Datalux Corporation
12.1” Monitor Product

Models LMV-XG12-xxx & LMV-XG12i-xxx

Operation Manual

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Overview

The Datalux LMV-XG12 orLMV-XG12i 12.1" monitor product is specifically engineered for demanding environments, including embedded equipment and industrial environments, as well as automobile and public safety. The end-user has unique control over the presentation of images in the monitor and how it is used.

Features

The Datalux LMV-XG12 or LMV-XG12i 12.1" monitor includes the following hardware features:

- Full RoHS-compliance for all components and finished assembly. (Conforms to EU Directive 2002/95/EC.)
- Overall dimensions are 12.05 [306] x 9.83 [250] x 1.85 [47].
- 12.1" diagonal viewing area [30.7cm].
- Fully metallic die-cast aluminum enclosure.
- Protected LCD module.
- Designed for minimum IP54 rating; IP67 possible with dead front.
- Locking connector for power connection (5.5mm O.D., 2.5mm power pin, 12mm deep).
- 75MM VESA mounting hole pattern compliance.
- Accepts DC power from 8-18VDC with special accommodation for vehicular voltage (transients, etc.)
- Speaker with special W.L. Gore membrane to prevent moisture ingress (speaker on USB models).
- One USB-2.0 device connector for non-serial (RS232) versions.

Front of LMV-XG12 or LMV-XG12i

Back of LMV-XG12 or LMV-XG12i

Options and Accessories

Several options and accessories are available for the LMV-XG12 or LMV-XG12i monitor product:

- Serial version (no USB port available).
- Capacitive or Resistive 5-wire touch screen.
- Dead front to increase moisture ingress resistance.

Contact Datalux for other available options.

First Time Operation

Unpack and verify all parts

The unit should be unpacked carefully and checked against the shipping information. The shipping container and the packing material should be saved in case the unit needs to be returned.

The contents of the shipment includes the following:

- Datalux LMV-XG12 monitor with touchscreen (Datalux Part # LMV-XG12-xxx)
- Datalux LMV-XG12I monitor with touchscreen (Datalux Part # LMV-XG12i-xxx)
- Fused DC wiring harness - Standard (Datalux Part # 333-352)
- Service and Support Manual (Datalux Part # 382-053)
- VGA Cable with ferrites (Datalux Part # 333-415)
- USB + power integrated cable (M12) (Datalux Part # 333-370)
- Serial + power integrated cable (M12) (Datalux Part # 333-373)

Datalux recommends your test of the unit be done promptly since the warranty period begins upon shipment from Datalux. In the event that you encounter problems or if the unit was damaged in shipment or you have been sent the wrong configuration, please refer to the Service and Support manual that was sent with this unit.

Connect your monitor to a power supply

Each 12.1" monitor product is supplied with a wiring harness for the connecting the LMV-XG12/LMV-XG12i to your own power supply. This is a fused two-wire lead with .25" quick disconnects. (Ref. Datalux P/N 333-352).

The Datalux LMV-XG12/LMV-XG12i requires a regulated 8-18 volt input supply. If using an AC supply, it is recommended that you use only a Datalux power supply. This power supply connects to the LMV-XG12/LMV-XG12i through a power jack located through the pigtail at the end of the 333-370 USB + power cable (or 333-373, in the case of a serial cable version).

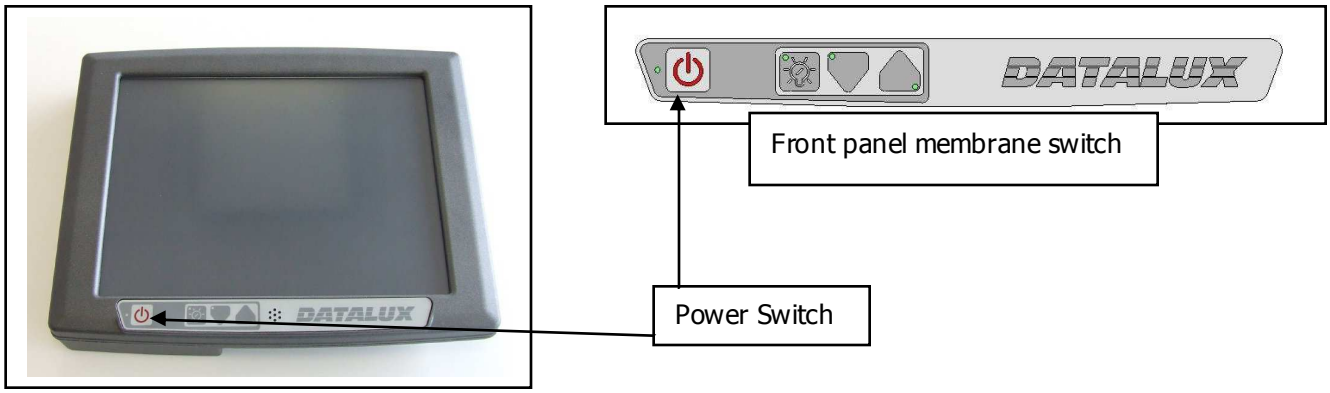
There is an optional AC/DC power supply. This supply is capable of delivering 12 volts @4.17 amps. (Ref. Datalux P/N UNI-POWER-12V1).

In either case, the barrel plug is inserted into the mating jack connector and the locking ring is screwed down securely.

Turn your monitor on

When power is applied, the Power LED on the membrane switch illuminates.

- Press the power switch to activate the monitor.



Hardware Subsystems

Power

Input power (nominal 12Volts) is provided at the Power connector. The 5.5mm O.D. x 2.5mm I.D. x 12mm length connector can be connected to locking type connectors.

USB Port (when USB version selected)

This unit has a built-in USB 2.0 hub with installed USB Audio and USB Touch screen. One USB 2.0 device connection is accessible from the back of the unit for connection to another hub, a keyboard, thumbdrive, etc.

For maximum speed, USB 2.0 operation, connect the USB device directly to port. If an additional USB hub is used, make sure the hub has its own power supply and that it is USB2.0 compliant.

Some USB devices require more power than supplied by a single USB port (0.5A, maximum). If so, these devices must be self-powered.

Serial Version

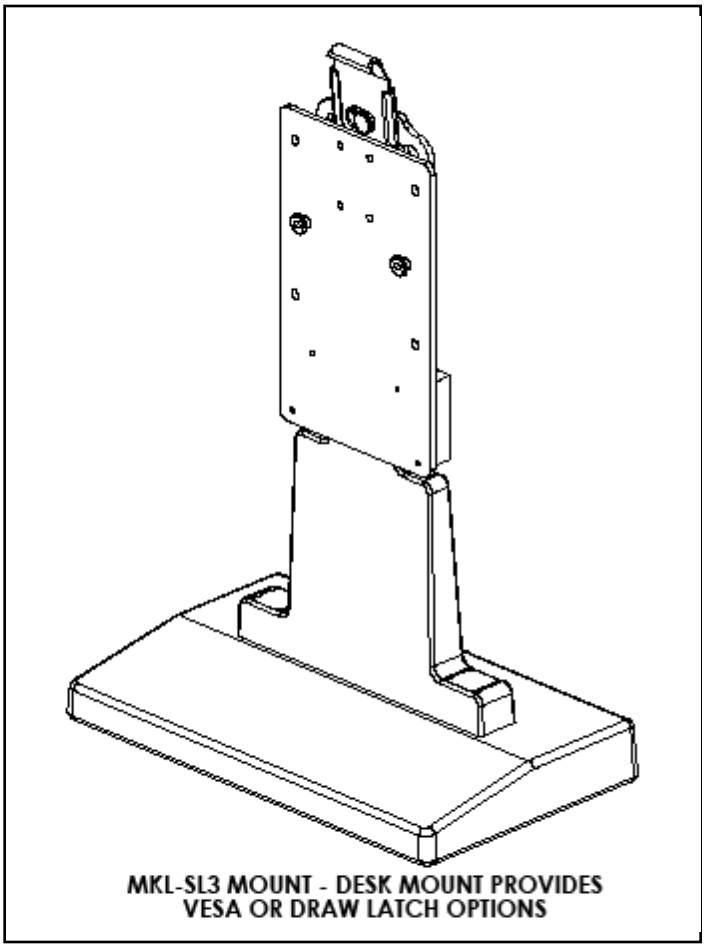
Some older video monitor applications may require a serial version of the LMV-XG12 or LMV-XG12i monitor. This is available through Datalux Sales. If the serial version is ordered, the USB functionality is not available.

Mounting

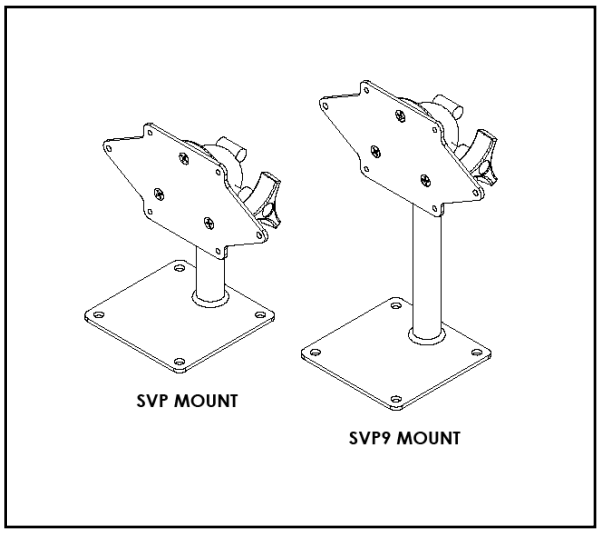
LMV-XG12 Mounting Options

The LMV-XG12 or LMV-XG12i may be used in several configurations. First it may be used as a free-standing monitor on a desktop or other work surfaces. This may be mounted using Datalux P/N MKL-SL3. It may also be mounted to stands SVP and SVP9.

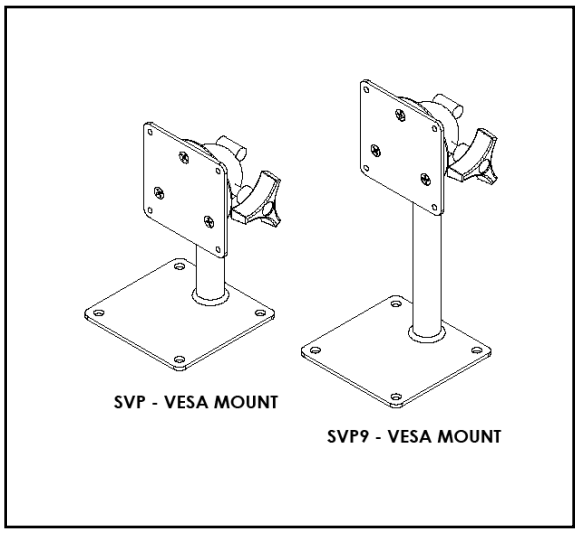
Datalux can also provide any custom mounting solution required. Contact Datalux Sales for more information.



MKL-SL3 MOUNT - DESK MOUNT PROVIDES VESA OR DRAW LATCH OPTIONS



For older LMV10xxx product and/or latest LMV-XG12/XG10 product



For LMV-XG12/XG10 product only *

*May purchase square plate of SVP-VESA mount only. Will retro-fit onto any base unit.

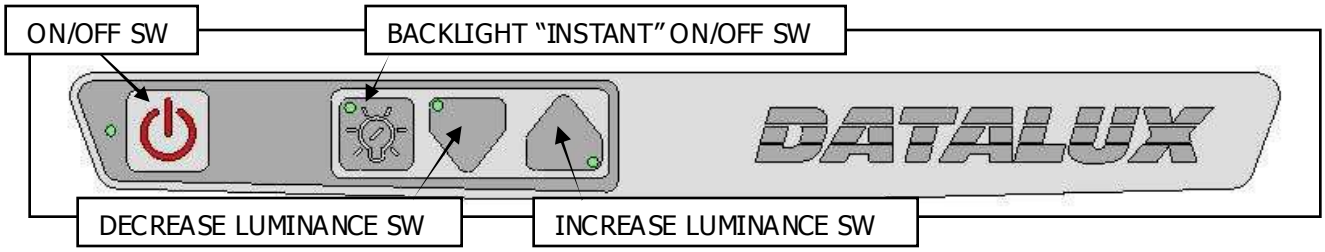
Operation

The Datalux LMV-XG12/LMV-XG12i 12.1" monitors offer some unique configuration options to make them well-suited for whatever their application. The front of the unit, including the separation of front and back enclosure is IP54 rated. A configuration may be ordered to provide a dead front in place of the standard membrane switch configuration. This brings the front of the unit up to a rating of IP67.

Front Panel Controls

The standard operation is through the membrane switch.

Membrane switch function label.



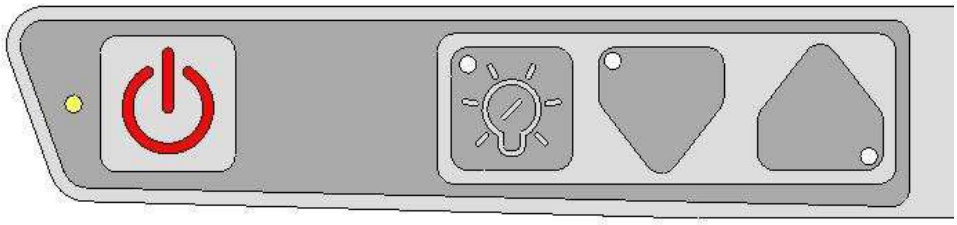
NOTE: The power LED will flash if an input voltage of less than 8VDC is noted.

NOTE: When power is applied, the auto-on feature of the LMV-XG12/LMV-XG12i will turn the unit on if it was on when power was removed. Therefore, if an enclosed unit is on, it will remain on whenever power is available - if the power glitches or turns off, you will not have to turn the LMV-XG12/LMV-XG12i on.

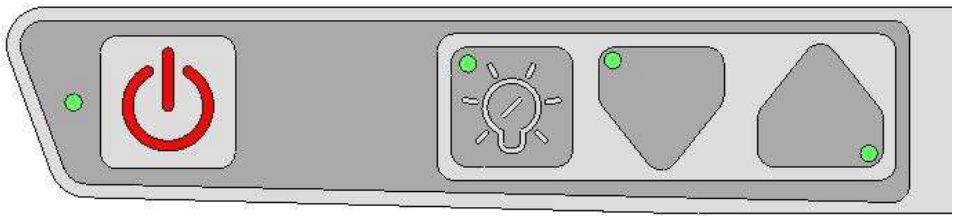
Once the LMV-XG12/LMV-XG12i is turned off, it will remain off until the power button is pressed again.

The following are indicators of state:

Power Applied, Unit Turned Off (Power LED is Amber).

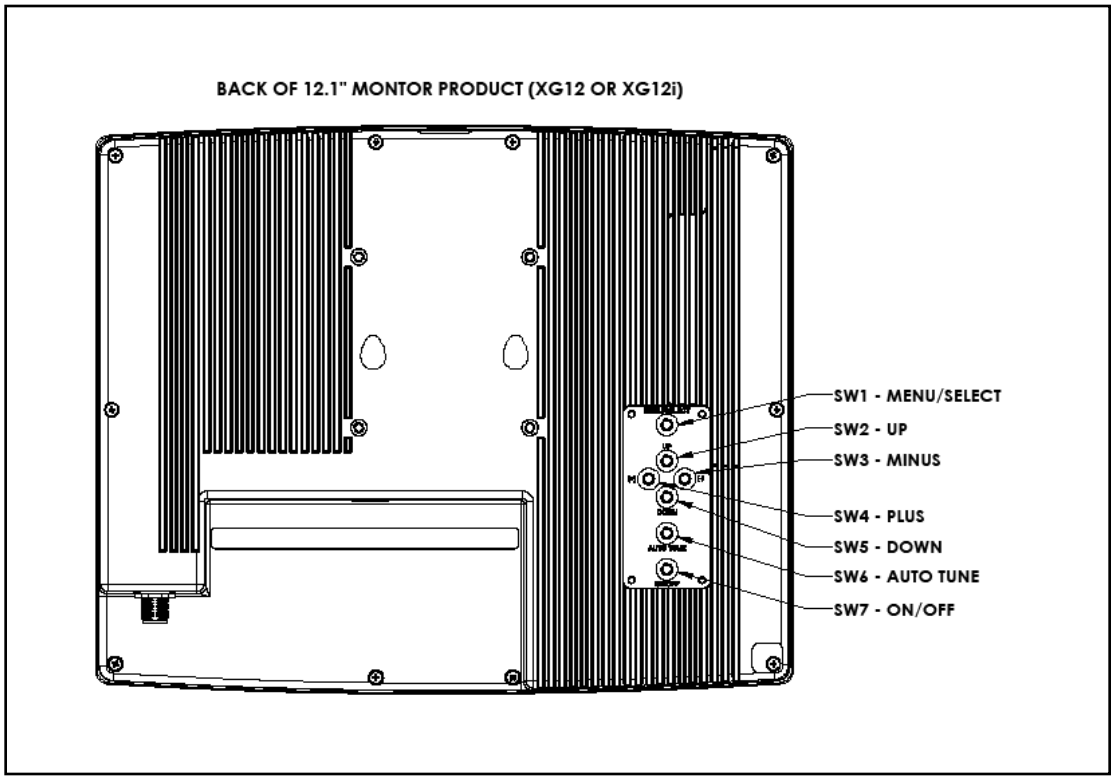


Power On with Video Signal
NOTE: LED brightness will be reduced along with the brightness of the LCD backlight.



Rear of Unit Controls

These are the controls for the rear of the unit, when a dead front is used.



NOTE: There are "hot keys" for luminance control through the rear control area. These keys are "MINUS" and "PLUS". There is feedback for the action of the these switches by LEDs of the front panel, when present. This "hot key" function does NOT pull up the OSD window.

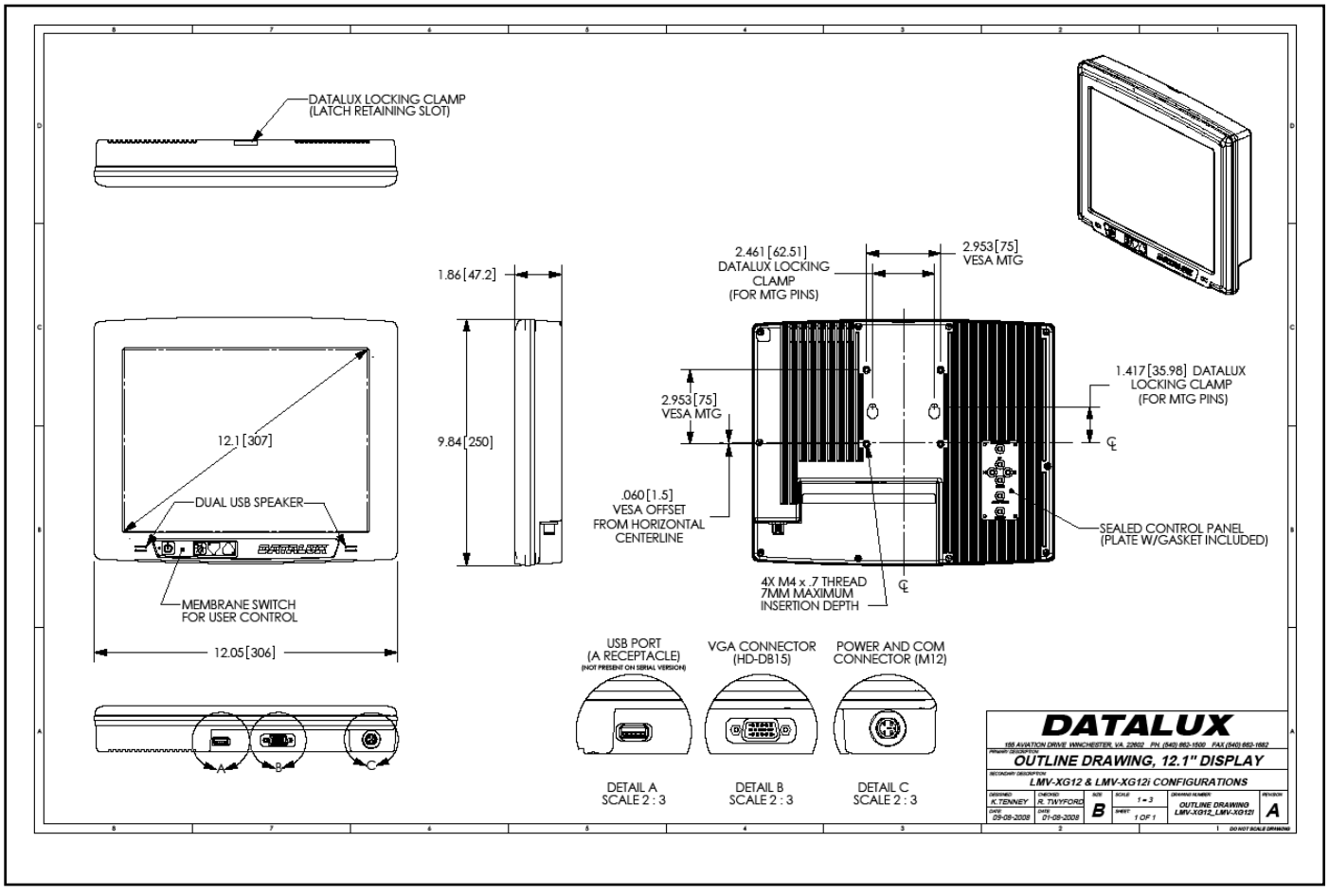
Touchscreen Operation

Touchscreen control

If chosen as an option, the LMV-XG12 or LMV-XG12i, have a high quality 5-wire touchscreen. The monitor has a fully integrated USB touchscreen controller built in. This controller makes use of drivers contained on the CD-ROM that shipped with the monitor. The drivers are also available at the Datalux website.

The touchscreen was fully tested and calibrated before being shipped. The touchscreen drivers allow renewed calibration in the field, should that be necessary.

Outline Drawing



Available Modes and Resolutions

LMV-XG12 or LMV-XG12i Version

LMV-XG12I SUPPORTED RESOLUTIONS		
MODE	RESOLUTION	VERTICAL REFRESH RATE (Hz)
VGA	640x480	60
	640x480	72
	640x480	75
SVGA	800x600	56
	800x600	60
	800x600	72
	800x600	75
XGA	1024x768	60
	1024x768	70
	1024x768	75
EGA	640x350	70
DOS	720x400	70

Service and Support

The Service and Support Manual that came with your LMV-XG12 or LMV-XG12i monitor explains how to get help should a problem arise with your Datalux product. An explanation of the Warranty as well as Datalux's Standard Terms and Conditions are also contained in the Service and Support Manual. If you cannot find the manual, it is available from our website at www.datalux.com

Appendix A - Technical Specifications

LMV-XG12 / LMV-XG12i – 12.1" monitor product

Agency Compliance (Pending)
- All components and finished assembly are RoHS-compliant per EU Directive 2002/95/EC.

Mechanical
- Overall dimensions are 12.05 [306] x 9.83 [250] x 1.85 [47].
- Weight is 6.2lbs [2.8kg] nominal.
- Fully metallic die-cast aluminum enclosure.
- Front membrane switch with indicator LEDs for easy control.
- VESA 75mm mount compatible.
- Locking power connector (5.5mm O.D., 2.5mm power pin, 12mm deep).

Environmental
- Sealed glass or touchscreen front (fragile LCD is protected) (Min. IP54; IP67 front with dead front).
- Alternate rear access panel when dead front panel is desired.

Optical (LCD)
- 12.1" diagonal [30.7cm] monitor area.
- 4:3 aspect ratio.
- LMV-XG12i version is XGA resolution (1024 x 768 pixels).
- LMV-XG12i luminance without touchscreen (protective AR glass) to be 900cd/m^2
- LMV-XG12 version is XGA resolution (1024 x 768 pixels).
- LMV-XG12 luminance without touchscreen (protective AR glass) to be 350cd/m^2
- Touchscreen option is resistive or capacitive (superior 5-wire construction only).

Electrical
- DC power input 8-18V (can accept nom. 12V power from vehicle).
- Serial option available for legacy integration (RS-232 protocol).
- Fully capable USB hub included when USB option is chosen (must connect to host).

Optional AC/DC Power supply

LMV-XG12 Power Supply Specifications

Input voltage: 100-120 volts or 200-240 volts (IEC320-C14 inlet)
Input frequency: 50 – 60 Hz
Input current: 2.0 Amps
Output voltage: 12Volts DC
Output current available: 4.17 Amps
Locking power connector (5.5mm O.D., 2.5mm power pin, 12mm deep), center positive.

P/N 382-167, Rev. B
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