## How to add an external interface cable to your TMPro2 box

External interface cable gives to you ability to read/write all of serial eeproms 24cXX, 25cXX,93cXX, S29190, X5328 that are used with TMPro2 modules. Reading/writing of eeproms is a free function. You do not need eeprom programmers anymore.

External interface cable contains 2 connectors - male and female and 8 wires - blue, red, brown, green, yellow, orange, white and grey.

The male connector you have to fit into your box and to solder wires to TMPro2 PCB.

How to do this is explained further in this help.

The female connector is for attaching to the memory devices - eeproms, MCU etc.

Connection diagrams for different eeproms you can find in HELP menu of TMPro2 software.

External interface is also used for modules 108,128 and 131.

One of main advantages of the eeprom interface is reading/writing of 93cXX eeproms.

The process is fully automated - NO NEED TO THINK which settings are correct - x8 or x16.

Just connect eeprom, press read memory device button, select memory device and OK and reading is done.

If content of file is known to the software, it will jump to corresponding module and you can make chip. If you wish to save file with eeprom content, you can use SAVE FILE button right next to OPEN FILE button.

Same way you can write eeprom - load file in soft using OPEN FILE button, press write memory device button, select memory device

and OK and writing is done. Writing process is with immediate verifying - soft reads byte and compare with value just written.

This way if writing procedure goes to end, eeprom is 100% written correctly.

Reading in-circuit is possible.TMPro2 test all of pins of eeprom or MCU before beginning of reading or writing.

When you try to read/write serial eeproms and you get LIFT PIN... message, short quartz of the immo box MCU and try read again.

If after shorting LIFT PIN... message continues to appear, you have either to lift from board pin(s), that are connected to corresponding wires,

or to desolder eeprom and read on-board. Eeprom adapter for on-board reading will be released very soon.

At reading of MCU's like ST72334 (module 128) or ST10F269 (module 131) it is also possible to get LIFT PIN message, but in this case

it is not possible to short quartz, only way is to lift pin(s).LIFT PIN message shows colour of cable, corresponding to pin that must be lifted.

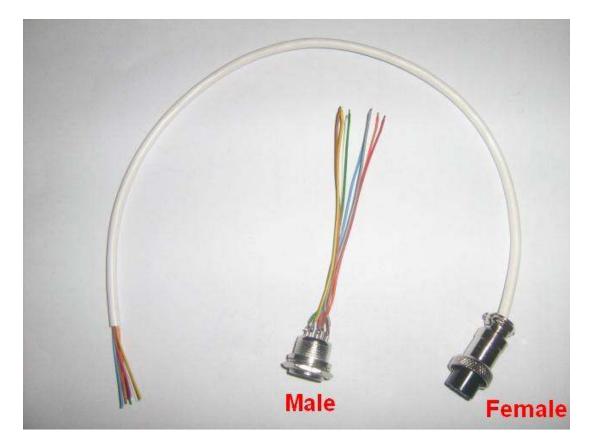
Example: Lift pin - Green means to lift from board pin, to which is connected green cable.

IMPORTANT: If you think that it is not easy for you to add cable interface and you are afraid not to damage your box,

You can send box to your dealer for adding cable.

Please follow step-by-step carefully

1. Buy external cable from your dealer. You can check it at picture -



2.WARNING:DO NOT TRY TO LIFT COIL FROM BOX.YOU WILL DAMAGE COIL!!! -



3.Lift with a sharp knife, the TMPro label –



4. Move it on left side and firmly press it to stick -



5. Using screwdriver unscrew left and right screws, located on back side -



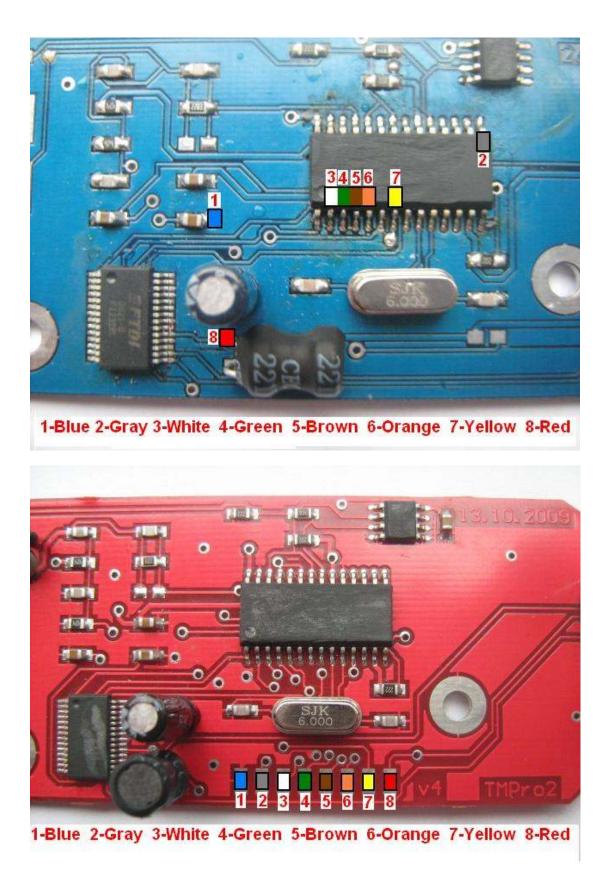
6.Detach bottom cover from box as shown



7.Box is opened and ready for adding cable –

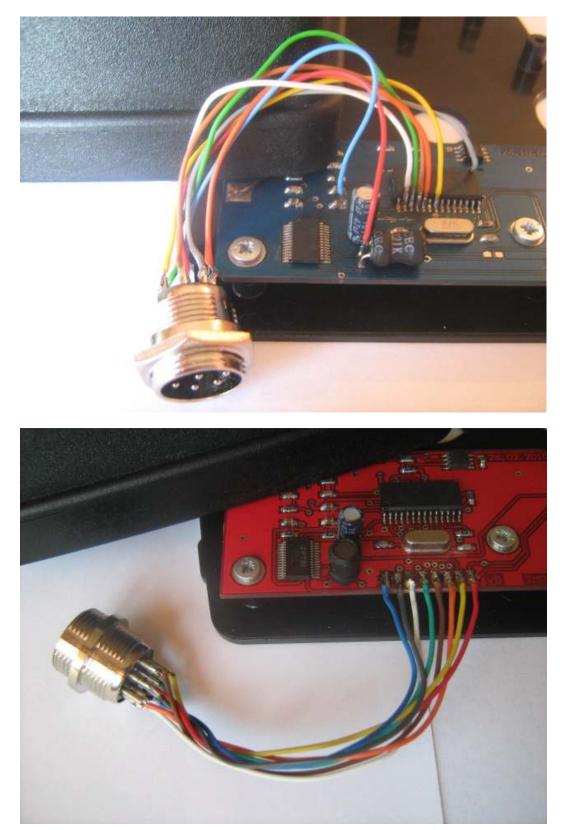


8.TMPro2 PCB's are 2 types –



9.Solder wires of male connector to PCB.Take care not to make short between each two cables.

10.After soldering you can see result -



11.Unscrew nut from male connector and put it in hole -



12.Screw nut to male connector and tighten it -



13.Put bottom cover back.At first put that end, which is closer to USB connector,



after that firmly press other end, till you hear CLICK sound -

14.Screw back 2 screws -



15.Box is ready.Test reading of eeprom and enjoy :) -



19.08.2010