

# Operation Manual



Model #:

Apus EZ-5810C Automatic CD Duplicator

Serial Number: \_\_\_\_\_

(Serial number is labeled on the rear panel of your device.)

**C**ongratulations! You have just purchased the innovative Apus series auto-duplicator. The Apus EZ-5810 is a state of the art automate duplication device that is equipped with an embedded intelligent microprocessor that requires no host or personal computer connection. With its advance module controller, the Apus EZ-5810 is capable of on-the-fly data burning from the master disc to target blank disc. Its 100 discs storage capacity input hopper allows uninterrupted disc refill while duplication is in progress. The blank disc is automatically dropped from the loader onto the recorder one at a time. Its automatic reject mechanism will dispense all failed copies into a reject bin, hence only the good copies make it to the spindle.

The Apus EZ-5810 is simple to operate. All it takes is a 3 steps process. Just plug in the power cord, turn on the power, load the disc, and you are ready to go!! With the user-friendly LCD controller it takes only minutes to learn. There are no complicate manuals to read. Simply press and go! It's that easy!

This operation manual provides you all the necessary information you'll need to understand the product better, so Apus can serve you correctly. Please read the manual thoroughly before getting on the road.

Again, we appreciate your purchase. Acronova Technology Inc. works closely with our customers to provide the best intelligent, convenient automation equipments and solutions. For more information regarding duplication, printing, and the management of optical discs, please log on to our website [www.acronova.com](http://www.acronova.com), and feel free to contact us whenever you have any questions or feedbacks.

 **Warning...**

It is illegal to duplicate copyright materials, including computer software, games, audio CD, VCD, DVD, and others. Violators may subject to fine or prosecuted under the federal laws. Some vendors may allow you to make reasonable back-up copy of the disc, but not all of them do. If you are not sure about the copyright policy of any optical disc, please contact the original publisher.

**What You Shall Need**

Since Apus EZ-5810 is a true standalone duplicator, no computer system is required. You shall only need:

- 1) The master disc:  
The original disc that provides the source of data in a duplication job.
- 2) The blank disc:

The target disc; the recordable CD which data from the master CD will be duplicated to.

### **Important Safety Instructions**

For your safety, basic precautions should always be followed to reduce the risk of damage, electric shock, fire, and personal injury. This includes the followings:

- Read this manual carefully and follow all warnings and instructions.
- Always unplug the power cord before trouble-shooting and maintenance.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole grounding receptacles that accept your device's plug. Make sure the device is connected to a known ground.
- Do not place in direct of sunlight. Make sure the environment is free from any abrupt or humidity changes.
- Keep away water, flammable material, gas, dust, dirt, smoke, and pollution.
- Place this device on a steady level surface.
- Do not move this device when the power is on. Handle it with care, especially the fragile parts.
- Place this device in an air-conditioned environment. Allow space for ventilation of clean, cool air. This device generates heat during burning process. Overheat may lower output quality, increase failure rate, and cause damage to the device.
- Use a reliable power source with a correct voltage and ample current supply. Out-of-specification or unstable power may lower its productivity, increases failure rate, and might also damage the device.
- Give this device a dedicated power outlet. Do not share outlet with other devices.
- Make sure the power cord is secured. Always turn off the power when connecting to the power cord or cable.
- Do not attempt try to disassemble this device. Take it to a qualified service technician when repair work is required. Un-authorized disassemble or repair will definitely void all warranty.
- Do not touch any moving parts to avoid injury or damage.

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### **FCC Regulations**

This equipment has been tested and founded 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. If this equipment is not installed and used according to the instructions, it may cause damaging to the 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 correct the interference by one or more of the following measures:

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

Any changes or modifications to this device that are not expressly approved by Acronova Technology could void the user's authority to operate this equipment.

Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.

### **Limited Warranty (North America only)**

The information contained in this document is subject to change without notice. Acronova Technology Inc. makes no warranty of any kind with respect to this information.

Acronova Technology Inc. warrants this device for a period of one year from the date of delivery free from defects in material and workmanship. In case of mal-function or fault, Acronova Technology Inc. will, at its option, repair or replace the product. You must return the defective product, repacked and protected in

the original package, with a valid RMA number, to an authorized dealer or reseller within the warranty period accompanied by a proof of purchase.

This warranty only covers parts made by Acronova Technology Inc. For certain parts made by other manufacturers, such as hard drives, disc readers and writers, the original manufacturer's warranty applies.

This warranty is not covered when product has been abuse, misuse, alteration, modification, tampering, negligence, faulty installation, accident, lack of reasonable care, un-authorized repairing or service, or if affixed to any attachment not provided with the product, or if the serial number label comes with this product is broken or remove.

This warranty does not cover damages that occur in shipment, due to act of God.

All repair and replacement services shall only be handled by Acronova Technology Inc, and by the authorized service centers. Parts used for replacement are warranted only for the remainder of the warranty period.

ACRONOVA TECHNOLOGY INC. DISCLAIMS ALL IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, PERFORMANCE AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT ACRONOVA TECHNOLOGY INC. BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, TORT, ECONOMIC, CONTINGENT OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THIS PRODUCT OR ITS DOCUMENTATION, INCLUDING, WITHOUT LIMITATION, DAMAGES OR COSTS RELATING TO THE LOSS OF DATA, PROFITS, BUSINESS OR GOODWILL, EVEN IF ACRONOVA TECHNOLOGY INC., ITS AUTHORIZED DEALER OR RESELLER HAS BEEN ADVERTISED OF THE POSSIBILITIES OF SUCH DAMAGES. IN NO CASE SHALL ACRONOVA TECHNOLOGY INC.'S LIABILITY EXCEED THE AMOUNT PAID BY THE USER OF THIS PRODUCT OUT OF WHICH SUCH CLAIM AROSE.

Any written or oral information or advice given by the dealer, reseller, agents, sales reps, or employee of Acronova Technology Inc. will in no way increase the scope of this warranty nor may you rely on such oral or written communication.

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### **Unpacking the Package**

Follow the instructions outside the package to unpack the device.

Before opening the package, carefully inspect the carton for damage. If any sign of damage is shown, please contact the shipping company and your dealer immediately.

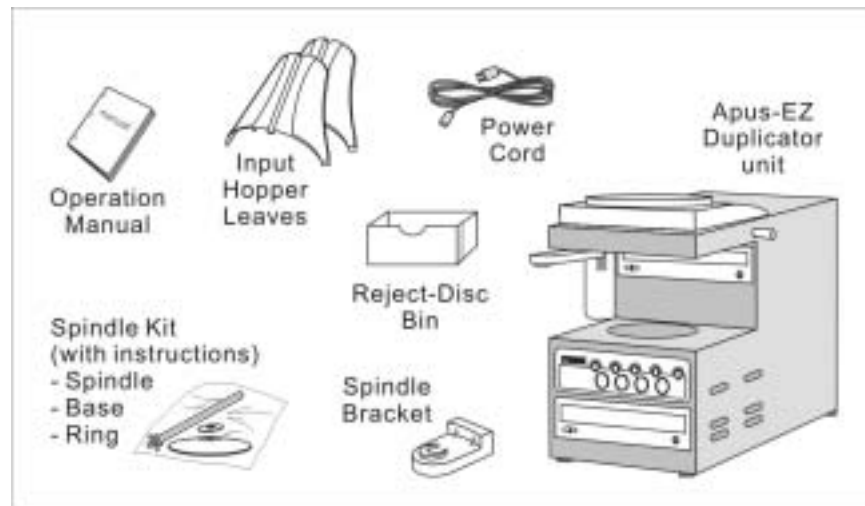
Separate all parts from packing materials. If any parts are missing or damaged, repack everything to the original package and contact your dealer immediately.

Save the packing materials for future shipment use. Returning goods without original package may not be well protected during transportation, and will void your warranty.

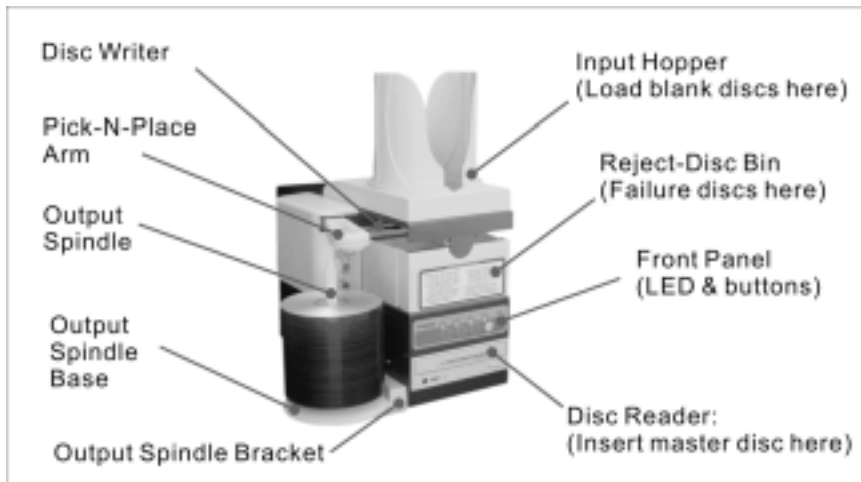
### **Checking the Contents**

Your Apus EZ-5810 shall come with:

- One Apus EZ-5810 auto-duplicator unit
- One spindle kit (including one spindle, one spindle base, and one ring)
- One spindle bracket
- Two input hopper leaves
- One reject-disc bin
- One power cord
- This operation manual

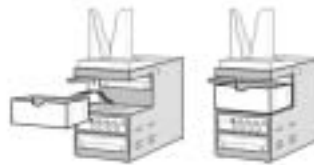


## Getting Familiar with Your Duplicator



### Assembling Your Duplicator

- 3) Assemble the input hopper leaves:  
Carefully attach the two leaves, one at a time, on the input hopper.
- 4) Assemble the spindle set:  
Follow the instruction that comes with the spindle kit to assemble the spindle. The spindle is where the successful disc will be stacked.
- 5) Attach the reject bin:  
Slip the reject bin to the device beneath the input hopper. The reject bin is where the successful disc will be stacked.
- 6) Attach the bracket:  
Attach the bracket on the side of the device. This bracket provides a position where the spindle assembly shall be sit.
- 7) Attach the spindle set:  
Attach the spindle set on the bracket.
- 8) Connect the power cord:



Plug in the power cord to the rear panel of the device, and connect the cord to a wall outlet.

● **Warning...**

Use a reliable power source of a correct voltage with ample current supply. Out-of-specification or unstable power supply may lower its productivity, increase failure rate, and damage the device.

**Disassembling Input Hopper Leaves**

In gentle horizontally push leave to tilt. Then, carefully lift the leave up and remove it. Do the same procedure to one by one disassemble the leaves.



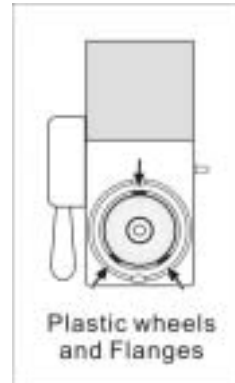
### **Loading Blank Discs**

Some blank discs are sticky and hard to be separated from each other. Due to its innovative patent-pending mechanism, the Apus has the ability to separate sticky discs better than many other auto-duplicators. However, you shall always shuffle blank discs loose before sending them to input hopper.

Inside the input hopper, there are three plastic wheels with flanges. Make sure the first blank disc sits evenly on all the flanges, when loading discs to the input hopper. Afterwards, carefully stack two or three discs on to the first disc. Then, load more discs on top of them.

The capacity of the input hopper is 100 discs. You do not have to fully load it to the maximum capacity every time. Just load the quantity you need. The device is designed to work continuously until the input hopper is empty.

While duplication is in progress, you may refill the hopper with more discs but only up to the 100 discs storage capacity.



### **Getting Ready**

- 1) Make sure the device is securely plugged to a wall outlet that can provide a power source of the correct voltage and ample current.
- 2) Turn on the power switch at the real panel of Apus. The Apus will enter initialization process, and the LED indicators will in turn run one after another for a while.
- 3) When the initialization process is done, the ready indicator is lit while others are off. The device is ready to go now.

### **To Stop a Running Job**

During a burning or a simulation process, you may press the test/cancel button to quit. If it is in the middle of a process cycle, it will quit after the current cycle is done. Afterwards, the device will remain in the ready mode.

### **To Select a Writing Speed**

Theoretically the writer shall automatically adjust the burning speed according to the quality of the disc. It starts burning at a lower speed and will gradually increase to a higher speed until the maximum allowable speed is achieved. Depending on the quality of disc, the system maximum speed may never be

reached if lower graded disc is used.

Basically, quality of disc depends on the coating chemical and coating technology. It is impossible for any optical disc drive to adapt to all the discs that are on the market. If you were encountering high failure rate, the first useful solution is to reduce the writing speed.

Apus provides three burning speeds options. If you press the **high** button, the device will go to the maximum possible writing speed. Therefore, the maximum production rate can be expected.

At the maximum speed, burning a 650 MB disc shall take less than three minutes. If it takes longer, please check both the quality of the blank and the master disc. Use a reliable master disc for testing purpose. Change blank discs to other brand or specification. You shall also check the power supply to see if it is reliable.

If you press the **normal** button, the device will be limited to no more than a middle speed. The burning quality can therefore be better assured. When burning audio discs of music, this normal writing speed is useful.

In case you press the **safe** button, the device will burn discs at a low speed. This is useful when the quality of disc, either master or blank, is not good enough for high-speed or normal speed operation. When using low cost discs, or the old low-speed ones, this safe writing speed is helpful.

#### **To Make Duplication**

- 1) Insert the master disc into the reader.
- 2) Load the input hopper with the quantity of blank discs you want to duplicate. Refer to Loading Blank Discs section for how to correctly load the blanks.
- 3) Press **high**, **normal**, or **safe** button to start.

The discs successfully burned will be stacked on the output spindle. If not, will be put to the reject bin.

Refer to the "To Stop a Running Job" section to stop duplication.

#### **To Execute a Test-Burning (Simulation)**

- 1) Load the master and blank discs as if you were duplicating discs.
- 2) Press the **test/cancel** button.

The test-burn function simulates the burning process, but does not really burn the disc. After the test process, a blank is still a blank as a brand new one.

If the disc passed the test, it will be moved to the output spindle. If not, it will be moved to the reject bin.

Refer to the "To Stop a Running Job" section to stop simulation.

#### **To Execute a System Check (Initialization)**

In ready mode, press **high** button while holding **safe** button, the device will start an initialization process as it would when you turn on the device. After it's done, the device enters ready mode.

#### **To Park the Arm (For transportation)**

In ready mode, press **normal** button while holding **safe** button, the device will park the pick-n-place arm for transportation. After the arm parks, the device will enter ready mode. You may turn off the device for transportation.

To release the device from this park condition, turn on the power.

#### **Maintenance**

Periodically cleaning the device is a good habit. Follow the steps below to do it.

- 1) Turn off the AC power switch.
- 2) Remove the master and blank discs.
- 3) Unplug the power cord from the wall outlet.
- 4) Use a clean lint-free cloth moistened with warm water.
- 5) Dry the unit immediately with a clean lint free cloth.

### Frequently Asked Questions

Q: *Burning failure rate is high.*

- Try a lower writing speed such as normal or safe.
- Use different brand blank discs.
- Check power source.

Q: *Disc jam during operation.*

- Check if the disc is standard size. (120mm)
- Make sure that discs are leveled in the input hopper.
- Reduce the quantity of disc per load. Some discs are too weak or soft.
- Use different brand blank discs.

Q: *The power switch does not work every time.*

- Allow 30 seconds interval between turn on/off.

Q: *Robotics arm fails to pick up the discs.*

- Check if the disc is standard size. (120mm)
- Make sure the discs are not out of shape.

Q: *Dropping 2 or more discs at the same time.*

- Check if the disc is standard size. (120mm)
- Make sure discs are leveled while inserted.
- Loose discs before use. Discs may stick together in package.
- Use discs of the same brand/lot. Do not mix different brand/lot discs.
- Reduce the quantity of disc per load. Some discs are too weak or soft.
- Use different brand blank discs.

Q: *Discs cannot be dropped into the rod.*

- Make sure the unit is placed in a flat area.
- Make sure the output bin is attached to the unit properly.

### **Choosing Blank Disc**

There are a huge variety of recordable CDs on the market each with different writing speeds, and packages. Among them are always pro and cons, and trade-offs. Not all of them work perfectly in every case. Unfortunately, we are unable to test all of them.

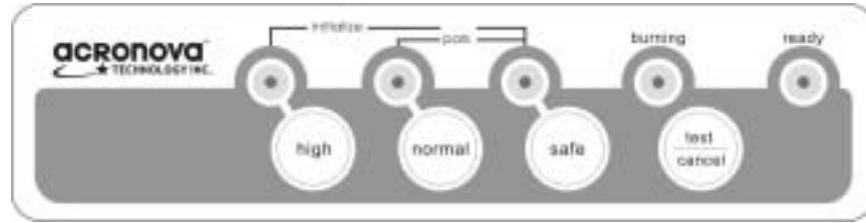
It is your sole responsibility to choose a blank disc that is most suitable for your application. Try and error is a workable way. Your local dealer could in many cases be the first information source. Most of them are more than happy to give you advices and supply you blank discs.

### **Production vs. Throughput**

The quality of the master disc and the data format also play critical roles in a burning job and the quality of the discs produced. If you keep encountering difficulties, try a lower writing speed first. In many cases the production rate shall successfully trades off the throughput rate.

Your Apus EZ-5810 can be restricted to three maximum writing speeds simply by pushing different buttons respected. Note that selecting a high-speed does not mean the writing speed will be fixed at maximum. The system will be smartly keep-varying the writing speed during burning a disc from the inner ring to the outer ring. Your selections restrict the maximum writing speed to high, normal, or safe one.

## LED Message Definitions



From the LED displays, user can easily identify the status of the device and, if any, classify abnormal situation.

: Lit : Off : Flash : Run

>> Normal Status <<	
	Power-off
	Initial in process
	Unit in ready mode
	Park mode
>> Error Status <<	
	#11: Memory error
	#21: Arm error
	#31: Module error
	#32: Pick Disc or Release Disc Fail Timeout error
	#33: Pick Disc or Release Disc error
	#41: Drop Disc error
	#42: Module Timeout error
	#43: Module Funtion error
LED (from left to right): high-normal-safe-burn-ready	

If a power-on reboot cannot solve the problem, please contact dealer, authorized service center, or e-mail us.

**Acronova Technology, Inc.**

[www.acronova.com](http://www.acronova.com)

Part#: EZ5810-30421-30R1