

Engineering Department

Engineering Change Order (ECO)

ECO #: 50139-001 Effective Date: June 10, 2016

Title: Replacing obsolete Logic Level Converter in GPS Module

Author:	GD	Date:	June 10, 2016
Engineering Approval:	aeg	Date:	June 10, 2016
Operations Approval:	JJV	Date:	June 16, 2016

Summary:

Logic Level Converter used in GPS Module circuitry has become obsolete. This ECO addresses the implementation of replacement Logic Level Converter.

Parts Affected:

Part Number	Notes	Removed	Added	New	Modified
50139	Sparkfun Logic Level Converter	☐	☐	☐	☒

Detail:

The VR GPS module uses two different voltage levels in the control circuitry (5V and 3.3V). All electronics components except the GPS chip use 5V while the GPS chip is powered by 3.3V. As a result, there has to be a logic level converter in order to transfer GPS data to main uC (micro-controller) utilized in PRO4. The specific Logic Level Converter used for this purpose has become obsolete (Sparkfun BOB-11978) and the BOM has to be updated with a new placement (Sparkfun BOB-12009). This ECO records new changes together with subsequent follow up actions in related departments.

Action Item:

Action	Department	Acknowledgement Initials
Update Epicor with VR P/N 50139 to reflect the updated OEM part number (Sparkfun BOB-12009)	Engineering	RN
Begin purchasing replacement component Sparkfun BOB-12009	Purchasing	NS
Approve assembly procedure using new wiring diagram	Production	CZ

Modified / Referenced Documents:

Document	Current Revision
Modified wiring diagram	2.0

Revision Table:

Revision	Initials	Date	Comments
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