

	Doc or ECO #:	ECO-XE-004A-004	Date:	12/20/2017	Author:	CH
	Rev. #:	C				
Pro4 Video Capture Device Replacement	Engineering Approval:	Aeg	Date:	1/8/2018	Quality Approval	DO

P/N #:	XE-004A	Effective Date:	December 20, 2017
Title:	Pro4 Video Capture Device Replacement		

1.0 Purpose / Summary

DVD Maker capture device was replaced with Startech video capture device to improve overall video quality.

Notably, this corrects the "Screen Tearing" exhibited on Dell 7510's running windows 7

This change will require the installation of Windows 10 and Cockpit 2018 with the upgrade.

2.0 Parts Affected

Part Number	Notes	Removed	Added	New	Modified
51001	Pro4 ICB, Standard (PPI)	☐	☐	☐	☒
51010	Pro4 ICB, BlueView with M100 Modem Ready	☐	☐	☐	☒
51011	Pro4 ICB, BlueView with M100 Modem Ready, Integrated Lynn Hawk	☐	☐	☐	☒
51002 (OBSOLETE)	Pro4 ICB, BlueView Ready (PPI)	☐	☐	☐	☒
51003 (OBSOLETE)	Pro4 ICB, BlueView Ready, Integrated LYNN (PPI)	☐	☐	☐	☒
52362	IP65 Rated Pro4 Panel	☐	☐	☐	☒
71055	Startech USB Video Capture Device	☐	☒	☐	☐
XE-004A	Electronics Package KWorld DVD Maker 2 Package	☒	☐	☐	☐
71065	Cable Clamp 1/8" Loop Screw Mount	☐	☒	☐	☐
25053	Cable Clamp 5/16" Loop Screw Mount	☐	☒	☐	☐
52376	20AWG White Ferrules	☐	☒	☐	☐

3.0 Detail

Pro4 users with 7510 and windows 7 computers reported video tearing on screen while operating their pro4 systems.

Five systems were randomly selected from inventory and we could replicate video tearing on all systems. Further troubleshooting was done to find a solution including driver updates for the capture device and

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software updates for Windows 7. Unfortunately, all updates performed on the capture device and computer were not able to reliably fix the video tearing issue.

The DVD Rev D also historically has had video quality issues, and while some have been corrected through other modifications (ground loop removal and filtering), there are still persistent issues beyond “screen tearing”

As a result, Startech video capture device was implemented as a replacement to the DVD Maker. This device not only removed video tearing on the 7510 computers, it also improved video quality in general.

The startech capture device introduced a delay in cockpit when initiating recording. When the recording button on the hand controller was pressed the video on screen would freeze for 5-10 seconds and resume recording. To fix this issue, windows 10 was installed on the 7510 in combination with the startech video capture device.

The combination of windows 10 with Dell 7510 computer and Startech capture device solved all known issues including video tearing and recording delay.

Because of windows 10 update, cockpit 2018 will be installed for cockpit to work correctly with windows 10. As an immediate fix, Dell 7510 with windows 10, cockpit 2018 and startech capture device will be released. Long term solution will be the replacement of the Dell 7510 with 7520 computers.

Instruction have been created to update Pro4 panels with startech capture device and update Dell 7510 with windows 10. Due to the physical size of the startech, some mounting modifications will be necessary to fix the Startech capture device to the Pro4 accessory board.

4.0 Disposition of Material

PPI will collect all DVD Makers PN XE-004A in existing inventory and ship back to Videoray. All existing assemblies in stock 51001, 51002, 51003 that include PN XE-004A will be shipped as is to Videoray. Any future assemblies as of the release of this ECO should include PN 71055 Startech video capture device.

Videoray inventory will keep all DVD Makers PN XE-004A in stock for incoming repairs to be used at the discretion of the repairs and production department heads.

5.0 Action Items

Action	Department	Acknowledgement Initials
Create part numbers and revision in Epicor	PE	CH

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• Approve First Article on pro4 panel with startech Video Capture Device		
• Reference Rev A for all added part numbers stated above • Find location in inventory for added parts stated above • Keep DVD Makers in stock, do not replace location with Startech video capture device	Inventory	SL
• Notify Pro4 panel assemblers of the changes stated above. • Provide applicable documentation to Pro4 panel assemblers including assembly instructions • Order Pro4 panel First Article with Startech from assemblers for Engineering approval • Purchase Startech for production use on rework • Request PPI test panels for updates • Arrange disposition of material with PPI for PN XE-004A	Purchasing	NS
• Update all Pro4 and IP65 panels in stock to include Startech video capture device • Update all computers in stock with Windows 10 OS	Production	KK
• Do not replace video capture device if there are no video issues • Install Startech Video capture device if video issues in general are present • Install Windows 10 and Cockpit 2018 with any Startech video capture device upgrade • Recommend Startech update only on systems with Dell 7510 computers. Any systems with older computers will be treated on a case by case basis • Use of DVD Maker will be on a case by case basis	Repairs	JK
• Check for proper Startech Video Capture Device driver installation	QC	DO

6.0 Modified / Referenced Documents:

Document	Current Revision
52362-IP65 Rated Pro4 Panel Assembly Instructions	A
Startech Video Capture Device Assembly	A

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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
12/20/2017		Initial release	CH
1/17/2018	6.0	Corrected Startech Video Capture Device Assembly in related documents	AEG
1/22/2018	2.0	Designate obsolete p/n (51002,51003) Add currently active p/n (51010, 51011)	AEG