) and the Tool Address (TA). They have different purposes.

The SA is controlled by programming switches 1 and 2 in every iVAC Pro component - switches, tool sensors, blast gates and remotes. There are 4 possible settings for these 2 switches which means they can code 4 system addresses. This allows for 4 separate iVAC Pro Systems in the same shop that do not interfere with each other. You can control up to 4 separate dust collectors in the same shop. For all the iVAC components in a single system controlling a single dust collector they all must have the same SA. The factory setting for programming switches 1 and 2 is always OFF which we refer to as system address A. You can leave switches 1 and 2 set to OFF in all your iVAC components as long as there are no other iVAC Pro Systems within about 150 feet of yours set to the same SA.

The TA is controlled by programming switches 4, 5 and 6 in the Pro Tool Plus and in the blast gates. In the Pro Remote the TA is set using programming switches 3, 4 and 5. I don't know why it was done this way but it can cause problems every now and then if you are not paying attention when you set the TA in the Pro Remote. Fortunately these are usually easily resolved.

Three programming switches allow for 8 possible different combinations resulting in 8 possible TAs. For a blast gate to respond to commands from a Pro Tool Plus or Pro Remote, the Tool Plus and blast gate (or the Remote and blast gate) must have the same TA (and SA). You will have to change the Tool Addresses in some of your iVAC components to make the system work properly.

There is no TA to be set in the Pro Switch. The Pro Switch accepts all tool addresses.

There are charts in every iVAC User Guide that show how to set the programming switches in that component to achieve the possible choices for the functions controlled by the switches.

Here is how I suggest you proceed.

1. Lay out all your iVAC components on a bench or table with power available. Pair Pro Tool Plus sensors and blast gates or Pro Remotes and blast gates that you want to work together.
2. Check that programming switches 1 and 2 are set the same way in every iVAC component. You may need a flashlight and magnifying glass to see the switches clearly. The frame around every set of switches will have the switch numbers on it and the word ON or an arrow on the end of the package. When the switches are moved in the direction of the arrow or toward the word ON they are in the ON position.
3. Decide on which TA you will use for each Tool Plus & blast gate or Pro Remote & blast gate pair. Create a chart (or use the one in the ivacswitch.com Tech Corner called "iVAC System Record") and use it to record your choices and how you set the switches to achieve those choices. This chart can be very valuable when troubleshooting your system, when you add more iVAC components or move or rearrange your shop.

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4. Set the programming switches in each component. I suggest you set programming switches 5 & 6 in the Pro Switch to ON to select the zero turn on and turn off delay times to make testing much easier. (If you have a Pro Switch with the MRT option, set switches 5 & 6 to OFF to select the test mode. The test mode provides the shortest minimum run time and turn off delay time.) Then plug all the components into power. If you have a 115 volt Pro Switch you can use a table lamp to simulate the dust collector (it's much quieter and much easier on your dust collector). If you have a 240 volt Pro Switch you will have to use a voltmeter or non-contact voltage checker to tell that the switch has turned on power to the outlet. The rest of these instructions assume that you are using a lamp as a dummy dust collector.
5. Turn the mode switch on the front of the Pro Switch to ON to make sure the lamp comes on, then to OFF to make sure the lamp goes off. Finally put the mode switch in the Auto position.
6. Set programming switch 3 in every blast gate to ON to select the 2 second close delay time. This makes testing easier and much faster.
7. Move the mode switch on each blast gate between Open and Close to make sure the blast gate is working. Then set the mode switch to the Auto position.
8. Moving the mode switch on the Pro Tool Plus to On and Off sends the commands. You can see the red light flashing when it does this. This allows you to check every Tool Plus and Blast Gate pair without having to set the Tool Plus up on your machines and turn the machines on and off. Check that every Tool Plus will open and close its paired blast gate (with the same TA and SA) and that they all turn the Pro Switch on and light up the lamp. Operate them at random and have more than one "machine" on at a time. Check that each blast gate and the Pro Switch respond as expected. Check the Pro Remote too.
9. When everything is working the way you want it, use the labels that came with the Pro Switch to identify each iVAC component with its SA and TA.
10. Set programming switch 3 in each blast gate to the close delay time you want for that blast gate. Set programming switches 5 & 6 in the Pro Switch to select the turn off delay time you want.

Now you can begin to install the iVAC system in your dust collection system and it should work there as it did on your bench.

Here are a few tips.

1. The Pro Remote is factory pre set to a different tool address than the gates. Choose the factory preset for the Pro Remote so you don't have to open it (remove screws) to change it.
2. You can leave one Tool Plus / Blast Gate pair at the factory setting but you will have to change the others.
3. The blast gate with TA = 1 has special properties. Look this up in the Blast Gate User Guide. If you have questions, call iVAC Technical Support for help.
4. When changing the TA in a Pro Tool Plus, set the mode switch to OFF. If you don't and the Tool Plus is powered the TA will not change. If you forget, just move the mode switch to OFF and then back to either ON or Auto and the TA will change to the new setting.

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5. After you press the ON button on the Pro Remote, you must wait at least 5 seconds before pressing the OFF button. If you do not wait, the OFF button press will be ignored and the OFF command will not be sent. If you pressed the OFF button too soon, wait another 5 seconds before trying again.
6. Remember that in the Pro Remote the TA is set with programming switches 3, 4 & 5, not 4, 5 & 6 as in the other iVAC components.