

IP 68 Outdoor Cable assembly for 120V Mains Supply

Alexander Pollak

November 19th, 2025

This document describes the assembly of the IP68 rated power cord that is used to supply mains voltage (120V AC). Figure 1 shows a picture of the finished cord. Figure 2 shows the wiring diagram for the WEIPU plug.

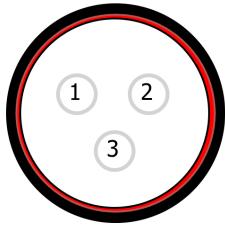
1 List of parts and tools needed:

- WEIPU Plug Female 3P Solder UL (MPN#: SP2110/S3II-1N(U))
- Shrink Tube HS-TBG 6.4mm BK (Mouser#: 650-TAT125014)
- Shrink Tube HS-TBG 3.2mm BK (Mouser#: 650-RNF-100-1/8-BK-S)
- Power Cord various length (MPN#: XXXXX)
- Solder Iron, Side Cutter, Heat Gun.
- [WEIPU Rcpt Male 3P Solder UL (MPN#: SP2113/P3-1C(U))]



Figure 1: Picture of the completed cable assembly.

WEIPU SP2110/S311-1N(U) connector front view



#	Wire color		Description
1	black		Line
8	white		Neutral
9	green		Ground

Figure 2: WEIPU 3 Pin connector wiring diagram. Note, this is standardized for all WEIPU 3P connectors and is only be used to supply mains voltage 120V AC to assemblies at HCRO.

2 Manufacturing Instructions:

The following section provides detailed instructions on how to prepare the power-cord assembly and the step-by-step process for assembling it.



Figure 3: This picture shows the disassembled connector plug. Make sure that both parts on the left-had side are on the power cable before continuing with the assembly work.



Figure 4: First, prepare the cable by removing the outer jacket at a length of about 5 cm. Also prepare the larger shrink tube (HS-TBG 6.4mm BK) by cutting a 5 cm long section and putting it on the power cable.

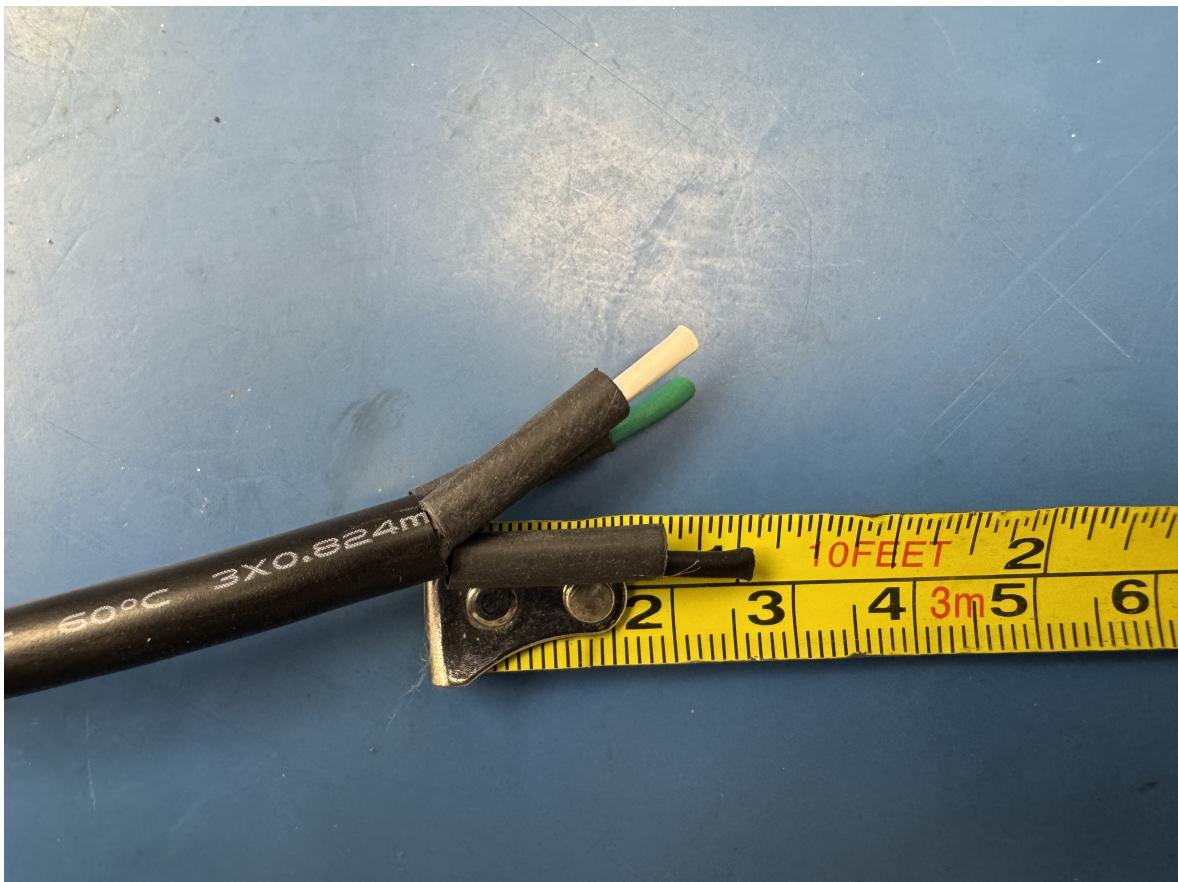


Figure 5: Next prepare the smaller shrink tube (HS-TBG 3.2mm BK) and cut the individual vires to the length shown in the picture.

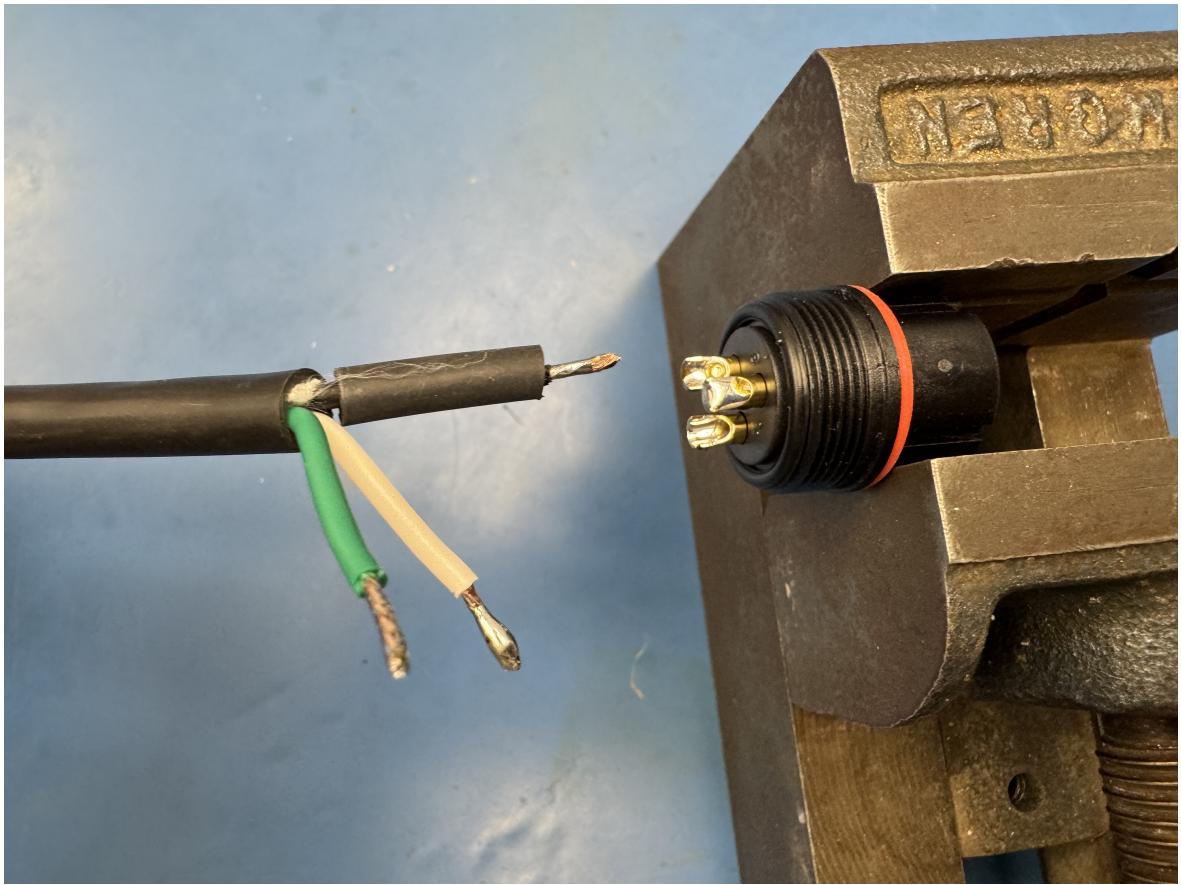


Figure 6: Next, strip the wire, put solder on the wire. Put solder on the connector terminals. Put the shrink tube on the wire. Solder the wired onto the connector according to the wiring diagram in Figure 2.



Figure 7: Shows the finished soldering job. Next use the heat gun to put the shrink tube over the terminals and cable.