

# TG-16/PC-E COMPONENT VIDEO MOD INSTALL GUIDE

Converts RGB & Sync to YPbPr

DESIGN BY THESTEVE

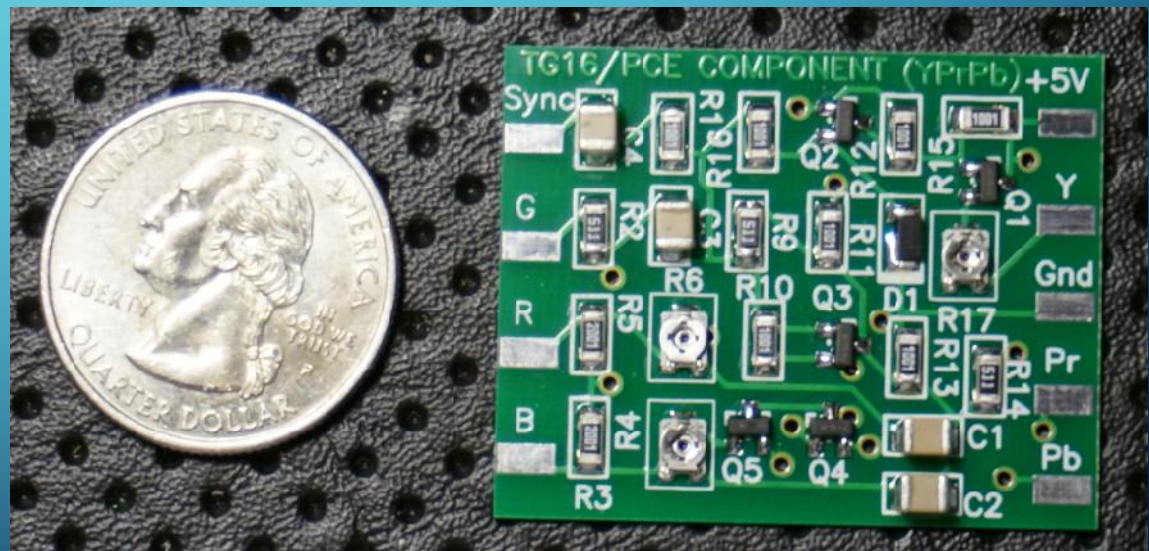
PCB BUILT & ASSEMBLED BY TURBOKON

SPECIAL THANKS:

BLUEBMW

THEOLDMAN

NIGHTWOLVE



Only works on HDTV sets that support 240P resolution

[WWW.TG16PCEMODS.COM](http://WWW.TG16PCEMODS.COM)

# HOW TO TEST YOUR HDTV SET FOR 240P SUPPORTS

- Using a classic system that has composite video output, plug the yellow rca plug to the “Y” input of your HDTV’s component video. If you get picture with no colors then your HDTV supports 240P via component video.

# PARTS & TOOLS LIST

- 28awg or 26awg multi-strand wires (recommended)  
(32awg wrapping wires from radio shack will work)
- Wire stripper & clipper
- Solder
- Plier
- Exactor knife
- Electric tape
- Two sided hanging tape
- 4.5mm security bit (torx t-10 for pce duo)
- Mini flat & Philip head screw driver
- Hot glue gun



# TAPPING THE RGB & SYNC

- RGB & Sync can be tapped from Hu6260 chip or expansion bus.
- It is highly recommended to tap RGB & Sync from expansion bus if you can to minimize damage to Hu6260 legs.

## Hu6260

- Red = Pin 49
- Green = Pin 47
- Blue = Pin 51
- Sync = Pin 44



## Expansion bus

- Pin 23A
- Pin 23B
- Pin 23C
- Pin 22C



# OPENING THE CONSOLE

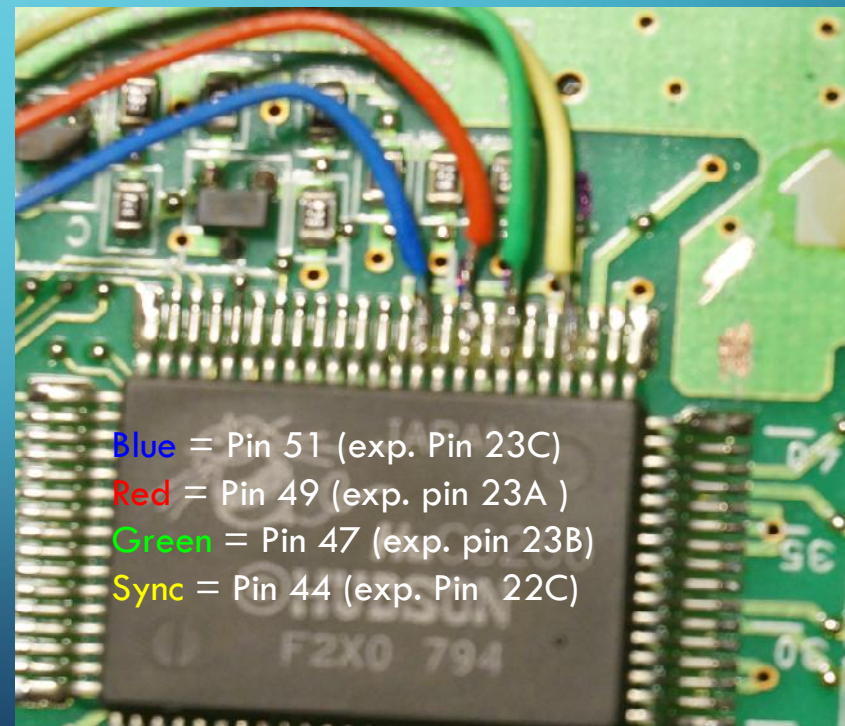
I cannot be held responsible for any damages that may occur while attempting this mod. Proceed at you own risk!!!!

- Remove all the screws located on the bottom of the console with the approximate security bit.
- Remove the shield and locate the Hu6260. On the duo, the Hu chip sets are located on the other side of the mother board so it is necessary to remove the MB by removing a few screws and undoing a few connections.



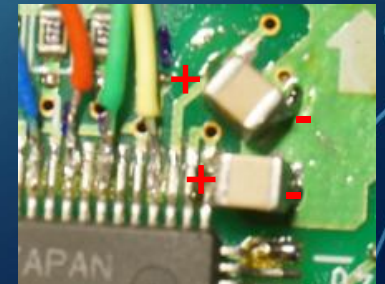
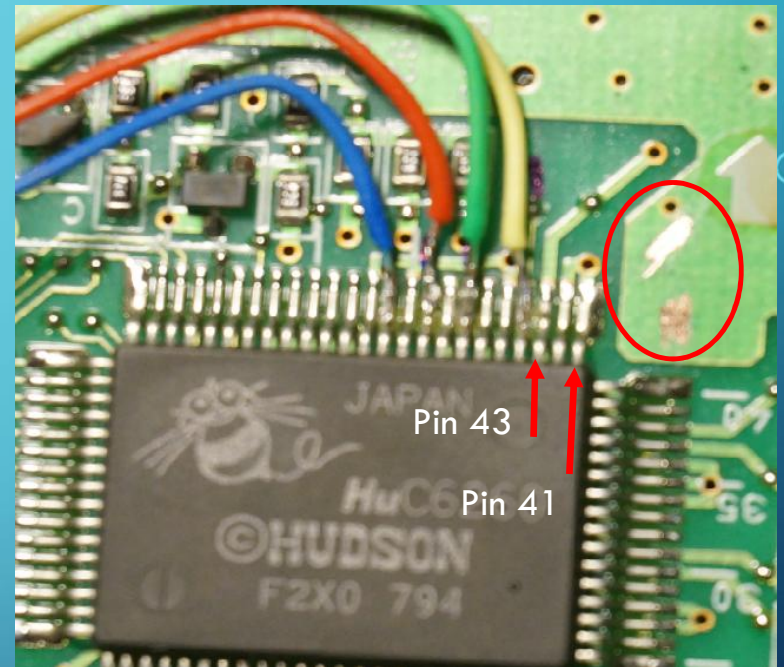
# TAPPING THE RGB & SYNC

- Locate the Hu6260 Chip.
- Find the pins corresponding to the RGB & Sync signals.
- Solder the wires to the appropriate pins.
- Once wires are soldered on, secure them in place with hot glue.



# JAIL BARS FIXED

- Jail bars will appear on screen when RGB are utilized.
- Two 22uf caps are needed to help reduce the appearance of Jail bars. In my experience, the jail bars fix seems to work best on a duo.
- One end of each smt caps are soldered to Pin 41 & 43 of the Hu6260 with the other ends to ground. For the duo, ground is nearby to pin 41 & 43. With an exactor knife, scrape top green layer until the copper is bare.
- Position the caps and solder into place
- Polarized caps can be also use, notice the polarity if polarized caps are to be used.



# INSTALLING THE COMPONENT MOD BOARD

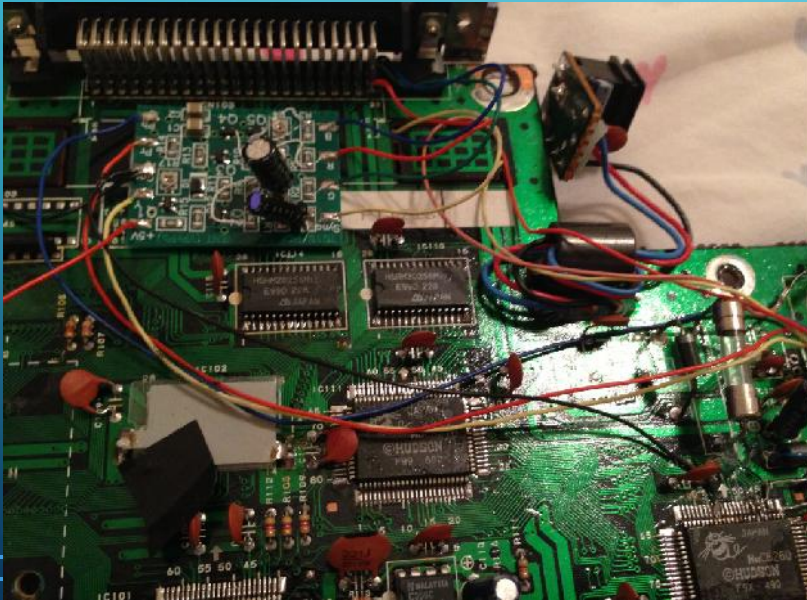
- Locate a good spot for the component mod board. On the turbo duo, I mounted the board using the two sided tape on the shield. There are several places to get ground and 5V, I got ground from shield and 5v from Pin 38 of hucard pins.





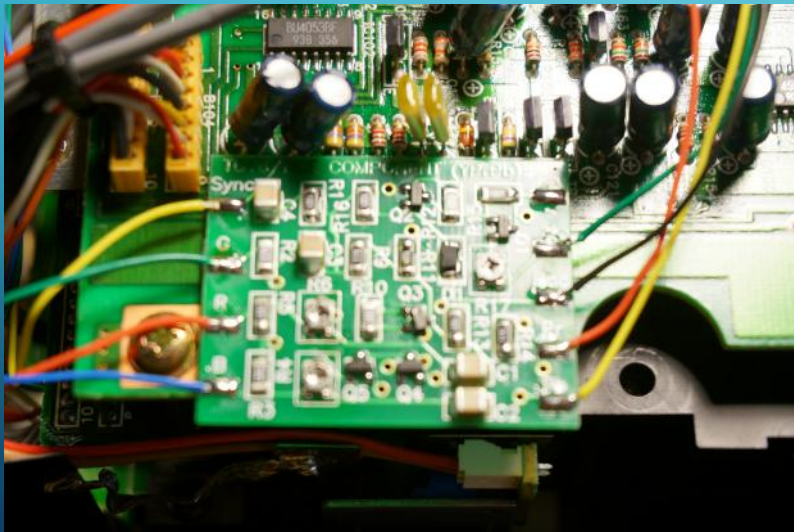
# INSTALLING THE COMPONENT MOD BOARD

- On the turbografx, I mounted the board near the expansion bus.
- On the turbo express, I mounted the board on the front shield.



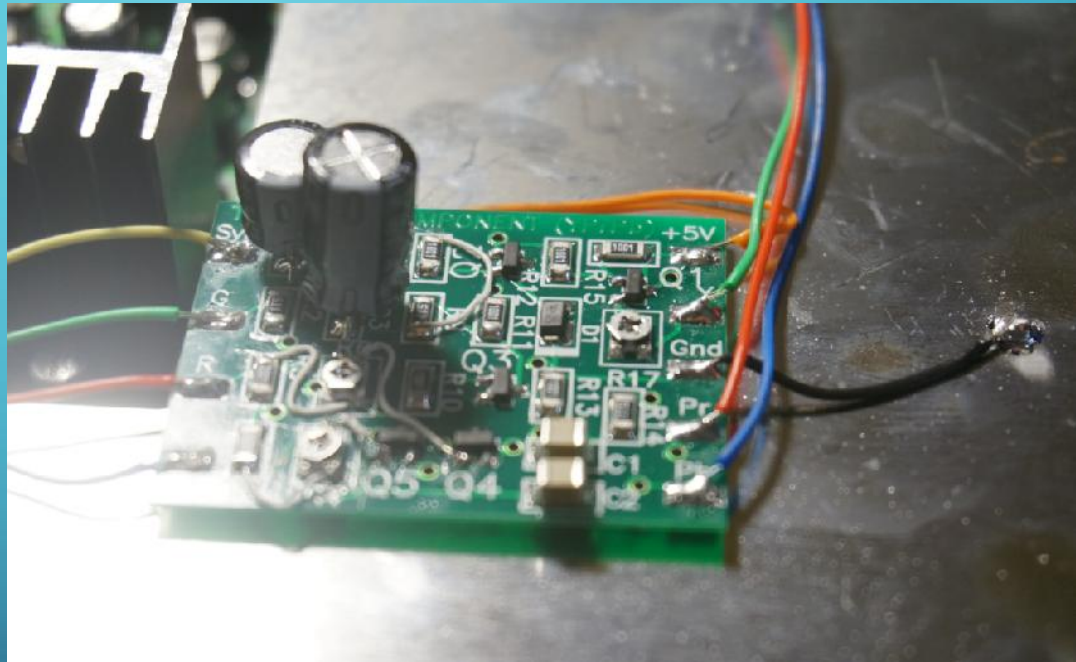
# INSTALLING THE COMPONENT MOD BOARD

- The component mod board can also be installed in the TG16 Dock or the IFU using the corresponding pins to the expansion port.



# INSTALLING THE COMPONENT MOD BOARD

- Solder the appropriate input wires from Hu6260 or Expansion Bus wires to the RGB & SYNC side of the chip.
- Solder the appropriate wires on the output side of the chip to desired connection type.





# CHOOSE OUTPUT METHODS

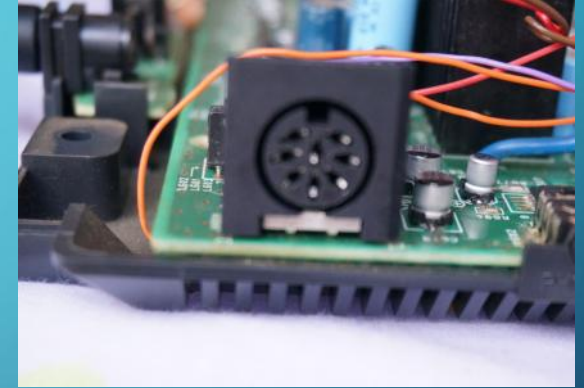
Via RCA jacks



Via mini Din-7



Via Din-8





# TRIM POTS

- It comes preset but adjustment to the colors & brightness levels may be needed for individual systems and TV sets.
- With a mini flat screw driver, adjust pots at R6 for red level, pots at R4 for blue level and pots at R17 for brightness level.

