C4
Compact Controller
Manual

Progeny
Access Control

Table of Contents

Introduction

The C4 is the latest compact controller from Progeny. C4 can work alone as a combined controller Keypad or Controller RFID reader or both. C4 can also be used with an externally connected Keypad, Reader or Reader-Keypad. The latter allows the role of the C4 to become a programming station or touch sensitive Request to Exit button or both.

Compatible Equipment & Credentials

Product Code	Description	Access Code	RFID Credential	
4800	Dark Crystal Switch Plate Reader	-	Yes	
4820	Dark Crystal Mullion Reader	-	Yes	
4830	Dark Crystal Panel Mount Reader	-	Yes	
4124	Keypad	Yes	-	
4124-RF	Keypad with Crystal Reader	Yes	Yes	
4121	Vandal Resistant Keypad	Yes	-	

Product Code	Description	
3804	Crystal ISO RFID Card	
3805	Crystal RFID Key Fob	

C4 Anatomy

Anatomy of the C4 Controller / Keypad / Reader / Request to Exit Button

Figure 1

Example Configurations

C4 Only

This is the simplest of the configurations with the C4 mounted on the outside of the access door. A locking device and a power supply are all that need to be added to complete the system.

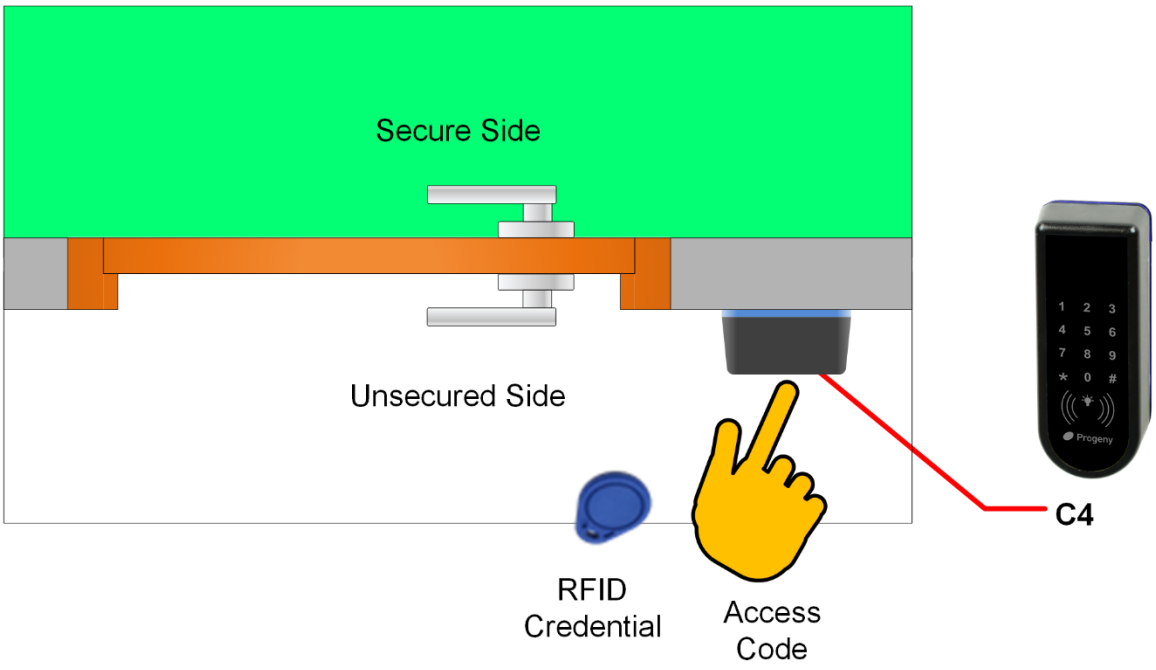
Depending on the locking device used, some additional items may be needed to support that device. If the locking device is a magnet then a Green Call point is going to be required for emergency egress and a Request to exit button to open the door from the inside.

Optional extras would be the Crystal RFID credentials (Cards or Key Fobs).

The keypad on the C4 is used for programming. Up to 200 Credentials can be added and the access code can be from 1 to 8 digits in length.

This configuration can be used for:

- Access Code Entry
- RFID Credential Entry
- Code and Credential Entry (2 Factor Authentication)



C4 as Controller with External RFID Reader

In this configuration, the C4 controller is moved to the secure side of the access door. From this position, it can be used for programming as before but also the RFID reader can also be used to provide Credential IN / Credential OUT functionality.

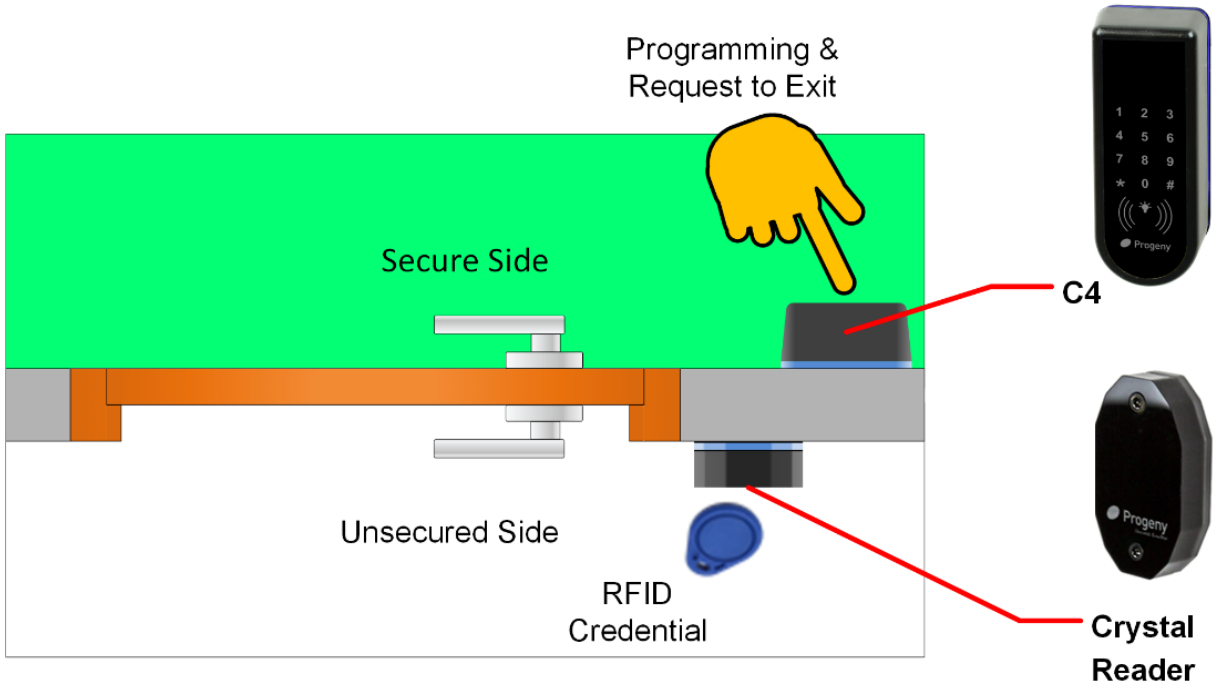
Alternatively, the internal capacitive Request to Exit sensor can be activated. This would give “Credential IN / Touch Switch Out” functionality.

If the locking device is a magnet then a Green Call point is going to be required for emergency egress.

The keypad on the C4 is used for programming. Up to 200 Credentials can be added and the access code can be from 1 to 8 digits in length.

This configuration can be used for:

- Credential Entry, Touch Button Exit
- Credential Entry, Access Code Exit
- Credential Entry, Credential Exit



C4 as Controller with External Keypad & RFID Reader

In this configuration, the C4 controller is also moved to the secure side of the access door. In this position, it can be used for programming as before but also the RFID reader can be used to provide Credential In / Out functionality.

Alternatively, the internal capacitive Request to Exit sensor can be activated. This would give “Credential In / Touch Switch Out” functionality.

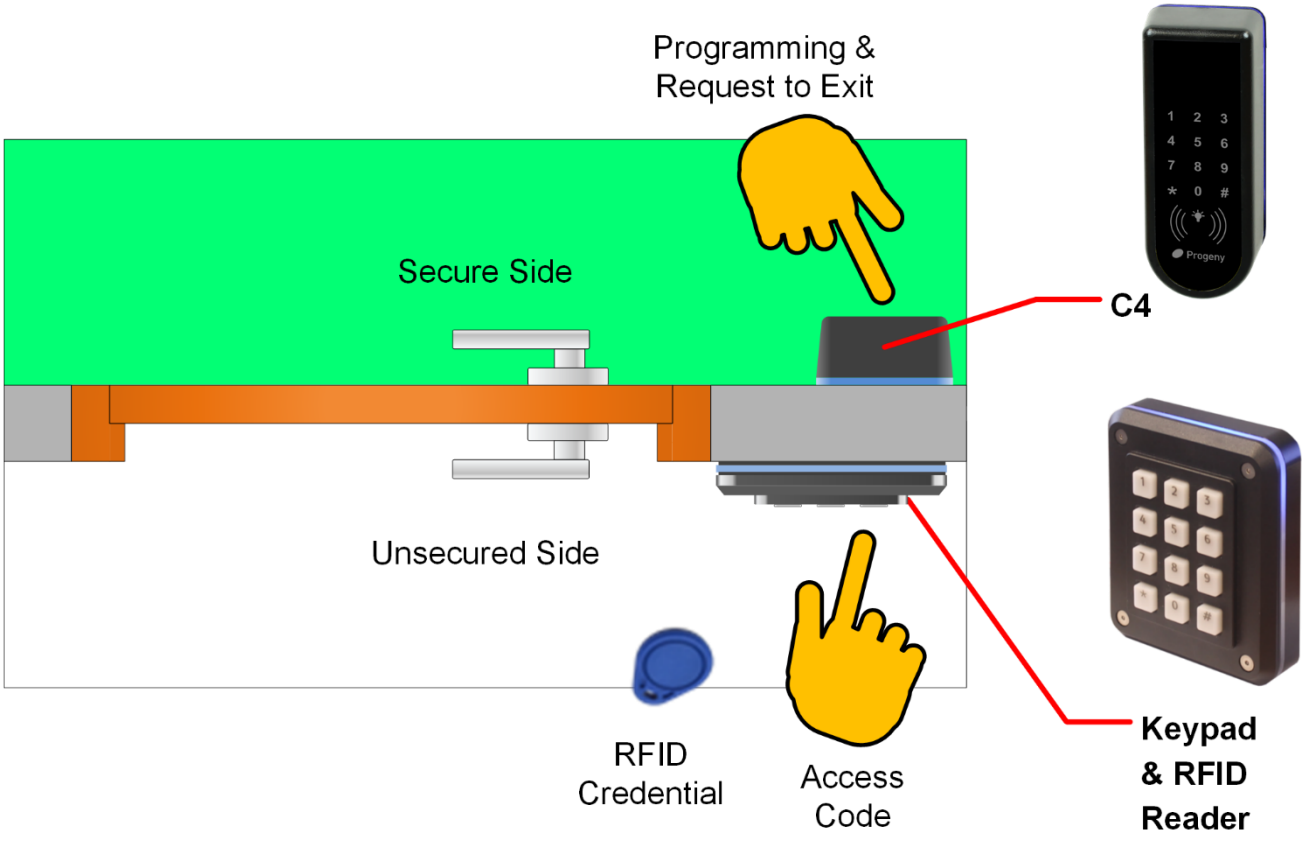
With the benefit of a Keypad-Reader on the outside of the door, an access code can be used for entry as well as user credentials. This can be useful for giving access to temporary users such as visitors. In this situation, the access code would be changed periodically. Meanwhile, everyday users would use their RFID credentials to access the same door.

If the locking device is a magnet then a Green Call point is going to be required for emergency egress.

The keypad on the C4 is used for programming. Up to 200 Credentials can be added and the access code can be from 1 to 8 digits in length.

This configuration can be used for:

- Code to Enter
- Credential Entry
- Code and Credential Entry
- Access Code Exit
- Touch Button Exit
- Credential Exit



C4 as Controller with External Vandal Resistant Keypad

In this configuration, the C4 controller is also moved to the secure side of the access door. In this position, it can be used for programming as before but also for entering the access code for “Code In / Code Out” functionality.

Alternatively, the internal capacitive Request to Exit sensor can be activated. This would give “Credential Ii / Touch Switch Out” functionality.

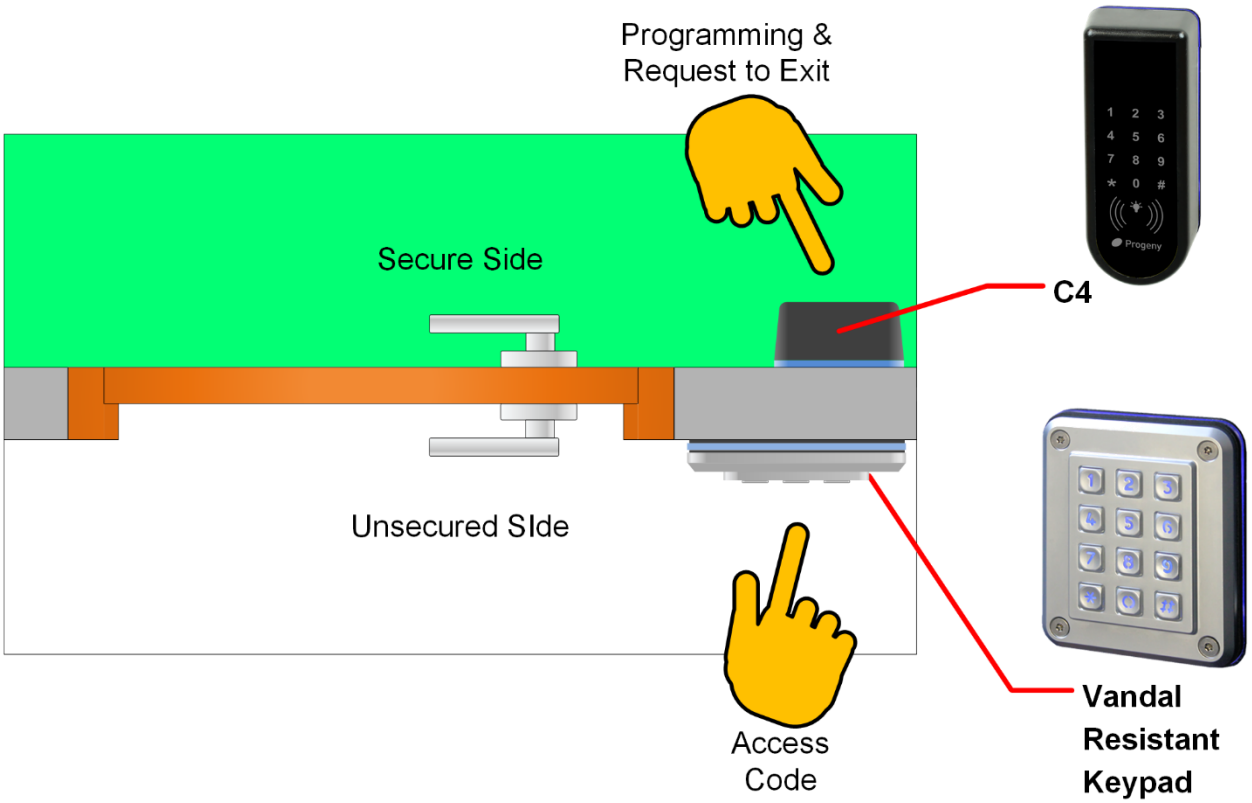
With the benefit of a Vandal-Resistant Keypad on the outside of the door, an access code can be used for entry on doors leading from the outside in areas where the risk of damage is a concern.

If the locking device is a magnet then a Green Call point is going to be required for emergency egress.

The keypad on the C4 is used for programming. The access code can be from 1 to 8 digits in length.

This configuration can be used for:

- Access Code Entry
- Access Code Exit
- Touch Sensitive Button Exit



Connection Diagram

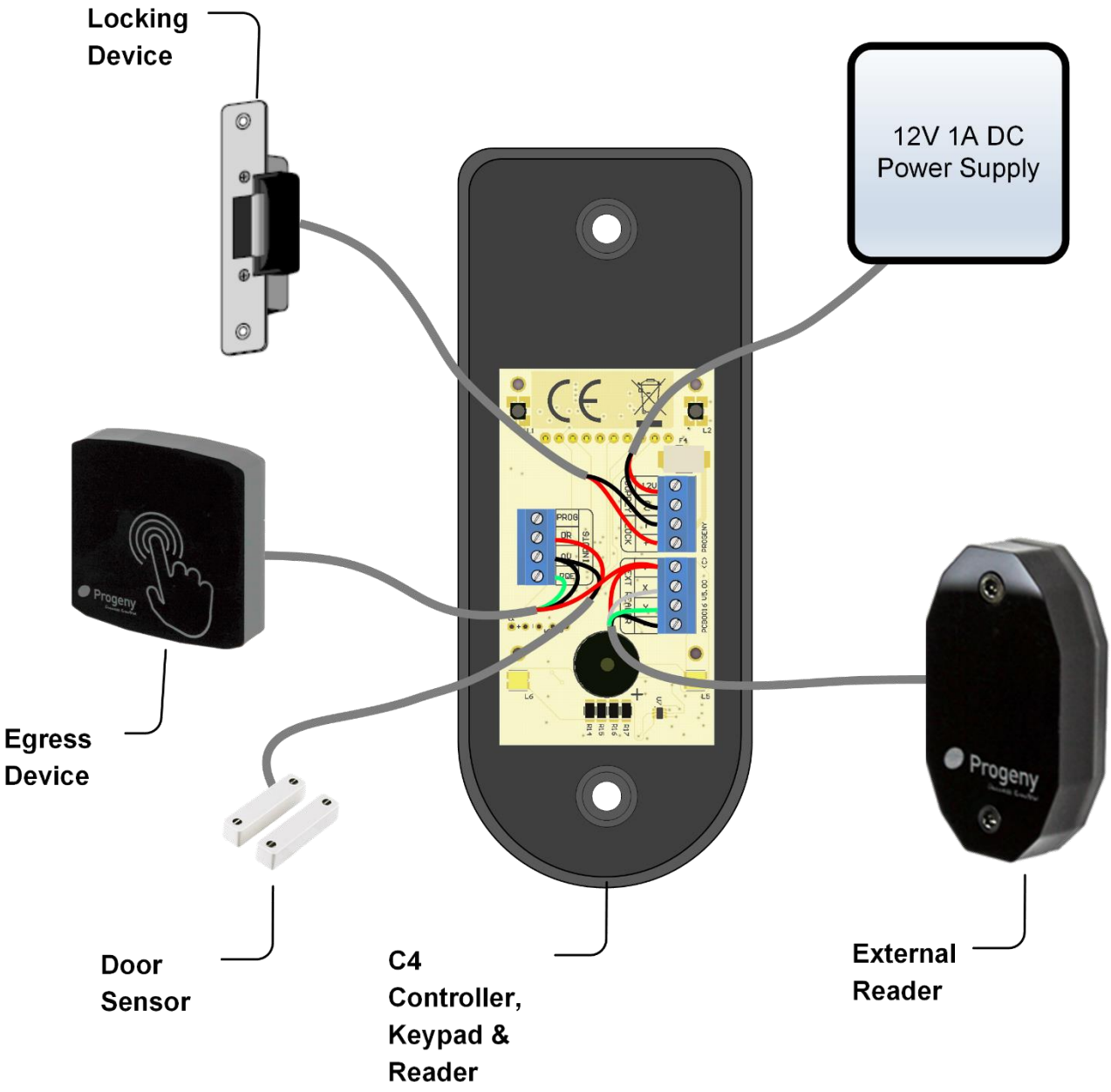


Figure 2

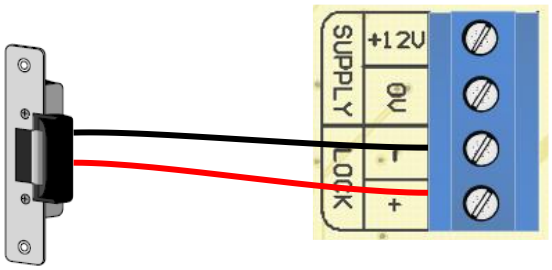
Quick Start Guide

To quickly set up and test your controller follow this procedure.

Wiring

Connect the locking device to the controller. Note if you are connecting to a magnet or any other fail open device you will need to set the “Lock Drive Mode” to 1. See Engineers function 14.

1. Connect the Lock
2. Connect a 12V DC supply to the controller
3. Switch on the supply



Setting the Access Code

Once all the connections are made, the following procedure will get access using an access code 7890.

1. Use the Access Code menu (see Page 14): * 6 5 4 3 2 1 * 0 1
2. Enter the new access code 7 8 9 0 #
3. Press the # key to finish.

Adding Credentials

Once all the connections are made, the following procedure will allow you to test a Credential.

1. Use the Adding Credentials menu (see Page 15): * 6 5 4 3 2 1 * 0 4
2. Now present the required Credentials to the reader one after the next.
3. Press the # key to finish.

Testing

Now test by presenting the Credential you enabled to the reader: The reader LED will turn green and the lock output will operate for 3 seconds.

Other Quick Starts

Other quick tests you can try are:

Request to Exit

Temporarily short the RQE input to 0V. This simulates a Request to Exit Button Push and will operate the lock output for 3 seconds

Quick Programming Tips

Key Switch

A key switch can be connected to allow quick access code change. This is very helpful if you have to change the code on a regular basis.

User Admin Credential

The user menu functions can all be accessed using a pre-defined administration credential. This takes the place of entering the User Menu Password. See “User Function 10” for more details

Indications

Indicators

Colour visual status indication can be found on the rear edge of the controller and repeated at the Keypad or Credential readers if these are connected. These indicators have the following meanings.

Keypad Status LED	Meaning
Blue	Normal Standby
Green	Lock released
Flashing	Programming Mode
Flashing with Strobe Light	Alarm
Blue with 4 red Flashes	Access denied

Sound

The sound is used to give the user additional feedback on the status of the controller and progress during programming.

Sound	Meaning
Continuous Two Tone, High Volume	Door Alarm
Four Notes "Low – High – Low – High"	Programming Mode
Two Notes "Low – High"	Confirm Programming Change
Two Notes "High – Low "	Programming Error
Single Short Note "High"	Keypad Key Push
3 long Beeps	Credential not in memory

Door Alarm

The "Prolonged Door Open" (PDO) or "Door Failed to Close" alarm acts as a reminder that a door is a security door and should not be wedged or held open. If the door sensor has been connected then each time the door is detected opening, the PDO timer starts. If this timer reaches a pre-set value before the door closes, a PDO alarm will be heard from the Controller-Keypad and any externally connected readers.

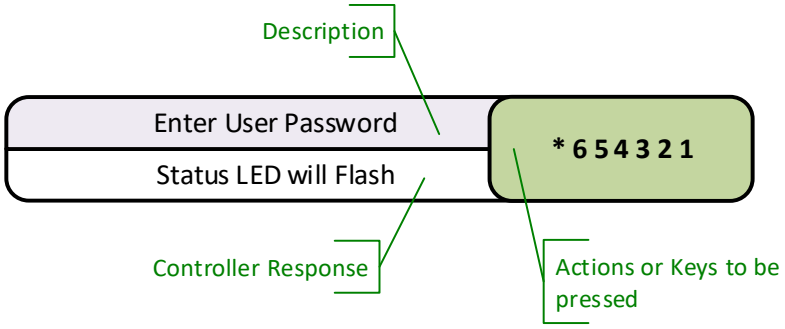
PDO alarm cancels automatically when the door is closed. The PDO alarm is not active if the door is open due to Toggle mode.

Programming

The C4 controller is capable of being programmed “Stand-Alone” from the onboard or externally connected Keypad. If planning to use the external keypad then you may need to enable the Star Key from the integral keypad (See engineers function 19).

Programming is achieved by entering a password at the Keypad followed by a menu selection code. There are two Programming Menus, one for the USER and one for the ENGINEER. Each menu has a separate six-digit password. Depending on the menu option selected, configuration data can then be entered at the Keypad.

Programming Flow Diagrams



The default factory set passwords are:

Menu	Factory Default
User	654321
Engineer	123456

It is highly recommended that these passwords be changed in order to prevent hacking.

User Menu

The User Menu is accessed by entering * followed by the User Password. The default for this is 654321.

User Menu #	Description	Default Value
* 00	User Menu Password	6 5 4 3 2 1
* 01	Access Code	None
* 04	Add Credential by Number or Discovery	-
* 05	Remove Credential by number or Discovery	-
* 10	Administrator Credential	-

User Menu Password

Passwords are the means by which the systems operator gains access to the programming functions. This is a 6-digit number and can be changed by using the following procedure.

Changing the user menu password

This example shows the password changed to 234567.

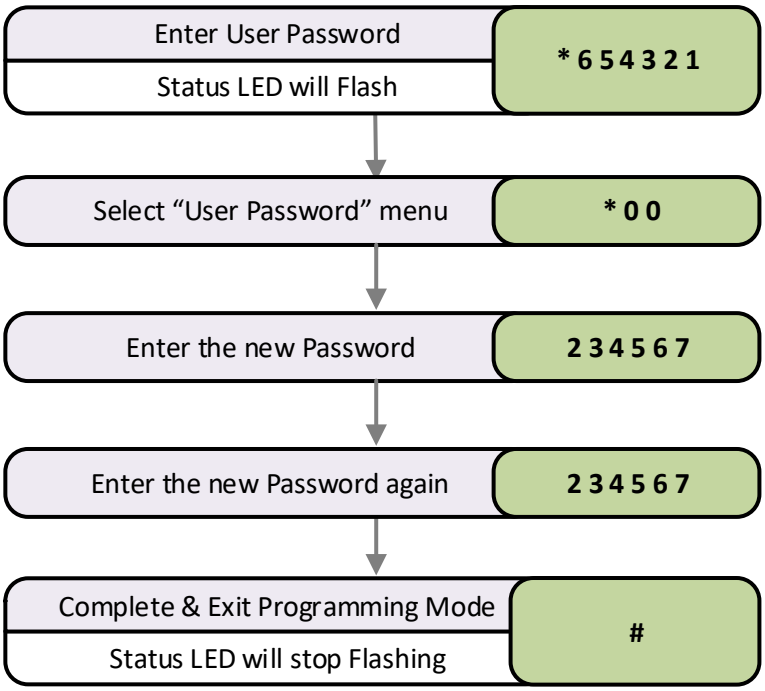
Default Value:

- 654321

The factory default can be restored by a “Full Reset”

Related Engineer Menus:

- 00 “Engineer Password”



Note:

To avoid having to remember the user password, an “Administrator Credential” can be nominated. See User function 10.

To use this Administrator Credential, follow the sequences as detailed in this manual but where you are asked to enter the User Password, present the Administrator Credential Instead.

Access Code

Setting the Access Code

User Function 01

The C4 controller has a single access code that can be programmed. The access code can be any number of digits from 1 to 8.

This example would set a 4 digit Access Code “1234”.

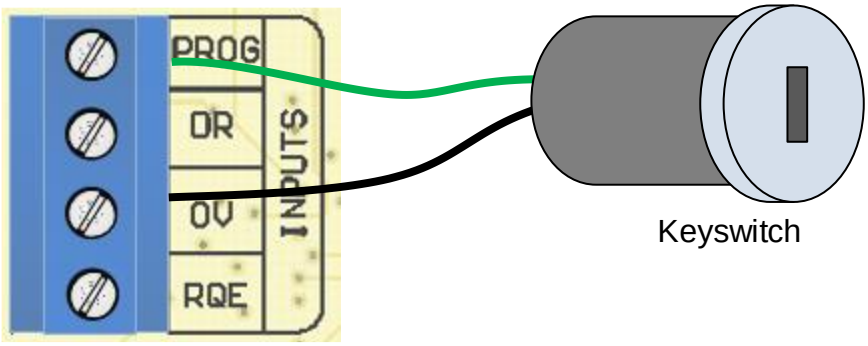
Enter User Password Status LED will Flash	* 6 5 4 3 2 1
Single Access Code	* 0 1
Enter the required Access Code	1 2 3 4
Complete & Exit Programming Mode Status LED will stop Flashing	#

Start After 4 seconds Status LED will Flash	Turn The Key Switch ON
Enter the required Access Code	4 5 6 7 8 9
Complete Status LED will stop Flashing	Turn The Key Switch OFF

Key Switch Programming

Key switch programming makes changing the access code very simple and quick.

The C4 controller has an input labelled “PRG”. This can be wired to a simple key switch (Normally Open Contacts). When the key switch is turned the controller will take the next key sequence as the new access code.



To remove an access code, see engineers function 98.

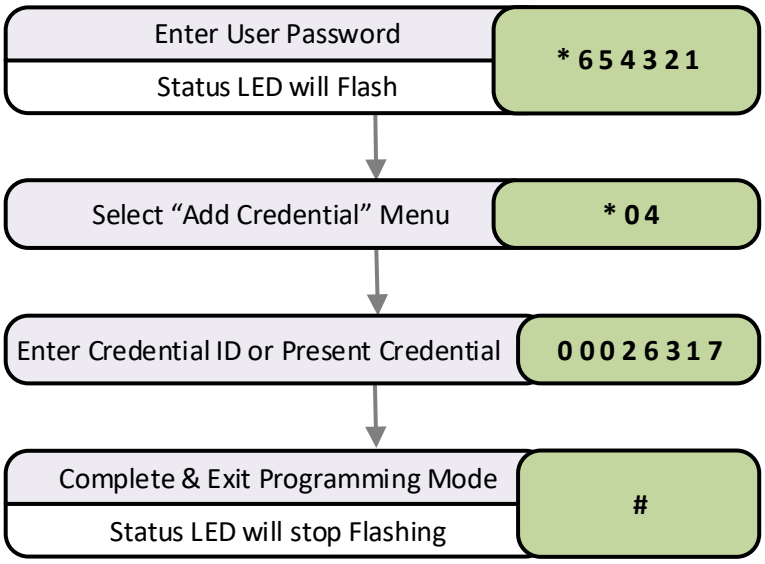
Credentials (Cards & Fobs)

Adding Credentials

Adding or enabling credentials by entering the Identification Number (ID) can be useful when the credentials themselves are not available or if a large number of credentials need to be added.

Single Credential:

Note: Some Credentials have a serial number printed on them. This should be used with the cross-referenced list provided with the Credentials, to determine the actual Credential number.



This example will enable a single Credential numbered 00026317

Block of Credentials

The quickest way to enable a whole group of Credentials is to use the “block add” method shown in this flow diagram.

The principle is to enter the ID of the first credential in the sequence and then specify the quantity to be added.

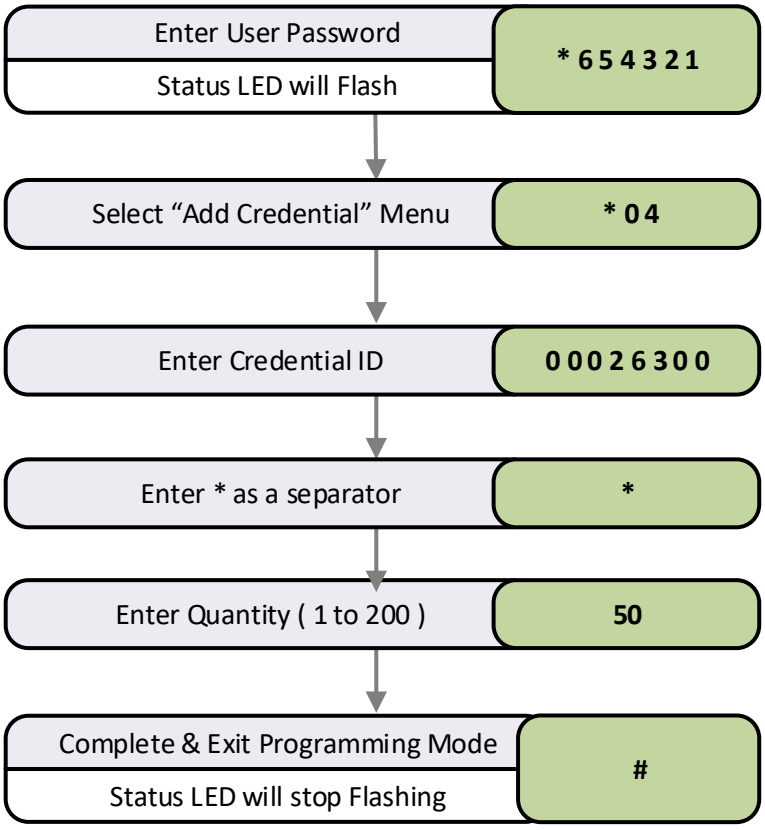
This example will enable 50 ID’s, from Credential 00026300 to 00263049.

Related User Menus:

- 05 “Remove Credential”

Related Engineer Menus:

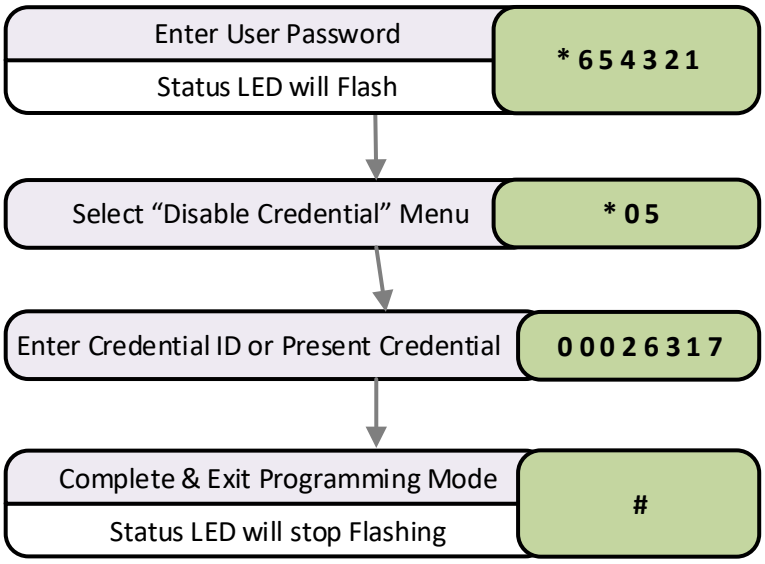
- 20 “Keypad Mode”



Disabling Credentials

Single Credential

If a Credential is reported lost or stolen, the Credential can be disabled to remove the security risk without affecting any other Credential users.



Block of Credentials

The quickest way to disable a whole group of Credentials is to use the "Block Disable" method shown in this flow diagram.

The principle is to enter the ID of the first credential in the sequence and then specify the quantity to be disabled.

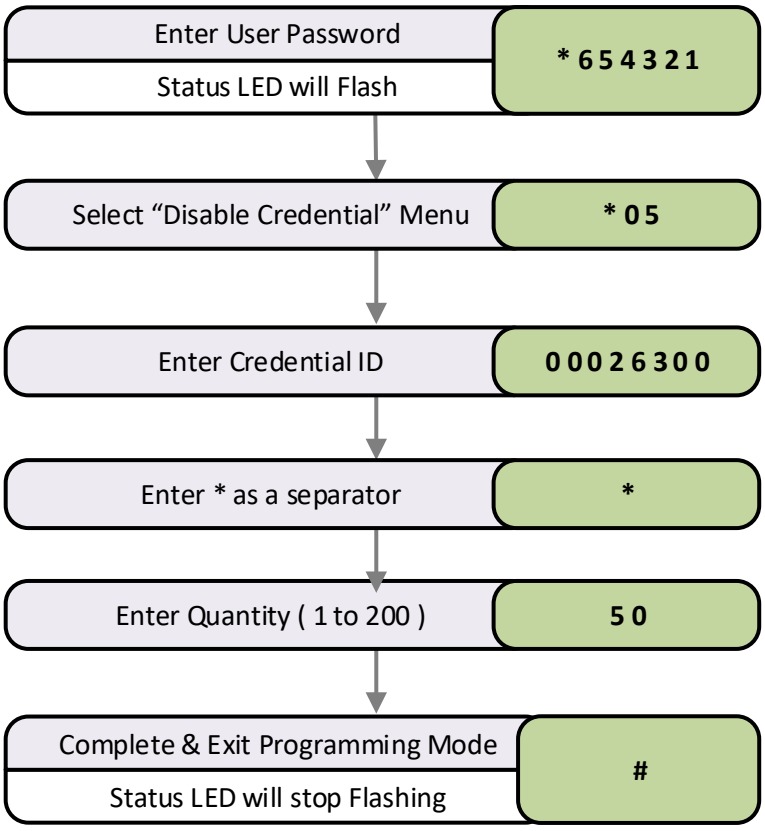
This example will disable 50 IDs from Credential 00026300 to 000263049.

Related User Menus:

- 04 "Add Credential"

Related Engineer Menus:

- 20 "Keypad Mode"



Program an Administrator Credential

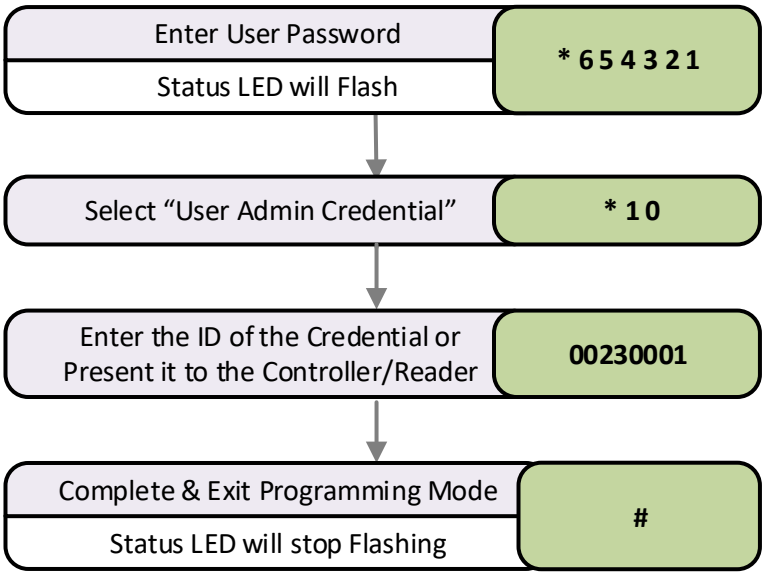
User function 10

A single Crystal Credential (Card or Fob) can be enabled to act as the "User Menu Administrator Credential". Using a Credential like this will simplify and speed up the management of other credentials and the access code.

Related User Menus:

- 01 "Access Code"
- 04 "Add Credential"
- 05 "Remove Credential"

Related Engineer Menus:



Engineer Menu

Engineer Menu #	Description	Range	Default Value
*** 00**	Engineer Menu Password	000000 to 999999	1 2 3 4 5 6
*** 02**	Lock Release Duration	0 to 99 Sec	3
*** 03**	Door Alarm Delay	0 to 99 Sec	0 = Off
*** 09**	Penalty Time	0 to 99 Sec	0
*** 10**	Administrator Credential	00000000 to 99999999	0
*** 12**	Touch to Release Enable	0 or 1	0 = Disabled
*** 14**	Lock Drive Mode	1 to 2	1 = Power to Release
*** 15**	Auto Relock on Door Close	1= On, 0 =Off	0 (Off)
*** 17**	Clear Credential Data	749162	-
*** 19**	External Keypad * mode	0 to 1	0 = Disabled
*** 20**	Two Factor Authentication	0 to 1	0 = Disabled
*** 31**	Controller Alarm Volume	0 to 15	15
*** 32**	Controller Feedback Volume	0 to 15	8
*** 33**	Ext Reader Alarm Volume	0 to 15	15
*** 34**	Ext Reader Feedback Volume	0 to 15	8
*** 58**	Controller Status Light Brightness	0 to 9	5
*** 78**	Ext Reader Status Light Brightness	0 to 9	5
*** 98**	Clear Access Code	-	-
*** 99**	Reset User Password	-	654321

Lock Release Time

Lock time is the amount of time that the locking device is released following a valid Credential or the triggering of the RQE input. This may be from 0 to 99 seconds. If a door sensor is fitted then the auto relock feature means that the lock time will be cut short once the door closes again.

Programming the Lock Release Time

Default Value:

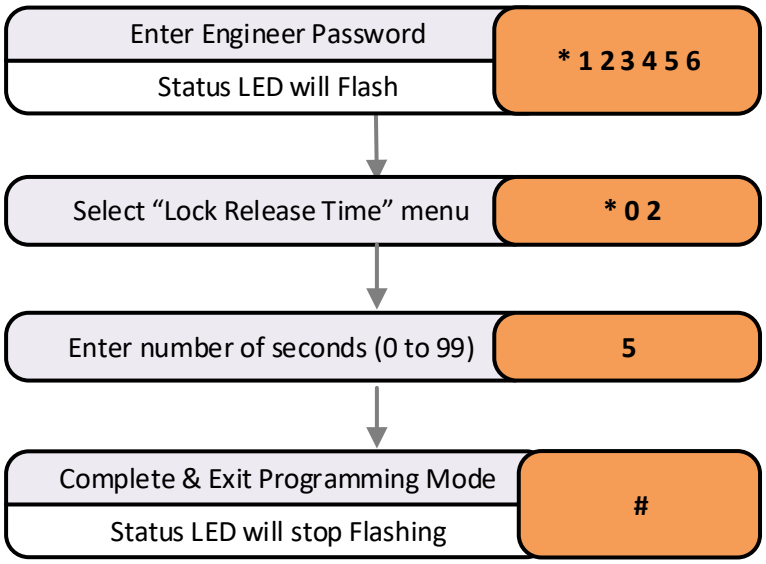
- 3 Seconds

Related Engineer Menus:

- 15 “Auto Relock on Door Close”

Toggle Mode

If the lock time is set to zero, the output for the lock will be in “Toggle Mode”. In this mode: each time a valid Credential is presented or correct code is entered, the output relay will “Toggle” to the opposite state and stay that way.



Door Alarm

There are connections on the control unit to allow the monitoring of the door open status. This value is the amount of time the door may be open before triggering an audible alarm from the control unit. This may be from 0 to 99 seconds. If this is set to zero, the PDO alarm is disabled.

Programming Door Alarm Time

To disable the PDO sound and output permanently, program the PDO time to zero.

The range of Values:

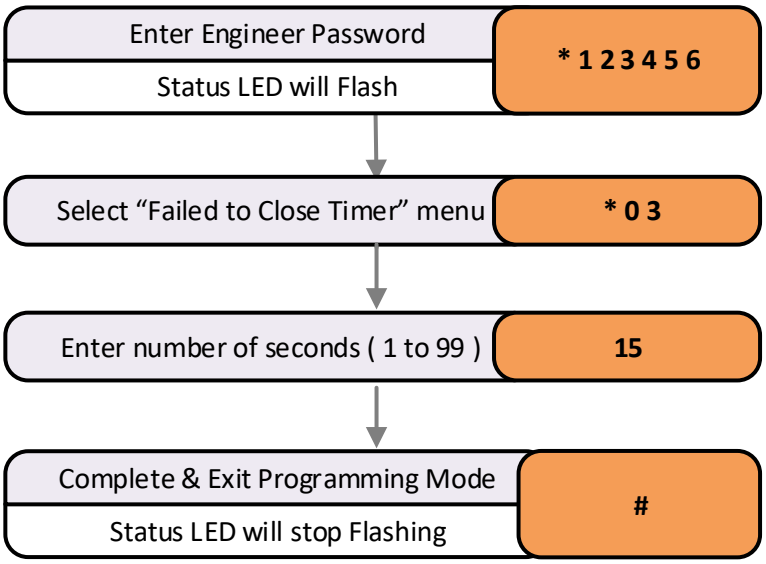
0 = Off
1 to 99 Seconds

Default Value:

0 = Off

Related Engineers Menus:

- 31 Ext Reader Alarm Volume

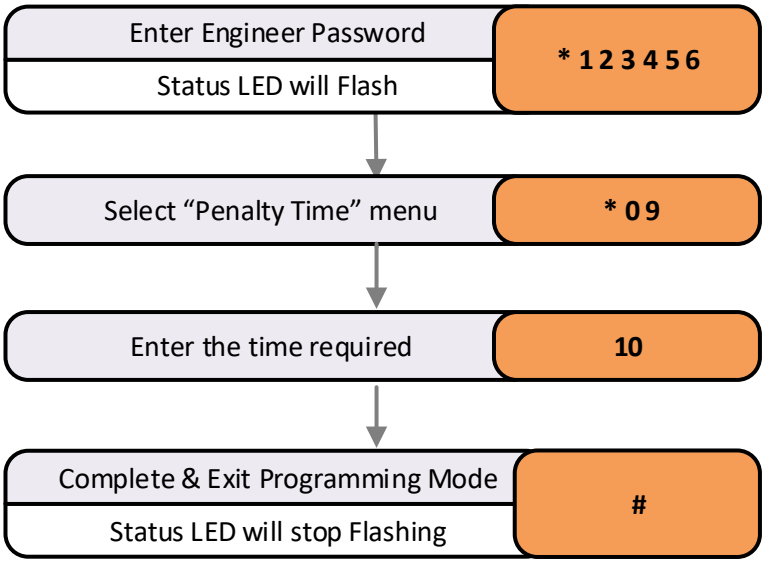


Penalty Time

This feature can slow down persons who are trying to gain access by using successive codes. As soon as an incorrect code is detected at the Keypad this penalty time is invoked, preventing any further access attempts until the timer elapses.

Programming the Penalty Time

The factory set default penalty time is 0 seconds (Disabled).



Touch to Exit Function

The C4 Controller has a Capacitive sensor over the entire flat front surface. When the controller keypad is used in conjunction with an external keypad or reader or both, it can double up as a "Request to exit button" with a large easy to use surface.

Range of Values:

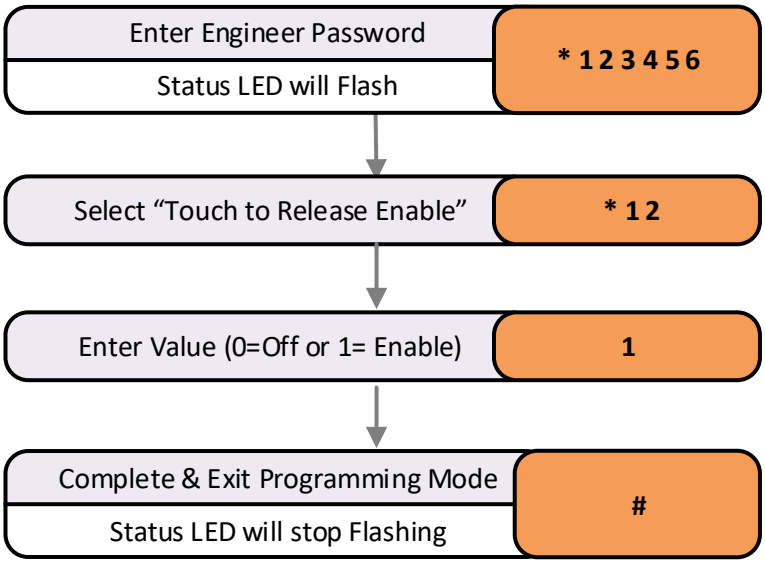
0 = Disabled
1 = Enabled

Default Value:

0 = Disabled

Related Engineer Menus:

- 02 Lock Release time



Note: Enabling this feature disables the internal RFID credential reader.

Lock Drive Mode

The electronic lock drive from a C4 controller switches the negative supply to the lock. By default, the output is programmed to drive a “Fail Secure” locking device. Power is only applied to the lock during the lock release time.

- “Fail-Secure” = Power to release
- “Fail-Open” = Power to hold locked

If you are connecting a “Fail-Open” locking device such as a Door Magnet, then you will need to change the “Lock Drive Mode”

Range of Values:

Mode 1 = Fail Open
Mode 2 = Fail Secure

Default Value:

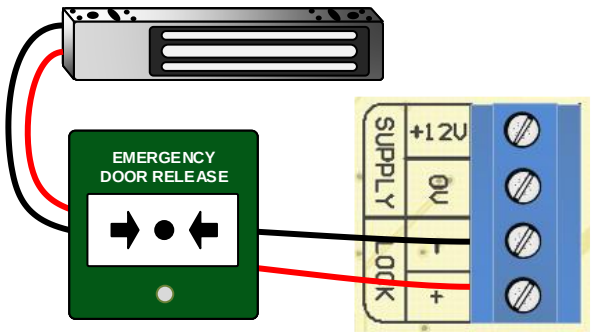
2 = Fail Secure

Related Engineer Menus:

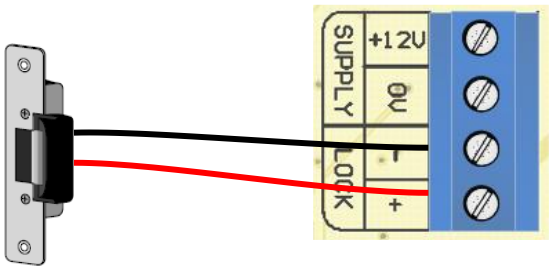
- 02 Lock Release time

Enter Engineer Password Status LED will Flash	* 1 2 3 4 5 6
Select “Lock Drive Mode” menu	* 1 4
Enter Code for desired mode	2
Complete & Exit Programming Mode Status LED will stop Flashing	#

Lock Drive Modes 1 & 2



Fail Open
Mode 1



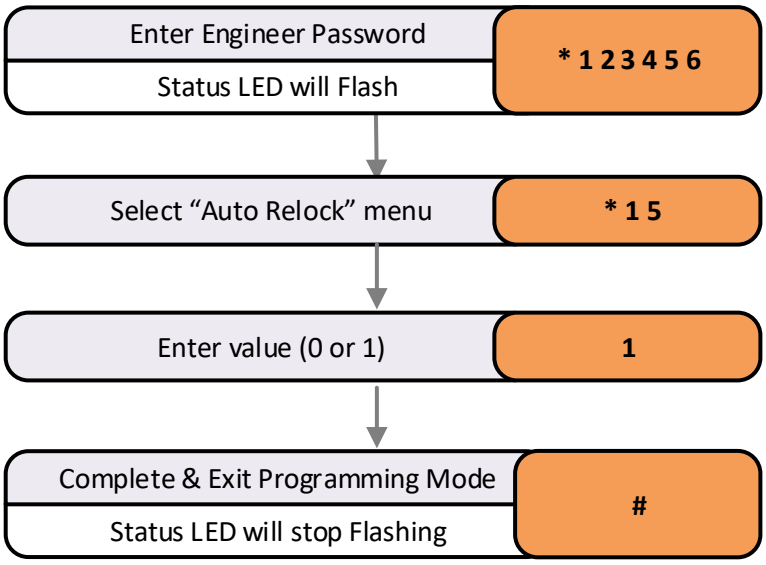
Fail Secure
Mode 2

Auto Relock

This function is used to control the behaviour of the controller after the door sensor input detects that the door is opened and closed after a valid lock release. If enabled, the door will be automatically locked once the door is closed, effectively shortening the lock release time.

Programming Auto Relock Feature

This example flow diagram shows the "Auto Relock" feature is turned on.



Range of Values:

- 0 = Off
- 1 = On

Default Value:

- 0 = Off

Related Engineer Menus:

- 02 "Lock Release Time"

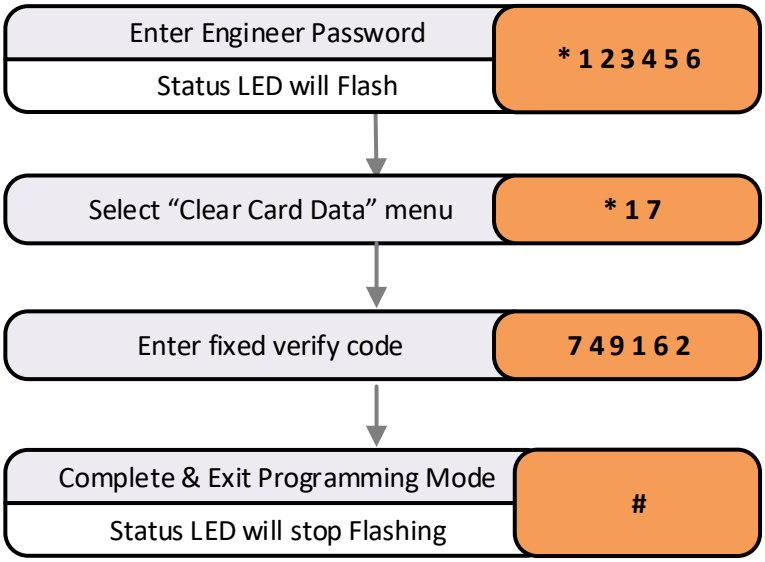
Clear Credential Data

This function will erase all Credential data in the. Once executed no Crystal RFID credentials will open the lock.

Erase Credential Data Function

N.B.

- Using this function will erase all Credential data from the controller.
- The Access Code is unaffected
- The User and Engineers Passwords are unaffected



External Keypad Star Key Mode

The externally connected keypads can be configured to be used for programming. However, for security reasons, this is disabled as a default. This is because these keypads are usually positioned on the unsecured side of the access door. This is done by disabling the Star Key on the keypad. The start key is required to begin any programming sequence.

However, if it is desired to use these for programming the “Star Key” can be enabled using this engineers function. This will need to be programmed from the controller keypad.

Values

0 = Disable

1 = Enable

Default Value

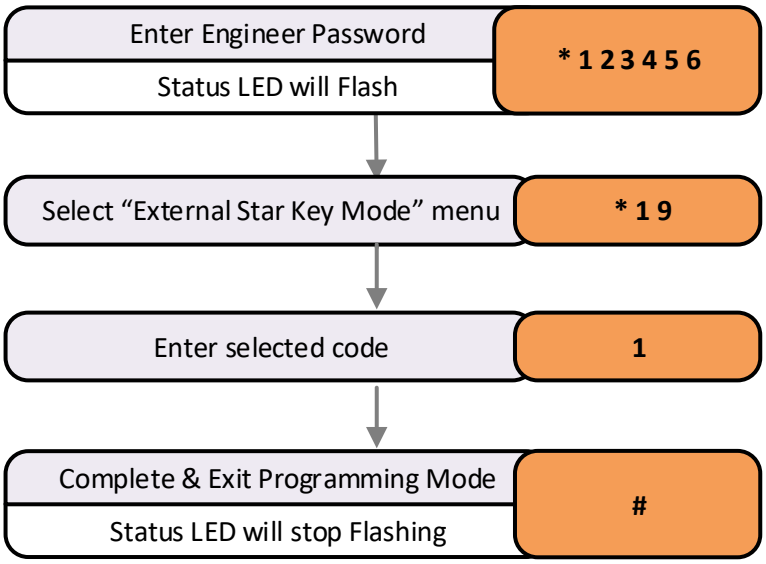
- 0 = Disabled

Related User Menus:

- 01 “Access Code”

Related Engineer Menus:

- 20 Two Factor Authentication
- 98 Clear Access Code



Two Factor Authentication

The C4 provides both access code and credential identification methods. These can be combined so that both a valid credential and the access code have to be entered to release the lock.

Range of Values:

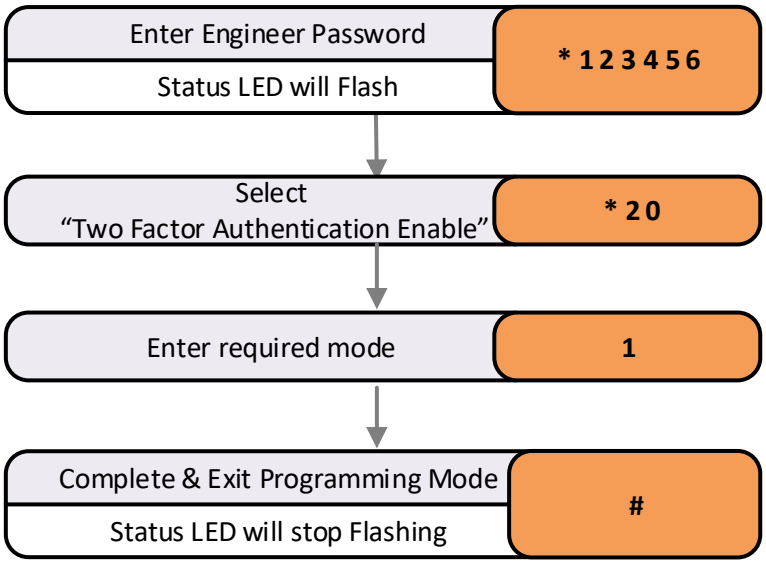
0 = Disabled
1 = Enabled

Default Value:

0 = Disabled

Related User Menus:

- 01 Access Code
- 04 Add Credential



Controller Alarm Volume

The C4 Controller has a speaker that can be used for alarm sound. The volume of that sound can be controlled using this engineers function.

The range of Values:

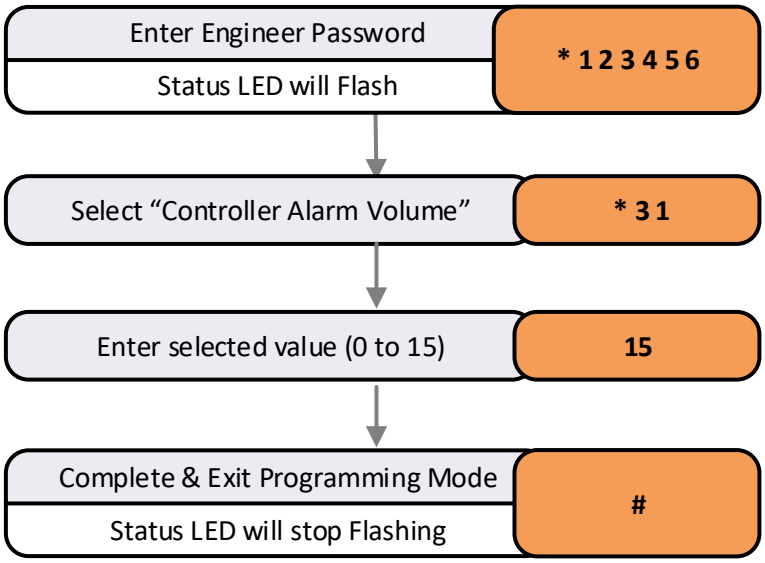
0 = Off
15 = Full Volume

Default Value:

15 = Full Volume

Related Engineers Menus:

- 03 Door Alarm Delay
- 33 Ext Reader Alarm Volume



Controller Feedback Volume

The C4 Controller has a speaker that can be used for feedback sounds to the user. The volume of that sound can be controlled using this engineers function.

The range of Values:

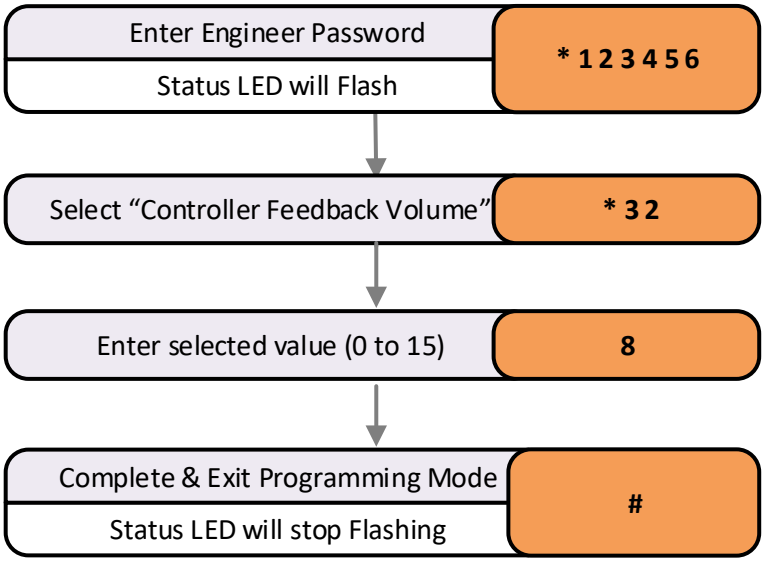
0 = Off
15 = Full Volume

Default Value:

8 = Mid Volume

Related Engineers Menus:

- 03 Door Alarm Delay
- 34 Ext Reader Feedback Volume



External Reader Alarm Volume

Compatible external readers have a speaker that can be used for alarm sound. The volume of that sound can be controlled using this engineers function.

The range of Values:

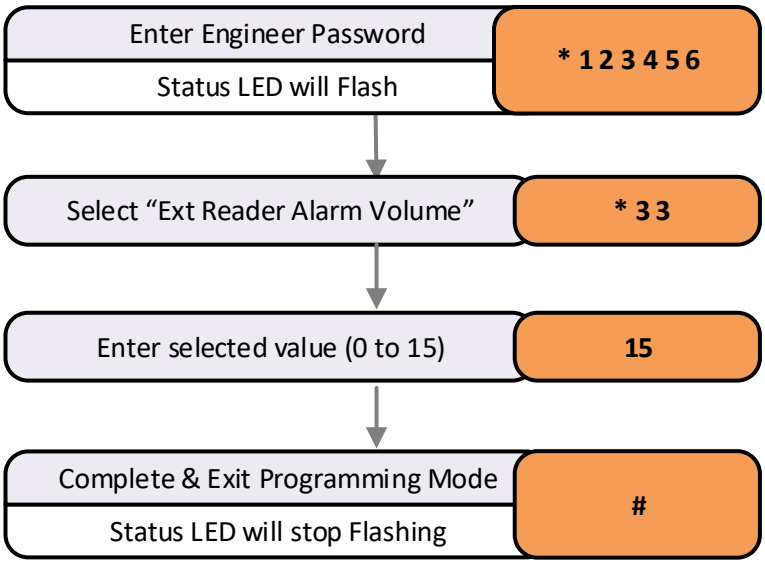
0 = Off
15 = Full Volume

Default Value:

15 = Full Volume

Related Engineers Menus:

- 31 Ext Reader Alarm Volume



External Reader Feedback Volume

Compatible external readers have a speaker that can be used for feedback sounds to the user. The volume of that sound can be controlled using this engineers function.

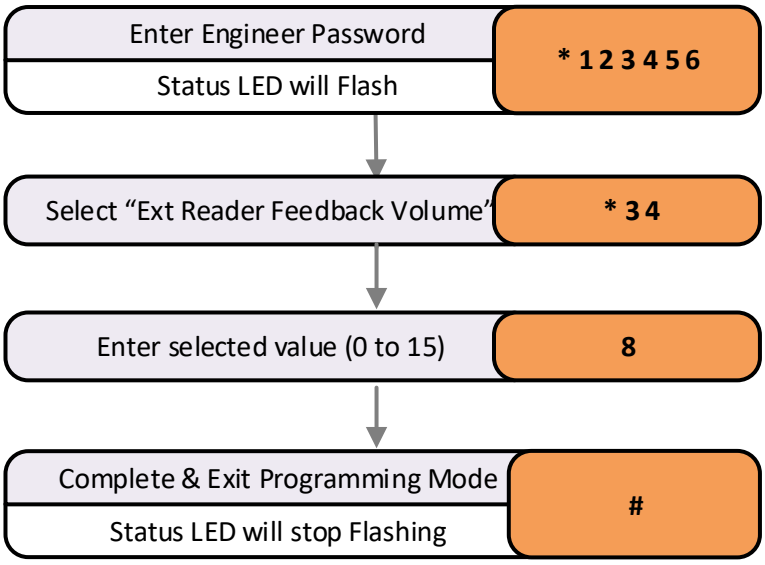
0 = Off
15 = Full Volume

Default Value:

8 = Mid Volume

Related Engineers Menus:

- 32 Controller Feedback Volume



Controller / Reader Brightness Control

The C4 Controller has a status light that can be made brighter or darker as the application demands. Mostly the default value is fine. However, in some unsupervised locations, it may attract the attention of vandals and it may be preferable to turn the brightness down to 0.

Values

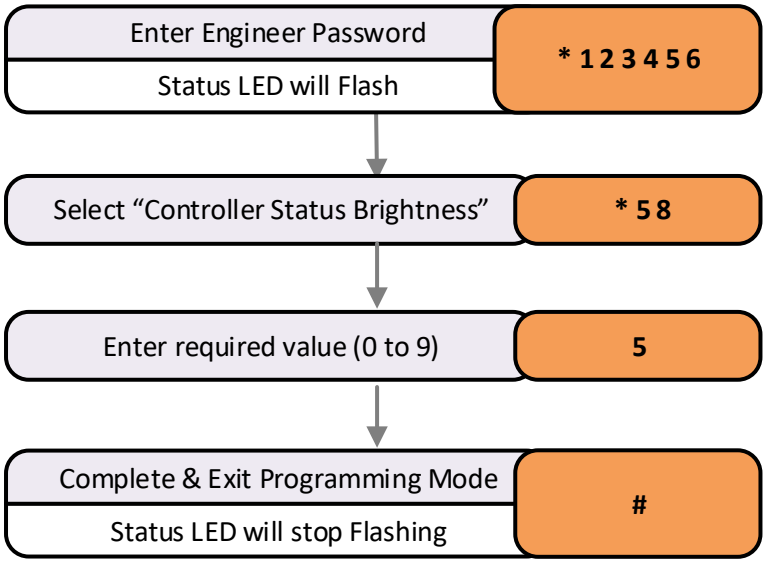
- 0 = 0ff to 9 = 100%

Default Value

- 5 = Medium Brightness

Related Engineer Menus:

- 33 Controller Volume



External Reader Brightness Control

The Dark Crystal range has a status light that can be made brighter or darker as the application demands. Mostly the default value is fine. However, in some unsupervised locations, it may attract the attention of vandals and it may be preferable to turn the brightness down to 0.

Values

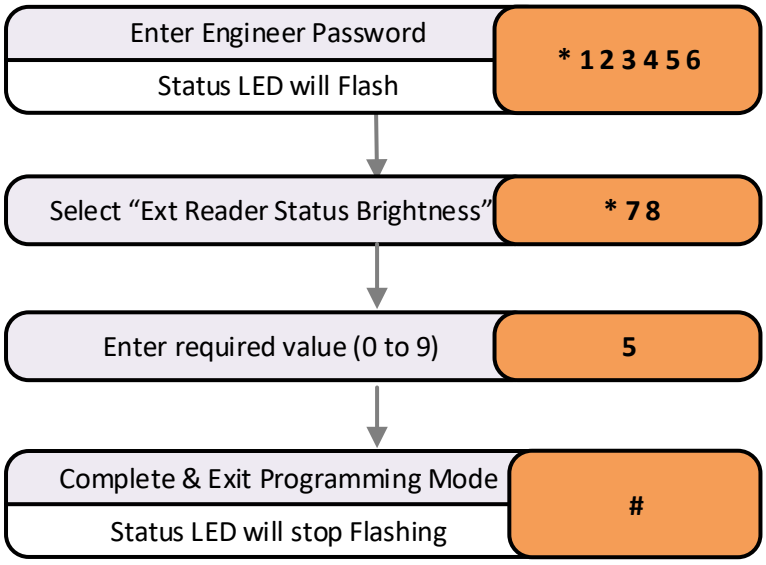
- 0 = 0ff to 9 = 100%

Default Value

- 5 = Medium Brightness

Related Engineer Menus:

- 34 Ext Reader Volume

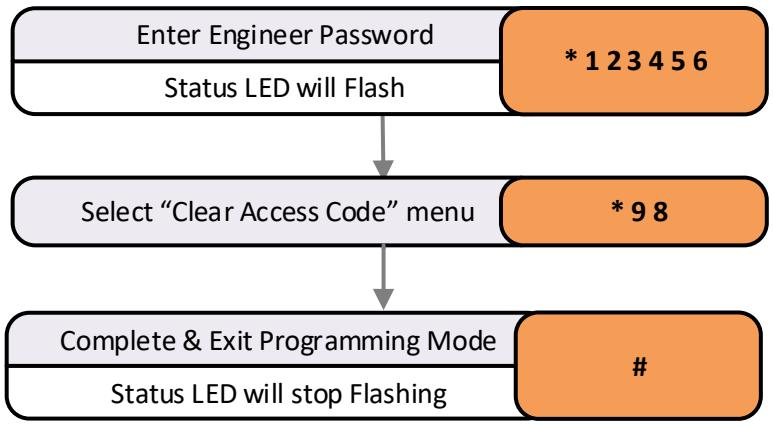


Removing the Access Code

Engineer' function 98 will erase the access code.

N.B.

- The Access Code will not work
- Any Credential data will be unaffected
- The User and Engineers Passwords are unaffected



Reset User Password

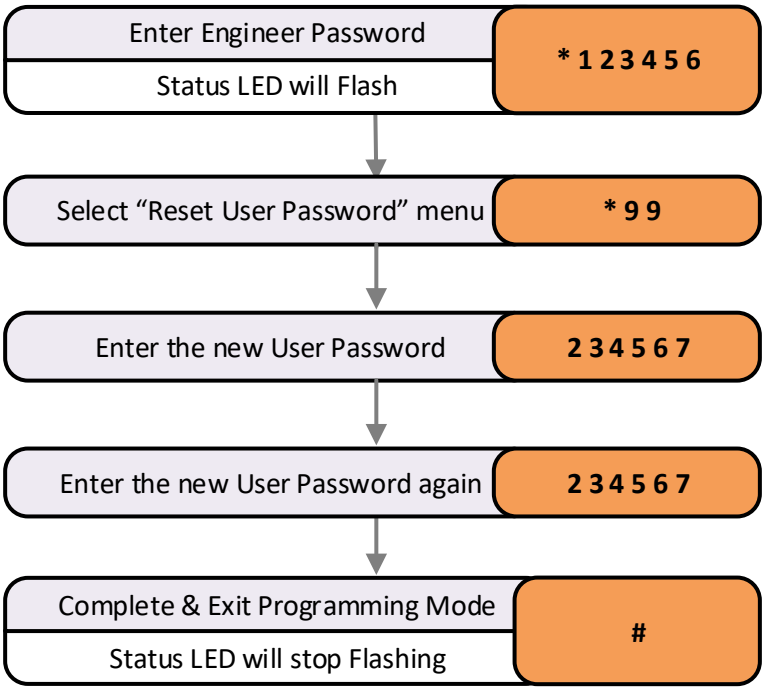
It can be useful for the engineer to reset the user password. By entering the engineering menu and select function 99 the Users Password will be set to the new value.

Resetting the User Password

N.B.

- Only the User Password will be reset to the value chosen.
- The Access Code will be unaffected
- Any Credential data will be unaffected
- The Engineers Password is unaffected

In this example, the user Password is set to "234567"

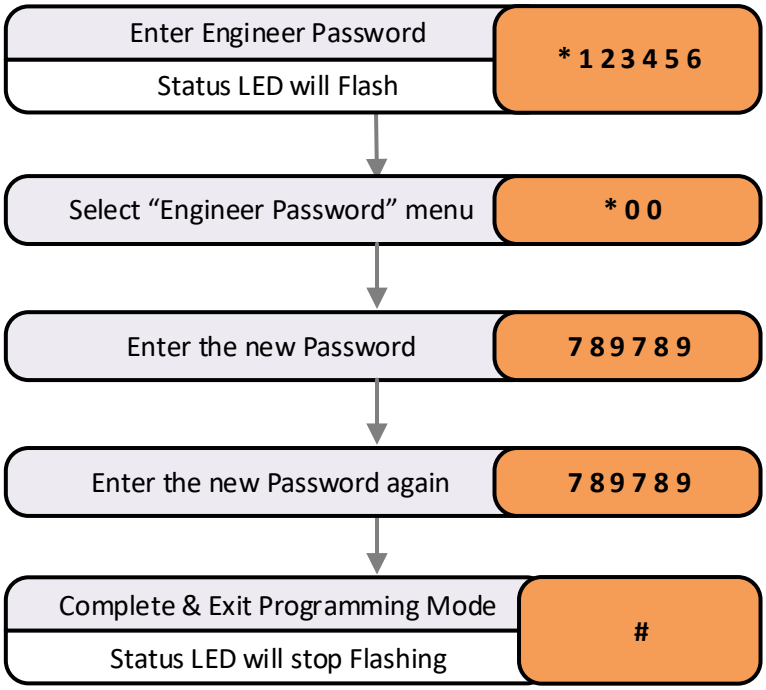


Engineer Password

The passwords are the means by which the commissioning engineer gains access to the programming functions. This is a 6-digit number and can be changed by using the following procedure.

Changing the Engineer Password

Default *123456



Restoring Factory Settings

Reset Sequence

The reset button allows the engineer to perform a factory reset. This resets all parameters to the factory default values and removes all Credentials and the Access Code.

1. Remove Power to the Keypad/Controller
2. Press and Hold the “9” Key
3. Apply Power and keep hold the “9” Key until the status light turns blue.

The Controller will now use the factory settings for all codes and timings. See defaults listed in the User and Engineer menu.

In particular:

- User Password will be 654321
- Engineers Password will be 123456
- All Credential Data erased
- The Access Code is erased

Installation

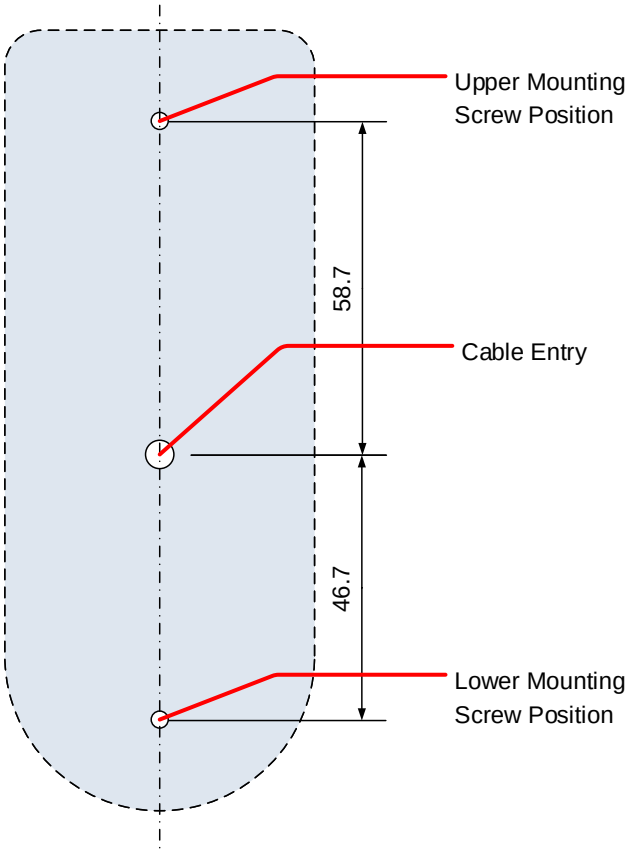
Mounting

The optimum location for the controller depends on the application. As a general Guide:

- Avoid mounting two RFID readers opposite each other on the same wall. Stagger them by one reader width.
- Mount at a convenient height for all users. Think about short and tall users and potentially those in wheelchairs.

1. Drill a cable entry hole as shown in this diagram
2. Draw a line vertically up 58.7mm and down 46.7mm. These are the centres for the two mounting screws.
3. Pass the cable through the light pipe back plate & make all connections to C4.
4. Screw the C4 Controller Into place over the light pipe.
5. Test operation of the system before applying the membrane label.

N.B. The drawing here is not to scale. Do not use it as a template.



Power Supply Maximum Loads

The 12V DC supply should a have a capacity to run the electronics and locking device but also current limit suitable for the cable being used. For 7x0.2mm cables, this would be approximately 1A but check with your cable supplier.

Lock Suppression

It is important to check that the locking device is suppressed. Any electromagnetic device will produce a Back E.M.F when power is removed. This can interfere with and even damage other electronic equipment. Most good locking devices will already have suppression fitted. If not, you should fit an appropriate suppression device across the coil.

In the case of solenoid operated locks, a flywheel diode will do. Connect the cathode to the positive and the anode to the negative terminal of the coil. The diode will need to be rated at the full operating current of the coil.

Do not use a diode for a mag-lock, as this will cause an excessive delay to the release of the door. A MOV or VDR is a far better choice. Polarity is not critical, but make sure the rated voltage is greater than the normal operating voltage of the lock.

A more detailed explanation of Back E.M.F. can be located at our website here: https://progeny.co.uk/back-emf-suppression

Lock Cable Volt Drop

Figure 3 shows how the voltage at the locking device varies with cable length and core size.

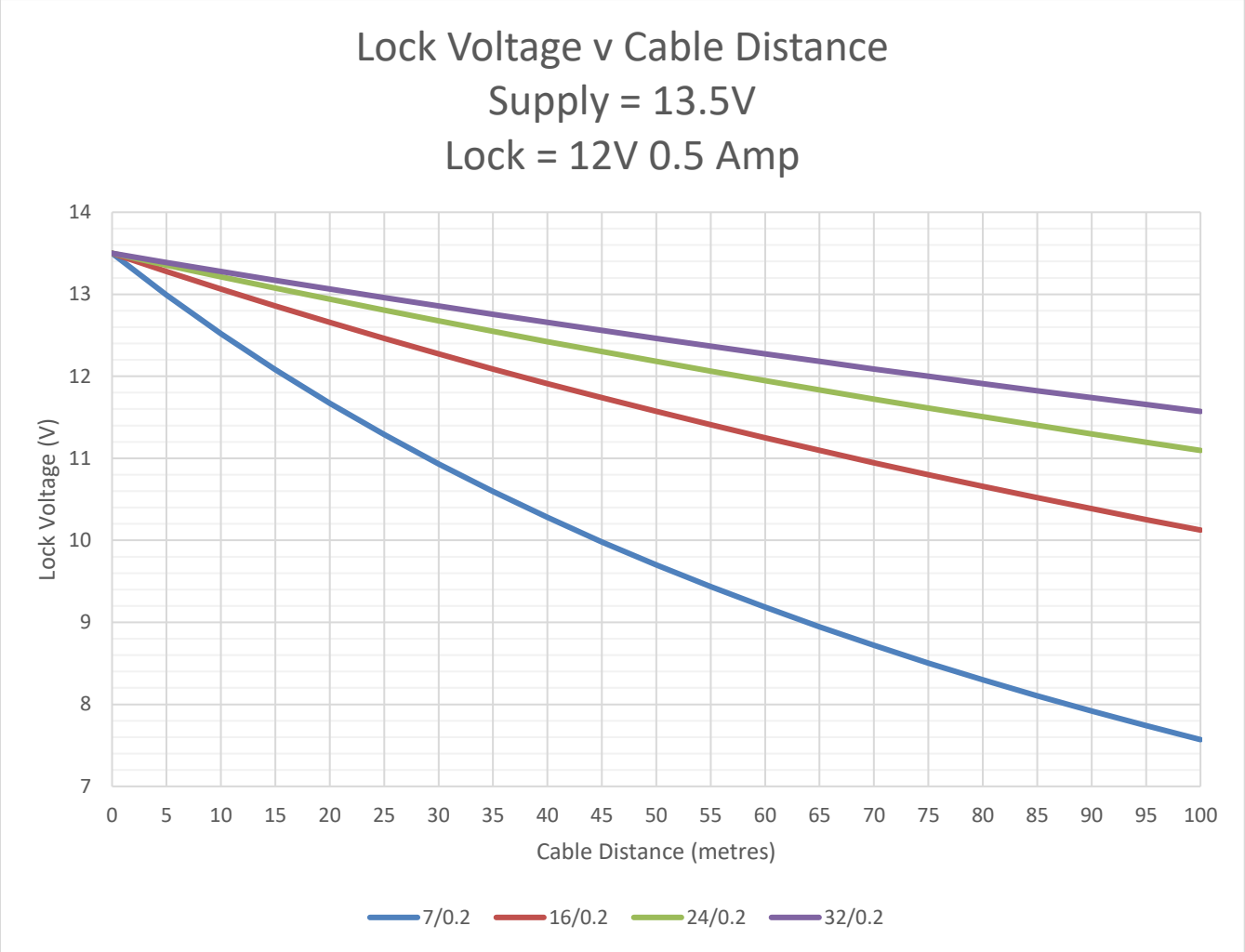

Lock Voltage v Cable Distance
Supply = 13.5V
Lock = 12V 0.5 Amp
Lock Voltage (V)
14
13
12
11
10
9
8
7
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
Cable Distance (metres)
7/0.2
16/0.2
24/0.2
32/0.2

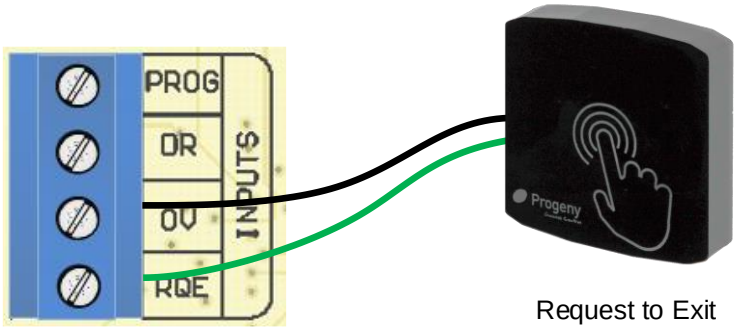
Figure 3

Inputs

Request to Exit (RQE)

The RQE “Request to Exit” input is used to trigger the lock release timer. The input accepts a normally open voltage free contact.

Generally, this input is used to provide egress where the locking device does not provide a mechanical override. Door Magnets and Turnstiles are a couple of examples.



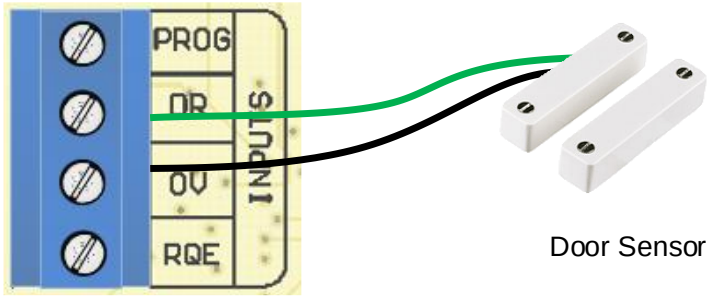
Request to Exit

This input may also be used to provide a remote opening; from a reception desk or a video or intercom door entry system.

Door Sense (DR)

The Door Sense input is used to detect when the door is fully closed. The voltage free contact should be closed when the door is closed.

The example shown here is a separate sensor & magnet. Some locking devices including Door Magnets have a Door Closed Sensor built in.



Door Sensor

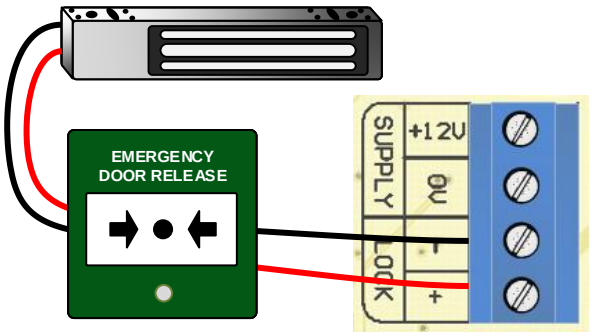
The use of door monitoring is optional but there are many features that make use of this input including:

- Auto Relock
- Door Alarm (Failed to Close Alarm), (PDO)

If the door is not being monitored, a wire link can be fitted between the “DR” input and the “0V” terminals or simply set the “Door Alarm Time” (Engineers Function 03) to 0.

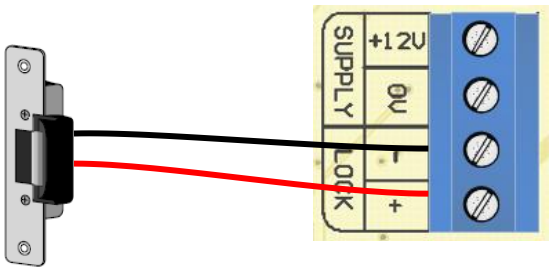
Lock Output

The Lock output drive mode can be set using engineers function 14.



Fail Open

Mode 1



Fail Secure

Mode 2 (Default)

External Reader / Keypad

Only one reader may be connected to the external reader input.

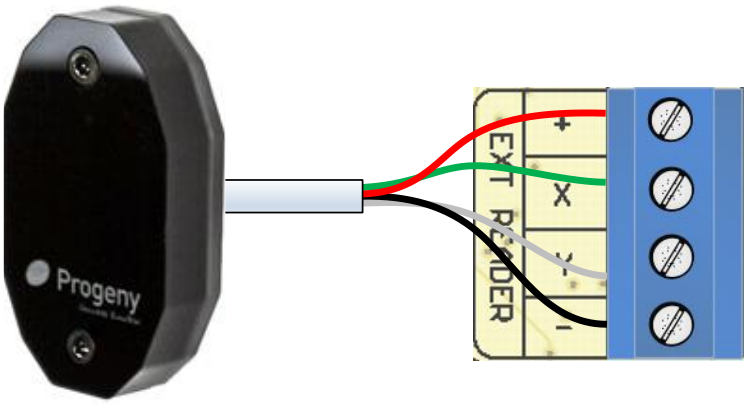
Cable & Connections:

Always use screened, none twisted cable. Don't exceed the 100m cable limitation.

Door Alarm

The door failed to close alarm is indicated on the Controller Keypad and (if connected) the External Reader. The Strobe light is flashed and the sounder an alarm tone is played from the speaker.

This alarm cancels when the door is closed.



External Reader

4059 Controller / Reader / Keypad

No additional connections are required to the external reader for this. However, the alarm does depend on the door sensor connection to be fitted.

Specification

Controller Memory

RFID Credentials	200
Reader Technologies	Crystal Proximity RFID, Crystal RFID with Keypad
Reader supplies	12V @ 1.0 A current limited
Access code	1 to 8 digits

Controller

Dimensions:	55mm, 137mm, 25mm

Locking Device Control

Lock Output	12V DC Applied Or Removed
Lock Timer	1 to 99 seconds 0 = Toggle mode
Anti-Tailgate Feature	As standard

Inputs

Request to exit input	Normally Open Contact
Door sensor input	Closed Contact when Door Closed
Program Key switch	Normally Open Contact

Status

LED	Readers, Keypad

Power Supply

Supply	12V DC

Safety Notes

- Please read this manual carefully before attempting to install, program or operate the equipment.
- This equipment must be installed in line with all relevant regulations and standards.
- Make sure that wiring is rated according to fuses and current limits of relevant power supplies
- All connections to this unit must be SELV level. (Safety Extra Low Voltage as defined in BS EN 60950-1:2006)
- Every effort is made to ensure that this manual is complete and free from errors. However, we reserve the right to make changes to these products and this manual without notice.
- No liability is accepted for loss damage or injury as a consequence of using these products or instructions.

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CE