

Drive Installation Manual

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Europe

This product is in conformity with the EMC directive.

FCC Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

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.

FCC Compliance:

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 generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communication. 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 into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio /TV technician for help.

Warning: To meet FCC requirements, if your product comes with power adapter and cord and or other cables, you must use them in order to prevent interference. It is essential that only the supplied power cord and cables are used. You are cautioned that changes or modifications not approved by the party responsible for compliance could void your authority to operate the equipment.

READ THIS INSTALLATION MANUAL COMPLETELY AND CAREFULLY BEFORE ATTEMPTING INSTALLATION

This CD-RW&DVD+RW/+R drive together with software is a product for utilizing CD-RW&DVD+RW/+R recording media with rewriting, erasing and readout capabilities, as an external computer memory device. Except in the case where copying of CD-ROMs/DVD-ROMs or me like is especially recognized under the copyrights laws as being for the purpose of individual use by the customer or the like, or in the case where the customer has obtained permission to make copies from the rights holder, reproduction of CD-ROMs/DVD-ROMs and copyright laws. Take notice that unauthorized copying may be subject to claims for damages and to Penalties.

WARNING: YOU MUST USE THE CORRECT DVD RECORDABLE MEDIA WITH THIS DRIVE. YOU HAVE PURCHASED A DVD+RW/R DRIVE. THIS DRIVE ONLY RECORDS ON DVD+R AND DVD+RW MEDIA.

For CD-R and CD-RW recording use good quality media that supports the maximum drive recording speed as outlined on the drive specification page in this manual.

Follow the instructions in this manual and install your DVD+RW/R Drive. Only after you have completing the drive installation should you install any bundled software or other after market software. When selecting DVD recording software you must make sure that the software supports DVD+RW/R drives and format.

SAFETY PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

These precautions explain how to use the device correctly and safely, thereby helping to prevent injury to yourself or to others and also helping you minimize the risk of damaging the device. Please read these sections carefully before proceeding.

WARNING

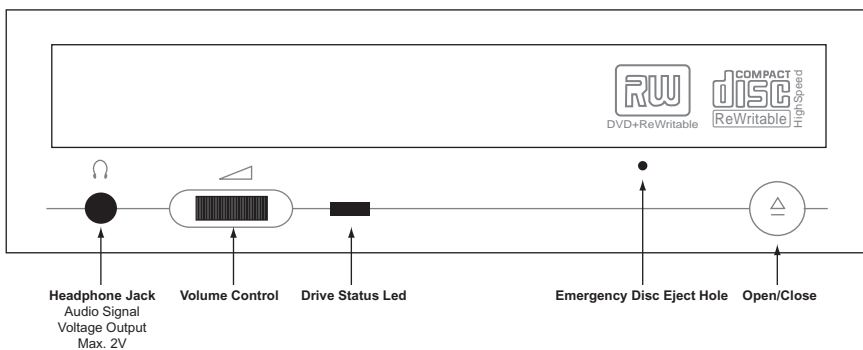
Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

- Do not open the device or attempt to disassemble or modify it, otherwise there is an increased risk of electrical shock or fire. The device contains no user-serviceable parts. If it appears to be malfunctioning, contact The Technical Support Department for assistance.
- Do not look inside the device. If you expose your eyes to the laser inside the device, you risk damage or loss of your vision.
- Do not insert fingers or foreign objects into the device, otherwise there is an increased risk of personal injury, electrical shock, and damage to the device or fire. Please take particular care if small children are present.
- Do not expose the device to rain, use it near water or in damp or wet conditions or place containers on it that contain liquids which might spill into any openings. Otherwise, there is an increased risk of electrical shock, fire or personal injury.
- Follow the Owner's Manual carefully otherwise, there is an increased risk of personal injury, electrical shock, fire or damage of the unit. Follow the correct procedure when setting up the device.
- If unusual smells, sounds or smoke emanate from the device or if liquids enter the device, switch the computer off immediately and unplug it from the power outlet. Otherwise, there is an increased risk of electrical shock, fire or damage to the device. Call Technical Support immediately for assistance.

Drive Features

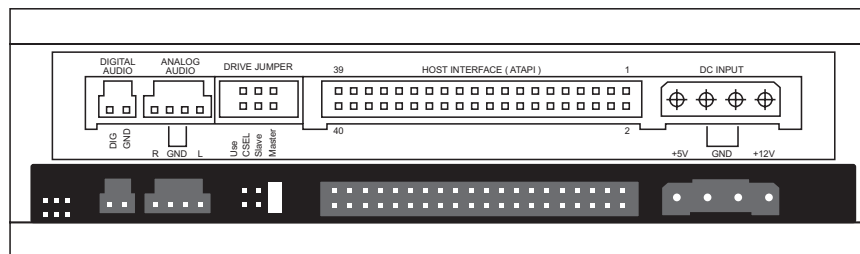
Before you start to install the drive familiarize yourself with the drive controls and connectors.

Front Panel



- **Headphone Jack:** For connection to headphone or powered speakers.
- **Volume Control:** For controlling the volume of the headphones. Moving it to the left reduces the volume, moving it to the right increases the volume.
- **Emergency Disc Eject Hole:** For manual ejection of the disc in case of emergency.
- **Drive Status Led:** When the tray or disc is being accessed, the led shines or flashes orange. When a disc is loaded but not being accessed the led is out. When an unreadable disc is loaded or there is a hardware failure the led will blink.
- **Open/Close:** Pushing this button opens or closes the disc tray

Back Panel



- **Digital Audio:** For connection to a sound card that supports the Sony/Philips digital interface (SPDIF) .
- **Analog Audio:** For connection to the analog stereo input of a sound card.
- **Drive Jumper:** (IDE Master/Slave mode jumper) For setting the drive as a master or slave. Factory setting is as a Master.
- **Host Interface:** For connection to your computers Primary or Secondary IDE connector via 40-pin IDE cable.
- **DC Input:** For connection to your computers power supply. Uses DC+5volt and +12volts.

Installation

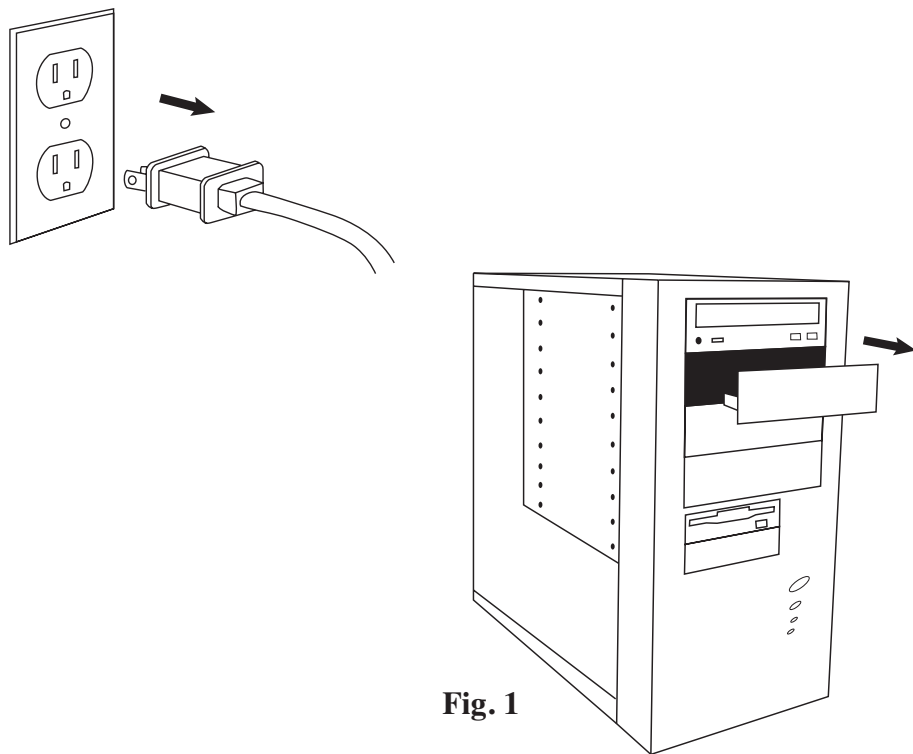


Fig. 1

Step 1.

Prepare your computer for the drive installation: Fig 1

Save your files and as a precaution make sure your system back up files are up to date. Now run your shut down procedures. Once shut down is complete, turn off power and unplug your computer. Discharge static electricity and remove your computer's cover.



CAUTION: Static electricity can damage your computer's internal parts. To discharge static electricity, touch a bare metal (unpainted) part of your computer chassis before touching anything inside your computer.

To install the drive into your computer, remove an available half-height drive bay cover (half-height drive bays are 5.75" wide and 1.75" high)

If you do not have a half-height drive bay available you may replace an existing drive. Choose the drive you want to replace and remove it, putting aside any cables that you unplug and any mounting hardware. These may be used later.

Step 2.

Set Up Drive Jumper: Fig 2

The Jumper is a small cap that fits over pairs of pins on the back of the drive. You can pull off the jumper or replace it with needle-nose pliers. The jumper is used to set the drive as a master or slave drive on the IDE controller that you will connect to the drive. Most systems now have two (2) IDE controllers. They are referred to as primary and secondary. Each IDE controller can have one or two devices. Find your IDE mother board controller connectors by following the cable plugged into your Boot hard drive to the mother board. The connector where your Boot hard drive is plugged into on the mother board should be labeled PRI

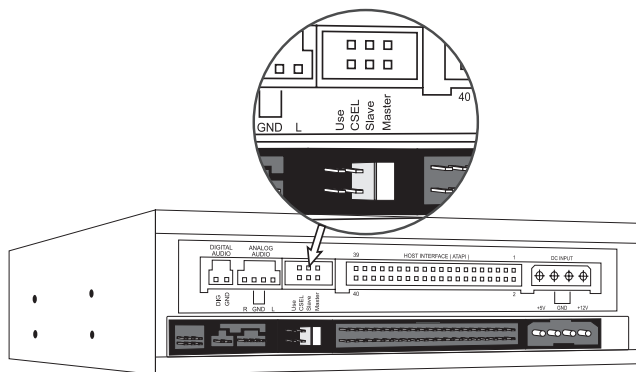


Fig. 2

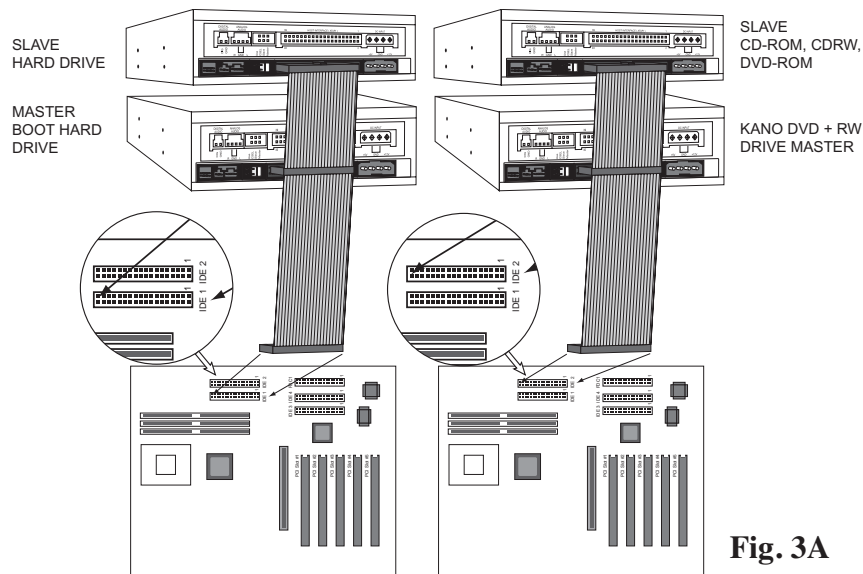


Fig. 3A

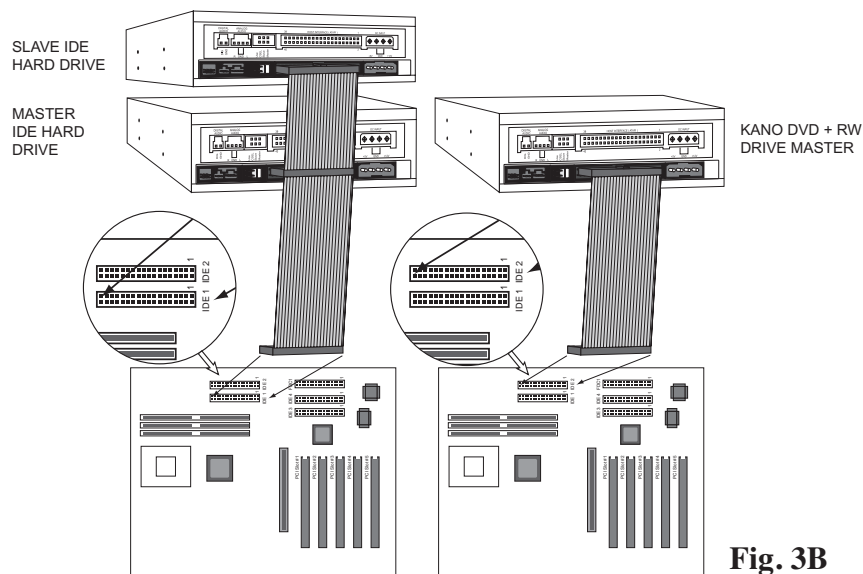


Fig. 3B

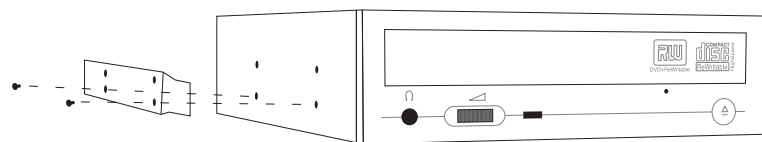


Fig. 4

or IDE 1. There should be a second connector close by labeled SEC. or IDE 2. If there is a cable plugged into the SEC - IDE 2 connector follow it and identify the drives connected to it. From **Fig 3 A/B** select the drive IDE configuration that you will use for connecting the Kano DVD+RW/R drive to your system. We recommend that all hard drives be connected on PRI - IDE1 and your optical drives (cd-rom , cdrw , dvd ext.) be connected on SEC - IDE 2.

This configuration will give you the best performance. Now you are ready to set your drive jumper. If your Kano DVD+RW will be plugged into the first connector on the IDE 2 cable you will place the jumper on the pins marked MASTER. If the drive will be plugged into the last connector you will place the jumper on the pins marked SLAVE **Fig 2**. If you have no drives connected to the SEC – IDE 2 motherboard connector use the cable supplied in the Kano drive kit. If this cable is too short, purchase a longer cable from your local computer store. Plug the end connector on the longest section into the SEC-IDE 2 motherboard connector. Make sure that you plug the pin 1 of the cable connector into pin 1 of the motherboard connector. The pin 1 end of the cable is marked with a color strip or band usually RED.

NOTE: If you have changed the position of any of your existing IDE drives you may need to change there Master/Slave jumper setting.

STEP 3.

Prepare the drive for mounting in your system Fig4.

If you removed a drive and it had special mounting hardware (rails) or your computer requires (rails) attach them to the Kano DVD+RW/R drive with the screws included with the drive.



CAUTION: Using any other screws other than the ones supplied with your drive will void your warranty.

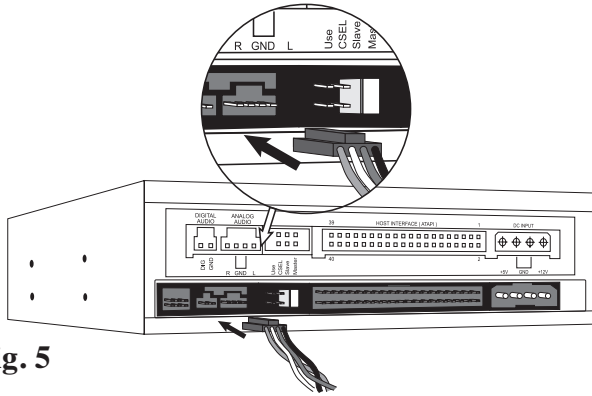


Fig. 5

STEP 4.

Connect the optional audio cable fig 5.

Connect the audio cable supplied with your Kano drive to the analog audio connector **Fig 5**.

STEP 5.

Installing your drive Fig 6.

If you have attached the optional audio cable slowly feed it into the open drive bay as you slide the drive into the bay. If you have rails on the drive follow you computer manufactures instruction for mounting and securing the drive. If your computer secures drives in place by screws, slide the drive in until the chassis mounting holes line up with two drive screw holes on each side of the drive. Check to see if the drive front bezel edge is flush with the front surface of your computer **Fig 6a**. If not move the drive in and out to match the mounting holes for the best fit. Using the four (4) supplied screws mount the Kano drive securely in place.

CAUTION: Using any other screws other than the ones supplied with your drive will void your warranty.

STEP 6.

Connect the IDE cable Fig 7.

Based on your configuration decision in step 2 connect the IDE cable to the drive. Make sure you connect the colored striped side of the IDE cable to the Pin 1 side of the drive host interface (ATAPI) connector .

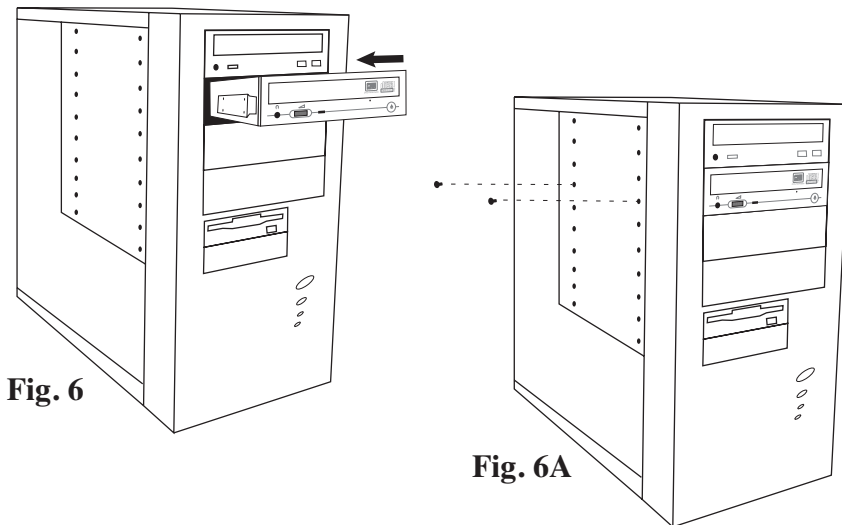


Fig. 6

Fig. 6a

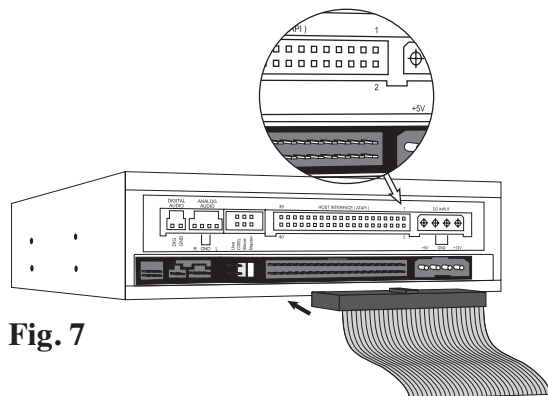


Fig. 7

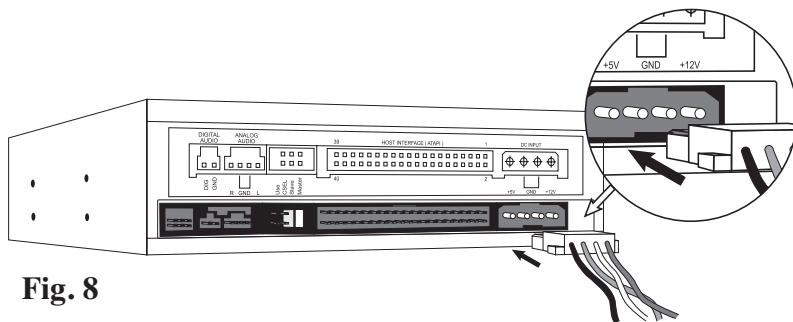


Fig. 8

STEP 7.

Connect the drive power cable Fig 8.

⚠ CAUTION: Drive power connectors only fit one way. Match up the angled corners of the connector with similar corners on the drive DC input connector. Improper connection will damage the drive.

Locate an available DC+5V/+12V power cable in your system and plug it into the drive DC input connector. Power cables usually have yellow, red and black wires with two corners of the connector cut at angles so they only connect to the drive in one position. If you do not have an available connector check with your local computer store for a Y power connector adapter.

STEP 8.

Recheck that all data cables are securely plugged into all the drives. Check the jumpers on all the drives to make sure that you do not have two (2) Masters and or two (2) Slaves connected to one IDE controller connector. Check that your boot hard drive jumper is set to Master and it is the first drive connected to the PRI –IDE1 connector.

STEP 9.

Close up your computer. Make sure all covers are secure before connecting power to the system. Plug in the power cord **Fig 9** and power up the system. After booting up the system OS may find the drive and display a Message "New device found" before going further read your DVD +RW/R software and follow the software instruction to proceed.

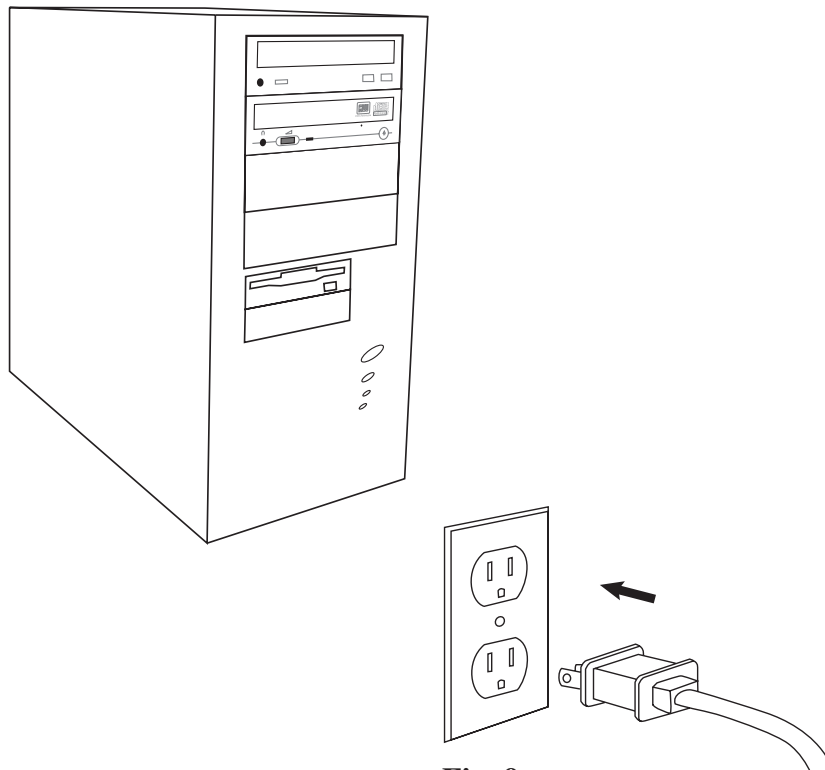


Fig. 9

Specifications

Drive Type:	Internal half height
Interface:	ATAPI
Supported media for writing:	DVD+RW, DVD+R, CD-R, CD-RW, High Speed CD-RW
Writing Speed:	(DVD+RW) 2.4x (DVD+R) 2.4x (CD-R) 2x, 4x, 8x, 12x (CD-RW) 2x, 4x, 10x
Reading Speed:	(DVD-ROM, DVD+RW, DVD+R) Maximum 8x (CD-ROM, CD-R, CD-RW) Maximum 32x
Recording Capacity:	(DVD+RW, DVD+R) 4.7GB (CD-R, CD-RW) 650MB, 700MB
Data Transfer Speed:	Maximum 33MB/sec. (Ultra DMA Mode2) (at I/F)
Average Access Time:	(DVD) 140 msec. (8x) (CD) 120 msec. (32x)
Memory Buffer:	2MB
Writing Mode:	(DVD+RW) Random Access Write, Sequential Write (DVD+R) Sequential Write (CD-R, CD-RW) Disc At Once, Session At Once, Track At Once, Multi-Session, Packet Write
Writing Format:	(DVD+RW, DVD+R) DVD-ROM, DVD-Video (CD) CD-DA, CD-ROM, CD-ROM XA, CD Extra, CD-I, Mixed-ModeCD, VideoCD, PhotoCD, CD TEXT, Bootable CD
Installation:	Horizontal or Vertical
Power Requirement:	DC +5V - +12V
Power Consumption:	16 Watts
Weight:	1.2 kg
Dimensions: (WxDxH)	145.6 x 196.4 x 41.6mm

Drive System Requirements

IBM PC/AT or compatible model with a free half-height drive bay.
Available 12V/5V power connector.
Available IDE drive position Primary slave, Secondary master or Secondary slave.
Windows 98/98SE/ME/WindowsNT Workstation4.0(Service Pack 5 or later)*
2000 Professional/XP *
Pentium3, Celeron 700MHz processor, or faster*
256MB of RAM*
Hard Disk space free, 400MB minimum / 5GB or more recommended*


***Check the DVD software you are using for additional requirements.**

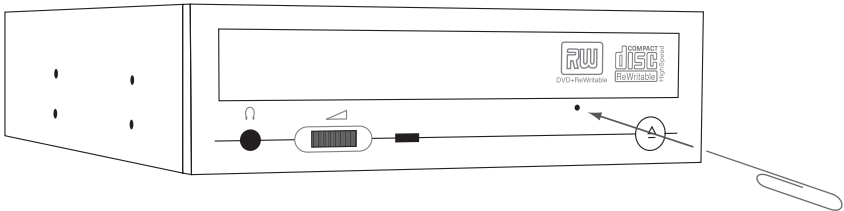
Recommended Media:

THIS DRIVE CAN NOT RECORD ON DVD-R , DVD-RW or DVD-RAM MEDIA.
THIS DRIVE CAN NOT RECORD 8cm CDs, BUT THEY CAN BE READ

DVD+R: KANO TECHNOLOGIES, Verbatim, Fujifilm, TDK.
DVD+RW: KANO TECHNOLOGIES, Verbatim, Fujifilm.

Troubleshooting

 **CAUTION:** When following these suggestion first consult the installation manual for the proper procedure and safety instructions.



Manual Disk Eject

SYMPTOMS	CAUSES	SOLUTION
After installing the drive your system will not Boot up.	Your boot hard drive and or the other IDE drives may not be connected or incorrectly connected.	Recheck all of your IDE drive connections and Master/Slave settings.
System Boots up but the DVD +RW/R Drive does not show up as a drive on the System Control Panel.	Drive is not installed correctly.	Check and make sure you have plugged in power to the drive. Check your master slave setting. Check and make sure that the IDE data cable to the drive and mother board is in and is correctly connected to Pin 1.
Cannot play a DVD Movie Disc	No DVD Video player software	Install DVD Video player software

Cannot record to DVD R disc	installed. Disc my be scratched or dirty.	Clean disc with a soft cloth
	Screen says media error.	You may be using the wrong DVD media
Cannot Record to DVD RW disc	Screen says insert media. Screen says no media	Make sure you have DVD+R or DVD+RW Media loaded in the drive.
	Same messages as above.	Same suggestions as above plus, check and make sure your software supports DVD+RW media formatting. DVD+RW media must be formatted before you can record on it.
Can not record to CD-R and or CD-RW media	Same messages as above.	Makes sure that the media you are using is rated for the speed that you plan to record at. Do not try to record at a higher speed than the drives maximum rated speed.

If these suggestions do not solve your problem contact Kano Technologies technical support www.kanotechnologies.com or call Tel: 714-379-5520. This is not a free call consult you local phone service provider for your rates before placing the call. You must have the following information when contacting Kano Technical support.

Drive Serial Number: _____
Purchase Date: _____
Proof of purchase if you have not previously registered your drive purchase.