



**U.S. Election Assistance Commission Voting System
Testing and Certification Program**

MV# 2010-01

1201 New York Avenue, NW, Suite 300 Washington, DC. 20005

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Voting System Technical Advisory Configuration Management Issues with EAC Certified MicroVote EMS 4.0B (Modification)

System(s) Affected:	MicroVote EMS 4.0B (Modification)
Component(s) Affected:	MicroVote Infinity Voting Panel
Version(s) Affected:	Firmware 4.00B, Hardware Rev C
Notification Date:	August 23, 2010
Summary:	Memory cards larger than 32 MB will not operate properly with certain Infinity Voting Panels.

Advisory:

Counties and jurisdictions with this product should be aware that Infinity Voting Panels with serial numbers below 5000 will not properly operate with memory cards larger than 32 MB without a soldered trace.

Status:

The EAC has certified the MicroVote EMS 4.0B (Modification) solely with a memory capacity of 32 MB or higher.

Overview:

The MicroVote EMS 4.0 voting system was originally certified on February 2, 2009 to the 2005 VVSG. On June 6, 2009 MicroVote submitted an application to the Election Assistance Commission (EAC) for a modification to their previously certified system. During testing, Wyle Laboratories discovered that Infinity Voting Panels with serial numbers below 5000 will not properly operate with a flash card size 32 MB and larger.

Issue Descriptions:

The MicroVote EMS 4.0B (Modification) requires a 32 MB memory card. Over the period of time that the Infinity panel has been manufactured, the original smaller memory cards certified for use in MicroVote EMS 4.0 have been discontinued. In order to function properly with the modification, the older Infinity panels will now require a solder bridge to be in place to enable the higher capacity memory cards. A solder bridge is a connection formed between two metal components resulting in electric connectivity. This solder bridge must be electronically and functionally identical to an integrated trace built into newer cards. This bridge must be created at Pin 33 on the

printed circuit board (PCB). The original Engineering Change Order (ECO) # 103 dealing with this change is defined below.

It was determined that the original ECO #1408 only pertained to the change in manufacturing the trace on the printed circuit board (PCB). ECO #1408 also lacked enough detail for a technician to perform a quality solder for re-work of fielded boards. ECO #1408 was updated to cover this type of re-work, and renamed ECO #1408 Updated Field Implementation. A new ECO #103 was created and has detailed enough information for the older Infinity panels to be soldered correctly.

Below is the table from the Scope of Certification describing the ECO's from the MicroVote EMS 4.0B Modification:

<i>DATE</i>	<i>ECO Identification</i>	<i>Manufacturer</i>	<i>Description</i>
6/02/2010	# 103	Carson Manufacturing Co. Inc.	ECN 103 defines the scope, applicable documents, service history, identification, upgrade and inspection procedures in order to accommodate use of newer flash drives of 32MB or larger in older Infinity voting panels. Execution of this upgrade using a soldered bridge between pin 33 and an adjacent grounded pin will bring older panels into compliance for use in certified voting systems.
4/19/2010	# 1408 Updated Field Implementation	Carson Manufacturing Co. Inc.	Accommodates the use of newer flash drives of 32MB or larger for use in the Infinity voting panel. ECN 1408 adds a manufactured "trace" to the motherboard which connects pin 33 on the connector holding the flash drive to ground.

Any Infinity voting panels fielded as EAC certified systems with the MicroVote EMS 4.0B (Modification) installed must be upgraded to support memory cards with a capacity of 32MB or higher. In order to meet this requirement, ECO 103 must be applied to all Infinity Voting Panels with serial numbers below 5000, and the updated Field Implementation ECO 1408 must be applied to all Infinity Voting Panels with serial numbers 5000 and above.

<i>ECO</i>	<i>Serial Number Range</i>
# 103	< 5000
# 1408 Updated Field Implementation	≥ 5000

If an Infinity Voting Panel is being fielded as an EAC certified system in an incorrect configuration, the manufacturer will be subject to the provisions in the Certification Manual which may result in the Manufacturer's suspension or other action pursuant to Federal civil and criminal law.