Quick Start Guide
E-300 Series Ethernet and PoE Extenders

SIGNAMAX

1. Unpack the Extenders and Check Contents

Part Number	Connectors	Power Adapter	Mounting Bracket	Mounting Screws
EC30010	1 RJ45 LAN Port, 1 BNC LINK Port and DC Jack	Yes	Yes	
EC30020	1 RJ45 LAN Port, 1 BNC LINK Port		Yes	
EC30030	1 RJ45 LAN Port, 1 RJ45 LINK Port and DC Jack	Yes		
EC30040	1 RJ45 LAN Port, 1 RJ45 LINK Port			
EC30110	1 RJ45 LAN Port, 1 BNC LINK Port and DC Jack		Yes	
EC30130	1 RJ45 LAN Port, 1 RJ45 LINK Port and DC Jack			
EI30110	1 RJ45 LAN Port, 1 BNC LINK Port			Yes
EI30130	1 RJ45 LAN Port, 1 RJ45 LINK Port			Yes

ⓘ Note: Other documentation, can be obtained from **www.signamax.com**

Warning and Cautionary Messages

⚠ **Warning:** This product does not contain any serviceable user parts.
Warning: Installation and removal of the unit must be carried out by qualified personnel only.
Important: Use only CAT5e or CAT6 UTP/STP cables and RG6 coaxial cables for specified distance and power delivery
Important: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

2. Mounting the Extenders

The Extenders can be mounted using the integrated mounting brackets. The indoor Extenders come with one bracket unattached which needs to be attached to the Extender before it can be mounted.

## 3. Grounding the outdoor Extenders

The outdoor Extenders (EI30110 and EI30130) must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.
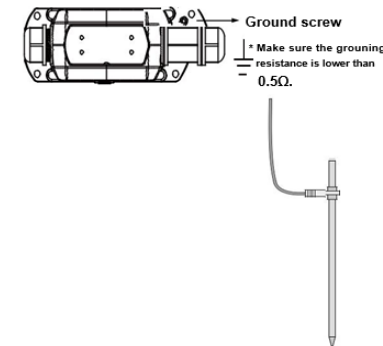
4. Connecting the Extenders

The Local Extender connects to the switch using the LAN port and is either powered using the provided power adapter or via PoE (EC30020 and EC30040). Connect the Remote Extender to the Local Extender using the following cables connected to the LINK port:

- EC30010 or EC30020 to EC30110 or EI30110:
  - RG59/RG6 or better coaxial cable
- EC30030 or EC30040 to EC30130 or EI30130:
  - CAT5e or better 4 pair cable
 - Telephone line twisted pair
  - 2-Wire
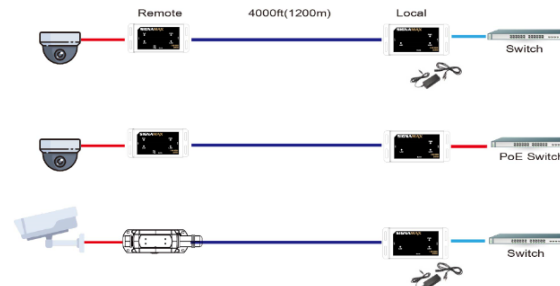
5. PoE DIP Switch

The Remote Extenders include a PoE On/Off DIP switch that allows manually disabling and enabling PoE to the powered device.

6. Outdoor LINK Port connector assembly

In order for the outdoor Remote Extenders (EI30110 and EI30130) to achieve IP66 rating and be protected from ingress of water and dust the following procedure must be followed carefully to ensure a reliable seal:

a. Thread the RJ45 or RJ11 plug through cap (A) & grip (B)
b. Rubber (C) is pre-split to place over the cable and then insert into Grip (B).
c. The EI30130 comes with two options of Rubber (C) for cables that are thicker or thinner – pick the option that fits snug but fully closes over your cable.
d. Thread the cable through Body (D).
e. Fit the Washer (E) over the Extender connector.
f. Plug the cable into the Extender.
g. Hold the Extender and screw Body (D) onto the Extender and tighten firmly
h. Push Rubber (C) and Grip (B) into Body (D) and tighten Cap (A) firmly.
i. The LINK Port is sealed when Rubber (C) bulges to the edge of Cap (A).

Washer (E)   Body (D)   Rubber (C)   Grip (B)   Cap (A)
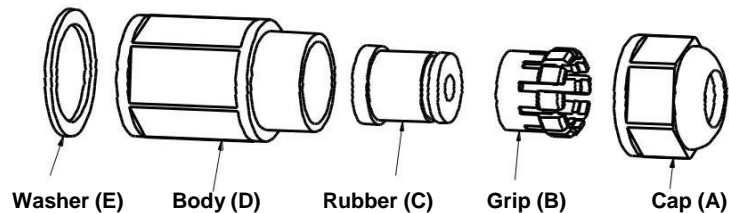
7. Outdoor LAN Port connector assembly

In order for the outdoor Remote Extenders (EI30110 and EI30130) to achieve IP66 rating and be protected from ingress of water and dust the following procedure must be followed carefully to ensure a reliable seal:

a. Thread the uncrimped cable through Cap (A), Grip (B) and Rubber (C).
b. Insert Rubber (C) into Grip (B).
c. Crimp the RJ45 connecter to the Cable
d. Plug the cable into the Extender.
e. Push Rubber (C) and Grip (B) into the Extender and tighten Cap (A) firmly.
f. The LAN Port is sealed when Rubber (C) bulges to the edge of Cap (A).

8. The Join Button

The E-300 Extenders automatically link to each other. The Join button is needed only to connect to a legacy device.

- Press the Join button for 1-3 seconds on both Local and Remote Extenders to Link them.
- Press the Join button on the Remote Extender for 5-8 seconds to disconnect the Link between the Extenders
- Press the Join button for 10 seconds to reset the Extender to default.

9. LEDs

LED	Status	Description
PWR	On	Extender is powered on
	Off	No AC or PoE power is provided or the Extender has failed.
LINK	On	The Extender has a valid link to the Extender on the other side
	Off	No Extender connected to the other side or Link not achieved
LAN	On	Port has valid link
	Flashing	Port has network activity
	Off	No LAN Link
PoE	On	Local Extender is receiving PoE Remote Extender is providing PoE
	Off	Local Extender is not receiving PoE Remote Extender is not providing PoE

10. Distance/Power chart

Cable	100m (328ft)	300m (984ft)	500m (1640ft)	800m (2625ft)	1200m (3937ft)
RG6	57.17W	34.72W	25.2W	13.11W	9.66W
Cat6	57.17W	34.72W	25.2W	13.11W	9.66W
Cat5e	56. 6W	33.2W	21.1W	12W	8.3W
2 pair Telephone wire	36W	8.6W	X	X	X
1 pair Telephone wire	18W	4.3W	X	X	X

- All values in the Distance/Power chart are based on tests in an ideal lab environment and assume 1m Cat5e cable is used to connect the device to the Remote Extender. Actual values will differ due to the network environment and cable quality.
- Distance/Power chart for additional cable types and Local Extender powered by PoE available in the E-300 Series datasheet.
- Data can be provided up to 2400m on all cable types if Remote Extender is powered by 56VDC (not available for outdoor Extenders).

11. Disconnecting the outdoor LAN Port

To disconnect the LAN cable from the outdoor Extender (EI30110 and EI30130), push the cable against the socket wall facing the locking tab and pull the cable out