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## I. Security notes

The unit is only suitable for indoor use. The heat being generated in the unit has to be removed via air circulation. Therefore, the circulation vents in the housings must not be covered with any objects. Do not insert or drop anything into the air vents! This could result in a short-circuit. If the unit is used for purposes other than originally intended, if it is connected in the wrong way or not repaired by authorized skilled personnel, there is no liability for possible damage. **Do not** use any fluid, cleaning chemicals or abrasive materials. If the unit is to be scraped, then take it to the local recycling plant for disposal.

We do not accept any liability for the following: a) If the unit is used for purposes other than originally intended. B) If The unit is wrongly connected. c) If the unit is not repaired by a qualified authorized engineer.

## II. Application range

The LCD colour monitors LSM-413 active matrix technology offer a sharp and high contrast display. It can be universally used for Surveillance systems, In-Vehicle Reverse monitoring systems or for Multimedia applications. The additional Audio input enable sound reception via Headphones.

## SAFETY INSTRUCTION

1. Never push objects or spill any liquid of any kind into the unit.
2. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel, if any misuse mentioned above happened or any accident dropping, miss-operations occurred.
3. **WARNING: DO NOT USE THE CHARGER TO POWER THE UNIT. Serious damage will occur which will not be covered by the warranty.**

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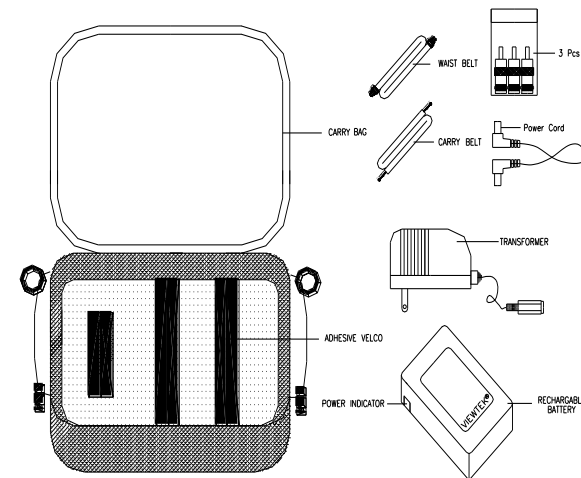


Fig. 3 Contents

#### iv. Technical Data

LCD technology: TFT active matrix

Display size: 4"

Active area: 82.08 x 61.56mm

Colour system: NTSC or PAL

Sync: Horizontal: 15, 625 Hz, Vertical: 50 Hz.

Resolution: 960 x 240, 230,400 Pixels

Audio level: 1V/10k

Video Input: 1Vpp 75 Ω

Dimensions (Bag) :190.0 (W) x 130.0 (H) x 60 (D) mm

Weight: 560gms

#### I. CONTENTS:

1. 4" LCD monitor
2. Carry Bag and Belts
3. 1300mA Energy Saving Li-ion Rechargeable Battery
4. Three velcos, two for monitor and one for battery.
5. 30 cm power cord.
6. 15V DC Charger. This Charger should only be used to charge the battery NOT to supply the unit. If used on the unit Serious damage may occur which will not be covered by the warranty.
7. RCA to BNC adapter 4 pcs.
8. Spacer Protector

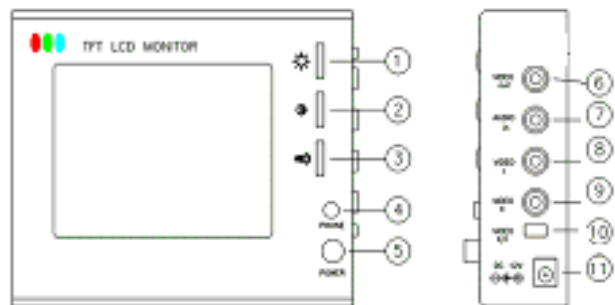
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#### II . Power Operating and Connections

1. Please charge the Li-ion Battery for 8-10 hours before using it for the first time.
2. Please stick two velcos to the rear of monitor. Then place the monitor in the correct position in the bag. This will then fasten the monitor to the bag will restrict any movement when the bag lid is open.
3. Connect the Li-Ion battery to monitor via the DC power cord (Supplied).

**CAUTION:** When using headphones do not adjust the volume to a high position.

Start at the lowest setting and gradually raise it so it can be heard. The human ear gets accustomed to the volume setting, so do not further increase the volume after getting used to it. Permanent high volumes can seriously damage your hearing.



**Fig. 1 Connectors and Controls**

### III. LCD Monitor Operation and Connections:

#### i. Controls and Connectors on LCD monitor:

- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. Brightness control            | 2. Colour Control              |
| 3. Volume control for headphones | 4. Audio output for headphones |
| 5. Main Power switch             | 6. Video output                |
| 7. Audio input                   | 8. Video 1 Input               |
| 9. Video 2 Input                 | 10. Video Input 1 or 2 Switch  |
| 11. 12V DC Power Input           |                                |

#### ii.. Connections

- 1) Connect the video source to the Video input 1(8) or Video 2(9) Inputs.
- 2) Select the correct Video input using the Video Input switch (10).
- 3) Connect the Audio source to the audio input (7).
- 4) Connect an electronically regulated 12V power supply  
The positive pole must be connected to the centre contact.
- 5) Connect headphones to the Audio Output if required.

#### iii. Operation

- 1) Switch on the monitor using the Main Power switch (5).
- 2) Adjust the brightness control (1) and Colour (2) in order to obtain an image as clear and sharp as possible.
- 3) Select the correct Video Input.
- 4) Adjust the volume control of the headphones to the desired level.

### Energy Saving Li-ion Rechargeable Battery

- 1.) To charge the battery simply push the on-off switch to the "on" position and let the Li-ion battery charge for **8~10** hours the first time being used. Once it is fully charged or after using it, please make sure to push the switch to the "off" position in order to avoid any power drain.
- 2.) Please note the green LED light is the input power indicator which informs you power from the charger is on, it does not connect to battery "In" and "Out". Note that when the green light is on, this doesn't mean the battery is charging. You will still have to push the switch "on" in order to charge or use



**Fig. 2 Energy Saving Li-ion Rechargeable Battery**

# PSI Displays Ltd

[www.psidisplays.co.uk](http://www.psidisplays.co.uk)

## 4" Color LCD Service Monitor Kit

### User's Manual

Version 3.3

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