

## HOW TO PROGRAM A DSC SYSTEM A TUTORIAL

Our goal is to show you how to enter values into the DSC operating system, not to tell you what those values should be (although we will include some examples of values that you may wish to program).

We previously based the instructions on a Power 832/PC 5010, and although the new line of DSC panels is programmed in the same way, there are a few differences. Please note that if you have a system that pre-dates the "Power Series," you will find significant differences from the values discussed here (two-digit section numbers, for example). However, the same programming methods can be applied to any DSC system. If you have a 5500 keypad, (either the old LCD5500 or the new PK or RFK5500) so much the better, but none of the programming techniques that will be discussed here are keypad-dependent, and programming can be accomplished with any keypad.

Very important: Before you even attempt to begin programming, you should have a programming worksheet in front of you. With the old systems, the worksheet was a separate document for the 832 and 864, but was contained in the installation manual for the 632. For the new systems, you will want the Power Series Installation Guide, also referred to as the Installation Manual (not the Quick Install). This document has the Programming Worksheet in the back. (You should probably avoid the new Power Series Programming Guide, a blue-and-white monstrosity that lists all the programming fields using a font that is approximately the size of an amoeba.) Ideally, before you begin programming you'll have the worksheet filled out with the values you wish to use, but even if you don't, the worksheet is an indispensable roadmap that will guide you through the process. It also contains the default values for all the programming fields.

### UNDERSTANDING CODES

Although the term "Master Code" sounds impressive, the master code is simply an access code which gives the system owner a little bit more control over the system than he/she would have with an ordinary access code. In order to program the system, however, you'll need to use what is known as the "Installer Code." For the old Power 832/PC 5010, the default Installer's Code is 5010. But for the old 632, 864, and ALL the new panels, the default Installer Code is 5555. You can always find the code in the instruction manual or in the programming worksheet. For maximum security, it's also recommended that you change the installer's code to one of your own choosing (but different from the master code). However, to avoid confusion, it's wise to leave the installer code alone until everything has been programmed, tested, and is working properly.

### LET'S BEGIN

In order to program your system, you must enter what is known as "Installer's Programming". The command for this is \*8; this is followed by the Installer's Code. So to begin programming you'll enter:  
**\*8**

#### **Installer Code (default is 5555 or 555555)**

The program light will flash, and the red light will turn on. This means you are in Installer's Programming, and the system is waiting for you to tell it which section you want to program.

It is DSC practice to discuss "keypad programming" as the first order of business in the manuals.

But unless you are dividing your system into two or more partitions (and if you have to ask what that means, then trust me, you are not using partitions), then it is not essential for you to do keypad programming at this time (or perhaps ever). We can talk about it later, but for right now, it's quite likely to get you into hot water. So let's get to the good stuff.

Basic System Programming begins with zone definitions. Since the definitions themselves are explained at length in the manuals, I won't bother to go through that here. So let's say you want to define your Zone No. 1 as an instant zone (which means if that zone is tripped while armed, the system will immediately alarm without any warning). The zone definition for instant is 03. The worksheet tells you that the definitions for zones 1 through 8 are programmed in section 001 (the new series of panels contains zones 1 through 16). So you'll enter

**001** (to enter that section). The ☐ rmedlight will turn off; the ☐ eadylight will turn on. Then enter:

**03** (the definition for zone 1)

# (to exit section 001)

# (to exit programming completely)

So the entire sequence is:

\*8

**Installer ☐ Code**

**001**

**03**

##

There! You've just programmed zone 1 as an instant zone. Now let's go further. Let's define zone 1 as Instant (03), zone 2 as Delay 1 (01), zone 3 as Delay, stay/away (06), zone 4 as Standard 24-hour fire (08), and zones 5, 6, 7, and 8 as ☐ ullzones (00), which you won't be using for now. Here goes:

(by switching the 03 and 01 around in the example below you would make zone 1 delayed and zone 2 instant)

\*8

**Installer ☐ Code**

**001** (the section number)

**03** (Instant for zone 1)

**01** (Delay1 for zone 2)

**06** (Delay, stay/away for zone 3)

**08** (Standard 24-hour fire for zone 4)

**00** (null for zone 5)

**00** (null for zone 6)

**00** (null for zone 7)

**00** (null for zone 8)

##

Now you've defined all eight zones. Please note that you must start with zone 1 and proceed in order with the other zones. There is no way, for example, to just start with zone 5. Notice also that **we did NOT enter the zone numbers, just the definitions**. The system knows that the first two digits you enter in section 001 will be the definition for zone 1, the next two digits will define zone 2, etc.

Remember, the worksheet shows you the default, or factory, setting for every value. If you're happy with the way it is, you don't need to change it, but you still need to enter all the zones in order. You should also know that the zone definitions used in our example are not conventional and were chosen for illustrative purposes only. Your zone definitions will be based on the way you want your zones to function in your system. And one more thing: you can exit the section at any time by hitting the # key. In other words, if you aren't going to enter any more definitions after you've finished zone 5, for example, you don't need to enter zones 6, 7, and 8. Just press # and you're outta there!

**MOVING ON**

When you finished programming section 001, you pressed ##. The first # got you out of section 001, and the second # got you out of programming altogether. If you want to continue programming when you finish a section, just use one #, and you can go on to another section. Let's do section 005 (System Times).

Here there is a small difference between the old and new systems. The new panels allow different timing for each partition, so you must tell the system which partition you are setting up. So, if you are programming a 1616/1832/1864, choose section 005 and enter a two digit number representing the partition; for our purposes, we ☐ I assume it ☐ Partition 1 (the only one you are using). Then proceed to the next paragraph. If you are programming one of the old panels, then ignore my previous sentence.

As you see on the worksheet, there are four system times to be programmed: entry delay 1, entry delay 2, exit delay, and bell cut-off. Let's say you are happy with the default values for the last three items, but you want delay 1 to be longer (say 60 seconds). Begin Installer ☐ Programming, then enter 005 to program the System Times. Since entry delay 1 is the first item in that section, enter 060 (for 60 seconds), then # to exit that section with the other three values unchanged. What if you were satisfied with the default values for entry delay 1 and 2, but you wanted to change the exit delay from 120 to 60 seconds? After entering 005 to go into that section, you have to first enter 030 for entry delay 1, then 045 for entry delay 2 (those are the default values). Only then could you enter the 060 for exit delay, followed by # to exit. So even though you didn't change the first two items, you still had to enter them before you could get to the third item, just as you did in defining the zones.

How about an example? New system, leaving Delay1 at default of 30 seconds, change Delay2 to 60 seconds, change the Exit Delay to 90 seconds. Here ☐ how:

**\*8**

**Installer ☐ Code**

**005** (the programming section)

**01** (the partition) SKIP THIS ENTRY FOR THE OLD SYSTEMS

**030** (30 seconds for Delay1)

**060** (60 seconds for Delay2)

**090** (90 seconds for the Exit Delay)

**##** (Exit Programming)

## OTHER PROGRAMMING

By now, you should be getting the hang of this "programming" thing. There is one other type of entry that you need to understand. Look at section 013 in the worksheet. This section contains the First System Option Code. There are eight items in this section and each item can be toggled on or off by pressing its number. Zone numbers 1 through 8 on the keypad display show the current settings for these options. By default, options 1, 2, 4, 5, and 8 are off. Options 3, 6, and 7 are on. If you look at the keypad, only numbers 3, 6, and 7 are on. Let's say you want to use normally closed loops instead of End-Of-Line resistors. You would want to turn option 1 on, so you would enter 013 to get into that section, then press 1 to toggle option 1 on (the number 1 will turn on). You can toggle any of the 8 options on or off by simply pressing the corresponding number. This applies to any of the sections where you must turn options on or off, rather than entering values.

When ☐ keypad Programming was mentioned earlier, you were told that you could, and probably should,

skip it at the beginning (and perhaps forever). Here □ why: keypad programming includes the following items:

- Partition and slot assignment
- Function key definitions
- Zone labels for 5500 keypads

When keypads are installed they assume a default partition and slot assignment. They all default to Partition 1, and unless you are going to divide your system into multiple partitions, that is exactly where you want them (you can □ have zero partitions). As for the slot (a software address that identifies the keypad to the system), LED and 5501 keypads automatically default to slot 1, and 5500 keypads to slot 8. So if you have only one keypad, or one 5500 and one non-5500, the job is done as soon as you power up. If you have more than one keypad of the same kind, you may need to assign them to different slots. This will be the case if you are using the zone terminal on one or more of the keypads (keypad zones), or if you want the keypads to be supervised by the system.

Function keys, likewise, are already programmed by default as □ tay, □ way, □ hime, □ eset, and □ xit. Unless you have a specific need for a different function, you needn □ touch that programming.

If you do have a 5500 keypad, you will certainly want to program labels for the zones, and that is the final part of keypad programming.

So the bottom line is this: in most typical residential installations, the keypad programming (except for zone labels) is done automatically. If you aren □ using any keypad zones, there is probably no reason for you to bother with the partition/slot assignment. On the other hand, if you elect to do the keypad programming and aren □ very careful making your entries, you could accidentally assign the keypad in a way that will cause you considerable frustration (see [“Why is my keypad dead?”](#)).

## CONCLUSION

There are a few other items you may want to program. For example, changing the installer's code (which we discussed earlier) is accomplished in section 006. If your system is not going to be monitored, you should disable TLM (telephone line monitor) in section 015, option 7. If your system is going to be monitored, the central station will no doubt walk you through the values that you have to enter to make it work. But the purpose of this tutorial was to show you how to program, not what to program. You still have to make the decisions about what you want your system to do and how you want it to act. But once those decisions are made, you should have an easier time implementing them.

## Other things to program

### Set date and time

\*6 1234 1 HHMM MMDDYY ## (1234 is the default USER code, use your user code if you have already given yourself one)

### Disable phone line. (if not being used)

\*8 5555 015 7 ## (5555 is the default master code, use your master installer code if you have changed it.)

### Turn off Dialer (communicator)

\*8 5555 380 1 ##

### **How to get system to dial your cell phone** (Not tested yet)

ENTER \* 8 5555 302 PHONENUMBER \* 5 5 5 \* # (where 5555 is the master installer code)

PRESS 310 1234 # (where 1234 is your user code)

PRESS 320 11 12 13 14 15 16 17 18 #

PRESS 350 05 05 # (not sure if you need a # here)

PRESS 351 1 2 ##

### **Hardware Reset** (Default) Main Control Panel (just in case you mess it up)

Perform the following to default the main control panel to its original programming:

1. Power down the system completely. (Disconnect battery and AC power)
2. Remove all wires from Zone 1 and PGM1. (Please note which wires go where so you can put them back later. ) Connect a short between Zone 1 and PGM1 on the control panel .
3. Power up the control panel (AC power only) for 10 full seconds.
4. Power down the control panel, remove short between Zone 1 and PGM1. (Put wires back where they came from)
5. Power up the control panel.
6. Don't forget to plug the battery back in.

The above will not work if your panel was locked out by an installer.