# EA Electronic Key System
Electronic access

- **Simplified one-touch key management and lock actuation**
- **Minimal power consumption ideal for battery powered applications**
- **Simple, software-free installation**
- **Keyfobs available with custom colors and logos**
- **LED provides visual feedback for programming and access status**
- **Sealed, stainless steel, electronic key construction for durability**
- **High security with trillions of possible key codes**
- **Programmable access time**

The new *SOUTHCO®* Electronic Key System provides an efficient, user-friendly solution for key management issues. The compact iButton® based system requires no software and allows users to easily set up, modify, add and delete access privileges with the touch of a button. A user need only touch the electronic key to the reader to authenticate the key and receive access.
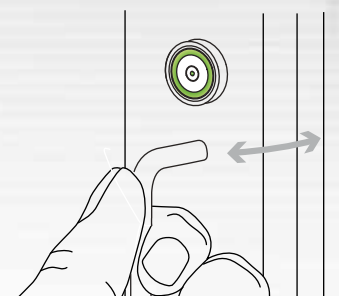
The Electronic Key System can operate any Southco electromechanical lock and is especially well suited for applications that require the distribution of multiple keys to individuals with varying access privileges across multiple access points – an arduous undertaking with mechanical keys.
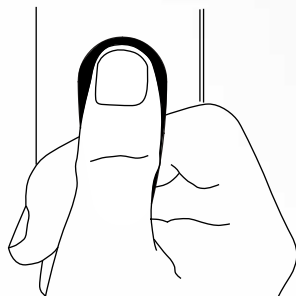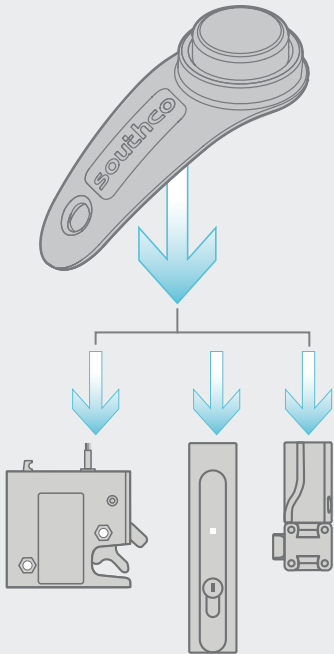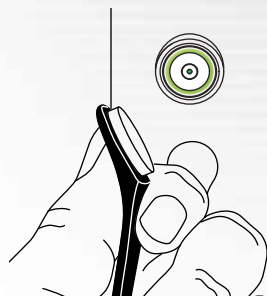
■ TOUCH　　　　　■ ACCESS STATUS　　　　　■ OPEN

Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com

Dimensions in millimeters (inch) unless otherwise stated

southco®
CONNECT · CREATE · INNOVATE

EA Electronic Key System Kit
Electronic access

How to Order

Order part number EA-B90 for complete kit **OR** order components separately:

1 controller per system
1 reader per system
1 electronic key for use as supervisor key and up to 15 keys for user access
1 Southco power harness (optional)

Part Number:

EA-B90

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Part Number: EA-B90 includes the following:
3 electronic keys (red, black, gray)
1 reader assembly
1 controller
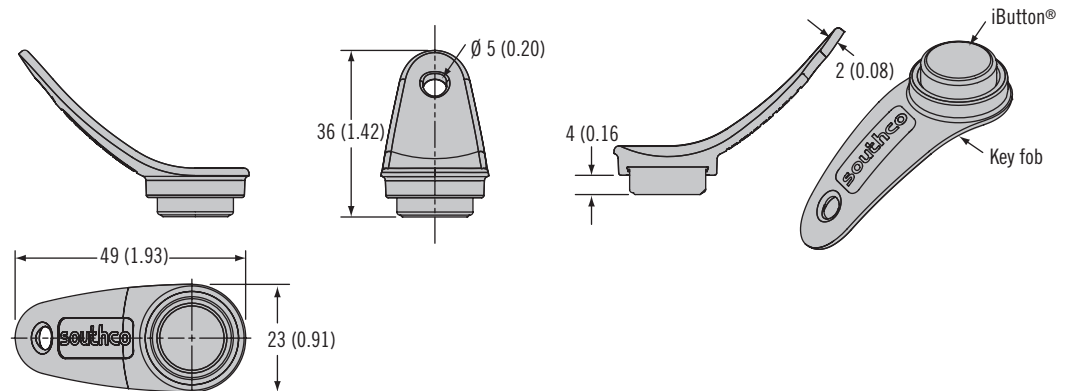1 power wire harness

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EA Electronic Key Assembly
Electronic access

Material & Finish

iButton® Key Fob: Acetal (color see table) and Stainless Steel

RoHS Compliant

Part Number Selection

Ø 5 (0.20)
36 (1.42)
49 (1.93)
23 (0.91)
2 (0.08)
4 (0.16
iButton®
Key fob

| EA | - | B10 | - | 11 | - | EE |

EE Color see table

EE	Color
01	Red
07	Black
09	Grey

"Other colors available upon request.
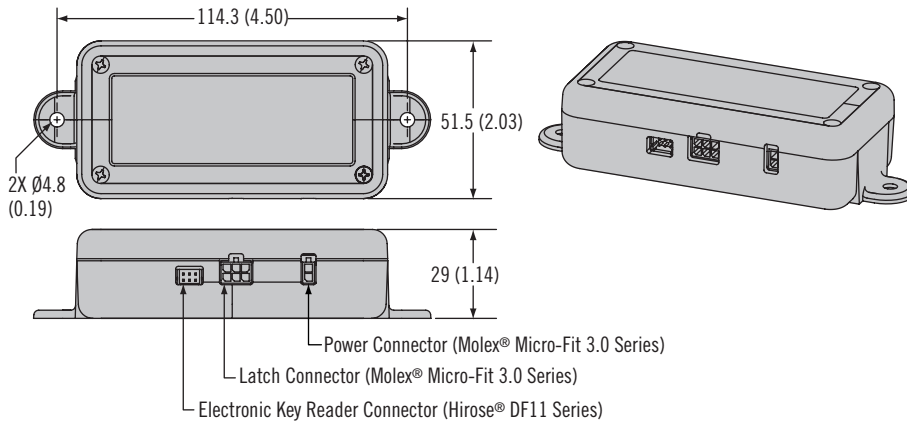Contact Southco for details."

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EA Electronic Key Controller Assembly
Electronic access

114.3 (4.50)

51.5 (2.03)

2X Ø4.8 (0.19)

29 (1.14)

Power Connector (Molex® Micro-Fit 3.0 Series)
Latch Connector (Molex® Micro-Fit 3.0 Series)
Electronic Key Reader Connector (Hirose® DF11 Series)

Material & Finish
Enclosure: ABS V-0 rated
RoHS Compliant
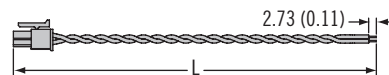
Electrical Specifications:
Supply Voltage: 12VDC ± 10%

Quiescent Current: 100µA (max)

Operating Current: 35mA (max)

Latch Command Output Signal
Rating: 2A Max

Part Number:
EA-B20-112

Part Number	Length
EA-W22-100	1 m (39.37)
EA-W22-200	2 m (78.74)

Optional power wire harness

2.73 (0.11)

L

EA Electronic Key Reader Assembly
Electronic access

Ø12.3 +0.5 -0
(0.48 + 0.02)

Ø21.5 (0.85)

2.5 (0.10)

6.5 (0.26)

1 (0.04) Min panel thickness

M12 x 1 Thread

25.5 (1.0)

13 (0.51)

Nut

1000 (39.37) Wire length measurement does not include connector

Ø11 (0.43)

3.5 (0.14)

Wire

9 (0.35) Max panel thickness

Shrink Tube
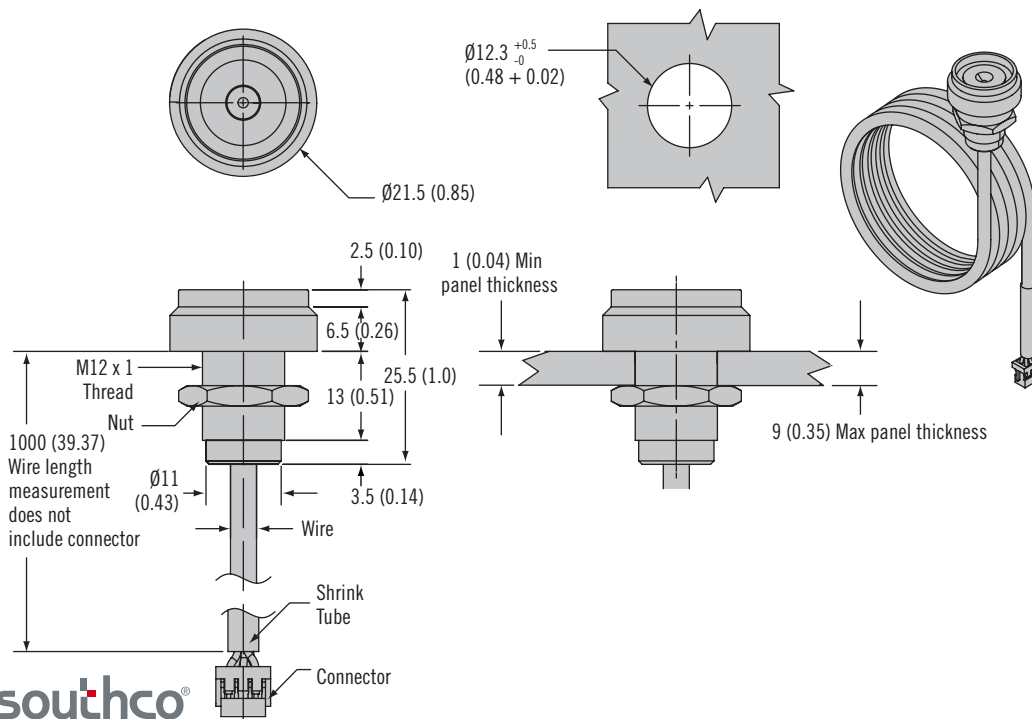
Connector

Material & Finish
RoHS Compliant
Polyacetal plastic and chrome plated steel

Installation
Prepare panel as shown.
Remove nut.
Slip assembly through hole, threaded on nut.
Plug connector into electronic key reader connector on controller assembly

Part Number:
EA-B30-117

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EA Electronic Key System
Electronic access

A system is comprised of..

... an electronic key
- 64 bit unique, unalterable user ID
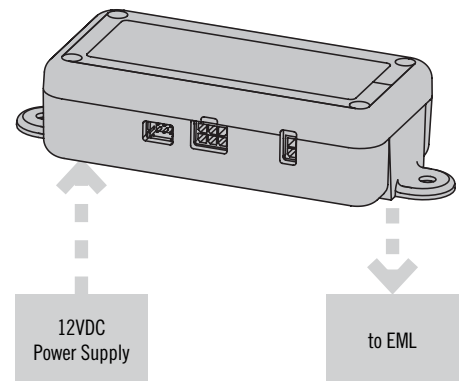- IC enclosed in sealed, stainless steel housing
- encapsulated in customizable fob

... an electronic key reader
- receptacle to transmit the user ID to the controller
- integrated LEDs for programming and read status

... a controller
- validates user ID against enrolled codes
- provides output to electronic lock based on ID validation

12VDC Power Supply

to EML

Key management...

During initial setup, the first electronic key enrolled becomes the programming key.

Touch the programming key to the reader to enter programming mode to add or delete keys.

- The reader will indicate the controller is in programming mode
- An unprogrammed key presented to the probe while in program mode is added to the system (up to 15 keys per system)
- A programmed key presented to the probe while in program mode will be deleted from the system

Touch the programming key to the reader again to exit programming mode.

Normal operation...

An electronic key is momentarily touched to the reader.

The reader includes a bi-color LED indicator to provide feedback status to the user.

The controller authenticates the electronic key and either grants or denies access.
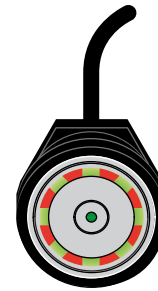
If access is granted, the controller produces an output signal to operate the electronic lock.

Reader LED turns amber (programming mode)

Reader LED turns green (enrolled key)

Reader LED flashes green/red (unenrolled key)

iButton® is a registered trademark of Maxim Integrated Products, Inc.

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www.southco.com/EA-B90

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