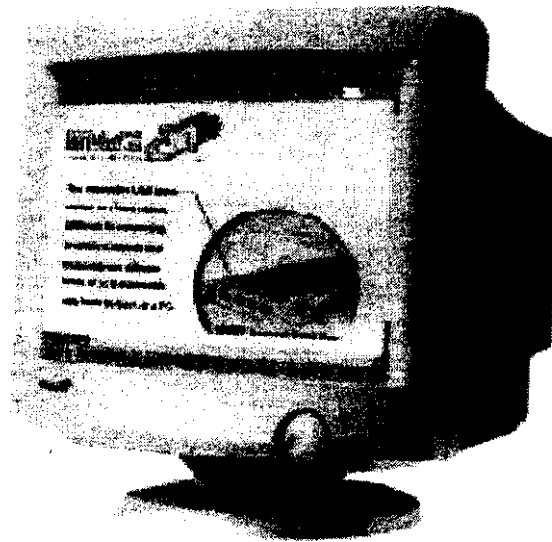


**U
N
E**

XJ810

User's Guide



**19" (18.0" viewable)
Ultra High Resolution
Plug & Play Ready
Color Monitor
with JAG™ OSD Control**

Notices

Copyright © 1999

MAG Technology Co., Ltd.

9F, No. 245, Sec. 1, Tunhwa S. Rd,

Taipei, Taiwan

Tel: +886 (2) 2775-3577

Fax: +886 (2) 2751-5911

All Right Reserved

No part of this publication may be produced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or translating into any language in any form without the express written permission of MAG Technology Co., Ltd.

JAG™, the MAG Innovision logo, and the screen logo are trademarks or registered trademarks of MAG Technology Co., Ltd. in the United States and other countries.

Windows® is a registered trademarks of Microsoft Corporation. Macintosh® is a registered trademark of Apple Computers. All other trademarks are the property of their respective owners.

XJ810 User's Manual

Model no.: U8010

Contents

Specifications	4
Safety Precautions	5
Introduction	6
JAG™ Control	6
On Screen Display (OSD)	6
DDC Plug & Play	6
USB Ready (optional)	7
EPA™ Energy Star Power Saving	7
Setting up Your Monitor	8
Installing the Base	8
Connecting the Monitor	8
Operation	10
Image Adjustment	11
OSD Options	12
Video Modes	14
Pin Assignment	15
Regulatory Compliance Statements	16
Customer Service	18

Specifications

All Specifications are subject to changed without notice or obligation.

CRT	19-inch (18" viewable) High-contrast flat square tube with TCO/Anti-reflective coating, anti-glare, anti-static, 90° deflection
Dot pitch	0.26mm
Max Resolution	1600 x 1200 (Non-interlaced)
Display color	Unlimited
Scanning frequency	Horizontal: 30 - 100KHz Vertical: 50 - 160Hz
Display area	Factory presetting: 355 x 265 mm (W x H) Maximum Scan: 365 x 275mm (W x H)
Video bandwidth	200 MHz (-3db) nominal
Input signal	Video: Analog, 0.7Vp-p, 75ohm Sync: Separate TTL level
Power supply	100 - 240 Vac, 50/60 Hz, 3A
Power consumption	Normal: < 130W Suspend: < 15W Active Off: < 3W
Recommended ambience	Operating temperature: 32°F~104°F (0°C~40°C) Operating humidity: 10~90 % Storage temperature: -4°F~140°F (-20°C~60°C)
Dimensions	460 x 450 x 465 mm (W x H x D)
Weight	Net: 22Kg (48.4lbs) Gross: 26Kg (57.2lbs)
Certifications	UL, CSA, TUV/GS, SEMKO, NEMKO, DEMKO, FINKO, CE Mark, DHHS, FCC B, MPR-II, TCO-92, TCO-95
Power Management	EPA Energy Star®, VESA DPMS™



The monitor fulfills the TCO-92 or TCO-95 recommendations on emissions if this TCO-92 or TCO-95 emblem appears on the back of the monitor.

Safety Precautions

Please read all of the following instructions before use.

- Follow all warnings and instructions marked on this product.
- When cleaning this monitor, first unplug it from the wall outlet. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- Do not use this product where water spills may occur.
- Prevention from falling, do not place this product on an unstable surface.
- To protect this monitor from overheating, slots and openings on the back and bottom of this unit (use for ventilation) should never be blocked.
- Never be placed near a radiator or heating element.
- Only operate this monitor from the power source indicated on the marking label. If you are not sure of the type of power source available in your area, consult your dealer or your local power company.
- This product is equipped with a 3-wire grounding type plug. For safety this device is meant to be used with a grounding-type power outlet. If you do not have one, contact your electrician to replace your obsolete outlet. *Do not use a 3-to-2 prong adapter.*
- Do not allow anything to rest on the power cord or leave any cords hanging where people frequently walk.
- If an extension cord is used with this product, make sure that the total amperage ratings do not exceed the extension cord's amperage or 10 amperes.
- Never puncture any objects through the walls of the monitor. High voltage points could result in electric shock, fire hazard or cause a short circuit.
- Never attempt to service this product yourself. Opening this unit may expose you to dangerously high voltages. Refer all servicing to a qualified service personnel.
- Save this instruction manual for later use.

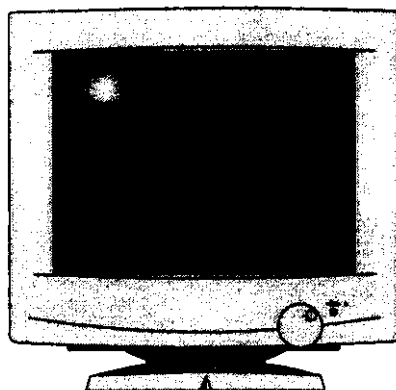
Note: Unplug this product and contact qualified service personnel if:

- The power cord or plug is damaged or frayed
- The product has been exposed to rain or water
- The product does not operate normally when used properly
- Improper adjustments has been made
- The product has been dropped or damaged
- The product does not achieve maximum performance

Introduction

The **XJ810** is a 19-inch (18" viewable) multi-scanning, ultra high resolution color monitor with an advanced High Contrast flat square tube. With state-of-the-art electronics, this monitor is capable of resolutions up to 1600 x 1200 NI (addressable).

The intelligent microprocessor-based design enables the monitor to automatically synchronize and adjust to most common video modes.



Check list:

Before operating this monitor, please make sure that all of the following items are included:

- XJ810 Monitor
 - Tilt & swivel base
 - Power cord
 - This user's manual
-

JAG™ Control

The JAG™ is designed to provide full user programming capabilities in one simple-to-use location for a more ergonomically-friendly design. This allows you to choose a control function and make necessary display adjustments with just one dial.

On Screen Display (OSD)

The combination of the JAG™ control and OSD (On-Screen Display) makes it easier for you to make precise screen format adjustments simply. The User Mode control within the OSD allows you to change and save custom display characteristics and timing modes.

DDC Plug & Play

With VESA® DDC1/2B, when the monitor is powered up, it will automatically notify a Windows® 95/98 host computer of its scanning frequencies, capabilities and characteristics. Windows® 95/98 will automatically recognize the connection of the monitor and select the appropriate display resolution.

EPA™ Energy Star® and VESA Display Power Management System

In the business world, the fastest growing use of electrical power is by computer systems. The amount of electricity used by computers in businesses and homes is phenomenal. A large portion of this electricity is wasted. The Environmental Protection Agency (EPA) has conducted research showing that most of the time PCs are powered up, they are not in use. The EPA promotes the use of energy-efficient equipment because generating electricity causes emissions that pollute the air.

This monitor is Energy Star compliant when used with a computer equipped with VESA® Display Power Management System (DPMS).

Note: The XJ810 monitor has three power-saving modes. The power saving operation is indicated by the LED power indicator on the front panel.

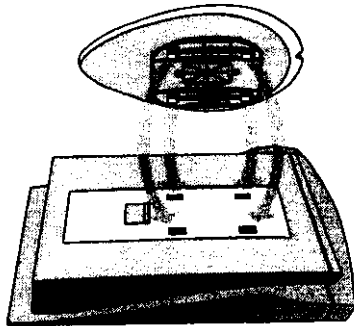
- When the LED is green, your monitor is operating normally.
- When the LED is orange, your monitor is in a power saving mode.
- If the LED is orange and blinking, the monitor is in a sleep mode. Press a keyboard key or move the mouse to return to normal usage.
- If the LED is orange and blinking and you cannot return to normal usage by using the mouse or keyboard, check your video signal connection.
- When the monitor is not in use, save energy by turning off the monitor.

Setting up Your Monitor

Setting up your monitor is easy. All you have to do is make the following connections and adjustments.

Installing the Base

Turn the monitor upside down. Align the holders on the swivel base with the holes on the bottom of the monitor. Firmly press down and forward (toward the front of the monitor) until the latches catch.



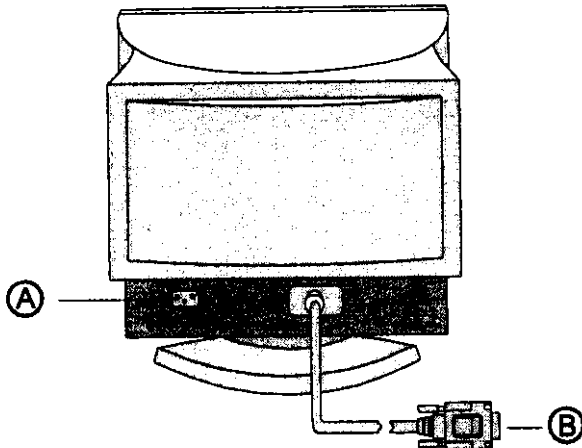
Note: As you line up the holes on the bottom of the monitor to the latches on the top of the base, the bottom of the base may move. This is because the base has a tilt/swivel function. Let the bottom of the base swivel down first. This will help you to connect the monitor to the base and slide them together easily.

Connecting the Monitor

Once you have attached the base to the monitor unit, you are ready to connect the monitor to your system. It is important that you use the power cord that came with your monitor in order to insure that the monitor conforms to mandatory FCC standards.

To connect the monitor to the system:

1. Turn off the power to your system and all its attached options.
2. Make sure that your equipment is in cable-reaching distance from a properly grounded electrical outlet. Position the monitor and the computer so that you can access the back panel of both without difficulty.
3. Connect the video signal cable (permanently attached to the back of the monitor) to the video card connector on the back of your system.
4. Tighten the screws on the video signal cable connector to keep them from coming loose and to prevent radio and TV interference.
5. Connect the power cord that came with the monitor to the AC connector at the back of the monitor. Plug the other end of the power cord into a properly grounded electrical outlet or surge protector.



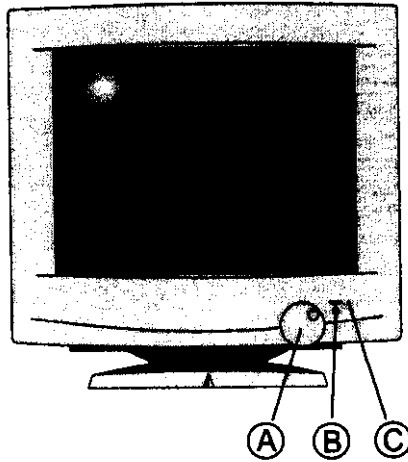
- A. AC power connector
B. Attached video cable

Operation

Make sure you carefully follow the "Safety" and "setting Up Your Monitor" instructions to install your monitor to your system before operating your monitor. You may also want to familiarize yourself with the "Image Adjustment" section of this manual before making any operational adjustments to your operating monitor.

To operate the monitor:

1. Turn on the monitor by pressing the power button once. The power LED lights and the monitor demagnetizes itself for about five seconds.
2. Power up the system.
3. Once the system is completely powered up, the LED power indicator on the monitor should be green. If not, check the connections.
4. Use On-Screen Display to adjust the controls needed to get the best picture. Experiment with the display settings to choose the optimum image size and position for you (refer to the Image Adjustment section of this manual for Instructions).



- A. JAG Dial
- B. Power button
- C. LED Power indicator

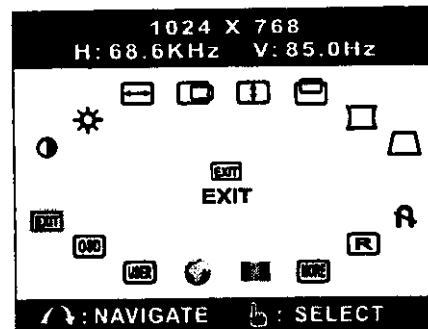
Note: If you need to disconnect the power cord from the wall socket or monitor for any reason, be sure to wait at least 30 seconds after you turn off the monitor before you unplug it. This allows the monitor to discharge any static electricity from the screen surface.

Image Adjustment

The JAG™ is designed to provide full user programming capabilities in one simple-to-use location for a more ergonomically-friendly design. This allows you to choose a control and make necessary display adjustments with just one dial.

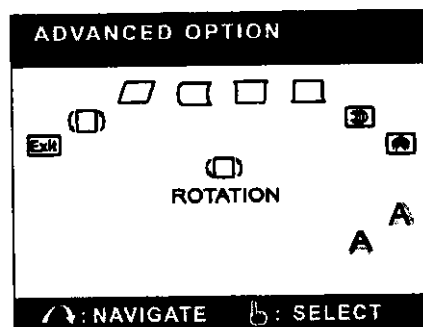
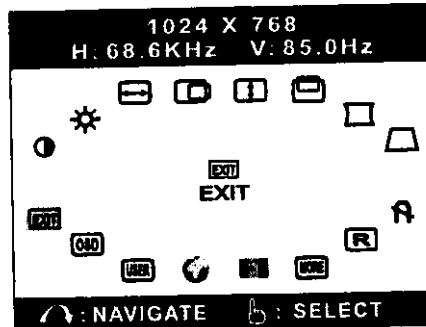
To adjust other visual settings:

1. Press the JAG. The Main Menu appears, displaying the current resolution and a number of visual setting options. (refer to the “OSD Options” section of this manual).
2. Rotate the JAG to highlight the desired option. (If you rotate the JAG without pressing it first, the Contrast control bar appears.)
3. Press the JAG again to access the option. A control screen for the option appears.
4. If this option is adjustable, rotate the JAG to adjust it. Some options are not adjustable and are simply activated when the JAG is pressed.
5. Press the JAG when adjustments are complete to exit the control screen and return to the Main Menu.
6. Select Exit and press the JAG to exit the OSD Main Menu.

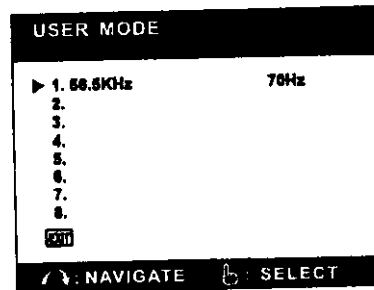
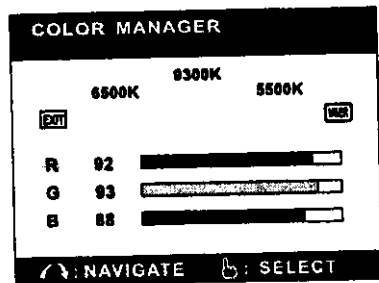


OSD Options

- ◆ **Contrast** - Adjusts the contrast level (black level) in the display.
- ◆ **Brightness** - Adjusts the brightness (white level) level in the display.
- ◆ **Horizontal Position** - Shifts the display to the right or left.
- ◆ **Horizontal Size** - Increases and decreases the display width.
- ◆ **Vertical Position** - Shifts the display up or down.
- ◆ **Vertical Size** - Increases and decreases the display height.
- ◆ **Pincushion** - Bends the sides of the screen display inward or outward.
- ◆ **Trapezoid** - Adjusts the top and bottom display widths to be even.
- ◆ **Degauss** - Removes any discoloration from the display image due to electromagnetic field buildup. It is not usually necessary to degauss your monitor, unless it has been moved.
- ◆ **Reset1** - While in a preset video mode, press the JAG dial to reset all customer display setting to the factory default settings.
- ◆ **Advanced Options** - Activates the secondary menu that displays options for rotation, bow, parallelogram, corner, and moire.
 - **Rotation** - Adjusts the tilt of the display.
 - **Parallelogram** - Adjusts the tilt of the display sides to the left or right.
 - **Bow** - Bends the sides of the display in the same direction.
 - **Horizontal Top Corner** - Squares off the display corners.
 - **Horizontal Bottom Corner** - Squares off the display corners.



- **Vertical Moire** - Reduces the optical effect of wavy lines or ripples on the display image in the horizontal direction. These effects are usually more noticeable on large gray areas or on black and white checkerboard patterns.
- **Horizontal Moire** - Reduces the optical effect of wavy lines or ripples on the display image in the vertical direction.
- **Horizontal Focus** - Adjust horizontal direction image focus.
- **Vertical Focus** - Adjust vertical direction image focus.
- ◆ **Color Manager** - Activates the secondary menu that display three preset level options. Once color temperature option is selected, rotate and press the JAG to choose and adjust the red, green or blue color levels, You may also use recall to return to the original factor settings.



- ◆ **Language Manager** - Activates the Language Manager submenu. Allows you to choose the language for the menu screens.
- ◆ **User Mode** - Activates the User Mode submenu. This stores the display characteristics of a specific resolution (not already defined as a factory preset timing mode) into the monitor's memory. This saves you from having to readjust the display features each time you reboot (refer to the "Video Modes" section for preset timing options) the computer.
- ◆ **OSD Manager** - Activates the OSD Manager submenu. This allows you to adjust the OSD menu position on the display.

Video Modes

This multi frequency monitor operates at horizontal frequencies of 30 to 96KHz and vertical frequencies of 50 to 160 Hz. The range refers to a maximum flicker-free, usable resolution of 1600x1200 at a non-interlaced refresh rate of 75Hz Vertical.

This monitor offers 16 preprogrammed settings that cover most of the common video modes supported by popular graphics adapters. If the monitor recognizes one of the preset timing signals, it will recall that mode and any stored display adjustments you have made. However, the monitor is multi-scanning, thus, it can accept any signal within its frequency range.

If your video timing mode is not one of the preset timing modes, a screen will appear instructing you to save your timing mode to the User Mode.

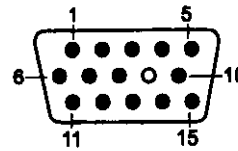
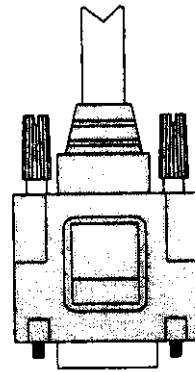
Preset Modes	Resolution		Frequency	
	H (Pixels)	V (Lines)	H (KHz)	V (Hz)*
1	720	400	31.5	70
2	640	480	31.5	60
3	640	480	43.3	85
4	800	600	37.9	60
5	800	600	46.9	75
6	800	600	53.7	85
7**	832	624	49.7	75
8	1024	768	48.4	60
9	1024	768	60.0	75
10	1024	768	68.7	85
11**	1152	870	68.7	75
12	1280	1024	64.0	60
13	1280	1024	80.0	75
14	1280	1024	91.1	85
15	1600	1200	75.0	60
16	1600	1200	93.7	75

* Refresh rate. ** Macintosh Timing.

Pin Assignment

The pin assignment of the connectors is listed below for professional use only. Please do not attempt to alter the connections yourself as this may seriously damage the monitor.

<u>Pin No.</u>	<u>Assignment</u>
1	Red Video input
2	Green video input
3	Blue video input
4	Ground
5	Ground (DDC)
6	Red video ground
7	Green video ground
8	Blue video ground
9	No connection
10	Ground
11	Ground
12	DDC SDA
13	Horizontal sync.
14	Vertical sync.
15	DDC SCL



Regulatory Compliance Statements



American User:

This monitor has been tested to comply with the limits for a Class B digital device, Part 15 of the FCC Rules. These limits are designed to provide protection against harmful interference within a residential area. This equipment is able to radiate radio frequency energy therefore using in nonaccordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will be present in a particular installation. If there is interference, which can be determined by turning this equipment off and on, the user is encouraged to try to correct the interference by the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between your monitor and your computer.
- Connect the monitor into an outlet different from that to which the computer is connected.
- Consult the dealer, our customer service hotline, or an experienced computer hardware technician for help.

Warning!

This device has been tested and found to comply with the limits of a Class B digital device. The accessories associated with this equipment are as follows:

- Shield video cable
- Shield power cord

Change or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Power Supply Notice

Install only a UL LISTED/CSA LABELED power supply cord meeting the following specifications:

Plug Type	Nema-Plug 5-15P
Cord Type	SVT or SJT, minimum 3 x 18 AWG
Length	Maximum 15 feet
Rating	Minimum 7A, 125V



EPA Energy Star

This monitor is Energy Star compliant when used with a computer equipped with VESA Display Power Management System (DPMS). The Energy Star emblem does not represent EPA endorsement of any product or service.



Canadian Users:

This digital apparatus does not exceed the Class B digital limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry

Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.



European Users:

This Information Technology Equipment has been tested and found to comply with the following European directives:

[i] EMC Directive 89/336/EEC amending directive 91/31/EEC 95/263/EE & 93/68/EEC as per

-EN 50081-1: 1992 according to

EN 55022: 1994+A1:1995+A2+1997/CISPR 22:1993+A1+A2/AS/NZS 3548:1995, Class B

EN 61000-3-2: 1995, Class A

EN 61000-3-3: 1995

-EN50082-1: 1992/1994 according to

EN61000-4-2: 1995 or IEC 801-2: 1987

ENV 50140: 1994 or IEC 801-3: 1984

EN 61000-4-4: 1995 or IEC 801-4: 1988

[ii] Low Voltage Directive (Safety) 73/23/EEC as per EN 60950: 1992



Japanese Users:

This equipment is in the Class 2 category (Information Technology Equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Information Technology Equipment aimed at preventing radio interference in such residential area.

When used near a radio or TV receiver, it may become the cause of radio interference. Read instructions for correct handling.

電波障害について

この装置は、情報処理装置等電波障害自由規制協議会(VCCI)の基準に基づく第二種情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置をラジオやテレビジョン受信機に近接してご使用になると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをしてください。

Customer Service

Please direct inquiries regarding warranty coverage to your Authorized Ultimate Reseller, Authorized Distributor, or Worldwide service centers listed below:

Australia:

MAGTRON MONITORS (Australia) PTY., LTD.
Unit B2, 1-3 Rodborough Road, Frenchs Forest, NSW 2086
Tel: +61 (2) 9975-3727
Fax: +61 (2) 9975-4872
Internet: <http://www.magtron.com.au>
E-mail: john@magtron.com.au

Europe:

EuroMAG Technology B.V.
Valkenierstraat 10b Donkersloot-Noord 2984 AZ Ridderkerk,
The Netherlands
Tel: +31 (0) 180-461211
Fax: +31 (0) 180-410648
E-mail: service@euromag.nl

Japan:

MagView Co., Ltd.
Taisei Bldg. 1-3-4 Osaki, Shinagawa-Ku, Tokyo 141
Tel: +81 (3) 3493-3588
Fax: +81 (3) 3493-3525

Mainland China:

MAG Technology Co., Ltd. China Div.
Rm. D2, IF, 5.8 Bld Tian An, Industrial Estate, Che Gong Miao, Shenzhen.
Tel: +86 (755) 330-9423
Fax: +86 (775) 330-9411
E-mail: szmag@public.szppt.nt.cn

Customer Service

Please direct inquires regarding warranty coverage to your Authorized Ultimate Reseller, Authorized Distributor, or Worldwide service centers listed below:

Australia

MAGTRON MONITORS (Australia) PTY., LTD.
Unit B2, 1-3 Rodborough Road, Frenchs Forest, NSW 2086
Tel: +61 (2) 9975-3727 Fax: +61 (2) 9975-4872
Internet: <http://www.magtron.com.au>
E-mail: john@magtron.com.au

Europe

EuroMAG Technology B.V.
Valkenierstraat 10b Donkersloot-Noord 2984 AZ Ridderkerk,
The Netherlands
Tel: +31 (0) 180-461211 Fax: +31 (0) 180-410648
E-mail: service@euromag.nl

Japan

MagView Co., Ltd.
Taisei Bldg. 1-3-4 Osaki, Shinagawa-Ku, Tokyo 141
Tel: +81 (3) 3493-3588 Fax: +81 (3) 3493-3525

Mainland China

MAG Technology Co., Ltd. China Div.
Rm. D2, IF, 5.8 Bld Tian An, Industrial Estate, Che Gong Miao, Shenzhen.
Tel: +86 (755) 330-9423 Fax: +86 (775) 330-9411
E-mail: szmag@public.szppt.nt.cn

Taiwan

MAG Technology Co., Ltd.
9F, No. 245, Sec. 1, Tunhwa S. Rd, Taipei, Taiwan
Tel: +886 (2) 2775-3577 Fax: +886 (2) 2751-5911
Internet: <http://www.magtechnology.com>
E-mail: service@mail.mag.com.tw

United States and Canada

MAG Technology USA Inc.
20 Goodyear, Irvine, CA 92618-1813
Tel: +1 (800) 827-3998, +1 (949) 855-4930 Fax: +1 (949) 598-4920
Internet: <http://www.maginnovation.com>



Printed in Taiwan



100% Recycled Paper

MAM-502-175-0A

