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() HONDA ELECTRONICS CO., LTD.

20 Oyamazuka, Oiwa-cho, Toyohashi, Aichi 441-3193 Registered company for ISO9001 and ISO14001

< Contact >

















Ultrasonie Guiter 20 series

ULTRASONIC CUTTER BLADE'S HIGH SPEED AND FINE VIBRATION (40 kHz/40,000 TIMES PER SECOND) DRASTICALLY IMPROVE CUTTING PER-FORMANCE. IT ABLE TO CUT, WELD, POLISH VARIOUS MATERIALS. SINCE 2016, WHICH IS A YEAR THAT WE RELEASED OVERSEAS MODEL, THE MARKET IS EXPANDING AROUND THE WORLD.



Ultrasonic Cutter **LU** Standard model -PUSH HAND PIECE SWITCH JUST ONCE AND BLADE WILL START VIBRATION. (NO NEED TO HOLD A HAND

PIECE SWITCH. LED LIGHT ON HAND PIECE WILL LIGHT UP WHEN THE UNIT IS OPERATING)

-POWER MODE COULD CONTROL WITH OUTPUT CONVERSION SWITCH.



Example of applicable materials

- ■3D printing
- Carbon
- Cardboard

- Resin
- Leather

40 kHz

- Cloth
- Plaster
- etc.

Specifications

Oscillation frequency	40 kHz
Max. power consumption	MAX. 110 VA
AC adapter	INPUT: 100-240 VAC 50/60 Hz
	OUTPUT: 12 VDC *1
External dimensions	Main unit: 185×169×55
(Unit: mm)	Hand piece: φ28×150
	(include blade)
Power mode	S-High/High/Normal *2
Operating condition	Temperature: 10 to 35℃
	(without condensation)
Weight	Main unit: Approx. 1.2kg
	Hand piece: Approx. 350 g
	(include hand piece cable)
Hand piece cable	1.6 m (straight cable)

Accessories

Protection circuit Temperature sensor has installed inside the hand piece. Detection circuit will activate when the blade anchor screw has loosened or when the unit has overloaded, ZO-95 will be automatically turn OFF when it has used without attaching foot switch (ZH801).

- ·Standard blade HA04: 40 pcs./case (include unusable blades with hole)
- ·Blade anchor ZH04: 1 pc.
- ·Blade anchor screw HB03: 3 pcs.
- ·Hexagon wrench RR02: 1 pc.
- •Torque screwdriver 60 cN·m ZH25T2: 1 pc.
- •Foot switch for ultrasonic cutter ZO-95

ZH801: 1 pc. ·Blade protector ZH805: 1 pc.

*2 Do not use S-High mode for long time or regularly. It might shorten a life of unit. * Specifications and appearance are subject to change without notice.

Specifications

Oscillation frequency Max. power consumption AC adapter

External dimensions (Unit: mm)

Power mode Operating condition

Weight

Protection circuit

MAX. 85 VA INPUT: 100-240 VAC 50/60 Hz OUTPUT: 12 VDC *1 Main unit: 173×89×76 Hand piece: $\phi 32 \times 144$ (include blade) High/Normal Temperature: 5 to 35°C (without condensation) Main unit: Approx. 300 g Hand piece: Approx. 70 g (include hand piece cable)

Temperature sensor has installed inside the hand piece. Detection circuit will activate when the

blade anchor screw has loosened or when the unit has

overloaded

Hand piece cable Accessories

- 1.6 m (straight cable)
 - · Standard blade HA04: 40 pcs./case (include unusable blades with hole)
 - · Blade anchor ZH04: 1 pc.
 - · Blade anchor screw HB03: 3 pcs.
 - · Hexagon wrench RR02: 1 pc.
 - · Blade protector ZH805: 1 pc.



This product has CE certificate declared by our manufacturer, HONDA Electronics Co., Ltd.

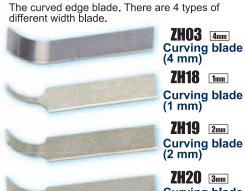
^{*1} Since this product has intended selling to CE standard region, the power supply cord has complied to CE standard. In case of using product at any foreign country or region, please prepare and use the power cord which complies to your country or your region's law and safety standard.

Replacement blades

Scan this QR code to get more product information.

https://echotech.co.jp/en/ products/2562/

Make contact us from our contact form page.



Curving blade

ZH18 1mm Curving blade

ZH19 2mm

(2 mm)` **ZH20** 3mm Curving blade

(3 mm)

Round shaped blade alike to knife. Specialized for cardboard and cloth processing.



The compact edge is useful for cutting curve line.

ZH68 Small protruded blade 30°

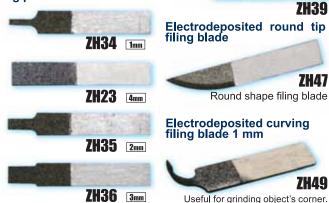
Cone shaped blade. Useful for marking work. **ZH12** Square pyramid blade

Requested blade to cut gourd. It's also useful for cutting silicone.



Electrodeposited plates could use for filing, not for cutting. ZH34, **Electrodeposited square** ZH35, ZH36 are special products pyramid filing plate that take 2 months for producing.

Filing plate #325





ZH11

Saw blade

Jagged blade like a saw.

Specialized for carbon processing.

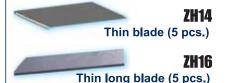
Flat blade alike to graver. There are 2 types of different width blade. ZHO5A 1mm

> Flat blade (1 mm) ZHO6A 2mm Flat blade (2 mm)

Non-blade flat plate. Specialized for processing clay and surface of material.



Thin blade could be bent easier, but it



Useful for making triangular mold by cutting edge of the blade.



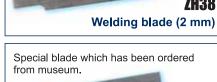
ZH44 Double-edged triangular blade

Requested blade for cloth processing.

ZH52 Flat round blade

ZH27

The blade which has requested to make for welding film sheet. It welds sheets by friction heat of vibration. **ZH38**



ZH45 Circular tip ϕ 0.4 blade

Useful for grooving work. **ZH41** Square blade

25 mm length blade. Specialized for cork processing. **ZH10** Long blade (25 mm)

Grinding stone was made for polishing mold. Even if colored stone part wears, it could keep use black part. Let's clean



Only applicable to

"Normal power mode"

Grinding stone #1000 Color: White **ZH32** Grinding stone #1200



Color: Brown



Grinding stone #400

Grinding stone #600

Color: Orange

Color: Gray

Color: Red

Maintenance Option

Get Maintenance set & Optional products to maintain and expand your unit's utility.

ZH04

ZH14S

Thin blade set

Thin blade ZH14 (5 pcs.) x 1

Blade anchor screw HB03 x

Torque screwdriver

Blade anchor ZH15 x 1

ZH25T2



Weld resin sheet and film sheet by Welding bar pressing and sliding bar on

ZH14SG Thin blade and goggle set



ZH15



ZH15S

Blade anchor

for thin blade set

Blade anchor ZH15 x 1

Blade anchor screw HB03 x 1

Hexagon wrench RR02 x 1







ZH16SG Thin long blade and goggle set

Thin long blade ZH16 (5 pcs.) x 1

Blade anchor screw HB03 x 1

Blade anchor ZH15 x 1

Blade anchor for ZO series Blade anchor set Blade anchor for Thin blade ALL S Blade anchor ZH04 x 1 Blade anchor screw HB03 x Only for ZH14 and ZH16

ZHO4S

Hexagon wrench RR02 x 1

ZH16S Thin long blade set Thin long blade ZH16 (5 pcs.) x













Replacement Blade Adaption List

%''O'' is a mark that the blade could use with Normal or High mode, but not S-High mode. "N" is a mark that the blade could use with Normal, but not High mode and S-High mode.

			ZO-91	ZO-95	
	HA04	Standard blade	0	0	Ī
	HA07	Cemented carbide blade	0	0	
	ZH48	Zirconia ceramic blade	0	0	l
	ZH03	Curving blade (4 mm)	0	0	١
	ZH18	Curving blade (1 mm)	0	0	١
	ZH19	Curving blade (2 mm)	0	0	
	ZH20	Curving blade (3 mm)	0	0	
	ZH05A	Flat blade 1 mm	0	0	
	ZH06A	Flat blade 2 mm	0	0	
	ZH52	Flat round blade	0	0	L
	ZH07	Flat plate 1 mm	0	0	
	ZH08	Flat plate 2 mm	0	0	
	ZH44	Double-edged triangular pyramid	0	0	١
	ZH45	Circular tip φ0.4 blade	N	N	L
	ZH11	Saw blade ZH11	0	0	N
Blade	ZH12	Square pyramid blade	0	0	L
	HA09	Long blade for USW series	×	×	
	ZH10	Long blade 25 mm	0	0	l
	ZH38	Welding blade 2 mm	0	0	
	ZH09	Round tip blade(R 15)	0	0	
	ZH49	Electrodeposited curving filing blade 1 mm	0	0	١
	ZH42	Round tip blade	0	0	
	ZH47	Electrodeposited round tip filing blade	0	0	l
	ZH41	Square blade	0	0	١
	ZH14	Thin blade 0.15 mm	N	N	١
	ZH16	Thin long blade	N*1	N	١
	ZH23	Filing plate #325 4 mm	0	0	١
	ZH34	Filing plate #325 1 mm	0	0	١
	ZH35	Filing plate #325 2 mm	⊝*1	0	
	ZH36	Filing plate #325 3 mm	0	0	
	ZH39	Electrodeposited square pyramid filing plate	0	0	
	ZH01A	Sharp edge blade 16°(Revision)	N	N	
	ZH68	Small protruded blade 30°	0	0	_

New **ZH67** Type-C cable for USB-PD12V A cable connects ultrasonic cutter and mobile battery with C type plug.

				ZO-91	ZO-9
Grinding stone	ZH24	Grinding stone #800			N
	ZH26	Grinding stone #1:	20	N	N
	ZH27	Grinding stone #180		N	N
	ZH28	Grinding stone #300		N	N
	ZH29	Grinding stone #400		N	N
	ZH30	Grinding stone #600		N	N
	ZH31	Grinding stone #1000		N	N
	ZH32	Grinding stone #1200		N	N
	ZH51	Grinding stone #80		N	N
	ZH55 ∼ 63			N	×
	ZH53	Bar anchor		0	0
Other	ZH54	Welding bar		0	0
optional parts	ZH04	Blade anchor for ZO series		0	0
·	HB03	Blade anchor screw		0	0
Maintenance set	SB01	Abrasive paper x 3 Cleaning bar x 1		0	0
	SB02	Abrasive paper x 10		0	0
Set of blade anchor and set products	ZH04S	Blade anchor set	Blade anchor ZH04 x 1 Blade anchor screw HB03 x 1 Hexagon wrench RR02 x 1	0	0
	ZH14S	Thin blade set	Thin blade ZH14 (5 pcs.) x 1 Blade anchor screw HB03 x 1 Blade anchor ZH15 x 1	N	N
	ZH14SG	Thin blade and Goggle set	Thin blade ZH14 (5 pcs.) x 1 Blade anchor screw HB03 x 1 Blade anchor ZH15 x 1 Goggle ZH13 x 1	N	N
	ZH15S	Blade anchor for thin blade set	Blade anchor ZH15 x 1 Blade anchor screw HB03 x 1 Hexagon wrench RR02 x 1	N	N
	ZH16S	Thin long blade set	Thin long blade ZH16 (5 pcs.) x 1 Blade anchor screw HB03 x 1 Blade anchor ZH15 x 1	N	N
	ZH16SG	Thin long blade and Goggle set	Thin long blade ZH16 (5 pcs.) x 1 Blade anchor screw HB03 x 1 Blade anchor ZH15 x 1 Goggle ZH13 x 1	N	N

¾1 The vibration might be weaken when the tip is pressed to metal.

Ultrasonic Cutter ZO work with 4 ways of

Depending on the working material, its thickness, or way of processing, there might be differences in unit performance.

Cut

ZO series cuts plastic like butter, and also its range of applicable material is wide. Blade's high-speed, fine vibration cuts even small burrs smoothly and cleanly.





series supports your processing.

Polish

"Grinding stone" and "Filing plate" edge is sanded for polishing metal. It polishes rust gently, reducing damaging on material.





Design

By engraving, melting, making hole or mark on surface of working materials, it able to make object to your original design.





Weld

By pressing and sliding welding blade (or bar) on overlapped vinyl sheet, friction heat melts and weld sheet. Welding bar could also do spot welding on overlapped plastics.



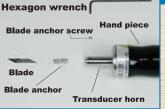


How to Maintenance **When you perform maintenance, the unit must be turned OFF. How to replace a blade anchor How to clean inside of transducer horn



Loosen a blade anchor screw with hexagon wrench.

W Use longer side of hexagon wrench to loosen screw.



2

Clean or replace listed parts.

- Blade
- Blade anchor
- Blade anchor screw
- Inside the horn (Unreplaceable)



ОК

X

NG

3

Replace a blade anchor. If you often replace a blade, the work becomes easier if you get Torque screwdriver set (ZH25T2).

4

Blade anchor is a consumable product. Please replace when it becomes contaminated or it has broken.



Set abrasive paper to cleaning bar (SB01).



Insert cleaning bar inside the horn and rotate it.



Wind abrasive paper to cleaning bar.



Insert swab inside the horn and clean contamination.



Maintenance set SB01

Cleaning bar and abrasive paper set. If contamination inside horn has leaved, it might become cause of unit trouble.



Maintenance set SB02

Abrasive paper in Maintenance set could clean inside the horn without damaging. (10 pcs. set)

Progress of Echo Tech

1956



Ultrasonic equipment manufacturer

1999



Echo Tech Sales company of **Honda Electronics** 2001



USW-333 (Discontinued model)

Released Ultrasonic cutter for hobby



2020 Released ZO-95



2016 Released ZO-91



Released Mokebu





Attending to international exhibitions!

Japan Expo (France)



Spielwarenmesse (Germany)











AMTS

(China)





SMC (The Netherlands)



Wonder Festival (Thailand)



Taiwan 3D Printing & Additive Manufacturing Show (Taiwan)





Point **O** Straight line

BEST ruler is elaborately designed to draw line and for measuring. Hook (A) on BEST ruler stops pen at the zero point and it able to draw a line with accurate length. Because BEST ruler is transparent, it able to draw line with both right and left-hand by reversing ruler.



Point 4 Caliper

Because the point (D) corner is right angle, it able to measure a length by hooking corner to material's edge. It could also measure rounded



Point 2 **Triangle ruler**

It able to draw a corner with 30, 45, 90 degrees (B) by following guides on ruler. First, write mark on either degree's point and draw a line without moving ruler. It able to draw a corner with designated angle by drawing line between zero point and mark.



By overlapping point (A)on drawn diagram, it able to measure diagram corner's angle. It also able to draw a corner with various degrees (©).



Point 6 Compass

Use two pens to draw a circle. Hook a pen to point (A) and set the other pen in either centimeter's hole. It could draw a circle by turning ruler and drawing, taking point (A) as a center position.





Promotion | video





BEST ruler is a stationery that has function of protractor, compass, triangle and caliper. It is designed by Mr. Nakamura, a chairman of UHOLABO Co., Ltd. BEST ruler is now being started used at workplaces as a support tool of designing and studies.



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https://echotech.co.jp/en/contact/



Markets of Ultrasonic Cutter ZO series

Hobby

Plastic model, figurine, diorama, RC, etc. For various hobby stuffs, ZO series is useful for fine processing. Not only for cutting parts from runner, it could also able to remodel parts to creator's original design by cutting body. ZO series raises your level of modeling.



Zimmerit coa-

model's body.

ting on tank

Cutting car modeľs body.



Art

For creators who use various materials, ZO series is very supportive because of its wide range of application. To express original ideal design, or working on materials which is uneven surface. ZO series raises the working quality and shortens your working time.



Cutting medium lensity fiberboard.

Cutting eggshell.







Manufacturing

ZO series for hobby is low power compared with tools for industrial use, but it could cut lessening damage on materials because it doesn't give large impact. ZO series could also polish metal parts by replacing to grinding stone. To maintain metalic parts, it has popularly used at various workplaces.

Deburring

3D printer resin.



Burned tabletap.

After putting out fire, to specify the origin of fire, ZO series is used for cutting brittle burned materials in Japan. Because those materials might become important evidence at court, there is a demand of tool's performance that gives hardly impact to materials.

Fire station

Cut tabletan



ZO series could clean a surface of fossil. There are over 50 types of replacement blades including grinding stone, specialized for "polishing". Stone, moss, bone, etc. such natural materials, or which has uneven surface, ZO series flexibly corresponds and able to process easier.





support materials and burrs. Compared with other tools, ZO series reduces resistance from working material because of its sharpness. It could shorten user's repeating, fine works on hard materials. ZO series is one of the few tools that able

to process on 3D printing.

3D printing

