

TANGERINE AUTOMATION INTERFACE FOR SSL E/G+

firmware upgrade procedure

14-02-2019 (D.B.)

IMPORTANT NOTE:

Before proceeding to the firmware upgrade: Stored RecallIT snapshots files should be backed-up feature in the backup section in the «tai.local/files/ » web page.

The following tools or there equivalent are required to proceed to the firmware upgrade:

#3 Philips Screwdriver

#2 Philips Screwdriver

flat mini screwdriver

7/64“ Allen key



Depending on your Interface configuration, the firmware chip set contains:

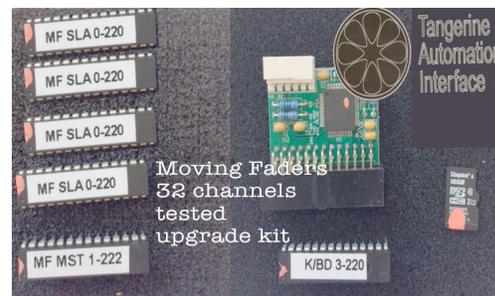
(x) SLAVE 28pins IC, where x is will be the quantity of slave cards in your interface.

(x) Master 28pins IC, where x is the quantity of master cards in your interface.

1 KEYBOARD 28pin IC,

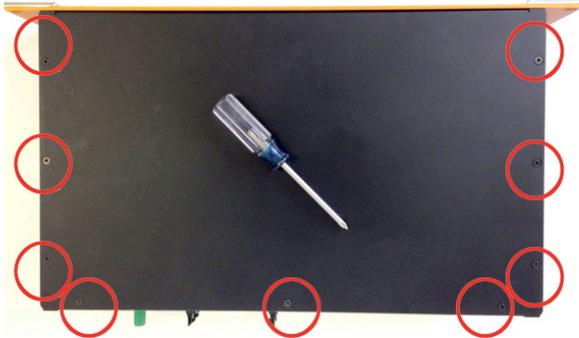
1 PIC-PLUG module/pcb,

1 Micro-SD memory card.



Step 1: Top cover removal

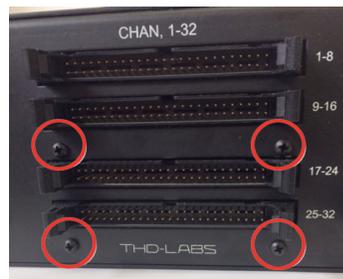
- Remove the 9x Philips top screws
- Remove the 3x 7/64" top Face-Plate Hex socket cap screws



At this point, to help the reassembly, you should take pictures of the internal wiring layout. (a picture is worth a thousand words...)

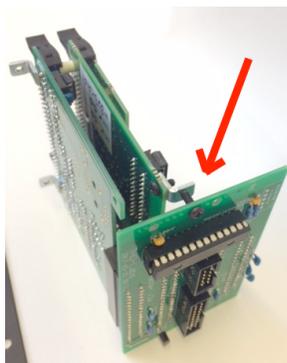
Step 2 : Master/slave core assemblies removal

- Disconnect flat cables going to the MASTER pcbs.
- Remove the black Philips screws holding the SLAVE pcb to the back panel (2 screws per slave pair)



Step 3: Separate MASTER pcb and SLAVE pcb assembly

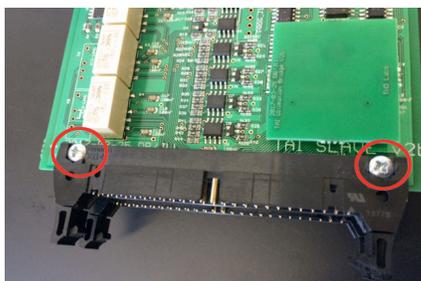
If installed, remove screws securing the Maser Pcb to the Slaves assembly.



Step 4: Taking appart the SLAVE assembly

Remove 2 top screws located on top of the black 50 pins flat cable connector.

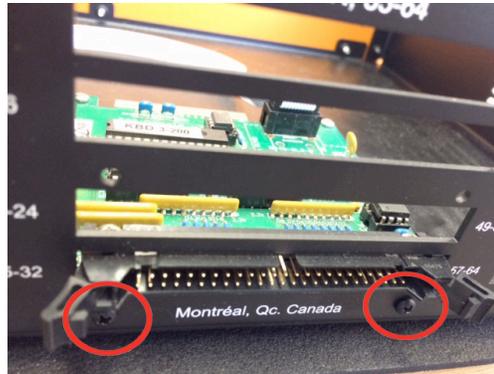
For each slaves assembly, put aside the 2x 90 degrees metal bracket, the 2x white nylon sleeve spacers, 2x flat nylon washers and the 2x one inch philips screws.



Step 5: Keyboard PCB removal

Depending of your system configuration, the Keyboard PCB will be part of a core assembly or it be by itself.

In the later case, remove the stand alone keyboard PCB by removing the it's back panel screws.



Step 6: Replacing the 28 pins microprocessors

Remove each 28 pins ICs by lifting them gently using the mini flat screwdriver, taking note of it's orientation on the PCBs.

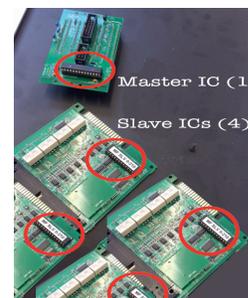


The chips have a Tangerine`s « **QC passed** » color dot that should be aligned with IC socket notch.

Replace the “MST” microprocessor(s).

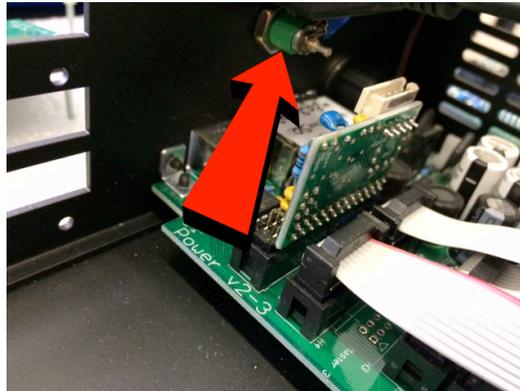
Replace the “SLVs” microprocessors.

Replace the “KBD” pins microprocessor.



Step 7: Replacing the PicPlug mini-pcb

On the Power&Comm PCB, replace the PICplug mini-pcb located behind the USB connector.



Step 8: Replacing de micro SD card.

From the acces hole located on the TAI case side, replace the Raspberry PI micro SD card.



Step 9: Re-assembling the unit

Reassemble the Slave pairs in the following sequence

The 2x one inch philips screws, on the top 50 pin connector

The 2x white nylon sleeve spacers, between the 2 slave pcb.

2x flat teflon washers, againste the bottom slave pcb

2x 90 degrees metal bracket to hold evry thing

Note: The L brackets have a « marked » side and a « unmarked ». It is important to reassemble the slave pcb paires so that the L brackets « unmarked » face faces the PCB side. The flat nylon goes between the pcb and L bracket. *(Once assembled, the L bracket's « marked » faces should be visible)*

Reassemble the master pcb and slaves pcb paires, Securing screws are optionnals if the unit doesn't have to be shipped or move on a long distance.

Re install the core assembly to the back panel using the the black Philips screws. *(2 screws for each Slave pairs)*

Reconnect all flat cables

Install the top cover using the (3) 7/64" Hex socket cap screws.

installe the 9x Philips top screws of the top cover

