PS/55 5545-T Keyboard
(PS/2 8573 P7x Keyboard JP Layout)

IBM P/N 65F0045
FRU P/N 65F0063
PS/55 Japanese 002 layout
ALPS made Plate Spring Switches
Proprietary Plug made by Hirose
Manufactured July 1990
Made in Japan

Yipee! I DID disassemble P7x keyboard !

This keyboard is an associated keyboard of PS/55 5545-T, a luggable desktop PC introduced to Japanese market in May 1990 from IBM Japan. Basically this one is same with PS/2 8573 P70/75 keyboard except so-called Japanese 002 key layout. Inner construction, key switches and proprietary cable are all same with P7x keyboard.

Related Links for IBM PS/2 8573 P70 and P75

P70 Project By Dr. Magic hand, Jim Shorney . Top page; Just another freakin' Web page.
8573 Common device By Emperor of Microchannel, Louise Ohrland. Top page; Ardent Tool
P70 Keyboard P/N 23F3229 (written in Japanese)

Let's open the keyboard.

Locking latches locate blue circles in Fig 1 below. You have to release those latches first using a thin screw driver (I recommend you making your own tool using such as bamboo sticks). Latches in four red circles are inserted into an aluminum bar which is screwed on the PCB.

Fig 1 ; Location of latches

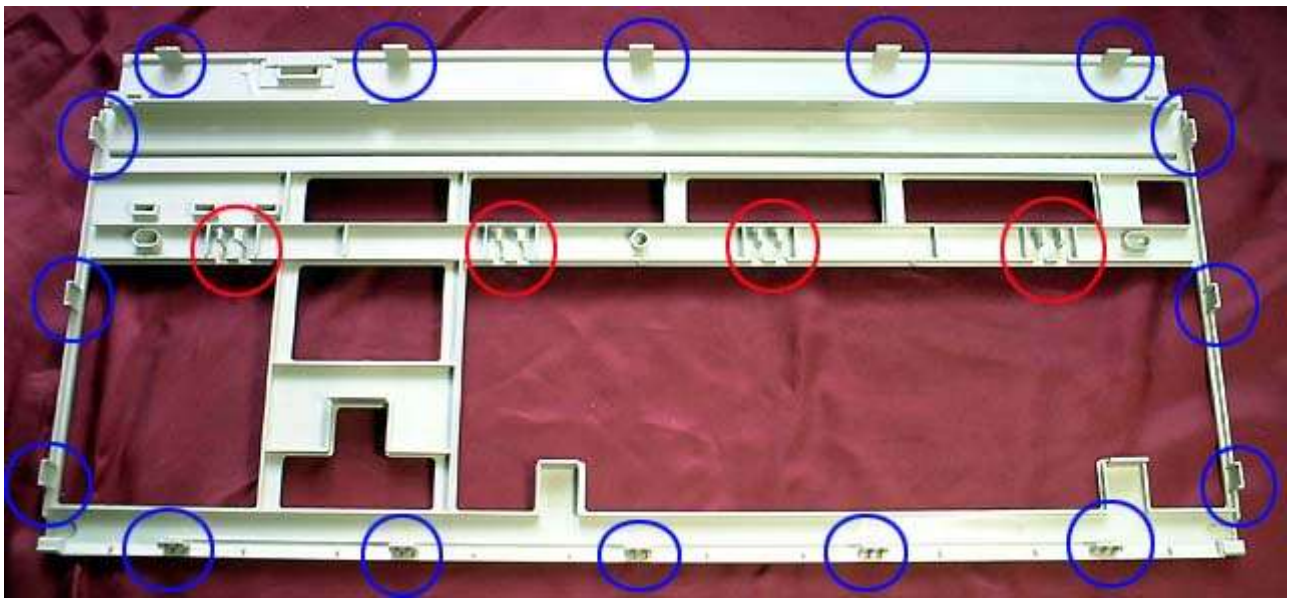


Fig 2

First, unlock 5 latches at the rear end.

Once you can release a latch, then insert thin wooden plate or a guitar pick to keep upper and lower case separated. Without those separators, upper and lower housing will be easily connected tight again.

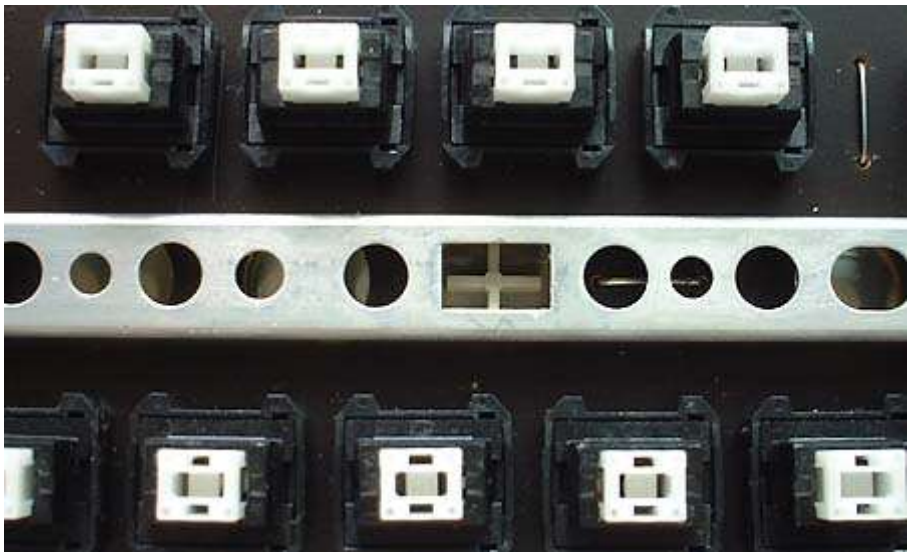
Fig 3

After ever latches are unlocked.

The left pcture was taken after latches at the aluminum angle bar were all removed.

Once you release 5 latches at the rear end, next step is to release latches connecting upper case to an aluminum angle bar on the PCB . Confirm location of latches with red circle in the Fig1 again..

Fig 4; Let's confirm construction of aluminum bar before release latches.



An Aluminum angle locates between upper numeric keys and Function keys on the PCB.
4 latches inside the upper housing (top cover) go down into square holes on the bar and connect the upper housing tight onto the PCB and lower housing.

Fig 5 Fig 6

Latches locate, between **[2] and[3]**、**[7] and [8]**、**[BS] and** then between **[*] and [/]** in case of P7x US layout models. Go figure by yourself in case of French or German layout models.
For easy operation, you'd better to pull off whole numeric keys.
Latches look like in picture upper right . Use a thin screw driver to release those latches.

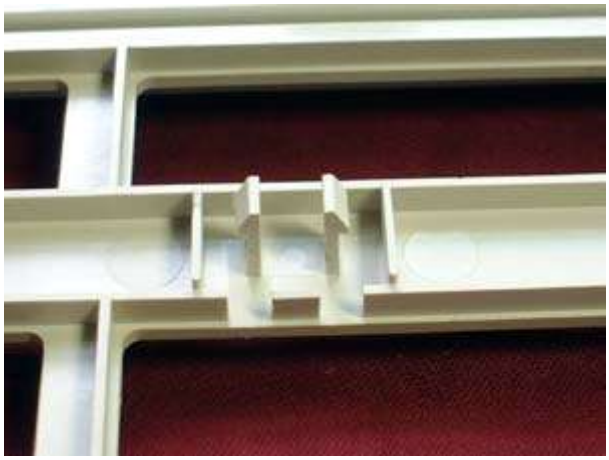


Fig 7

latches look like picture left and upper right.

Push each studs inward .
Be careful not to break latches.

Once you can unlock latches which connect upper housing to the aluminum bar, it's not that difficult to release other latches around the housing.

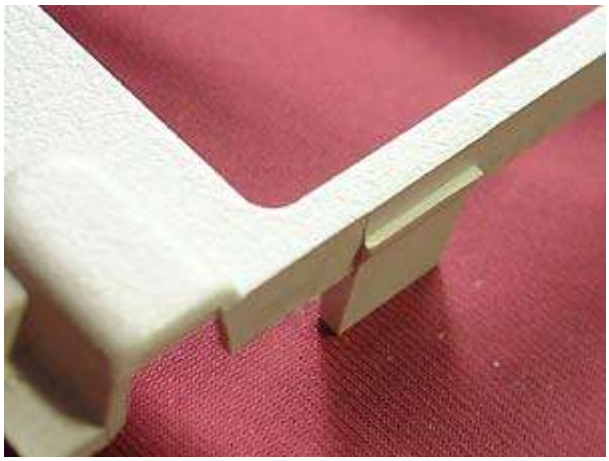


Fig 8
There are 3 latches at the both side., 6 tottal.

Frame of lower housing is really thin and it may be easily to break and get cracked if you push in a screw driver and then push out lower frame too strong.

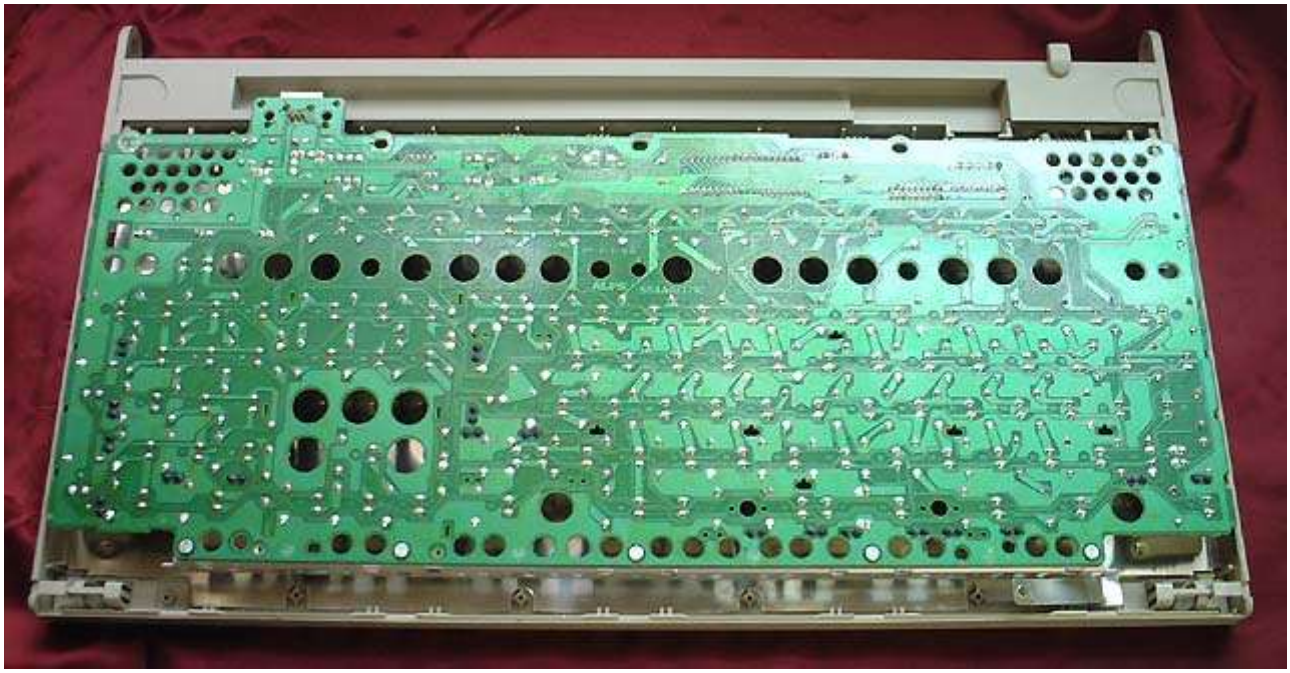
You'd better push upper in housing inward by your finger and then use screw driver as auxiliary tool..

In order to release lock levers at the front end, first release a lock lever at the corner (any of left or right) then grab rear end of upper housing and pull upward slightly and then pushing lock lever area of front edge one by one. You may also use a thin screw driver to release lock levers.

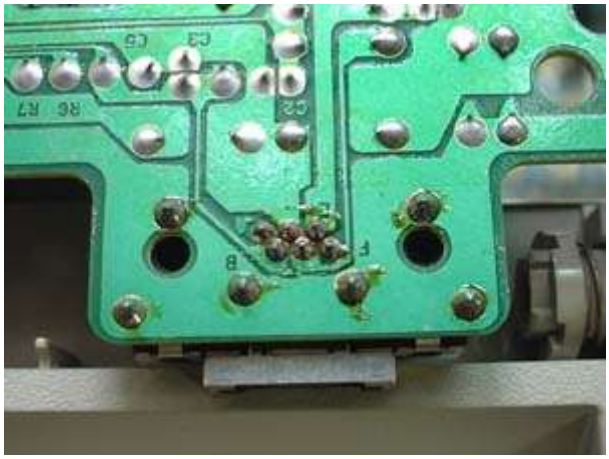
Fig 9; Open sesami.

Fig 10 Under the PCB, there is an aluminum sheet (EMI shield sheet).

Fig 11; Bottom view of a main PCB



Connector Pin-out (PCB)



Viewing from solder side;

Each soldering land is assigned like following;

NC **GND** **+5V**
O O O

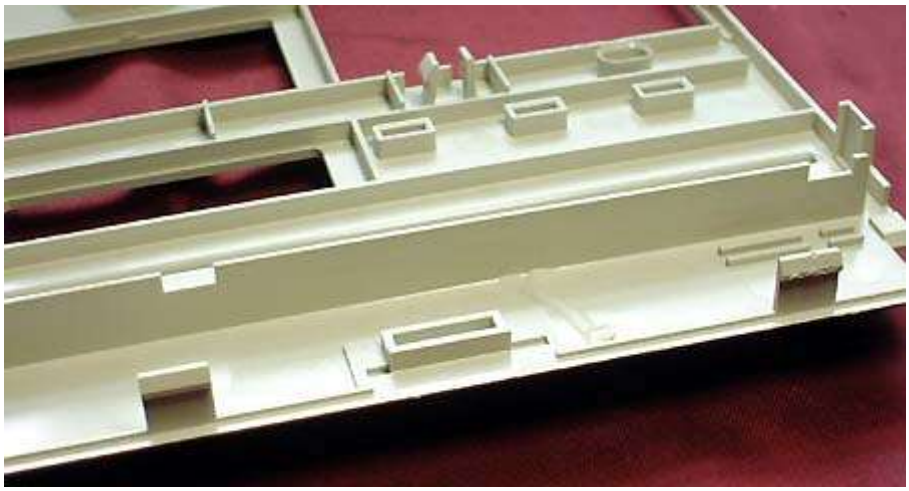
O O O
Data **Clock** **NC**

For cable connection of a proprietary plug, see HERE

Etching of ALPS logo on a PCB.

As the logo shows, P7x keyboards were actually made by IBM Japan.

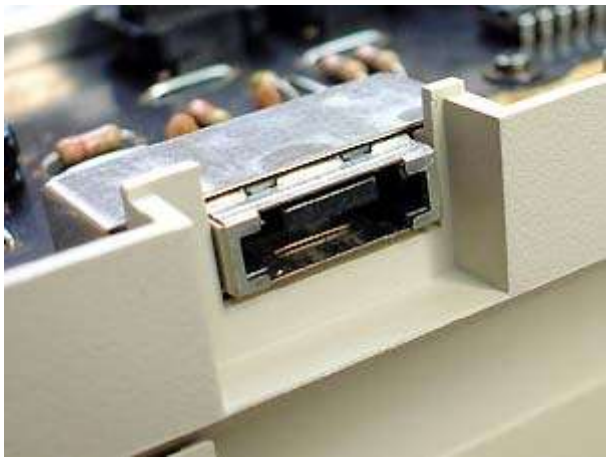
Do you want to see more details?



Lock levers at the rear (upper) end .

So many scratches around the lever. I really hustled with these levers before I found existence of locking levers going down trough aluminum bar.

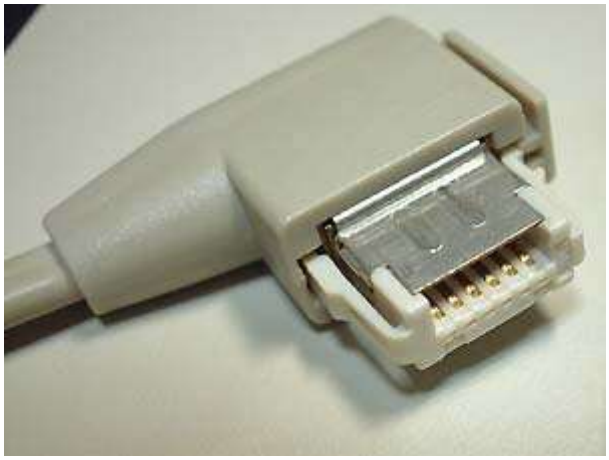
Tilting lever and its' spring.



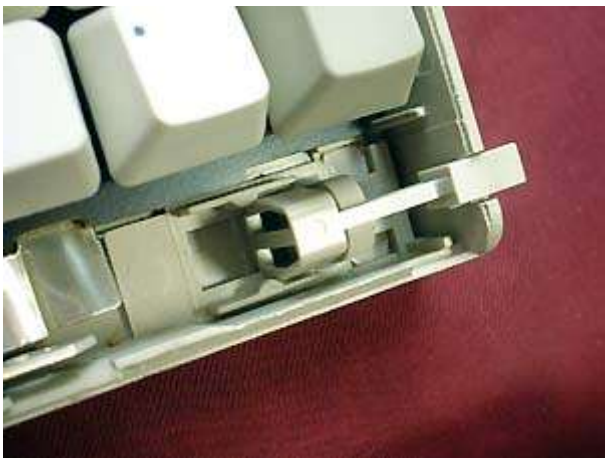
Cable connector

Connector and plug are both made by HIROSE。

Not compatible with those of Model M nor 5576 Japanese keboard.







Lock levers which keeps the keyboard as an front cover of P7x PC system

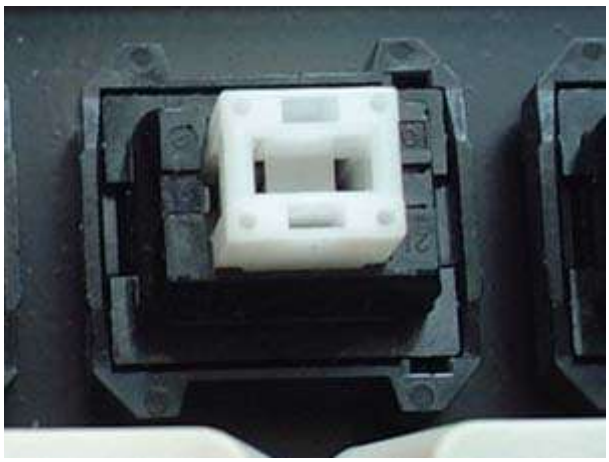
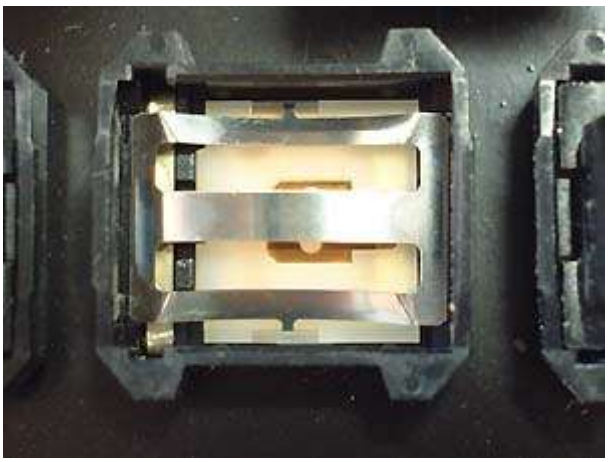
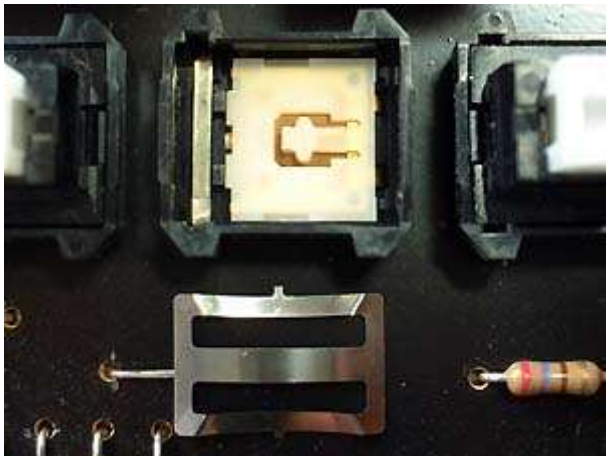
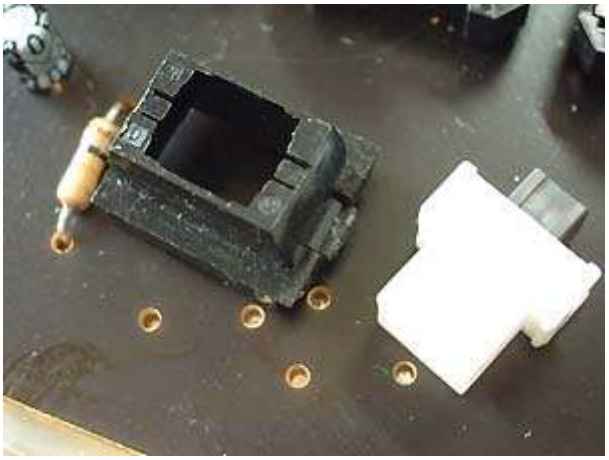
Mine is for IBM PS/55 5545-T thus both P/N and FRU P/N are different from those of P7x

Silver logo on a gray background.

Can you identify "5545T"?

"T" means 386DX20.
IBM Japan didn't make 486 version equivalent to P73. If they made it, model number might be 5545Y, I suppose.

Key switches
US patent 4613737
Basic patent 3899648

Switch itself is made of ALPS Japan. but is different from ALPS switches used for many AT keyboards like Northgate Omnikey, DELL AT-101 and such like. This kind of switches were only used in keyboards sold by IBM Japan like 5576-001/002 and P7x (including 5545) systems. Switching mechanism is described as "ALPS Plate Spring system". As far as as I know this is a sort of buckling spring system based on a bucking phenomena of plate (leaf) spring. Switches are bit different from those used in 001 and 002.

On this model, each switches has a jumping bar inside lower housing. This method can be seen in older version of 001/002 models.
Older models of 001 and 002 used a PCB directly attached to a face plate, later version used PCB separated from face plate.

Down side of this switch is that upper housing is weak and easy to break. Do not handle the keyboard roughly. The board is not build like a tank unlike model M.

Sorry that the picture is out of focus but you can identify an ALPS logo.

Key cap is not two piece type.

IBM PS/55 5545 T0B

by Sandy. 2004.08.22
English script; 2005.08,21
Minor modification, 2010.02.12
Last modification ; 2013 02.08

SEO