

## Installation and Operation Instructions ECCO Connect Kit EC101

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.



### WARNING!

Failure to install or use this product according to manufacturer's recommendations may result in property damage, serious injury, and/ or death to those you are seeking to protect!

Do not install and/or operate this safety product unless you have read and understood the safety information contained in this manual.

- 1. Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the safety of emergency personnel and the public.
- 2. Emergency warning devices often require high electrical voltages and/or currents. Exercise caution when working with live electrical connections.
- 3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
- 4. Proper placement and installation is vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that they can operate the system without losing eye contact with the roadway.
- 5. Do not install this product or route any wires in the deployment area of an air bag. Equipment mounted or located in an air bag deployment area may reduce the effectiveness of the air bag or become a projectile that could cause serious personal injury or death. Refer to the vehicle owner's manual for the air bag deployment area. It is the responsibility of the user/operator to determine a suitable mounting location ensuring the safety of all passengers inside the vehicle particularly avoiding areas of potential head impact.
- 6. It is the responsibility of the vehicle operator to ensure daily that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
- 7. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal.

  Never take the right-of-way for granted. It is the vehicle operator's responsibility to be sure they can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
- 8. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.

### **Specifications**

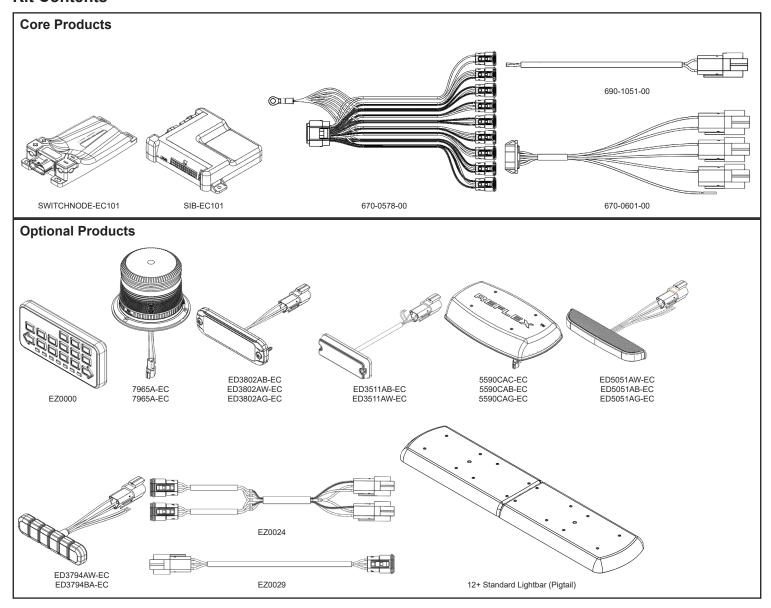
Input Voltage: 12VDC

Input Current: Varies based on hardware selected

Temp. Range: -40°C to 65°C

-40°F to 149°F

### **Kit Contents**



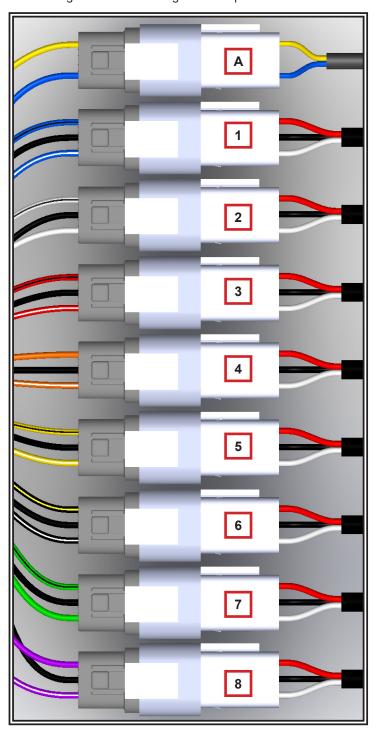
This kit is designed to integrate one 12+ Pro lightbar (standard wiring option) and up to four different directional lights within the same ECCO CONNECT system. The flash patterns come pre-programmed in the SIB. Use the instructions below to install this system. If you run into any questions, please reach out to our Tech Support team. We'll be happy to assist.

## **Installation and Mounting**

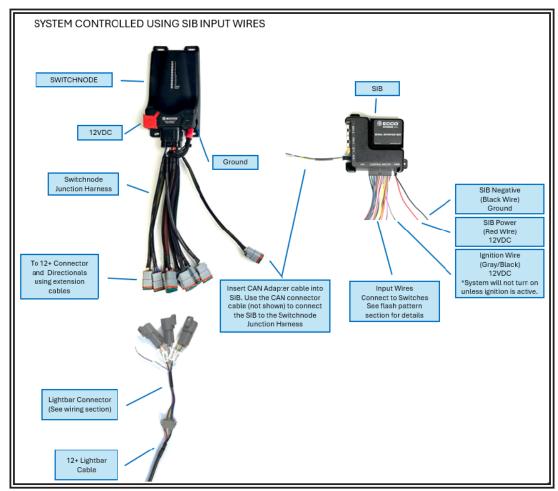
- Install the SIB, SWITCHNODE, and (if ordered) EZ0000 controller inside the cab on a flat surface that is safe from moisture. Follow
  provided instructions for mounting each product.
- 2. Mount the exterior lighting directionals in the desired locations of the vehicle. Note: Drill a 1" hole for the wire exit of the directional.
- 3. Mount the 12+ Pro lightbar per in the install instructions included with the lightbar. Route the control cable back to the Switchnode. The control cable is included with lightbar and comes in three different lengths (15', 23', 48'). Program the 12+ flash patterns using the "Pattern Select" wire (purple wire). Reference the install isntructions included with the 12+ for details. Note: The 12+ flash patterns run independent from the rest of the system and will not be in sync.

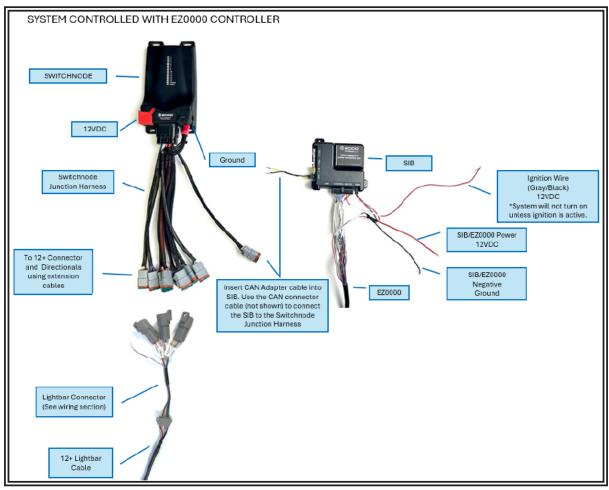
### **Wiring Instructions**

- 1. Use 8 AWG Ring Terminal and 8 AWG wire connect the Switchnode positive terminal to +12V or +24V.
- 2. Use 10-12 AWG Ring Terminal and 10 AWG wire connect the Switchnode negative terminal to ground.
- 3. Connect the EZ0000 power and input connectors into the SIB. Connect the two red wires to +12V or +24V and black to ground.
- 4. Connect Switchnode to Serial Interface Box by plugging the CAN 690-0499-00 and 690-1051-00.
- 5. Route Cables from the Switchnode to each directional. Connect deutsch connections.
- 6. Connect the 12+ lightbar to the Switchnode using the lightbar connector.
- 7. Connect Switchnode Junction Harness according to image below.
- 8. If you are connecting the SIB input wires to switches, select the desired SIB input wires to use based on the flash pattern table in this install guide. The remaining unused input wires can be trimmed and capped.



- A SIB AUX PORT
- 1 FRONT RIGHT
- 2 12+ CONNECTOR WITH BROWN & ORANGE WIRES
- 3 12+ CONNECTOR WITH GREEN & YELLOW WIRES
- 4 FRONT LEFT
- 5 REAR LEFT
- 6 12+ CONNECTOR WITH BLUE WIRE
- 7 (NOT USED)
- 8 REAR RIGHT





Button 1 2 2 3 3 4 4 5 5 6 6 7 7 9 9	Button Activate Input Wird  1 Short Press Green/Bia  2 Short Press Red/Black  3 Short Press Brown/Wid  4 Short Press Green/White  5 Short Press Green/White  6 Short Press Gray/White  7 Short Press Gray/White  8 Short Press Gray/White  8 Short Press Gray/White  9 Short Press Grange/White	Activate Input Wire  Short Press Green/Black Short Press Red/Black Short Press Brown/White Short Press Brown/White Short Press Blue/White Short Press Green/White Short Press Grey/White Short Press Gray/White Short Press Gray/White	Activate         Input Wire         Flash Pattern (Single Button Push)         Directional Flash Pattern           Short Press         Green/Black         -         -           Short Press         Red/Black         -         -           Short Press         Brown/White         SINGLE FLASH 75, PRIMARY COLOR         -           Short Press         Green/White         SINGLE FLASH 75, SECONDARY COLOR         SINGLE FLASH 115 (T13), PRIMARY COLOR           Short Press         Blue/White         DOUBLE FLASH 115 (T13), PRIMARY COLOR         SINGLE FLASH 115 (T13), SECONDARY COLOR           Short Press         Gray/White         DOUBLE FLASH 120 (ECE65), PRIMARY COLOR         DOUBLE FLASH 120 (ECE65), SECONDARY COLOR	Flash Pattern	Hash Pattern (Multi-Press Buttons)  SINGLE FLASH 75, PRIMARY & SECONDARY COLORS  TRIPLE FLASH 115 (T13), PRIMARY & SECONDARY COLORS
	Short Press Short Press	Blue/White Gray/White Violet/White	DOUBLE FLASH 115 (T13), PRIMARY COLOR  DOUBLE FLASH 115 (T13), SECONDARY COLOR  TRIPLE FLASH 120 (ECE65), PRIMARY COLOR  TRIPLE FLASH 120 (ECE65) RECONDARY COLOR	DOUBLE FLASH 115 (T13), PRIMARY & SECONDARY COLORS TRIPLE FLASH 120 (ECE65), PRIMARY & SECONDARY COLOR	OLORS
10	Short Press Pink	Pink	LEFT SIDE STEADY		
10	Long Press Brown Short Press Pink/B	Long Press Brown Short Press Pink/Black	LEFT CUT FLICKER CRUISE, PRIMARY COLOR	•	
12	Short Press	Short Press Yellow/Black	FLICKER CRUISE, SECONDARY COLOR	-	
12	Long Press	Long Press Violet/Black	FRONT CUT		
13	Short Press Green	Green	STEADY BURN, SECONDARY COLOR (WHITE FLOOD)	•	
13	Long Press	Long Press Blue/Black	REAR CUT		
14	Short Press Blue	Blue	DIM (30%)		
15	Short Press Orange	Orange	RIGHT SIDE STEADY		
(not av	(not available)	White	QUAD FLASH 75, PRIMARY & SECONDARY COLORS, FLASH OVER CRUISE		
(not av	(not available)	Gray/Black	*Ignition – must be powered for system to turn on.	•	
(not av	(not available)	Orange/Black	DIAMOND FLASH, PRIMARY COLOR	DIAMOND ELACH BRIMARY & SECONDARY COL	OBS
(not av	(not available)	Gray	DIAMOND FLASH, SECONDARY COLOR	DIPHECINO LOCAL, FALINIPAL & SECONDARI COLONS	0
(not av	(not available)	Yellow	QUINT FLASH 150, PRIMARY COLOR	TRIDIE ELASH 120 (ECESS) DRIMARY & SECO	SECONDARY COLORS
(not av	(not available)	Purple	QUINT FLASH 150, SECONDARY COLOR		

# List of primary/secondary colors by product:

PRIMARY SECONDARY

**PRODUCT**7965A-EC
7945A-EC

ED3802AB-EC

BLUE AMBER AMBER

ED3802AG-EC AMBER ED3802AW-EC AMBER

GREEN WHITE AMBER (NONE) (NONE)

ED3511AB-EC BLUE
ED3511AW-EC AMBER
5590CAC-EC AMBER
5590CAB-EC BLUE
5590CAG-EC AMBER

AMBER
WHITE
WHITE
AMBER
GREEN

ED5051AW-EC AMBER ED5051AB-EC BLUE

AMBER WHITE

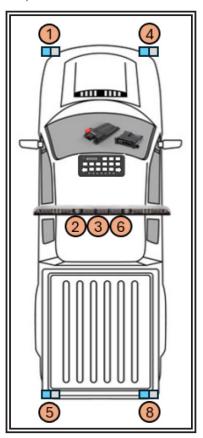
WHITE GREEN

ED5051AG-EC AMBER

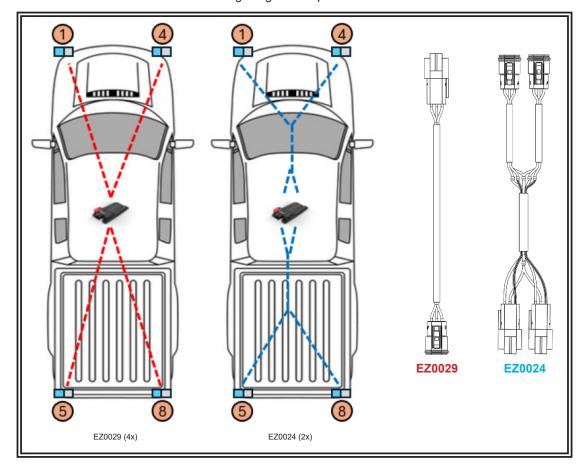
ED3794BA-EC BLUE ED3794AW-EC AMBER

EZ0000 Controller	ller	SIB	Directional Flash Pattern	<sup>2</sup> attern	12+ Light	12+ Lightbar Function
Button Activate		Input Wire F	Flash Pattern (Single Button Push)	Flash Pattern (Multi-Press Buttons)	Flash Pattern (Single Button Push)	Flash Pattern (Multi-Press Buttons)
1 Short	Short Press Green/Black	n/Black -		-	LEVEL 1	
2 Short	Short Press White/Black	te/Black -			LEVEL 2	LEVEL 3
3 Short	Short Press Red/Black	Black -			WORK LIGHT	
4 Short	Short Press Brown/White		SINGLE FLASH 75, PRIMARY COLOR			
5 Short	Short Press Green/White		SINGLE FLASH 75, SECONDARY COLOR	SINGLE FLASH 75, PRIMARY & SECONDARY COLORS		
6 Short	Short Press Blue/White		DOUBLE FLASH 115 (T13), PRIMARY COLOR			
7 Short	Short Press Gray/White		DOUBLE FLASH 115 (T13), SECONDARY COLOR	DOUBLE FLASH 115 (113), PRIMARY & SECONDARY COLORS		
8 Short	Short Press Violet/White		TRIPLE FLASH 120 (ECE65), PRIMARY COLOR	Thinks a year too (see see) and years of the see of the		
9 Short	Press Oran	ge/White T	Short Press Orange/White TRIPLE FLASH 120 (ECE65), SECONDARY COLOR	IRIPLE FLASH 120 (ECEBS), PRIMARY & SECUNDARY COLORS		
10 Short	Short Press Pink	١	LEFT SIDE STEADY		ALLEY LEFT	
10 Long	Long Press Brown		LEFT CUT			
11 Short	Short Press Pink/Black		FLICKER CRUISE, PRIMARY COLOR	-		
12 Short	Short Press Yellow/Black		FLICKER CRUISE, SECONDARY COLOR	-		
12 Long	Long Press Violet/Black		FRONT CUT			
13 Short	Short Press Green		STEADY BURN, SECONDARY COLOR (WHITE FLOOD)			
13 Long	Long Press Blue/Black		REAR CUT	-		
14 Short	Short Press Blue		DIM (30%)	•		
15 Short	Short Press Orange		RIGHT SIDE STEADY		ALLEY RIGHT	
(not available)	e) White		QUAD FLASH 75, PRIMARY & SECONDARY COLORS, FLASH OVER CRUISE			
(not available)		Gray/Black *	*Ignition — must be powered for system to turn on.	-		
(not available)		ıge/Black [	Orange/Black DIAMOND FLASH, PRIMARY COLOR			
(not available)	e) Gray		DIAMOND FLASH, SECONDARY COLOR	DIAMIONO FEAST, FRIMART & SECONDART COLORS		
(not available)	e) Yellow	,	QUINT FLASH 150, PRIMARY COLOR	TRIDIC CLASH 120 (COCCC) BRINARY & SECONDARY COLORS		
(not available)	e) Purnie		OUINT FLASH 150. SECONDARY COLOR	IRIPEE FLASH 120 (ECEOS), PRIMARY & SECONDARY COLORS		

Reference the guidance below to connect each product back to the correct Switchnode outputs. The 12+ Pro will use three connectors (#2, 3, 6)



Two different cables options are available to connect the directionals to the Switchnode. Cables can be combined to create a longer extension. Note, the lightbar does not require extension cables, use the control cable provided with the lightbar to route back to the Switchnode. Route the cables below using the guidance provided below.



### Warranty

Manufacturer Limited Warranty and Limitation of Liability:

Manufacturer warrants that on the date of purchase, this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for sixty (60) months from the date of purchase.

DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.

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