25.58
[1.007]

(J2)   (J5)

LOCK 1   LOCK 2

DOOR 1 + −
AUX 1 + −
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EA-A01-002 Rev C
AUX 2 − +
DOOR 2 − +

(J3)   (J6)

CTRL 1   CTRL 2

□ 64.64
[2.545]

(J1)   (J4)

INTERCONNECT BOX ASSEMBLY

NOTES:

1. MATERIALS ARE RoHS COMPLIANT.
   FOR MATERIAL INFORMATION SEE INDIVIUAL COMPONENT TRADE DRAWINGS
2. KIT INCLUDES:
   (1) INTERCONNECT BOX ASSEMBLY (EA-A01-002)
   (2) DOOR SWITCH (EA-A80-002): INCLUDES (2) TERMINAL SCREWS
           AND (4) MOUNTING SCREWS (NOT SHOWN)
   (2) 2 METER EXTENSION HARNESS (EA-W52-206-52)
   (2) 2 METER LATCH HARNESS (EA-W01-23-206-52)
   (2) 4 POSITION SCREW TERMINAL (EA-A20-001)
   (2) RJ45 UNION (EA-A10-004)
   (1) USER INSTRUCTIONS (J-EA-A01-102-M)
3. AUX AND DOOR SWITCH CONTACTS NOT TO EXCEED .5AMP (200VDC).
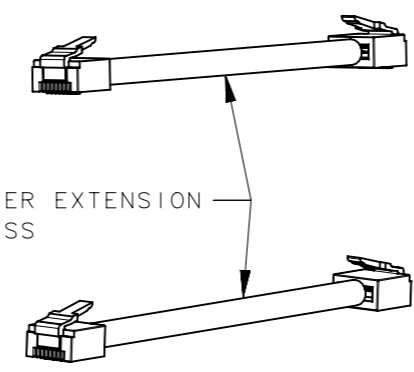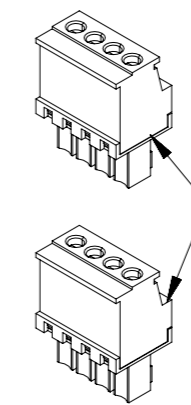4. SEE SHEET 2 OF 2 FOR DOOR SWITCHES AND HARNESSES INSTALLATION DIAGRAM.

PRESSURE SENSITIVE TAPE FOR EASY MOUNTING

4 POSITION
SCREW TERMINAL
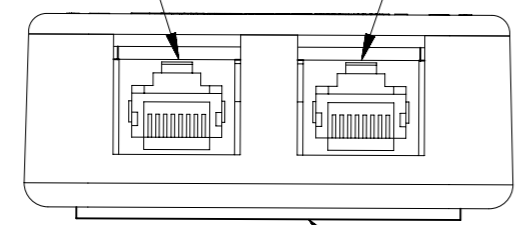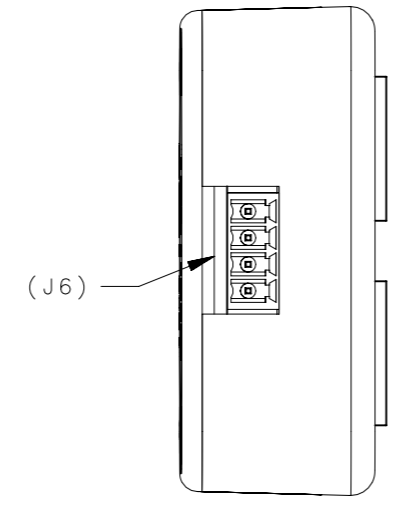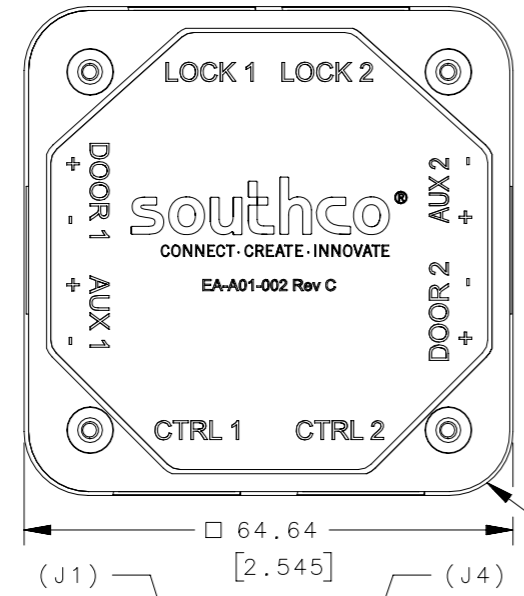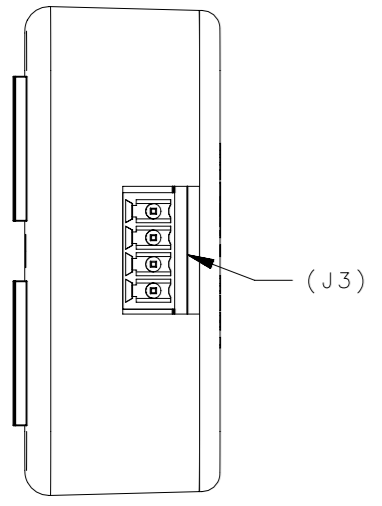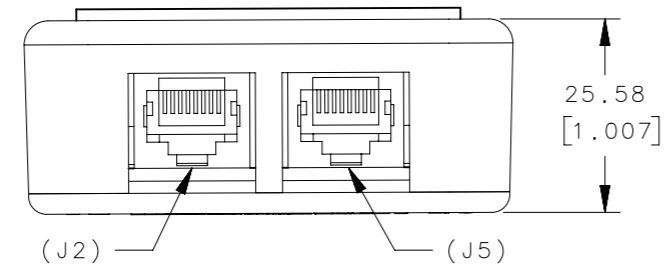
RJ45
UNION

2 METER EXTENSION
HARNESS
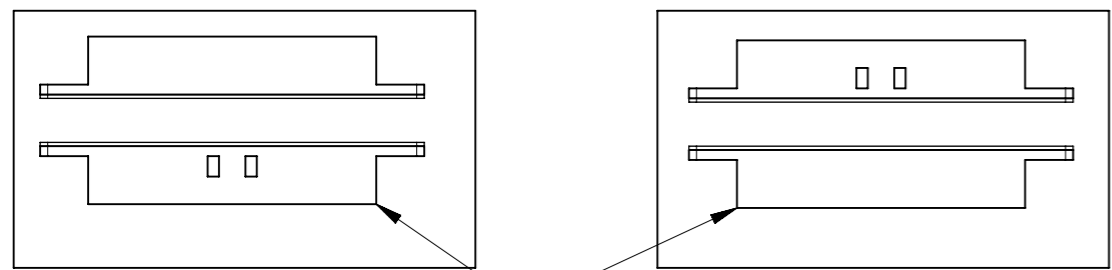
DOOR SWITCH WITH PRESSURE SENSITIVE
TAPE FOR EASY MOUNTING
(BAGGED SEPARATE)
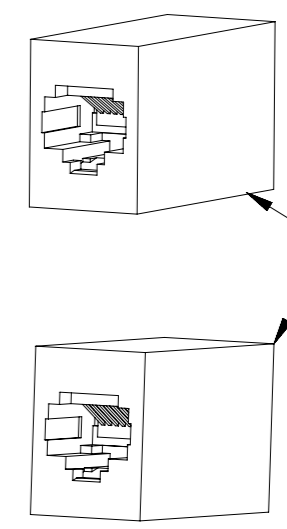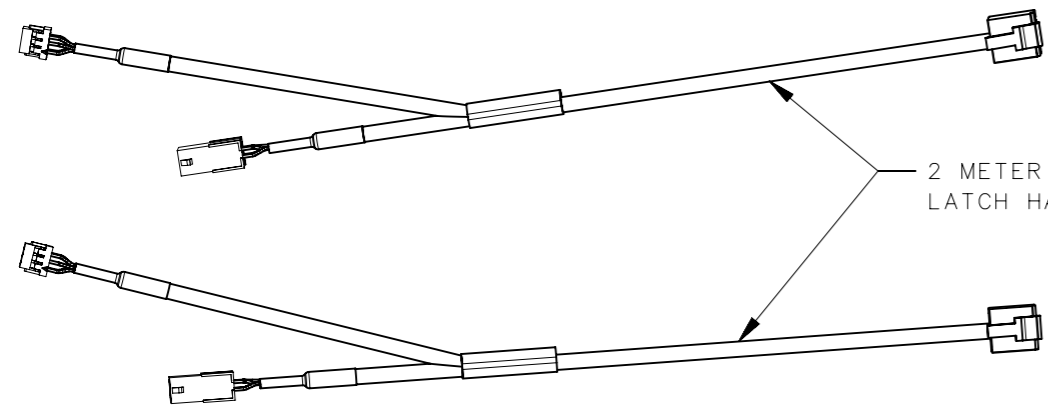
NOTE: ITEMS ARE NOT TO SCALE VIEWS ARE FOR PICTORIAL REPRESENTATION ONLY

2 METER
LATCH HARNESS

EA-A01-102	SEE NOTE 2
PART NUMBER	PART LIST

THIRD ANGLE
PROJECTION

MILLIMETERS [IN]

SURFACE AREA

VOLUME

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT
TOLERANCES ARE FOR
REFERENCE ONLY.

PROPRIETARY ITEM

PER ASME Y14.5M-1994

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DESCRIPTION
SECURITY SYSTEM INTEGRATION KIT

SIZE A3	SYSTEM NX	DWG NO.	J-EA-A01-102
DRAWN BY DAK	DATE 31JULY2013	SCALE NTS	SHEET 1 OF 2

4 PIN SCREW CONNECTOR

19.2 [.755]
12.6 [.495]
10.4 [.41]
15 [.59]

H3-EM LATCHES SOLD SEPARATE
(NOT INCLUDED IN KIT)

(ELECTRONIC SWINGHANDLE ELECTRICAL CONNECTOR)

(ELECTRONIC SWINGHANDLE ELECTRICAL CONNECTOR)

(PROXIMITY READER CONNECTOR)

(PROXIMITY READER CONNECTOR)

2 METER LATCH HARNESS
EA-W01-23-206-52

2 METER LATCH HARNESS
EA-W01-23-206-52

DOOR SWITCH DETAIL

7.67 [.302]
50.8 [2]
38.1 [1.5]
Ø 3.05 [.12]
9.53 [.375]
44.45 [1.75]

RJ45 UNION DETAIL

16.3 [.642]
37.21 [1.465]
22.3 [.878]

RJ45 UNION

2 METER EXTENSION
HARNESS EA-W52-206-52

2 METER EXTENSION
HARNESS EA-W52-206-52

DOOR SWITCH
(SEE NOTE 3 ON SHEET 1)

DOOR SWITCH
(SEE NOTE 3 ON SHEET 1)

4 POSITION SCREW TERMINAL

PIN 1

J2
J5
J6
J1
J3
J4

LOCK 1 LOCK 2
DOOR 1 AUX 2
AUX 1   DOOR 2
CTRL 1 CTRL 2
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EA-A01-002 Rev C

DOOR SWITCH WIRES NOT SUPPLIED BY SOUTHCO

DOOR SWITCH WIRES NOT SUPPLIED BY SOUTHCO

4 POSITION SCREW TERMINAL

CONNECTION OVERVIEW

CONNECTOR	FUNCTION	DESCRIPTION
J1	CTRL 1	INPUT FROM SECURITY CONTROLLER 1
J2	LOCK 1	DOOR 1 LATCH
J3	DOOR 1 / AUX 1	DOOR 1 STATUS
J4	CTRL 2	INPUT FROM SECURITY CONTROLLER 2
J5	LOCK 2	DOOR 2 LATCH
J6	DOOR 2 / AUX 2	DOOR 2 STATUS

DOOR 1 CONNECTION LIST

CONNECTION	CONTROLLER 1 J1	LOCK 1 J2	DOOR 1 J3
DATA_0	1	1	–
DATA_1	2	2	–
COMMAND	3	3	–
AUX 1	4	–	3
LATCH STATUS	5	4 & 6	–
DOOR STATUS	6	–	1
POWER	7	7	–
GROUND	8	8	2 & 4

DOOR 2 CONNECTION LIST

CONNECTION	CONTROLLER 2 J4	LOCK 2 J5	DOOR 2 J6
DATA_0	1	1	–
DATA_1	2	2	–
COMMAND	3	3	–
AUX 2	4	–	3
LATCH STATUS	5	4 & 6	–
DOOR STATUS	6	–	1
POWER	7	7	–
GROUND	8	8	2 & 4

TABLE: CTRL 1 AND CTRL 2 WIRE COLORS

CONNECTION	PIN	STANDARD T568A AND T568B WIRE COLORS T568A	T568B
DATA_0	1	WHITE/GREEN	WHITE/ORANGE
DATA_1	2	GREEN	ORANGE
COMMAND	3	WHITE/ORANGE	WHITE/GREEN
AUX	4	BLUE	BLUE
LATCH STATUS	5	WHITE/BLUE	WHITE/BLUE
DOOR STATUS	6	ORANGE	GREEN
POWER	7	WHITE/BROWN	WHITE/BROWN
GROUND	8	BROWN	BROWN

NOTE: J1 AND J4 CONTROLLER CONNECTIONS BY OTHERS

THIRD ANGLE PROJECTION

MILLIMETERS [IN]

SURFACE AREA

VOLUME

PROPRIETARY ITEM

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.

PER ASME Y14.5M-1994

southco®
CONNECT·CREATE·INNOVATE

DESCRIPTION
SECURITY SYSTEM INTEGRATION KIT

SIZE	SYSTEM	DWG NO.
A3	NX	J-EA-A01-102

DRAWN BY	DATE	SCALE	SHEET
DJK/KAM	28JAN2014	NONE	2 OF 2

Package Contents

- EA-A01-002 Interconnect Box (qty 1)
- EA-A80-002 Door Switch (qty 2)
- EA-W01-23-206-52 Latch Harness (qty 2)
- EA-W52-206-52 Extension Harness (qty 2)
- EA-A20-001 4-Position Screw Terminal (qty 2)
- EA-A10-004 RJ45 Union (qty 2)
- Operating Instructions (qty 1)

Features

- Simplified integration of Southco H3-EM into existing access control system
- Supports connection of two separate channels for independent system control
- For indoor use only

Specifications

Dimensions:	64.6 x 64.6 x 25.6mm (Interconnect Box)
Length:	2 meters (Latch and Extension Harnesses)
Current Rating:	8A (4-Position Screw Terminal)
Current Rating:	400mA (Door Switch)

⚠ **WARNING: It is the installer's responsibility to ensure electrical compatibility among all devices attached to the Interconnect Box. Contact Southco if assistance is required.**

Mounting and Installation

Please refer to Southco trade drawing J-EA-A01-102 for mounting and installation details.

The EA-A01-102 kit includes an EA-W01-23-206-52 latch harness, EA-A10-004 RJ45 union, and EA-W52-206-52 extension harness for each channel. The RJ45 union and extension harness are provided to allow for a cabinet door to be easily removed during product installation or maintenance.

EA-A01-002 Interconnect Box

The EA-A01-002 Interconnect Box supports two separate channels for connecting an access control system, including auxiliary devices, to a Southco H3-EM swinghandle. The Interconnect Box allows for the passing of signals and H3-EM power supply within a channel, but not across channels.
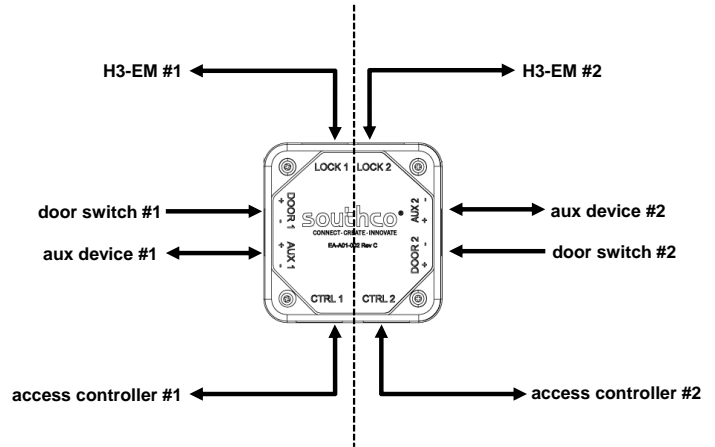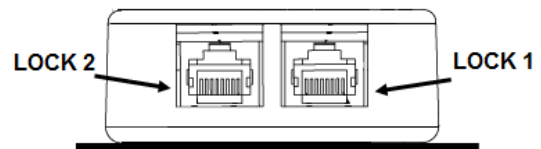
Each channel has three interfaces:

- latch interface (LOCK) – Used for connection of the H3-EM swinghandle.
- access controller interface (CTRL) – Used for connection of the access controller.
- auxiliary device interface (AUX/DOOR) – Used for connection of the provided door switch and an additional auxiliary device (e.g. buzzer, light, REX button, etc.)

Interconnect Box Interfaces

Latch Interface

Each channel has an interface for the H3-EM swinghandle. Signals are passed between this interface and the access controller interface.
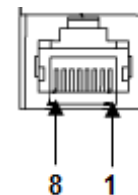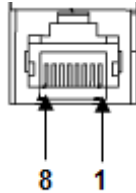
pin	description	function
1	DATA0	Wiegand DATA0 signal from H3-EM
2	DATA1	Wiegand DATA1 signal from H3-EM
3	CMD	electronic unlock command signal to H3-EM
4	LATCH STATUS	Status signal from H3-EM. Will be LOW if the latch is ether electronically or mechanically unsecured.
5	N/C	no connect
6	LATCH STATUS	Status signal from H3-EM. Will be LOW if the latch is ether electronically or mechanically unsecured.
7	POWER	12-24VDC power supply to H3-EM
8	GND	Ground connection. Common to H3-EMs and attached auxiliary components within a channel (not across channels)

Access Controller Interface
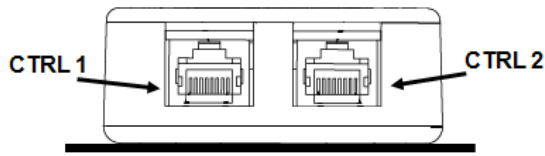
Each channel has an interface for an access controller. The access controller(s) and connecting harness(es) are not provided in the kit. Each controller interface has the following pinout:

pin	description	function
1	DOOR +	Input from door switch. Grounded when the switch is closed.
2	DOOR -	Ground connection.
3	AUX +	Auxiliary signal connection.
4	AUX -	Ground connection.

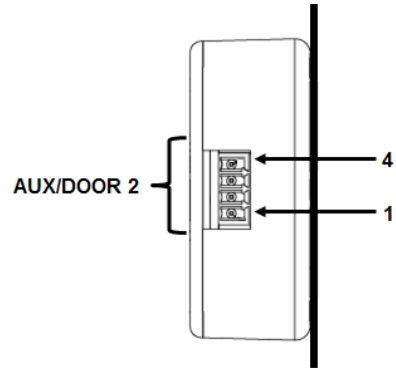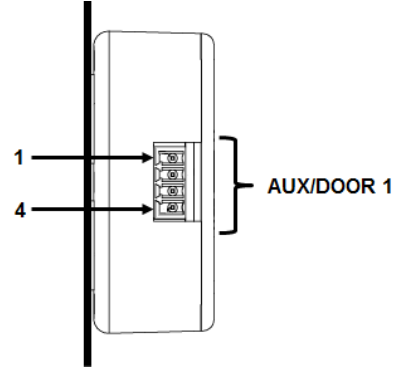| pin	description	function
1	DATA0	Wiegand DATA0 signal from H3-EM
2	DATA1	Wiegand DATA1 signal from H3-EM
3	CMD	electronic unlock command signal to H3-EM
4	AUX	Auxiliary signal. Can be used as either an input to or output from controller.
5	LATCH STATUS	Status signal from H3-EM. Will be LOW if the latch is ether electronically or mechanically unsecured.
6	DOOR STATUS	Door status indicator to controller. GND when door is closed, otherwise "open". Must be used with door switch (EA-A80-002 provided, or customer supplied).
7	POWER	12-24VDC power supply to H3-EM
8	GND	Ground connection. Common to H3-EMs and attached auxiliary components within a channel (not across channels)

⚠️ **WARNING:** Review electrical specifications of the H3-EM swinghandle to ensure compatibility with the access controller. Contact Southco if assistance is required.

pin	description	function
1	DOOR +	Input from door switch. Grounded when the switch is closed.
2	DOOR -	Ground connection.
3	AUX +	Auxiliary signal connection.
4	AUX -	Ground connection.

Auxiliary Device Interface

Each channel has an interface for connections to two auxiliary devices. The kit includes two EA-A80-002 door switches. Use the screw terminals on the EA-A20-001 terminal block to secure connections for the auxiliary and door switch wires, then install the EA-A20-001 terminal block into the AUX/DOOR connector.

The screw terminals on the terminal block cannot be accessed after it has been installed and the junction box mounted, without removing the terminal block first.
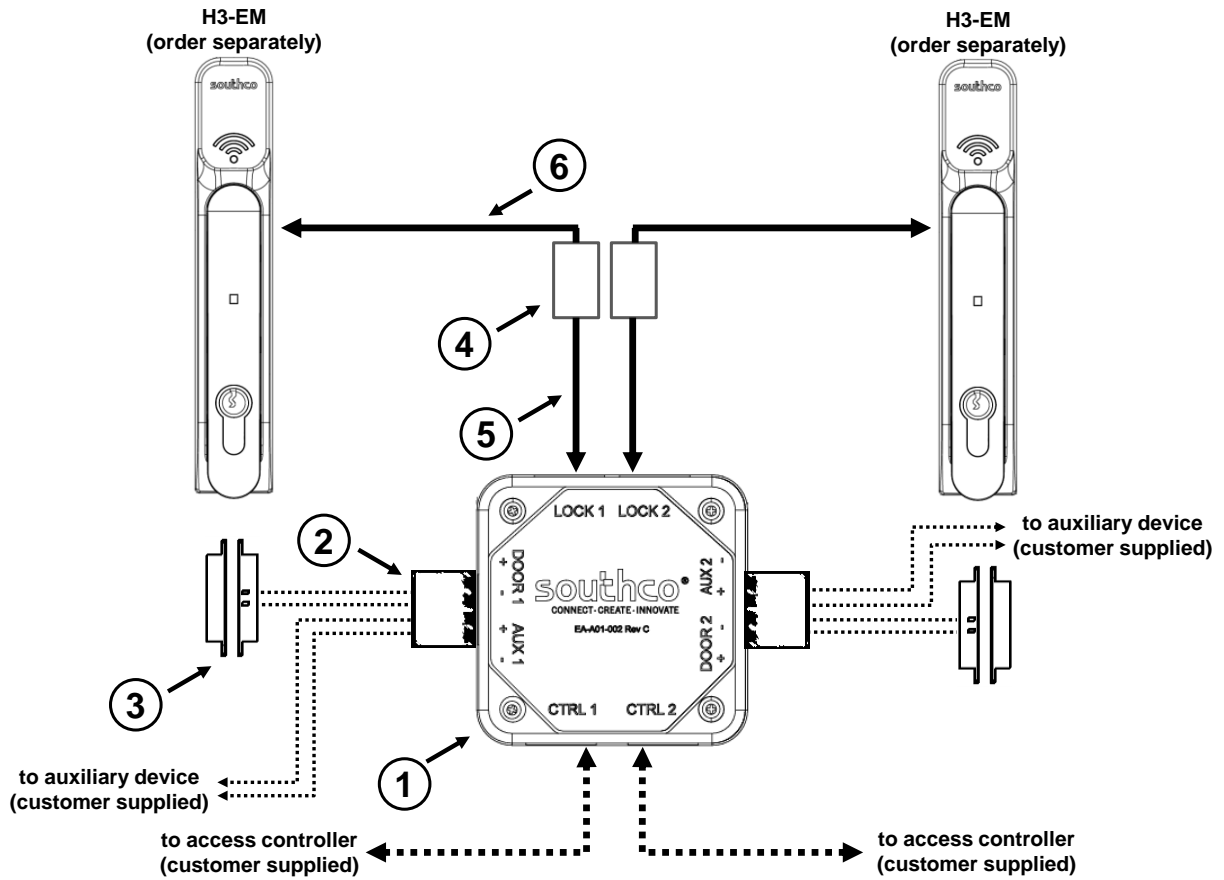
⚠️ **NOTE:** Wire harness for door switch and optional auxiliary device are **not** included with the kit.

System Overview

	Southco supplied wire harness
	Customer supplied wire harness

Item	Qty	Part Number	Description
1	1	EA-A01-002	Interconnect Box
2	2	EA-A20-001	4-Position Screw Terminal
3	2	EA-A80-002	Door Switch
4	2	EA-A10-004	RJ45 Union
5	2	EA-W52-206-52	Extension Harness
6	2	EA-W01-23-206-52	Latch Harness

T568A/T568B Pinout for Access Controller Interface

description	pin	T568A		T568B	
DATA0	1		(green/white)		(orange/white)
DATA1	2		(green)		(orange)
CMD	3		(orange/white)		(green/white)
AUX	4		(blue)		(blue)
LATCH STATUS	5		(blue/white)		(blue/white)
DOOR STATUS	6		(orange)		(green)
POWER	7		(brown/white)		(brown/white)
GND	8		(brown)		(brown)

For technical support of this product, contact info@southco.com or visit www.southco.com.