

	Doc or ECO #:	ECO-52192-001	Date:	6/12/18	Author:	JK
	Rev. #:	A				
Engineering Change Order (ECO)	Engineering Approval:	AEG	Date:	6/12/18	Quality Approval	DO

P/N #:	52192	Effective Date:	June 12, 2018
Title:	Injection Mold Shell Update		

1.0 Purpose / Summary

The IP65 Hand Controller [52192] was experiencing quality issues with the IP65 Hand Controller Thermoformed Shell [52185]. To address this issue, the Thermoformed Shell and the IP65 Hand Controller Bottom Plate [52183] were both revised.

Additionally, other engineering documentation was updated as part of this effort.

2.0 Parts Affected

Part Number	Notes	Removed	Added	New	Modified
52183	Update drawing layout, oring groove depth, material. Add circular joystick pocket.	☐	☐	☐	☒
52185	Update geometry for injection molding, rename trim sheet, update material, rev to RTM status, add drawing notes.	☐	☐	☐	☒
52206	ULTRA COMPRESSIBLE METRIC O-RING STOCK 1.5MM	☒	☐	☐	☐
52208	#6 NYLON WASHER ID-.162", OD-.312", .055"-.070" THICK (OFF-WHITE)	☒	☐	☐	☐
71312	Oil-Resistant Soft Buna-N O-Ring Cord Stock, 1/16 Fractional Width, Shore 50A	☐	☒	☐	☐

3.0 Detail

In addition to having issues with manufacturability the thermoformed shell was also overly thin causing dimpling around the screws. To address the issues the Thermoformed shell [52185] was revised and injection molded in a more rigid thermoplastic, Delrin. The mating IP65 Hand Controller Bottom Plate [52183] was also revised to accommodate the changes to the Thermoformed shell including a material change to Delrin as well. These changes to the Thermoformed shell and bottom plate also required an oring change Ultra Compressible Metric O-ring Stock 1.5mm [52206] and the removal of nylon washers [52208] from the assembly.

The BOM and work instructions were also updated to the latest documentation standards.

4.0 Disposition of Material

Parts Numbers:

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52183 Remove all revision A parts from inventory

52185 Remove all revision X-08 from inventory

5.0 Action Items

Action	Department	Acknowledgement Initials
Initiate sample production run	Purchasing	NS
Perform FAI	Engineering	JK
Remove legacy parts from inventory	Inventory Control	SL
Update 52192 BOM in Epicor	Engineering	RN
QA acknowledge change	Quality Assurance	DO

6.0 Modified / Referenced Documents:

Document	Current Revision
52183	D
52185	R
Work-52192	B
BOM-52192	-

7.0 Revision History

Date Revised (mm-dd-yyyy)	Location of Change (section, paragraph no., step no., etc.)	Description of Change Made	Name of Person making the Change
6/12/2018	-	Initial Release	JK

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