MONITOR/DVR
QUICK START GUIDE

Table of Content

Start Up

Turn Laval system on. Monitor should sense the video signal and power on. The boot up will take about 1 minute before displaying the video image. If the video screen is not full screen, for example, a quad screen is displayed pressing anywhere on the video shown will make it full screen. Pressing anywhere on the screen will bring up the quad screen display again. To bring up the Menu Bar, press the bottom center of the screen.

| Record | Event Record | Playback | Screenshot | Volume | Setup | Power Off |

Menu Key
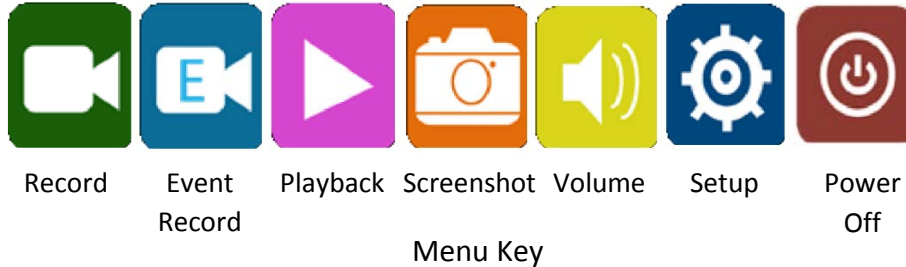
Warning Do Not Reset the Monitor. If a Reset has Occurred, Contact Laval Underground Surveys at (559) 251-1396

Recording

To start or stop recording press the Record Icon on the screen Menu, the Record Icon in the top right will change to red when recording along with the Record LED will light up. Additionally, pressing the REC button on the remote will function the same way. If a MicroSD card is not installed, the monitor will display a notification stating there is no "TF card". Use the keys provided to open the MicroSD Housing and install a MicroSD card. Note every monitor is supplied with one MicroSD card.

Record

Event Record, on the screen Menu or EREC on the remote will record password-protected videos for a preset length of time. An Event Recording cannot be stopped once it has started. Pressing the Event Record a second time before the event time is up will signal to start Recording (regular) after the event is over. If a MicroSD card is not installed, the monitor will display a notification stating there is no "TF card".

Event Record

Playback and Screenshots

Play back allows videos and screen shots to be viewed after they are recorded. Select the date on the calendar of when the files were created and view Recordings, Event Recordings, and Screenshots using the tabs at the top of the screen. Videos and screenshots can be viewed, protected, or deleted. Protected and Event Recordings require a password input, the default password is 123456. If a MicroSD card is not installed, the monitor will display a notification stating there is no "TF card".

Playback

Pressing the Screenshot Icon or CAP on the remote will save a picture of the screen as a .jpg file. The screenshots can be viewed using the Playback function prior to removing the MicroSD card.

Screenshot

Viewing Files

After a survey is complete the MicroSD card can be moved to a computer to view and transfer videos. The videos will be saved into a folder titled with the date of recording; the Screenshots will be in individual folders. Note the monitor will create 4 files for each recording numbered 1-4; the file ending with 3 is the actual video footage and the others will not play. Screenshots will be .jpeg files and the videos should be .avi files, see Setup > System > File Type if these settings were changed.

Setup

Setup Icon brings up a Menu where setting can be changed for various functions. The menu is divided into Record, Display, Storage, and System. Note that the time and date stamp cannot be turned off.

Record

Setup

Power On Rec. default is off, if turned on the recording will start when the monitor is powered on.

Cyclic Rec. default is on, this setting allows old recordings to be overwritten if the MicroSD card is full. If turned off the monitor will stop recording when the card is full.

Trig4 Rec. default is off.

Motion Rec. default is off.

Channel Record default is Front.

Event Rec. Time default is 15 seconds, this sets the Event Record video length to 15, 30, or 60 seconds.

Motion Sensitivity default is Medium.

G-sensor Sensitivity default is High.

Video Quality default is High.

Display

Camera (Camera display setting) default is brightness 64, contrast 64, saturation 64, hue 0 for all channels

Channel Name default is Front and display on. The name can be changed to a maximum of 8 characters.

Menu (Menu Bar setting) default is 30s. The Menu Bar will display for 5, 10, 20 or 30 seconds before moving off screen.

Menu Lock Setup sets the password. The default is 123456.

Backlight default is high. The Backlight can be set to Auto change, Low, or High.

Power On default is Front only. This setting can change the screen that is displayed when the monitor is powered on.

Screen On default is Always and 1 min. Screen can be set to display for 30s, 1min, 5min, 10min, or Always on before going to sleep mode. The Battery can be set to 1, 2, 3, or 5 minutes on after the Screen goes into sleep mode or when the monitor is powered off. Note the monitor will be in sleep mode before shutting down every time the monitor is turned off, for the Battery On set amount of time.

Video System default is set by Laval to match the Laval System. If the setting does not match the video system the monitor will display a message. If the notification appears the video system must be turned off to change this setting, the screen will be locked otherwise.

Storage

Storage shows the available memory on the installed cards and allows cards to be formatted to remove all files on the MicroSD card(s). Note formatting a card will remove protected files.

System

Language default is English and is the first option in the top left corner.

User Name default is blank. The User Name can be set to a maximum 16 characters that will display under the Date-Time stamp on the screen. The Vehicle Number can be set to a maximum of 8 characters that will display after the User Name on screen. Both the User Name and Vehicle Number will be shown on recorded videos and screenshots but will not show on screen.

Date-Time default is set to Pacific Standard Time. Time is a 24 hour clock for example 2pm will display as 14. The Date-Time stamp cannot be removed from the screen, videos, or screenshots.

File Type default is AVI. The file type can be changed to MSV, however, it is not compatible with most video players.

Reset will reset settings such as the File Type and Video Format. **This is not recommended**.

1. Mute
2. Record ON/OFF
3. Volume Down
4. Screenshot
5. Screen Mode/Channel
6. HDMI Channel
7. Power
8. Volume Up
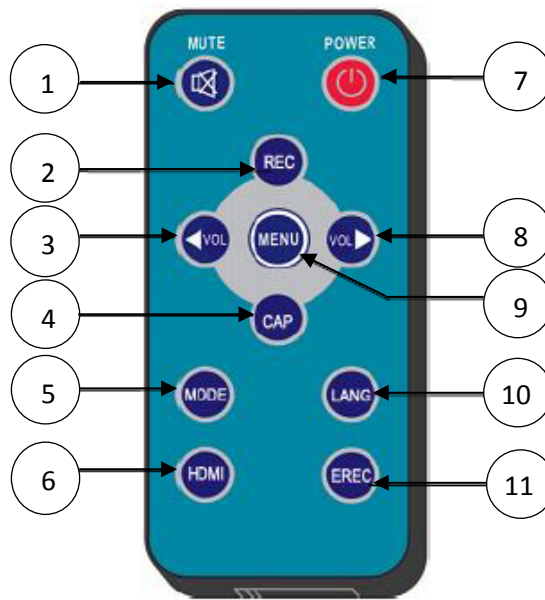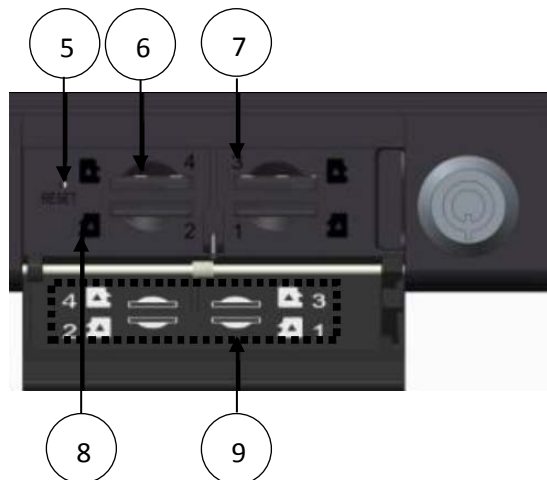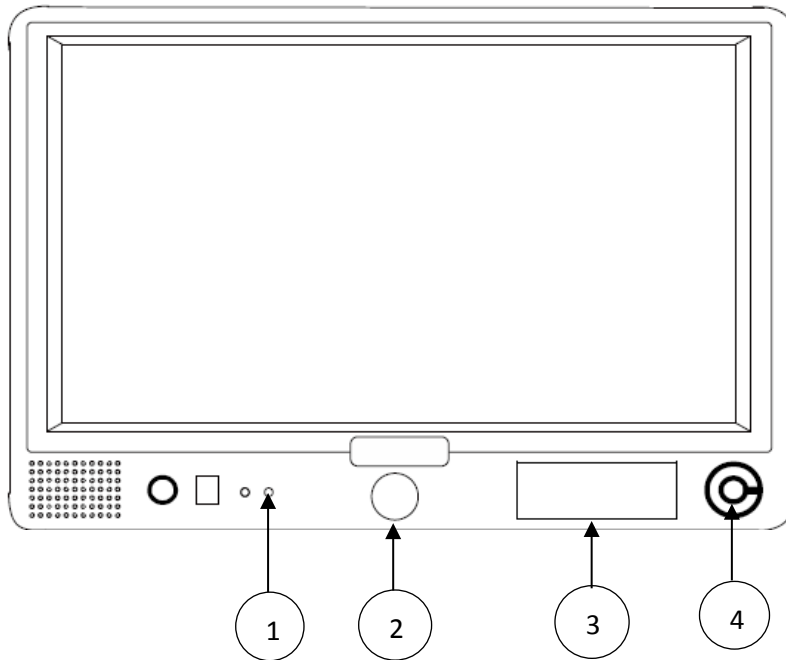9. Menu Bar
10. Language
11. Event Record

Figure 1

1. Recording Indicator
2. Power Button with Color Indicator
3. MicroSD Housing Door
4. Housing Door Lock
5. Emergency Reset
6. MicroSD Slot
7. Slot Number Indicator
8. Orientation Indicator
9. Slot Guide
10. Housing Door Keys

Figure 2

WARRANTY

LAVAL UNDERGROUND SURVEYS warrants all products and materials manufactured by it and described herein to be free from defects in workmanship and materials for a period of one year from date of shipment, with the exceptions of lights, fuses, connectors, plugs, and the CCD chip.

Any article not manufactured by LAVAL UNDERGROUND SURVEYS and described herein is sold with only such warranties as are made by the manufacturer thereof. No other warranties expressed or implied, of merchantability, fitness for a particular purpose, or otherwise, are made by LAVAL UNDERGROUND SURVEYS other than those set out in the immediately preceding paragraphs.

All repairs shall be made by LAVAL UNDERGROUND SURVEYS at its factory or as otherwise authorized by LAVAL UNDERGROUND SURVEYS in writing. All unauthorized repairs will void warranties.

Warranty is void on any equipment that is abused or mishandled by customer.

2476 NORTH BUNDY DR.   FRESNO, CA 93727 USA
      TEL: (559) 251.1396 | FAX: (559) 251.2096
      EMAIL: INFO@LAVALUNDERGROUND.COM
      WEBSITE: WWW.LAVALUNDERGROUND.COM

Page 5