

# CHAPTER 3 – Assembling Instructions

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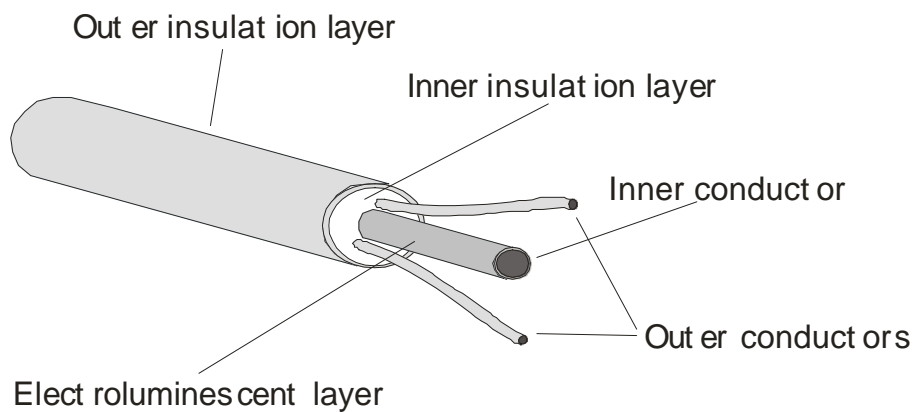
## 3.1 Recommended Tools for LyTec<sup>Ô</sup> Wires Assembling

1. Wire-Stripper.
2. Cutter.
3. Flat nose pliers.
4. Soldering Iron (up to 30Watts).
5. Heatgun.

## 3.2 LyTec<sup>Ô</sup> Wire Termination

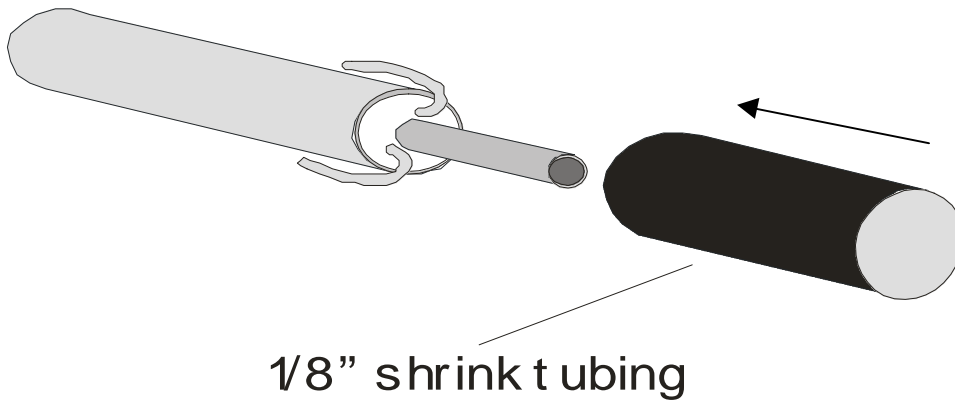
### 3.2.1 Step 1:

Strip 0.4'' end of outer and inner insulation layers of the LyTec<sup>TM</sup> Wire.



### 3.2.2 Step 2:

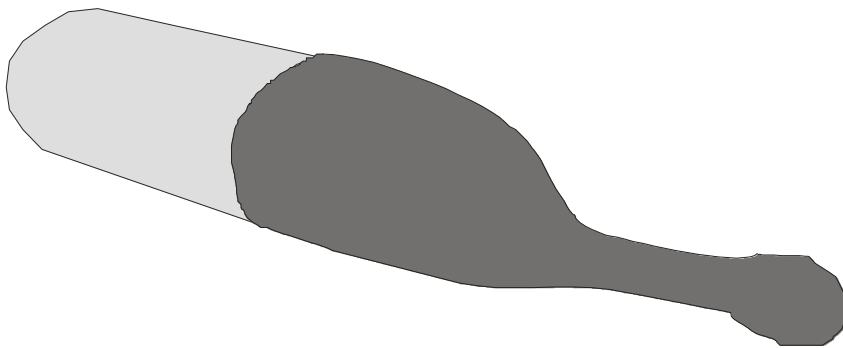
Peel back outer conductors and cut them off at the outer insulation step.  
Take a 1/8" shrink tubing (Cat. No. 82 041 00/1) supplied to you and place it over stripped end of the LyTec™ Wire.



### 3.2.3 Step 3:

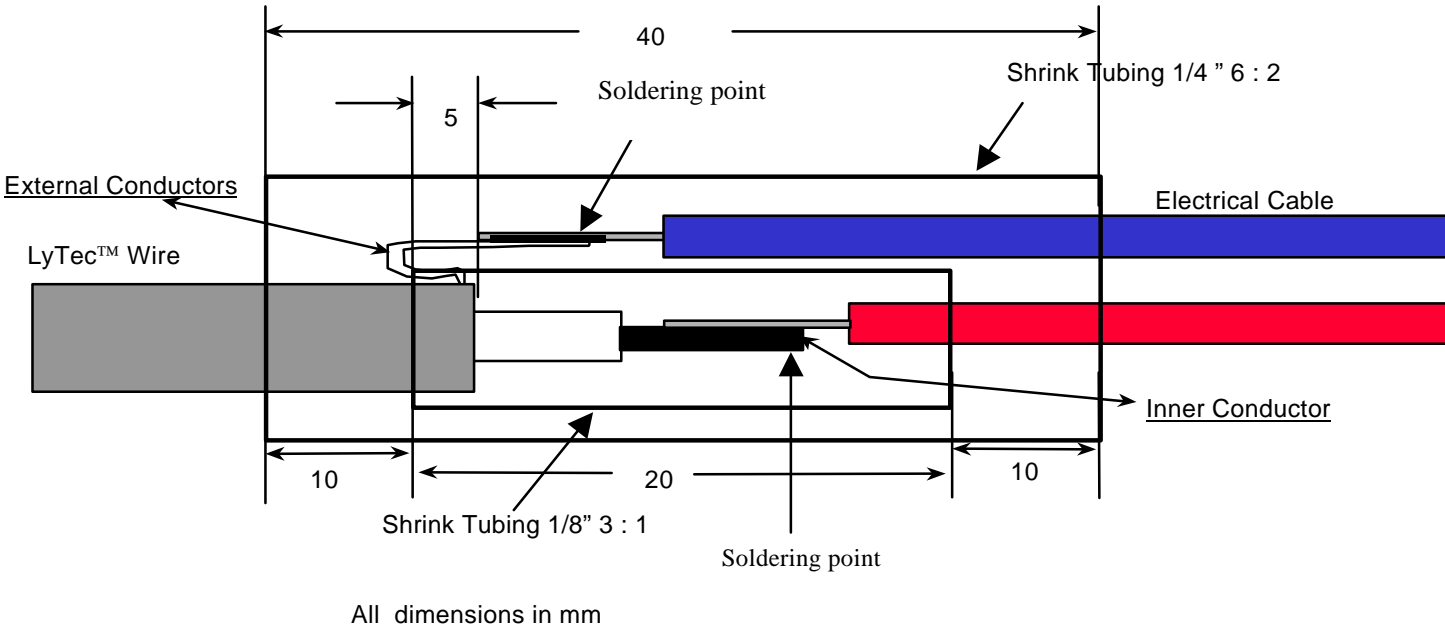
Use a heat gun to shrink the tubing.  
Leave a clearance of 0.2-0.4" of shrink tubing over the edge of LyTec™ Wire so that you can clamp it seal tight (against humidity) with a flat plier.

End product should look as follows:



### 3.3 LyTec<sup>®</sup> Wire Connection to Electrical Cable

#### 3.3.1 Description of Connecting LyTec<sup>®</sup> Wire to Electrical Cable

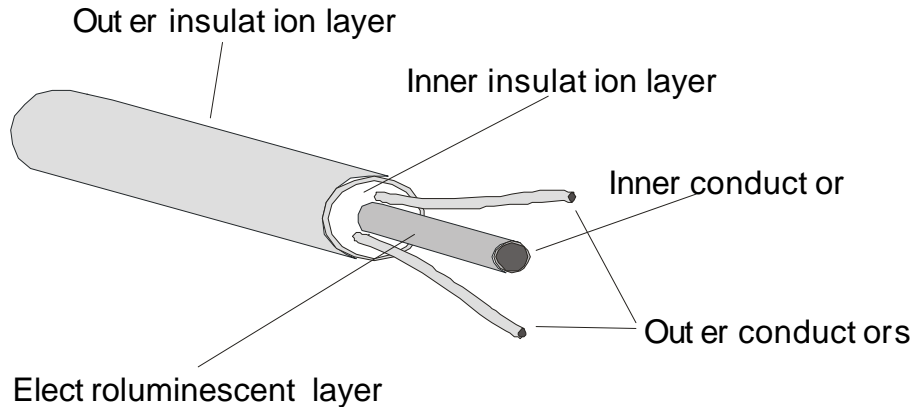


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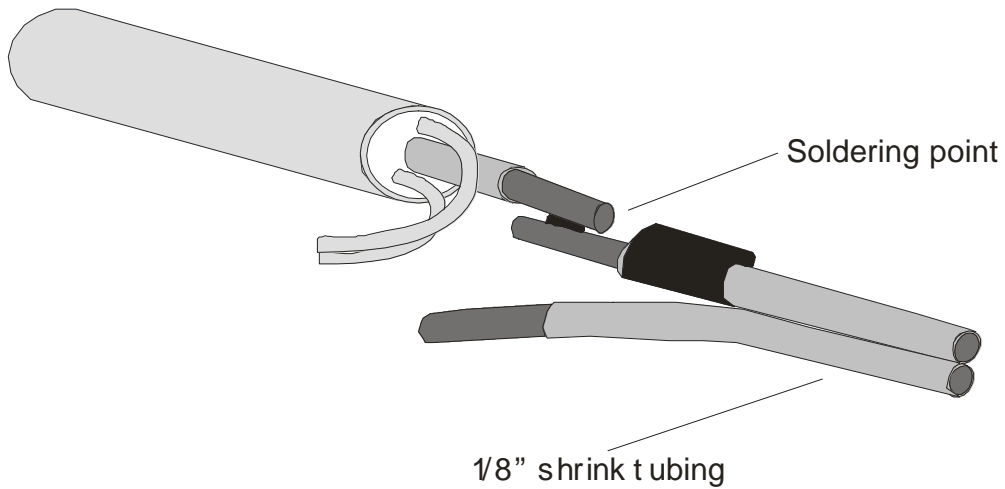
**3.3.2 Step 1:**

Strip 0.3-0.5" of outer and inner insulation layers of the LyTec™ Wire.



**3.3.2 Step 2:**

Slide a piece of 1/8" shrink tubing over the electrical cable wires supplied (Cat. No.: 82 041 00/1).



### 3.3.3 Step 3:

Solder the inner conductor of the Lytec™ Wire to that conductor of the electrical cable.

#### **Attention!!**

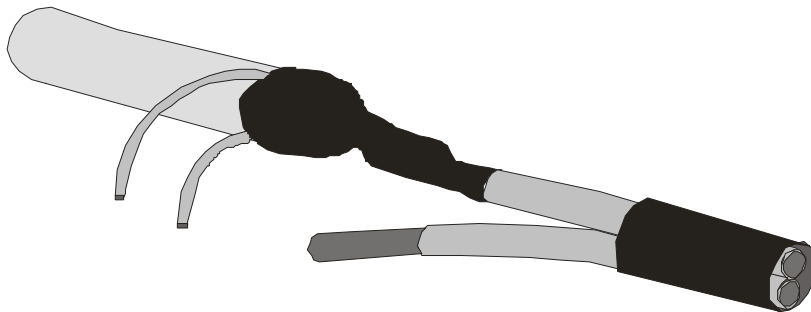
Soldering of the Lytec™ Wire should be done with minimal use of FLUX or other chemicals. If, required - use very little FLUX and prevent the FLUX from getting in touch with the LyTec™ Wire's coating layers.

Do not use aggressive - activated FLUX during soldering!!!

It may damage Wire internal layers. Standard core not activated fluxed wire solders are preferred for making the joints.

Slide the 1/8" shrink tubing over the soldered connection, and with the aid of a heatgun shrink the tubing.

The result should look like the following picture:

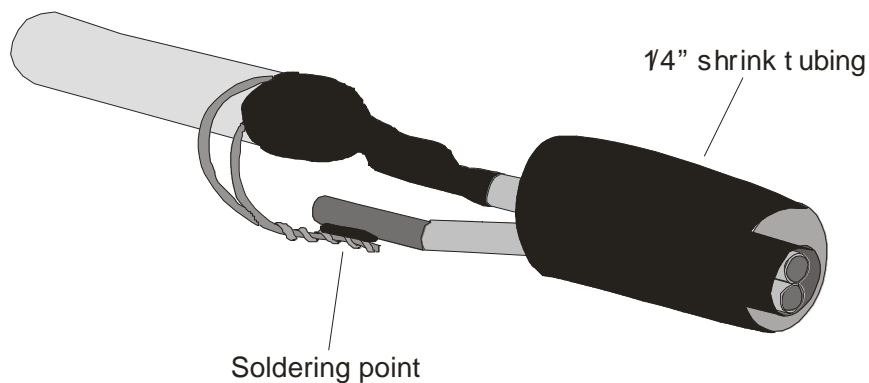


#### 3.3.4 Step 4:

Join and twist the two thin outer conductors.

Solder the other lead of the electrical cable to the outer connector of the Lytec™ Wire.  
Be careful do not detach them - as they are delicate.

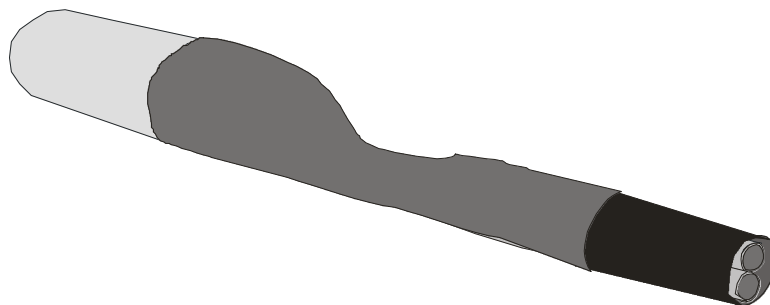
Slide another piece of ¼” shrink tubing supplied (Cat No.82 031 00/1) over the electrical cable.



#### 3.3.5 Step 5:

Now, again, slide the ¼” shrink tubing over the connection and with the aid of the heat - gun shrink the tubing on top of the connection.

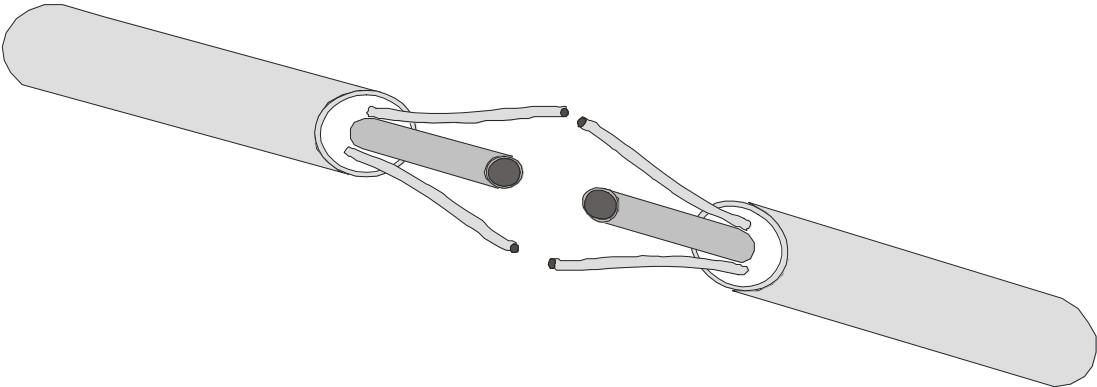
End product should look as follows:



### 3.4 Connecting segments of Lytec™ Wires

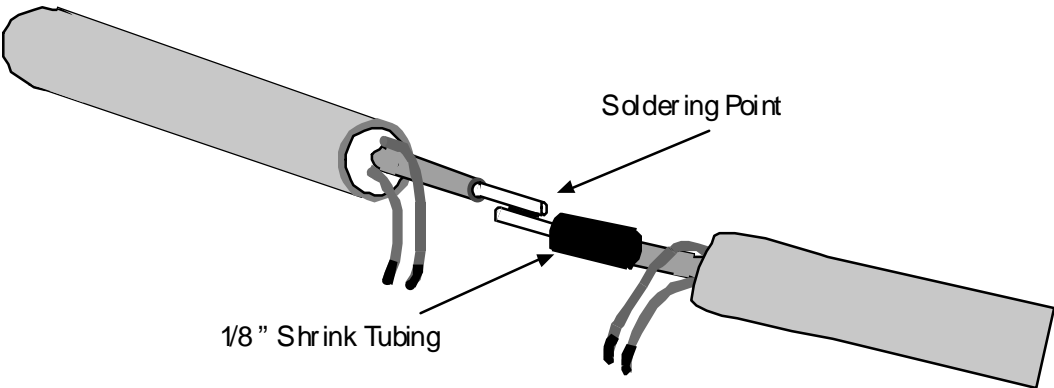
#### 3.4.1 Step 1:

Strip 0.3-0.5'' of outer and inner insulation layers of the two LyTec™ Wires.



#### 3.4.2 Step 2:

Slide a piece of 1/8'' shrink tubing over the inner conductor of the right LyTec™ Wire.



### 3.4.3 Step 3:

Solder the inner conductors of the two LyTec™ Wire.

#### **Attention!!**

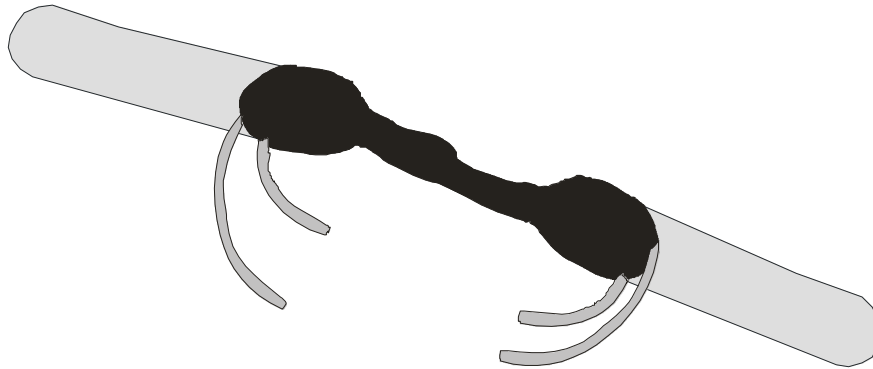
Soldering of the LyTec™ Wire should be done with minimal use of FLUX or other chemicals. If, required - use very little flux and prevent the flux from getting in touch with the wire's coating layers.

Do not use aggressive - activated FLUX during soldering!!!

It may damage wire internal layers. Standard core not activated fluxed wire solders are preferred for making the joints.

Slide the 1/8" shrink tubing over the soldered connection, and with the aid of a heatgun shrink the tubing.

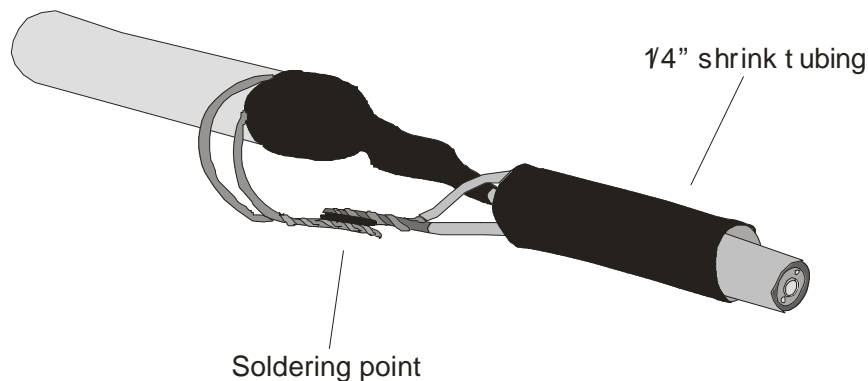
The result should look like the following picture:



### 3.4.4 Step 4:

Join and twist the two thin outer conductors of the two LyTec™ Wires and solder them. Be careful do not detach them - as they are delicate.

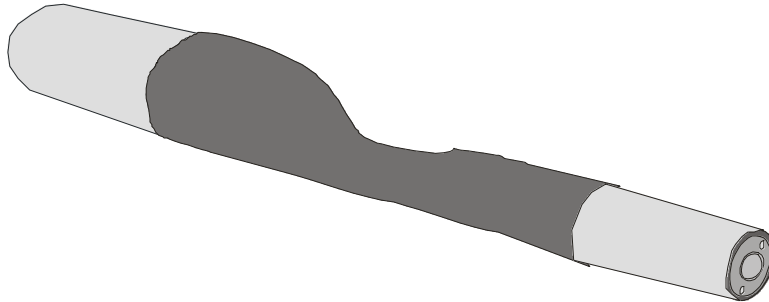
Slide another piece of 1/4" shrink tubing supplied (Cat No.82 031 00/1) over the right LyTec™ Wire.



### **3.4.5 Step 5:**

Now, again, slide the 1/4" shrink tubing over the connection and with the aid of the heatgun shrink the tubing on top of the connection.

End product should look as follows:



### **Recommended Components:**

- (6) Raychem Shrink Tubing 1/8" CGAT 3/1-0 MW Black
- (11) Raychem Shrink Tubing 1/4" CGAT 6/2-0 MW Black