Soberton Inc.

Operation & Equipment SOP

Soberton Inc.

Operation & Equipment SOP		: Document No.	WI-QA-01	Page
: Document Name	QC Flow Chart	: Version	AO	2

No.	Process	Equipment	Inspection Item	Criteria	Tester	Special request	Dept.	Record	Remark
1	IQC		Size, Appearance	IQC Manual	Micrometer, caliper, Limit Sample, Visual Check		QC	W/H Record Pilot Run Record	Once/ Lot
2	Winding	Winding Machine	Appearance, Resistance	SOP	Multimeter, Visual Check		QC	IPQC Manual IPQC Record	Everyday
3	Loading	Gap Sample	Appearance	SOP	Visual Check		QC		
4	Sticking PCB		Appearance	SOP	Visual Check		QC		
5	Soldering	Soldering Iron	Appearance, on/off	SOP	Resistance Screening Meter, Visual Check		QC		
6	Visual Check	10 X Magnifier		SOP	Visual Check		QC		
7	Resistance Screening	Resistance Screening Meter	Resistance	SOP	Resistance Screening Meter		QC		
8	Blocking Hole		Appearance	SOP	Visual Check		QC		
9	Terminal dipping in molten tin	Tin Furnace	Appearance	SOP	Visual Check		QC		
10	Cleaning		Appearance	SOP	Visual Check		QC		
11	Loading Diaphragm		Appearance	SOP	Visual Check		QC		
12	Preliminary Check by Computer	Computer Tester	Spectrum Curve	SOP	Computer Tester		QC		
13	Pouring Epoxy Resin		Appearance	SOP			QC	IPQC Manual IPQC Record	Everyday
14	Repetition Check by Computer	Computer Tester	Spectrum Curve, Sound pressure	SOP	Computer Tester		QC		
15	Tone Quality Check	Signal Generator	Tone Quality	SOP	Signal Generator, Ear		QC		
16	Cleaning Pins	Saw Tweezers, Brush	Cleanness of Pins	SOP	Visual Check		QC		
17	Appearance Check	Brush	Cleanness of Pin's Cover	SOP	Visual Check		QC		
18	Check before Stock in		Electric Characteristic, Appearance	FQC Manual	Sound Pressure Meter, Spectrum Meter, Resistance Screening Meter, Ammeter		QC	FQC Record	Everyday

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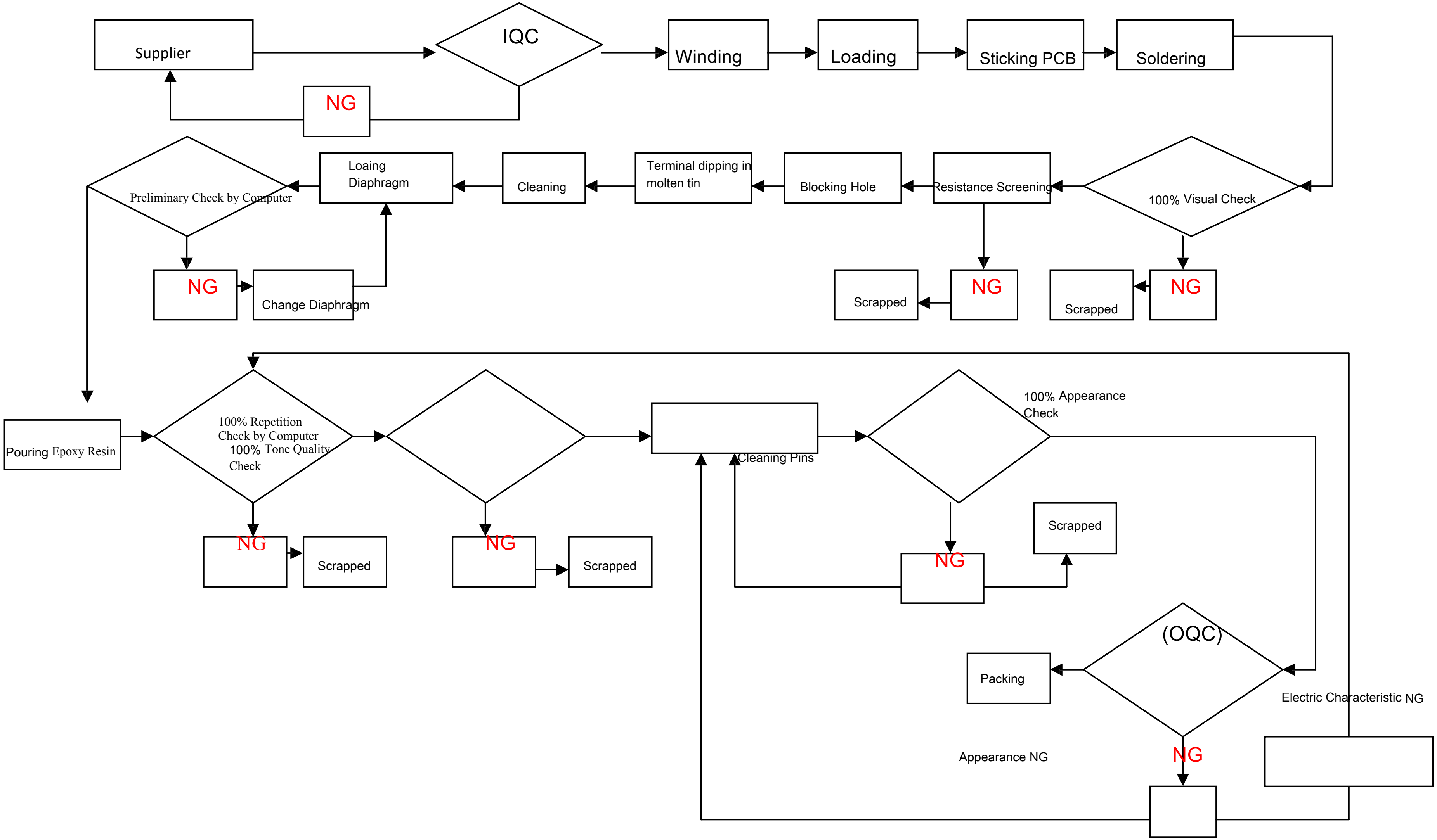
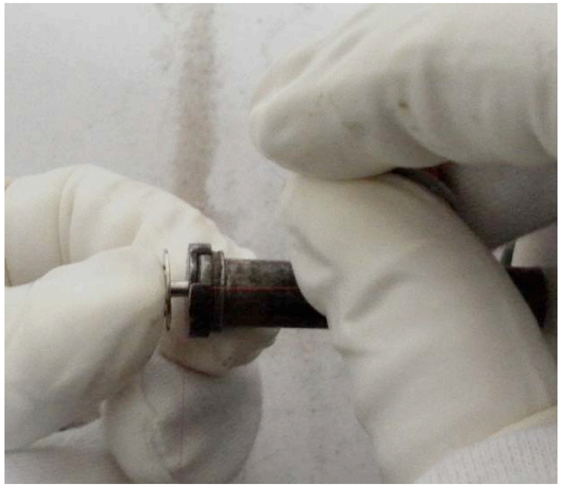
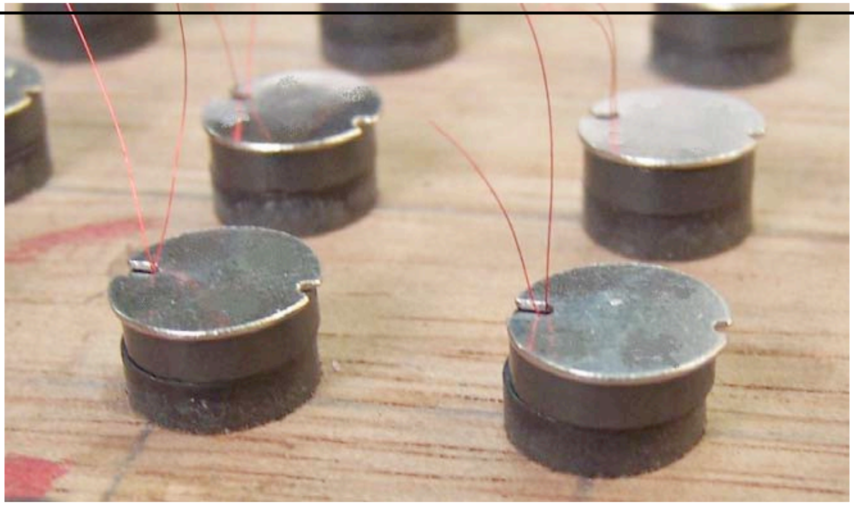
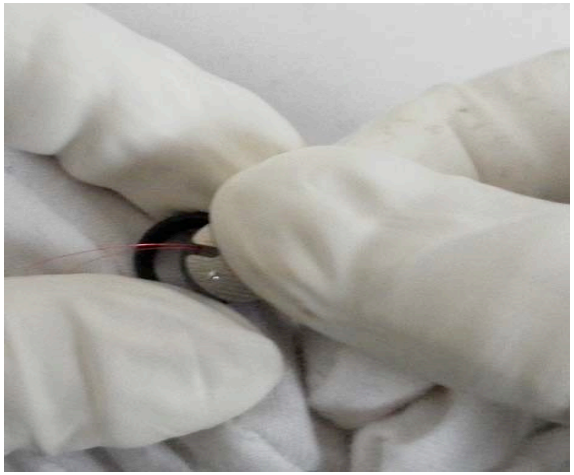
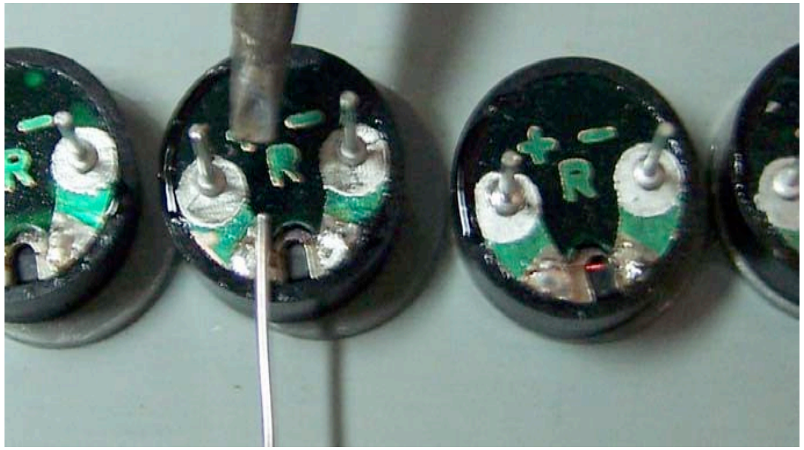


Operation & Equipment SOP		Document No.	WI-MD-01
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Winding	Tool Used	Auto Winding Machine, Multimeter, Die Clearance
Operation Procedure	1. Install bracket well, hang wire head, foot pedal boards slightly and machines star to wire automatically. 2. Until stabilized, right-hand prolongs wire end to mid of axis, left hand install next bracket, foot pedal boards slightly, start next wiring. 3. Lead two wires to bracket wire exit then reverse-buckle to the tooling plate		
As Figure	 		

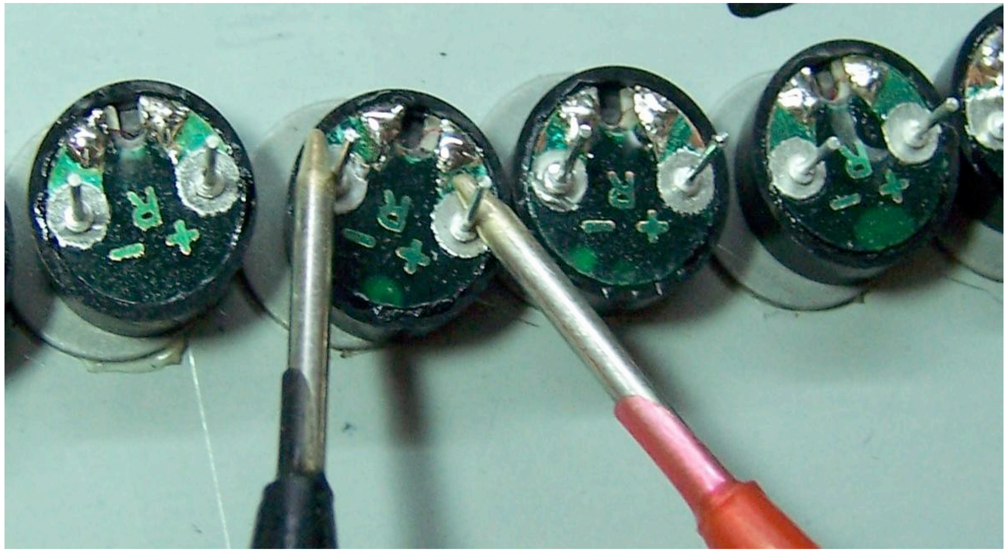
Operation & Equipment SOP		Document No.	WI-MD-02
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Loading	Tool Used	High-pressure airgun,
Operation Procedure	1. Use high-pressure air to cleanup gap of moldboard. 2. Left hand pinches plastic ring, put flat surface of film-fitting side downward, right hand pick up wire ball and put into plastic ring gently, pull out wire head then put into mid of gap mold and array neatly.		
As Figure	 		

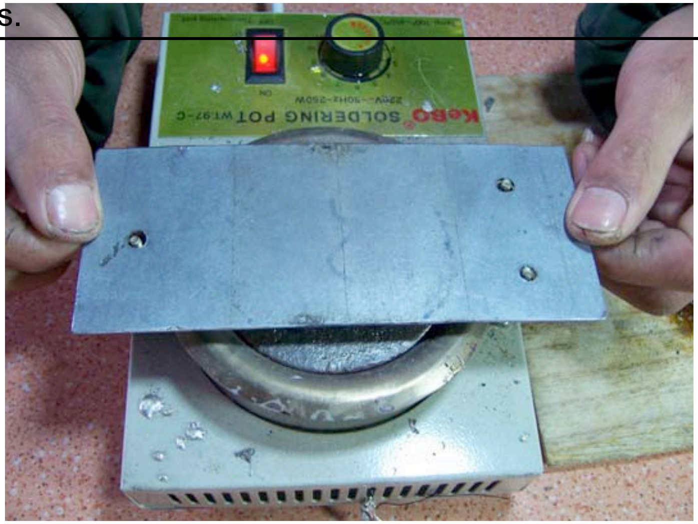
Operation & Equipment SOP		Document No.	WI-MD-03
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Sticking PCB	Tool Used	Elbow Tweezers, Oven
Operation Procedure	1. Spread epoxy to backer of bracket evenly and ensure intersection at bracket and plastic ring applied with epoxy. 2. Use tweezers to pick up circuit boards, align soldering point and outlet exit of bracket then stick tight. 3. Check everything is ok then put in to oven, take out after 1.5hour.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-04
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Wire Solder	Tool Used	Constant Temperature Electric Iron, Sharp Tweezers
Operation Procedure	1. Left-hand holds tweezers, clip wire head gently, pull out until soldering point of circuit board Right-hand holds flatiron, use ironed flat surface to press wire head for 1-2 seconds, let soldering tin melted completely and cover wire ball.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-05
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Add	Tool Used	Constant Temperature Electric Iron,
Operation Procedure	1. Left-hand pinches tin filament, right-hand holds flatiron wire head 2. Put soldering tin filament on soldering point, about 1mm long, use ironed flat surface to press soldering tin filament, remove swiftly once soldering tin filament fused, maintain flatiron for 1 second.		
As Figure	 		

Operation & Equipment SOP		Document No.	WI-MD-06
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Visual Check	Tool Used	Magnifier with Light
Operation Procedure	1. Open lights of magnifier, use two hands stable tooling plate then put under magnifier, check one by one , pick out non-weld and floated-weld products.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-07
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Resistance Screening	Tool Used	D.C. Resistance Tester
Operation Procedure	1. Check if the min and max resistance selection values of the instrument are set correctly. 2. Two hands hold one testing bar separately to touch two pins of products, tone sounds, then pass, if none, touch again and if still non-tone, means fail, beyond limitation lights on means unqualified products.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-08
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Terminal dipping in molten tin	Tool Used	Tin Furnace, Flux, Solder bar
Operation Procedure	1. Move products to operation area of tin-dipped tooling board. 2. Terminal pins moisten with flux. 3. Fit positioning holes of the tooling plate into the positioning poles on the tin pot, press downward quickly for 0.5 seconds then lift up. 4. Take out products and put back to circulating boards.		
As Figure	 		

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<tr><td>Version</td><td>A0</td></tr>
<tr><td>Document Name</td><td>Assembling SOP</td><td>Page</td><td>1</td></tr>
<tr><td>Process Name</td><td>Blocking Hole</td><td>Tool Used</td><td>Plastic Bottle</td></tr>
<tr><td>Operation Procedure</td><td colspan="3">1.Right-hand holds vial with bottle down
2. Bottle opening aims at PC board nick, press plastic vials gently let glue to seal the nick.</td></tr>
<tr><td>As Figure</td><td colspan="3"> </td></tr>
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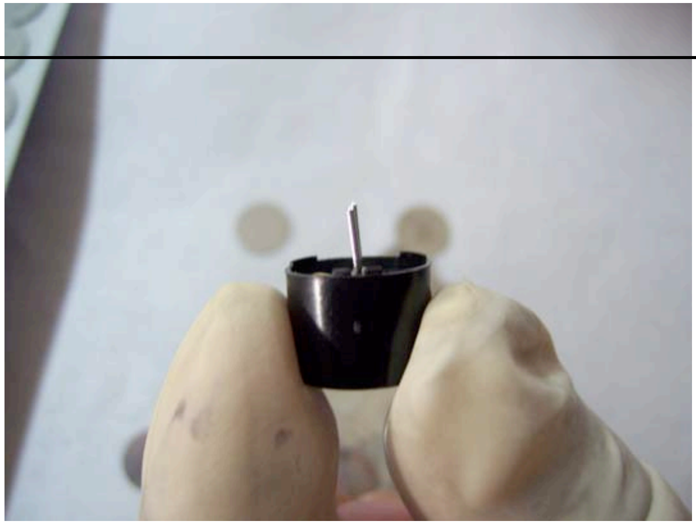
Operation & Equipment SOP		Document No.	WI-MD-10
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Cleaning	Tool Used	Twin Adhesive
Operation Procedure	1. Right-hand pinches plastic ring of products tightly, film-fit flat surface down. 2. Press film-fit flat surface onto board covered with glue fabric, clean dust, trash inside cavity of product and film-fit flat surface.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-11
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Loading Diaphragm	Tool Used	None
Operation Procedure	1. Tile film sheet on hard card paper, right-hand picks up the product, and rely on the magnetic force to suck a film sheet, left-hand adjusts position of the film sheet, make loading sheet outwards, then pick up the plastic shell, set into plastic shell gently, and foot molded positive pin at the bottom of the positive sign gap, press tight.		
As Figure	 		

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<tr><td>Document Name</td><td>Assembling SOP</td><td>Page</td><td>1</td></tr>
<tr><td>Process Name</td><td>Preliminary Check by Computer</td><td>Tool Used</td><td>Computer Tester by Spectrum Curve</td></tr>
<tr><td>Operation Procedure</td><td colspan="3">1. Left-hand holds products, put into testing slot with sounding holes down
2. Right-hand holds testing bars as chopstick, follow positive/negative to clip terminal pins of products, products pronounce 2KHZ to 2.8KHZ scanning sound, look at screen data, center of curve falls in 2400HZ and sound pressure louder than 88dB is qualified product.</td></tr>
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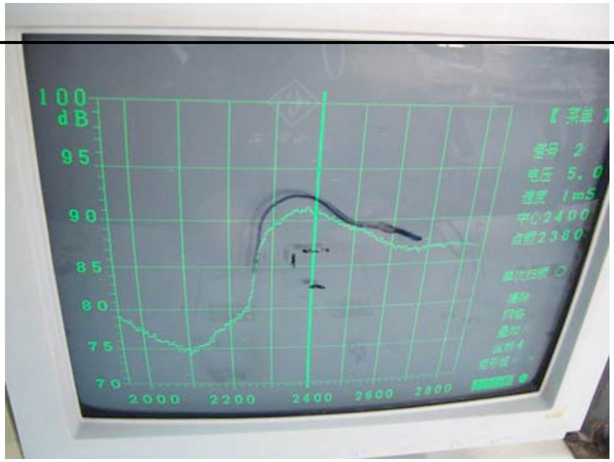
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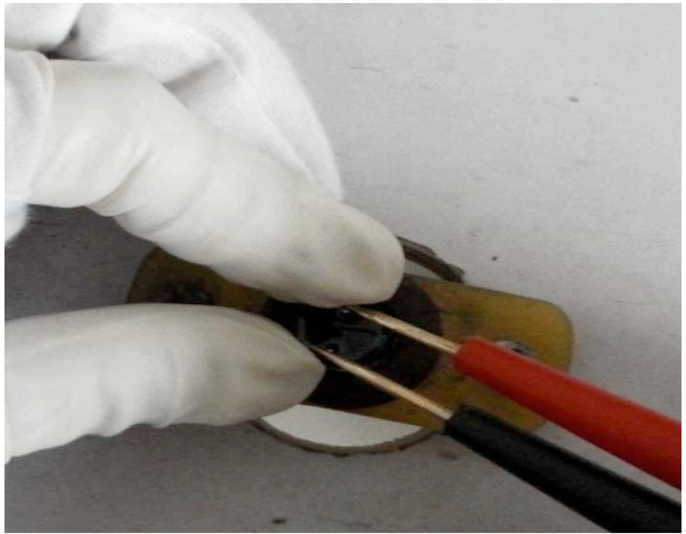
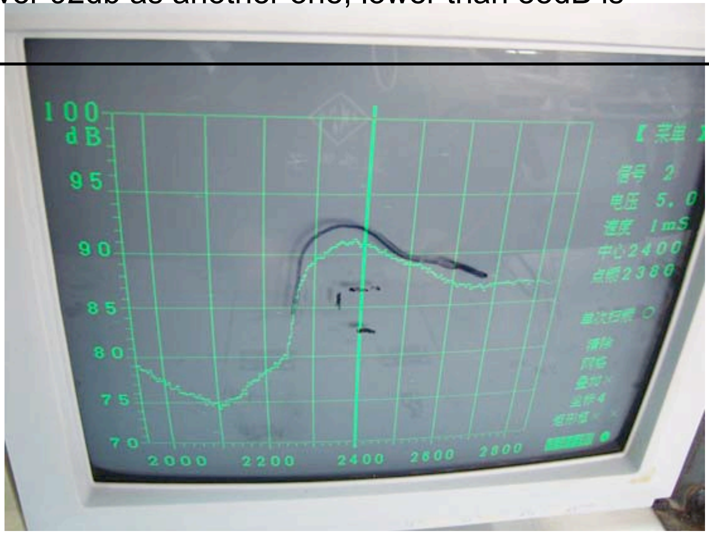
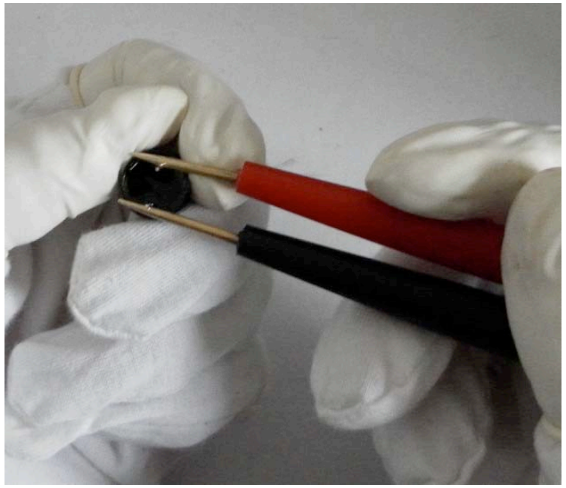
Operation & Equipment SOP		Document No.	WI-MD-13
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Pouring Epoxy Resin	Tool Used	Oven, Epoxy Resin
Operation Procedure	1.Array products in to epoxy sealing plat, use plastic bottle inject adequate epoxy into product. 2. Eye inspection, use poking bar to fill up vacancies without epoxy, stay for one hour later,(bubbles inside epoxy overflow), put into over for 3-hour solidification then take out.		
As Figure	 		

Operation & Equipment SOP		Document No.	WI-MD-14
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Repetition Check by Computer	Tool Used	Computer Tester by Spectrum Curve
Operation Procedure	1. Hand holds products, put into testing slot with sounding holes down。 2. Right-hand holds testing bars as chopstick, follow positive/negative to clip terminal pins of products, products pronounce 2KHZ to 2.8KHZ scanning sound, look at screen data, center of curve falls in 2400HZ and sound pressure between 88~92dB as one and over 92db as another one, lower than 88dB is abandoned.		
As Figure	 		

Operation & Equipment SOP		Document No.	WI-MD-15
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Tone Quality Check	Tool Used	Signal Generator, D.C. Power Supply
Operation Procedure	1. Left-hand holds products, with sounding holes down, use thumb, point finger, middle finger to hold products. 2.Right-hand holds testing bars as chopstick, follow positive/negative to clip terminal pins of products, products pronounce 2400HZ, ears hear crisp sound , if hear noise sound then put in to abandon.		
As Figure			

Operation & Equipment SOP		Document No.	WI-MD-16
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Cleaning Pins	Tool Used	Tweezers, Knife, Brush
Operation Procedure	1. Left-hand holds products and observe if any pollution of terminal pins and plastic shell. 2. Thumb and point finger of right-hand pinches tweezers, mid finger and ring finger pinches brush, tweezers clips polluted terminal pins and rotate slightly, remove adhesive objects off terminal pins then use brush to clean up. 3. Straighten bended and skewed terminal pinks by tweezers.		
As Figure	 		

Operation & Equipment SOP		Document No.	WI-MD-17
		Version	A0
Document Name	Assembling SOP	Page	1
Process Name	Appearance Check	Tool Used	Brush
Operation Procedure	1. Left-hand holds product, mid finger and ring finger of right-hand pinches brush. 2. Check if terminal pinks of products and plastic shell are clear up, and if damaged. 3. Check if positive pin and sign are aligned correct. 4. Pack into packing box after clean up by brush.		
As Figure