Tandy 1000 SmartWatch+ Instructions

Install locations for Tandy 1000's:

Tandy 1000	- use ROM socket U9 or U10
Tandy 1000A	- use ROM socket U51
Tandy 1000EX	- use ROM socket U-12 **(see Page 2 for detailed instructions)**
Tandy 1000HX	- use ROM socket U41 **(see Page 3 for detailed instructions)**
Tandy 1000SX	- use ROM socket U38
Tandy 1000TX	- use ROM socket U13
Tandy 1000SL	- has its own socket (software installation, see **Tandy 1000SL**)
Tandy 1000SL2	- has its own socket U13, Enter Date & Time twice in DeskMate
Tandy 1000RL	- has its own socket U28, Enter Date & Time twice in DeskMate
Tandy 1200	- use ROM socket U78 or U79
Tandy 1200A	- use ROM socket U13 or U14

The units listed below **do not** need a SmartWatch chip. Date and Time backup are already available on the main logic board:

1000 TL, 1000 TL2, 1000 TL3, 1000 RLX and 1000 RSX

Software Installation:
The software required to operate the SmartWatch+ is available here:
ftp://ftp.oldskool.org/pub/tvdog/tandy1000/utilities/smwy2k.zip

Copy SMWCLOCK.COM from the utility diskette to the boot disk. Power up the system as usual. Enter the correct Date & Time at the MS-DOS prompt.

To calibrate the smartwatch with the MS-DOS date and time:

Type SMWCLOCK C <ENTER>.

The SmartWatch will be set and the Date & Time will be redisplayed.
This step needs to be done only ONCE at installation time. The date & time will be updated and retained with or without power to the system.

To load the correct Date & Time to MS-DOS:

Type SMWCLOCK S <ENTER>.

The above line can be put in the AUTOEXEC.BAT file if you wish for the SmartWatch time to be set each time the computer boots.

Tandy 1000SL:

The Tandy 1000 SL has an SLCLK.COM file on the MS-DOS Supplemental Programs diskette. **DO NOT USE** the SMWCLOCK file, it will not work. Use the MS-DOS Date and Time commands to set the correct date and time.

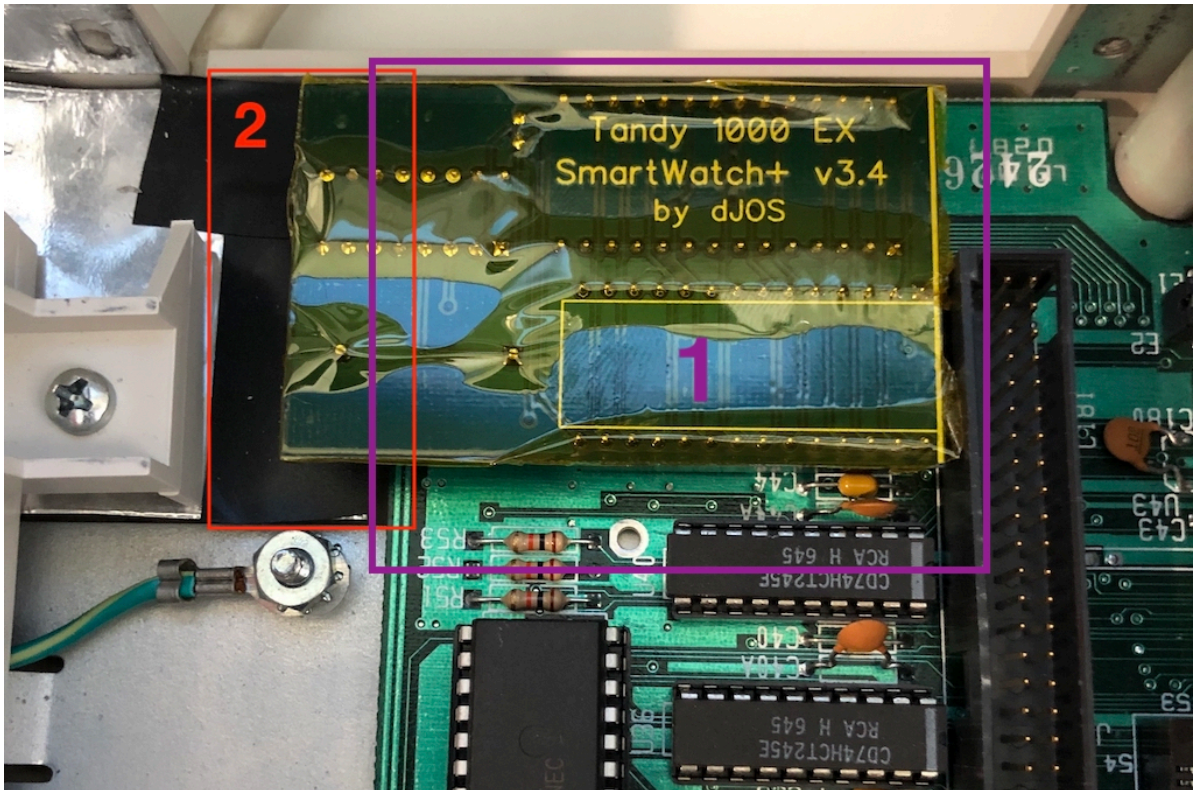
At this time I'm unsure if the SLCLOCK utility is Y2K compliant.

Tandy 1000 EX

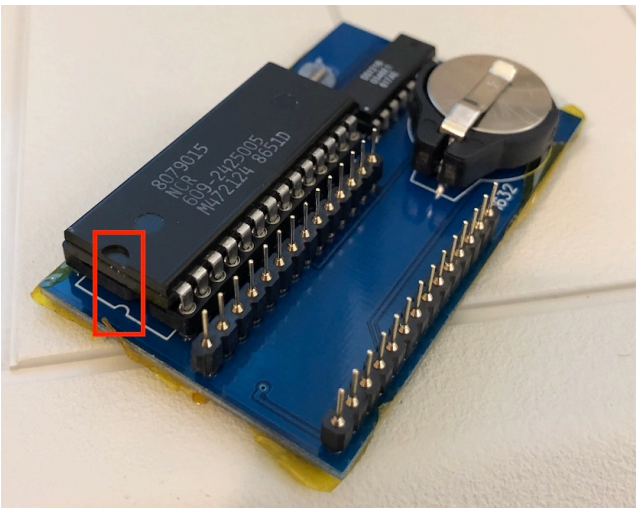
After opening up your 1000 EX, you will need to remove some of the carboard shielding near the PLUS expansion connector. I recommend just cutting away a rectangular section (marked with a "1" in Purple) with scissors.

NOTE: I don't recommend removing the entire shield (as I have done) as you will need to then create a bottom shield (eg from non-conductive plastic) to replace it (as I had to). If you don't you will short out the motherboard against the metal shield below making for either a very unstable system, or a dead one.

Once you have removed enough shield to access the area, I recommend you place a piece of electrical tape in the area marked with a Red "2". This will prevent any possibility of the battery holder shorting to ground and draining the battery.

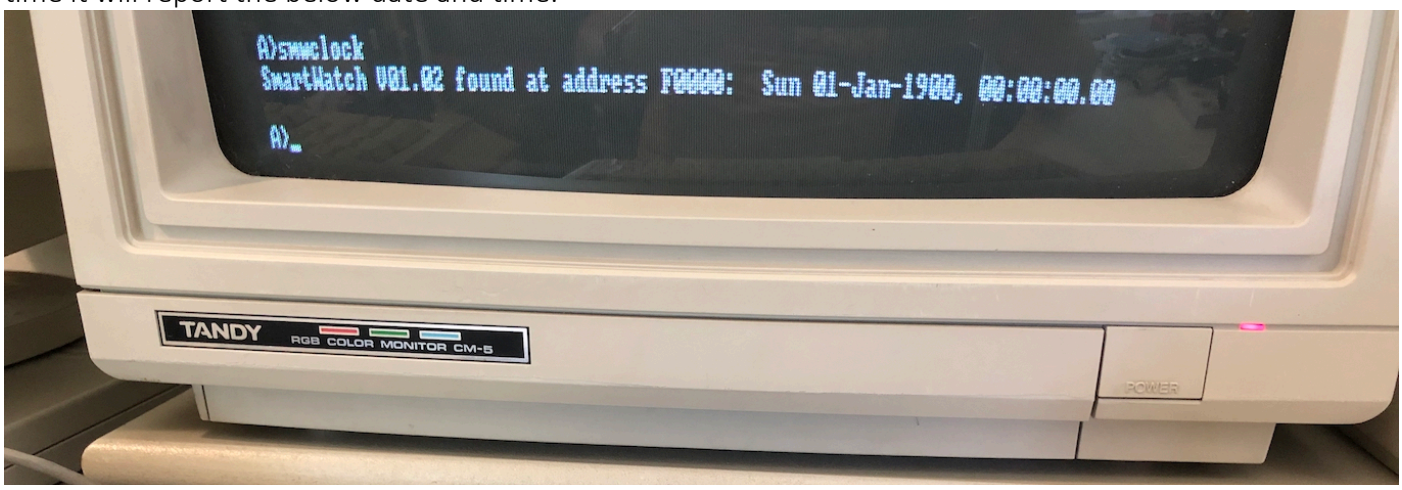


Next you will need to remove the BIOS ROM chip (in the area were the Purple "1" is. Use a proper chip IC extraction tool (eg the Jonard EX-2) so you don't damage the pins. Then make sure the pins are straight and carefully insert the ROM chip into the SmartWatch+ with the notch as show below. Then insert a CR1632 Lithium coin cell.



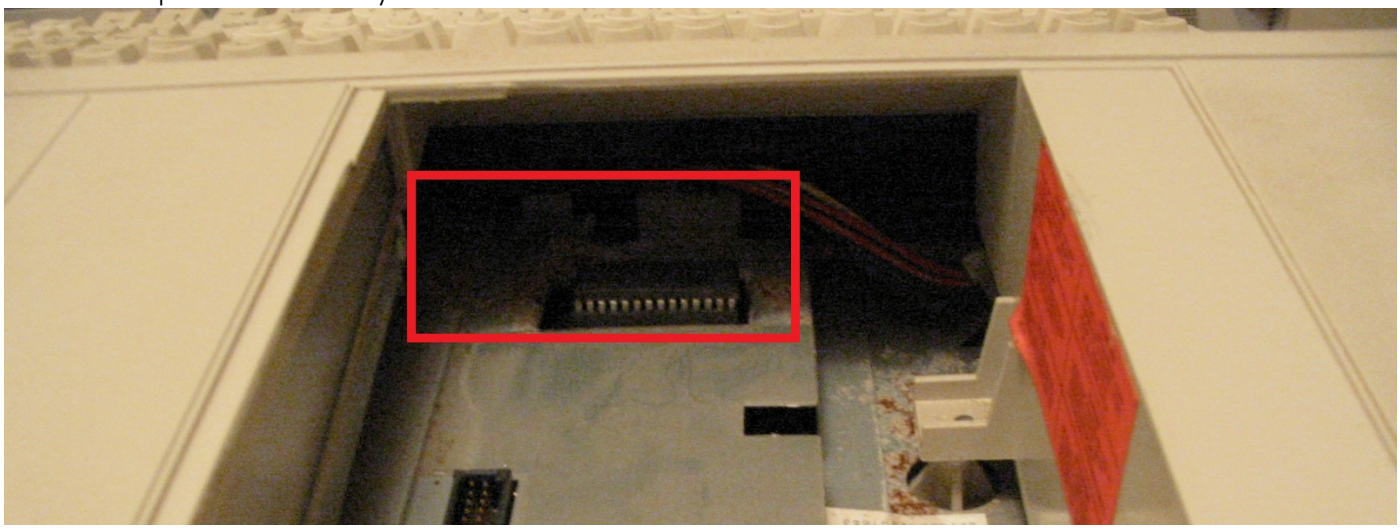
Then Insert the SmartWatch+ module into the BIOS ROM socket as shown in the Image on the first page. The Pins are quite long and should be pressed in firmly – there should be a slight click when fully installed into the socket and the board will be level with the motherboard.

To verify the SmartWatch+ module is working, type "smwclock" and you will see it has been found – the first time it will report the below date and time.



Tandy 1000 HX and other 1000's

After opening your 1000 HX, you will need to remove the top shield to fit the Smartwatch+. I recommend using some tin-snips or a metal nibbler and just cutting away a larger rectangular section around Bios chip while the top shield is out of your HX.

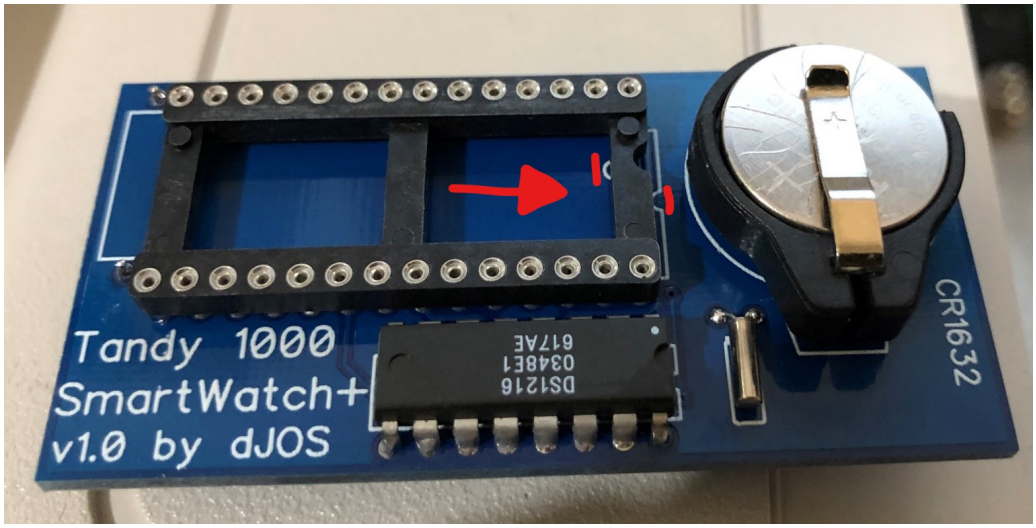


There isn't any shielding to remove from the "big box" 1000's.

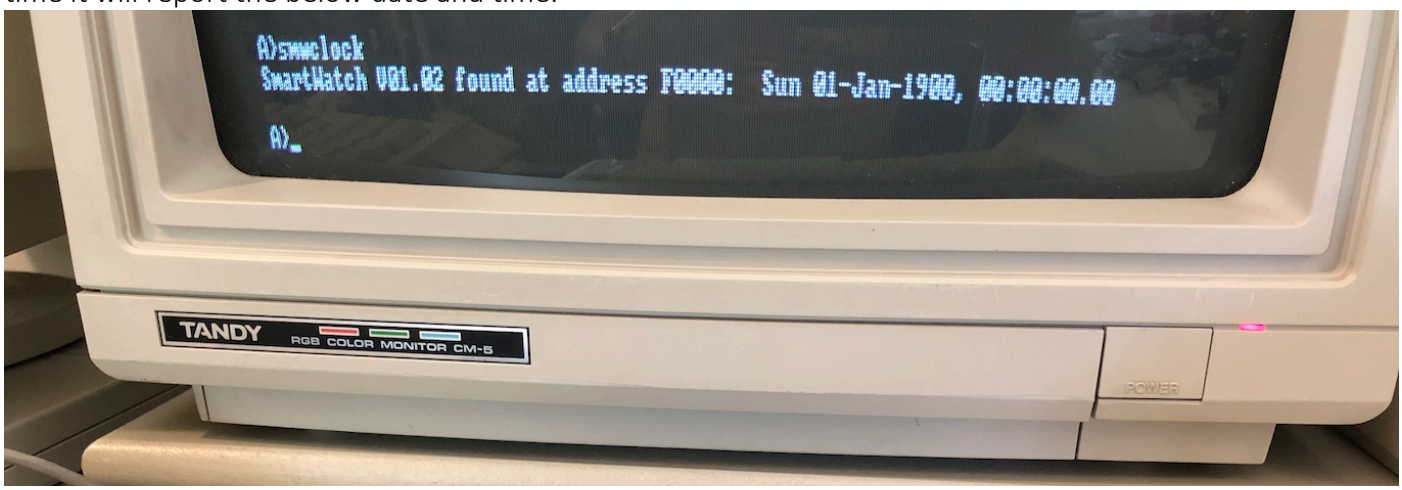
On the HX and “big box” 1000’s – Look for the notch marking on the motherboard and the notch on the chip – this shows the orientation of the Smart Watch board.

Next you will need to remove the BIOS ROM chip. Use a proper chip IC extraction tool (eg the Jonard EX-2) so you don’t damage the pins. Then make sure the pins are straight and carefully insert the ROM chip into the SmartWatch+ with the notch as show below. Then insert a CR1632 Lithium coin cell.

Then Insert the SmartWatch+ module into the BIOS ROM socket with the notch oriented as shown below. The Pins are quite long and should be pressed in firmly – there should be a slight click when fully installed into the socket and the board will be level with the motherboard.



To verify the SmartWatch+ module is working, type “smwclock” and you will see it has been found – the first time it will report the below date and time.



Thanks for buying my product, I hope it provides you with as much enjoyment as I had making them.
Regards dJOS