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# AMP2-16V LCD Replacement Instructions

**Document Part Number: 823250, Revision B**

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LOUDNESS

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## **Printing**

This document is intended to be printed on a duplex printer, such that the copy appears on both sides of each page. This ensures that all new chapters start on a right-facing page.

This document looks best when printed on a color printer since some images may be indistinct when printed on a black and white printer.

## **Last Update**

June 24, 2013

# AMP2-16V Series LCD Replacement Instructions

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## Introduction

### Overview

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This document details the instructions for replacing existing OLED or LCD displays and their accompanying bezel with a new bezel containing LCDs.

**Important:** You must verify that the AMP2-16V software is at version V3.31 (or later). Refer to the “How Do I Find Software Version Information” section of Chapter 3 of the AMP2-16V Series User Guide (821116). If the software is at a lower version number, you **must** upgrade it as a first step before disassembling it. The latest software update is always available on the Wohler Technologies website at [www.wohler.com](http://www.wohler.com). Refer to the AMP2-16V Series User Guide (821116) and the `readme.txt` (part of the down loaded files) for installation instructions.

**Important:** You will need to remove the AMP2-16V from the rack to perform this procedure since you will need to remove the top cover to allow internal access.

### Topics

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# Safety Instructions

1. Read, keep, and follow all of these instructions; heed all warnings.
2. Do not use this equipment near water.
3. Use only a dry cloth to clean the equipment.
4. Do not block any ventilation openings.
5. Do not install near any heat source such as a radiator, heat register, amplifier, or stove.
6. Do not expose the equipment to rain or moisture.
7. Do not attempt to plug the unit into a two-blade outlet (with only two prongs of equal width).

**IMPORTANT:** By design, this monitor will only plug into a three-prong outlet for your safety. If the plug does not fit into your outlet, contact an electrician to replace the obsolete outlet.

8. Protect the power cord from being walked on or pinched, particularly at plug's source on the equipment and at the socket.
9. Use only the attachments/accessories specified by the manufacturer.
10. Unplug the equipment during lightning storms or when unused for long periods of time.
11. Refer all servicing to qualified service personnel. Servicing will be required under all of the following conditions:
  - The equipment has been damaged in any way, such as when the power-supply cord or plug is damaged.
  - Liquid had been spilled or objects have fallen onto the equipment.
  - The equipment has been exposed to rain or moisture.
  - The equipment does not operate normally.
  - The equipment has been dropped.

# Requirements

For this section, you will need the following:

## Tools and Supplies

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- #1 Phillips screw driver
- 3/32" Allen wrench

## Software

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- AMP2-16V Software Upgrade package V3.31 or later.

**Important:** You must upgrade the AMP2-16V-SERIES monitor to software version V3.31 (or later) before performing this procedure. [See the AMP2-16V-Series User Guide (821116) and the readme.txt (part of the down loaded files) for installation instructions.] You must install the software upgrade and it must be functioning correctly before you can successfully replace the LCD display bezel. The software update is available on the Wohler Technologies website at [www.wohler.com](http://www.wohler.com).

## Parts

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The 980051 AMP2-16V SERIES LCD UPGRADE REPLACEMENT KIT is shown in [Figure 1-1 on Page 4](#) and contains the items listed in [Table 1-1 on Page 4](#).

## AMP2-16V Series LCD Replacement Instructions

### Requirements

**Figure 1-1**      **980051 LCD Replacement Kit as Received**



**Table 1-1**      **Supplied Items:**

Part Number	Description	Qty
240020	11 MM KNOB	9
240050	11 MM BLACK KNOB CAP	9
240051	15 MM KNOB	1
240052	15 MM BLUE KNOB CAP	1
240044	BUTTON CAP	3
281838	NYLON WASHER 0.35" OD	3
919384	VIDEO/GRAPHICS PCA	1
720725	LCD BEZEL ASSEMBLY	1
281837	4-40 X 3/8" SOCKET HEAD SCREW	6

**Note:** Some, but not all, of the screws in the AMP2-16V will need to be retained. This is explained in the instructions of the Procedure which follows.

# Procedure

1. **Before disconnecting power, verify that the AMP2-16V software is at version 3.31 or higher.** Update it if necessary as described in the Software section above. **This replacement procedure will not be successful if you do not do this.**
2. Disconnect the power cord and all other rear panel connections.
3. Remove the AMP2-16V monitor from the rack mounting cabinet or enclosure. Place the monitor on a solid surface with enough space for you to access both the front and rear panels easily.
4. Remove the 10 knobs from the bezel by pulling them straight off and discard them. Refer to [Figure 1-2](#).

**Figure 1-2 Knob Removal**



5. Using a 3/32" Allen wrench or equivalent tool, remove the six Socket Head Screws from the Front Bezel, and discard them. Refer to [Figure 1-3 on Page 6](#).

## AMP2-16V Series LCD Replacement Instructions

### Procedure

**Figure 1-3 Bezel Screw Removal.**



6. Using a #1 Phillips screwdriver, remove the 20 screws retaining the top cover. Some of the screws are on the top and some are on the left and right sides. **Save all of these screws for use in reassembling the unit.** Lift off the top cover.
7. Carefully lift the locking tab and unplug the ribbon cable from connector J1 of PCA 919311 on the back of the front panel assembly as shown in [Figure 1-4](#). There will be 1, 2, or 3 ribbon cables, depending upon the number of SDI modules that the unit is equipped with. Unplug each of them.

**Figure 1-4 Unplugging the Ribbon Cable(s)**





## AMP2-16V Series LCD Replacement Instructions Procedure

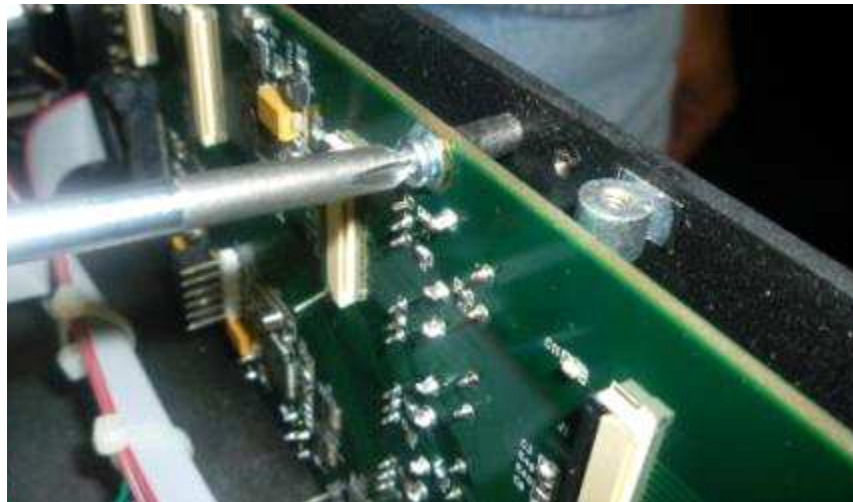
8. Open the locking/removal tabs on each side of connector J6 on the front panel PCA. Carefully unplug the ribbon cable from it, as shown in [Figure 1-5](#).

**Figure 1-5 Unplugging the Flat Cable from J6**



9. Remove the seven Philips screws retaining the front panel PCA P/N: 919311, as shown in [Figure 1-6](#) and **save these screws for later use.**

**Figure 1-6 Removing the PCA Screws**



10. Remove the 919311 PCA from the front panel as shown in [Figure 1-7 on Page 8](#). You may discard this PCA in a ecologically correct manner. It will no longer be used. This completes the disassembly process.

## AMP2-16V Series LCD Replacement Instructions

### Procedure

**Figure 1–7      Removing the PCA**



11. [Figure 1–8](#) shows the 980051 Replacement kit after it has been unwrapped.

**Figure 1–8      Unwrapped LCD Replacement kit.**



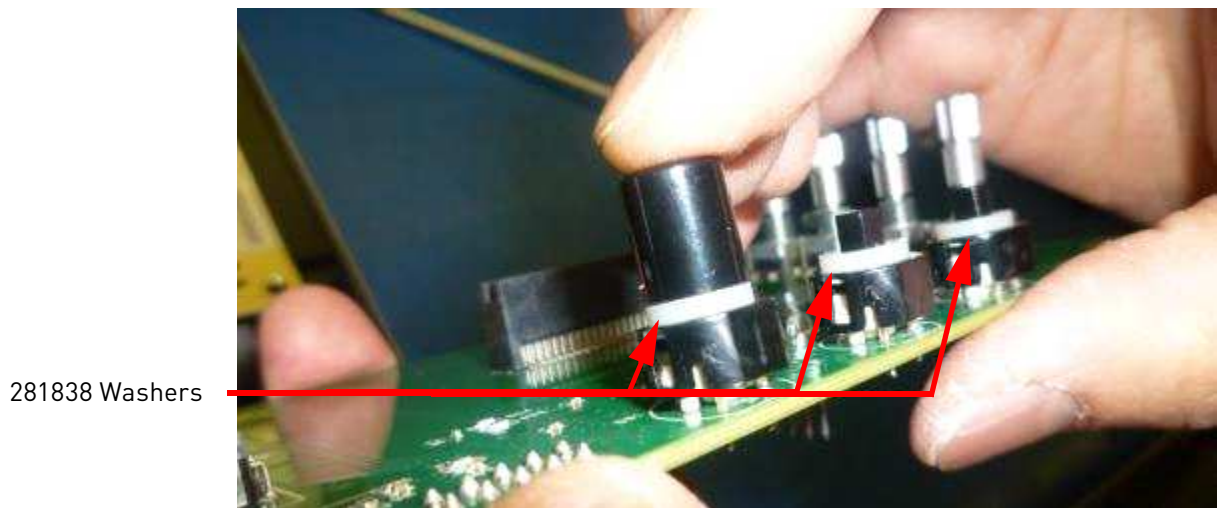
12. In the 980051 kit, the 919384 PCA is sandwiched onto the 720725 LCD Bezel Assembly. Remove this PCA from the LCD Bezel Assembly. Refer to [Figure 1–9 on Page 9](#). Discard the black foam that was used as padding between the PCA and the LCD Bezel Assembly.

**Figure 1–9 Removing the 919384 PCA**



13. Place the 919384 PCA on a flat surface and install the three supplied 281838 washers onto the buttons as shown in [Figure 1–10](#). Then press the supplied 240044 button caps onto the button shafts.

**Figure 1–10 Installing the Button Caps and Washers**



14. Place the new 919384 PCA into rear of Front Panel assembly exactly where the 919311 PCA was. Refer to [Figure 1–11 on Page 10](#).



## AMP2-16V Series LCD Replacement Instructions

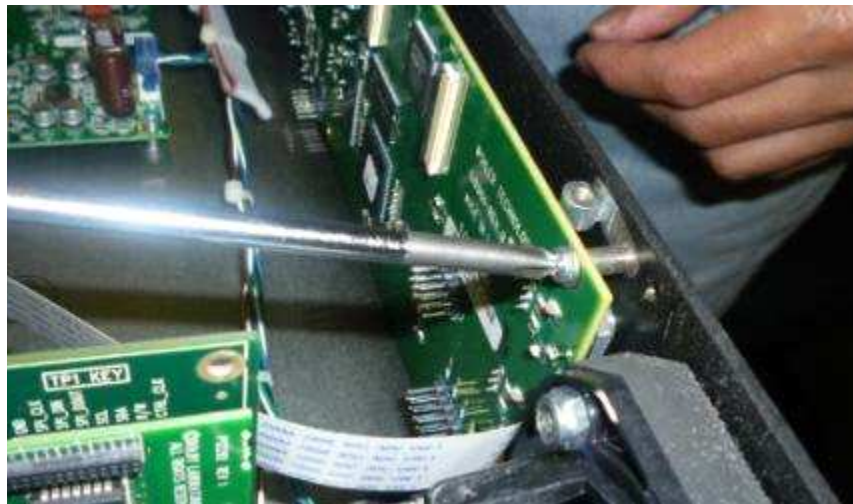
### Procedure

**Figure 1-11 Place PCA into Front Panel**



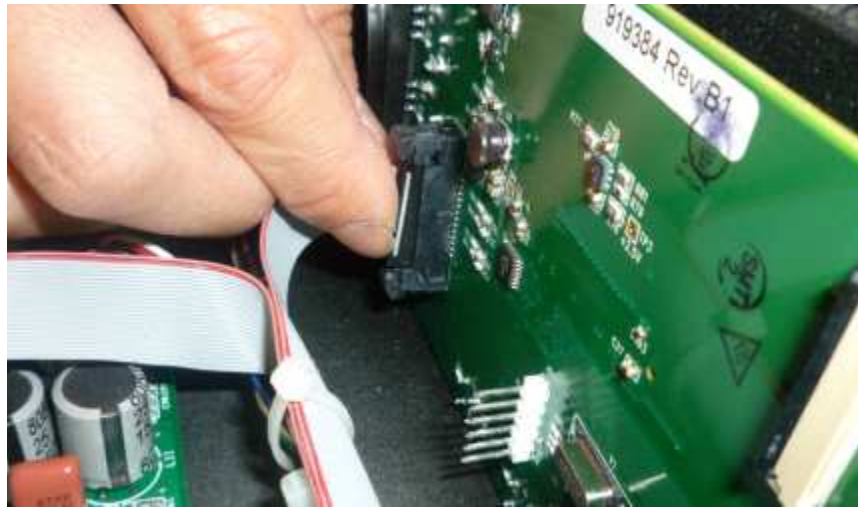
15. Secure the 919384 PCA with the seven silver-colored screws that were removed in Step 9. Refer to [Figure 1-12](#).

**Figure 1-12 Secure the New PCA**



16. Press the flat cable to connector J6 on the 919384 PCA, as shown in [Figure 1-13 on Page 11](#). Make sure that the locking tabs engage.

**Figure 1-13 Connect Flat Cable to J6**



17. Plug the ribbon cable into connector J1 as shown in [Figure 1-14](#) and press locking tab into place. Make sure the ribbon cable is not twisted. If there is more than one SDI module in the unit, reconnect the ribbon cable from each module to connectors J2 and J3. Note that J4 and J5 are not used. The mating connectors are directly forward from each SDI module.

**Figure 1-14 Connecting the Ribbon Cable(s).**



18. Make sure to lock the tabs on the remaining connectors J2-J5, even though there are no cables attached to them, to keep the tabs from rattling.

## AMP2-16V Series LCD Replacement Instructions

### Procedure

19. Install the 720725 LCD Bezel Assembly as shown in [Figure 1-15](#). It will plug into the 919384 PCA as you put it in place.

**Figure 1-15      Install the LCD Bezel Assembly**



20. Secure the LCD Bezel Assembly using the six supplied 281837 black socket head 4-40 x 3/8" screws as shown in [Figure 1-16](#). Use a 3/32" Allen wrench or equivalent tool to tighten screws.

**Figure 1-16      Fasten the LCB Bezel Assembly**



21. Press the supplied 15 mm blue knob cap into the 15 mm black knob. Press the knob onto the Volume Control location on the Bezel Assembly as shown in [Figure 1-17 on Page 13](#).



**Figure 1-17 Install the Blue Capped Knob**



22. Press the nine supplied 11 mm black knob caps into the nine 15 mm black knobs. Press each of these knobs onto the remaining control locations on the Bezel Assembly as shown in [Figure 1-18](#).

**Figure 1-18 Install the Black Capped Knobs**

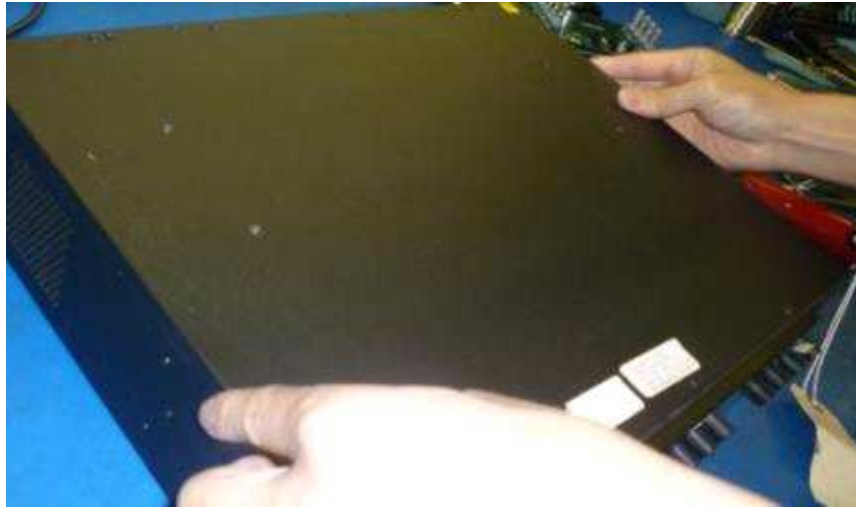


23. Place the cover onto the unit as shown in [on Page 14](#). It fits only one way. Secure the top with the fourteen 4-40 x 3/16" Philips flat head screws removed in Step 6. There may be two different lengths of round head screws. Install the four shorter ones in the middle and back of the sides. Install the two longer ones in the front of the sides. To assist in alignment, install all of the screws loosely before tightening any of them.

## AMP2-16V Series LCD Replacement Instructions

### Procedure

**Figure 1–19 Top Cover Placement**



24. Reinstall in the rack enclosure (if applicable) and reconnect the back panel wiring and power cord. Ascertain that the AMP2-16V is now functional with the new displays.

**Important** This concludes the LCD replacement procedure.