

Robotic Welding Nozzie Cleaner



Instruction Manual Type A



Read this manual first before you use the product.
Keep this manual with care.


DAIHEN Corporation

Introduction

Thank you for purchasing our Nozzle Cleaner "CLEANKIT".
Read this manual carefully first before you use the product to correctly use.


And keep this manual with care after you read. When you have any troubles, read this manual. Please note that your purchased product may not coincide with the contents of this manual due to changes of the specifications.


Safety first

The precautions described in this manual with  notations are important items which may result any physical injuries.
Read carefully and follow these items.

◇Notations

In this instruction manual, for the handling precautions which can be considered as special important items, we indicate as follows;

 **Warning** : If you fail to observe the notice with this mark, you may die or receive a serious injury.

 **Caution** : If you fail to observe the notice with this mark, you may receive an injury.

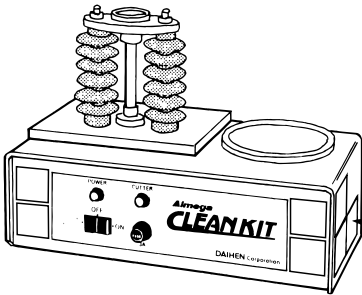
Important : If you fail to observe the notice with this mark, machines may be damaged or troubled.

Supplement : Useful supplementary explanation when using the product.

Service and Warranty

Consultation contact

If you need any service and inquire of any trouble when using or any question, consult to the seller you purchased the product. When you contact, inform the model name and serial number of the product.




TORCH CLEANER	
MODEL	
DATE	
WEIGHT	kg
SERIAL No.	1K2724
DAIHEN Corporation	
Manufactured by DAIWA SEIKO CO.,LTD. NU2935	

Warning

Modifying the machine will be dangerous. Do not modify the machine.

Note that modifying or using the machine with any different way from the intended purpose described in this instruction manual is not intended by the manufacturer and will make your warranty invalid.

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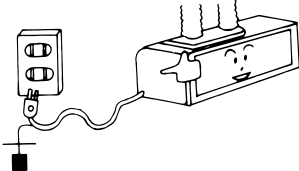
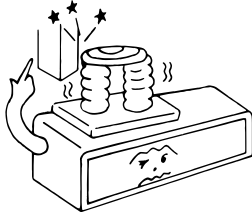
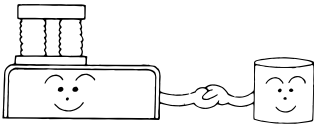
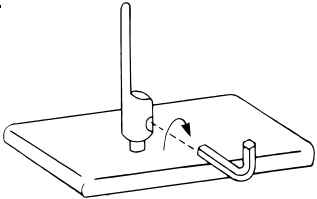
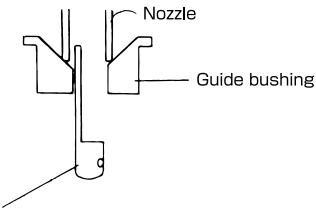
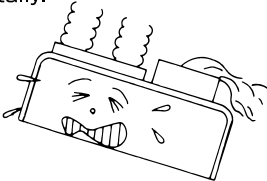
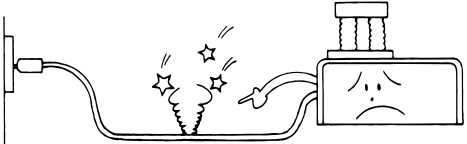


Caution To work safely



Please carefully read this instruction manual and understand the machine before you use, then try to safely work. In order to safely work, we request you to observe the following precautions and others described on each explanation with " ⚠ Caution " mark in the manual.

1. Before you work

<p>After you check the power switch is in OFF position, plug firmly the power plug into an outlet of AC 100V. Be sure to earth the power plug.</p> 	<p>Allow the table to be free at any time.</p>  <p>(The guide mechanism doesn't work well)</p>
<p>Be sure to use spatter inhibitor.</p>  <p>(If you clean out by means of a cutter without using inhibitor, spatters may not be removed.)</p>	<p>Firmly clamp the cutter so that it doesn't loosen.</p> 
<p>The nozzle diameter correlates with the diameters of the cutter and the guide bushing diameter. Check them in advance.</p>  <p>A type : Standard nozzle diameter 13 mm (If you use other than this diameter,) consult to your dealer.</p>	<p>Set the machine body firmly and horizontally.</p>  <p>(If the machine body moves, the cutter doesn't easily come into the nozzle).</p>
<p>If you do not use for a long time, pull the power plug out.</p>	<p>When you wire the power code, consider a way to avoid welding spark.</p> 

! Caution To work safely

2. Caution label and handling

◆Label types

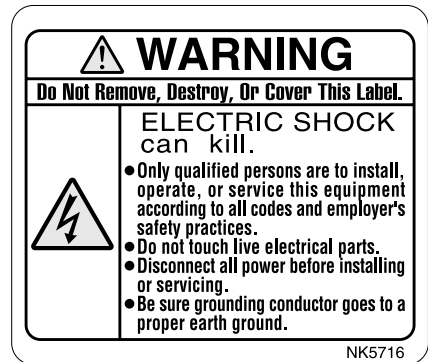
①NK5715



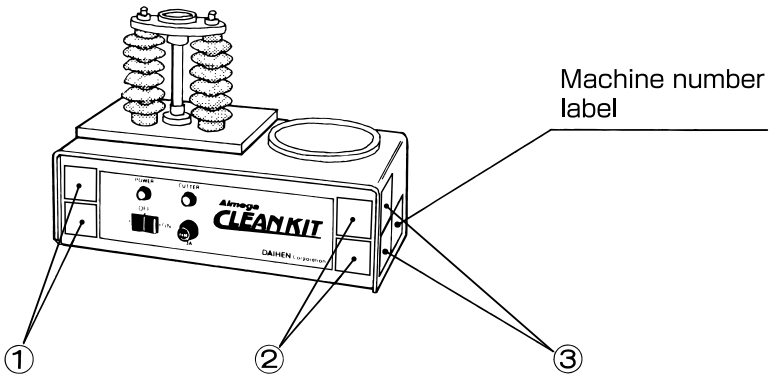
②TC-3118400



③NK5716



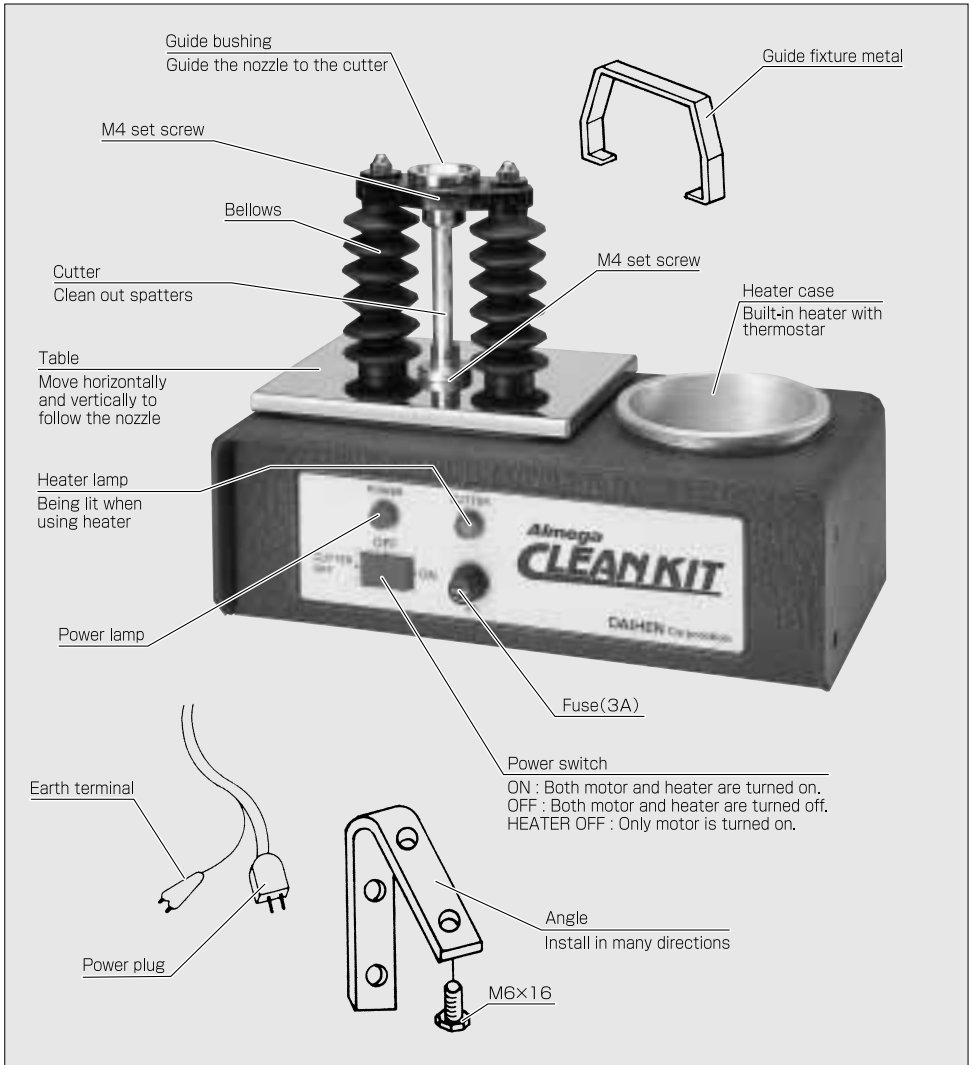
◆Labeling positions



◆Mending of the caution labels

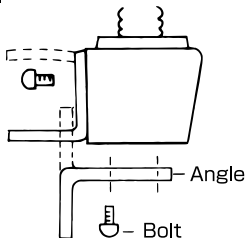
- (1) Wash the label which has been soiled with soap water and then dry it with a soft cloth.
- (2) Replace the label damaged or lost with new one, purchasing at your dealer.
- (3) If the part to be replaced is labeled, replace the label at the same time.

Part names and functions



Setting and preparation

- ❶ Secure the machine horizontally in suitable place by using the angle and bolt shipped together.



(Avoid any position where operations of the robot arm will be impeded.)

- ❷ Mount the earth.

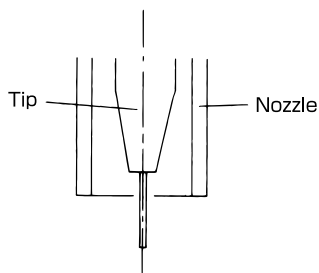
- ❸ After you confirm the power switch of "CLEANKIT" is in OFF position, plug firmly the power plug into an outlet.

Robot teaching

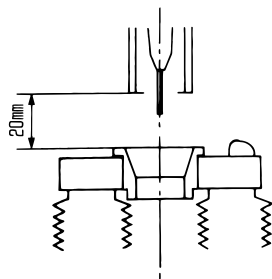
Before you carry out a teaching, confirm the following matters.

Important

- (1) Does the nozzle diameter correspond to the cutter size?
- (2) Is the tip located in the nozzle center?

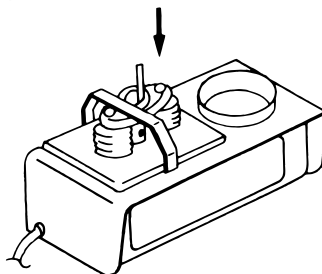


- ❶ Take the nozzle to a place where is approximately 20 mm above the guide bushing.



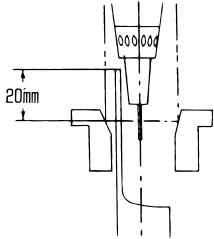
- Adjust the nozzle center to the guide bushing center.
- Correct the nozzle so as to make it perpendicular position.
- Remove the nozzle

- ❷ Push down the guide part of the CLEANKIT by hand and then fix it by using the metal fitting shipped together.



- Hook it to the table end.

- 3** Slowly and vertically lower the torch by the use of linear interpolation movement of the robot and adjust it to the spatter removal range.



- About 20 mm from the end face of the nozzle is appropriate. Position the power switch to CUTTER OFF side and then try to turn the cutter.

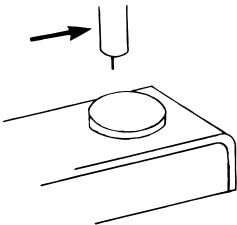
- 4** Slowly lift the torch to mount the nozzle.

- 5** Remove the metal fitting which secures the guide.

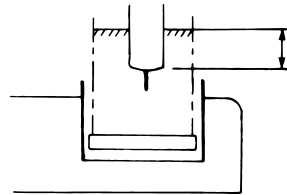
- Position the power switch to HEATER OFF side again to actuate the torch. Check if it exactly works.

(If you position the power switch to ON side, the heater works. Check by positioning to HEATER OFF side when teaching.)

- 6** Move the torch to the upper part of the heater.

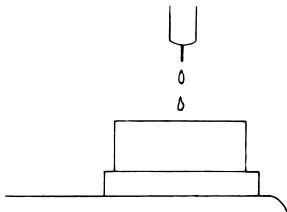


- 7** Slowly and perpendicularly lower the torch.



- Set so that inhibitor will soak over and more than the spatter removal range.

- 8** Slowly rise the torch. Stop the robot above a can for approximately 10 seconds to wait for liquid dropping.



- Shaking off liquid by letting the robot to up and down will lead earlier dropping.

- Now you complete a cleaning of the nozzle. Check by actuating the robot again.

Note:

- (1) Frequency of cleaning depends on welding conditions. So set your program after reviewing at the time of use.
- (2) Set your program so as to start welding after applying spatter inhibitor prior to welding start.

Operation

(Note 1)

- 1** Put a can of spatter inhibitor into the heater case.
 - Recommendation on inhibitor: Daihen Nozzle Pika L. (part no. 2670-026)
- 2** Position the switch to ON side.(POWER and HEATER lamps are lit)
 - When you use a liquid spatter inhibitor, adjust to HEATER OFF position. (Only POWER lamp is lit)
- 3** While turning ON the switch, wait for 20 - 30 minutes until spatter inhibitor is liquefied.
 - Liquefaction time depends on season and temperature.
- 4** Start the robot.
- 5** Switch OFF when you wish to end.

Note 1):When you use any other can type than standard, pour inhibitor in such can into the heater case before using.

Note 2):Replenish or replace inhibitor upon suitable time as to keep required level.

Specification

Name	A type
Model	K-2724
Nozzle diameter	13mm, (16mm)、(19mm)※
Power supply	AC100V 50/60Hz
Electric power consumption	125/130W
Cleaning time	About 20 seconds
Weight	5.5kg
Accessories	Special mounting metal set

※Necessary parts for the nozzle diameters described in () are shown in sparts list below.

Spare Parts List

No	Parts Name	Part No.	Note
1	Drill (φ 13)	5096-145	Rotation Drill/ Attached as standard
2	Drill (φ 16)	5096-146	Rotation Drill
3	Drill (φ 19)	5096-147	Rotation Drill
4	Bush (φ 13)	5096-148	for Guide Bushing/ Attached as standard
5	Bush (φ 16)	5096-149	for Guide Bushing
6	Bush (φ 19)	5096-150	for Guide Bushing
7	Adhesive Spatter Inhibitors※	2670-026	1000m l / Recommended parts

※This parts is sold separately.

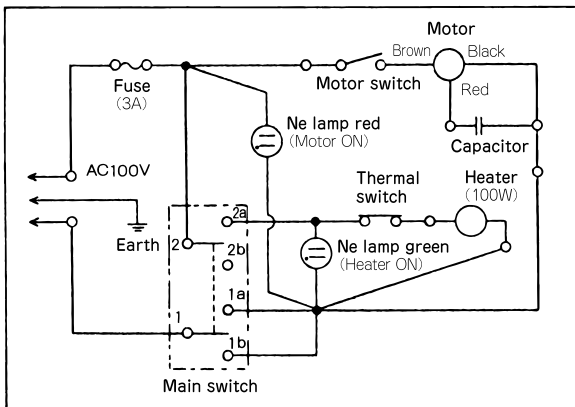
Before you request repairing

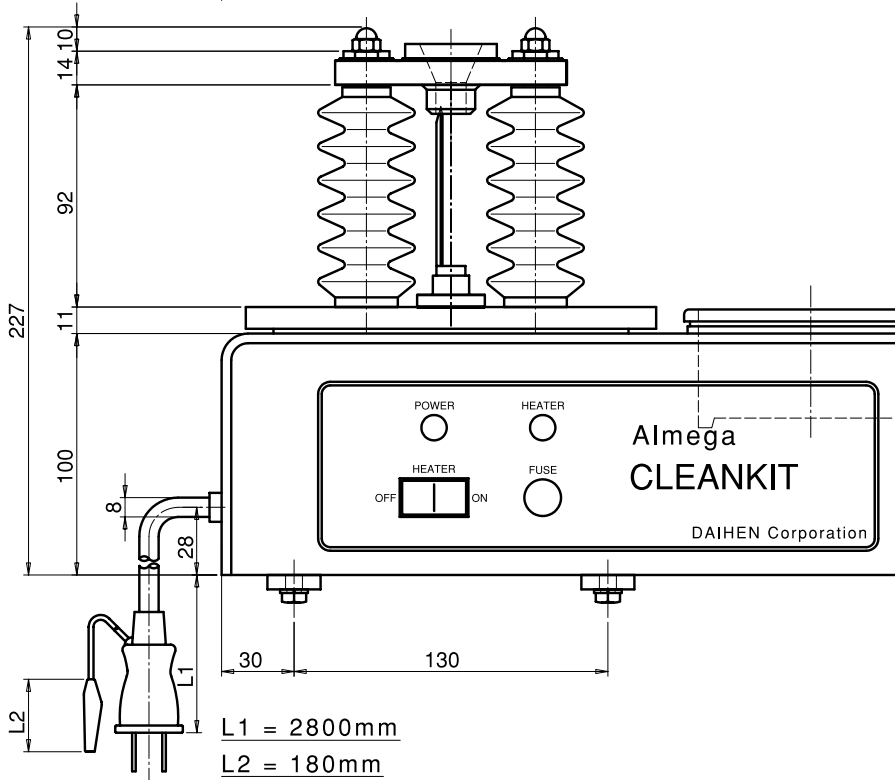
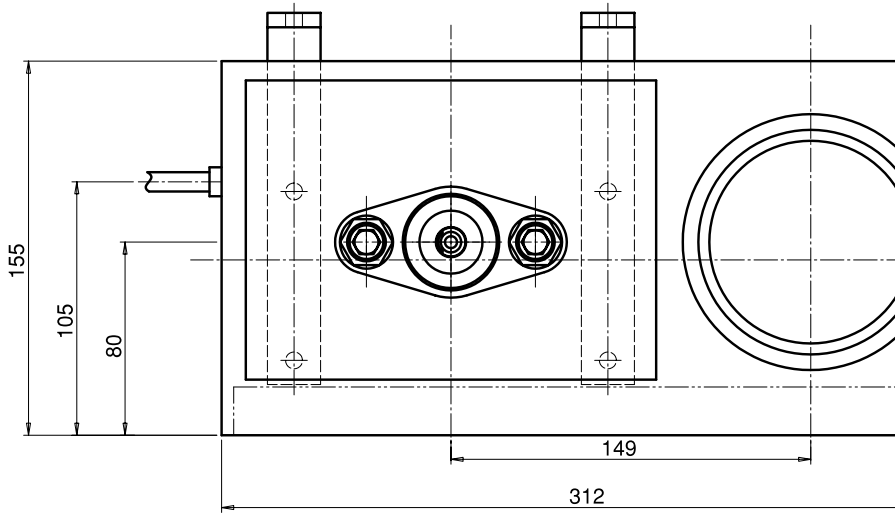
Check the following items again. If the machine doesn't work normally even after checking them, it may be at fault. So, please contact to your dealer.

Problem	Causes	Solutions
Motor doesn't run	<ol style="list-style-type: none"> 1. Safety device of motor functioned. 2. Nozzle has not entered vertically. (Cutter and nozzle are jammed.) 3. Diameters of nozzle and cutter are mismatched. 4. Loosen set screw of cutter. 5. Power plug got off from outlet. 	<ol style="list-style-type: none"> 1. Once turn off power switch. Actuate again after stopping for about 30 minutes. 2. Try again teaching to enter nozzle vertically to cutter. 3. Adjust. 4. Tighten again by using hexagon wrench. 5. Plug power plug to outlet.
Spatter inhibitor doesn't liquefy	<ol style="list-style-type: none"> 1. Power switch is positioned in HEARTER OFF. 2. Spatter inhibitor differs from specified one. 3. Bottom of can doesn't contact with heater. 4. Outside air temperature is low. 	<ol style="list-style-type: none"> 1. Turn ON power switch. 2. Replace with specified one. 3. Reset can so that its bottom fully touches surface of heater. 4. It will take a time to be liquefied at low air temperature. Keep waiting or you may temporarily heat by means of another measure.

Circuit diagram

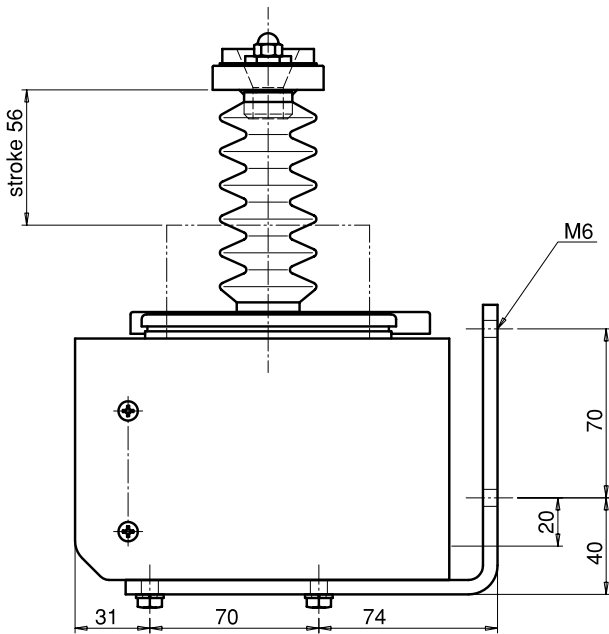
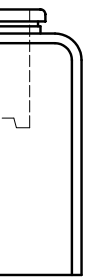
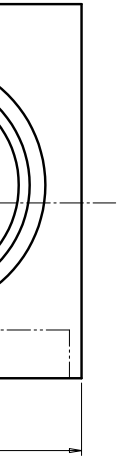
K-2724 Wiring Diagram





Outline drawing

Type A





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