

Process Name/ Title:				WI-PRO-CNC-054		
WIRE CUTTING and CRIM	IPING/PROCESS FLOW	Document N	0:			
WORK INSTE	Effective Dat	e:	October 17, 2024			
Product Code/Name:	Customer Code:	Rev. No.:	10	Page No.:	1 of 6	

TIME

7:00 - 7:05

Set up and Downtime

Monitoring

No. Work Procedure/ Illustration Records/Remarks/
Quality Pointers

1 Check work area. Conduct 5's on table.

Start

7:00

Proceed to Machine set-up

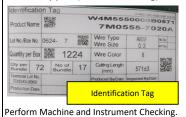
Wire Cutting and Crimping

2 Check daily plan (Identification Tag) ,cutting ledger,applicator on machine and raw materials availability.

3.1 Record start time on Wire Cutting and Crimping Daily Report and Set-up and Downtime monitoring.

DURATION

(mins)





SET UP and EXPECTED DOWNTIME MONITORING

DETAILS

ACTIVITY

Α

Applicator

SET UP and EXPECTED DOWNTIME MONITORING

DETAILS

ACTIVIT

Α

proceed to No.3, if not available,request parts from warehouse using Kanban request card.

Note:if raw materials are available

F-PRO-CNC-001 F-PRO-CNC-015 F-PRO-CNC-002A F-PRO-CNC-002B

Note:

Refer to instrument checksheet in checking

F-PRO-CNC-003

NOTE: In case of abnormality is encountered during checking, follow STOP-CALL-WAIT.

F-PRO-CNC-004

Daily Report

Production Lot No.

4.1 Record Set-Up and Adjustment start time on Set up and Downtime Monitoring

After checking, write end time on set up and downtime monitoring.

TIME

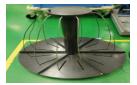
7:00-

	SET	UP and EX	PECTED I	DOWNTIME MONITORING
	TIME	DURATION (mins)	ACTIVITY	DETAILS
	7:00 •7:05		А	
(7:05 -		В	

4.2 Check the wire (type, size, color) to be loaded on the machine based on the cutting ledger of product to be produced.

				_	LITTIN	G LED	3ED		Control Number:		CL-	ENG-F	PDE	-010
				·	UIIII	G LED	JEK		Effective Date:		J	luly 22,	, 202	20
	U	Model:	71	7M0555-7020A			Wire Qty:	4	Rev.No.:		2	Page No.	1 (of 1
Specification details														
Wire Type	Size	Color	Dimension	Plating	Terminal	Rubber Seal	Wire Peeling Measurement	Rubber Seal	Terminal	Plating	Comp	onent Sp	pecific	ations
AVSS f	0.3	В	571		7D0349 -0060		2.5 ~ 4.5		8100 -3623			nector I-3802 (N)	
"	"	В	571		"		2.5 ~ 4.5		"		6098	-2220 (N)	
AVSS f	0.3	Υ	353		316836-1		4.5 ~ 4.5		8100 -3623			t=0.5; L		
"	"	OR	353		"		4.5 ~ 4.5		"			t=0.5; L t=0.5; L		
												VM Tube t=0.5; L		

4.3 Load the wire into the bobbin, wire must be rotated counter clock wise.







CL-ENG-PDE

WI-PRO-CNC-032

4.4 Get the applicator from the rack to load into machine.

Wear your PPE to avoid any injuries. Use applicator cart to carry applicator from the rack to machine.



NOTE:

Do not hold applicator without wearing gloves.

Return applicator in maintenance table for cleaning after use.

10/17/2024	10	Change the bundling method	W. Bergado	C. Calayan	W. Carbillon	Prepare	Check	Approve
7/9/2024	9	General revision	M. Lipaopao/ W. Bergado	C. Calayan	W. Carbillon			
4/29/2022	8	General revison and additional details for bundling of wire	W.Valdez	O.Merin	O.Merin		_	O 44
5/19/2021	7	General revision of work instruction, aligned in actual process	S.Apil	Y.Yamamoto	O.Merin	$\mathbf{w}.\mathbf{\gamma}$	(a) lamos	Sallsh
2/7/2020	6	Additional details for set-up before production	W.Valdez	W.Carbilon	O.Merin	W. Bergado	C. Calayan	W. Carbillon
Eff./Rev. Date	Rev. No.	Details of change	Revise	Check	Approve	Est. date:	Septembe	er 15, 2017

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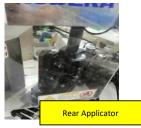
Process Name/ Title:						
WIRE CUTTING and CRIM	IPING/PROCESS FLOW	Document N	lo:	WI-PRO-CNC-05		
WORK INSTI	RUCTION	Effective Date:		October 17, 2024		
Product Code/Name:	Customer Code:	Rev. No.:	10	Dogo No.	2 of 6	
Al I	Al I	Rev. No	10	Page No.:	2 01 6	

ALL

Records/Remarks/ No. Work Procedure/ Illustration **Quality Pointers**

4.4.1 Set the applicator to the machine. Front Applicator and Rear Applicator





WI-PRO-CNC-065

4.4.2 Set the terminal based on the cutting ledger of product to be produced.

NBC					C	UTTIN	G	LED	GER		Control Number:	
		Model:	71	/ 0	M0555-7020A			0A	Wire Qty:	4	Effective Date: Rev.No.:	
				Specification details								_
Wire Type	Size	Color	Dimension	Plat	79	Terminal	R	ibber Seal	Wire Peeling Measurement	Rubber Seal	Terminal	fating
AVSS f	0.3	В	571	Γ	Ī	7D0349 -0060	Γ		2.5 ~ 4.5		8100 -3623	Δ
и	"	В	571	Г	Ī		Г		2.5 ~ 4.5		11	Г
AVSS f	0.3	Υ	353	Г	Ī	316836-1			4.5 ~ 4.5		8100 -3623	Г
"	"	OR	353			"			4.5 ~ 4.5		"	



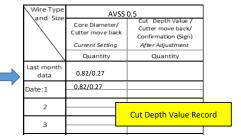


5 Choose specified memory based on the terminal/product to be produced.Refer to cutting ledger. Enter Target pieces, Batch pieces refer to identification tag .



5.1 After choosing memory, Refer to the Cut Depth Value record for the core diameter and cutter move back value which is based on wire type and size.



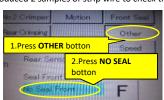


5.2 Input Target pieces, Batch pieces and Batch Automatic start from 1 (for 40pcs and above per bundle) and 2(for below 40 pcs per bunlde) .



Product Na	ame			,	7M0	50000B	057-	
Lot No./Box	No.	0624	- 7		Wire Type Wire Size	AVSSF 0.3	MG City REF City	
Quantity per	Вох		122	24	Wire Color	В	(a) Ma	
Oty per Bundle 72 No of Bundle Terminal Lot No. 7D0349-0060				17	Cutting Length (mm)	571±3		
			Produced By/Date		Inspected By/Date:			
Production I	Date							

6 Produced 2 samples of strip wire to check the core wire condition.







6.1 If core wires are in good condition, record core diameter and cutter move back value setting for the current date.

F-PRO-CNC-007

NOTE:

If Displayed value is not the same as the most recent value on cut depth record, change the value on the screen based on record.

Note: if the setting is with waterproof seal press the OTHER botton and press no water proof seal

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WORK INST	Effective Da	te:	October 17, 2024		
Product Code/Name:	Customer Code:				

Rev. No.: 10 Page No.: 3 of 6 ALL ALL Records/Remarks/ No. Work Procedure/ Illustration **Quality Pointers** For Waterproof Seal Set-up 7 Check the insertion of water proof seal. Press **Seal** Press OTHER botton eal Front <u>front</u>or Seal Rear No Seal Front depends the set up eal Rear No Seal Rear Press next step botton Press START botton NOTE: Press and hold the chuck close to check if the water proof seal is fit in chuck and properly close to avoid crack or damage water proof seal. Used arrow display on Press and hold the chuck close monitor for adjustment of carry chuck forward or backward. Waterproof seal will feed to shute feeder and carry pin will get the water proof seal Press next step botton Set-up of guide pipe to carry chuck, use arrow display on Do not let carry chuck bump on guide pipe. pipe to center on carry chuck.

If the water proofseal is cut, adjust insertion of water proofseal. Press the wire insert length positive(+) meaning the insertion of wire will upward and the water proofseal is going downward. and if negative(-) the insertion of wire will downward and the water proofseal will going upward.

8 Check the appearance of actual sample of inserted water proofseal. The gap of stripped wire and water proofseal is must be 0.5mm to 1mm.



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Process Name/ Title:

WIRE CUTTING and CRIMPING/PROCESS FLOW

WORK INSTRUCTION

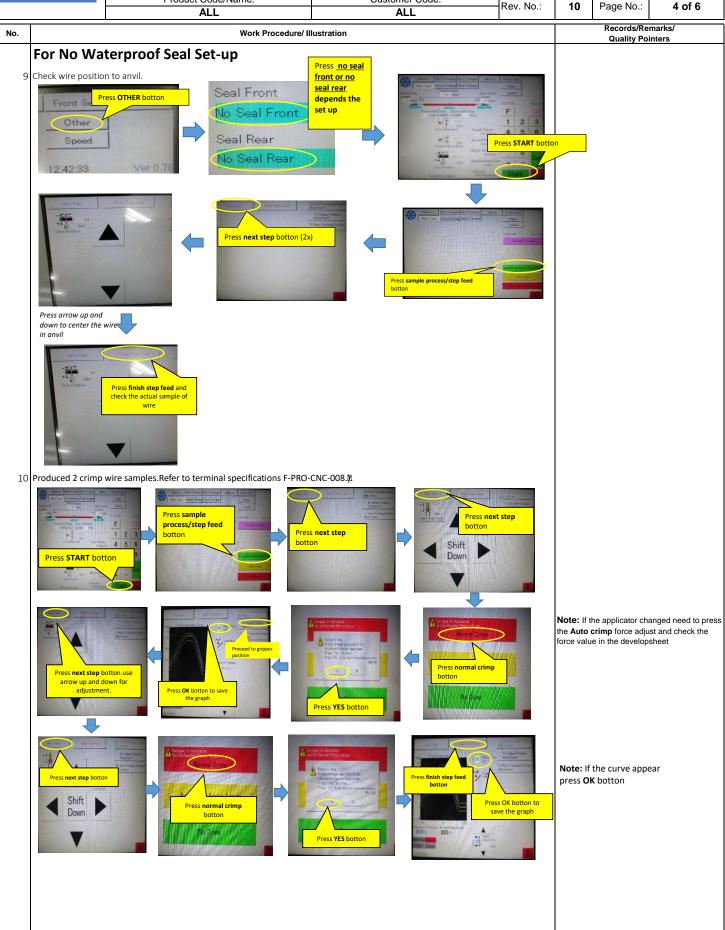
Product Code/Name:

Customer Code:

Rev. No.:

10 Page No.:

4 of 6





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WIRE CUTTING and CRIMPING/PROCESS FLOW				lo:	WI-PRO-	CNC-054		
	WORK INSTE	RUCTION	Effective Da	te:	October 17, 2024			
	Product Code/Name:	Customer Code:	Rev. No.:	10	Page No :	5 of 6		
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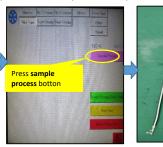
ALL

Records/Remarks/ No. Work Procedure/ Illustration **Quality Pointers**

1)sample must be produced first until the terminal specs(target)is met. 11

11.1. Produced the second sample if the first sample terminal specs is already on target.









NOTE:

Check the measurement of crimped wire base on terminal specification.

Maximum of 5 samples for adjustment of terminal specs and appearance until good sample is met if not STOP CALL WAIT. May change front and rear strip to adjust appearance.

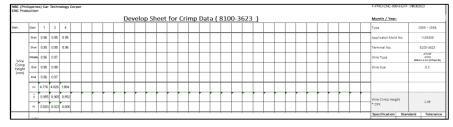
12 Record Set-up and adjustment end time on Set up and downtime monitoring if already produced 2 sample.

SET UP and EXPECTED DOWNTIME MONITORING												
TIME	DURATION (mins)	ACTIVITY	DETAILS									
7:00 -7:05		А										
7:05 -7:10		В										
-												

12.1 Record Daily entry start time on Set up and downtime monitoring.

SET	SET UP and EXPECTED DOWNTIME MONITORING												
TIME	DURATION (mins)	ACTIVITY	DETAILS										
7:00 -7:05		А											
7:05 - 7:10		В											
7:10 -													

12.2. Record the actual measurement in developsheet



F-PRO-CNC-008

WI-PRO-CNC-007

12.3. Conduct tensile strength test using push pull gauge and record in the developsheet.

13 Check the sensor of pressure to check if the machine can still detect NG.







Note: After checking of sersor of pressure get the cut depth value record and change the value of core diameter make sure that the cut depth value record and the monitor is in the same value.

13.1 Press the start botton then sample process if the curve appear press the no botton.

13.2. Produce two(2)good length sample for Hatsumono







WI-PRO-CNC-057

Note:

If machine produce more than 1piece, check/confirm all wire produce and if all good get 1 for second piece.

13.2.1 Press start, normal operation and press the stop immediately 1 piece will produced first to check if the length is on target. If the length is good produced the 2nd piece for hatsumono.

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WORK INSTE	RUCTION	Effective Da	te:	October 17, 2024		
Product Code/Name:	Customer Code:	Rev. No.:	10	Page No.:	6 of 6	
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No. Work Procedure/ Illustration Records/Remarks/
Quality Pointers

14 Record data on Daily Report

NBC (Philippines) Car Technology Corporation									age 1 of													
																			F-9	RO-C	NC-003-6 Eff:02/	/01/20
Leader Signature	Start	Finish	Product Name	Type	Diameter Color		Wire Length		Strip Length		Terminal ①	Terminal (2)	Wire Cring Height / PN	Change	shape	viim Langle	Quantity	Quantity	rt Oty	Error	Lead Signat	
First Piece	Time	Time	Production Lot No.		Vire Lot N		1st	2nd Piece	Last	1	2	Terminal Lot No.		1 2	autouto-	1	3	Quantity	Bundle		Eno	Last Sample
	7:00		7m0555-7020a 0624-4_5,6	AVSSF 20	0.3	B 9/2	571			4.5	2.5		7d0349-0060 2024-2-20(2-18)	0.962 0.911		0	0	3,384	72			
						L								-		-	-					
						I																
						L									-							

14.1 Call Line Leader and Senior Line Leader for length, appearance and measurement confirmation.

14.2 Record End time in Set-up and Downtime monitoring.

SET UP and EXPECTED DOWNTIME MONITORING									
TIME	DURATION (mins)	ACTIVITY	DETAILS						
7:00 -7:05		А							
7:05 - 7:10		В							
7:10 - 7:15		с							

15 Accomplish Identification Tag and attach in the Box

16 Proceed to Mass Production.

Note

1. 100% appearance inspection must be done on the first 100 pieces of output per model per color.

2.During production if encountered machine problem or trouble shooting both side of terminal need to check all the terminal checkpoints and record in Daily Report. Call Leader for verification.

3.For hatsumono or first good product (per model per color)wire length must be measured and actual value must be record on the first piece column.

After cheking the hatsumono put the wire into the hatsumono/owarimono box

4. During bundling of wire, Align (taktak) first the big terminal tips softly to avoid deformation of small terminal. If both terminal is small carefully align softly the terminal. Refer to picture below and GL-PRO-CNC-018



below 10mm height

Distance of wire must be below 100mm on the green mat

5.Every end of the model wire must be measured and actual value must be record on last piece column in Daily Report. Count actual bundle to verify actual quantity in box refer to identification tag and sign in no. of bundle.
6. Call Line Leader, Senior Line leader and freeman to confirm the last sample by measuring the length and crimp height and insulation height. Put in hatsumono/owarimono box.

Repeat previous step to continue process.

Refer to Cutting ledger for the set up and fill out Set up and Downtime monitoring. Use activity Legend

During operation when encounter machine error use legend to input downtime and update in Daily Report machine error

At the End of the shift, Produce 2 crimped wire sample ,measure and record in developsheet Continue operation input data needed while machine running.

17 Perform/Accomplish machine checking (end).
If last day of working day, turn off machine. Conduct 5S of machine and working area

WI-PRO-CNC-038

Note: Attached first piece label for Hatsumono

Note

Follow each step of set up machine first day after vacation then other days will proceed to mass production and checking of machine, instrument, recording of data will conduct while machine is running.

Note

Operation may start even first piece is for verification of leader or while leader is on going check of first piece.

Caution: There is posibility of deformation of terminals if wire are hit to working table strongly.

Note: Check terminal specs in the middle of operation to fill out middle specs requirement in developsheet

Note: Attach last piece tag, paper tape with model name, lot no., machine no. and 1(first piece), and 2(second piece)

F-PRO-CNC-009

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