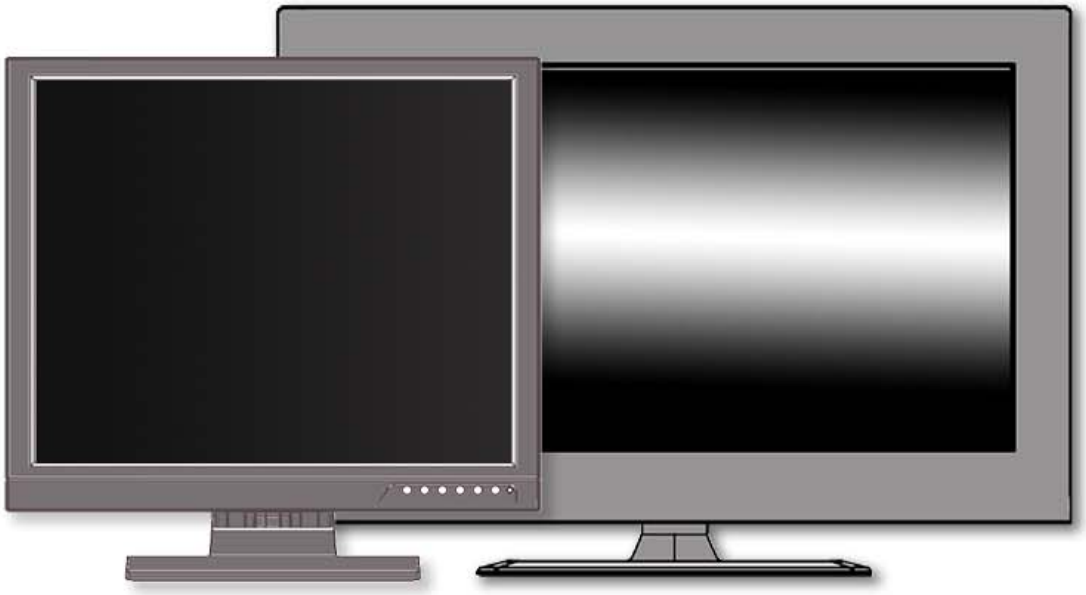
# LED MONITOR



# Operation Instruction & User Manual

ECO FRIENDLY

# 1 Introduction and Package Contents

## Introduction

Congratulations on your purchase. You can expect only the sharpest and most brilliant color images from this monitor. Featuring easy to use OSD controls and built in speakers, you will find this monitor both easy to use and a pleasure to look at.

Please unpack the monitor with care, and verify that all the parts listed below are included. If any parts are missing, please contact with your local distributor.

Please save the packing box for possible future return for service.

## Package Contents

- One LED Monitor
- 12V DC Adapter/Power cord
- D-Sub 15-pin VGA connector Cable
- User's Guide

## Hardware Installation

The following sections in this guide give clear, step-by-step descriptions of the installation process and explain how to use the monitor for optimum results.

Please pay attention to the Regulations and Warnings Section of this user's manual before setting up the display monitor. Failure to do so may inadvertently result in personal injuries or machine damage.

## Specifications (17”& 19”)

| Size | 17” | 19” |
|---|---|---|
| Composite Output | (BNC) x 2 | |
| Composite Input | (BNC) x 2 | |
| Single Connector | (VGA) x 1, (RCA) x 2 (PC Audio) x 1, (HDMI) x 1 | |
| Speaker | 1.5W x 2 | |
| Display Mode | Video 1/ Video 2/ PC/ HDMI | |
| AC power | AC 100~240V 50/60Hz | |
| Temperature | Operation: 0°~40°C(32° ~104°F) , Storage: -10°~60°C(14° ~140°F) | |
| Power Consumption | 20W Max. in “ON” Mode<br>Under 3W in Power Saving Mode (100 Vac)<br>Under 5W in Power Saving Mode (240 Vac) | 25W Max. in “ON” Mode<br>Under 3W in Power Saving Mode (100 Vac)<br>Under 5W in Power Saving Mode (240 Vac) |
| OSD Control | Picture Mode, Contrast, Brightness, Color, Tint, Sharpness, Color Temp, DNR | |
| OSD Languages | English, German, French, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech | |
| Auto Adjustment | Yes (Only for VGA mode) | |
| De-interlace | Yes | |
| Wall mount | Optional | |
| Accessories | Adapter, Power code, Manual, VGA cable | |
| Safety | FCC, CE, ROHS | |
| Tilt | -5°~15° | |
| Humidity | 10%~90% | |
| Monitor scan | Microprocessor controlled | |
| Pixel pitch | 0.264x0.264mm | 0.294x0.294mm |
| Pixel format | 1280x1024 | 1280x1024 |
| Response time | 5ms | 5ms |
| Color depth | 16.7 Million Colors | |
| Viewing angle | Vertical -80°~80°<br>Horizontal -85°~85° | |
| Display area (H x V mm) | 337.9x270.3 | 376.3x301.06 |
| Dimension (W x H x D mm) | 385 x 384 x 165 | 424 x 415 x 165 |
| Weight (monitor only) | 3.1Kgs | 3.22Kgs |

## Specifications (21.5” & 23.6”)

| Size | 21.5” | 23.6” |
|---|---|---|
| Composite Output | (BNC) x 2 | |
| Composite Input | (BNC) x 2 | |
| Single Connector | (VGA) x 1, (RCA) x 2 (PC Audio) x 1, (HDMI) x 1 | |
| Speaker | 1.5W x 2 | |
| Display Mode | Video 1/ Video 2/ PC/ HDMI | |
| AC power | AC 100~240V 50/60Hz | |
| Temperature | Operation: 0°~40°C(32° ~104°F) , Storage: -10°~60°C(14° ~140°F) | |
| Power Consumption | 35W Max. in “ON” Mode<br>Under 3W in Power Saving Mode (100 Vac)<br>Under 5W in Power Saving Mode (240 Vac) | 40W Max. in “ON” Mode<br>Under 3W in Power Saving Mode (100 Vac)<br>Under 5W in Power Saving Mode (240 Vac) |
| OSD Control | Picture Mode, Contrast, Brightness, Color, Tint, Sharpness, Color Temp, DNR | |
| OSD Languages | English, German, French, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech | |
| Auto Adjustment | Yes (Only for VGA mode) | |
| De-interlace | Yes | |
| Wall mount | Optional | |
| Accessories | Adapter, Power code, Manual, VGA cable | |
| Safety | FCC, CE, ROHS | |
| Tilt | 0°~15° | |
| Humidity | 10%~90% | |
| Monitor scan | Microprocessor controlled | |
| Pixel pitch | 0.24825 x 0.24825 mm | 0.2715 x 0.2715 mm |
| Pixel format | 1920 x 1080 | 1920 x 1080 |
| Response time | 5ms | 5ms |
| Color depth | 16.7 Million Colors | |
| Viewing angle | Vertical -80°~80°<br>Horizontal -85°~85° | |
| Dimension (W x H x D mm) | 524 x 375 x 175 | 580 x 407 x 175 |
| Weight (monitor only) | 3.6Kgs (7.9 lbs) | 4.4Kgs (9.7 lbs) |

## VGA Timing

| Item | Resolution | H Freq.(kHz) | V Freq.(Hz) |
|---|---|---|---|
| 1 | 640x400@70 | 31.460 | 70.080 |
| 2 | 640x480@60 | 31.469 | 59.940 |
| 3 | 640x480@72 | 37.861 | 72.809 |
| 4 | 640x480@75 | 37.500 | 75.000 |
| 5 | 720x400@70 | 31.460 | 70.080 |
| 6 | 800x600@56 | 35.156 | 56.250 |
| 7 | 800x600@60 | 37.879 | 60.317 |
| 8 | 800x600@72 | 48.077 | 72.188 |
| 9 | 800x600@75 | 46.875 | 75.000 |
| 10 | 1024x768@60 | 48.363 | 60.004 |
| 11 | 1024x768@70 | 56.476 | 70.069 |
| 12 | 1024x768@75 | 60.023 | 75.029 |
| 13 | 1280x1024@60 | 63.981 | 60.020 |
| 14 | 1280x1024@75 | 79.976 | 75.025 |
| 15 | 1920x1080@60 (21.5” &23.6”) | 67.500 | 60.000 |

**Note:**

**1.** Please note, selecting frequencies outside these ranges may result in an abnormal Images.

2. The resolution will be showed on the screen while VGA mode be selected.

For example:

**Features**

- AC 100-240V Power Supply
- NTSC/PAL Auto Detect
- High Resolution Display 1280 x 1024
- VGA Input
- Composite Video Input
- HDMI Input
- On-screen Display (OSD) with Multiple Languages
- PIP / POP Function

Quick Installation

**1.** Connect power cord and power adaptor.

**2.** Connect video cable

- Make sure both the LED display and computer are turned off.
- Connect the video cable from the LED display to the computer.

**3.** Turn ON LED display and computer

**4.** Select input source

- Select the proper input source corresponding to the video Signal, AV1/ AV2 / VGA / HDMI.

**5.** VGA mode only

- Press button Auto on front panel to automatically adjusts H- Position, V-Position, Pixel Clock and Phase for an optimal image.

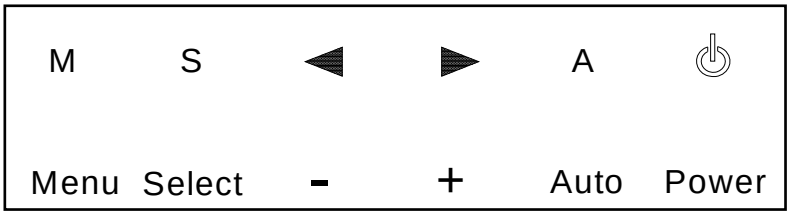
# 2 Monitor and OSD Control

## Monitor and OSD Control

The LED color monitor has a simple control layout for controlling the monitor and OSD (On Screen Display) functions. The table below summarizes the control keys and their related functions.

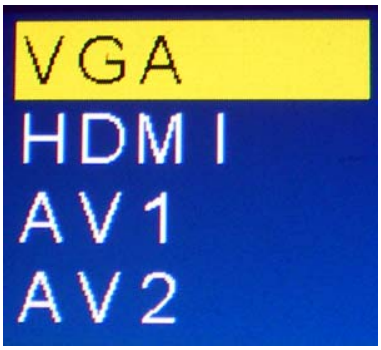
## Key Feature

| Keys | Function Description |
|---|---|
| Power | Toggle the display between standby mode and on.<br>(Press “Power” and waiting 6 sec., monitor will be display ) |
| A / Auto | Automatically adjusts H-Position, V-Position, Pixel Clock and Phase for an optimal image in PC mode only. |
| + / ► | Switch setting item.<br>Decrease the value of the chose item. |
| - / ◄ | Switch setting item.<br>Increase the value of the chose item. |
| S / Select | Switch mode “PC”, ”AV1”, ”AV2”. |
| M / Menu | Enter the main menu of the on-screen display (OSD). |




### Source Select

Press the **S** select button to bring up source selection




Use the "◀", "▶" keys to advance to the proper selection and press **S** select button to confirm the setting.

**Note:**

The message 

will be displayed on the screen if there's no VGA signal detected in VGA mode, and the power will be off automatically after 10 seconds. Please press the power button again to restart the monitor.

### LED Status Display

The following table describes the various power states of the LED monitor as represented by different LED colors.

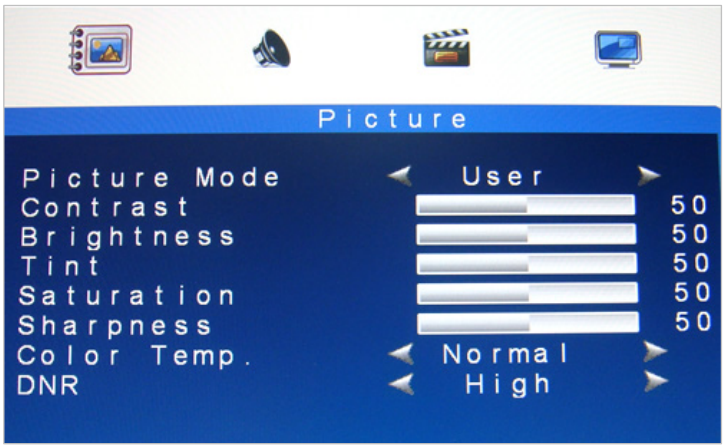
| Power State | LED Color |
|---|---|
| On | Green |
| Standby | Red |
| No power | Blank |

**Note:** The LED will also be red if AV1 or AV2 is selected and there is no video signal detected.

# 3 OSD Control Function List

## OSD Menu

### Picture Mode




| | |
|---|---|
| 1. Picture Mode | Press ◀(−)OR ▶(+) to select the picture mode<br>“User, Standard, Movie, Vivid ” |
| 2. Contrast | This is used to set the brightness of the screen.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 3. Brightness | This is used to adjust the image contrast.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 4. Tint | This is used to adjust the image Tint.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 5. Saturation | This is used to adjust the image saturation.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 6. Sharpness | Adjust the sharpness. It makes the image become soft.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 7. Color Temp. | Press ◀(−)OR ▶(+)to adjust the color tones.<br>“ Cool , Warm , Normal “ |
| 8. DNR | Press ◀(−)OR ▶(+) to adjust the noise reduction.<br>“High , Low, Off, Mid “ |
| Note: VGA Mode: Contrast, Brightness, Color Temp., Auto Adjust. | |

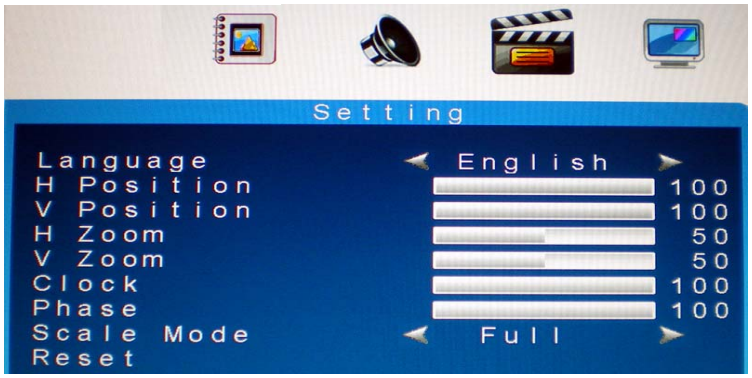
## Sound Mode


| | |
|---|---|
| 1. Volume | Press ◀(−)OR ▶(+) to adjust volume level. |
| 2. Mute | Press ◀(−)OR ▶(+) to select sound “ Off, On ”. |

## Setting Mode

AV/HDMI Mode


VGA Mode



| | |
|---|---|
| 1. Language | Press ◀(−)OR ▶(+) to select language. |
| 2. H. Position | Move the display picture left or right.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 3. H Zoom | Adjust the H-size of the display picture<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 4. V Position | Move the display picture up or down.<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 5. V Zoom | Adjust the V-size of the display picture<br>Press ◀(−)OR ▶(+) to adjust the parameter. |
| 6. Clock | Press ◀(−)OR ▶(+) to adjust the parameter. |
| 7. Phase | Press ◀(−)OR ▶(+) to adjust the parameter. |
| 8. Scale Mode | Adjust the V-size of the display picture<br>Press ◀(−)OR ▶(+) to adjust “ Full, 16:9 ”. |
| 9. Reset | Recall Default value. |
| Note: “ Clock” and “Phase ” setting only in VGA Mode | |

## PIP/POP Setup Mode




| | |
|---|---|
| 1. Multi Window | Press ◀(−)OR ▶(+) to select “PIP, POP, Off ” mode. |
| 2. Sub Source | Press ◀(−)OR ▶(+) to select “AV, VGA” mode. |
| 3. Size | Adjust the size of Sub Source window.<br>Press ◀(−)OR ▶(+) to select “Large, Small ” |
| 4. Position | Move the position of Sub Source window.<br>Press ◀(−)OR ▶(+) to select “U L, B L, B R, U R” position. |
| 5. Border Color | Choose the border color of Sub Source window.<br>Press ◀(−)OR ▶(+) to select “Black, Blue” color. |
| 6. Sound Source | Press ◀(−)OR ▶(+) to select “Main, Sub” mode. |
| 7. Swap | Press S/Select to Swap the Source of Main and Sub. |

**Note:**

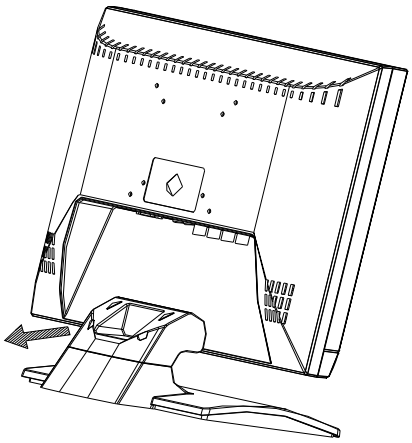
1. AV1 and AV2 , HDMI and VGA cannot be displayed at the same time on the monitor in PIP / POP mode.

2. If POP mode is selected both images are scaled to fit the screen.

# 4 Mounting

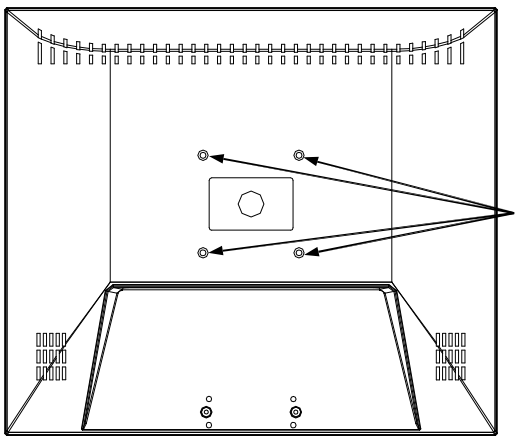
**VESA Bracket**

Lay the LED display face down on a towel or blanket. Note the 4 screws that secure the hinge on the lower part of the back casing. These may be removed to release the desk mount bracket if required.



Attach a VESA compatible mounting bracket

VESA 75mm x 75mm (for 17" and 19" / 100mm x 100mm (for 21.5" and 23.6") is supported



# 5 Caring for Your LED Monitor

### Caring for your LED Monitor

The LED color monitor is a sensitive piece of electronic equipment. Proper care can prevent accidentally damaging the LED panel or the monitor itself. By following these guidelines you can ensure many years of trouble free use.

1. The LED monitor's plastic casing and LED glass panel can be cleaned with a soft, lint-free cloth. ***Never use scrub pads or other cleaning materials with abrasive surfaces to clean your LED monitor!***

    a. For the plastic case, a mild detergent may be used to clean the surface. However, you should ensure not to use too much detergent or water as this could leak into the interior of the casing.

2. Do NOT use cleaning fluids based on alcohol, methylated spirit, or ammonia. The glass plate has a hard surface coating to prevent scratches. However, the use of strong chemical cleaning agents may damage this coating. Use only a mild soap or detergent and water or specially formulated cleaners made for cleaning glass panels.

3. Avoid direct contact with water or other liquids. Never use the LED monitor in or around areas where water may pose a potential hazard to normal operation.

4. Only use the LED monitor indoors, and avoid monitor contact with oil, vapor, steam, moisture and dust. The LED monitor should be used in a clean and low humidity environment.

5. Keep the LED monitor away from heaters or other heat sources such as lighting equipment or direct sunlight.

6. Keep the LED monitor away from sharp object to touch the screen like fingernail and pencil.

WARNING: Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment and void the product warranty.

# 6 Frequently Asked Questions

### Power button does not respond

- Check the power cord to ensure that it is securely plugged into the monitor base and also into the electrical outlet.
- Ensure there is electrical power coming from the AC outlet. Use another device to check for power.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

### No image on the screen

- Ensure that the DB-15 signal cable is properly connected to the display card/computer.
- Check the DB-15 signal cable connector on both ends for bent or pushed-in pins.
- The display card should be properly seated in its card slot.
- Ensure that the computer's power switch is ON.
- Ensure that the monitor's power switch is ON.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

### Power LED is RED (with no image on the screen)

- Check the DB-15 signal cable to ensure that it is properly attached to the graphics display card.
- Check the DB-15 signal cable on both ends for bent or pushed-in pins.
- Make sure the computer is not in a power-saving mode (move the mouse or press a key on the keyboard).

### No sound coming from the audio speakers

- The audio cable should be connected to the lineout on the audio card and the line-in on the monitor. Ensure that the audio cable is properly connected.
- Inspect the audio cable for any apparent damage. Double check by switching to another audio cable to see if the audio works.

# 7 Regulations and Maintenance

**FCC compliance**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generation, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Precautions**

* Read all of these instructions and save them for later use.

* Follow all warnings and instructions on the product.

* Product

  - Do not cover or block the vent holes in the case.

- Do not insert sharp objects or spill liquid into the LED monitor through cabinet slots. They may cause accident fire, electric shock or failure.

- Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.

- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage potentials or other risks.

- Do not touch the screen directly with your fingers. You may damage the screen, and oil from your skin is difficult to move.

- Do not apply pressure to the screen. The LED is very delicate.

∗ Power

- Use the type of power indicated on the marking label.

∗ Plugs

- Do not remove any of the prongs of the monitor's three-pronged power plug.

- Disconnect the power plug from the AC outlet under following conditions:

  ◎ If you will not use it for an indefinite period time.

  ◎ When the power cord or plug is damaged or frayed.

  ◎ If the product does not operate normally when the operation instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

  ◎ If the product has been dropped or the cabinet has been damaged.

  ◎ If the product exhibits a distinct change in performance, indicate a need for service.

∗ Power and extension cords

- Do not allow anything to rest on the power cord.

- Do not locate this product where persons will walk on her cord.

- Use the proper power cord with correct attachment plug type. If the power source is 120 V AC, use a power cord that has UL and C-UL approvals. If the power source is a 240 V AC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations, such as VDE for Germany.

- Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 10 amperes.

- Ensure that the total ampere rating of all units plugged into the extension cord is not over the cord's rating.

- If the power supply cord, which came with your monitor, is to be connected to the PC instead of the wall outlet, this equipment is to be used with UL/TUV approved computers with receptacle rated 100~240V AC, 50/60Hz, 2.0A(minimum).

∗ Environment

- Place the monitor on a flat and leveled surface.

- Place the monitor in a well-ventilated place.

- Keep the monitor away from:

Extremely hot, cold or humid places, places directly under sunlight, dusty surroundings, equipment that generate strong magnetic fields.