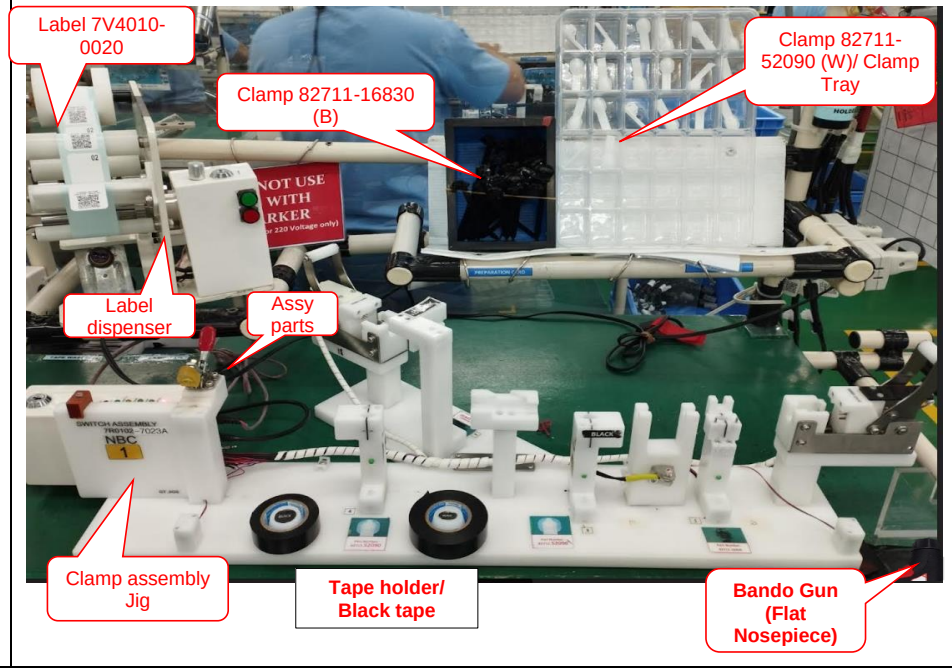
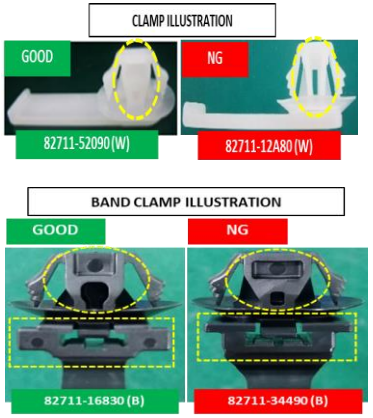
| | WORK INSTRUCTION | | | Effectivity Date: | October 15, 2024 | |
|---|---|---|---|---|---|---|
| | Process Name/Title: | CLAMP ASSEMBLY PROCESS | | Validity Date: | n/a | |
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 | |
| | Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO | | | Revision No.: | 1 | Page No.: 1 of 7 |

| PARTS: | 1. Assy parts; Clamp 82711-16830 (B); Clamp 82711-52090 (W); Black tape [2pcs]; Label 7V4010-0020 | JIG: | 1. Clamp Assembly jig<br>2. Label Dispenser |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 1 | Clamp Assy | Table Lay-out | **TABLE LAY-OUT**<br>  <br> | **Safety Instruction**<br>Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)<br><br>**Housekeeping**<br>1. Maintain and always practice 5's.<br>2. Personal things on the workplace is prohibited. Keep it in your locker.<br><br>**Alert level**<br>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. | 1. No missing parts/tools<br>2. No excess parts/tools<br><br>***Important reminders/Note/s:***<br>*1. Please check the clamp first before setting to clamp assembly to avoid wrong use of clamp.*<br>  <br> |

| Revision History | | | | | | | Prepared by | Reviewed by | Approved by | Noted by |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| 10/15/24 | 1 | Change pre launch to mass pro. | A.Hernandez | C. Villanueva | A. Arañes | n/a | | | | |
| 10/14/24 | 0 | Initial issue. | A.Hernandez | C. Villanueva | A. Arañes | n/a | A.Hernandez | C. Villanueva | A. Arañes | n/a |
| Eff. Date | Rev. No | Details of Change | Revised | Reviewed | Approved | Noted | Est. Date: | October 14, 2024 | | |

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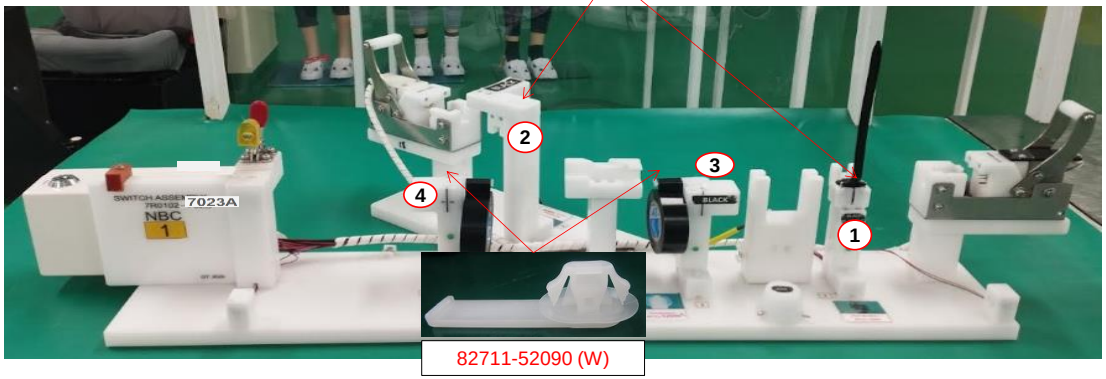
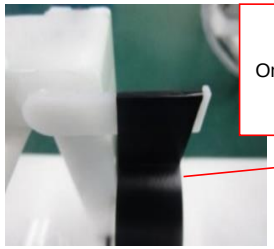
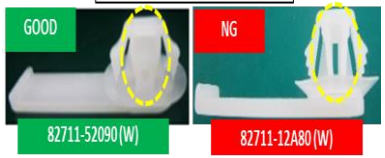
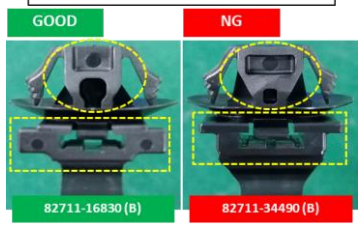
| | WORK INSTRUCTION | | | Effectivity Date: | October 15, 2024 | |
|---|---|---|---|---|---|---|
| | Process Name/Title: | CLAMP ASSEMBLY PROCESS | | Validity Date: | n/a | |
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 | |
| | Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO | | | Revision No.: | 1 | Page No.: 2 of 7 |

| PARTS: | 1. Clamp 82711-16830 (B) [2pcs]<br>2. Clamp 82711-52090 (W) [2pcs]<br>3. Black tape [2pcs.] | JIG: | 1. Clamp assembly jig |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 2 | Clamp Assy | Clamp setting | <br>82711-16830 (B)<br>  <br><br>82711-52090 (W)<br>1. Get 2pcs of band clamp 82711-16830 (B) using right hand and insert to clamp location **1** and **2** using both hands.<br>2. Get 2pcs of clamp **82711-52090 (W)** using right hand and insert to clamp location **3** and **4** using both hands.<br>3. Get Black tape using right hand and put pre-tape on clamp location **3** and **4** using both hands.<br>  <br>One side tape under clamp | | 1. No wrong use of clamp<br>2. No damaged clamp<br>3. No wrong use of tape<br><br>***Important reminders/Note/s:***<br><br>*1. Please check the clamp first before setting to clamp assembly to avoid wrong use of clamp.*<br><br>CLAMP ILLUSTRATION<br>  <br><br>BAND CLAMP ILLUSTRATION<br>  <br> |

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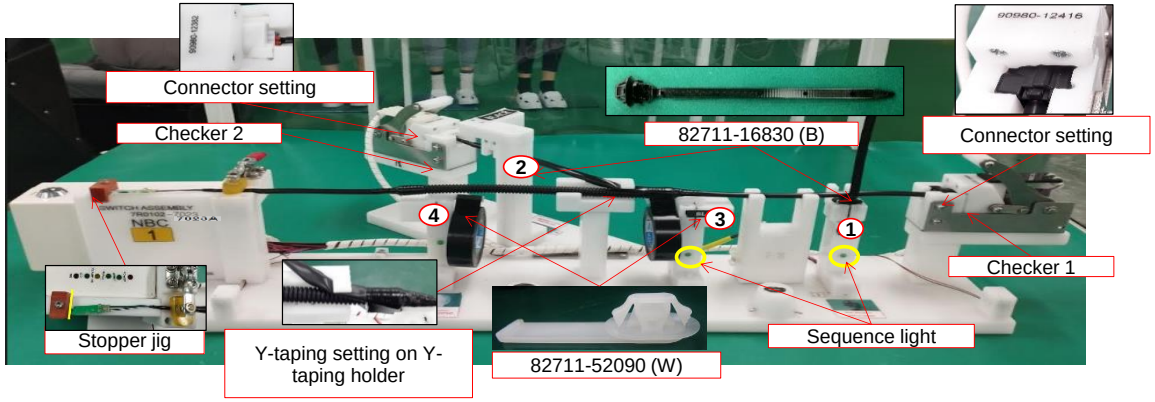
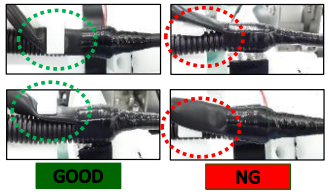
| | WORK INSTRUCTION | | | Effectivity Date: | October 15, 2024 | |
|---|---|---|---|---|---|---|
| | Process Name/Title: | CLAMP ASSEMBLY PROCESS | | Validity Date: | n/a | |
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 | |
| | Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO | | | Revision No.: | 1 | Page No.: 3 of 7 |

| PARTS: | 1. Assy parts | JIG: | 1. Clamp assembly jig |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 3 | Clamp Assy | Clamp Assembly |  <br>1. Get the assy parts and then set to jig. ***(See above picture for correct setting).*** First, set the connector **6189-1142 (W)** to **Checker 1** then pull the checker fixture for continuity checking. Continue to set the harness in jig. *(See below illustration for Y-Taping lock.)* Second, set the **PCB** to stopper jig and push down the toggle clamp. Last, set the connector **6189-1161 (B)** to **Checker 2** then push the checker fixture for continuity checking.<br><br>2. Check if LED for POWER, CLAMP, WIRE1&WIRE2 and SEQUENCE LIGHT in the first location is ON. If encountered abnormality, STOP the process, CALL the Leader and WAIT for instruction.<br><br>3. Initially tighten the band clamp on clamp location **1** and **2** using both hands.<br> | | 1. No wrong use of clamp<br>2. No damaged clamp<br>3. No wrong use of tape<br>4. No wrong setting assy parts<br><br>**Y-TAPING SETTING IN CLAMP ASSEMBLY JIG**<br>  <br>***Important reminders/Note/s:***<br>*1. Make sure no clearance between PCB and stopper jig*<br> |

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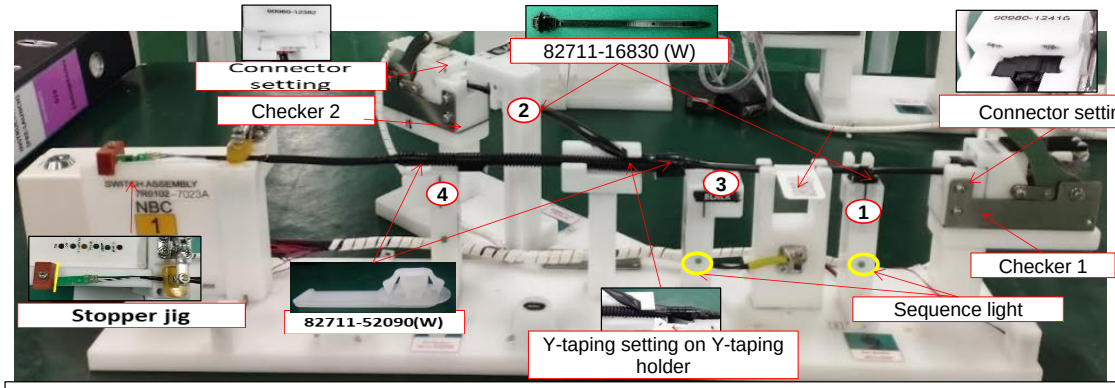
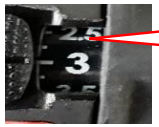
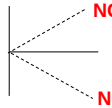
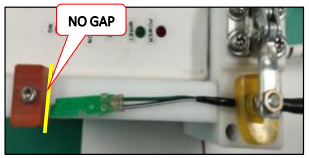
| PARTS: | 1. Assy parts | JIG: | |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 3 | Clamp Assy | Clamp Assembly (continuation) |  <br>4. Get the Bando gun using right hand and cut the band clamp on clamp location **1** and **2** using both hands. Press the switch button after every cutting.<br>5. Tape the clamp on location **3** and **4** using both hands. Make 3 windings and cut the tape.<br>Press the **switch button** after every taping. Go sound will be heard. Continue on label Attachment. *(Refer to the next page for label attachment)*.<br>6. For label attachment, **color sensor** will light if detects the **label code**. After attachment, press the **SW button** using both index finger **(same timing). Go** sound will be heard.<br>7. Conduct **POINT CHECKING** before removing the harness from jig.<br>  <br>**Fixed setting of band clamp cutter: 1 ~ 3**<br> <br>**BANDO GUN ALIGNMENT**<br>**PERPENDICULARITY**<br>  <br>**BANDO GUN**<br> <br>**FLAT NOSEPIECE** | | 1. No damaged clamp<br>2. No wrong use of clamp<br>3. No wrong use of tape<br>4. No missing clamp<br>5. No wrong use of bando gun<br><br>**Important reminders/Note/s:**<br><br>*1. Make sure no clearance between PCB and stopper jig*<br>  |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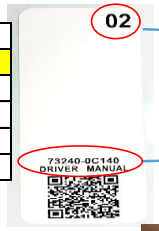
| | Process Name/Title: | CLAMP ASSEMBLY PROCESS | | Validity Date: | n/a | |
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 | |
| | Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO | | | Revision No.: | 1 | Page No.: 5 of 7 |

| PARTS: | 1. Assy parts<br>2. Label 7V4010-0020 | JIG: | 1. Clamp Assembly jig<br>2. Label Dispenser |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 4 | Clamp Assy | Label attachment | | | 1. No bubbles<br>2. No damage<br>3. No peel off<br>4. No wrong use of label<br>5. No missing parts<br>6. No loose attachment<br>7. No wrong usage of label |

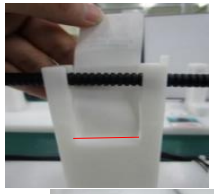
| Model | Items | Item Name |
|---|---|---|
| 7R0102 | 73240-0C140 | Driver Manual |
| 7R0103 | 73240-0C150 | Driver Power |
| 7R0104 | 73240-0C160 | Driver PWR-MEM |
| 7R0105 | 73230-0C170 | Passenger Manual |
| 7R0106 | 73230-0C180 | Passenger Power |




Model code

Item no. & name

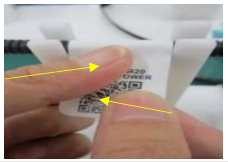
1. Get the label.
**Note: Check the model code, item no. & name**



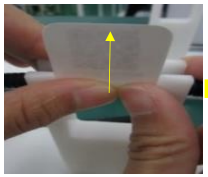
2. Align the end part of label in the jig.

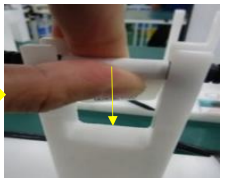
3. Fold the center part of the label

4. Align both end part of label .



5. After alignment, Press the label with both fingers .





6. Press the label upside down using finger.

GOOD

Acceptable overlap

NG

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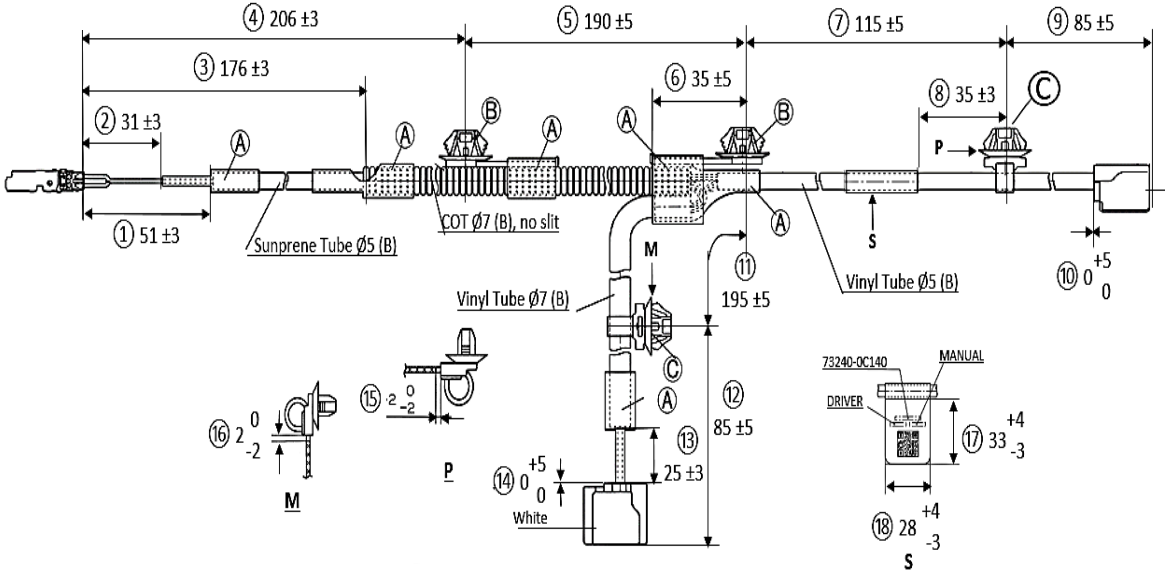
| | Process Name/Title: | CLAMP ASSEMBLY PROCESS | | Validity Date: | n/a | |
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 | |
| | Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO | | | Revision No.: | 1 | Page No.: 6 of 7 |

| PARTS: | 1. Assy parts | JIG: | n/a |
|---|---|---|---|

| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|---|---|---|---|---|---|
| 5 | Clamp Assy | Measurement |   | | ***Important reminders and note/s:***<br>***1. Please use calibrated/verified measuring tape when getting the measurement.***<br><br>***2. For Hatsumono, Nakamono and Owarimono.***<br><br>***Document reference/s:***<br>*1. Refer to **WI-PRO-ASY-056** for Sub-assembly Hatsumono Nakamono Owarimono Inspection*<br><br>1. No wrong dimension |

**MEASURING TAPE**

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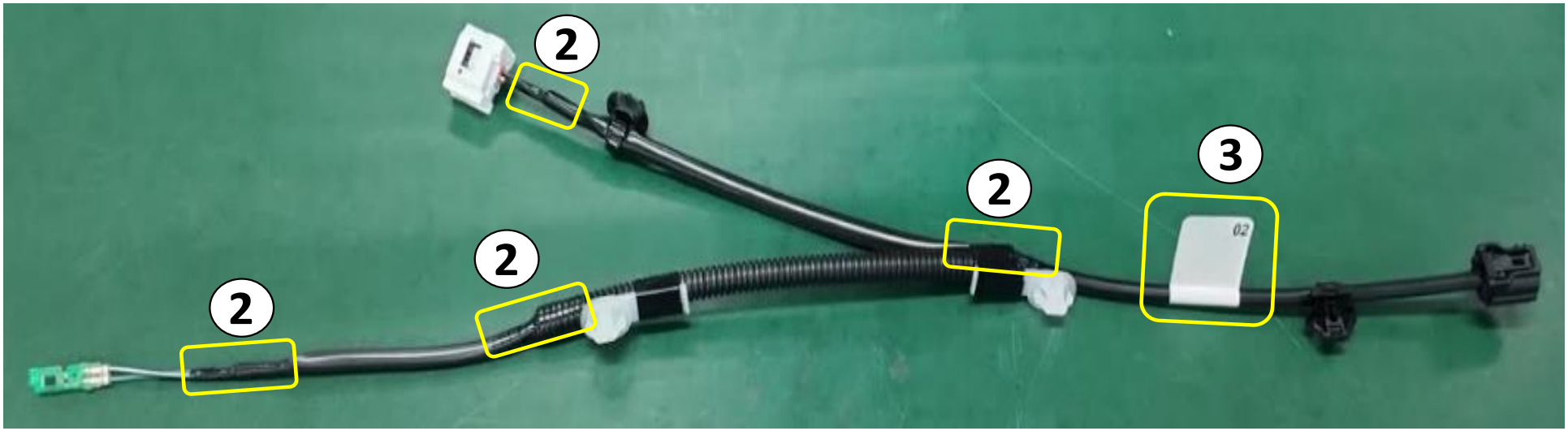
| | Model code/Part number: 780B / 7R0102-7023B | Customer: TRMX | Car Model: TOYOTA TUNDRA | Document No.: | WI-ENG-PDE-1102 |
| | Purpose: ☐ PROTOTYPE | ☐ PRE-LAUNCH | ■ MASSPRO | Revision No.: 1 | Page No.: 7 of 7 |

| | | | |
|---|---|---|---|
| **PARTS:** | n/a | JIG: | n/a |

**VISUAL INSPECTION/ QUALITY CHECKPOINTS**

| CLAMP ASSY | 7R0102-7023B |
|---|---|




1 Check the Clamp Alignment

2 No Missing Tape

3 No Wrong Facing/Used of QR Code label

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