HAKKO 153 154
LEAD FORMER

Instruction Manual

153 [Standard]
154 [5 mm (0.2 in.) Pitch]

Thank you for purchasing the HAKKO 153/154 Lead Former. This manual contains a simple explanation of the use of the unit. Be sure to read it before using the HAKKO 153/154 and keep the manual handy for easy reference.

Package Contents

Main Unit	1	Hexagon Wrench/2 mm (0.08 in.)	1
Parts Tray	1	Hexagon Wrench/2.5 mm (0.1 in.)	1
Clamp	1	Hexagon Wrench/3 mm (0.12 in.)	1
Handle	1	Hexagon Wrench/4 mm (0.16 in.)	1

Specifications

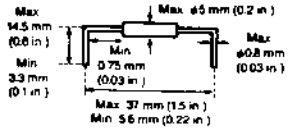
Name	HAKKO 153	HAKKO 154
Forming Size	5.6 mm (0.22 in.) Pitch	5 mm (0.2 in.) Pitch
External Dimensions	125(W) × 130(H) × 110(D) mm [4.9(W) × 5.1(H) × 4.3(D) in.]	
Approximate Weight	2 kg (4.4 lbs.) including handle and clamp	

■ Compatible Taping Dimension

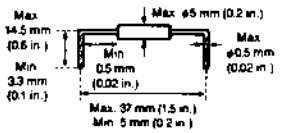
Outer width of tape	Max. 85 mm (3.3 in.)
Pitch	5 mm (0.2 in.)

•Cutting & Forming

HAKKO 153

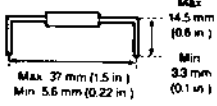


HAKKO 154

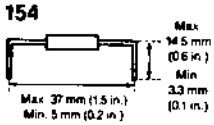


•Forming only

HAKKO 153



HAKKO 154



•Cutting only

HAKKO 153 • 154

Related Products

HAKKO 152
MOTOR DRIVE

Motor drive for Lead Formers and Lead Cutters. Ensures accurate, high-speed processing at stable torque.

Specifications

Name	HAKKO 152
Motor Speed (rpm.)	40 rpm. (50 Hz) 48 rpm. (60 Hz)
External Dimensions	360(W) × 150(H) × 140(D) mm [14.2(W) × 5.9(H) × 5.5(D) in.]
Approximate Weight	5.1 kg (11.2 lbs.)

Processing Capacity	Max. 60,000 leads per hour when combined with the HAKKO 153/154

HAKKO 156
PARTS FEEDER

Used for cutting and forming of individual parts. A variety of parts can be processed without changing the drum.

Specifications

Name	HAKKO 156
External Dimensions	131(W) × 49(H) × 136(D) mm [5.2(W) × 1.9(H) × 5.4(D) in.]
Approximate Weight	0.4 kg (0.9 lbs.)

HAKKO

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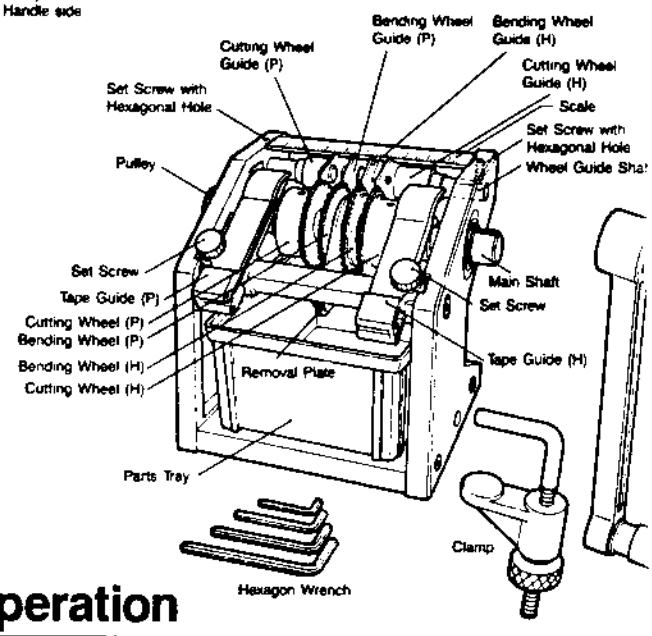
Part Names

*(P) = Pulley side
(H) = Handle side

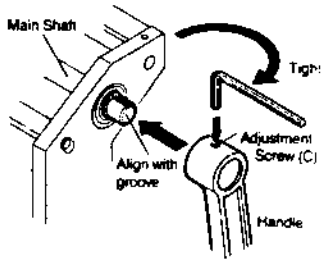


Operation

< Preparations for Use >

① Fasten unit in place.
- Use the Clamp to mount the unit to the workbench.

② Attach Handle.
- Insert the Handle so the end of the Adjustment Screw (C) fits into the groove on the Main Shaft, then tighten the screw with the 3 mm (0.12 in.) Hexagonal Wrench.



< Cutting and Forming >

① Set the forming size.
- Using the 3 mm (0.12 in.) Hexagonal Wrench, loosen the two Adjustment Screws (A) on the Cutting Wheel.
- Adjust the position of the Bending Wheel Guide to the desired forming size.

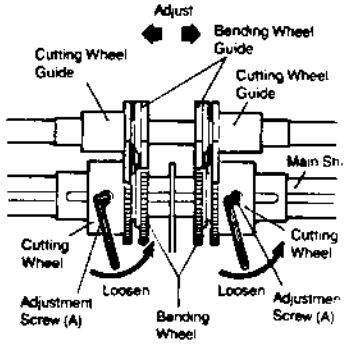
The outer edge of the Bending Wheel Guide is the forming point. The lead wires will be bent along the outside of the Bending Wheel Guide

② Set the cutting size.
- Adjust the position of the Cutting Wheel Guide to the desired cutting size.

Remember that the inside of the Cutting Wheel Guide will be the cutting size.

- After the desired settings have been made, tighten the Adjustment Screw on the Cutting Wheel.

The screws should fit perfectly into the grooves on the Main Shaft or the Bending Wheel and tighten



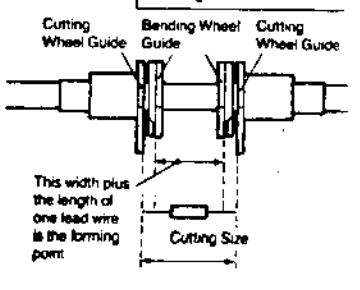
③ Set the parts tray in place.
- The cover should go on the side with the Scale

④ Set the Tape Guide in place.
- Loosen the Set Screw on the Tape Guide.
- Adjust the Tape Guide to the width of the part to be taped, then fasten it in place by tightening the Set Screw.

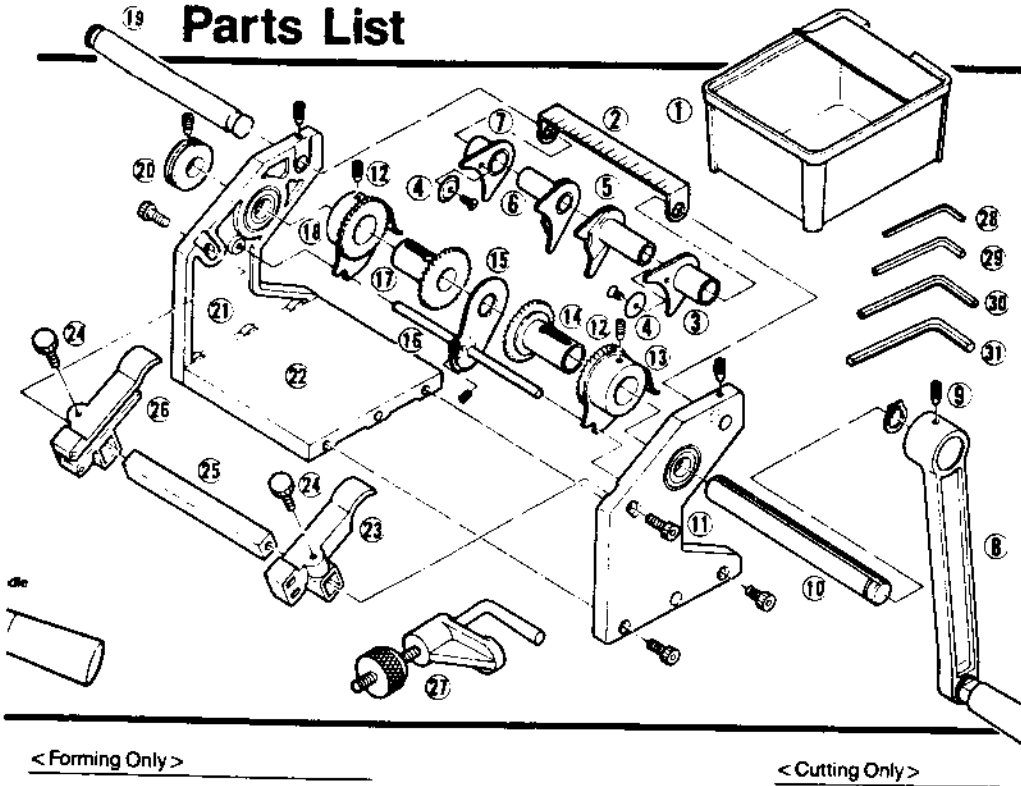
In order to make sure that the tape does not get caught, the Tape Guide should be set to slightly wider than the width of the taped part. Be careful not to set it too wide, since this may result in misalignment

⑤ Place the taped parts in position.
- Place the parts so they catch on the gears of the Bending and Cutting Wheels, then turn the Handle slowly, while holding the first row of parts, until they catch on the Wheel Guides

•Cutting Size
The inside of the Cutting Wheel Guide will be the cutting size



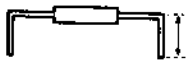
Parts List



Item No.	Part No.		Part Name	Description
	EA600 B3	EA600 B4		
1	B1387		Parts Tray	with cover
2	B1385		Scale	
	B1546		Scale (Inch)	
3	A1095		Cutting Wheel Guide (H)	
4	A1106		Cutting Blade	
5	A1099	A1103	Bending Wheel Guide (H)	
6	A1098	A1102	Bending Wheel Guide (P)	
7	A1094		Cutting Wheel Guide (P)	
8	B1388		Handle	with screw
9	B1415		Adjustment Screw (C)	
10	B1387		Main Shaft	
11	B1384		Side Plate (H)	with screws
12	B1413		Adjustment Screw (A)	
13	A1097		Cutting Wheel (H)	
14	A1101	A1105	Bending Wheel (H)	
15	B1395		Removal Plate	with screw
16	B1393		Plate Shaft	
17	A1100	A1104	Bending Wheel (P)	
18	A1096		Cutting Wheel (P)	
19	B1386		Wheel Guide Shaft	
20	B1391		Pulley	with screw
21	B1383	B1389	Side Plate (P)	with screws
22	B1394		Base Plate	
23	B1388		Tape Guide (H)	with set screw
24	B1390		Set Screw	
25	B1392		Tape Guide Shaft	
26	B1389		Tape Guide (P)	with set screw
27	B1396		Clamp	
28	B1416		Hexagon Wrench 2 mm	
29	B1417		Hexagon Wrench 2.5 mm	
30	B1117		Hexagon Wrench 3 mm	
31	B1418		Hexagon Wrench 4 mm	

< Forming Only >

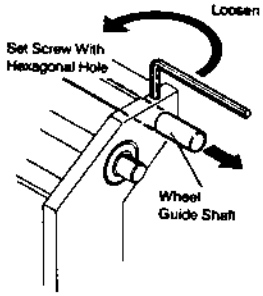
When only forming parts, the maximum size that can be processed is shown in the diagram below:



Note: With sizes over 14.5 mm (0.6 in.), forming accuracy cannot be guaranteed

① Remove the Cutting Wheel Guide.

- Using the 2 mm (0.08 in.) Hexagonal Wrench, loosen the two Set Screws with Hexagonal Holes holding on the Wheel Guide Shaft.
- Pull out the Wheel Guide Shaft and remove the Cutting Wheel Guide.

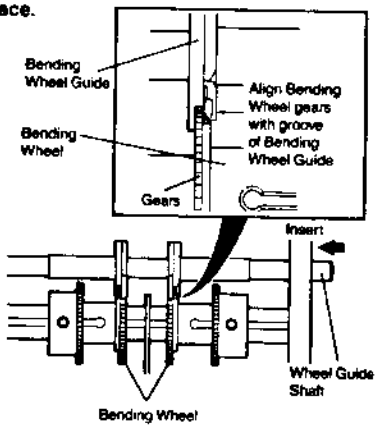


② Set the Bending Wheel Guide in place.

- Insert the Wheel Guide shaft and attach the Bending Wheel Guide.

When mounting, align the groove on the Bending Wheel Guide with the Bending Wheel gears, as shown in the figure at left.

- Fasten the two Set Screws with Hexagonal Holes as before.

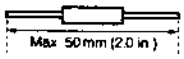


③ Set the forming size.

- To set the forming size, use the same procedure as described in "① Set the forming size" in the "Cutting and Forming" section.

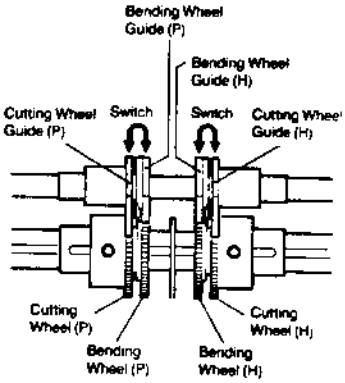
< Cutting Only >

When only cutting parts, the maximum size that can be processed is shown in the figure below:



① Switch the Cutting Wheel Guide and the Bending Wheel Guide.

- Using the 2 mm (0.08 in.) Hexagonal Wrench, loosen the two hexagonal-hole Set Screws with securing the Wheel Guide Shaft, then remove the Wheel Guide Shaft.
- Switch the positions of the Cutting Wheel Guide (P) and the Bending Wheel Guide (P).
- In the same manner, switch the positions of the Cutting Wheel Guide (H) and the Bending Wheel Guide (H).



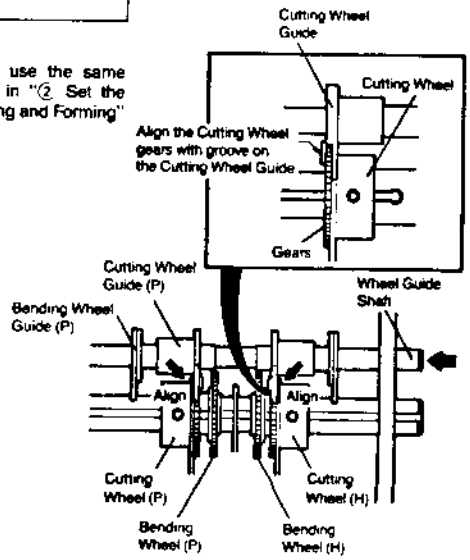
② Assemble the mechanism.

- Insert the Wheel Guide Shaft and mount the Cutting Wheel Guide and Bending Wheel Guide.

When mounting, align the groove on the Cutting Wheel Guide with the Cutting Wheel gears, as shown in the figure at left. There is no need to align the Bending Wheel and the Bending Wheel Guide.

③ Set the cutting size.

- To set the cutting size, use the same procedure as described in "② Set the cutting size" in the "Cutting and Forming" section of this manual.



Direction of Cutting/Bending Wheel Guides

The figures below show the (P) (pulley) sides of the guides. Be careful to mount them in their proper directions.

•Cutting Wheel Guide

•Bending Wheel Guide

ご 注 意

下記線材の加工は、故障の原因となりますのでおこわないで下さい

1. 最大加工径より太い線材
   - 153は φ0.8mm までの線材でご使用下さい。
   - 154は φ0.5mm までの線材でご使用下さい。
2. 軟銅線以外の材質の線材
   - 疑わしい部品の加工を行う際には、部品メーカー等に材質をご確認下さい。
     （ガラスダイオードなどには鉄線が使用されていることがあります。）

CAUTION

Never process a part with the following lead, or it may damage the unit.

1. Thicker lead than the following maximum diameter
   - 153: Max φ0.8mm
   - 154: Max φ0.5mm
2. Except annealed copper lead
   Before start td process a part, check the material of the lead. (Some diode may apply the Iron Lead.)