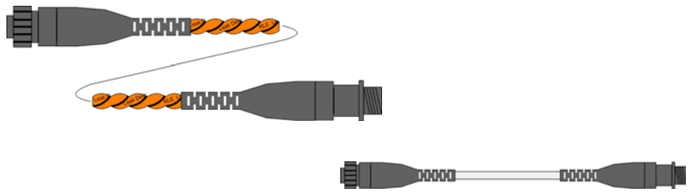
Cable Construction Guide



Thank you for purchasing the SeaHawk sensing (leak detection) and non-sensing cable construction kit (part number CCK-LD). This guide describes how to use this kit to construct cables in the length required for your application.

If you need further assistance, contact RLE Technologies on our website at **http://www.rletech.com/** or call us: **800.518.1519, Option 2**.

SeaHawk

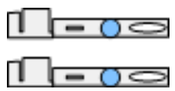
RLE Technologies

Supplies for Installation

Sold Separately

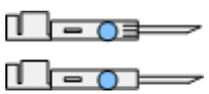
- SeaHawk Leak Detection Cable (Sensing Cable), LD-SC-xx
- SeaHawk Non-Sensing Cable, LD-NSC-xx
- Crimp tool, SCPC
- Cable stripper, SCCS

Contents of This Kit



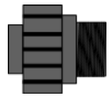
66101-2, RLE Part #1300 (Blue Dot)
(2 per sense cable) Sockets

66105-2 RLE Part #1299 (Blue Dot)
(2 per sense cable, 4 per non sensing cable) Sockets

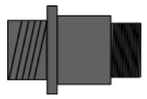


66099-2, RLE Part #1299 (Blue Dot)
(2 per sense cable) Pins

66103-2, RLE Part #1296 (Yellow Dot)
(2 per sense cable, 4 per non sensing cable) Pins



206060-1, RLE Part #1298
Plug



206153-1, RLE Part #1294
Receptacle

207490-1, RLE Part #2410
Grip (2 per cable)

207489-1, RLE Part #2409
Boot (2 per cable)

Shrink Tubing

3/8 x 1/2 (2 per sense cable)
RLE Part #1151

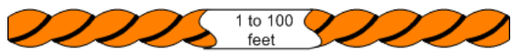
3/16 x 1 (2 per non-sensing cable),
RLE Part #2505

1/4 x 1 (2 per non-sensing cable),
RLE Part #2550

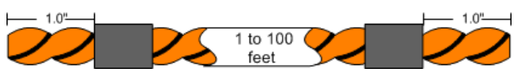
Sensing Cable Assembly

(Orange Cable, RLE #127)

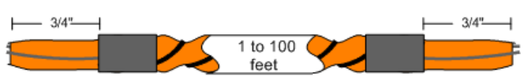
1 Spool the cable to the desired length (1' minimum to 100' maximum).



2 Slide the 3/8 x 1/2 inch (Part# 1151) shrink tube over each end of the sense cable. Shrink it with a heat source 1 inch from each end.

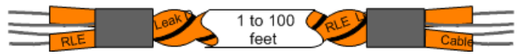


3 Using dikes or needle nose pliers, untwist the orange carrier above the shrink tube. Trim both ends to 3/4".



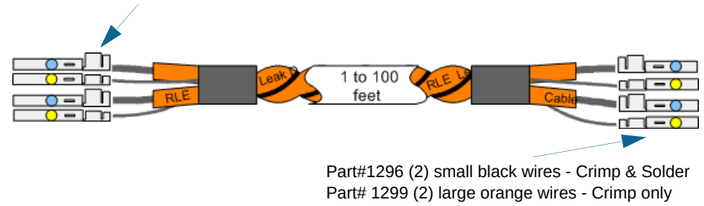
4 Split the orange carrier as far as the shrink tube and strip them 3/8".

Note: If you are not going to put the pins or sockets on at this time, leave the strip plug on the wires.



5 Crimp and solder the connector sockets (RLE Part#s1295 & 1300) on one side (*slide back the black braiding to expose approximately 1/8" of the silver wire before crimping*). Crimp and solder the connector pins (RLE Part# 1296 & 1299) on the opposite side (*slide back the black braiding to expose approximately 1/8" of the silver wire before crimping*).

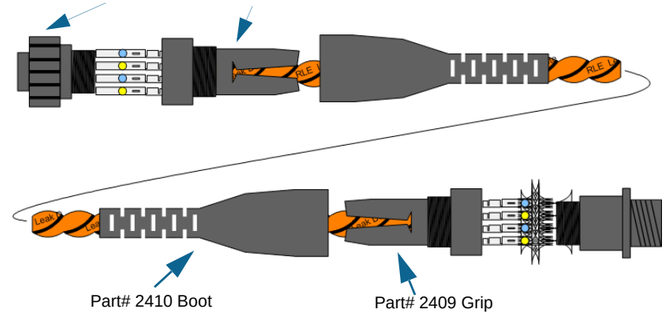
Part#1295 (2) small black wires - Crimp & Solder
Part# 1300 (2) large orange wires - Crimp only



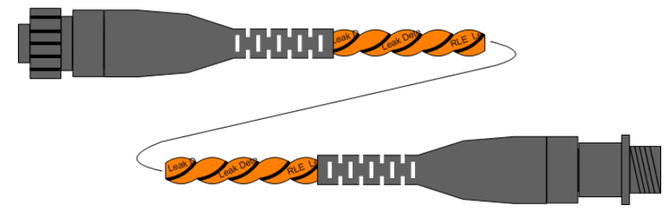
Part#1296 (2) small black wires - Crimp & Solder
Part# 1299 (2) large orange wires - Crimp only

6 Slide the grips (2) (Part# 2409) and boots (2) (Part# 2410) over both ends as shown below. Snap the sockets into the plug (Part# 1298) and the pins into the receptacle (Part# 1294) as follows: Orange wire with writing in pin 1, Orange wire with-out writing in pin 4, The black braided wires as they fall into pin 2 & 3 respectively.

Part# 1298 Plug Part# 2409 Grip



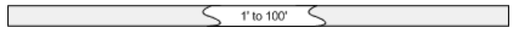
7 Screw the grips onto the plug and receptacle, and tighten by hand. Screw the boots onto the grips, and tighten by hand.



Non-Sensing Cable Assembly

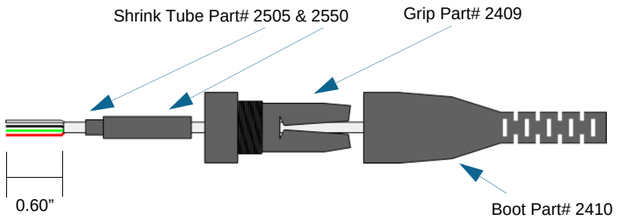
(White 4-conductor, plenum-rated cable, RLE #1657)

1 Spool the cable to the desired length (1' minimum to 100' maximum recommended).

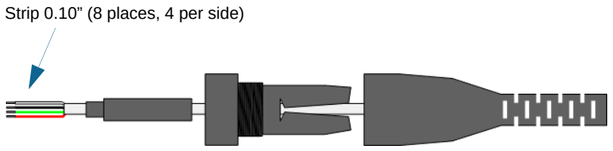


2 Strip the white jacket off of both ends (0.60") to expose the wires inside. Place a boot (Part# 2410), a grip (Part# 2409) and the shrink tubing (Part numbers 2428 & 2550) over each end of the cable.

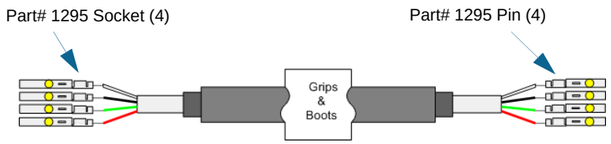
Note: Install in the previously stated order.



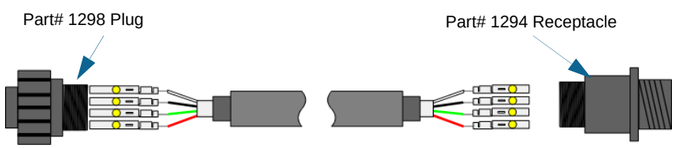
3 Strip the wires 0.10” on both sides.



4 Crimp the connector sockets (Part# 1295) on one side. Crimp the connector pins (Part#1296) on the opposite side.

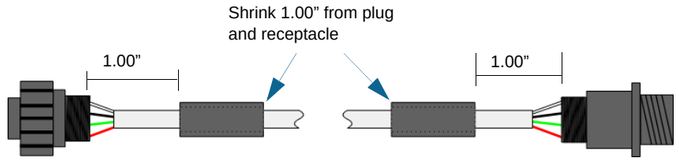


5 Snap the sockets into the plug (Part# 1298). Snap the pins into the receptacle (Part#1294). White: pin 1; Black: pin 2; Green: pin 3; Red: pin 4.

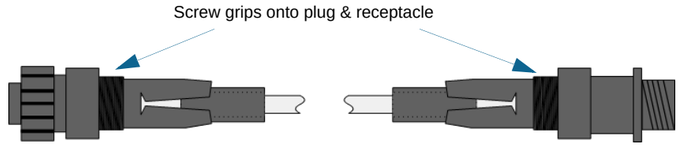


6 Shrink the heat shrink tubes with a heat source 1 inch from the plug and receptacle as shown below.

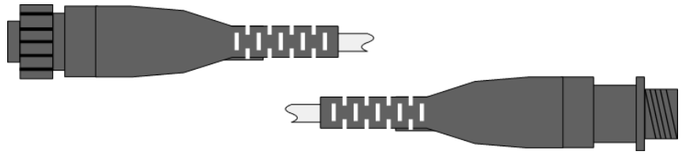
Note: Place the smaller shrink tube inside the larger one and shrink together.



7 Screw the grips onto the plug and receptacle as shown below.



8 Screw the boots onto the grips as shown below.



9 The finished cable should look like the one below.

Testing Cable Once It’s Complete

All the sensing cables produced at RLE are tested for quality and continuity before they are shipped. When you create your own cables, you should test them as well.

Pin and socket mapping for the cable connectors is as follows:

To test your finished cable, you will need an ohmmeter with a pointed probe tip on one lead and a miniclip or microclip on the other lead.

1 Insert the probe tip in the connector socket.

2 Attach the miniclip to the corresponding connector pin. If the cable has been constructed properly, the ohmmeter will register values according to the table below:

Cable Pin Resistance Values	
Pin	**Resistance +/- 10%**
1	Less than 0.1 ohm per foot
2	2.8 ohms per foot (orange cable) 4.0 ohms per foot (purple cable)
3	2.8 ohms per foot (orange cable) 4.0 ohms per foot (purple cable)
4	Less than 0.1 ohm per foot

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