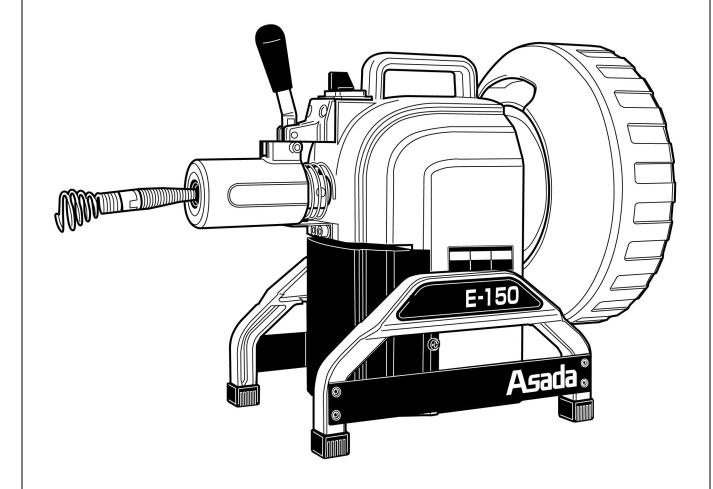
INSTRUCTION MANUAL



DRAIN CLEANER E-150



READ THROUGH THIS MANUAL CAREFULLY BEFORE USING THE MACHINE.



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■ SAFETY REGULATIONS

Thank you for choosing our Drain Cleaner E-150.

- This Instruction Manual must be retained by the user of this machine.
- Read this Instruction Manual carefully and completely before use and thoroughly understand it.
- Handle the machine properly to make full use of its functions for safe work.
- Save this Instruction Manual so that you can read it when necessary.
- Use the machine for the intended application only.
- Upon receiving the machine, check the following.
 - ·Check that the machine is built conforming to the specifications stated in your order.
- ·Check the overall machine for any damage or deformation caused in transit due to accidents.
- ·Check that all items and accessories are delivered.

In case any discrepancy is found, immediately report the fact to the shop you purchased. (The contents of this Instruction Manual are subject to change without prior notice.)

■ CLASSIFICATION OF CAUTIONS

Precautionary signs are classified into the following 3 levels.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

■ SYMBOLS







Use Safety Glove





■HOW TO OPERATE

①Pull out Wire.(Fig.1)

(Do not pull out any more if you find "red mark" on

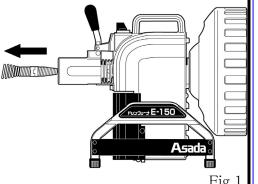
2 Insert Wire to the pipe slowly and when Head reaches the blockage or Head cannot be inserted due to an acute bend of the pipe, push down Chuck Knob to hold Wire. (Fig. 2) 3 Switch on the machine to rotate Wire and pass through it. Normally turn the switch to 1.(Turn the switch to 2 when Bulb Head Wire is used.)

4 In case of heavy blockage, repeat to move Wire forward and backward with rotating wire clockwise and counterclockwise. Do not change the direction of rotation until the motor stops.

- ⑤ If Wire cannot be held firmly by Chuck Knob, it should be held by the attached Wire Fixing Bolt.(Fig.3)
- 6 After cleaning the pipe, wash Wire with water, apply anticorrosive oil and pull back Wire into Wire Case. (Optional Accessory: Rowonal R72142)



①When Wire was twisted during operation, stop the machne immediately. Otherwise, Wire may be broken and it may cause accident.



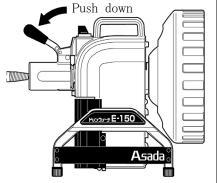
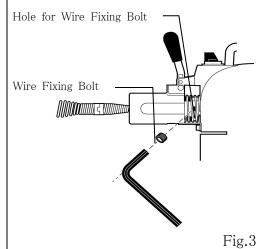


Fig. 2



	<u> </u>						
∞	①During operation, keep your face away from the moving parts. You may be caught in the moving parts, causing injury.						
	①Use Safety Glove exclusive for drain cleaning. Unsuitable gloves may be caught by rotating parts leading to accidents.						
	①All visitors should be kept a safe distance from work. Keep children away. ②When not in use, machines should be stored in dry and locked place out of reach the children. ③Wires and Heads should be handled carefully to avoid accidents and injury. ④If you have dropped or hit the machine accidentally, carefully check for damage, crack or deformation. ⑤If you have noticed abnormal state of the machine, ask for inspection or repair. If you use the machine with defect, the machine may be damaged or you will be injured. ⑥Use the machine at the voltage indicated on Machine Plate. Otherwise, the machine may become hot or catch fire. Make sure that the switch is OFF when inserting the power plug.						

⚠ CAUTION



- ①Wear proper apparel.
- Wear safety shoes and glasses according to the environment.
- ②Connect Wire and Head properly. Head may be dropped in pipe if not connected properly.
- ③Do not pull out Wire any more if you find "red mark" on Wire. It shows the end of Wire.
- ④ Do not rotate Wire before tightening chuck to hold Wire. Wire may be twisted and it may cause accident and injury.

■ SPECIFICATIONS

Capacity	Pipe Diameter	20mm~100mm			
	Distance	15m			
Rotation		215/260rpm (50/60Hz)			
Motor		Condenser, 150W, Voltage made to order			
Body Weight		12.9kg			
Gross Weight		18. 3 k g			
Dimensions (L × W × H)		430×290×365mm			
Standard Accessories	Wire	No. 48500 \$\phi\$13mm PC Wire			
		(φ13mm×15.5m)			
	Head	No. 4 8 6 O 1 Bulb Head 24			
		No.48602 Double Grease Cutter			
	Others	No.7 O 1 3 5 Wire Key			
		No.80468 Wire Fixing Bolt			
		No.86003 Allen Wrench			

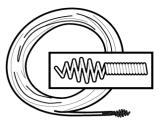
■ STANDARD ACCESSORIES (●) AND OPTIONAL ACCESSORIES (●)

Code No.	Item	Size	E-150		
DH301	Bulb Head Wire	φ8×8m	0		
DH309	Bulb Head Wire 15.5m	φ8×15. 5m	0		
DH310	Bulb Head Wire 20m	φ8×20m	0		
DH302	Drop Head Wire	φ8×8m	0		
DH317	Drop Head Wire 15.5m	φ8×15. 5m	0		
DH318	Drop Head Wire 20m	φ8×20m	0		
DH305	Coupling Wire	φ 10×8m	0		
DH306	Coupling Wire 15.5m	φ 10×15. 5m	0		
DH307	Coupling Wire 20m	φ 10×20m	0		
48500	φ13 PC Wire	φ 13×15. 5m	•		
48608	Drop Head	φ 15mm	0		
48606	Drop Head	φ 24mm	0		
48609		φ 24mm	0		
48610	Funnel Head	φ 32mm	0		
48611	Funiter Flead	φ 38mm	0		
48612		φ 60mm	0		
48601	Bulb Head	φ 24mm	•		
48613		φ 22mm	0		
48616	Grease Cutter	φ 36mm	0		
48617		φ 62mm	0		
48602	Double Grease Cutter	φ 40mm	•		
48618		φ 20mm	0		
49619	Wire Brush	φ 30mm	0		
48626	Wife Diusii	φ 40mm	0		
48620		φ 50mm	0		
70135	Wire Key		•		

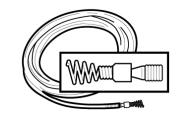
■WIRE

●Bulb Head Wire

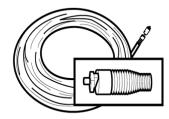
A barrel type Head is suitable for small pipes.



●Drop Head Wire Suitable for small winding pipes



•Coupling Wire • ϕ 13 PC Wire 4 types of Head can be changed depending on the condition.

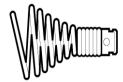


■ HEAD (Used with ϕ 13mm PC Wire • Coupling Wire)

etc.

●Funnel Head Suitable to remove vegetables, rags, papers, hairs, etc. ●Wire Brush
Suitable to remove
sands, rust, scales,

● Grease Cutter Suitable to remove grease, lard, etc. ●Bulb Head Suitable for small pipes









■SUITABLE SIZE OF HEAD

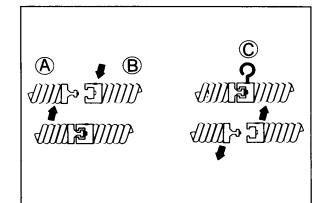
*For reference only

Head Pipe	Size	1"~	1.1/4"~	1.1/2"~	2"~	2.1/2"~	3"∼
Funnel Head			ϕ 24mm	φ 32mm	φ 38mm		ϕ 60mm
Bulb Head			ϕ 24mm				
Grease Cutter			ϕ 22mm		φ 36mm	φ62mm	
Double Grease Cutter					$\phi 40 \mathrm{mm}$		
Drop Head		φ 15mm	ϕ 24mm				
Wire Brush		φ 20mm	ϕ 30mm		ϕ 40mm	ϕ 50mm	

■HOW TO CHANGE HEAD

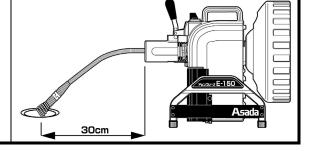
 \bigcirc To connect Head and Wire, simply slide male A to female B. They are locked with male pin.

- ②To disconnect, insert Wire Key C and slide apart male and female.
- 3Wires are male and Heads are female.



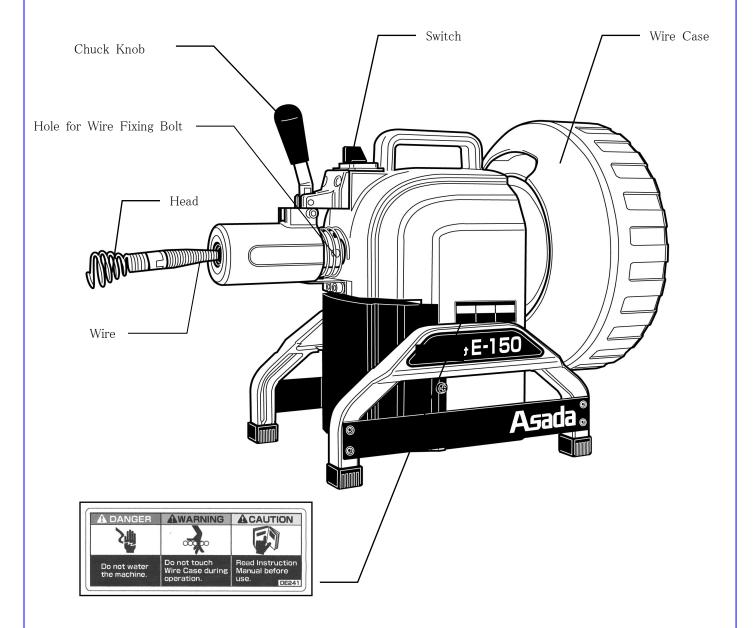
■INSTALLATION

- ①Place the machine on a flat surface at a distance of about 30cm from the drain.
- ②Make sure that the switch turned OFF and insert the power plug to an outlet.
- 3The machine must be grounded while in use.



■MAIN PARTS AND WARNING LABEL

The following warning label is stuck to this machine. It shows explanation for securing safety. Keep them clean, and if it is peeled off or becomes dirty, request new label to us. Be sure to stick new label to the same place.



■ PRECAUTIONS ON SAFETY



- ①Do not insert the power plug to an outlet with wet hand. You will get electric shock.
- ②Be careful not to get machine wet. If water comes inside of the machine, you will get electric shock.