X-Connector Quick Start Guide

Thank you for purchasing a SeaHawk X-Connector. This guide describes how to install the X-Connector in a SeaHawk leak detection system.

If you need further assistance, please contact RLE Technologies via our website - http://www.rletech.com/support or call us at 970.484.6510, Option 2.

Supplies for Installation

Included with the X-Connector
X-Connector device
Two end-of-line terminators (EOL)

Available from RLE, sold separately
SeaHawk Sensing cable
SeaHawk Non-sensing cable
SeaHawk SD-Z Spot Detector
SeaHawk Leak Detection Controller

X-Connector Functionality

The X-Connector uses internal, fixed resistors to simulate 50 feet (15.24m) of sensing cable per branch for Branch 1, Branch 2, and the Output. This creates a buffer between the branches of the X-Connector, and eliminates confusion when leaks occur at the beginning and end of the branches.

Even if you connect an EOL to the branch, the system will still interpret that branch as using 50 feet (15.24m) of cable. Overall, the X-Connector simulates 150 feet (45.72m) of sensing cable.
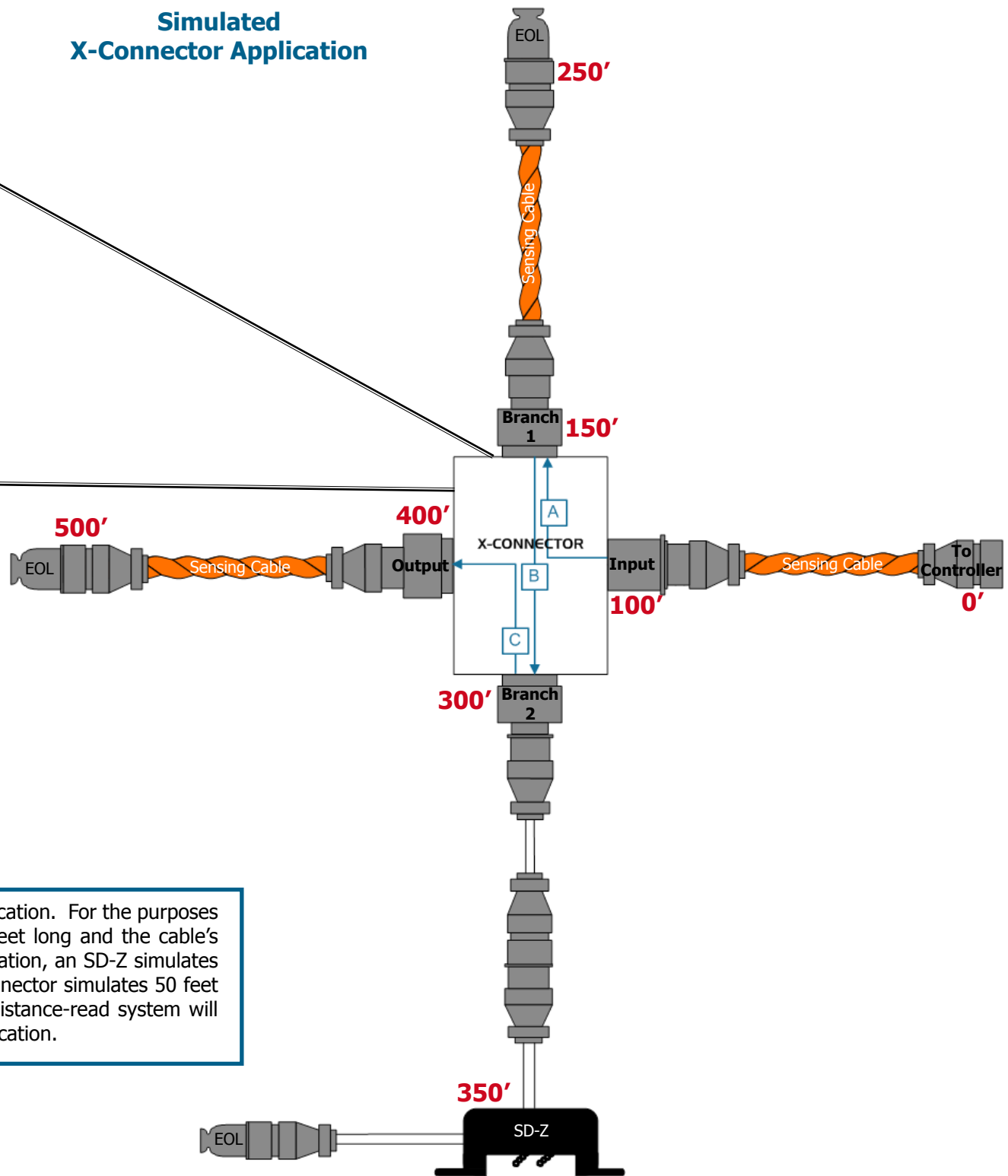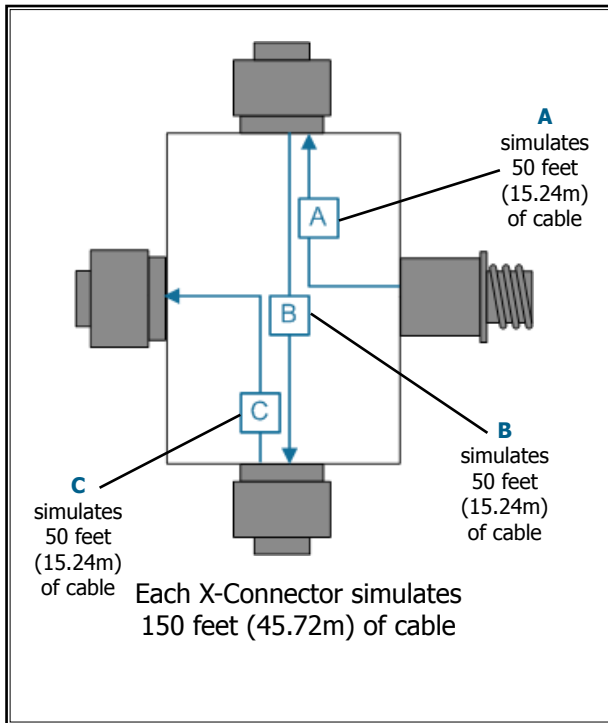
Cable and Spot Detector Connections

Each branch of the X-Connector can accommodate sensing cable, non-sensing cable, or an SD-Z spot detector. EOL terminators can be connected to Branch 1, Branch 2, or the Output branch. Follow these steps to connect the appropriate device to the X-Connector:

1. Connect the cable running from the controller - whether it's the leader cable that comes with most SeaHawk controllers, sensing cable, or non-sensing cable - to the connector marked Input.

2. Connect your first device - sensing cable, non-sensing cable, an SD-Z spot detector, or an EOL - to Branch 1. Please remember, 50 feet (15.24m) of cable is simulated between the Input branch and Branch 1. If you're using the device in conjunction with a distance-read controller, you'll need to account for this simulated length. Add 50 feet (15.24m) to the cable length reading at the beginning of Branch 1. The diagrams on the back of this sheet may clarify this concept for you.

3. Connect your second device to Branch 2. On distance read systems, add 50 feet (15.24m) from the Branch 1 cable end distance to the beginning distance of Branch 2.

4. Connect your third device to the Output connector. On distance read systems, add 50 feet (15.24m) from the Branch 2 cable end distance to the beginning distance of the Output connector.

IMPORTANT - If you are not going to connect cable or a spot detector to a particular branch connector or the output connector, you must attach an EOL terminator to that branch. Without the EOL, your controller will report a cable break. When you attach an EOL, you still must account for the 50 feet (15.24m) of cable simulated by that branch.

Simulated X-Connector Application

A — simulates 50 feet (15.24m) of cable

B — simulates 50 feet (15.24m) of cable

C — simulates 50 feet (15.24m) of cable

Each X-Connector simulates 150 feet (45.72m) of cable

This drawing represents a simulated X-Connector application. For the purposes of our example, each piece of sensing cable is 100 feet long and the cable's resistance is 2.8 ohms/foot. In a distance-read application, an SD-Z simulates 50 feet (15.24m) of cable and each branch of a X-Connector simulates 50 feet (15.24m) of cable. The diagram shows you how a distance-read system will calculate the distance at various points along the application.