# SDC Security Door Controls

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DELAYED EGRESS SYSTEM
S6000-101 DEVICE (ALL-IN-ONE DEVICE)

Rim Mount, Vertical Rod, or Mortise Exit Device

> PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

600 Series Power Supply
(sold separately)

When unauthorized egress is initiated by depressing the push pad of the S6000-101, an audible alarm will sound and an irreversible unlock delay period of 15 seconds will begin. Meanwhile, the person exiting must wait to egress, allowing personnel or security time to respond to the alarm. After the delay period has expired, the device unlocks, permitting egress until the device is reset. In a life safety emergency, the device will immediately unlock upon loss of power or when powered by a fire control supervised power supply. The included signage provides clear and comprehensive instructions of the door egress operation for persons without prior knowledge of the exit delay, including the sight and hearing impaired.

S6000-101 Applications include:
- Restricting the egress of wandering patients for their own safety.
- Restricting the egress of commercial center patrons for security application needs.
- Controlling pedestrian traffic in transportation facilities, including airport jetways and tarmacs.
- Reducing shoplifting and employee theft.
- Compatible with access control for entry using Electrified Trim for rim and vertical rod devices.
- When using mortise devices the mortise case is electrified to control entry.

*NOT COMPATIBLE WITH ELECTRIC RIM STRIKES

Standard Features:

Egress Delay
- 15 second exit delay
- 1 or 2 second nuisance delay
- Optional 30 second delay with AHJ approval

Built-In Visual & Audible Annunciation
- Armed mode
- Nuisance mode
- Irreversible egress mode
- Release mode

Trigger Modes
- Egress alarm triggered by Push Pad
- Trigger input from external device (Pair of Doors)
- Door opened in secure mode (Door Forced or Prop)

Code Compliance
- IFC International fire Code
- IBC International Building Code
- NFPA 101 Life Safety Code
- NFPA 1 Uniform Fire Code
- California Building Code with the exception of Sec. 11B-309.4 2013 edition.
- Field selectable automatic or manual power up after emergency release or power loss. Use of manual power up complies with California Building Code (OSHPD) requirements.
- UL 294, 6th Ed performance Level I – Line Security, Destructive Attack, Standby Power and Level IV Endurance

Control Inputs
- Field-selectable 1 to 30 second request-to-exit with anti-tailgate and door prop alarm.
- Bypass
- Reset
- Remote trigger (for Pairs of Doors)
- DPS (Required for Door Forced, Prop and Anti-Tailgate)

Monitoring Outputs
- Secure/Unsecure status
- Egress initiation status
- Released/Bypass status

Recommended Accessories
- S6000DES Series – Delayed Egress Auxiliary Exit Device (for Pair of Doors)
- 600 Series regulated & filtered power supply – 602RF (1 Amp) or 631RF (1.5 Amp)
- Door contact (included) – MC-4 recessed magnetic switch
- Power Transfer Device – PTH-10, PTM-10 Series, PT-5

SECURITY
UL LISTED
FWAX SPECIAL LOCKING ARRANGEMENTS

S6000-101 Series – Operational Description

The door is normally closed and secured by the S6000-101 Delayed Egress Exit Device. The on-board status LED illuminates Green indicating that the unit is secured. The integral Reset/Bypass key switch is in the center position.

Activation/Alarmed Release: Pressing the push pad of the S6000-101 device initiates the irreversible 15 second unlock delay cycle. To prevent false alarms, a pre-alarm audible warning tone is activated during the short nuisance delay period. Releasing the push pad during the nuisance delay period will silence the pre-activation warning tone, reset the unlock delay cycle, and keep the door locked.

Once the nuisance delay period has been exceeded, the S6000-101 continues its irreversible door release cycle. An audible tone and Yellow status LED inform the person intending to exit of the door release cycle activation. An alarm output is activated to alert personnel of an unauthorized exit. After the delay cycle has expired, the status LED illuminates Red, and power is removed from the locking device, allowing free egress by pressing the push pad. A second output is activated indicating that the door is unsecure.

Reset/Relock (from an Alarm, REX, or Bypass state): The S6000-101 can be manually reset by authorized personnel by closing the door and turning the integral key switch to the reset position, or by momentarily activating a N/O switch connected to the remote Reset/REX control input.

Request-to-Exit (from a Secure state): A timed Request-to-Exit (REX) cycle is initiated by authorized personnel by momentarily turning the integral key switch to the reset position, or by momentarily activating a N/O switch connected to the remote Reset/REX control input. The power will be removed from the locking device allowing free egress by pressing the push pad. The on-board status LED will rapidly flash Green (2x / sec) during the REX cycle. After the REX cycle has expired, the S6000-101 will automatically re-apply power to the locking device to re-secure the door. If an external door position switch is connected to the DPS input, the door will automatically relock on door closure.

Authorized Maintained Bypass (from a Secure state): Unlocking the door for an extended period of time is accomplished by momentarily turning the integral key switch to the Bypass position, or by momentarily activating a N/O switch connected to the remote Bypass control input. The power will be removed from the locking device allowing free egress by pressing the push pad. The on-board status LED will slowly flash Green (1x / sec) during Bypass mode. The S6000-101 may be re-secured using the Reset procedure described above.

(NFPA-101)

The S6000-101 operation complies with the following building and fire codes: NFPA 101; NFPA 1-UFC; UBC; IBC; IFC; SBC; California Building Code. Listings: UL Listed: Special Locking Arrangements and Auxiliary Locks; California State Fire Marshal (CSFM) Listed.

Option Code	Delay Release Time	Nusiance Time	Reset after Alarm	Lock Status on Power-Up
ND	**15 sec Fixed**	**1 sec or 2 sec Selectable**	**Manual**	**Locked or Unlocked Selectable**
NH (AHJ Approval)	**30 sec Fixed**	**1 sec or 2 sec Selectable**	**Manual**	**Locked or Unlocked Selectable**
NC (CBC Compliant)	**15 sec Fixed**	**1 sec or 2 sec Selectable**	**Manual**	**Unlocked Fixed**

Per BOCA compliance, the S6000-101 is manually reset by authorized personnel after an alarm by closing the door and turning the integral key switch to the reset position, or by momentarily closing a contact connected to the remote Reset/ Bypass control inputs. In addition, a reset will be automatically be initiated once the door has been opened, then closed, and remains closed for 30 consecutive seconds.

(BOCA/Chicago)

The S6000-101 operation complies with BOCA National Building Code and the Chicago Building Code: UL Listed, Special Locking Arrangements and Auxiliary Locks.

Option Code	Delay Release Time	Nusiance Time	Reset after Alarm	Lock Status on Power-Up
BD	**15 sec Fixed**	**1 sec or 2 sec Selectable**	**Auto/Manual**	**Locked or Unlocked Selectable**
BH (AHJ Approval)	**30 sec Fixed**	**1 sec or 2 sec Selectable**	**Auto/Manual**	**Locked or Unlocked Selectable**
BC	**15 sec Fixed**	**0 sec Fixed**	**Auto/Manual**	**Locked or Unlocked Selectable**

S6100-101 RIM DEVICE

3 conductors — AC Mains
2 conductors — FACP

602RF Power Supply

2 conductors

2 to 10 Conductors

DPS

PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

Power Transfer Device or Hinge

Single Door
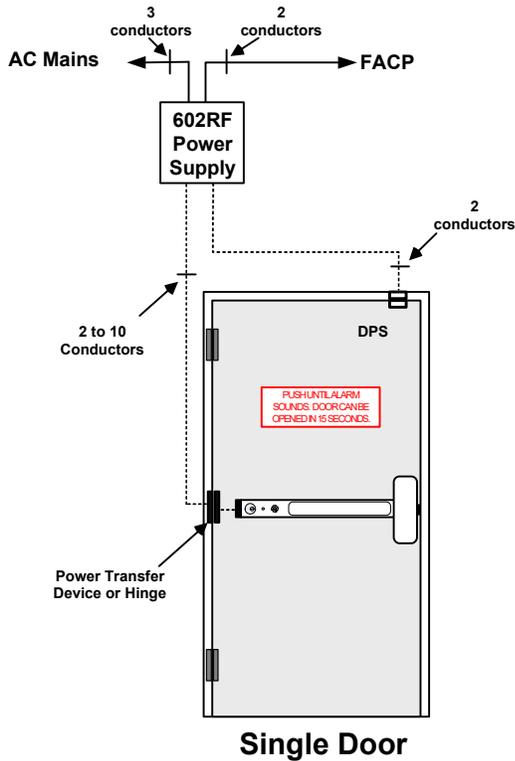
S6200-101 SURFACE VERTICAL ROD DEVICE

3 conductors — AC Mains
2 conductors — FACP

631RF Power Supply

2 to 10 conductors

J-Box

2 conductors **2 conductors**

4 to 10 conductors

DPS   DPS

PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

4 Conductors

Power Transfer Device or Hinge **Power Transfer Device or Hinge**

Pair of Doors
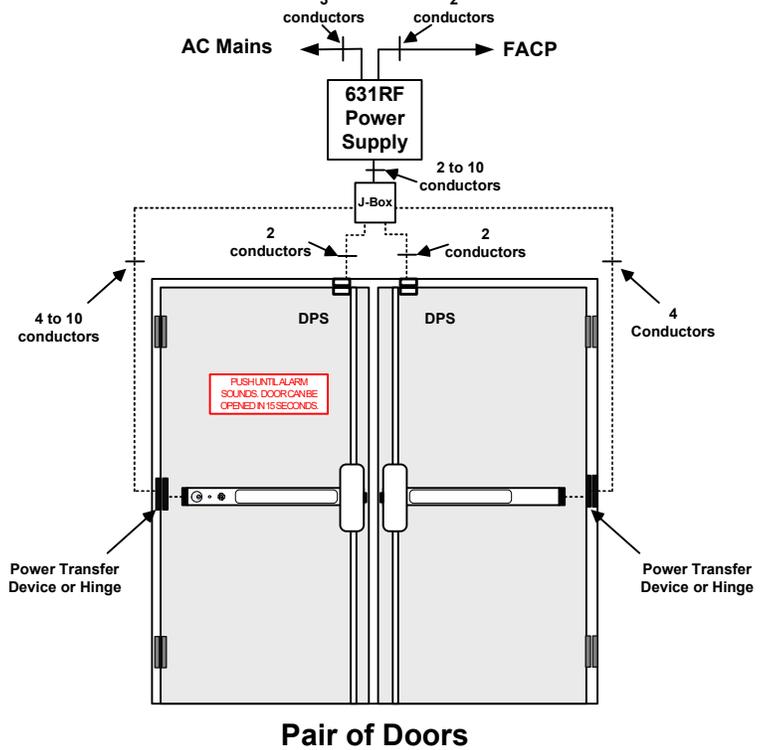
S6000-101 Board Layout (LR Device shown)

J6   J7

PIGTAIL CONNECTION

DIP SWITCHES

ON
1 2 3 4

Siren

STATUS LED

J4 TO KEY SWITCH RESET

J5 TO KEY SWITCH BYPASS
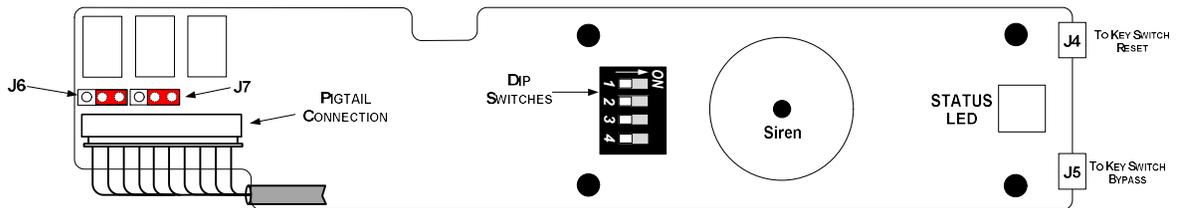
MONITOR RELAY JUMPER SETTINGS*

*Individually sets the polarity of the GRN & RED relays when the relay is in an ACTIVE state.

2 Left Pins = N/O

2 Right Pins = N/C

J6 = GRN RELAY (Active when device is secure)
J7 = RED RELAY (Active upon alarm initiation)

DIP SWITCH SETTINGS

[OFF]   [ON]

⚠ **WARNING!**
CONTACT THE AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO SELECTING NUSIANCE TIME OR PWR-UP SETTINGS

ON

1 — **PWR UP STATE** — UNLOCKED / LOCKED ⚠

2 — **NUISANCE DELAY** — 1s / 2s ⚠

3
4 — **REX PERIOD** — 15s 20s 30s 1s

Device Wiring Pigtail

ORG = Auxiliary Out[1]   (24vdc @ 250ma)
VIO = Remote Trigger[1] (For pairs of doors)

BRN = Red Relay[1]
GRN = Green Relay[1]
YEL = Relay Common[1]

GRY = DPS[1,4]
BLU = Reset / REX[1]
WHT = Bypass[1]

RED = Power In (+)[3]   (24VDC)
BLK = Power In (-)[3]
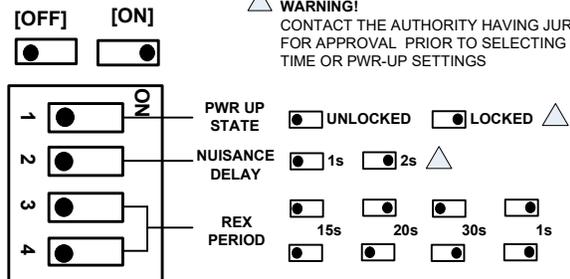
[1] MAXIMUM CONNECTED WIRING LENGTH PERMITTED IS 98.5 FT. (30).

[2] WIRING SHALL BE CONNECTED TO AN ACCESSORY WITHIN THE PROTECTED AREA AND UNUSED WIRE MUST BE CAPPED OFF.

[3] THIS PRODUCT MUST BE POWERED BY A 600 SERIES POWER SUPPLY:
   Single Door – 602RF 1 AMP
   Double Door – 631RF 1.5 AMP

[4] A DOOR CONTACT IS REQUIRED FOR ANTI-TAILGATE, BOCA AND DOOR PROP FUNCTIONS.

Electrical Specifications:

Input Voltage : 24VDC +/- 10%

Input Current : 540ma Max

Monitor Relays: 1 Amp contacts @12/24vdc

Auxiliary Output : 24VDC @250ma

Enviromental:

Max Operating Temperature: 0°C to 70°C

Tested to 85% RH @30°C

| Wire Color	Wire Designation	Description
Orange	Auxilliary Out	Used for a pair of doors (Master & Auxiliary). This is a voltage output (24VDC@250mA). Connect this wire to (+) 24VDC (Red Wire) of the auxiliary device. See "Typical Wiring for Single or Double Door Installation."
Violet	Remote Trigger	Used for a pair of doors (Master & Auxiliary). This is a dry input. Connect this wire to one leg of the Auxiliary Trigger output. The other leg of the Auxiliary Trigger output is connected to ground (-) VDC. Closing the switch shorts this wire to ground and initiates the alarm sequence. See "Typical wiring for Single or Double Door Installation." The Two White wires on the Auxiliary device are the Normally Open Trigger switch.
Brown	Red Relay	This the Alarm Relay Output (Dry, 1A @ 12/24VDC). It is normally INACTIVE when the door is secure. It changes state when the push pad is pressed beyond the nuisance delay and placed into an Alarm State. It may be configured as Normally Open or Normally Closed using jumper J7. The Yellow wire is the relay Common.
Green	Green Relay	This is the Door Secure Relay Output (Dry, 1A @ 12/24VDC). It is normally ACTIVE when the door is secure. It changes state when the device unlocks after; (a.) he delayed egress countdown expires, (b.) an authorized Request-to-Exit (REX) signal, or (c.) the device is Bypassed. It may be configured as Normally Open or Normally Closed using jumper J6. The Yellow wire is the relay Common.
Yellow	Relay Common	This is the shared relay common for both the Red & Green relay.
Grey	Door Position Switch (DPS)	This is a dry input. Connect this wire to one leg of a Door Contact switch. The other leg of the Door Contact switch is connected to ground (-) VDC. The Door Contact polarity must be open when the door is closed. A door contact is required for anti-tailgate and door prop alarm function.
Blue	Reset/REX	This is a momentary, dry input. Connect this wire to one leg of a Normally Open switch. The other leg of the Normally Open switch is connected to ground (-) VDC. When the push pad is in a secure state, shorting this input will result in an authorized unlock (REX). The REX period is configured by the dip switch settings. When the device is in an alarm, authorized unlock state, or in a bypassed state, shorting this input will reset (secure) the device.
White	Bypass	This is a momentary, dry input. Connect this wire to one leg of a Normally Open switch. The other leg of the Normally Open switch is connected to ground (-) VDC. When the device is in a secure state, shorting this input will unlock the device indefinitely, until the device is Reset.
Red	Power IN (+) 24 VDC	Input Voltage: 24VDC +/- 10%; Input Current: 540mA (Max). The Red & Black wires are the minimum required connections for a single door appliaction.
Black	Power IN (-) 24 VDC	

TYPICAL WIRING FOR SINGLE OR DOUBLE DOOR INSTALLATION

SDC S6000-101

MASTER

631RF
POWER
SUPPLY

Power
Transfer

NOTE: Red & Blk pigtail wires are the minimun required connections for a single door application.

MC-4**
Door
Contact
(Master)

GRN
WHT

GRY (DPS)

BLK (-)

RED (+)   24VDC

YEL (Rly – COM)

WHT (Bypass)

BLU (Reset)

GRN

BRN

**Door Contact connection MC-4 is provided with every Master Unit. Use for anti-tailgate, BOCA, door prop alarms and added security.

GRN – SECURE
YEL – ALARM
RED – UNLOCKED
OFF – BYPASS

BYPASS   RESET

101-1AK
REMOTE ANNUNCIATOR
BYPASS/RESET
(OPTIONAL)

MC-4**
Door
Contact
(Auxiliary)

GRN
WHT

ORG (+24VDC Out)

VIO (Remote Trig)

Auxiliary

PIGTAIL
WHT
WHT
BLK
RED

Power
Transfer

SDC S6000-DES

Power
Transfer

KEY CYLINDER INSTALLATION & OPERATION
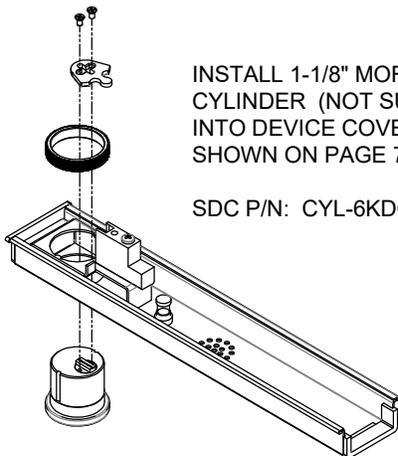
INSTALL 1-1/8" MORTISE CYLINDER (NOT SUPPLIED) INTO DEVICE COVER AS SHOWN ON PAGE 7.

SDC P/N: CYL-6KDQ

Key cylinder is in the normal, center position. LED is solid green when the device is secure.

To bypass the device for an extended period of time, momentarily turn the key cylinder towards "Bypass" and return to the center position. LED will flash slowly.

When the device is in a secure state, momentarily turning the key cylinder towards "Reset" will result in a timed authorized unlock (REX).

When the device is in an alarm, authorized unlock, or bypassed state, momentarily turning the key cylinder towards "Reset" will re-secure the device.

# TYPICAL WIRING FOR SINGLE DOOR WITH SDC ELECTRIC TRIM

NOTE: SDC Electric Trim not available for S6300 Mortise Device

J6 = GRN RELAY (Active when device is secure)

2 Left Pins = Set for Fail-Secure Electric Trim

2 Right Pins = Set for Fail-Safe Electric Trim

SDC 600 Series
REGULATED & FILTERED POWERSUPPLY

SDC S6000-101

MASTER

Power Transfer

(-) 24VDC +

GRY (DPS)

BLK (-)

RED (+)

YEL (Rly – COM)

WHT (Bypass)

BLU (Reset/REX)

GRN

BRN

ORG

VIO

Installation Note: Cap any unused leads.

MC-4** Door Contact

GRN
WHT

**Door Contact connection MC-4 is provided with every Master Unit. Use for anti-tailgate, BOCA, door prop alarms and added security.

N/O

N/C C

ACCESS CONTROL SYSTEM

ELELCTRIC TRIM WIRES **MUST BE** WIRED THRU THE DOOR RACEWAY NOT THROUGH THE EXIT DEVICE

SDC ELECTRIC TRIM EKE03/GKE03 SERIES

RED (+)

BLK

BLU

WHT (-)

MOV*

*Install MOV across coil to protect device electronics.

4' - Conductor Cable standard

24vdc @ .3 AMP

NOTE: 24VDC VOLTAGE CONFIGURATION W/ NO OPTIONS

STATUS LED INDICATIONS

Status	Device Mode
OFF	No Power
GREEN (Solid)	Secure
YELLOW	Irreversible Delay in Progress
RED (Solid)	Alarmed & Unlocked
GREEN (Slow Flash)	Bypassed
GREEN (Fast Flash)	Authorized Unlock (REX)
RED (Fast Flash)	Alarmed, Unlocked, & Door Opened

Use the supplied Clover Tailpiece or equivalent.
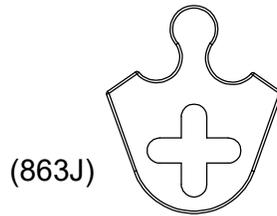
ILCO equivalent tail pieces:
863D
863S

(863J)

1 Install Key Cylinder as shown and secure with locking nut provided.
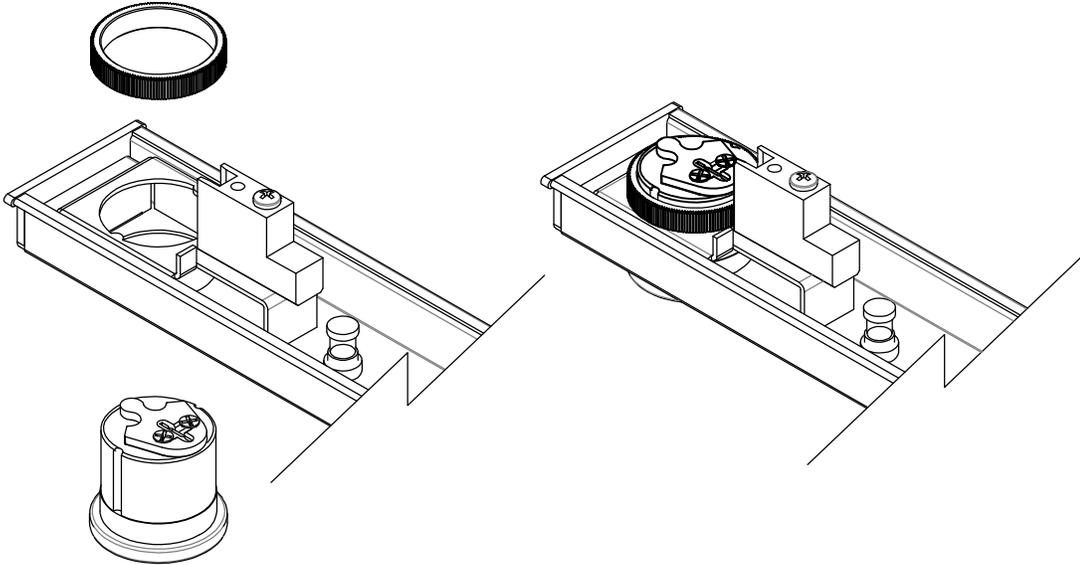
2 Remove and position Tailpiece as shown.
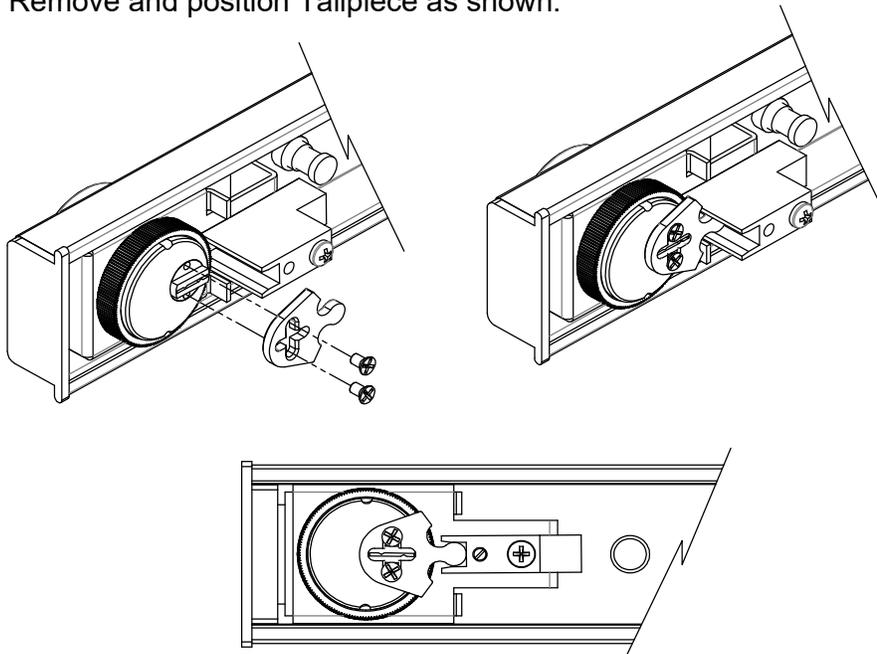
3 Insert Key and check for proper operation.