

Engineering Department

Engineering Change Order (ECO)

ECO #: ECO-50043-001

Effective Date: August 24, 2016

Title: Cygnus UT Gauge Assembly PAM Housing

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 Engineering Approval: aeg
 Operations Approval: JJV

Date: August 24, 2016
 Date: September 1, 2016
 Date: September 13, 2016

Summary:

The manufacturing complexity of the PAM/Whip Assembly (52189) made it difficult to produce. That in combination with undesirable cosmetics of the assembly gave cause for redesigning the assembly. A solid black open topped potting housing makes the assembly simple and repeatable. The solid black housing also improves the cosmetic finish of the assembly.

Parts Affected:

Part Number	Notes	Removed	Added	Modified
52189	Cygnus UT Gauge PAM/Whip Assembly	☐	☒	☐
52129	Cygnus Gauge PAM Housing	☐	☒	☐
50043	Cygnus UT Gauge Swing Arm Assembly	☐	☐	☒

Detail:

The manufacture of the fully encapsulated PAM assembly was very complex, requiring numerous assembly steps and the molding of epoxy standoffs. The assembly was also prone to trapping air during the potting process. To address these issues a solid black plastic housing was designed with integrated wire jacket strain reliefs, reducing the number of parts in the assembly and reducing the number of leak paths. No standoffs or demolding is required, components are inserted into the housing and potted in place. A masked hole in the housing allows the LED indicator to be seen despite the opaque black housing.

Action Item:

Action	Department	Acknowledgement Initials
Create drawings for 52189 and 52129 in PDM	Engineering	KB
Revise BOM for 50043 in PDM	Engineering	KB
Update revision for 50043 assembly in Epicor	Engineering	KB
Update Epicor BOM for 50043 with new part numbers	Engineering	KB
Update assembly procedure document to outline new PAM potting procedure	Engineering	KB

Modified / Referenced Documents:

Document	Current Revision
52189 – Cygnus UT Gauge PAM/Whip Assembly	A
52129 - Cygnus Gauge PAM Housing	A
50043 – Assembly Procedure Document	001

-- END OF ORDER --