

ECN - ENGINEERING CHANGE NOTIFICATION

For Maritime Multi Display (MMD) - Series 1

Thursday, March 01, 2007

INTRODUCTION

Dear Customers,

We would like to inform you about some technical changes to our products, driven by the necessity to substitute the current Video Chipset. The Chipsets on the Video Controller used to date are approaching their **End of Life** and will no longer be available in the future.

We are therefore proceeding to update the interface electronics with the latest and state-of-the-art Chipset solutions. We will be initiating the **re-design** of the following products on a general level to accommodate the above, and will be doing so with two further objectives:

- a) Improving the Quality level further.
- b) Making the product more cost effective.

AFFECTED PRODUCTS

Maritime Multi Displays (MMD) models:

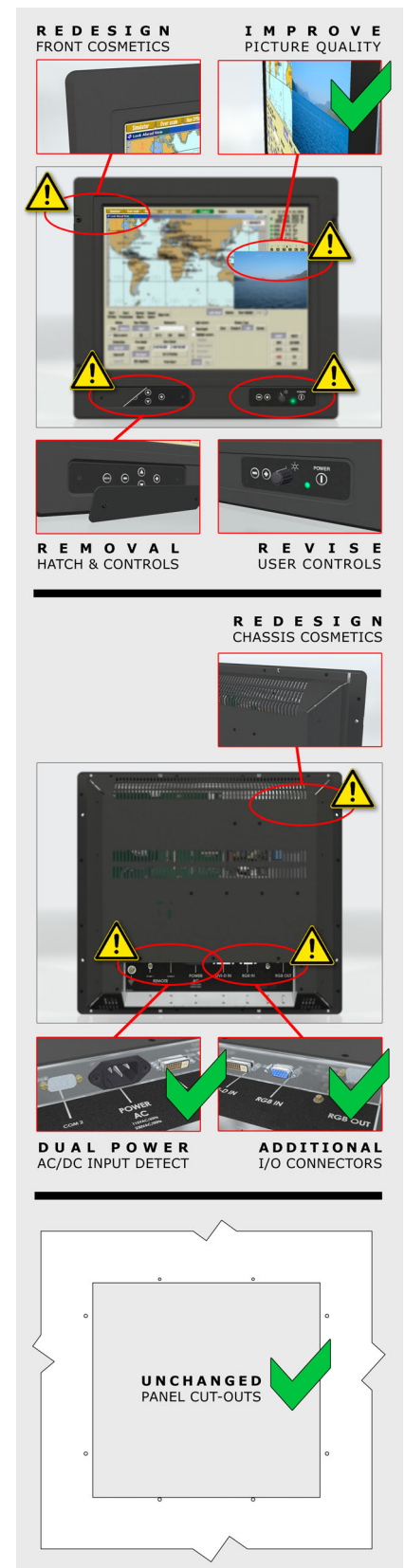
JH 15T05 xxx
JH 17T02 xxx
JH 19T02 xxx
JH 20T03 xxx
JH 20T06 xxx
JH 23T02 xxx

Including all variations and Custom OEM products.

HIGHLIGHTS

- Increased reliability through fewer modules and cable connections
- Additional signal inputs
- Enhanced picture quality
- New dual power solution
- Switched AC power out as standard
- IP22 Desk mount, IP66 Console mount
- Keep form-fit-function

...turn page for details...



DETAILS

- **New EVX (Embedded Video Controller X-tended):**
 - 1 x DVI-I and 1 x RGB (= dual RGB input)
- **New Power Supply, dual input, AC and DC:**
 - Auto detects AC or DC (priority on AC when both connected)
- **Voltage ranges according to IEC60945:**
 - AC 115 V - 230 V (standard IEC inlet connector)
 - DC 24V, nominal (screw terminal)
- **Mechanical Changes - Front Side:**
 - New, "all in one" user control with brightness control, OSD access & Buzzer
 - Removal of lower left hatch and user control
 - Cosmetic changes
- **Mechanical Changes - Rear Side:**
 - Added connectors, see signal inputs
 - Cosmetic changes
- **Input / Output Connectors:**
 - IEC inlet
 - IEC outlet (new)
 - DC screw terminal
 - 2 x COM ports (new)
 - 1 x RGB in
 - 1 x RGB out (new)
 - 1 x DVI-I in
 - 1 x USB (touch screen) (new)
- **Optical Technology for enhanced picture quality.**
 - Bonding can be applied as standard.

PART NUMBER CHANGES

In general the 2-digit version number **0x** will be changed to **1x**.

Example:

Old	New
JH 19T 02 MMD	JH 19T 12 MMD
JH 23T 02 MMD	JH 23T 12 MMD

Customer Specific solutions and part numbers are / will be specified individually.

TIME SCHEDULE

Final Last time purchase for existing displays : **25th of May 2007**
Production start of new designed products : **1st of August 2007**

This re-design will consequently lead to new part numbers, new IEC60945 and IACS E10 testing including Type Approval certificates and new ECDIS testing.

Your sales contact is available and will be happy to answer any questions that you may have.

Implemented by: _____ Read & Understood by: _____



Frode Grindheim
Technical Director
Jakob Hatteland Display AS

(Your name and Company)