C-Nav™

C-NaviGator III
Mounting Reference Guide

Revision 3

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Release Notice

This is the March 29 release of the C-NaviGator III Mounting Reference Guide.

Revision History

Revision	Date	Description	Author
3	3/29/2018	Updated to new web domain	L.Cortes
2	7/19/2013	Added additional mounting options	J. Hauschildt
1	3/1/2013	Added Panel Cut Out Guide & cleaning Instructions	J. Hauschildt
0	2/14/2013	Initial Release	J. Hauschildt

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Table of Contents

C-NaviGator III 1
Mounting Reference Guide 1
Table of Contents 4
List of Figures 4
Manual Organization 6
Conventions 6
Section 1 – Overview 7
Introduction 7
Section 2 – Installation and Mounting Instructions 8
Installation and Mounting 8
General Mounting Instructions 9
Section 3- Mounting Options 11
OPTION #1 11
OPTION #2 11
OPTION #3 12
OPTION #4 12
Section 4- Cleaning Instructions 15
“Dry” (Clean Screen) Method 15
“Wet” Method 15
Section 5- Physical Dimensions 17
Section 6- Panel Cut-Out Guide 18
Section 7 - Mechanical Drawings 19

List of Figures

Figure 1: C-NaviGator III Control and Display Unit 7
Figure 2: Flat Screen Table Stand for C-NaviGator III/ CHIFSB0108BLK 11
Figure 3: C-NaviGator III 19” Rack Mounting Plate (P/N CNVJH 13TAP STD-A1) 11
Figure 4: Tilting VESA Wall Mount for C-NaviGator III (P/N PEEST630) 12
Figure 5: RAM VESA Plate KIT (P/N CNV-D-246U-IN1KIT1) 12
Figure 6: RAM 100/75 VESA mount Plate (P/N CNVRAM-D-246U-IN1) 13

Figure 7: RAM 3.68" Diameter Base (P/N CNVRAM-D-202U-IN1) 13
Figure 8: RAM Double Ball Adapter (P/N CNVRAM-D-230U) 13
Figure 9: RAM Double Socket Arm, Short (P/N CNVRAM-D-201U-C) 13
Figure 10: RAM Double Socket Arm, Regular (P/N RAM-D-201U) 14
Figure 11: RAM Double Socket Arm, Long (P/N CNVRAM-D-201U-E) 14
Figure 12: RAM 11" x 3" Additional Heavy Duty Base (P/N CNVRAM-D-111B-IN1U) 14
Figure 13: Spacer, washer, screw set (P/N CNVRAM-RPR-WASHS2) 14
Figure 14: Screen Cleaning Mode 15

Manual Organization

This section describes how the manual is laid out. It gives one or two sentence descriptions about each major section.

Section 1 – Overview (Page 7) gives a brief overview of the purpose of this document.

Section 2 – Installation and Mounting Instructions (Page 8) contains installation and mounting instructions.

Section 3- Mounting Options (Page 11) provides two mounting options.

Section 4- Cleaning Instructions (Page 15) Provides instructions on how to clean the front glass of the C-NaviGator III.

Section 5- Physical Dimensions (Page 17) contains the physical dimensions of the C-NaviGator III.

Section 6- Panel Cut-Out Guide (Page 18), include a guide and drawing on how to cut out a panel for the C-NaviGator III.

Section 7 - Mechanical Drawings (Page 19) has mechanical drawings.

Conventions

Arial font is used for plain text in this document.

Arial Italic font is used to show user settings

Arial Blue font is used for cross-references.

Arial Blue Underline font is used for hyperlinks.

Important notes are displayed in shaded text boxes

> ***Please note***:
> Such note box displays important information which should not be ignored.

Section 1 – Overview

Introduction

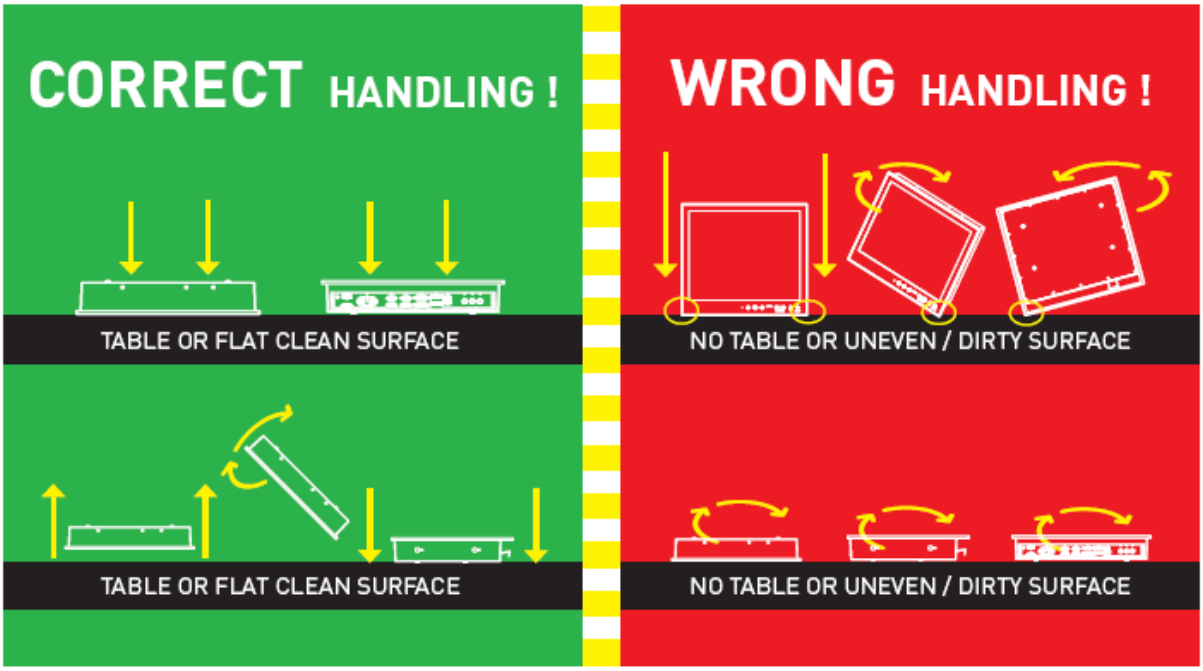
This guide is used as a reference for installing and mounting the C-NaviGator III control and display unit. It also shows the mounting options for the C-NaviGator

III, as well as their dimensions. For further information, contact C-Nav support (cnavsupport@oceaneering.com).

Figure 1: C-NaviGator III Control and Display Unit

Section 2 – Installation and Mounting Instructions

ATTENTION:
To prevent damage to chassis corners and / or breaking the front glass, please review the illustrations below before handling the units!



Installation and Mounting

1. Most of our products are intended for various methods of installation or mounting (panel mounting, bracket mounting, ceiling/wall, console mounting etc.); for details, please see the relevant mechanical drawings.
2. Adequate ventilation is a necessary prerequisite for the life of the product. The air inlet and outlet openings must definitely be kept clear; coverings which restrict ventilation are not permissible.
3. Generally, do not install the unit in a horizontal position (lying down), as this will cause heat to build up inside the unit which will damage the LCD

Panel. To prevent this problem we recommend installing the unit in a vertical position (±30 degrees) to improve the airflow through the unit.

4. To further improve the cooling of the unit we recommend installing Cooling Fans underneath blowing upwards into the unit air inlet. This may be required in high temperature applications and also when there is reason to expect temperature problems due to a non-optimal way of mounting.
5. Exposure to extreme direct sunlight can cause a considerable increase in the temperature of the unit and might under certain circumstances lead to over-heating. This point should already be taken into consideration when the bridge equipment is being planned (sun shades, distance from the windows, ventilation, etc.)
6. Space necessary for ventilation, for cable inlets, for the operating procedures and for maintenance, must be provided.
7. If the push buttons of the product are not illuminated, an external, dimmable illumination (IEC 60945 Ed. 4, 4.2.2.3, e.g. Goose neck light) is required for navigational use. The illumination shall be dazzle-free and adjustable to extinction.
8. Information about necessary pull-relievers for cables is indicated in the Physical Connection section of this manual. Attention must be paid to this information so that cable breaks will not occur, e.g. during service work.
9. Do not paint the product. The surface treatment influences on the excess heat transfer. Painting, labels, or other surface treatments that differ from the factory default might cause overheating.
10. Expose to heavy vibration and acoustic noise might under certain circumstances affect functionality and expected lifetime. This must be considered during system assembly and installation. Mounting position must carefully be selected to avoid any exposure of amplified vibration.

General Mounting Instructions

1. The useful life of the C-NaviGator III generally decreases with increasing ambient temperature; it is therefore advisable to install such units in air-conditioned rooms. If there are no such facilities these rooms must at least be dry, adequately ventilated, and kept at a suitable temperature in order to prevent the formation of condensation inside the display unit.
2. Cooling of the C-NaviGator III takes place via the surface of the casing. The cooling must not be impaired by partial covering of the unit or by installation of the unit in a confined cabinet.
3. In the area of the wheel house, the distance of the C-NaviGator III from the magnetic standard compass or the magnetic steering compass must not be less than the permitted magnetic protection distance. This distance is measured from the center of the magnetic system of the compass to the nearest point on the C-NaviGator III. The compass safe distance of the C-

NaviGator III is at least 80cm (31.5”) from a standard compass; at least 45cm (18”) from a steering compass.

4. When selecting the site of a display unit, the maximum cable lengths have to be considered.
5. When a product is being installed, the surface base or bulkhead must be checked to ensure that it is flat in order to avoid twisting of the unit when the fixing screws are tightened, because such twisting would impair mechanical functions. Any unevenness should be compensated for by means of spacing-washers.
6. The grounding screws of the units must be connected to the body of the ship (ground); the wire used should have a cross sectional area of at least 6 mm^2 (10AWG).
7. Transportation damage, even if apparently insignificant at first glance, must immediately be examined and be reported to the freight carrier. The moment of setting-to-work of the equipment is too late, not only for reporting the damage but also for the supply of replacements.
8. The classification is only valid for approved mounting brackets provided by C & C Technologies. The unit shall be mounted stand-alone without any devices or loose parts placed at or nearby the unit. Any other type of mounting might require test and re-classification.

Section 3- Mounting Options

This section shows the four mounting options for the C-NaviGator III.

OPTION #1

Flat Screen Table Stand (P/N CNVCHIFSB018BLK) (See Fig. 2)

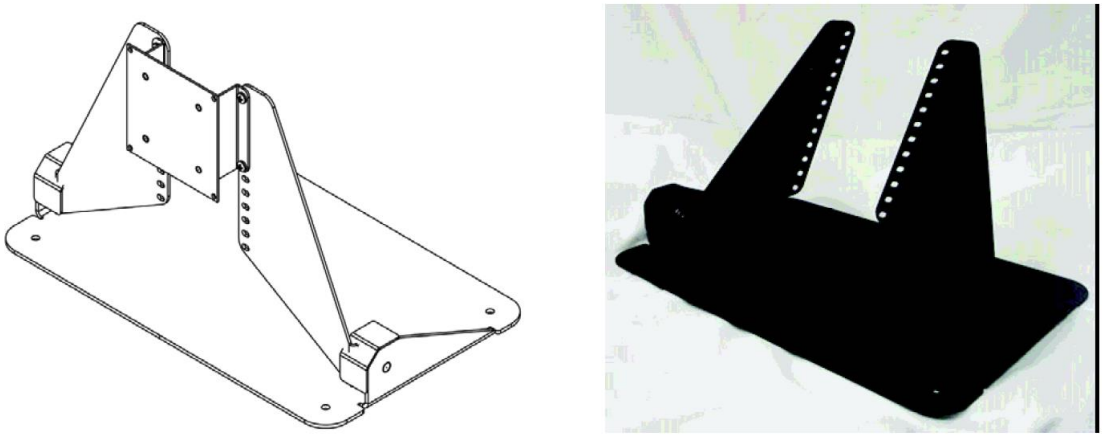


Figure 2: Flat Screen Table Stand for C-NaviGator III/ CHIFSB0108BLK

OPTION #2

C-NaviGator III 19” Rack Mounting Plate (P/N CNVJH 13TAP STD-A1) (See Fig. 3)

Figure 3: C-NaviGator III 19” Rack Mounting Plate (P/N CNVJH 13TAP STD-A1)

OPTION #3

Tilting VESA Wall Mount for C-NaviGator III (P/N PEEST630) (See Fig. 4)

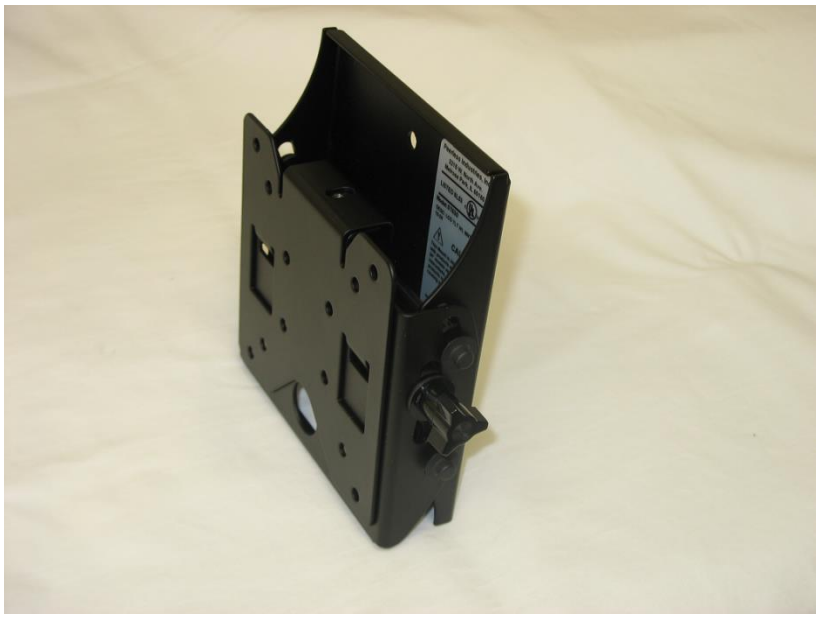


Figure 4: Tilting VESA Wall Mount for C-NaviGator III (P/N PEEST630)

OPTION #4

RAM VESA Ball Mounts- allows the C-NaviGator III to be mounted to the ceiling, wall or desktop with fully adjustable positioning. Here are the following RAM VESA Ball Mount parts and accessories (Figures 5 through 13):

- RAM VESA Plate KIT (P/N RAM-D-246U-IN1 KIT) (Fig. 5). Comes with plate, screws, washers and bushings.

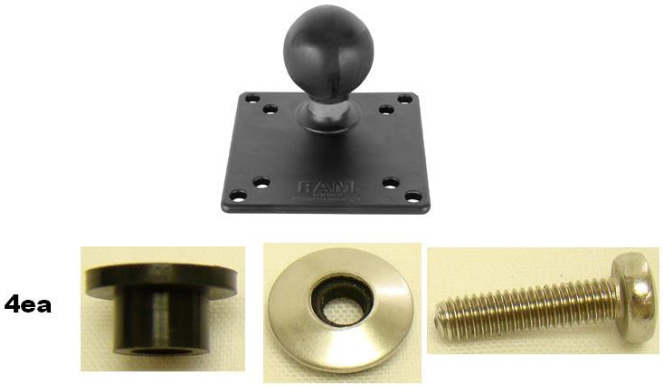


Figure 5: RAM VESA Plate KIT (P/N CNV-D-246U-IN1KIT1)

- RAM VESA mount Plate (P/N CNVRAM-D-246U-IN1) (See Fig. 6)

Figure 6: RAM 100/75 VESA mount Plate (P/N CNVRAM-D-246U-IN1)

- RAM 3.68" Diameter Base (P/N CNVRAM-D-202U-IN1) (See Fig. 7)

Figure 7: RAM 3.68" Diameter Base (P/N CNVRAM-D-202U-IN1)

- RAM Double Ball Adapter (P/N RAM RAM-D-230U) (See Fig. 8)

Figure 8: RAM Double Ball Adapter (P/N CNVRAM-D-230U)

- RAM Double Socket Arm, Short (P/N CNVRAM-D-201U-C) (See Fig. 9)

Figure 9: RAM Double Socket Arm, Short (P/N CNVRAM-D-201U-C)

- RAM Double Socket Arm, Regular (P/N CNVRAM-D-201U) (See Fig. 10)

Figure 10: RAM Double Socket Arm, Regular (P/N RAM-D-201U)

- RAM Double Socket Arm, Long (P/N CNVRAM-D-201U-E) (See Fig. 11)

Figure 11: RAM Double Socket Arm, Long (P/N CNVRAM-D-201U-E)

- RAM 11" x 3" Additional Heavy Duty Base (P/N CNVRAM-D-111B-IN1U) (See Fig. 12)

Figure 12: RAM 11" x 3" Additional Heavy Duty Base (P/N CNVRAM-D-111B-IN1U)

- Spacer, washer, screw set (P/N CNVRAM-RPR-WASHS2) (See Fig. 13)

Figure 13: Spacer, washer, screw set (P/N CNVRAM-RPR-WASHS2)

Section 4- Cleaning Instructions

The front surface of the display glass has a special coating which can be scratched and damaged with improper cleaning. There are two methods to cleaning the front of the C-NaviGator III. There is the “Dry” (Clean Screen) method and the “Wet” method.

“Dry” (Clean Screen) Method

The “Dry” (Clean Screen) Method is performed when the C-NaviGator III is on. The user can select *Clean Screen* in *General Settings.* By choosing this option (See Fig.13), the display will ignore input from the touch screen for 10 seconds. The user can wipe the screen using a dry soft fabric cloth. As a promotion, C-Nav provides a soft fabric cloth with every C-NaviGator III.

Figure 14: Screen Cleaning Mode

“Wet” Method

Please note:
The C-NaviGator III must be powered down before using this method

It is recommended to use only >90% pure Isopropyl alcohol (Isopropanol) and a soft fabric cloth.

“Wet” Method Instructions:

1) Turn off the C-NaviGator III and allow it to cool down prior to cleaning.

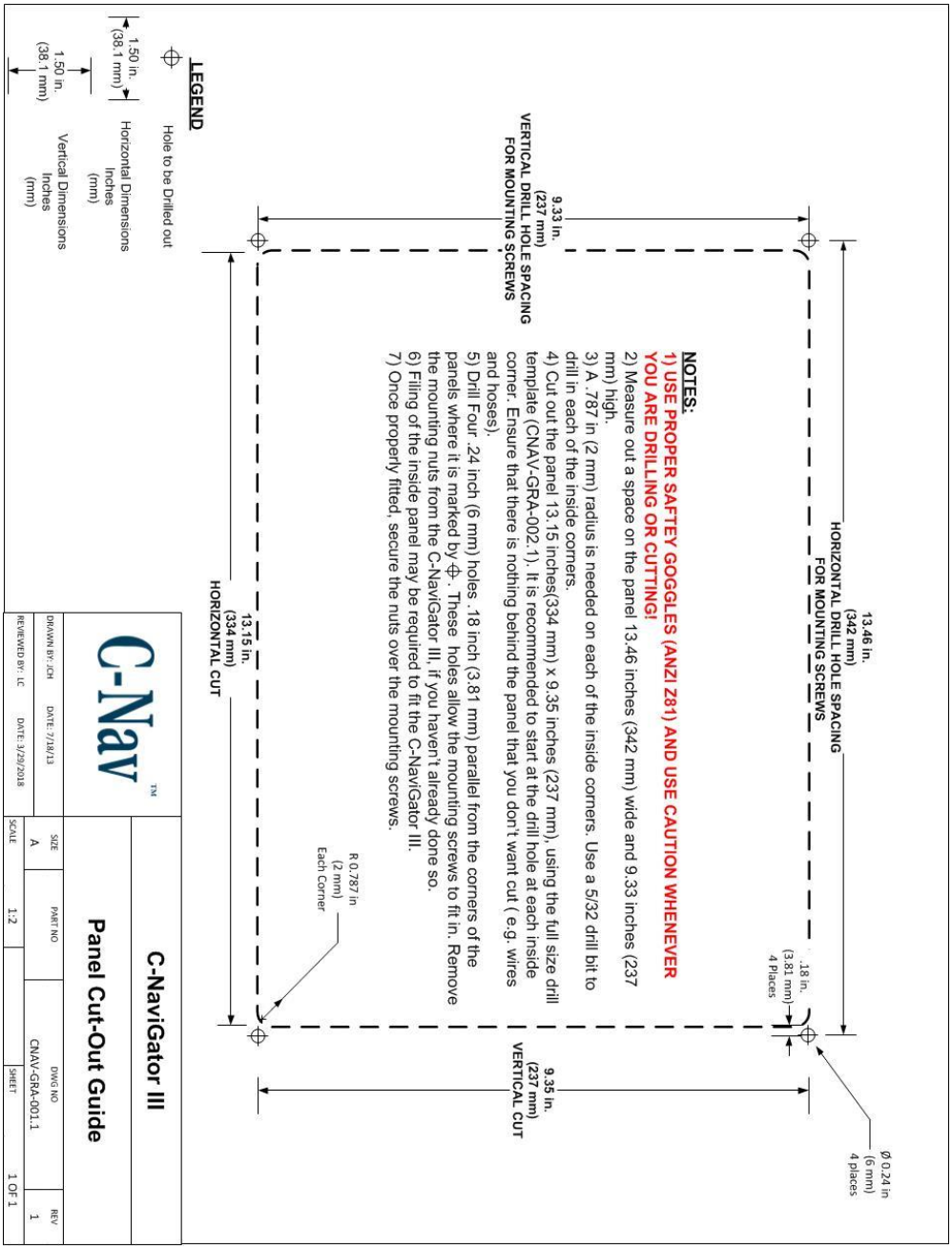
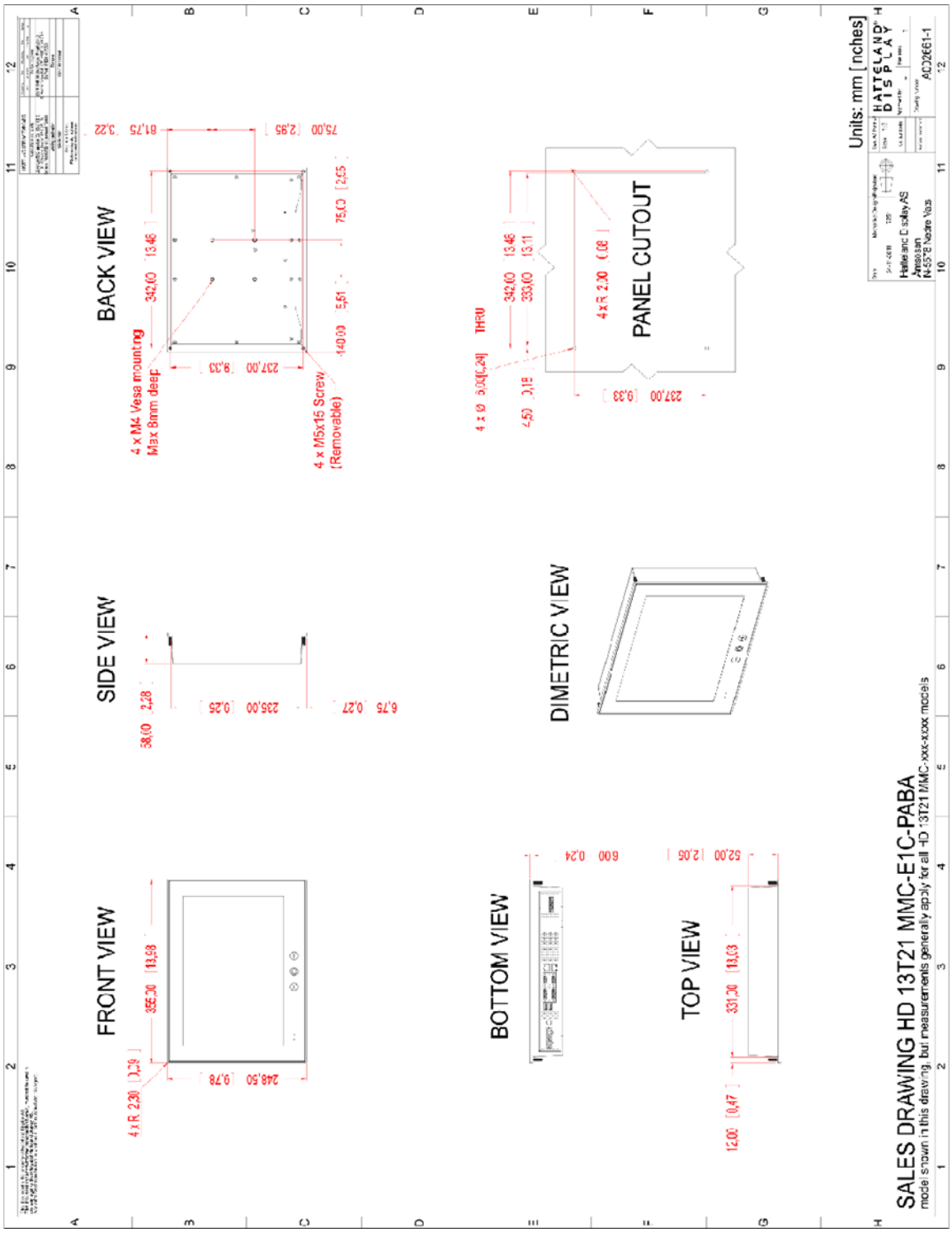
2) Fold a cloth into a small pad, dampen the cloth with alcohol, and wipe the glass from one edge to the other in one direction with one continuous motion.
3) The soft cloth & alcohol wipe is recommended to clean fingerprints and oils off the glass.
4) Liquid stains (e.g. water, coffee, tea & soda) should be first cleaned off the glass with a soft fabric cloth wet with water, immediately followed with wiping using an alcohol wetted cloth

Section 5- Physical Dimensions

- 355.00 (W) x 248.50 (H) x 58.00 (D) mm
- 13.98” (W) x 9.78” (H) x 2.28” (D)
- 4 x M4 VESA mounting 75x75mm, Max 8mm deep
- Built-in Console mounting 4 x M5x15mm screws
- Weight: 4.4kg / 9.7lbs

Section 6- Panel Cut-Out Guide

A link to the drawing below can be found HERE. A full sized cut out template for the C-NaviGator III can be found HERE (Requires print out on a sheet of ANSI size B (11" x17") paper).



Section 7 - Mechanical Drawings