

Read this manual fully before using this appliance.

# Warnings

- Shock Hazard: Do not open the cabinet. No user serviceable parts inside.
   Should the unit malfunction it must be serviced by Razertip or its service agent in order to avoid a hazard.
- For indoor use only. Keep this and all power tools away from water or sources of moisture.
- This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Keep this and all tools away from children. This tool should not be used by children unless under the direct supervision of an adult.
- Always be sure to have adequate ventilation. Many materials give off dangerous fumes when burned.
- A fire may result if the appliance is not used with care.
- The pen must be placed in the pen clip when not in use.
- Do not use excessive pressure on tip. For deeper cuts, increase heat setting and let the heat do the cutting. Heavy-duty pens will withstand more pressure than the standard pens.
- NEVER touch the screen with anything other than a clean finger, light cotton glove or touch screen stylus. The screen be damaged if contacted by a tip or other tools or writing instruments.

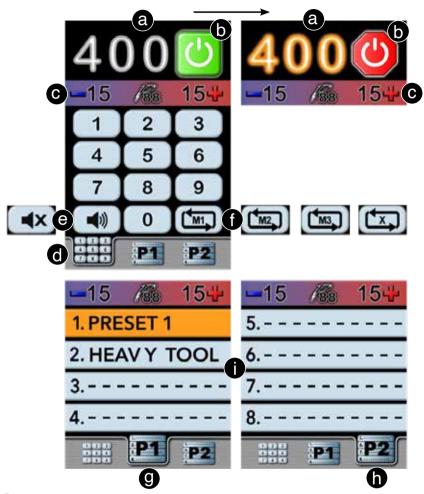
# **Controls and Their Operation**

- 1 Power Cord Input power cord\* connects here.
- Main Power Switch turns display on and off.
- 3 Touch Screen to input settings (Pg. 3)
- 4 Cord Jack pen cord plugs in here.
- 5 Jack Light Bezel indicates power flowing to the pen. (Pg. 5.2)
- 6 Pen Cord connects pen to power supply.
- Pen Clips (2 supplied) hold pens when not in use.
- 8 Left End Panel permanently attached to unit.
- 9 Right End Panel (magnetic) remove to connect expansion modules. (Pg. 8)
- **10** Cooling Fan Vents The P88 has an automatic fan to keep the power supply from overheating. Do not to block the fan openings.

<sup>\*</sup> if using a power cord other than the cord supplied with the P88 you must use a safety-approved C8 power cord for the country in which the unit is being used.



# **Input Screens**



- a Heat Setting Display Bar: displays heat setting and idle/active modes.
- Pen Power Icon: starts or stops heat to pen (Pg. 5).
- O Nudge Bar: + and icons nudge heat up or down by set value (Pg. 6).
- d Keypad Tab: input heat setting, mute/unmute and cycle memory key.
- Sound Key: turn keypad beeper tone on/off (Pg. 6).
- f Memory Key: Cycle through memory channels (Pg. 6).
- P1 Tab: Access User presets 1 to 4.
- P2 Tab: Access User presets 5 to 8.
- User Presets: (Pg. 7)

# **Description**

The Razertip<sup>®</sup> P88 is a power-regulated touch-screen pyrography control unit with unprecedented user control. It is compatible with any Razertip R-Touch System modules, allowing you to expand it to a double or triple-function unit (Pg. 8). The P88 accepts all standard, HD and BPH interchangeable-tip Razertip<sup>®</sup> pens. The P88 can be used anywhere in the world simply by attaching a suitable power supply cord or



plug adapter. If your input voltage changes - even if it's a big change due to a brown-out or spike - your tip temperature will remain constant.

# **Basic Operation**

- **A.** Attach the power cord and connect to a power source.
- **B.** Attach the pen cord to the cord jack and the pen.
- **C.** Be sure that the connectors are fully seated (see page 11).
- **D.** Turn the main power switch "on".
- E. Wait for screen to activate and the P88 is ready to use.

### 1. Input heat setting.



The heat setting input is always 3 digits. Settings range from "100" (lowest) to "800" (highest). Begin with a medium setting (i.e. 350) and adjust until desired heat is achieved. Once you have used the P88 for a while you will become familiar with the best settings for your desired application. Preferred settings can be stored in the 3 memory channels (Pg. 6) or in the 8 user-programmable presets on the P1 or P2 tabs (Pg. 7).

To input a heat setting of "350", input "3" then "5" then "0". The heat setting is accepted as soon as the third digit is entered. If you only input 1 or 2 digits the

previous display will return after 3 seconds. If you try to input a heat setting above "800" a warning "MAX 800" will display for 3 seconds and the previous display will return.



#### 2. Powering the pen on/off.

Touching the green Pen Power Icon powers the pen and the screen becomes "active".

Note: Pens take only a few seconds to heat up. Pens with larger tips may take longer.



The jack light bezel will glow solid blue. A flashing blue bezel indicates no pen connected or a broken connection in the pen or cord.



Touching the red Pen Power Icon stops power to the pen and the screen becomes "idle". The jack light bezel will go dark.

Note: Pen tips can remain hot after power has been stopped.

#### 3. Adjusting the heat.

Heat setting can be changed anytime by inputting 3 new digits. The new setting will take effect immediately after the 3rd digit is entered.

Heat setting can be nudged by using the — or — icons by the value shown beside each icon. (Pg. 6 - "Nudge Value Adjustment").

### 4. Main power off.

To save energy and prolong screen life it is recommended to turn off the main power switch if the unit will not be used for some time (30 minutes or more). All memory and user presets will remain intact after power is shut off.



active



de-activated

### 5. Auto-Off Feature.

The P88 will stop power to the pen after 60 minutes of no screen input activity. The unit will beep and revert to idle mode. To re-power the pen again simply touch the green Pen Power Icon. This feature can be toggled on-off by pressing and holding the green Pen Power Icon for 3 seconds. The icon will change to show a clock icon to indicate "timer not active" (auto-off de-activated), then revert to the green Pen Power Icon. Repeat for "timer active" (auto-off activated).

#### 6. Using the memory function.

The P88 has three built-in memory channels that allow storage of preferred heat settings. The memory key will show either "M1". "M2". "M3", or "X". Touch memory key to cycle through channels.



To store a heat setting into any of the 3 channels, enter a heat setting when desired memory channel is showing. (Example: M2 is showing, keving in 4-5-6 will store that heat setting into M2.) With "X" selected no input will be stored.

#### 7. Nudge Value Adjustment.

Note: Cannot adjust while pen is powered.



Nudge Value Input Screen



Factory default nudge value is "15".

### To change the nudge value:

- Hold the icon for 2 seconds to access the "Nudge Value Input Screen".
- Enter a desired value between "00" (nudge off) and "99".
- Select the green check icon to confirm value and return to the previous screen with updated nudge value.

If there is no activity on the nudge value input screen after 60 seconds the display will revert to the previous screen.

### 8. Beeper Sounds - On/Off.

The beeper confirms screen input activity and errors.

To mute, touch the \(\bigsim\) key.



The key will change to the key. Press again to unmute.

#### 9. User-presets on P1 and P2 Tabs.

You can program and store up to 8 presets on the P88, each with unique descriptions and heat settings.

- P1 Tab displays presets 1-4
- P2 Tab displays presets 5-8



#### To program a preset:

Hold the desired preset line for 2 seconds to access the "Preset Description Input Screen"

#### 1. Preset description

Use the T9-style keypad to input characters. You must wait one second to input from the same key again. The unit will beep if you fill the line.



### 2. Preset heat setting

- touch heat value to access the "Heat Preset Input Screen".
- input desired 3-digit heat setting (100-800).
- touch the green check icon to confirm heat setting and return to the "Preset Description Input Screen".
- To complete your preset, touch the green check icon again and the screen will revert to the previous
   P1 or P2 Tab.

Note: Choosing only a Preset Heat Setting and no Preset Description will automatically show that heat setting as the description for that preset.

A heat setting of "100" and blank description line will clear the preset and the description line will display the factory default string of dashes.

# **R-Touch™ Expansion Modules.**

The P88 base unit will accept up to two additional Razertip<sup>®</sup> R-Touch<sup>™</sup> expansion modules. Each screen has its own separate heat settings and preset memories.





Attaching expansion modules is easy. Remove the magnetic right end panel on the P88, align the units and push them together. Place the end panel on the module. When power is turned on, all screens will come on.

Touch any of the green pen power icons to activate that pen/screen. Screens use an "either-or" protocol, powering one pen at a time. Activating a new pen/screen will automatically de-activate the previously active screen.

# FAQ's (Frequently Asked Questions)

#### Q. Are "Heat Setting" and "Tip Temperature" the same thing?

**A.** They are quite different. The heat setting is "units" of power provided to the pen ("100" to "800"). The size and shape of the pen tip may give different actual tip temperatures on the same heat setting. Example: At a heat setting of "400" the P88 is supplying 400 "units of power", a larger tip might only reach a temperature around 300°C, a medium tip around 400°C, and a smaller tip closer to 500°C. Those 400 "units of power" will always be the same.

#### Q. Are the heat settings on the P88 the same as the P80?

**A.** Yes. The numbers represent the same "units" of power to the pen from both machines.

#### Q. Can I change pens while they are hot/active?

**A**. Yes. Pens are "hot-swappable" without causing damage. However it is recommended that you power-off the pen. This will prevent a possible short-circuit on the pen cord connector, which could cause an overload shut down (screen goes black). In this case wait 3-5 minutes and restart system.

### Q. Can I use a heavy-duty pen cord on the P88?

**A.** Yes you can. But because of the type of current that the P88 supplies to the tip there is no real advantage to using the HD pen cord. Razertip's standard 18ga. pen cord will perform as well as the heavier 16ga. HD pen cord with all Razertip pens and tips.

### Q. Can I use all of my old pens, cords and tips on the P88?

**A.** Yes. Any pen, cord or tip that you used on earlier or current models of Razertip burner is compatible with the P88.

# **Care and Maintenance**

The Razertip® P88 requires little maintenance.

- · Keep screen clean for reliable function.
- · Fingers should be clean when touching the screen.
- · Do not use outdoors or in high dust areas.
- · Clean the screen with a soft damp cloth or suitable touch screen cleaner.
- · Never use harsh or abrasive cleaners on the screen.
- · The case can be cleaned with a damp cloth as necessary.
- · Check that the fan vents are not plugged and operating properly.
- Keep all connectors between the pen and pen jack clean at all times, and be sure they are fully seated (see page 11).

# **Useful Accessories & Procedures**

**Versatility.** Razertip<sup>®</sup> tools are useful for many applications including:

- · burning detail on wood, leather, paper, and gourds
- signing & stamping craft objects (woodturnings, carvings)
- · cutting stencils and paper
- · detailing, welding, and cutting plastics and waxes

**Heat Settings.** For best results, longest tip life, reduced carbon build-up, and maximum comfort, always use the lowest heat setting that will do the job.

**Extra pen?** If you require high heat settings, consider buying another pen. When one gets too warm to hold, switch to the other while the warm one cools.

**Fixed vs. Interchangeable.** Fixed-tip pens are the most convenient to use and they offer small size and very solid tips. Should you ever want or need to replace the tip on your Razertip<sup>®</sup> fixed-tip pen, simply return the pen to us and we will install the tip of your choice for a very reasonable fee (or no charge under warranty). Razertip's #BPH Interchangeable-tip pen will accept all Razertip<sup>®</sup> tips. The stainless-steel connectors securely hold the tips in place for reliable electrical contact. The BPH pen is also one of the coolest-on-the-fingers of any hot-wire pyrography pen.

**Carbon Build-up.** Tips perform best when free of carbon build-up. Sharp or flat tips can be cleaned with a Razertip<sup>®</sup> tip cleaner/scraper (#CLEANER) and round or blunt edge tips with a dense brass brush (#BRASSBRUSH). Both of these options will not wear out tips and can be used while tips are hot. **Never** use abrasives (sandpaper, emery, rouge) to clean tips as they will cause premature wear.

**Cooler fingers.** For better finger comfort, try holding the pen so your fingers are not directly above the hot tip (other grip options available).

**Melting materials.** Burning any materials that melt should be done with a fixed-tip pen. Molten material can cause poor tip contact on BPH pens connectors.

Smoke in your eyes? Try burning in front of a smoke extractor (we suggest: Razaire™ products).

**Returning pens for service.** If you need to send a pen back for service, mail the pen back in a padded envelope without the foam grip or clear tube. A thin package will generally cost less to mail.

# **Important Information**

Use only Razertip<sup>®</sup> pen cords. Similar looking cords may not operate properly. To avoid a poor connection all connectors must be clean and the pen cord fully seated into the cord jack and pen jack. New connectors may be tight the first time they are used.

#### Symptoms of poor connection are:

- 1. Erratic or inconsistent heating at the tip.
- 2. The cord jack bezel may flash when power is applied.
- You may have to keep increasing the heat setting to get the same tip heat.
- 4. Rapid and excessive heat at the point of poor connection. If not corrected this may cause damage to the connector.
- 5. Pen may not heat at all.

If your unit exhibits any of the above symptoms and you are sure that the plugs are all properly seated please contact Razertip<sup>®</sup>. These illustrations show examples of correct and incorrect connections.



For your records, please record the date of purchase and your Razertip<sup>®</sup> dealer information below. Should your Razertip<sup>®</sup> product ever require service you can contact your dealer or send the product directly to Razertip.

P88 Serial #\_\_\_\_\_\_ Purchase Date\_\_\_\_\_\_

Dealer Name\_\_\_\_\_\_

Address\_\_\_\_\_\_

Phone# Email

Not fully seated

Fully seated

# Razertip® Warranty Information

P88 - Three (3) years Pen Cord and Pen - One (1) year Interchangeable tips - Ninety (90) days

This warranty provides for repair or replacement of defective components at the manufacturer's discretion. Limited to the actual cost of repairs and will not cover shipping costs or any consequential damages resulting from failure of the unit or its components to perform as stated. All warranty work must be done by the manufacturer and will not cover the costs of repairs done elsewhere.

Warranty will be voided if products are tampered with, altered or repaired by unauthorized persons or companies. If your P88, pen or pen cord should need service, our average repair time is only one day in shop. For in or out-of-warranty servicing, return the complete unit *including any cord(s)* and pen(s) to your dealer or send it directly (prepaid) to Razertip<sup>®</sup>.

#### **Technical Data**

Type: Power regulated, touch screen digital hot-wire pyrography tool

Model: P88 Input: 100-240VAC, 50-60Hz, 1.0A

Input connector: IEC 60320 type C8

Output: 6VDC, 8.0A DC max. Wattage: Max. 48 watts

**Tip temperature range:** (approx.) 80°C to 800°C **Operating temperature:** (ambient) 0°C-40°C

Size: 4.5"x4.5"x3.6" (115mm x 115mm x 91mm) Weight: 15.5oz. / 440g.

Safety Certification: ETL C-US; C-TICK (Australia/New Zealand)

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.

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More Questions? Don't hesitate to contact us - that's what we're here for!

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