

|   |                           |                |                 |  |                   |  |
|---|---------------------------|----------------|-----------------|--|-------------------|--|
|  | Process Name/ Title:      |                | Document No:    |  | WI-PRO-COS-066    |  |
|   | MR+CSW Assembly Procedure |                | Effective Date: |  | December 04, 2024 |  |
|   | WORK INSTRUCTION          |                | Rev. No.:       |  | 4                 |  |
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| No. | Work Procedure/ Illustration  | Records/Remarks/ Quality Pointers  |
|-----|---|--|
| 1   | <p>Right Hand: Place the index finger (Pic. 1) to the push nut, move pass thru gauge setting (Pic. 2) and place to proper setting (Pic. 3).</p> <div>    </div> | <p>Ensure to wear gloves<br/>Always conduct hatsumono and owarimono every change model</p> <p>Only one push nut should be fitted to the gauge setting</p> <p><b>Ensure to place the push nut in the red marking.</b></p>   |
| 2   | <p>Right Hand: Pull the lever down (Pic. 4) until the push nut attached on the push nut probe pin (Pic. 5).</p> <div>   </div>   | <p>Ensure that the vacuum (push nut jig) is properly working.</p> <p>Ensure that the push nut attached to the push nut probe pin.</p>  |
| 4   | <p>Simultaneously,<br/>Right hand: Get the housing<br/>Left hand: Get the harness (Pic.6)</p>    |  |
| 5   | <p>Right Hand Inspect the condition of the housing then insert the housing in the jig (Pic.7), wait until it locks (Pic.8).</p> <div>   </div>   | <p>Ensure that the housing was locked before inserting the hotmelted PCB</p> <p>Refer to the below picture for the proper position of housing.</p>   |
| 6   | <p>Left hand: Hold the machine handle<br/>Right hand: Insert the hotmelted PCB (Pic.9)</p> <div>   </div>  | <p>Ensure to follow the proper insertion of the hotmelted PCB (Fig.1)</p> <div>  <p>Actual Photo</p>  <p>Top View</p> </div> <p>Refer to the below picture for the proper position</p> |

|                |          |   |             |            |              |            |               |          |
|----------------|----------|---|-------------|------------|--------------|------------|---------------|----------|
| 12/04/2024     | 4        | Include remarks at page no. 2, when encountering twist spring   | L.Famodulan | A. Ayop    | W. Carbillon | Prepare    | Check         | Approved |
| 01/27/2023     | 3        | Change in no. 17; details in 18,19,22 & 23; illustration no. 20 additional note in process 24 & 26; removed Pic. 27, 58-59; update IS reference no. | L.Famodulan | C. Lalican | O. Merin     |            |               |          |
| 06/01/2022     | 2        | Include holder assembly   | C. Lalican  | O. Merin   | O. Merin     |            |               |          |
| 03/22/2022     | 1        | Remove other process, Revise base on actual procedure   | C. Lalican  | O. Merin   | O. Merin     |            |               |          |
| 06/30/2021     | 0        | New Established Document  | L.Famodulan | D. Cornero | O.Merin      |            |               |          |
| Eff./Rev. Date | Rev. No. | Details of change   | Revise      | Check      | Approve      | Est. date: | June 30, 2021 |          |

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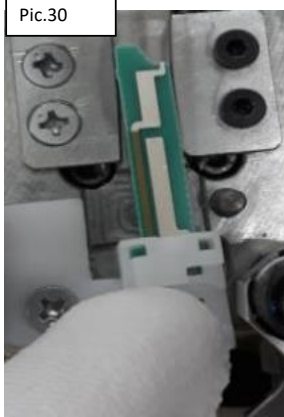



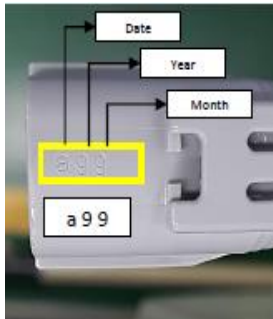

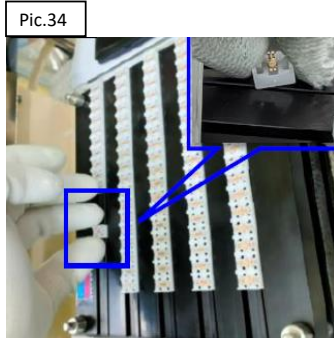

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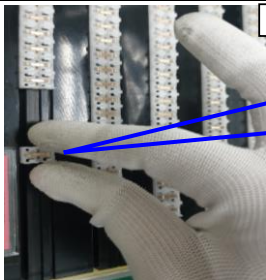


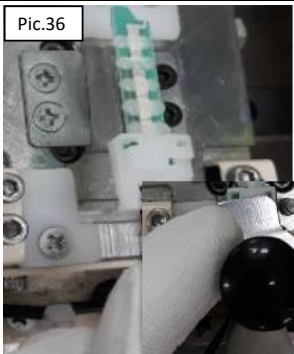

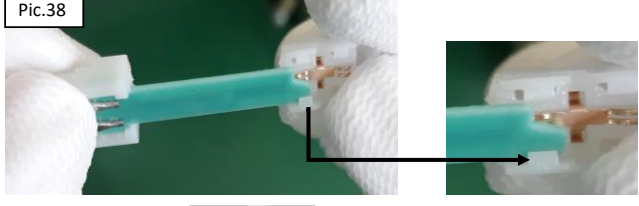
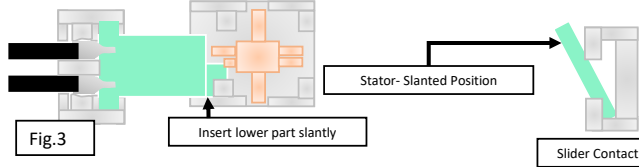
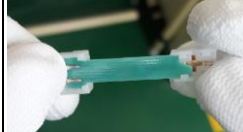
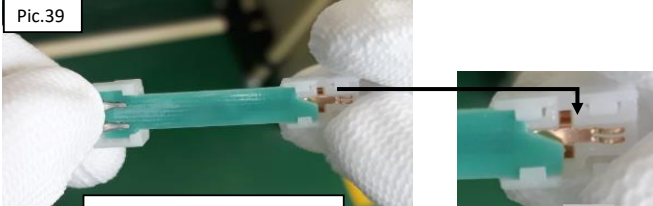
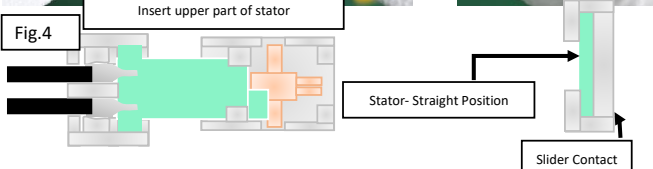
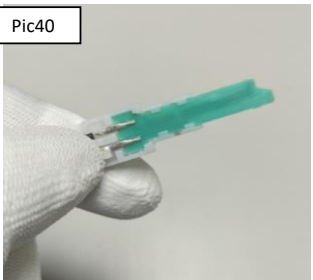

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| 7  |  | Left Hand: Push the machine handle (Pic.10)<br>Right hand: Pull the lever down until the push nut attached to the hotmelted PCB (Pic.11)                          |  |    |  |   |  | Ensure that the push nut was attached to hotmelted PCB.   |  |
| 8  |  | Left Hand: Pull the machine handle (Pic.12) and remove the hotmelted PCB w/ attached push nut (Pic.13).<br><br>Check pushnut condition<br>Refer to IS-PRO-COS-010 |  |    |  | <br>  |  | Every start up check the gap of the push nut to hotmelted PCB<br><br>Conduct four sides checking of the push nut, use clearance gauge (max 0.2mm) every change model Pic.14<br><br>Check housing pin if there is no fracture   |  |
| 9  |  | Left Hand: Hold the assembled PCB<br>Right Hand: Insert the spring compression(7K0580-0040) (Pic.15) into the housing (7K0580-0020)                               |  |  |  | <br>Proper Facing  |  | Ensure to check the spring before insertion it should be free from deformation or excess (IS-QAD-QAC-004)<br><br>Ensure that the PCB is facing to the left side position (Pic.16)<br><br> When encounter twist spring or combine spring CALL the ATTENTION of LEADER |  |
| 10   |  | Left Hand: Hold the assemble PCB<br>Right Hand: Insert the slider magnet to the housing (Pic.17) and check the smoothness slider magnet by pulling down (Pic.18)  |  |  |  | <br>Proper positioning while inserting the slider magnet<br> |  | Ensure that slider magnet is free from foreign material, deformation, crack etc.<br><br>Ensure that spring compression has no gap.<br><br>Ensure that the PCB is facing to the left side<br><br>Ensure to check the smoothness of the slider magnet   |  |
| 11   |  | Left Hand: Hold the assemble PCB (Pic.19)<br>Right Hand: Get and insert plate<br><br>Conduct Inspection<br>Refer to IS-PRO-COS-010                                |  |  |  | <br>Proper Facing   |  | Ensure that the PCB is front position<br><br>Ensure to follow the Work instruction<br><br>If encounter NG: STOP-CALL-WAIT<br><br>If encountered NG always ask for Line Leader disposition   |  |
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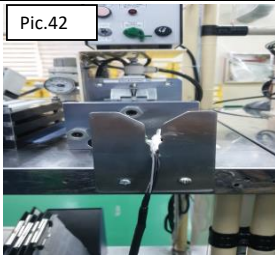

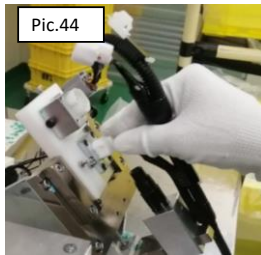
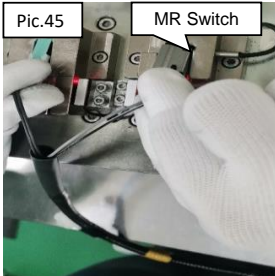
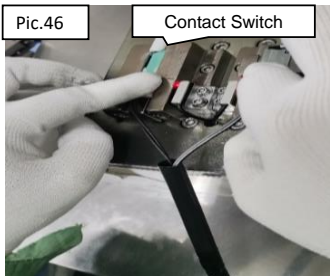

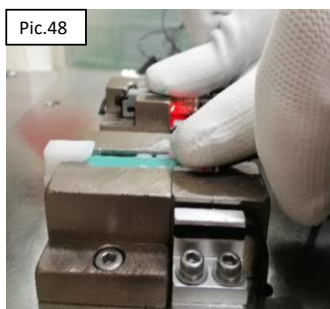





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| 17  | Left Hand: Pull the lever of grease applicator jig (Pic.29) and insert soldered stator in the jig.(Pic.30)               |                                  | <div><div>Pic.29</div></div> <div><div>Pic.30</div></div>     |                |  |                 |  |  |  |
| 18  | While on going grease application, perform engraving lot in the coupler.(Pic.31)   |                                  | <div><div>Pic.31</div></div>                                |                |  |                 |  |  |  |
| 19  | Check the condition of the engraving. (Pic.32)   |                                  | <div><div>Pic.32</div></div>                              |                |  |                 |  | Check the condition of engraving:<br><> Crack<br><> Unreadable<br><> Damaged<br><> Deep engrave<br><> No engrave<br><> Excess flash                                |  |
| 20  | Slide the slider contact towards operator prior picking. Finger must be positioned at the top of slider contact.(Pic.33) |                                  | <div><div>Pic.33</div></div> <div><div>Pic.34</div></div> |                |  |                 |  | Plate must be positioned where contact slider side is facing the operator<br> |  |
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|-----|--|--|---|
| 21  | <p>Get the slider contact. It must be picked up at the side of slider to avoid hitting the contact tip. (Pic.35)</p> <p>Inspect Slider Contact Condition (Refer to IS-PRO-COS-010)</p> |  <p>Pic.35</p>  <p>IS-PRO-COS-010 MR CONTACT Switch Sequence of Inspection per Process</p>                                  | <p>Avoiding hitting the contact tip</p>    |
| 22  | <p>Left Hand: Unlock the jig and (Pic.36)</p> <p>Right Hand: Get the solder stator with grease (Pic.37)</p>  |  <p>Pic.36</p>  <p>Pic.37</p>   | <p>Note: Ensure that the 15 grease ball is present every after grease application .</p>   |
| 23  | <p>Left and Right: Hold the soldered stator with grease slantly insert to the lower part of the slider grip (Pic.38, Fig.3)</p>  |  <p>Pic.38</p>  <p>Fig.3</p> <p>Insert lower part slantly</p> <p>Stator- Slanted Position</p> <p>Slider Contact</p>     | <p>Ensure to follow the proper face and positioning of the stator in inserting the slider</p>  <p>Proper face: Silver plating should facing backward while inserting the slider contact (Refer to above Photo)</p> |
| 24  | <p>Insert the upper part of the stator to the upper slider grip (Pic.39, Fig.3)</p>  |  <p>Pic.39</p>  <p>Fig.4</p> <p>Insert upper part of stator</p> <p>Stator- Straight Position</p> <p>Slider Contact</p> | <p>The slider is securely fitted to the stator</p> <p><b>Forcing</b> the stator to insert to slider contact during the assembly may lead to NG product (deform contact, damage stator).</p> <p><b>NOTE : "REWORK /REINSERTION OF SLIDER IN PROCESS IS PROHIBITED, FOLLOW ABNORMALITY PROCEDURE"</b></p> |
| 25  | <p>Conduct Inspection (Pic.40)</p> <p>(Refer to IS-PRO-COS-010)</p> <p>Put the harness in designated location (Pic.41)</p>   |  <p>Pic.40</p>  <p>Pic.41</p>   | <p>Ensure that to <b>check</b> the slider contact to prevent: Contact deformation and breakage</p> <p>Slider is securely fitted to the stator</p>   |



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| No.                            | Work Procedure/ Illustration   |   | Records/Remarks/<br>Quality Pointers   |
|--------------------------------|--|---|--|
| Function Tester and Inspection |  |   |  |
| 26                             | Left Hand: Pick the harness in designated location(Pic.42).  | <div>Pic.42</div>   | NOTE : "REWORK / REINSERTION OF SLIDER IN PROCESS IS PROHIBITED, FOLLOW ABNORMALITY PROCEDURE" |
| 27                             | Insert the coupler into the coupler jig using right hand(Pic.43 and Pic.44)  | <div>Pic.43</div>  <div>Pic.44</div>   |  |
| 28                             | Simultaneously<br>Right Hand :Insert the MR switch, tip first. (Pic.45).<br><br>Left Hand : Insert Contact Switch(Pic.46).           | <div>Pic.45</div> <div>MR Switch</div>  <div>Pic.46</div> <div>Contact Switch</div> <br><div>Pic.47</div>  <div>Pic.48</div>  | Ensure to follow proper insertion, tip of the Contact and MR switch. (Pic. 47&48)              |
| 29                             | Press the switch using the little finger of left hand to commence function test while holding the MR switch and the stator.(Pic.49). | <div>Pic.49</div>   |  |
| 30                             | Wait for the result of function test. (Pic.50).  | <div>Pic.50</div>   |  |

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| No. | Work Procedure/ Illustration   |  | Records/Remarks/<br>Quality Pointers  |
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| 31  | <p>After function test, the machine alarm will set off to indicate that function test already completed.</p> <p>Right Hand: Machine confirmation "finger pointing YOSH" (Pic.51).</p> <p>Machine will display that the connector can be take off and already stamped by the machine. (Pic.52).</p> |       | <p>If encountered NG, inform freeman / leader for verification. Re-test must be conducted by Leader only.</p> <p>Ensure that operator was able to <b>witness</b> that the test is GOOD.</p> |
| 32  | <p>Remove the coupler using right hand(Pic.53). then remove the stator. (Pic.54).</p>  |       | <p>Note : Hold on coupler during removing from Tester Jig</p>   |
| 33  | <p>Place the harness undergone passed function test to the harness holder(Pic.55)</p> <p>Then repeat the process from the start of Process 3. (no. 26- 29)</p>   |    |   |
| 34  | <p>While waiting to complete the function test, pick the harness placed at the holder (finished function test)(Pic.56). then conduct inspection. Refer to IS-PRO-COS-010 (Pic.57).</p>   |   |   |
| 35  | <p>After inspection, placed the harness to the FG box, ensure that the MR switch and stator is inside the plastic for its protection.(Pic.60).</p> <p>Repeat the process no. 31-33</p> <p>Refer to WI-PRO-COS-067 Regarding the proper way of handling the product during packaging.</p>           |   | <p>Refer to Packing Instruction for each model</p>  |
|     |  |  |   |