YMK

High Frequency eddy current heating soldering station

Instructions leaflet



Applied models:

RT-S0060 RT-S0100 RT-S0150 RT-S0180

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Caution

The instructions of "Warning" and "Caution" is defined as follows:

 \triangle Warning: misuse of may lead to death or serious injury to the user.

 \triangle Caution: misuse of may result in injury to the user or cause substantial damage involving objects.

▲ Warning

When the power is turned on, the tip is hot!

Misuse may cause burns or fires, strictly adhere to the following matters:

* Do not touch the metal part of the soldering iron near the head.

* Non-flammable near soldering station.

* Inform the user, the tip can easily cause burns, may cause dangerous accidents. Rest and after completion should turn off the power.

* Replacement parts or replace the iron tip should turn off the power, and the head to be a soldering iron to cool to room temperature.



Parts name



Setup and use soldering station

1.Iron stand

 Δ Caution: The sponge is extruded objects, wet swollen. When you use a sponge, wet and then squeezed, otherwise it will damage the iron tip.

A.Small piece of clean sponge

Small piece of clean sponge wet with water and then squeezed, placed at the base of the iron frame groove.

B.Add water to the iron frame within

Not exceed an intermediate projecting portion.Small piece of sponge to absorb moisture, can be placed in on the large piece of sponge has been kept damp.

C.Finally, wet bulk cleaning sponge placed inside the base of the iron frame.

2.Connect

 \triangle Caution: connected or removed the soldering station, remember to turn off the power, in order to avoid damage to the soldering station.

A. Iron handle wire and soldering station " EXT " interface connector (plug gap at the outlet with in the convex-bit).

B. soldering iron handle is placed on the iron frame.

C. " IN PUT " socket connection of power to the tail of he main power line after the soldering station (Note direction).

D. the main power cord into the outlet voltage soldering station.

E.Turn the power switch. Heating when the temperature is stable, the heating lamp will be shining (factory set to 320 $^{\circ}$ C).

F. Press the " * " key, the display will show the current set temperature 2 seconds.

G. ground terminal antistatic wrist strap, if necessary, can be plugged directly into the back cover " ESD " interface.

 \triangle Warning: soldering station mains plug ground terminal reliable ground must be able to use this interface.

3.Set temperature

 \triangle Caution: determine the soldering station is adjustable in temperature state (enter the correct password or the password to the original password). Set temperature, the heating element is powered downs. If pressing the "*" key for less than 1 second, the current setting temperature will be displayed for two seconds, and then display the actual temperature of the soldering iron.



Temperature setting steps:

1) Press the " * " key for at least 1 second, hundreds digit will flash. Indicates the temperature of the soldering station enter the setup mode, the hundreds digit can be adjusted.

2) the need to adjust the figures to replace the hundreds digit. using the "+" or "-" keys to change the number. when the desired number is displayed, press the " * " key. ten-digit begins to flash, said ten the number can be adjusted.

3) the need to adjust the figures to replace the ten-digit. Using the "+" or "-" keys to change the number. When the desired number is displayed, press the "*" key. single digits begin to flash, indicating a bit the number can be adjusted.

4) the need to adjust the figures to replace the single digits. Using the "+" or "-" keys to change the number. when the desired number is displayed, press the "*" key. At this point, all of the settings value will be automatically saved the display shows the actual temperature, soldering iron begins to heat to the set temperature.

Note: If you turn off the power switch when the set temperature, the set value will not be saved. If the set temperature exceeds the setting range, the display will return to the nearest hundred shiny, if a if this happens, please re-enter the correct temperature value.







Temperature instant set

For work soldering iron uninterruptible power continue to heat set temperature quickly, optional the following method:

Not press the "*" key, press the "+" or "-" key, each press of the time, the temperature of the changes °C, the display shows the set temperature, the release button, the display settings screen delay temperature for about 2 seconds delay 2 seconds and then press the key change set temperature 1°C if pressed button and hold the set temperature will change as rapidly, until the desired set temperature release key.

Temperature graph



Notes:after modifying password(not original one), must turn off power and turn on to limit temperature adjustment.

Parameter setting

1.Password settings

The original soldering station password: "000", soldering station temperature setting is allowed in this state, should limit temperature adjustment, you must modify the password. password mode on the power switch. 2) The display shows " C ", the soldering station to enter the parameter setting mode. 3)Press the "*" key, the display shows - - one hundred digital shiny this B.input original soldering station has entered the password setting mode, one hundred numbers password can be adjusted using the "+" and "-" keys to change the display value, set password value is the same method and the "set temperature". The three digits of the password selected by pressing the "* " key. 4) If the display shows the current setting for 2 seconds after soldering station into C.input wrong password the normal working state, which means that the input the password is incorrect, the temperature setting will not be carried out. D.input right 5) If the display shows 0.R, which indicates that the entered password is password correct, about 4 seconds after soldering station into normal working condition, the temperature setting will beallowed. 6) When the display shows the 0.1, press the "*" key, the display + - -E.input new this indicates that the soldering station has entered a new secret code input state, password press the "+" or "-" key to change the displayed value, the reference temperature setting. 7)When the three-digit number is selected, press the "*" key, the screen also F.input new password again displays - - must now be entered again the new password, repeat the same steps. 8) If the last two enter the new password is the same success press the "* " key, then change the password, the new password will be saved. 9) If the value of the last two input password, press "*" key, the display soldering station must re-enter the new password (reference 6-8 steps), until the same value as the last two enter the password, modify dense the code will be successful. 10)Successfully change the password, you must turn off the power, then open, G.limit temperature adjustment so that it can limit the temperature adjustment until the next time you enter the correct password the rear to change the temperature. * Note: password value is ten digits 0-9, or enter a password will be invalid.

2. Operating mode setting

When the display shows the 0.R pressing the "+" and "-" keys at the same time, and displays the X, this indicates that the soldering station into the operating mode settings, press "+" or "-" key will change the display value of digital change order as follows:

$$\begin{array}{c} \bullet 0 & \bullet 1 & \bullet 2 & \bullet 3 & \bullet 4 & \bullet 5 & \bullet 6 & \bullet 7 & \bullet \\ \bullet 7. & \bullet 6. & \bullet 5. & \bullet 4. & \bullet 3. & \bullet 2. & \bullet 1. & \bullet 0. & \bullet \end{array}$$

Operating mode is selected, press the " * " key, the selected mode will be saved automatically. The display digital significance see "mode settings" table. **Note: "X" on behalf of the working mode digital** Several operating modes are available:

Operating mode	Applicalbe soldering iron type	Adjustable temp range	Suitable for high frequency soldering iron type	Remark
0	High-frequency soldering iron		60W	
1	High-frequency soldering iron	200~420°C	100,150,180W	
2	High-frequency soldering iron(special large one)		60,100,150,180W	
3	Electromagnetic tweezers or wire stripper	50~600°C	100,150,180W	Sleeping and automatic shutdown function
4	High-frequency soldering iron	50-420°C	60W	
5	High-frequency soldering iron	50~420 C	100,150,180W	
6	High-frequency soldering iron	200-490%	60W	
7	High-frequency soldering iron	200~400 C	100,150,180W	
0.	High-frequency soldering iron		60W	
1.	High-frequency soldering iron	200~420°C	100,150,180W	
2.	High-frequency soldering iron(special large one)	200 120 0	60,100,150,180W	
3.	Electromagnetic tweezers or wire stripper	50~600°C	100,150,180W	No sleeping and automatic shutdown function
4.	High-frequency soldering iron	E0- 420°C	60W	
5.	High-frequency soldering iron	50~420 C	100,150,180W	
6.	High-frequency soldering iron	200-490-0	60W	
7.	High-frequency soldering iron	200~400°C	100,150,180W	

 Δ Warning: long-term operating under high temperature (over 400 °C) can cause the heater and tip severe oxidation and shorten the service life! Therefore, carefully chosen, as much as possible to use low-temperature operation.

Sleep use

Sleep and automatic shutdown mode has been selected, a soldering iron over 20 minutes did not use the soldering iron power supply will be reduced, and display $\overline{}$ this state called dormant, will fall to 200 °C, the temp of the iron when soldering station is working in a dormant state (if the set temp is greater than or equal to 200 °C) or 50 °C (If the working temp is below 200 °C), and return to work to maintain this temp until the soldering station. There are three ways to wake up sleeping:

1. Turn off the the welding power switch, and then turn on the power switch.

2. Soldering station any key.

3. Pick up the iron handle.

Soldering station more than 40 minutes into hibernation wake, soldering iron power supply will be automatically cut off, the display will also display.

Temperature correction

Whenever you replace a soldering iron, heating core or tip must recalibrate the temperature of the iron.

Recalibrate iron temp method: use a soldering iron the temp tester correction, this method is more accurate.

1.Set soldering station at a certain temp value.

2.Until the temperature stable, temperature tester to measure the tip temp, and write down the readings.

3.Press and hold the "*" key, and then press the "+" and " - " keys, soldering station to enter temp calibration mode. 4.Then the hundreds digit display flashes, press the "+" or " - " key numerical choice, press the " * " key digital select input temp tester after pressing the " * " key readings, enter soldering station temp correction.

5.Input calibration temp correction of the temp, if the input value is incorrect, the soldering station there will be a correction of the protection function: press the " * " key input correction temp the display temp soldering station back to the nearest hundreds digit shiny, please re-enter the correct value.

6. If the temperature there is error, repeat the correction.

* Irecommend using the 191/192 temperature tester to measure the temperature of the iron tip.

* Should the password lock, you can not correct the temp, you must enter the correct password before proceeding.

Choices of solder tips

1. Choose a solder tip for maximum contact area, which can produce the most effective heat transfer, so that the operator can soldering high quality solder points quickly.

2.Choose a good path to transfer heat to the solder tip, the shorter length can get more precise control of the temp of the soldering station, but weld dense circuit board, you need to use a longer or a certain angle soldering iron.



Use of solder tips

*Tips temperature →	The high temp will weaken the iron tip. So, as far as possible choose the low temp. This soldering station back temp quickly, even if the use of a lower temp can be sufficiently welded to the temp, and can protect sensitive components.
*Clear	Should regularly clean sponge to clean iron tip. after solder tip residual flux derivative health oxide and carbide damage iron head, caused by poor soldering, or make iron head the thermal conductivity of hypothyroidism. continuously for a long time using a soldering iron, a weekly disassemble the iron tip oxide removal to prevent Iron head damage and affect the soldering temp.
*When not using ───►	Not using a soldering iron, you can not let the soldering iron for a long time at a high temp state, will iron tip flux into oxide, resulting in the thermal conductivity of the iron tip function is greatly diminished.
*After using	After using, you should clean up tip coated with a new layer of tin to prevent oxidation of the iron tip does not stick tin.
Maintononoo of coldo	r tipo

Maintenance of solder tips

▲ Caution: don't use knife	1) Set the temperature is 250 °C.
to clear black oxide	2) Until the temperature stable, using a clean sponge to clean up the
	iron tip and check the condition of the iron tip.
	3) If the tip tinned portion contains black oxide, it can be plated on the
	new tin layer, and then clean with a clean sponge. So repeat the
	cleanup, until thoroughly to remove oxides far and then coated with a
	new layer of tin.
	4) If the iron tip deformation or serious corrosion must be replaced.

When the tin is not on the iron	 Not covered with new solder iron tip soldering iron idle. Iron tip in the high-temperature state. Is not fully melted during soldering. Scrub dry or clean sponge iron tip (should use the factory to provide clean cleaning sponge). Elux or plating impurities, the soldering surface not clean.
How to recover	 After soldering iron cooling, remove the tip. With a # 200 emery paper to remove the dirt and oxides of the tin plating layer on the iron tip.
	3) Iron tip back together, wrapped containing rosin solder wire ($\oint 0.8$ mm or more) new surface exposed iron tip tinned layer, then turn on the power of the soldering station.
	Note: proper routine maintenance can effectively prevent iron tip on the tin.
longer the iron tips life	1) After each use fresh solder infiltration, which can prevent the oxidation of the tip and extend so useful life.
	2) In the case that can be solder to use a lower temperature, a low temp can be reduced iron tip the oxidation, which can extend the service life of the iron tip.
	3) Must only use the thin tip, fine tip coating blunt the iron tip coating durability
	4) Do not let the iron tip by a large impact, iron tip deformation causes the coating rupture, thereby shorten life.
	5) Try to use less active rosin flux, because high levels will accelerate the iron tipplating layer corrosion
	6) In the case of using a soldering iron, try to turn off the power to
	extend the life of soldering station. 7) Do not apply pressure to the iron tip, because the greater the pressure is not equal to the heat and fast, should make solder melts to form a heat transfer between the tip of the solder joints.

Explanation of Error Code

When the the soldering station problem occurs, will display an error code. If the following code, refer to the "Troubleshooting" content processing.

S − E Sensors error	If any part of the sensor or sensor circuit fails, then the display shows $\boxed{S - E}$, theinput power of the iron will be cut off.
Attention when temperature ───► display flashes	If the power supply input soldering iron, the tip temperature is lower than the set temperature above 50 °C, display the temperature will be flashing, should attract the user's attention.
H − E Heating core error	Soldering station soldering iron heater can not input power, the display shows the $\boxed{H - E}$, this indicates heating core may be damaged.

Troubleshooting of soldering station

Before servicing

Marning: * Before servicing should turn off the power soldering station, otherwise electric shock may occur.

* Soldering station is damaged, please manufacturers or maintenance service agents maintenance to avoid bodily harm or damage to the parts of the soldering station.

	Je te tre pente el tre entre integeneral
Fault 1: Soldering station can not	Check 1. fuse blown?
operate.	* Make sure the fuse blown reason, the replacement of a new fuse of
	the same specification.
	a.Soldering iron internal short circuit?
	b.Ground wire is touching the heating core lead solder joints?
	c.Heating core lead short-circuited?
	Check 2. wires are intact?

* Replacement power cord.

Fault 2: Soldering iron not to heat up, sensor or heating core displays error.	Check 3. sensor or heater wire connector plug is loose or damaged? * Reconnect or see " how to check the soldering iron ass'y wire breakage' Check 4. sensor or heater is damaged? See "How to Check the heater and sensor damage".				
Fault 3: Iron head off to warming.	See "Check 3".				
Fault 4: Tip dip on solder.	Check 5. tip temperature is too high? * Re-set the appropriate temperature. Check 6. iron tip is clean? * See "iron tip".				
Fault 5: Tip temperature is too low.	Check 7. iron tip derivatives oxide? * See "iron tip maintenance". Check 8. corrected temperature soldering iron?				
Fault 6: The display shows H − E .	Check 9. the soldering iron line is damaged? * Please refer to "How to check the soldering iron ass'y wire breakage. Check 10. the heating core is damaged? * Please refer to "How to check the heater and sensor damage". Check 11. soldering iron equipped with iron tip? * Fitted with an appropriate tip.				
Fault 7: Temperature display "flashing".	Check 12. Soldering iron line is broken? * Please refer to "How to check the soldering iron ass'y wire breakage. Check 13. soldering point is too large? * Replace it with a higher power soldering station or continue to use.				
Fault 8 : You can not set the temperature.	Check 14. Lock password? *Enter the correct password to unlock. If you don't know the password: \triangle Note! apart welded front panel of professionals to operate) (See soldering station parts diagram), plug the power cord, turn on the power switch, press board on the "Reset" button (see soldering station parts diagram), set a password will be restored to its original the value " 000 ". Reinstall in reverse order soldering station.				

Troubleshooting of soldering iron

Pull the plug, measure the resistance value between the feet and legs of the connector plug:

* If "**a**" or "**b**", the resistance value of the following table are different, need to replace the heating core, a sensor or ass'y of wires. Follow items 1 and 2.

* If the resistance value of the " **c** " is greater than the resistance value of the following table, will have to check whether the connection is loose or oxidation of 3 foot cable with fever core shell after the connection or removing the oxide layer.

a.	between 4 feet and 5 feet (heater)	$<1 \Omega$ (normal)	
b.	between 1 foot and 2 feet (sensor)	$<$ 10 Ω (normal)	The plug pin bits arranged
C.	between 3 feet and iron tip	$<$ 2 Ω (normal)	3

1. How to check the damage to the heater and sensor





Heater&sensor

Sensor (red"+",black"-") Heater (red)

Vibration switch



2.How to check the damage more to the iron cord



Note: Replace fuse

 \bigwedge Caution: The following operating soldering iron temp down to room temp before.

1) To the anti-clockwise direction to unscrew the nut, remove the the tip sheath and tip.

2) To the anti-clockwise direction to unscrew the plastic sleeve head, pulled from the soldering iron kit lens.

3) Removed from the handle the heating core components and ass'y wire (pull) the direction of the iron tip.

4) You can not use metal tools, such as pliers, protective gloves should be worn to the heating element from handle, pull it out.

Make sure that the temperature was restored to room temperature was measured after:

1) The resistance value of the heating core (the translucent line) <1 Ω .

2) Sensor resistance values (red and black) <10 Ω .

If the resistance value is abnormal, replace the heater or sensor. Replacement parts: Please replace with original parts original welding position (be sure to remember the parts cited the color and position of the line).

Replacement parts, the following matters:

1) Measuring 4 feet and 1 foot or 2 feet, 5 feet and 1 foot or 2 feet between the resistance value between 6 feet and 1 foot or 2 feet, 6 feet and 4 feet or 5 feet. If not infinite, fever the core and sensors or vibration switch short circuit, which will be can damage the circuit board.

2) Measuring the resistance value of "a" "b" "c" in order to determine the normal lead connecting, and the ground line reliable connection.

3) To determine the the sensor spring has set into the heater and components linked hooked heating core.

1) Open soldering station power, the temp is set to the highest value. the various parts of the wire in the flatiron shaking or winding, If you find the display of point-like display flashes, you should replace the wires. Note: To distinguish is to reach the set temp shiny or break shiny.

2) Measurement soldering plug pin and the terminal between the wires of circuit boards resistance value. Pin1 - blue, pin 2 - red, pin 3 - white feet-shielded wire, pin 5 - white, foot shielded cable-green. The resistance value should be less than 1Ω or ∞ , replace the wire.

1. Unplug the power cord from the back

- of the Docking Station.
- 2. Pull out the fuse cover
- 3. Remove the bad fuse.
- 4. Put a new fuse.
- 5. Fuse cover fitted.



Product specifications

Soldering station host

Model	RT-S0060	RT-S0100	RT-S0150	RT-S0180			
Power	60W	100W	150W	180W			
Output voltage	AC36V,380KHZ						
Temperature range	5	60~600 °C (depending or	n the mode setting)				
Maximum ambient temperature		42 °C					
Temperature stability		±1 °C (in still air	, no load)				
Housing Material		Aluminum /	Alloy				
Size	110*105*155mm	110*105*165mm	110*105*175mm	110*105*175mm			
Net weight	2.2KG	2.5KG	2.6KG	2.8KG			
Soldering iron							
Power consumption	60W	95W	145W	175W			
Tip-to-ground resistance		<20					
Tip-to-ground voltage		<2mV	,				
Tip-charged body IR		>5MΩ	1				
Electromagnetic heating core	Electromagnetic heating core						
Iron cord	1.2m 1.9m						
handle length	20cm						
Weight	100g	100g	105g	155g			
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*Tip temperature based on the 191/192 thermometer measurements.

*Specifications and design are subject to change without notice.

Parts list



Soldering station host

No	Dort No.	Dort Nomo	Specification			Deeg	rintion	
INO.	Part NO.	Part Name	60W	60W 100W 150W 180W		Description		
1	SS001	surface box		115*10	8*9mm		ABS r	naterial
2	SS002	protective sheet		25*50*	1.0mm		tempered (/	Acrylic) glass
3	SS003	button		∮ 11.5	5*8mm		ABS r	naterial
4	SS004	panel		110*10	5*1mm		metal n	naterials
5	SS005	power switch		∮ 22mm,6	A250VAC		silver allo	y contacts
6	SS006	back cover		105*11	0*1mm		metal n	naterials
7	SS007	power cord		1.5m,6	A/250V		30	ore
8	SS008	aviation socket		M16	6-6P		metal	material
9	SS009	cooling fan		No		DC24V,0.1A	dimensions,	45*45*10mm
10	SS010	power transformer	HSD1285H	HSD1283H	HSD1284H	HSD1402H	high qu	ality ring
11	SS011	control board	RT-S0100	RT-S0100	RT-S0150	RT-S0180	glass	s plate
12	SS012	drive circuit board	RT-S0060 RT-S0100 RT-S0150 RT-S0180			glass	s plate	
13	SS013	grounded Block	∮ 8*4mm				alloy plus te	mp materials
14	SS014	power outlet	10A250VAC			copper ten	np materials	
15	SS015	fuse	2A/250V 3A/250V 3A/250V 3A/250V			∮ 5*20mm,	fast blow type	
16	SS016	Electromagnetic iron	SI-60	SI-100	SI-150	SI-180	electromag	netic heating

Soldering Iron

No	Dort No.	Dort Nama	Specification			Description		
NO.	Fall NO.	Fait Name	SI-60	SI-60 SI-100 SI-150		SI-180	Description	
1	SI001	nut		M11		M14	stainless steel	
2	SI002	tip sheath		∮ 8.5*43mm		∮ 12*52mm	stainless steel	
3	SI003	soldering tip		∮ 4*16.5mm		∮ 6*18mm	copper plus coating	
4	SI004	hedging		M16*22mm		No	high temp materials	
5	SI005	heater	HT-60	HT-100	HT-150	HT-180	silver wire wound	
6	SI006	sensor	∮ 2*85mm			∮ 1.3*85mm	K-type thermocouple	
7	SI007	board	10*50mm			6*58mm	fiberglass board	
8	SI008	vibration switch		SW-18	3010P		temperature 100°C	
9	SI009	hook spring		∮ 0.8*86mm		No	stainless steel	
10	SI010	handle		∮ 20*110mm	า	∮ 20*126mm	ABS material	
11	SI011	handle sheath	∮ 22*40mm		∮ 22*45mm	Silica gel		
12	SI012	wire sheath	∮ 10*40mm		∮ 10*35mm	rubber		
13	SI013	assembled wire	1.2m		1.9m	anti-scald silicone line		
14	SI014	air plugs	M16-6P				metal	

Packing list

No.	Part Name	Quantity	Description
1	soldering station	1set	aluminum case
2	soldering iron	1pcs	high-frequency heating
3	iron frame	1pcs	cast aluminum
4	cleaning sponge	1pcs	high temperature
5	Manual (including warranty card)	1pcs	128coated paper
6	certificate	1pcs	paper

Replace solder tips specifications

Suitable for RT-S0060、RT-S0100、RT-S0150 Series Soldering Stations:



Suitable for RT-S0180 soldering station:



The above solder tips model standard configuration, such as requiring special shape solder tips can provide customized drawings or samples, the same type of solder tips there are different grades to meet the needs of different customers.

Special statement:

Supplies of the product for special accessories (heater, soldering iron first class), due to the use of high-frequency electromagnetic induction heating, there are strict requirements the heater(inductor coil), and the parameters of the solder tip, if you use the other products available in the market, will result in the soldering station host of serious damage or up to less than the actual output power, resulting consequences of the company is not responsible for!

Therefore, in order to avoid causing unnecessary losses to your company, use the genuine Parts! (Please contact our sales dealer for this product)

Warranty card

Thank you for purchasing the company's products, in order to allow you to be more satisfied with the service, after our purchase our this productour Please read, fill outour and take good care of this card.

User Name:			
Address:			
Zip Code:	Phone:		
Fax:	E-mail:		
Model:			
Product Name:			
Product Number(S/N):			
Production date:			
Buy time:			

Since the purchase date our the product, host free warranty 1years, consumable parts (soldering iron & solder tips) not covered under warranty, if our soldering iron in 7 days with our problem can be replaced free of charge, with in a month free maintenance (artificial damage), the lifetime dimensional repair services.

Shenzhen Six Brothers Intelligent Mechanical & Electrical Co., Ltd.

Company Address: 3rd Floor, A3 Building, Xinan 2nd Industrial Zone, Xixiang, Baoan District, Shenzhen, P.R.C

Service Hotline:

Http://www.ymk-tools.com

Warranty Description

Product warranty must meet the following conditions:

1) warranty product warranty card, must have products serial number, mark our product serial number of the machine purchased hair tickets and other credentials.

2) non our negligence and accidents due to product loss Badly.

3) our nonouruser fails to use the instructions on the correct method for using our malfunction caused our our operation.

4) Non-without our authorization our the company to be demolished our modified failure caused.

5) non-original spare parts caused by the failure unused.

6) non-consumable parts (handle assembly, soldering iron first class).

For defective product ineligible for service, the our company will charge our reasonable cost of materials and maintenance fees with.

When users find the products purchased appear so barrier held, warranty cardour contact your dealer to seek maintenance services.