

| | Process Name/ Title: | | | WI-PRO-COS-055 | | | |
|---------|----------------------|----------------|-----------------|----------------|-----------------|--------|--|
| ١ | CSW Hand Soldering | | Document No: | | | | |
| WORK IN | | ISTRUCTION | Effective Date: | | October 4, 2024 | | |
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ALL

No.

1

Work Procedure/ Illustration

Records/Remarks/ **Quality Pointers** Make sure to wear gloves

Make sure that adjacent switch in soldering machine is set based on the following

during process.







stator: 2 HOLES 3 HOLE

Get harness using left hand and stator using right hand.

ALL

Check condition of the stator on magnifying lamp. Refer to GI-PRO-COS-002 for the stator allocation per model.

Do not use the stator that



Insert the wires to stator using both hands.



Stator pattern should be facing the operator

already dropped. Check the condition of

terminal before and after

the insertion.

Make sure that all terminals are inserted in the stator holes and there should be no tangled wire

prior soldering. For 3 holes, confirm wire

For 2 holes



1.Insert the first wire on the right side



2.Insert the second wire on the left side.

setting based on the color guide located at the soldering table.

2

For 3 holes



1.Insert the black wire on the first hole in the right side



2.Insert the green on the middle hole.



3.Insert the violet wire on the last hole on the left side.

Make sure that product and stator is in the magnifying lamp during process of insertion.

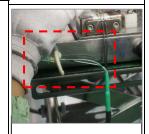
For MR Contact



Put Hotmelted PCB at the hook of soldering machine.



Avoid touching hotmelted PCB during soldering.



NO GOOD

| 10/4/2024 | /n | Added special character ♦ in soldering temperature. | A.Ayop | W. Carbillon | O. Merin | Prepare | Check | Approve |
|----------------|----------|--|--------------|-------------------|--------------|------------|--------------|--------------|
| 8/30/2024 | 10 | Include frequency of oxidiation, where to conduct and include double handling. | A.Ayop | C.Calayan | W. Carbillon | | | |
| 12/15/2023 | 9 | Include process for MR Contact models | L. Famodulan | A. Ayop | W. Carbillon | and | Salsh | Soulsh |
| 5/12/2023 | 8 | General revision.Include proper way to prevent oxidation on soldering tip. | C.Recto | .Habla/W.Carbille | O. Merin | A.Ayop | W. Carbillon | W. Carbillon |
| Eff./Rev. Date | Rev. No. | Details of change | Revise | Check | Approve | Est. date: | May 1 | , 2019 |

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Work Procedure/ Illustration

Records/Remarks/ Quality Pointers

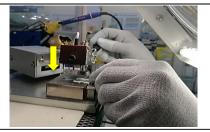
3

5

No.



1.Set the stator with wire inserted to the soldering jig using left hand.



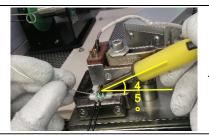
2.Pull the clamp downward to lock the stator into jig using right hand.

Make sure the stator is set correctly to the jig before locking the clamp and probe pin is not stuck up to avoid denting and deformation on the stator.

4



1.Get the soldering iron into holder then clean 2 times in the cleaning wire using right hand.



2.Get the soldering wire using left hand then position the soldering tip on the first terminal(left side)45° angle using right hand. Refer to WI-PRO-COS-023 for proper cleaning of soldering tip.

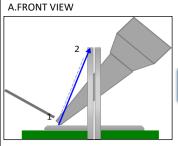
Make sure to follow proper position

Temperature control limit of iron: 345°C ± 3°C (342°C to 348°C)

Make sure to use Pb Free lead

Soldering iron cleaner 599B-01, HAKKO (FX951) TIP: T12-D16

1.Supply the soldering lead on tip of iron to form a "heat bridge", slide upward going to the terminal tip,slide downward going to the right side of terminal then slide back to terminal tip.Short GO sound will be heard after soldering 2sec but less than 5 secs.

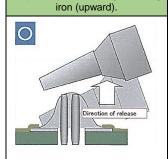


B.TOP VIEW

SEQUENCE OF LEAD WIRE



2.Release the lead wire first then the soldering tip in upward direction. Repeat the process on the next terminals going to the right side.



Proper way of releasing soldering

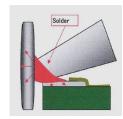
Direction of release

If lay down iron, resist will be taken by iron.

Improper way of releasing soldering

iron (side ways).

Heat bridge is when you have a little bit of solder on tip where it comes in contact with the soldering lead to enhance the heat transfer between tip and solder joint.



Make sure to release the lead wire first then releasing soldering tip is in upward direction to avoid solder defects such as insufficient solder,detached/lifted solder and horn.

RE-SOLDER IS STRICTLY PROHIBITED.

IF ENCOUNTERED DEFECT OR ANY ABNORMALITY CALL THE ATTENTION OF THE LEADER.

Make sure to use hook in 2 heads model except on 7L0117

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DCC Stamp



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| No. | | Work Procedure/ Illustration | | | | Records/Remark Quality Pointer | | | | |
| 5 | | NOTE: For 2 heads, after soldering the first head (right/long), put it on the attached hook on soldering table to prevent the iron tip from hitting the wires during soldering of the second head(left/short). | | | | | n must be soldering jig reak and end t only. | | | |
| 6 | | | Return soldering iron to the holder. | | | not hit othe | ldering tip will r part of the chine or table. | | | |
| 7 | | | | e waiting for the Go lam rm to activate, get anot product using left ha | her | | | | | |
| 8 | | | the solde using right | d the clamp to unlock red stator to the jig hand then remove it ing left hand. | L | ong GO alarn once solder comp | | | | |
| 9 | | | | Conduct visual inspection then put on the designated box. | to pro | check condition oduct. Lefer to WI-PF reprocedure or esoldered particle of the soldered particle of the soldered sequential dering inspective terminal heasuring jig for esoldered particle of the soldered particle of the | RO-COS-022 f confirming rt. O-COS-011 for nce of ction. eight | | | |

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0.7 mm



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

PROPER WAY TO PREVENT OXIDATION ON THE SOLDERING TIP



1.Get lead wire using left hand and soldering tip on the holder using right hand.



2.Clean the soldering tip in the cleaning wire.

Conduct this process every: a.Every breaktime b.Line stop (abnormality, going to CR) c.End of the shift

Make sure no on-going product in the soldering machine during conducting this process.



GOOD (W/OUT PRODUCT)





3. After cleaning, put lead wire on the tip of soldering iron.



4. Put back the soldering iron into the holder.

NOTE:

Before using soldering iron again in mass production, make sure to clean the soldering tip in the cleaning







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