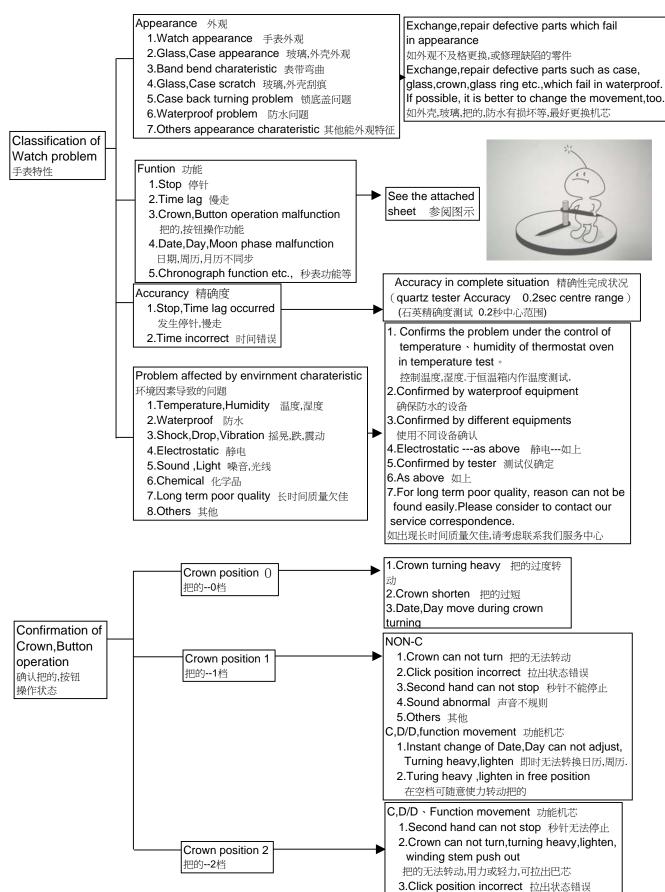
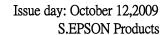


## AQ Basic Repair Chart (1)







Appearance

外观

## AQ Basic Repair Chart (2) AQ Watch AQ表 Stop, Time Leg Confirm 停针,慢走 GO Exist time adjust, do running test again 调整时间,再次转动 Confirmed by pulse tester 脉冲测试仪确定 GO NG Send back to TM(HK), S.EPSON Technical service centre 发送至TM(HK)的技术服务中心 Before disassemble 分解前 1.Appearance confirm 检查外观 2.Funtion confirm 确定功能 Repair in relative with casing GO 修理,比较外壳 1.Case, Glass, Band, Dial NG 外壳,玻璃,表带,面盘 2.Exchange new one Watch output signal 更换新零件 Pulse check 手表输出信号脉冲检查 GO NG Adjust of hand height, Hands setting relative Dismantle case back Dial, clearance of 指针安装 NG GO ,battery putout 拆底盖取电池 1.Hands touch 指针间碰触 hour wheel 调整指针,面盘,时轮高度 2.Hour wheel-Dial touch 时轮与面盘碰触 3.Hands-Glass touch 指针与玻璃碰触 NG Voltage check 检查电压 1.55V or above 1.5V或者以上 Putout casing ring, winding stem and movement 打开外壳,取出巴芯,机芯 1.Insert winding stem 插入巴芯 NG 2. Confirms click functional situation of movement 确认拉出一档的功能位置 3.Confirms turning situation of crown 确定把的转动位置 Battery exchange 4.Confirms the others functional situation 确认其他功能 更换电池 GO Confirms the problem which we find and problem of customer claim 按客户要求找出问题 1. Judgement of problem 判断问题 2.Confirmed problem by (running,shock,temperature test) 确定问题(转动,震动,温度测试) 3.Confirms the image of repair 确认维修图像

Accuracy

精确度

Function (stop, time lag)

功能(停针,慢走)

Others affected by environment characteristic

其他环境影响特性

Issue day: October 12,2009 S.EPSON Products



## AQ Basic Repair Chart (3)

Explaination of Movement STOP and Time Delayed. 机芯停走及慢走的原因.

Construction,position,parts 构造,	Defective charater 缺陷	Photos
1) Battery,Conductivity	・Low capacity of battery (low Voltage) 电压过低	Battery connection
电池,传导性	<ul> <li>Poor conductivity of battery connection (-) and (+) 电池正负极传导</li> <li>Poor conductivity of battery and foil of circuit block 电池传导性及线圈受</li> </ul>	生 (-) dirty
2) Circuit block 电路板	<ul> <li>Foil of circuit block broken 电路板断开</li> <li>Poor soldering of quartz oscillator 石英振子焊接有缺陷</li> <li>Poor bonding of IC 与IC接合欠佳</li> <li>Poor conductivity of foil of circuit block and coil block 电路板及线圈传导</li> <li>Rust caused by water come in. 进水导致锈蚀</li> </ul>	字性·
3) Coil block 线圈	<ul> <li>Poor resistance of coil block 线圈电阻不足</li> <li>Poor conductivity of Coil block 线圈传导性不足</li> <li>Coil block broken,rust,colour change,foil peel off 线圈损坏,锈蚀,变色,铅</li> <li>Poor conductivity of core and tape 核心及磁带传导不足</li> <li>Poor pressing and bonding of wire 金属丝压合不良</li> <li>Wire loose,Number of turning not enough 金属丝过短或缠绕不足</li> </ul>	剥落 Coil's wire
4)Motor 转子	<ul> <li>Poor magnetize of rotor 转子磁力不足</li> <li>Rotor's gear scratch,deform,pinion bend,scratch,lack etc., 转子齿轮刮</li> <li>Dusty,metalic powder etc., 沾尘,金属拖力等</li> <li>Deform,rust,scratch,bend of stator 变形,锈蚀,刮痕,固定片弯曲</li> <li>Poor conductivity of stator and core,poor magnetize caused by dusty</li> </ul>	固定片及核心传导性不足,磁石沾尘
5) Wheel relative 轮子问题	<ul> <li>Dusty,metalic powder (metal,Plastic etc., ) 沾尘,金属力(金属,塑料等)</li> <li>Scratch,deform,lack,come off,bend of wheel 刮痕,变形,短少,离开,轮子弯</li> <li>Scratch,broken,bend of gear pinion 刮痕,损坏,齿轮弯曲</li> <li>Wheel without clearance,position of wheel 轮子没清除,轮子位置</li> <li>Contact of wheel ,well fixed 接触轮子,修理好</li> <li>Lubricating of pinion is too much ,too little 润滑油点太多或太少</li> </ul>	Gear pinion Upper pinion Wheel Gear Lower pinion
6) Click	<ul> <li>Bend,shorten of winding stem 巴芯弯曲或太短</li> <li>Poor shape of clutch wheel 离合轮定形不良</li> <li>Setting wheel without clearance、lubricating no good,clutch wheel 核 and setting wheel do not fix in good position etc., 润滑油不良离合轮与按针轮设</li> <li>Winding stem can not insert、it does not match with case 巴芯插入不当总</li> <li>Poor electronical reset,short circuit 电子重设,短路</li> <li>Motion of parts is no good 零件运行不良</li> </ul>	设在正确位置
<b>7</b> ) Crown turning 把的转动	<ul> <li>Turning heavy,lighten,do not have click feel,have click feel 转动时要3</li> <li>Winding stem take off 巴芯脫落</li> <li>Broken,bend,loose,scratch of winding stem 巴芯损坏,弯曲,松动,刮痕</li> </ul>	<b>香</b> 当使力
8)Calendar 日历	<ul> <li>Date,day calendar without clearance,clearance too much 日历,周历没</li> <li>Wheels do not fixed well 转子没修好</li> <li>Can not stop when crown in click 2 position 把的拉出2档时不能运行</li> <li>Can not stop at sutiation of instant change of date calendar, Day driving of calendar 日历盘转动时周历盘没有即时转换</li> <li>Can not instant change of Date,Day calendar 日历,周历没有转换</li> <li>Gear of date calendar deform,scratch,linking,driving force etc.,日历盘</li> <li>Calendar without driving power 日历无电力驱动</li> </ul>	
Accuracy problem 精确度问题	<ul> <li>Investation of reason of defects 缺点原因</li> <li>1.Low capacity of battery 电池容量过低</li> <li>2.Circuit block no good 电路板不良</li> <li>3.It needs to confirm the envirnment condition 受环境条件</li> <li>*Month accuracy ±20 sec/month 月精确度 ±20秒/月 ±20/30day=±0.667sec/day ±20/30天 = ±0.667秒/天</li> <li>*Actually ,quartz oscillator will be affected by temperature,Center range accuracy will not be 0 second. It will be ±0.2 sec/day.</li> <li>实际上,石英振动受到温度影响,精确度集中排列未到0秒,只能到0.2秒/天.</li> </ul>	Use AQ tester to check the accuracy correctly 使用AQ测试仪检测精确度  of