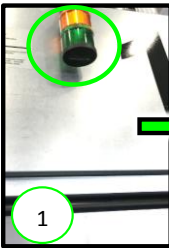




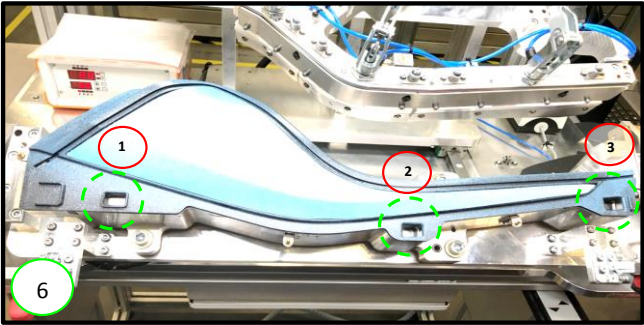
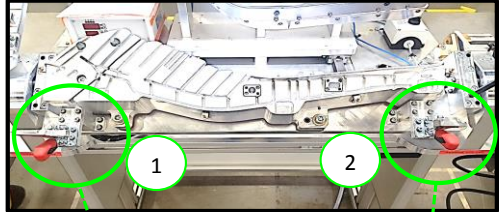
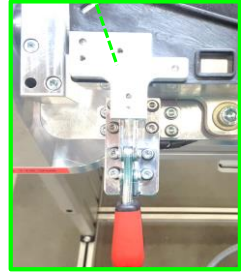
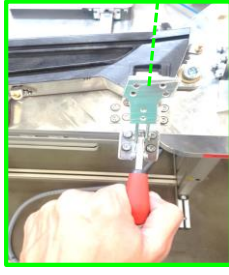
		<h1>Process & Test Description</h1>				1334584 (9363793) 1339441 (9363794) 1334587 (9363791) 1339445 (9363792) Drawing No.:	
page 1 von 5		Prepared by:		PP J.Williams	Geprüft & Freigabe		
First version: 8/30/2017		Description No.:		PP 9/6/2019 J.Williams Date/Name	PP 9/6/2019 Eduardo A Date/Name	Production approval/ release 9/6/2019 M. Lansdell Date/Name <small>this signature is only necessary on page 1 Signature is valid for each page</small>	
Rev.-status: 2		Sample shop Pilot		Description of Manufacturing Process:			
Product: G02 Console		Pre-series Series		X Prefixing G02 Upper Side panels teco trims			
No.:		Working description			Machine / device / tools / visualization		
#1		Take the Glued Part out of the Dryer. You get a Optical Signal (1) if the parts are ready to be taken. place the rack next to your Workstation. (See pictures 1-2)			 		
#2		Take always two parts off the rack, either a Left hand Drive (LHD) left and right sidepanel, or Right hand drive(RHD) left and right side panel. The RHD option would have a hole in the bottom right (RH side) or bottom left (LH side) and the LHD option would not have a hole. (See pictures 3-5)			  		
#3		Obtain the glued and dried part out of the gluing mask, examine for glue dryness/lamination and insert to fixture as shown in picture 6. (USP clip engagement cut outs should fit properly to fixture mold)					
Test description:							
Test characteristics:		Test devices:		Frequency:		Actions if not ok:	

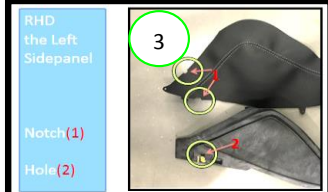
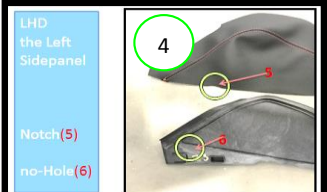
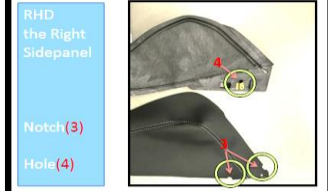
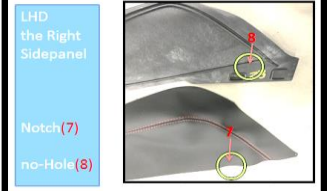
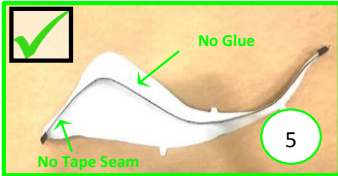
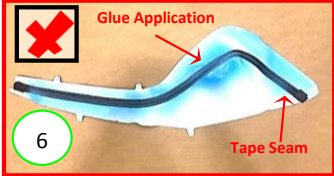
Process & Test Description

1334584 (9363793)
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1339445 (9363792)
Drawing No.:


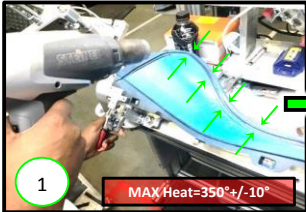
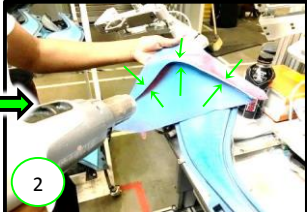
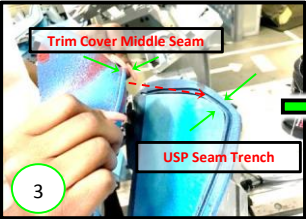
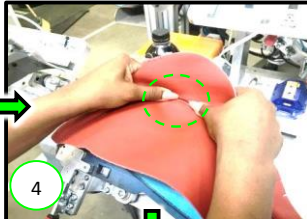
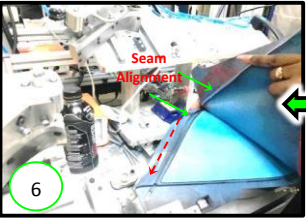
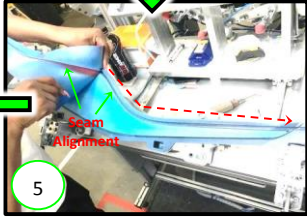

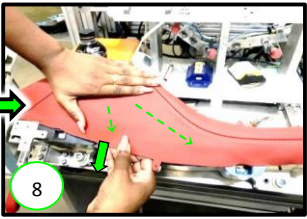
page 2 von 5 First version: 4/8/2019 Rev.-status: 2	Prepared by:	PP QP	J.Williams S. Short	Geprüft & Freigabe		
	Description No.:	BMW MIKO G02	PP proved	PP proved	Production approval/ release	
			9/6/2019	9/6/2019	9/6/2019	
			J.Williams	Eduardo A	M. Lansdell	this signature is only necessary on page 1
			Date/Name	Date/Name	Date/Name	Signature is valid for each page
	Sample shop		Description of Manufacturing Process:			
	Pilot					
Product: G02 Console	Pre-series	X	Prefixing G02 Upper Sidepanels teco trims			
	Series					


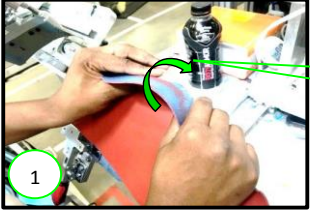
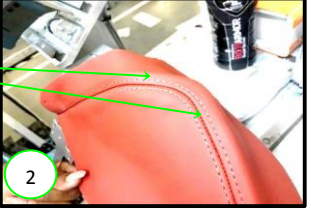
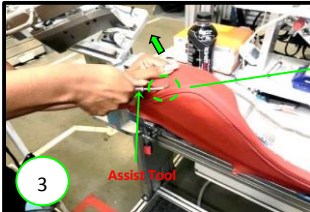
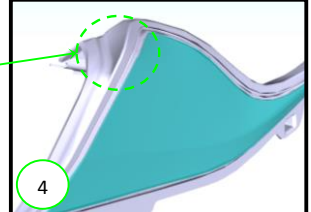
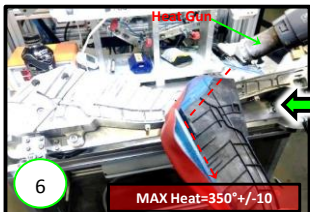
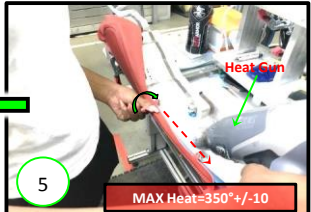
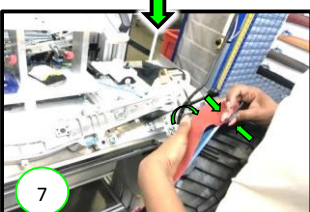
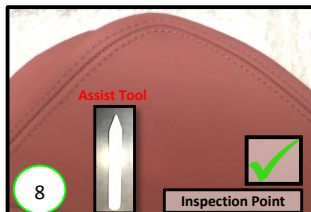
No.:	Working description	Machine / device / tools / visualization
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#4	<p>Evaluate build fixture to identify part clamp locations. (See pictures 1-2)</p> <p>Two clamps and 1 hole in the plastic to align with the pin on the backside of the fixture.</p>	  
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#5	<p>Observe the installed plastic component for trim selection, obtain the correct trim cover from rack, and validate correct material. (See pictures 3-4)</p> <p>(Vinyl and Alcantara trim covers should not have any glue applied to B-surface as well as no black tape seam on B-surface) (See pictures 5-6)</p>	    <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid green; padding: 5px;"> <p>New Level Trim</p>  </div> <div style="border: 1px solid red; padding: 5px;"> <p>Old Level Trim</p>  </div> </div>
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Test description:			
Test characteristics:	Test devices:	Frequency:	Actions if not ok:

		<h1>Process & Test Description</h1>				1334584 (9363793) 1339441 (9363794) 1334587 (9363791) 1339445 (9363792) Drawing No.:	
page 3 of 5	Prepared by: PP J.Williams QP S. Short	Geprüft & Freigabe					
First version: 8/30/2017	Description No.: BMW MIKO G02	PP proved 9/6/2019 J.Williams <small>Date/Name</small>	PP proved 9/6/2019 Eduardo A <small>Date/Name</small>	Production approval/ release 9/6/2019 M.Blackmon <small>Date/Name</small> <small>this signature is only necessary on page 1</small> <small>Signature is valid for each page</small>			
Rev.-status: 2	Sample shop Pilot	Description of Manufacturing Process:					
Product: G02 Console	Pre-series Series	X Prefixing G02 Upper Side panels teco trims					
No.:	Working description	Machine / device / tools / visualization					
#6	Utilize heat gun (Temp Range=350°+/-10°) to apply heat to USP trim seam trench and then to trim cover middle seam trench to enhance glue sticking capability. (Do not hold in one spot no longer that 3-5 sec) (See pictures 1-2)	  <div> <div>1</div> <div>Upper Side Panel Preheating</div> </div> <div> <div>2</div> <div>Trim Cover Seam Preheating</div> </div>					
#7	Visually identify the peak arch of trim cover middle seam, locate the USP middle seam trench and install as shown in pictures 3-4.	  <div> <div>3</div> <div>Trim Cover Middle Seam</div> <div>USP Seam Trench</div> </div> <div> <div>4</div> </div>					
#8	Fully seat the remaining trim seam to USP trench by sliding seam to the large side trench and alternating hands and moving to the small side trench. (See pictures 5-6)	  <div> <div>5</div> <div>Seam Alignment</div> </div> <div> <div>6</div> <div>Seam Alignment</div> </div>					
#9	<p>A) Rotate fixture as necessary (45° degree angle preferred) and utilize heat gun (Temp Range=350°+/-10°) to apply heat inside trim cover and upper side panel to enhance glue sticking capability. (Do not hold in one spot no longer that 3-5 sec) (See picture 7)</p> <p>B) While pulling trim tight (still unattached from USP foam padding) with right hand, use left hand to properly finesse trim to USP panel as shown in picture 8. (No wrinkles, bubbles, indents,etc. should exist after finessing process)</p>	  <div> <div>7</div> <div>Heat Application</div> <div>MAX Heat=350°+/-10C</div> </div> <div> <div>8</div> <div>Trim Cover Adherence to USP</div> </div>					
Test description:							
	Test characteristics:	Test devices:	Frequency:	Actions if not ok:			
1	Burned Components	Visual/Start Set-Up Sheet (Heat Gun)	100%	Stop process, inform team leader and quality planner. Reject, tag and segregate the non-conforming part, and follow GPQ format for scrap/rework procedure.			
2	Not Seated Trim Seam	Visual	100%	Stop process and re-attempt seam installment. If still nok inform team leader and quality planner. Reject, tag and segregate the non-conforming part, and follow GPQ format for scrap/rework procedure.			
3	Wrinkles,Bubbles,Clumps,Waviness	Visual	100%	Stop process, inform team leader and reject, tag segregate, the non-conforming part as necessary and follow GPQ format for scrap/rework procedure.			


		<h1>Process & Test Description</h1>				1334584 (9363793) 1339441 (9363794) 1334587 (9363791) 1339445 (9363792) Drawing No.:	
page 4 von 5	Prepared by:	PP J. Williams	Geprüft & Freigabe				
First version: 8/30/2017	Description No.:	PP 9/6/2019 J. Williams Date/Name	PP 9/6/2019 Eduardo A Date/Name	Production approval/ release 9/6/2019 M. Blackmon Date/Name this signature is only necessary on page 1 Signature is valid for each page			
Rev.-status: 2	Sample shop Pilot	Description of Manufacturing Process:					
Product: G02 Console	Pre-series Series	X	Prefixing G02 Upper Side panels teco trims				
No.:	Working description		Machine / device / tools / visualization				
#10	Using both hands roll the top trim section over the top edge of the upper side panel. (See pictures 1-2)		<div>Top Roll To USP Edge</div>  				
#11	Rotate fixture as necessary (0° degree angle preferred) and utilize assist tool to fully seat trim to USP edge facing as shown in pictures 3-4) (While seating trim pull trim tight with opposite hand to validate no wrinkles, bubbles, indents, etc. will be established during placement)		<div>Edge Facing Roll to USP</div>  				
#12	Obtain heat gun and apply heat (Temp Range=350°+/-10°) to long portion of USP to enhance glue compatibility with trim and utilize free hand to roll trim as shown in picture 5. (Do not hold in one spot no longer that 3-5 sec)		 				
#13	A) Remove assembly from workstation, identify short portion roll locations and repeat heat application and roll as shown in pictures 6-7. (Do not hold in one spot no longer that 3-5 sec) B) Visually inspect finished assembly for any defects (wrinkles, waviness, seam alignment, bubbles, clumps, cuts, marks, indents, hanging threads, delamination of foil, dirt, and grease) and move finished assembly to WIP for press lamination. (Utilize assist tools within workstation to remove bubbles and minimize any wrinkles are fine lines that may exist) (See picture 8)		<div>Top Roll/Finesse to USP</div>  				
Test description:							
Test characteristics:		Test devices:		Frequency:		Actions if not ok:	
Burned Components		Visual/Start Set-Up Sheet (Heat Gun)		100%		Stop process, inform team leader and quality planner. Reject, tag and segregate the non-conforming part, and follow GPQ format for scrap/rework procedure.	
Wrinkles, waviness, seam alignment, bubbles, clumps, cuts, marks, indents, hanging threads, delamination of foil, dirt, and grease		Visual/By Hand		100%		Stop process, inform team leader and quality planner. Reject, tag and segregate the non-conforming part, and follow GPQ format for scrap/rework procedure.	

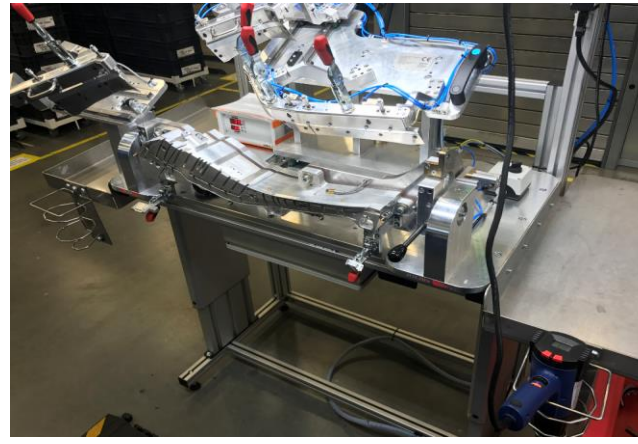
Process & Test Description

1334584 (9363793)
1339441 (9363794)
1334587 (9363791)
1339445 (9363792)
Drawing No.:






page 5 von 5	Prepared by:	PP	M. Schneider	Geprüft & Freigabe		
		QP	S. Short	PP proved	PP proved	Production approval/ release
	First version: 8/30/2017	Description No.:	BMW MIKO G02	7/3/2019	7/3/2019	7/3/2019
Rev.-status: 2	Sample shop		Description of Manufacturing Process:			
	Pilot					
Product: G01 Console	Pre-series	X	Prefixing G02 Upper Sidepanels teco trims			
	Series					

No.:	Working description	Machine / device / tools / visualization
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#1	<p>Cut away the Prefixing notches(1) with a knife(2)</p> <p>Also cut away the excess material(3) on the upper Side of the panel with a knife(4)</p> <p>In the picture you can see a trimmed part(5)</p>	
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#1	<p>process with the process Press-lamination and make sure your area is clean and all tools are in order according to 5S</p>	
#1	<p>During process flow- please insure the parts offline in WIP on the "B" Surface.</p>	

Test description:			
Test characteristics:	Test devices:	Frequency:	Actions if not ok:

		<h1 style="text-align: center;">Process & Test Description</h1>					1334584 (9363793) 1339441 (9363794) 1334587 (9363791) 1339445 (9363792) Drawing No.:	
page 14 von 14		Prepared by:		PP C. Rivero	Geprüft & Freigabe			
First version: 1/20/2017		Description No.:		AA_BMW_MIKO 03		PP proved 1/20/2017 C. Rinehart Date/Name	PP proved 1/20/2017 D. Ramalho Date/Name	Production approval/ release 1/20/2017 M. Lansdell Date/Name this signature is only necessary on page 1 Signature is valid for each page
Rev.-status: 3		Sample shop		Description of Manufacturing Process:				
Product: G01 Console		Pilot		Heat welding II Left/Right side panels and welded Main Carrier				
		Pre-series						
		Series		X				
No.:		Working description				Machine / device / tools / visualization		
<div style="text-align: center; color: red; font-weight: bold;"> other applicable documents </div> <p> Q-Infos and co-applicable documents at the workstation. First-Piece-Release each shift. Documentation is stored at "\\tupsdat1\groups\Automotive_Consoles\02_BMW_G0x Console\01_IE\Process\BMW Work instructions modify". </p>								
<h2 style="margin: 0;">Self-Inspection</h2>								
<div style="text-align: center;">  </div>								
Test description:								
test point:	Pos.	method:	Frequency:	Test characteristics:	Actions if not ok:		testing time	
		  			rework	scrap	sec.	