

Detail Master

Burning Systems

Instruction Booklet
For Dagger III Burning System
Model 8421—50 watts max

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Congratulations and thank you for purchasing your Detail Master Dagger III Burning System! This versatile system has been designed for ease of use and years of dependable service. Made with pride in River Grove, Illinois, Detail Master is a brand trusted by novices and professionals alike. With more than 50 pen tips and many accessories available, your imagination is your only limitation!

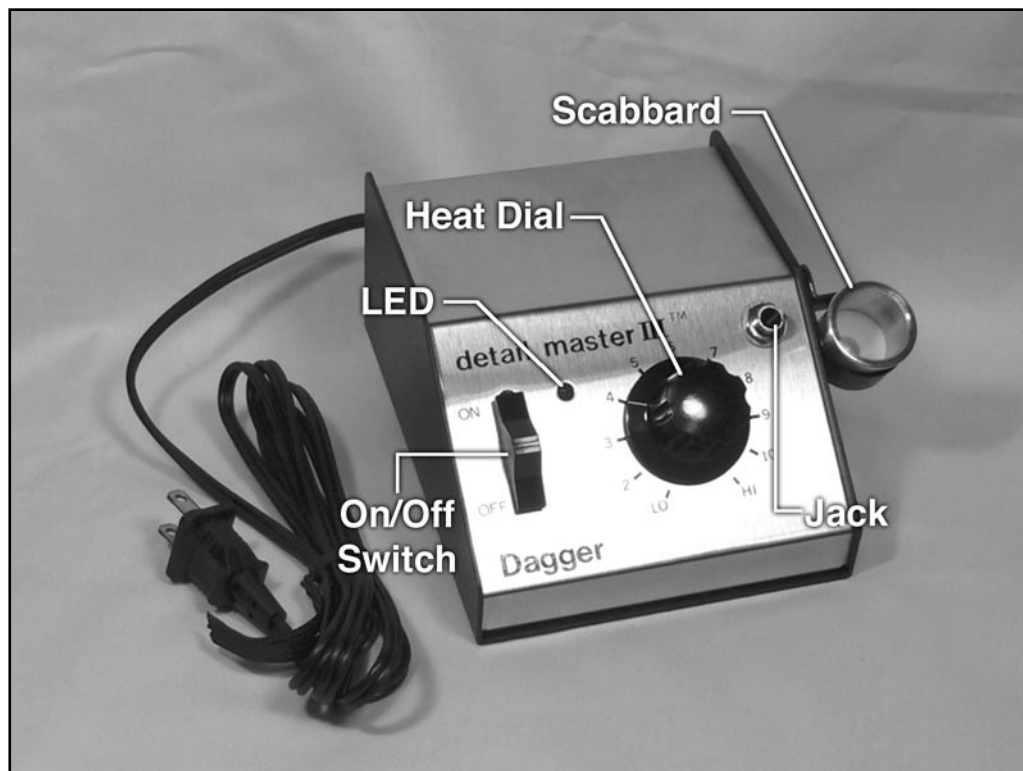
User's guide:

The Dagger III 50 watt max Burning System is one of our smaller units, and can handle most Detail Master pen tips. However, its rate of recovery is a bit slower than its larger siblings, and pen tips, especially our heavy duty wire tips, will take longer to regain their heat level during use. This is a great unit for carvers, flat-burning pyrographers, and anyone who needs a slower, more controlled burning system.

Your burning system is constructed using state-of-the-art technology. For instance, we do not use the more common NiChrome wire; Our pen tips are made of a space-age alloy that is much stronger and has less corrosive tendencies. Our electronic circuitry is all solid-state, and our enclosures are heavy gauge steel.

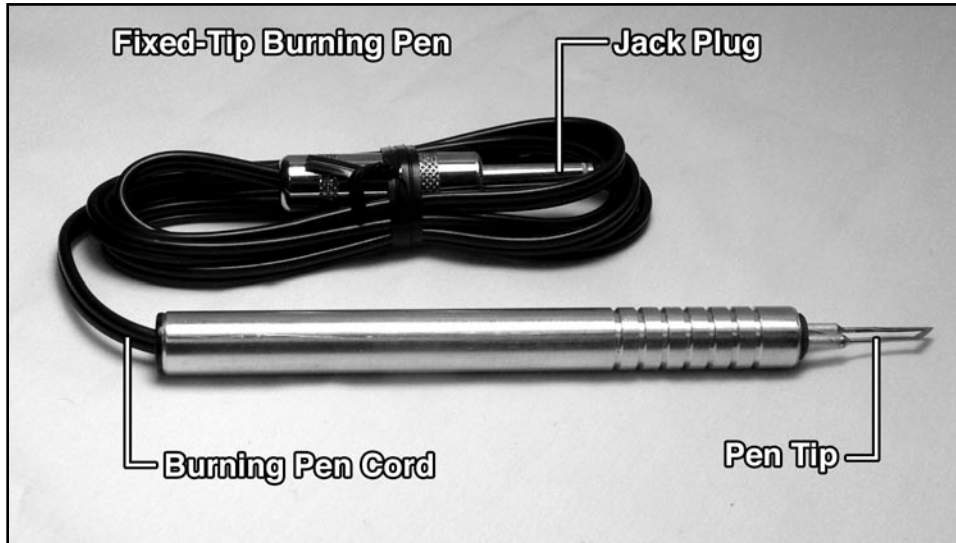
When opening the package, you will find that your Detail Master unit comes completely assembled. Unwind the power cord and plug it into an available 110/120 Volt outlet. For countries in Europe or Asia that have 220 Volt outlets, a special unit is available with a 220 Volt power supply. If you have a 110/120v unit in a country with 220 Volt electricity, converters can be purchased at electronic supply stores.

To burn with this unit, all you will need to do is push the jack plug of your pen into the jack receptacle on the front of the unit, turn the ON/OFF switch to "ON", set the dial to your desired heat setting, and you are ready to start burning.

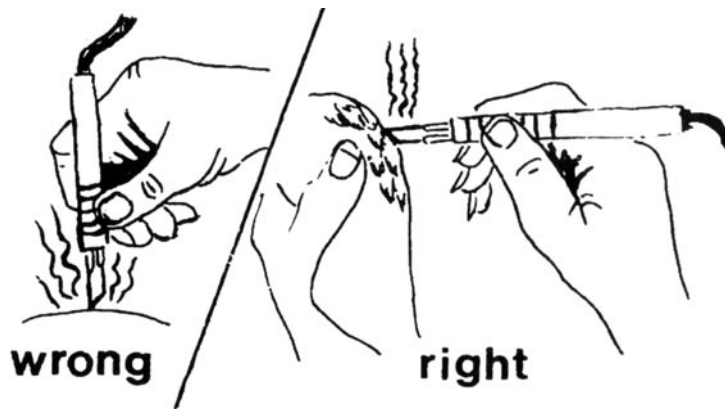


Tip: When using the set for the first time, it is always wise to test it on a sample piece of material (This should be the same as the material you will be working on). With this sample, you will be able to try the pen and observe the results before applying it to the main art piece. This will allow you to see what pen will do the best job, what heat setting is best, and it will allow you to see how fast you should apply the pen. If you are satisfied with the test, apply it to the main art piece. If you are not satisfied, change the heat setting, perhaps the pen tip, and try the sample again.

**The Detail Master Burning Pen
(fixed-tip shown)**



When using the burning pen, do not burn with the pen vertically oriented (straight up and down). Instead, hold it at a 45-degree angle, or at a position that allows the heat to rise away from your fingers.



Safety:

- Always make sure an unattended set is turned off. It only takes seconds to heat up again.
- If any wire appears frayed or burned, send the set into the factory to have a new wire installed.
- Do not make your own pen tips. Our pen tips are made from a space-age alloy that is not available in stores; if you use an alternate material, like NiChrome, you could damage the set's components. Such damage will not be covered under the factory warranty.

Sharpening your Pen Tips:

Your pen tips are sharpened at the factory, and can be used that way; but many users want a razor edge put on and can sharpen the pen to their own satisfaction. A burning pen care kit is available, which contains an Arkansas stone used for sharpening, a wooden handled leather strop board and a bottle of Neet's Foot Oil with honing compound, all in a plastic carrying case.

Tip: Sharpen both sides equally. Support the pen tip with your forefinger when sharpening. If you do not support the tip with your finger, it may snap under too much pressure.

Troubleshooting:

- If your burning unit starts humming or making noise, it is probably a transformer problem and you should send it back to the factory immediately for repair.
- If you cannot remove the jack plug from the receptacle, it could be that the insulator melted from an overheating problem. Send the set and the pen back to the factory for repair.
- If the pen handle gets too hot, your heat setting may be too high. One solution is to lower the heat setting on the dial (Burning at a lower heat level can be easier and more controllable). Please keep in mind that setting 5 on the dial is roughly 1,000 degrees Fahrenheit, while HI is roughly 2,000 degrees Fahrenheit. Another solution is use our Rubber Finger Protectors.

Tip: If you have trouble putting the Rubber Finger Protector on the pen, sprinkle a little talcum powder inside the protector for easier assembly.

Service Department:

Fill out the warranty card and send it in as soon as you receive your burning system. This will grant you a warranty on labor and materials for one full year for any of our control units, from the time of purchase. For units that are out of warranty, there will be a non-refundable service charge that includes a complete inspection of the unit and all of its components. We will send a report to you detailing the results of our inspection, and the cost of repairs to the unit. If you choose not to have your unit repaired, we will be happy to upgrade you to a new unit at a discounted price.

Our service department will repair the solid state, fixed-tip pens. We do not repair the replaceable pen tips because of the cost of repairing a tip would be more than the cost of replacement. There is no warranty on the pens themselves, since we cannot control the use or abuse of the pens. All of our pens are tested before shipping; If you encounter a problem with a pen that is a factory defect, we will replace the pen free of charge. Please send in any fixed-tip pens and control units for repair to:

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For helpful hints and tips, check out www.freeartschool.com!

Definition of Terms:

Burning pen cord: The insulated cord connected to the handpiece of a burning pen; Used to carry the necessary voltage and amperage to the burning pen.

Chassis: The chassis is made of two metal components, top and bottom. This is the case used to house the electronics within the control unit. The bottom of the chassis is made of carbon steel and painted black. The cover of the chassis is made of polished stainless steel.

Dial: This is the large, black knob centrally located on the front of the set. It is surrounded by numbers and indicates the temperature setting of the burning pen. Turning the knob clockwise will increase, and turning it counter-clockwise will decrease the temperature of the burning pen tip.

Tip: When trying to set the dial to a certain number, always go to a higher setting and then dial back to the number you want. Also, remember that electrical voltages will vary from location to location, and will result in slight temperature variations at each dial setting.

Fixed-tip burning pen: This solid-state device is our recommended burning pen. Its contact points are silver brazed and have a low potential for trouble. The pen handpiece has a five foot cord, with a jack plug on one end, and can be ordered with one of 50 different tip styles.

Gripper: The metal device on top of the Etchmaster system for holding the handpiece of a burning pen when not in use.

Jack: A receptacle in the face of the control unit for plugging in the jack plug of a burning pen assembly.

Jack Plug: The chrome plated plug at the end of the burning pen assembly cord; used for plugging into the jack and making an electrical connection.

LED: LED stands for Light Emitting Diode. This is the small, low-power red light on the front face of the set that illuminates to indicate that the set is on and operating.

Pen tip: The working tip of a burning pen, made of a space-age alloy. More than 50 different tips are available.

Power cord: The insulated wire that can be plugged into a wall outlet to bring power to the control unit. A two wire insulated cord is used in North America, and a three wire insulated cord is used in the rest of the world.

Power Supply: The power supply (transformer and electronic components) determines the rate of recovery when the burning pen is applied to a medium. When you have a larger power supply, the recovery rate of the burning pen is quicker.

Replaceable-tip Pen: This is a burning pen with interchangeable tips. Our newest product, the Version 2.0 Burning Pen, operates much cooler than the older Version 1.0 and has a more secure and higher conductivity connection, using silver-brazed copper legs on the tips. Version 1.0 handpieces, tips and accessories are still available for special order, but it is recommended that everyone use the Version 2.0 handpiece. This handpiece includes a five foot cord, and your choice of tip.

Scabbard: A receptacle, made of aluminum and lined with a non-conductive, heat-resistant, white teflon insert; Used for holding the handpiece of a burning pen assembly when not in use. It is only included on the Dagger III, Sabre IV and Excalibre models.

Slip Lock: For Version 1.0 Handpieces only. The slip lock is used to hold the tip into the Version 1.0 handpiece. It is installed by pushing it over the legs and toward the end of the replaceable tip. Then, push the legs into the handpiece. Finally, push the slip lock towards the handpiece until it stops. The slip lock spreads the legs of the tip slightly, locking them into the handle. Remember, this does not apply to Version 2.0 Handpieces. They are no longer needed with the new, Version 2.0 design.

Switch: An electronic device used to divert power. A switch will turn the unit on and off. On the Excalibre systems, a second switch is included to divert power from one burning pen to the other.

Transformer: A electronic device made of metal and wound with copper wire to change the input voltage from a wall outlet to the desired voltage used by the burning pen(s) attached to the device.