

ABOUT TAITO F3

Taito F3 Package System (also known as Cybercore) was/is an arcade game system released by Taito in 1992. Some early games running on F3 hardware were released as standalone PCBs, but most complete F3 kits consist of a motherboard and pluggable game ROM carts, very much like NeoGeo or CPS2.

Taito F3 ,
Cybercore

The problem with F3 system is that both motherboards and game carts are regioned and the regions do not interoperate: for example, you can not run Japanese cart on European motherboard and so on.

MODIFYING THE SYSTEM

What we want to do is two things:

- Make a F3 motherboard to accept games from all regions
- Make a cartridge run in a different language (for example change a Japanese-language cart to display texts in English)

Making the modifications is somewhat easy, but you do require some basic tools (feel free to improvise whenever necessary):

- Screwdriver
- Soldering iron
- EPROM eraser
- EPROM programmer

MAKING THE MOTHERBOARD TO ACCEPT ALL REGIONS

The only thing that prevents the motherboard from running games from a different regions are the connectors on the motherboard. If you disconnect a cartridge from the motherboard, you can see the exposed cart connectors - they contain "stoppers", and game cartridges from the same region have matching "holes". A cartridge from a different region has the "holes" in different place(s).

Unmodified F3 motherboard connector

I used soldering iron to melt the "stoppers" away. Be careful not to overheat the connectors. If you overheat the connectors, you might damage the motherboard!

This motherboard accepts games from any region

After you have "clean" connectors, your motherboard will accept a game from any region. But alas, it will run in the original region's language...so we'll fix that next:

CHANGING THE GAME LANGUAGE

sucker. If you remove it, you can no longer return the game for Taito to be fixed (that's what the text says on the cartridge), but well...who cares :)

There's a screw hidden under this sticker

After opening the cart, orient the exposed PCB like the picture right. Then, take out the rightmost eprom on the PCB.

Take out the
rightmost
eprom

Dump the rightmost eprom's contents with an eprom reader. The last byte of the rightmost eprom dictates in which language the game runs.

Value of 01 is Japanese.

Value of 02 is English.

Value of 03 is Europe.

Reprogram the eprom or use a new one, insert it to the PCB, close the cart case and you're done!

Note that the language patch works also on "cartless" F3 games, such as Light Bringer/Dungeon Magic, Liquid Kids/Mizubaku Adventure and RayForce/Gun Lock!

Update! When patching Pop'n Pop from Japanese to English, I noticed that its "rightmost rom" does not have the same structure as other F3 games - in that case I had to reprogram the whole chip, not just one byte. Are there other F3 games like that ... I don't know.

Youth doesn't excuse everything.

-- Dr. Janice Lester (in Kirk's body), "Turnabout Intruder", stardate 5928.5.