

## CONTROL PLAN

□ Prototype      □ Pre-Launch      ■ Production

Form SOP8.15-2

Control Plan No. Eco Bar Auto-1		Key Contact/ Phone Senju Tel No.: +60351912227	Issue Date (Original) 14/01/2019	Date (Revision) 07/12/2020	Rev. No. 1.4
Engineering Change Level ---		Core Team (MFT) T.Ono (FGM), Mohd Rafie (Production), Ahmad Tajuddin (QA/QC), Farizan (QA/QC), Anbil (Sales), Yusup (Logistics)	Customer Engineering Approval/ Date ---		
Customer Information All Customer		Customer Part No. ---	Customer Quality Approval/ Date (If Required) ---		
Part Name/ Description All Eco Solder Bar		Organization/ Plan Approval/ Date ---	Other Approval Date (If Required) ---		
Organization/ Plant SENJU (MALAYSIA) SDN. BHD.	Organization Code ---	Other Approval/ Date (If Required) ---			

Part/ Process No.	Process Name/ Operation Description	Machine, Device, Jig, Tools for Mfg.	Characteristics			Special Char. Class	Methods						Responsibility & Reaction Plan	Remarks				
			No.	Control Item	Process		Product/ Process Specification/ Tolerance	Evaluation/ Measurement Technique	Sample		Control Method & Record	Confirmation Dept.						
									Size	Freq.								
100A	Raw Material Receiving	Fork lift & Weighing Scale	101A	Material name	---	---	Purchase Order	Check with reference to PO	All	Every receiving	Visual & weighing	Receiving	SOP8.5-1 Procedure for Control of Nonconforming Product					
			102A	Quantity			Purchase Spec	Arc Spark (Tin, Copper), ICP (Ag)			SOP8.1-1 Incoming Inspection Standard, Form SOP8.1 QC4 Material Test Report	QA/QC						
			103A	Composition	Sampling for incoming test		CoC/ CoA/ G. Letter	Check with reference to GL			Receiving							
			104A	RoHS Compliance	---													
200A	RM Storage	Fork lift	201A	Segregation of items	---	---	No mix up	Segregation, Label, Indication	All	Every lot	Material Bincard	Receiving						
300A	Material Calculation and Weighing	Forklift, Weighing Scale	301A	Correct materials	---	---	Compostion standard PMS-LF-1, WI701-19 Auto Casting Bar Making Process	Calculation	All	Every lot	Material Combination Requisition form (Form No. PR302/007B)	Raw Mat Store						
			302A	Material weight percentage			Material Lot No.	FIFO			Material Bin Card							
			303A	FIFO														
400A	Combination (Melting and Mixing)	Furnace	401A	Melting temp.	Melting	---	WI701-19 Auto Casting Bar Making Process	Furnace Temp/ Metal Temperature	All	Every lot	Process Control Checksheet	Production						
		Air Compressor, Air Bubble m/c	402A	Mixing, AB Treatment	Air bubble	---		Time (Counter at control panel)	All	Every lot								
		Ladle	403A	Dross removal, Material mix	---	---		Visual	All	Every lot								
410A	Label Printing	Label Printer	411A	Product Name	---	---	WI708-17 Label Printing Procedures, WI707-18 Guide for Label Resin Cored, Wire and Bar Solder	Visual	All	Every lot	Process Control Checksheet	Production						
			412A	Manufacturing date														
			413A	Lot No.														
			414A	Net weight														
			415A	Validity														
			416A	GHS Info														
			417A	Company info														

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			No.	Control Item	Process		Product/ Process Specification/ Tolerance	Evaluation/ Measurement Technique	Sample		Control Method & Record	Confirmation Dept.		
									Size	Freq.				
500A	Inspection No. 1	Ladle, Button Sample Mould, Grinder, Arc Spark	501A	Sample taking	---	---	WI701-06 Guide to Take Sample of Molten Solder	Button sample	1/ lot	Every lot	Sample Test Request (Form No : PR302/019)	Production	SOP8.5-1 Procedure for Control of Nonconforming Product	
			502A	Alloy composition & impurity			IS8.2.7-1 Inspection Standard - Lead Free or Ecosolder, SMTM-21 Composition Test by Using Spectrolab	Composition test	Per sample	Every Lot	Material Combination Requisition form (Form No. PR302/007B), Test Data Sheet Form No 8.2/QC001)	QA/QC		
600A	Casting	Solder Pump, Continuous Casting Machine	601A	Furnace Temperature	---	---	WI701-19 Auto Casting Bar Making Process, Temp - follow process control checksheet	Control Panel	All	At start	Process Control Checksheet	Production		
			602A	Bath 1 Temperature										
			603A	Bath 2 Temperature										
700A	Cutting	Cutting Machine, Weighing Scale	701A	Surface appearance	---	---	Limit samples; WI704-03-2 Limit Sample for Bar Appearance, WI701-09 Bar Solder Continuous Casting Surface Visual Reference, WI701-19 Auto Casting Bar Making Process	Visual	All	Every piece	Process Control Checksheet	Production		
			702A	Hallmark			Hallmark - Correct, readable and clear	Visual						
			703A	weight per piece			0.48kg ~ 0.52kg	Weighing scale						
800A	Packing	Weighing Scale	801A	Packing weight	---	---	Min 10.01 kg per box Product Spec; WI702-09 Packing and Label for Sn Bi Bar Product, WI702-06 Packing and Label for Zero Ag Bar Product, WI707-18 Guide for Label Resin Cored, Wire and Bar Solder	Weighing scale	All	Every box	Weight printout	Production		
			802A	Carton box - type			Visual	All	Every box	Process Control Checksheet	Production			
			803A	Label										
			804A	Total lot quantity			Same as production plan	Check actual with plan		Every lot	Final Inspection checksheet (Form No PR302-016(A))	Production		
900A	Inspection No. 2	Bar Sample, Arcspark	901A	Sample taking	---	---	3 pieces of bar	Bar sample	3 per lot	Every lot	Material Combination Requisition form (Form No. PR302/007B) Test Data Sheet Form No 8.2/QC001	Production		
			902A	Alloy composition & impurity			IS8.2.7-1 Inspection Standard - Lead Free or Ecosolder, SMTM-21 Composition Test By Using Spectrolab	Composition test				QA/QC		

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			No.	Control Item	Process		Product/ Process Specification/ Tolerance	Evalution/ Measurement Technique	Sample		Control Method & Record	Confirmation Dept.		
									Size	Freq.				
1000A	Final Inspection		1001A	Packaging	-	-	Product Spec; WI702-09 Packing and Label for Sn Bi Bar Product, WI702-06 Packing and Label for Zero Ag Bar Product	Visual	All	Every Lot	Final Inspection checksheet (Form No PR302-016(A))	Production QA/QC	SOP8.5-1 Procedure for Control of Nonconforming Product	
			1002A	Label										
1100A	Storage	Forklift	1101A	Quantity	-	-	Same as FPSA	Check with FPSA	All	Every Lot	FPSA (Form No PR302/011(A))	FG Store		
			1102A	FIFO			Lot no	Bin Card/ SAP system						
1200A	Delivery	Forklift	1201A	FIFO	Preparation for delivery	-	Picking, Packing & Loading Checklist (PPL)	Confirm with PPL Checklist	All	Every delivery	Picking, Packing & Loading Checklist (PPL)	Logistics FG Store		
			1202A	Quantity										
			1203A	Lot No										
			1204A	Product name										
			1205A	Customer name										
			1206A	Destination										

Revision History

Revision	Date	Revision Description
1.0	14/01/2019	First Issue
1.1	13/06/2019	Added WI701-19 Auto Casting Bar Making Process in row 700A
1.2	03/07/2019	Change weighing spec to 0.48~0.52 kg
1.3	29/11/2019	At process 800A, added WI 707-18
1.4	7/12/2020	Added Label Printing process