Operating Instructions

S&G® Z03 D-Drive™ Dual-User Electronic Safe Lock

2005 Series

The S&G© X03 D-Drive™ lock combines ease of operation with security and flexibility. Its advanced electronic circuit design makes it easy to open and easy to change codes. Follow these instructions to get the best possible performance.

Introduction

- This S&G© X03 D-Drive™ lock is shipped from the factory in dual control mode with a **factory master code** of 1 2 3 4 5 6 # and a **factory user code** of 2 2 2 2 2 2 #. These codes must be used together to open the lock and set or change codes. You should set the lock to your own, unique **master code** and **user code** immediately.
- At your discretion, the lock can be set to accept a **supervisor code**, up to seven different **user codes,** and a **time delay override code**. The **master code** holder and the **supervisor code** holder (if a **supervisor code** is set) are responsible for maintaining the number of active users programmed into each lock. The **master code** holder and the **supervisor code** holder can create and delete user codes, but only with the assistance of a **user code** holder.
- The **master code** is designated as code #0. The **supervisor code** (if set) is designated as code #1. The **user codes** (if set) are designated by user position numbers 2, 3, 4, 5, 6, 7, and 8. The **time delay override code** (if set) is designated as code #9.
- Each time a button is pressed, the lock acknowledges it by sounding a "beep," and the LED on the keypad will light momentarily at the same time. If it does not, check your battery (or batteries) to make sure it is fresh and connected properly, then try again.
- All codes must contain six digits or six letters. Any digit or letter can be used as many times as you wish. For instance, the following codes (while not recommended) will operate the lock: 5 5 5 5 5 5 # OR J J J J J J #



- All codes end with #. This signals the lock that you have finished entering all digits of the code.
- If you pause more than 10 seconds between button presses when entering a code, the lock will assume you do not want to continue, and it will reset itself to the original code. To open the lock, begin the code entry sequence once again from the first step.
- If you realize you have pressed an incorrect button when entering a code, press ✻ or simply pause ten seconds or more, then begin entering your code again.
- If five incorrect codes are entered in a row, the S&G© X03 D-Drive™ lock will shut down for a period of ten minutes. This is a security feature. Entering a code during this period will result in two long error tones (braps). Pressing any buttons during the lockout period will not affect the penalty timer. After ten minutes, the lock should operate normally.

  The lock can also go into the lockout period during programming if it interprets an incorrect programming sequence as five or more consecutive incorrect code entries. If the lock emits two long error tones (braps) during repeated programming attempts, it is in lockout mode. Wait ten minutes, then try again.
- Personal data which can be directly related to a code holder, such as a birthdate, should not be used in making up a lock code. Avoid codes which can be easily guessed.
- After the lock is changed to a new code, the lock function must checked by locking and unlocking it several times with the container door open. Make sure it functions correctly before closing the door.

Note: This lock has been Listed by Underwriters Laboratories for use with the following S&G keypad(s): 6130-2XX and 6130-3XX

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To Open the Lock

Make sure the keypad is turned counterclockwise to stop. Press the code digits or letters in order, followed by **#**. The lock will beep four times. Within one minute enter another, different valid lock code followed by #. Then, within six seconds, turn the keypad clockwise about 70 degrees, until it comes to a positive stop. **Do not put any pressure on the safe handle until after the keypad has been turned.** To re-lock the S&G© X03 D-Drive™, turn the keypad back counterclockwise to stop.

Note: The Master Code Holder is responsible for maintaining the number of active users programmed into each lock.

In Case of Trouble

If your lock should fail to open when a valid code is entered, check for the following:

1. The boltwork of a safe can, under certain conditions, place pressure on the side of the lock's bolt. This is often caused by something inside the safe pressing against the door or by something caught between the safe door and its frame. When this occurs, the lock will not operate properly. To relieve side pressure on the lock bolt, move the safe's handle to the fully locked position, make sure the keypad is turned counterclockwise to stop, then re-enter a working code. The lock should open.
2. If the lock "chirps" when keys are pressed, but it will not open, the batteries may be drained to the point that they will not operate the lock's solenoid. Follow the battery replacement procedure in this manual.
3. If the lock makes no sound when any of the keys are pressed, dead batteries are likely to be the cause. Follow the battery replacement procedure in this manual.
4. Your lock may be in penalty mode. If the lock interprets your button presses as five or more incorrect codes in a row, it will lock you out for ten minutes. During this period, the lock will ignore any keypad inputs. At the end of ten minutes, enter a valid code to open the lock.

If all of the preceding remedies have been exhausted and the lock still does not open, contact a qualified safe technician in your area for professional service.

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Opening the Lock

➥With No Time Delay

Two different codes are required to open the lock. The two codes must be entered within one minute of each other. Following is an example of how to open the lock using the original factory set **master code** of 1 2 3 4 5 6 and the factory set **user code** of 2 2 2 2 2 2. After entry of the first code, the lock emits a series of four beeps, designated by the symbol ♪ in our example.

Enter **1 2 3 4 5 6 #** ♪ **2 2 2 2 2 2 #**

Then, within six seconds, turn the keypad clockwise about 70 degrees, until it comes to a positive stop. Do not put any pressure on the safe handle until after the keypad has been turned. To re-lock the S&G© D-Drive™, turn the keypad back counterclockwise to stop. When the mechanism re-locks, it will emit a double beep consisting of a low tone followed by a slightly higher tone. If you do not hear the double beep, the mechanism is not properly locked.

➥With Time Delay Active

Time delay enforces a waiting period between entry of the first code and opening of the safe. This feature is a proven deterrent to armed robbery. Any valid lock code can be used to start the time delay. When this code is entered, the lock beeps three times and begins counting down the delay period. The lock will beep once every ten seconds during the delay period. At the end of the delay period, the lock will beep ten times rapidly. Enter a valid code for the lock. It may be the same code you used to start the time delay, or it may be a different code. The lock will beep four times. Now enter another valid code for the lock. After the second code is entered, the lock will release for six seconds, allowing the safe to be opened.

➥With Duress Active

Duress , sometimes referred to as “silent alarm,” is a feature that causes an alarm signal to be sent when a code is entered. This capability must be enabled in the lock, and an optional duress module must be added to the lock and connected to an existing alarm system for this feature to work.

A **duress code** (one which triggers the alarm signal) is simply any valid lock code with 1 added to the last digit. For instance, if the factory set **user code** is **2 2 2 2 2 2**, the duress version of this code is **2 2 2 2 2 3**. This code is valid for operating the lock and simultaneously triggering the duress alarm signal.

If a time delay is programmed into the lock, a **duress code** can be used to start the time delay, for one or both of the opening codes at the end of the time delay, or for all three codes. The silent alarm signal will be sent each time a **duress code** is entered.

➥Using a Time Delay Override Code

This lock is capable of using a **time delay override code** if it was originally ordered with this feature, and if the TDO (time delay override) feature is enabled. As the name implies, the **time delay override code** can be used to open the lock without waiting for the time delay period to expire. This is useful for armored car cash pickups. The **TDO code** only works when your lock uses a time delay.

To use the **TDO code**, start the lock’s time delay by entering any valid code other than the **TDO code**. Then, within one minute, enter the **TDO code**. The lock will open immediately. The following example uses the factory set user code (2 2 2 2 2 2) to start the time delay, then a **TDO code** of 9 8 7 6 5 4 is used to open the lock without waiting for the time delay period to expire.

Enter **2 2 2 2 2 2 #** ♪ **9 8 7 6 5 4 #**

➥Useful Operating Information

The lock will emit a long error tone if an incorrect or incomplete code is entered. If five or more incorrect codes are entered in a row, the lock will go into a ten-minute lockout period. If you attempt to enter a code during this lockout period, two long error tones will be heard. Simply wait ten minutes, then attempt to operate the lock again. The lockout period cannot be bypassed. You must wait for it to time out.

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Changing, Creating, Deleting Codes

➥Changing Your Own Code

Any code holder can change his own code. The process is:

2 2 ✻ OLD CODE #♪♪♪♪♪ NEW CODE #♪♪♪ NEW CODE #♪♪♪

For example, changing the factory **user code** of 2 2 2 2 2 2 to a new code of 2 4 6 8 3 3 would be accomplished as follows:

2 2 ✻ 2 2 2 2 2 2 #♪♪♪♪♪ 2 4 6 8 3 3 #♪♪♪ 2 4 6 8 3 3 #♪♪♪

➥Creating a New Code

The holder of the **master code** (position 0) can work with the holder of any **user code** (positions 2 through 8) to create new codes and delete existing codes. It can also be used in conjunction with a valid **user code** for setting or deleting a **time delay override code**.

The holder of the **supervisor code** (position 1) can work with any **user code** (positions 2 through 8) to create and delete **user codes** and the **time delay override code**. The **supervisor code** cannot be used for any operations affecting the **master code**.

There are several code storage positions in the lock, designated 0 through 9. They store the following types of codes:

position 0 — master code
position 1 — supervisor code
positions 2 through 8 — user codes
position 9 — time delay override code

Here is the process for creating a **supervisor code**.

7 4 ✻ master code #♪♪♪♪♪ valid user code #♪♪♪♪♪ 1 #♪♪♪
new supervisor code #♪♪♪ new supervisor code #♪♪♪

To create a new **user code**, use the following sequence. In this example, a new **user code** is being created in position 5.

7 4 ✻ master code or supervisor code #♪♪♪♪♪ valid user code #♪♪♪♪♪
5 (position number) #♪♪♪ new user code #♪♪♪ new user code #♪♪♪

User codes can be set in any storage position from 2 through 8. Position 9 is also a user code, if the time delay override feature is turned off.

To create a new **time delay override code**, see the time delay section.

➥Deleting an Existing Code

The holder of the **master code** (position 0) can work with the holder of any **user code** (positions 2 through 8) to delete codes. The **master code** cannot be deleted under any circumstances.

The holder of the **supervisor code** (position 1) can work with any **user code** (positions 2 through 8) to delete **user codes**. The **supervisor code** cannot be used to delete the **master code** or itself.

Here is the process for deleting a **supervisor code**.

7 4 ✻ master code #♪♪♪♪♪ valid user code #♪♪♪♪♪ 1 #♪♪♪ #♪♪♪ #♪♪♪

To delete a **user code** in position 5, use the following sequence.

7 4 ✻ master code or supervisor code #♪♪♪♪♪ valid user code #♪♪♪♪♪
5 #♪♪♪ #♪♪♪ #♪♪♪

To delete a **time delay override code**, see the time delay section.

Managing Time Delay

➥Creating, Changing, Deleting a Time Delay

Time delay is a security feature that enforces a predetermined waiting period between the entering of a valid lock code and the actual opening of the lock. The delay period can be set from 1 to 99 minutes.

The *opening window* is a period of time immediately after the time delay during which you can enter two valid lock codes to open the lock. The factory default opening window is 2 minutes, but it can be changed to any value between 1 and 10 minutes.

Note: Changes to an existing time delay or opening window can only be accomplished during the opening window period. This means you must enter a valid operating code for the lock, wait for the time delay to expire, then begin the appropriate programming sequence rather than opening the lock.

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The programming sequence for setting, changing, or deleting a time delay period is as follows. The period can be anywhere from 1 to 99 minutes.

7 4 ✻ master code #♪♪♪♪♪ valid user code #♪♪♪♪♪ 0 0 #♪♪♪
length of desired time delay period #♪♪♪ length of desired time delay period #♪♪♪

To delete a time delay, enter 0 for the desired time delay length.

➥Changing the Opening Window Duration

The length of the opening window period is set as follows. The period can be anywhere from 1 to 10 minutes.

7 4 ✻ master code #♪♪♪♪♪ valid user code #♪♪♪♪♪ 0 1 #♪♪♪
length of desired opening window period #♪♪♪
length of desired opening window period #♪♪♪

➥Managing Time Delay Override

This optional feature determines whether or not you can override the time delay waiting period. There may be special circumstances that make it desirable to open the lock before time delay expires, such as during cash pickups by an armored car service. Time delay override only works when the lock is being operated in time delay mode. To use the **TDO code**, start the lock's time delay by entering any valid code other than the **TDO code**. Then, within one minute, enter the **TDO code**. The lock will open immediately.

➥Turning Time Delay Override ON

If your lock was ordered with time delay override capability, the feature can be turned on as follows.

4 6 ✻ master code #♪♪♪♪♪ 1 #♪♪♪ 1 #♪♪♪

➥Turning Time Delay Override OFF

Time delay override can be turned off as follows.

4 6 ✻ master code #♪♪♪♪♪ 0 #♪♪♪ 0 #♪♪♪

When time delay override is turned off, the **time delay override code** is erased. PIN position #9 can now be used to store a regular **user code.**

➥Creating the Time Delay Override Code

The **TDO code** is located in position 9. It is programmed as follows.

7 4 ✻ master code or supervisor code #♪♪♪♪♪ valid user code #♪♪♪♪♪
9 (position number) #♪♪♪ new TDO code #♪♪♪ new TDO code #♪♪♪

➥Changing the Time Delay Override Code

An existing **TDO code** can only be changed by the holder of that code, as follows.

2 2 ✻ OLD TDO CODE #♪♪♪♪♪ NEW TDO CODE #♪♪♪ NEW TDO CODE #♪♪♪

➥Deleting the Time Delay Override Code

The **TDO code** is deleted as follows.

7 4 ✻ master code or supervisor code #♪♪♪♪♪ valid user code #♪♪♪♪♪
9 (position number) #♪♪♪ #♪♪♪ #♪♪♪

Managing Duress

➥Turning Duress ON

If your lock was ordered with time duress capability and an optional duress module is installed, the feature can be turned on as follows.

3 8 ✻ master code #♪♪♪♪♪ 1 #♪♪♪ 1 #♪♪♪

➥Turning Duress OFF

The duress feature can be turned off as follows.

3 8 ✻ master code #♪♪♪♪♪ 0 #♪♪♪ 0 #♪♪♪

➥Verifying Duress

If duress is enabled, you can tell if the lock has sent a silent alarm. Fifteen minutes or more after a duress signal has been sent, press and hold down the ✻ button for at least four seconds. The lock will emit a continuous alternating series of high and low pitch beeps to indicate that a duress signal has been sent. Reset the duress indication by entering the lock's **master code** within one minute after the verification signal ends.

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Managing Audit Trail

➥Capturing an Audit Trail

Your lock must have been ordered with this option. Using the audit trail feature also requires an optional keypad extension (S&G part number 6101-201), as well as an audit trail software kit (S&G part number 6103-100). The lock records the last 63 events, in the order they occurred. After the 63rd event, the lock overwrites the oldest event with the new one, so you always have access to the most recent 63 events. To download the audit trail through the optional keypad extension, hold the Dallas iButton key provided in the audit trail kit to the receptacle in the keypad extension, and enter the following.

2 8 ✻ master code #

The lock will beep three times when the download is complete. You may then remove your iButton key from the keypad extension's receptacle. The information now stored in the key is a copy of what is in the lock. The lock's audit information is not erased in the download process.

Information Tables

➥Determining Your Lock's Mode of Operation

Enter 4 3 ✻

The ensuing beep pattern will tell you if your lock is configured in single user, multiple user, or dual control mode.

BEEP PATTERN			
1ST SET OF BEEPS	4	4	4
2ND SET OF BEEPS INDICATES MODE	1 BEEP INDICATES SINGLE USER	2 BEEPS INDICATE MULTIPLE USER	3 BEEPS INDICATE DUAL CONTROL

➥Beep Pattern Reference Table

Lock Activity	Beep Pattern Emitted
1st code has been entered in a dual control lock—waiting for 2nd code	4 short high pitch beeps
1st code has been entered to start a time delay	3 short high pitch beeps
An incorrect code has been entered	1 long continuous beep
A code has been entered during a penalty lockout period	2 long continuous beeps
Time delay countdown period in effect	1 short high pitch beep every 10 seconds
Time delay countdown finished	10 short high pitch beeps
Opening window period in effect	2 short high pitch beeps every 6 seconds
Low battery warning	5 sets of 2 short high pitch beeps
Battery too low for lock to function	20 short high pitch beeps (lock does not open)
Bolt extension signal	1 low/high beep sequence
Optional audit trail download completion	3 high pitch beeps

➥Quick Reference Table

Command	Function
2 2 ✻	Any code holder changes his own six-digit code
2 8 ✻	Master code holder downloads the event audit trail
3 8 ✻	Master code holder enables or disables the optional duress feature
4 3 ✻	Anyone identifies the lock type
4 6 ✻	Master code holder enables or disables the optional time delay override feature
7 4 ✻	Master code and supervisor code holder, working with a user code holder, set or delete codes
7 7 ✻	Anyone interrogates the lock to identify used and unused code positions

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Battery Changing Instructions

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Low Battery Condition

The S&G© X03 D-Drive™ lock uses one 9-volt alkaline battery, which is housed in the keypad. We recommend Duracell® brand. If the battery needs to be replaced, the lock will emit five double-beeps whenever it is opened. If this signal is ignored and the battery becomes so weak that it will no longer operate the lock, you'll hear twenty quick beeps when you enter a code, but the lock will not open. You will have to replace the battery before your lock can be opened.



Figure 1

Battery Replacement Procedure

Always perform a battery change with the container door open.

The lock will NOT forget your code(s) during battery change. The circuitry is designed to hold this information for extended periods of time even if there are no batteries installed. Codes are stored in non-volatile memory.

Step 1—Pull the yellow, spring-loaded tab at the top of the keypad (Figure 1) toward you slightly. It is not meant to separate from the keypad. Once it's pulled forward, carefully turn the keypad ring counterclockwise to stop. Then pull the ring away from its base far enough to expose the battery compartment.



Figure 2

Step 2—Put your finger in the battery compartment, and carefully pull out the battery cables (Figure 2). There should be enough slack to allow you to pull the connector and old battery outside the compartment. Disconnect the old battery.

Step 3—S&G strongly recommends Duracell® brand alkaline batteries. No matter what brand is used, the battery must be alkaline. Align the battery and connector terminals, and snap the battery to the connector (Figure 3).



Figure 3

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Step 4—Carefully slide the battery behind the keypad, into the cavity that is designed to hold it (Figure 4). Be sure the battery has dropped all the way to the bottom of the cavity.

Step 5—Gently place any excess wire into the cavity. Make sure it is not in a position to be caught between the keypad ring and the keypad base when the ring is pushed back against the base (Figure 5).

Step 6—Once the wires are safely positioned out of harm's way, push the keypad ring back up against the base, then turn it clockwise until the yellow tab snaps back into its normal position (Figure 6).

Check your lock operation at least three times with the container door open before closing it.



Figure 4

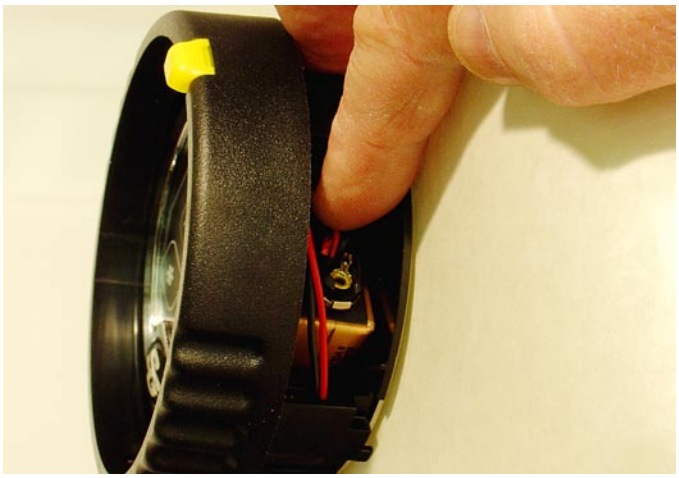


Figure 5



Figure 6

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WARRANTY

Seller warrants that for one year from the date of shipment from Seller's point of manufacture, the goods shall be free from defects in material and workmanship, provided the goods are normally and properly used according to the Seller's written instructions.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. S&G DOES NOT WARRANT THAT THE GOODS ARE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE EXCEPT AS EXPRESSLY PROVIDED HEREIN.

Seller's entire liability and Buyer's exclusive remedy in the event that the goods do not conform to the foregoing warranty shall be Seller's repair or replacement of the goods (including payment of freight costs to and from point of manufacture).

UNAUTHORIZED USE OF DIAL, DIAL RINGS, AND/OR SPINDLES NOT MANUFACTURED BY THE SELLER IN CONJUNCTION WITH ITS COMBINATION LOCK PRODUCTS INVALIDATES THE WARRANTY.
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