# FORTESSA FTK1

DIGITAL KEYPAD

USER MANUAL

Thank you for purchasing the FORTESSA FTK1 Digital Keypad.

Its Stainless Steel Vandal resistant construction enables it to be used in many environments both internally and externally.

Designed with the contractor in mind the FTK1 digital keypad is simple to install yet boasts numerous additional features such as door monitoring, alarm signal output, door release input and auxiliary relay output.

The non-volatile memory also ensures all data programmed is not lost in the event of a power failure.
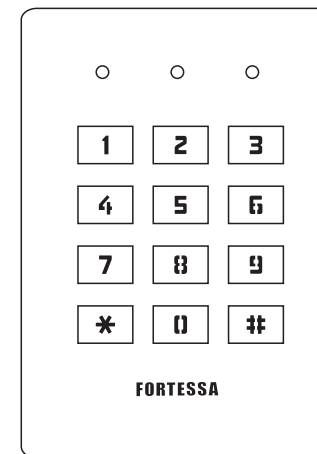
(Read the instructions carefully before using)

IMPORTANT NOTES:

1. Make sure the **User Code, Auxiliary code** and **Programming code,** are the same length. otherwi se, code entry will not be accepted.

2. The system takes approximate 2 to 3 seconds to refresh itself for the new operation mode after the command code is entered. **DO NOT** enter any code during the system is being refreshed until the keypad back light is on.
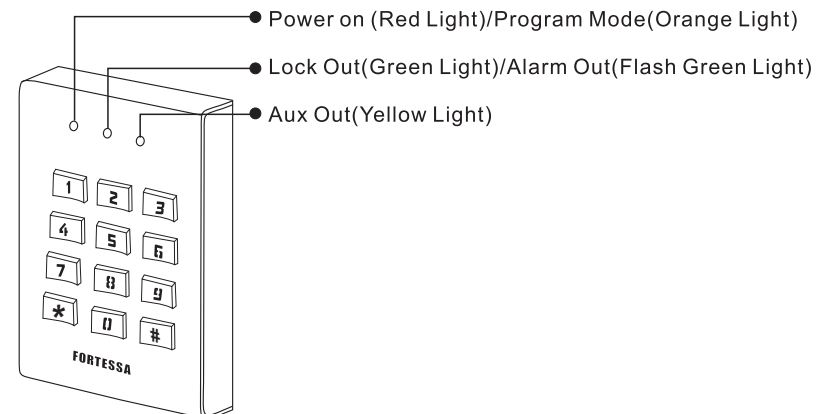
Technical Data:

- Volltage Supply   : 12 to 24V AC/DC
- Dimensions   : 76W x 11H x 18Dmm
- Weight   : 420g
- 12V Input:
  Stand-By Current : 65mA Relay Contact
  Operation Current : 104mA Rated
- 24V Input:
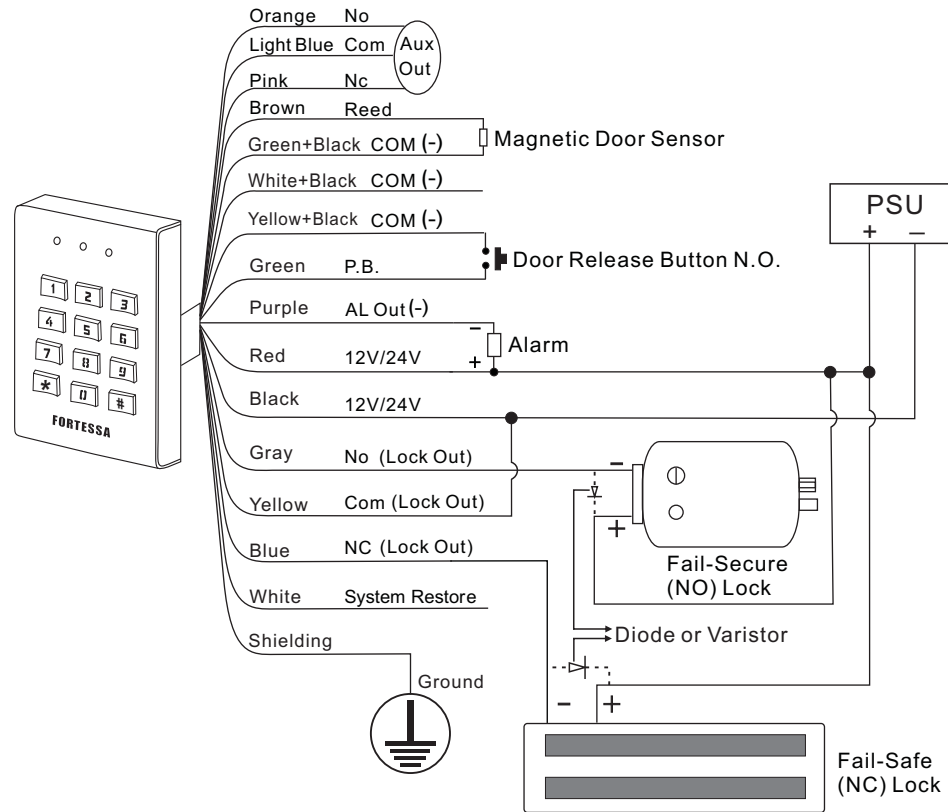 Stand-By Current : 44.5mA
  Operation Current : 71.5mA

Terminals Description:

Colour	Terminal	Description	Remarks
Orange	NO (AUX OUT)	Normally Opened Auxiliary Output	Designed for connecting with different kinds of security products
Light Blue	COM (AUXOUT)	Auxiliary Common Terminal	
Pink	NC (AUXOUT)	Normally Closed Auxiliary Output	
Brown	NC REED	Magnetic Door Sensor	Connect With a door sensor to the common terminal
Green+Black	COM(-)	REED/PB Common Terminal	The common terminal for REED and PB
White+Black			
Yellow+Black			
Green	P.B.	Door Releasing Button	Connect with a (NO) button to the common terminal
Purple	AL OUT(-)	Alarm Output	Connect with a flashlight or a sounder as an alarm
Red	AC/DC	AC/DC Power Source	Connect with AC/DC 12-24V Source
Black	AC/DC	AC/DC Power Source	Connect with AC/DC 12-24V Source
Gray	NO(LOCK OUT)	Normally Opened E-Lock Output	Connect with a fail-secure (NO) lock
Yellow	COM(LOCK OUT)	E-Lock Common Terminal	The common terminal for lock Output
Blue	NC (LOCK OUT)	Normally Closed E-Lock output	Connect with a fail-safe(NC)lock
White	System Restore	System Restore	Connect this terminal to the COM(-) to restore the system
Shielding	Ground	Ground	The ground terminal of the hole system

Indicator:

- Power on (Red Light)/Program Mode(Orange Light)
- Lock Out(Green Light)/Alarm Out(Flash Green Light)
- Aux Out(Yellow Light)

■ Wiring diagram

Orange — No
Light Blue — Com — Aux Out
Pink — Nc
Brown — Reed
Green+Black — COM (-) — Magnetic Door Sensor
White+Black — COM (-)
Yellow+Black — COM (-)
Green — P.B. — Door Release Button N.O.
Purple — AL Out (-) — Alarm
Red — 12V/24V
Black — 12V/24V
Gray — No (Lock Out)
Yellow — Com (Lock Out)
Blue — NC (Lock Out)
White — System Restore
Shielding

Ground

PSU + —

Fail-Secure (NO) Lock

Diode or Varistor

Fail-Safe (NC) Lock

A DC power supply is required for Fail-Safe locks
* Either Diode or Varistor can be used

■ Introduction:

Power Source Input:
Connecting with AC/DC12-24V power supply.

Door Release Button:
Connecting with (N.O.) button to control the Electric Lock Outout.

Magnetic Door Sensor (REED):
Connecting with a (N.C.) magnetic door sensor (REED). If the door is forced in or is opened for a period longer than the setting time, there will be an alarm.

Tamper Button:
A normally closed (N.C.) button located on the rear for resisting tamper. There will be an alarm as it is activated.

Alarm Output:
Labeled as (AL OUT), the maximum output loading is DC12V/ 500mA, connected with a sounder or a flashlight as an alarm.

Electric Lock Output:
A relay output which is connecting with a fail-secure (N.O.) or fail-safe (N.C.) electric lock (Max. 24V/3A)

Auxiliary Password Output:
A relay output which is connecting with a security system(Max. 24V/3A . For the user which have user ID from 20 to99)

■ Programming Summary:

[Notes: Tamper switch has to be closed. The programming code only allows changes
to the parameters & user codes, the programming code will not operate the lock.]

(1) Program or change the programming Code: (Default = 1234)
     MMMM MMMM ∗ 00 "code" #   MMMM = Programming Code
                                        code = New Programming Code (4-8 digits)

(2) Program or change user codes: (Default=01 User 3333)
     MMMM MMMM ∗ XX "code" #   XX = Memory No. 01-19
                                        code = New User Code (4-8 digits)

(3) Program or change additional user codes:
      MMMM MMMM ∗ 6YY "code" #   YY = Memory No. 20-99
                                 code = New User Code (4-8 digits)

[Notes: The default code length of the system is four digits. The code length will be changed
following the programming code length is changed

(4) Set lock output operating time: (Default = 5seconds)
     MMMM MMMM ∗ 20 TT #   TT = 01-99 (seconds)
                                           TT = 00 latch time

[Notes: The lock output operating time works with a door magnetic sensor. After entering a user
code, if the door is being opened, the system will re-lock the door when the sensor return to its
original position. Otherwise, the door will be locked when the lock output time is due]

(5) Program or change the auxiliary code (Default = no auxiliary code)
     MMMM MMMM ∗ 40 "code" #   code = New auxiliary Code (4-8 digits)

(6) Delete user codes:
     MMMM MMMM ∗ 50 XX #   XX = Memory No. 01-99
                                           XX = 00 Delete all User Codes

(7) Enable/Disable incorrect code protection: (Default = disable)
     MMMM MMMM ∗ 51 #

[Notes: If incorrect code protection is enabled, the system will be locked for 30 seconds after 5
 incorrect password or 20 consecutive incorrect digits]

(8) Select operating mode:
     MMMM MMMM ∗ 52 0#   0 = Normal Mode
     MMMM MMMM ∗ 52 1#   1 = Latching Mode

[Normal Mode: Normal Operation, access entry by user password
 Latching Mode: By entering the "latching code" the relay will latch allowing free entry until
  the "latching code" is re-entered]

(9) Select incorrect code protection: (Default = 20 incorrect digits)
     MMMM MMMM ∗ 53 0#   20 consecutive incorrect digits
     MMMM MMMM ∗ 53 1#   5 incorrect passward

(10) Program the Latching Mode Starting Code:
     MMMM MMMM ∗ 54 BBBB#   BBBB = Latching Mode Starting Code

(11) Set alarm output mode: (Default C = 0)
      MMMM MMMM ∗ 55 C#   C = 0 to disable
                              C = 1 to enable door forced open detection for alarm output
                              C = 2 to enable tamper switch for alarm output
                              C = 3 to enable door forced open detection and tamper switch for
                                     alarm output

(12) Set alarm output time:
     MMM MMMM ∗ 56 TTT#   TTT = 001~999 (Seconds)
                           TTT = 000 (Latch Mode)

(13) Select auxiliary output mode: (Default C = 7)
     MMMM MMMM ∗ 57 C#   C = 0 to disable
                         C = 1 to enable door monitor for auxiliary output ∗
                         C = 2 to enable incorrect password for auxiliary output ∗
                         C = 3 to enable ∗ or bell push button for auxiliary output ∗
                         C = 4 to enable temper switch for auxiliary output ∗
                         C = 5 to enable door forced open detection for auxiliary output ∗
                         C = 6 to enable lock output detection for auxiliary output
                         C = 7 to enable the programmed auxiliary code for auxiliary output

[Note: Enable function 1~5, it wil change the auxiliary output operating time to be more than 1 second.
(DON'T setting timer 000 in the function 1~5, because it will lead the auxiliary output to a failure)]

(14) Set auxiliary output operating time: (Default = Latch Mode)
     MMMM MMMM ∗ 58 TTT #   TTT = 001-999 (Seconds)
                             TTT = 000 (Latch mode)

(15) Restore system to default settings:
        1. Disconnect from the power source
        2. Connect the System wire (White) to COM- (Shielding)
        3. Reconnect with the power source, then the buzzer is activated
        4. Disconnect the white wire from COM-
        5. All settings and codes will be restored to default settings

WARNING: After performing the above procedures, the system will delete all user codes, the
programming code and the auxiliary code. The keypad will be restored to its default settings.

(16) Magnetic Door Sensor (REED) Wire (Brown):
        The REED wire is designed for connecting with a magnetic door sensor to perform its function.
        The function can be disabled by connecting the REED wire with COM-.The REED wire must
        not be left unconnected, since it will interfere the operation of the system.