

Alarm Output cable
ISI510-AOC
Assembly Instruction

Revision history

Date	Author	Revision	Version	Description
17.05.2017	JuhaniT	A	1	Document first created
11.07.2017	JuhaP	A	2	Assembly steps rewritten
29.08.2017	JuhaP	B	1	Blue stripe added

General

This document instructs assembly of ISI510-AOC.

Required materials

Cable:

- ✓ Head phone cable
- ✓ White insulation colour
- ✓ 2 pole structure
- ✓ Stranded wires
- ✓ Length 1 m
- ✓ Wire size 0.35 mm²
- ✓ Diameter max 1.3 mm
- ✓ Manufacturer / Type:
- ✓ Tasker / C100 2X0.35 WHITE

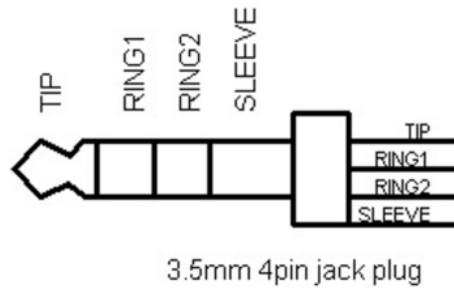
Jack plug:

- ✓ Four poles
- ✓ Diameter 3.5 mm
- ✓ Manufacturer / Manufacturer's type:
 - Lumberg / 1532 02
 - Cliff / FC68124

Capacitor:

- ✓ Tantalum type
- ✓ Capacitance 10 uF
- ✓ Max voltage 6V...16V
- ✓ Manufacturer / Manufacturer's type:
 - Kemet / T350E106M016AT
 - SR Passives / TC-10/16
 - AVX / TAP106K025SCS

Assembly

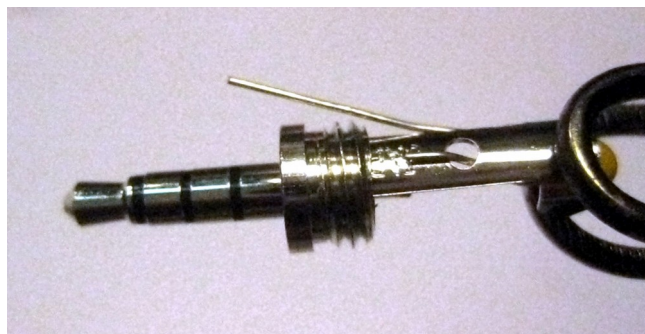


Picture 1. *Electrical connections of 3.5 mm 4-pole jack plug*

1. Remove connector housing
2. Cut off "Ring 2" and "tip" soldering tags



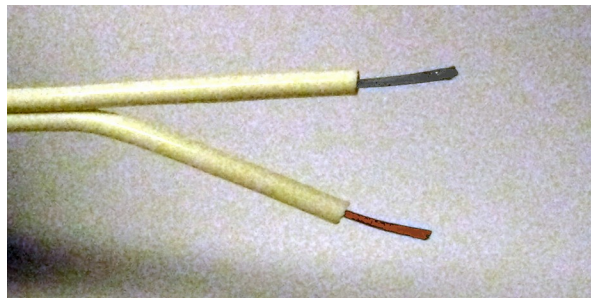
3. Place Capacitor negative conductor through the hole of connector Sleeve soldering tag, bend, cut and solder.



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4. Bend capacitor positive conductor to Ring 1 soldering tag, cut and solder.
5. Cut 1 meter piece of the cable, peel 8 mm from and solder only the very end of the wires. DO NOT let the solder fill the copper. Copper color is positive wire signal for the end user.



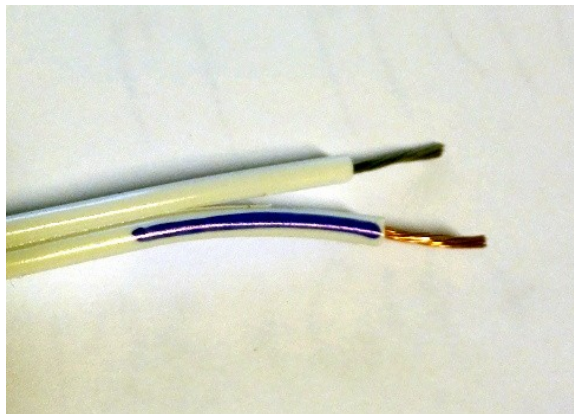
6. Peel 3 mm from both wires at the end of the cable, pre- solder. These wires will be soldered to the connector.
7. Solder the tin color wire to connector sleeve to near to the hole in the tag.



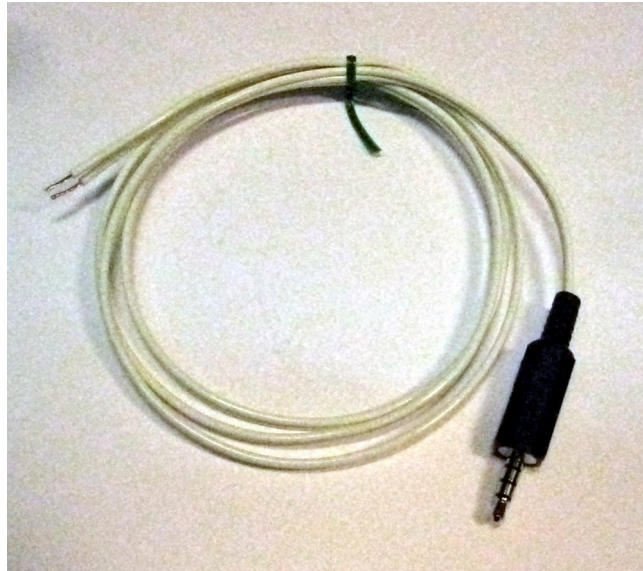
8. Solder the copper color wire to capacitor conductor connected to connector ring 1 tag.



9. Check all connections and polarizations and close the connector housing.
10. Use blue permanent marker to draw a line to indicate positive conductor.



11. Wrap the cable and secure it with a cable tie.



Testing

Test the electrical assembly by applying following:

11. Validate the connections by measuring the conductivity from peeled copper wire to connector Ring 1 and tinned wire connectivity to connector sleeve. Ohmic value needs to be less than 1 Ohm.

12. Validate the capacitor by measuring the capacitance between the peeled wires or from connector pins Ring 1 and Sleeve. Capacitance needs to be between 5 and 15 uF.

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