

# BRANSON

## 2000 SERIES

# Ultrasonic Trim Knife

## 2000 UTK

### GENERAL DESCRIPTION

The Branson 2000 UTK (ultrasonic trim knife) system combines a HK-215 hand-held, portable trim knife designed for cutting and trimming composite materials and other hard-to-cut materials with a 150-Watt Branson 2000LPt power supply.

The 2000 UTK cuts most materials faster and more efficiently than conventional cutting methods, resulting in greater productivity and reduced material waste.

Ultrasonic energy is activated and controlled through a trigger switch located in the grip. Digitally variable amplitude and a choice of interchangeable blades allow the operator to cut a variety of materials and thicknesses.

### TYPICAL MATERIALS CUT ULTRASONICALLY

Kevlar, graphite, boron epoxy, carbon phenolic, hybrid composite, and fiberglass prepregs

Nomex honeycomb core

Phenolic honeycomb core

Neoprene

Films

Cured and uncured rubber

Unidirectional tape

Leathers

Woven and nonwoven fabrics

Conventional clothing fabrics

### KEY FEATURES

- **Digital amplitude control** allows fine tuning for critical cutting applications (ranges from 10% to 100% in 1% increments).
- **Self-diagnostics and monitoring** provide visual, audible, and logic output alarms.
- **Line / Load Regulation** – Branson's patented closed-loop amplitude control corrects for variations due to power line fluctuations and varying load conditions. Output amplitude is maintained with a variation of only  $\pm 2\%$  with line voltage fluctuations of  $\pm 10\%$ , regardless of load.

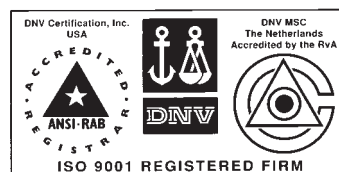


2000 LPt Power Supply with  
HK-215 Pistol Grip Trim Knife

- **System Protection Monitor (SPM)** – Five levels of power supply protection are provided to avoid equipment failures and to provide greater accuracy and repeatability.
- **Converter compatibility** — The HK-215 hand-held trim knife is compatible with Branson converters:
  - TW-1 (75 microns amplitude)
  - TW-2 (125 microns amplitude)
  - TW-3 (33 microns amplitude).
- **Light weight** — The HK-215 weighs only 2.25 pounds (1.125 kg) enabling convenience of operation.
- **Simple, easy-to-use design** enables operators to be trained in minutes.

### WARRANTY

The Branson 2000LPt power supply carries a three-year warranty on materials or workmanship. Branson HK-215 hand-held trim knife carries a one-year warranty on materials and workmanship. *Note:* This warranty applies to equipment purchased and operated in North America. For warranty information on units purchased and/or operated outside the U.S. contact your local representative.



- ✓ **Hand-Held Cutting System**
- ✓ **Line Regulation**
- ✓ **Load Regulation**
- ✓ **Auto Seek with Memory**
- ✓ **System Protection Monitor with Autotune**
- ✓ **CE and CSA Certified**

## BRANSON

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# 2000UTK

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## ORDERING INFORMATION

All Branson 2000 LPt Series ultrasonic power supplies are CSA approved and FCC compliant. CE compliant models are indicated.

Branson EDP No.

### 2000 UTK Ultrasonic Trim Knife Kits

Includes HK-215 trim knife, 2000LPt power supply, converter (TW-1 or -2) standard tip, standard blades, wrench, blade change fixture.

2000 UTK/TW-1 (75µ amplitude), 100-120V	101-063-744
2000 UTK/TW-2 (125µ amplitude), 100-120V	101-063-755

### Option

Fan filter kit (for use in dusty environments)	101-063-614
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### Hand-Held System Components

HK-215 pistol grip trim knife, 8' cable (requires TW-1, -2 or -3 converter)	159-136-009
TW-1 Converter (75µ), BNC	101-135-015
TW-2 Converter (125µ), BNC	101-135-016
TW-3 Converter (33µ), BNC	101-135-031

### Automation Converters

2CH1 (33µ), SHV, CE	101-135-127
2CH2 (75µ), SHV, CE	101-135-128
2CH3 (125µ), SHV, CE	101-135-129
TW-2 Converter pinned (125µ), BNC	159-023-313

### Automation Cables

RF, J934C (for all 2CH converters), CE	8' 101-240-179	15' 101-240-181
RF, J935 (all TW converters)	8' 100-246-1218	
Start, J911, 9-pin (required to monitor/control output signals) (requires product liability agreement)	8' 101-240-020	15' 101-240-015
	25' 101-240-010	
Start, J913, 2-pin	25' 101-240-072	

### Components for separate reorder

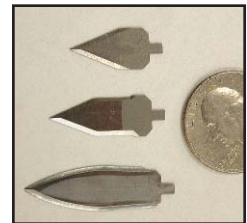
Power Supplies:	
2000LPt, 100-120V	100-132-931
2000LPt, 200-240V	100-132-932
2000LPt, 200-240V, CE	100-132-933
Standard blades and collets:	
Tip (collet)	109-085-055
Blades, single edge, 25 ct.	109-085-056
Wrench	201-118-010
Blade change fixture	149-085-057
Optional heavy-duty blade and collet:	
Collet, split, drilled hole design	109-076-349
Double-edge blade, stainless steel, package of 5 (0.65" cut depth)	109-071-1090

### Replaceable Heavy-Duty Cutting Blades

Size/ Cut depth	EDP #	Qty.
Small - 0.50"	109-071-1111	single
Medium - 0.75"	109-071-1112	single
Large - 1.0" *	109-076-350	5 ct.

*Note: Blades above must be used with tip 109-076-349  
\* Do not exceed 80% amplitude with TW-2 converter.*

*Note: All sales shall be subject to the Supplier's terms and conditions of sale as described in Branson's quotations and sales contracts.*



## SPECIFICATIONS

*All specifications subject to change without notice. All dimensions are nominal.*

Electrical Specifications	
Frequency:	20 kHz
Output power:	150 watts
Line voltage: <i>FCC, CSA Certified</i>	100-120 V AC, 50/60 Hz, 1 Ø, 2 amps 200-240 V AC, 50/60 Hz, 1 Ø, 1 amp **
Line voltage: <i>CE Certified</i>	200-240 V AC, 50/60 Hz, 1 Ø, 1 amp **
Receptacle required:	100-120 V AC models: NEMA 5-15R; 200-240V AC models: *NEMA 6-15R or equivalent; 200-240V AC, CE certified: *CEE 7/7

\* User must supply power cord ends for all 200-240 V systems.

\*\* To order 200-240 V AC models, contact Branson, Danbury.

Mechanical Specifications	
<i>Power Supply</i>	
Height:	9" (229 mm)
Width:	7.75" (197 mm)
Depth:	13.3" (338 mm) (depth: plus 3" [76 mm] cable clearance)
Weight:	15.5 lbs. (7 kg)
<i>HK-215 Ultrasonic Trim Knife (with built-in 8' RF cable)</i>	
Length:	12" (304 mm)
Height:	6.25" (160 mm)
Weight:	2.25" (1.125 mm)

The Branson 2000LPt ultrasonic power supplies comply with FCC rules and regulations governing radio frequency interference.