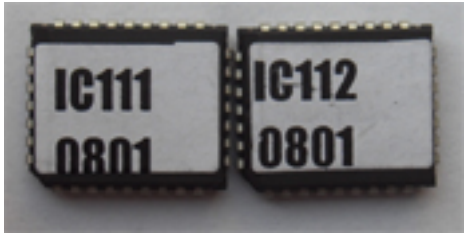



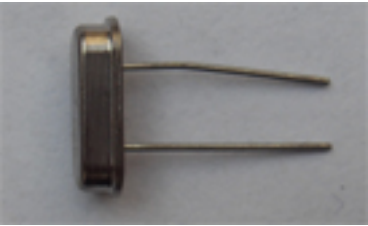


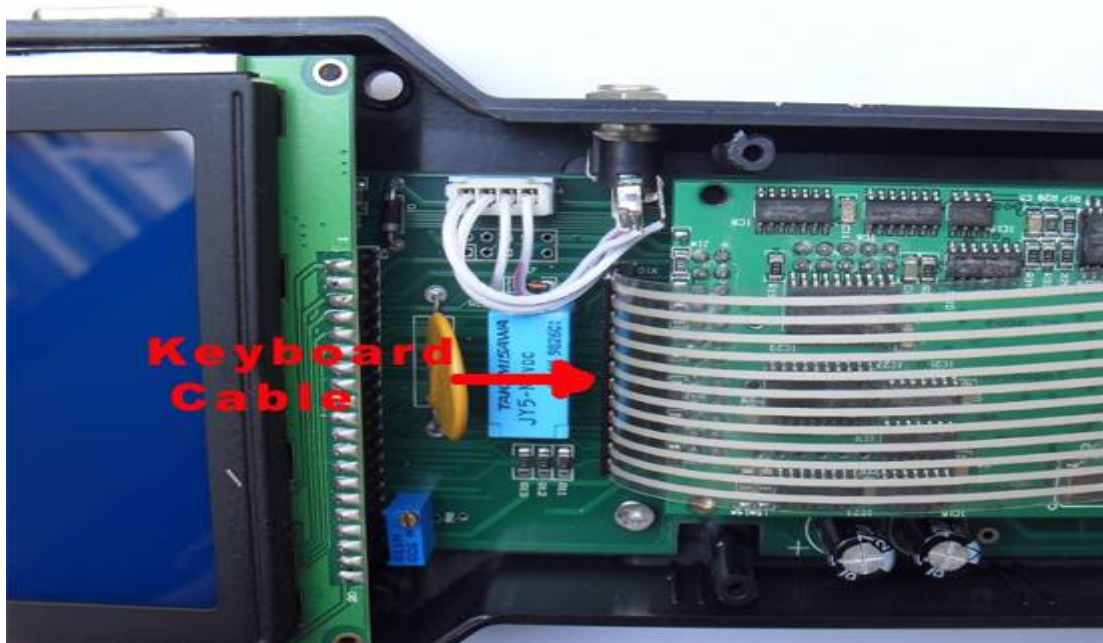
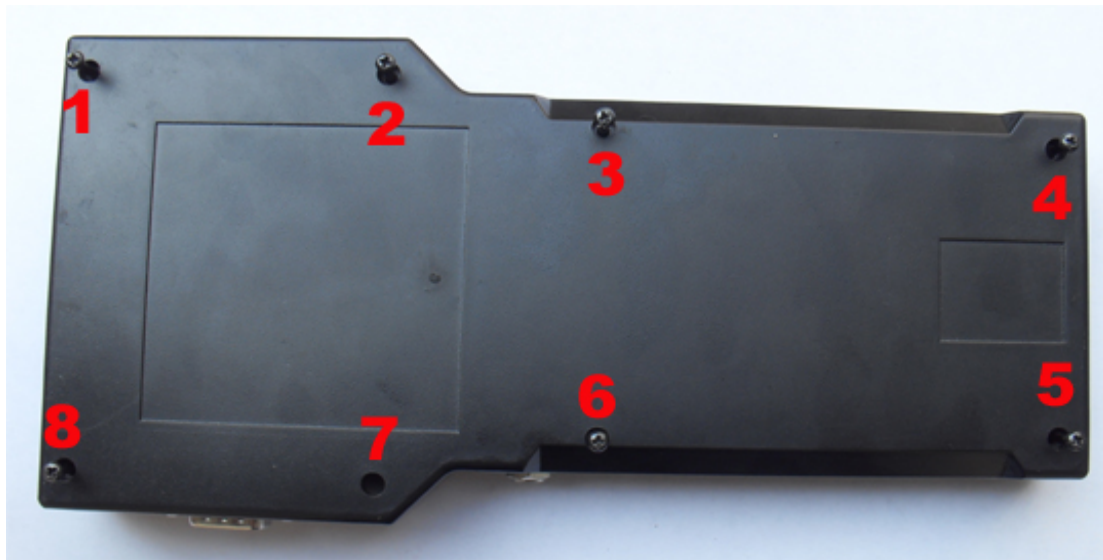
# TACHO Universal hand-held Device Repair Instructions

## 1. This Repair Kit Including The Following Devices

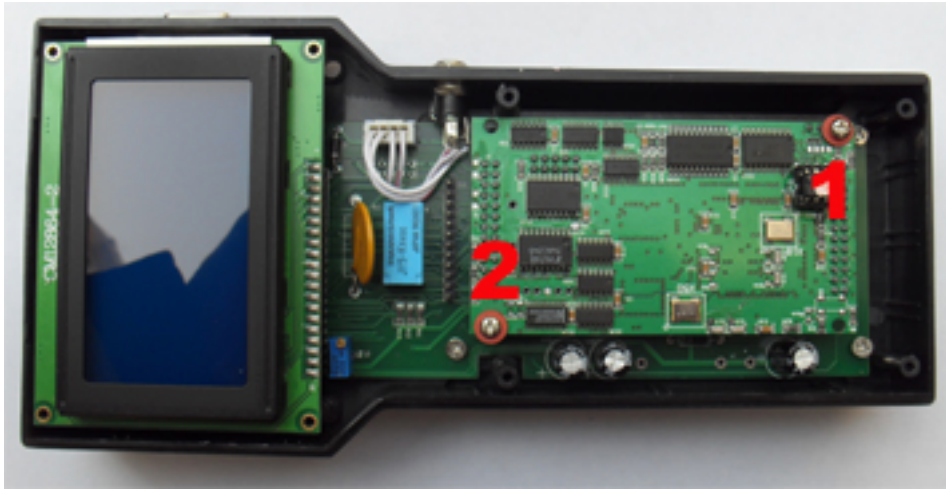
No.	Name	Quantity	Image	Remark
1	IC111 & IC112	2PCS		
2	AT24C02	5PCS		
3	74HC541	1PC		
4	IC111&IC112 IC removing tool	1PC		
5	2. Crystal oscillator	1PC		

### 3. Disassemble TACHO Universal Hand-Held Device

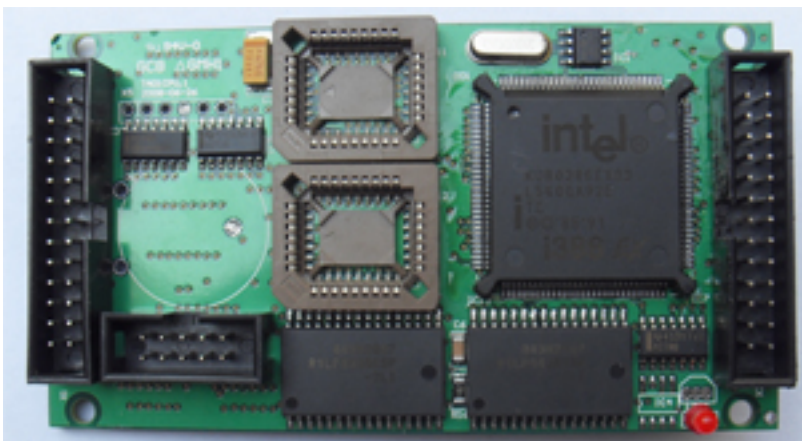
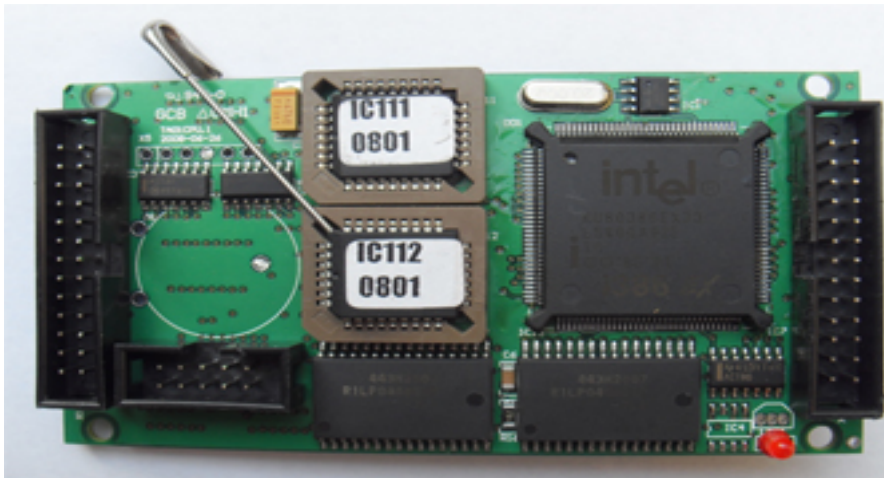
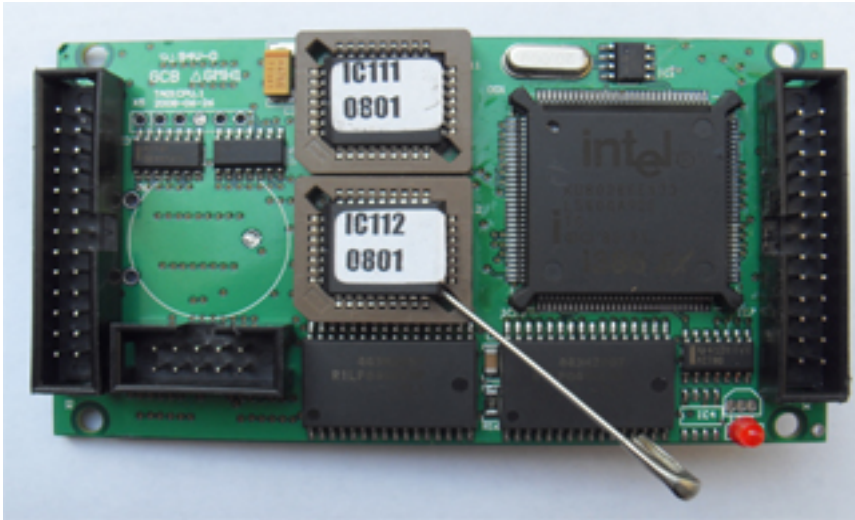
- A. Remove the 8 screws, open the up cover, unplug the keyboard cable connector, and then remove the up cover as shown in the figure.



B. Remove the CPU BOARD as shown in the figure.



C. Remove IC111 and IC112 as shown in the figure.



D. Remove AT24C02 as shown in the figure.



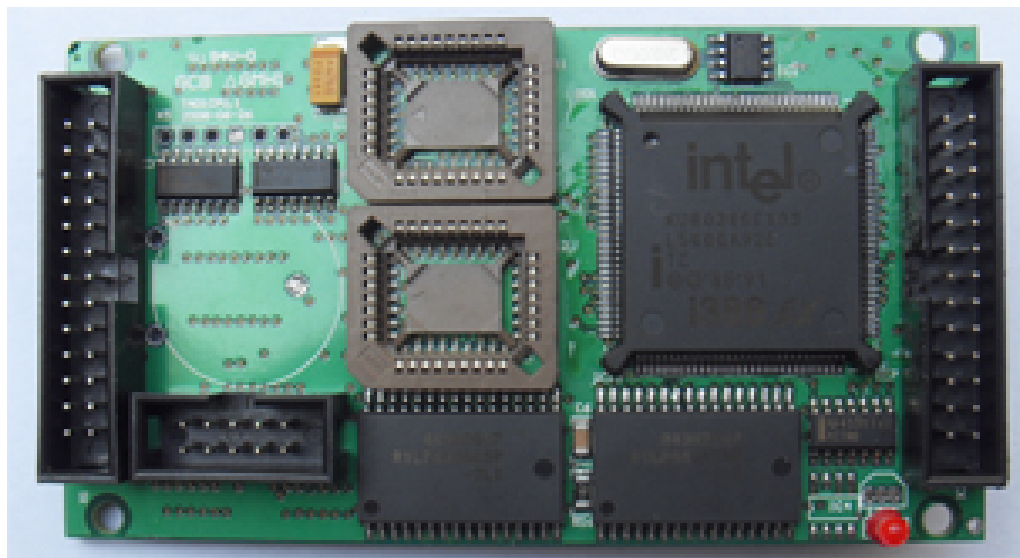
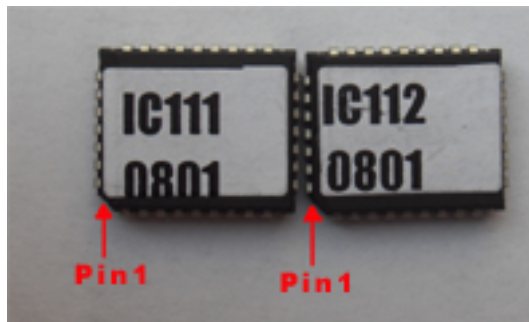
E. Remove Crystal oscillators as shown in the figure.



F. Remove 74HC541 and LCD as shown in the figure.

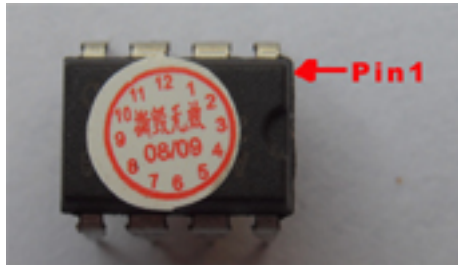


G. Install IC111 and IC112. Make sure the install direction is correct. See the figure.





H. Install AT20C02. Make sure the install direction is correct.  
See the figure.



I. Install Crystal oscillator. See the figure.

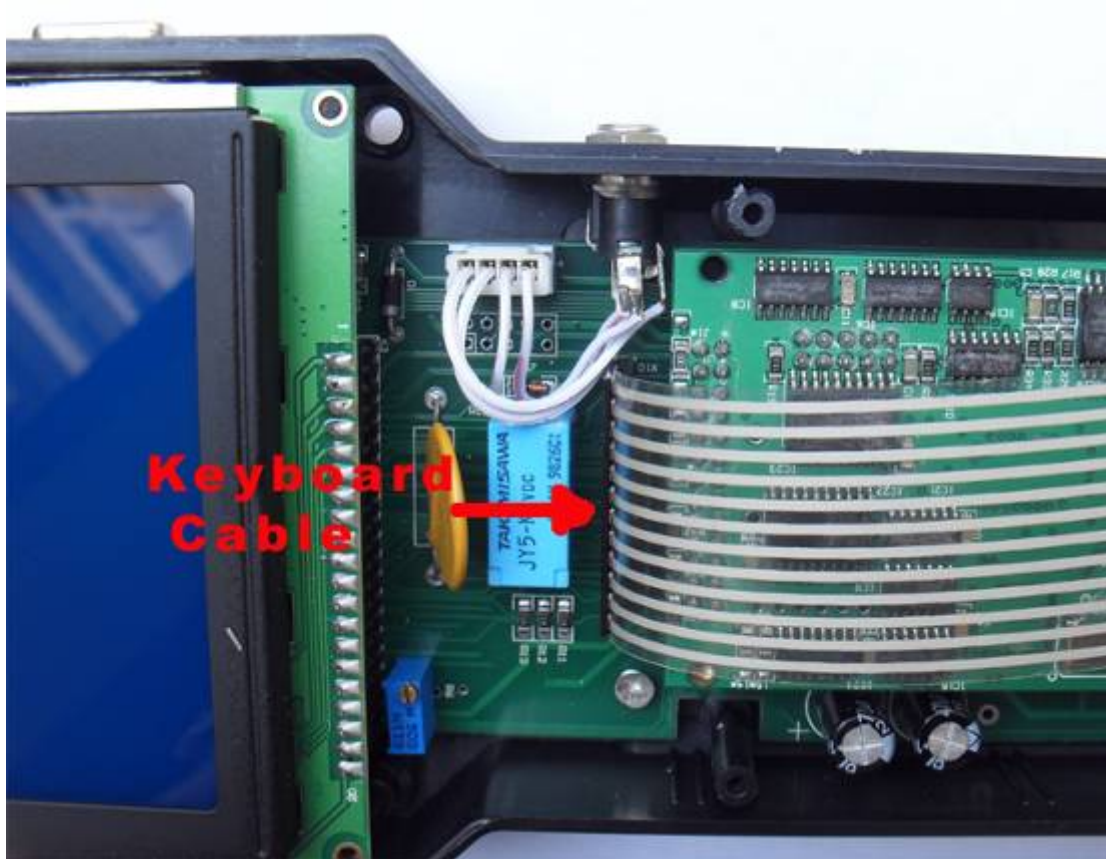


J. Install 74HC541, then the LCD. See the figure.

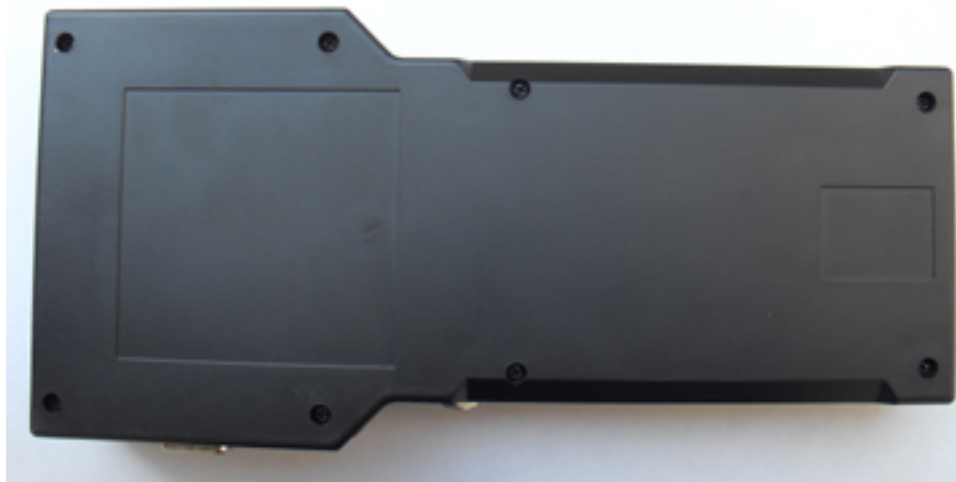
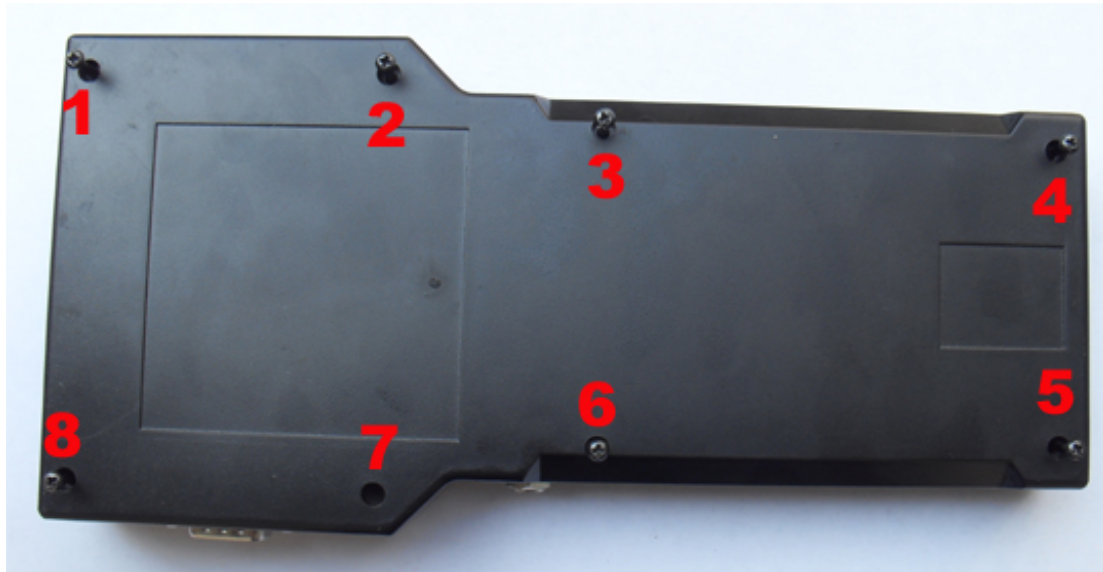


K. Install CPU BOARD. Make sure install it in correct direction.

See the figure.



L. Install the up cover and then the 8 screws. See the figure.



## 4. Trouble Shooting:

Trouble	Solution	Remark
Screen display: Diga updaten	Replace IC111 and IC112	
Screen display: RESETE	Replace IC111 and IC112	
No display after powered on	Replace IC111 and IC112	
No vehicle list, screen display black strip	Replace IC111 and IC112	
Frequently Halting	Replace IC111 and IC112	
Screen display both the following: “update handheld” “???SYNC???”	Replace AT24C02 first. If the trouble cannot be solved, then replace crystal oscillator	
The machine cannot read EEPROM	Replace 74HC541。	

## 5. Cautions:

- A. Please use the special tool when removing or installing 74HC541 and Crystal oscillator.
- B. Remove IC111 and IC112 carefully by using the following tool.

