

Robotic Welding Nozzle Cleaner



# Instruction Manual Type WII



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.

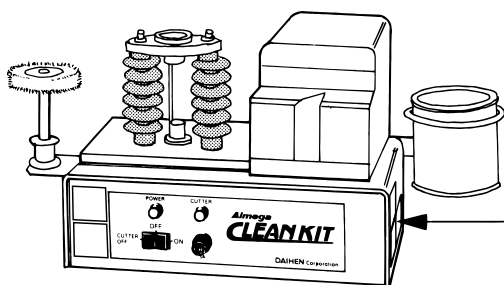
**Important** : If you fail to observe the notice with this mark, machines may be damaged or troubled.

**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.




<b>TORHCLEANER · WIREOUTTER</b>	
<b>MODEL</b>	
<b>DATE</b>	
<b>WEIGHT</b>	kg
<b>SERIAL No.</b>	2K2725
<b>DAIHEN Corporation</b>	
Manufactured by DAIWA SEIKO CO.,LTD. NU2936	

## 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

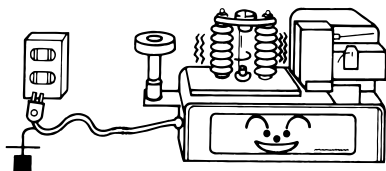


Please carefully read this instruction manual and understand the machine before you use, then try to safely work. In order to safely work, we request you to observe the following precautions and others described on each explanation with " ! Caution" mark in the manual.

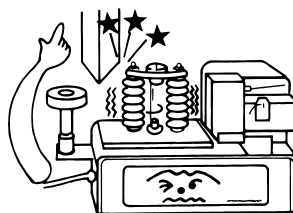
## 1. Before you work

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.

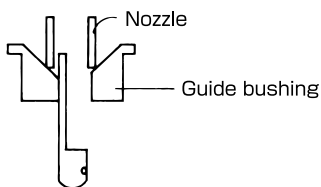


Allow the **table** to be free at any time.



(The guide mechanism doesn't work well)

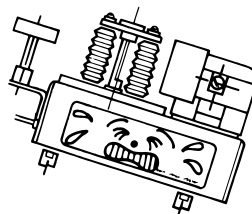
The **nozzle diameter** correlates with the diameters of the cutter and the guide bushing diameter. Check them in advance.



WII type : Standard nozzle diameter 13 mm

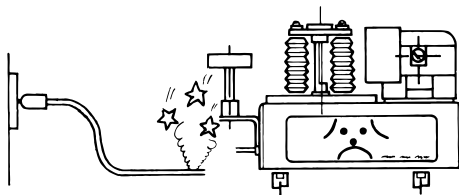
(If you use other than this diameter,  
consult to your dealer.)

Set the **machine body firmly and horizontally**.



(If the machine body moves, the cutter doesn't easily come into the nozzle.)

When you wire the **power code**, consider a way to avoid welding spark.



If you do not use for a long time,  
pull the power plug out..

# ! Caution To work safely

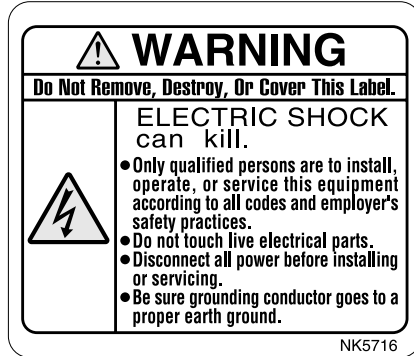
## 2. Caution label and handling

### ◆Label types

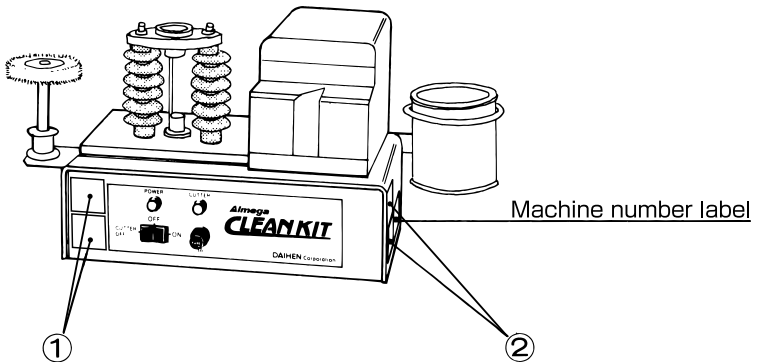
①NK5715



②NK5716



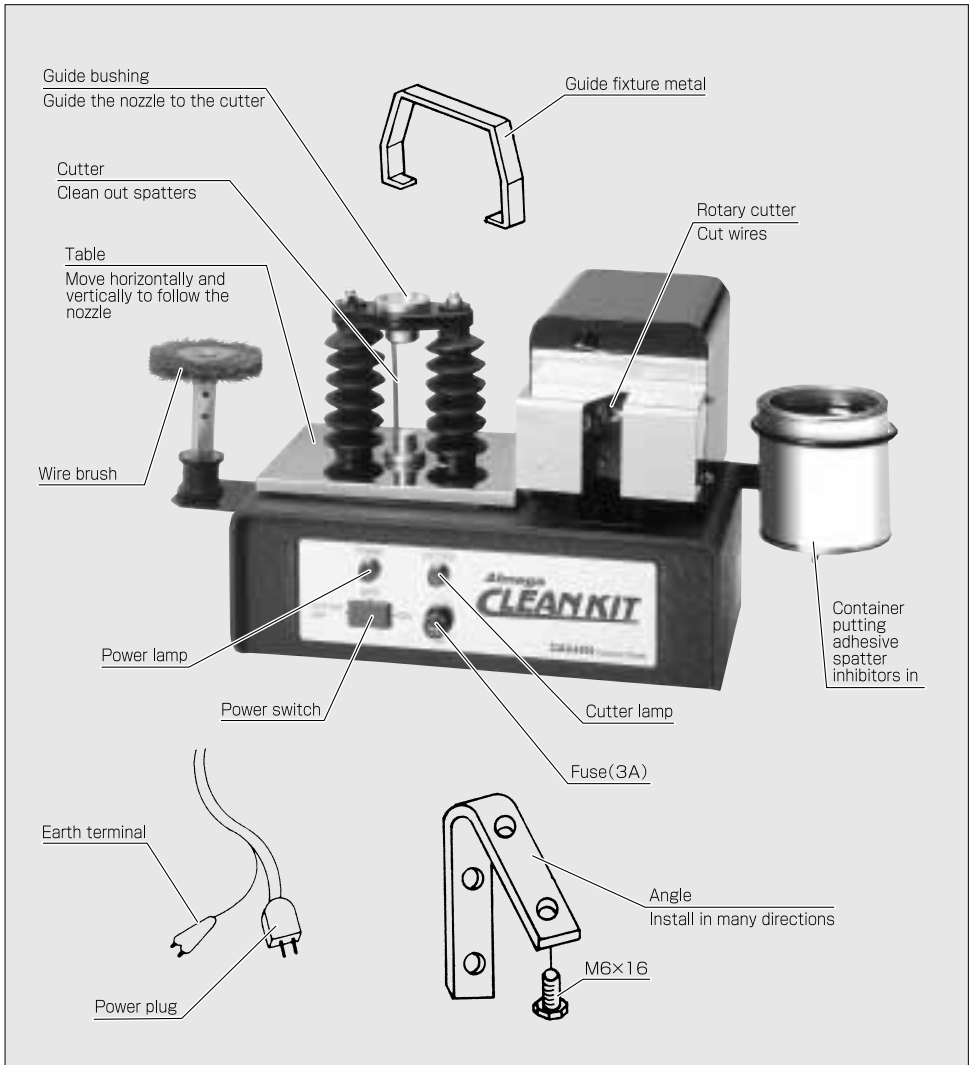
### ◆Labeling positions



### ◆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.

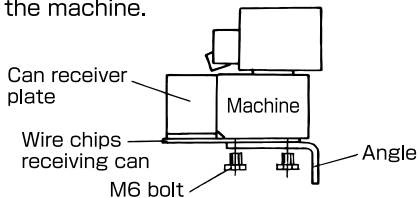
# Part names and functions



# Setting and preparation

- ❶ Put the can receiver plate between the machine and the angle. Fix them by using M6 bolts.

In order to prevent the machine from inclining, put the seat plate shipped with the machine.



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

- ❷ Mount the earth.

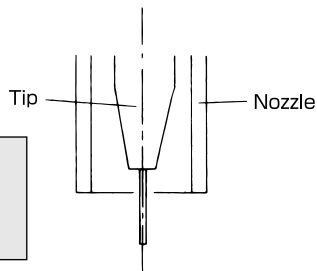
- ❸ After you confirm the power switch of "CLEANKIT" is in OFF position, plug firmly the power plug into an outlet.

## Robot teaching

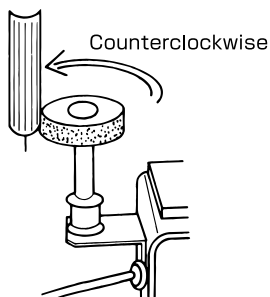
Before you carry out a teaching, confirm the following matters.

### Important

- (1) The power switch is in OFF position?
- (2) The nozzle diameter correspond to the cutter size?
- (3) The tip is located in the center of the nozzle?

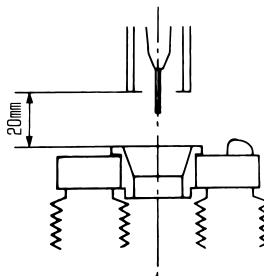


- ❶ Let draw a circle while placing the nozzle to the wire brush.



- Confirm the external surface of the nozzle is being fully brushed by letting draw a smaller circle than the outside diameter of the wire brush.

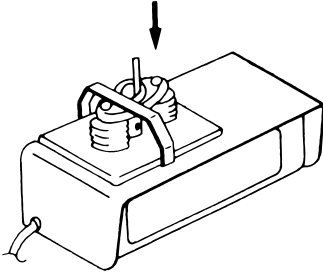
- ❷ Take the nozzle to a place where is about 20 mm above the guide bushing.



- Adjust the center of the nozzle to the center the guide bushing.
- Adjust the position to plumb the nozzle.
- Remove the nozzle.

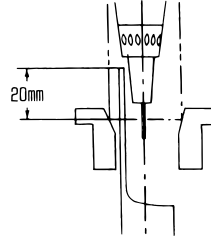


- 3** Push down the guide part of the CLEANKIT by hand and then fix it by using the metal fitting shipped with the machine.



- Hook it to the table ends.

- 4** 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.

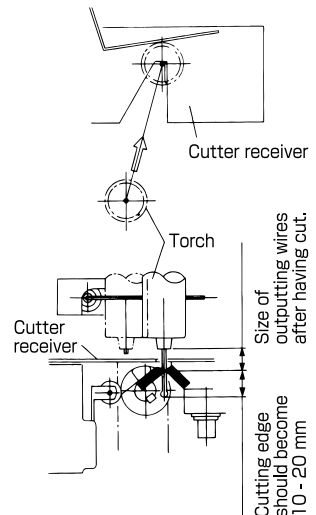
- 5** Slowly lift the torch to mount the nozzle.

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

- Confirmation of nozzle internal surface cleaning process. Position the power switch to CUTTER OFF side. Operate the torch and check if it exactly works.

- 7**
- Move the torch to the front of the cutter (A position). (Turn Off the power switch)
  - Level the torch to the cutting size of wires you want. (C dimension is the size of outputting wires after having cut.)
  - Horizontally move the torch from A to B. (Until a wire hits the notch bottom of the cutter receiver. At this time, the switch should be in ON position)
  - Stop the torch at B position for 3 - 4 seconds and then move it upwards.

(Note) "Ball" of wire tip can not be cut, so cut after putting out wires to allow the chip length of 10 - 20 mm.



●Confirmation of wire cutting process  
Turn ON the power switch. Actuate the torch and check if it exactly operates.

■Now, we finish cleaning of the nozzle and wire cutting.

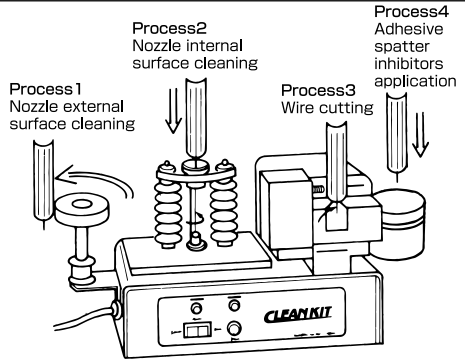
## Operation

1 Position the power switch to ON side.  
(POWER and CUTTER lamps light)

2 Start the robot and then operate in the following sequential order.

Process1 Nozzle external surface cleaning  
Process2 Nozzle internal surface cleaning  
Process3 Wire cutting  
Process4 Adhesive spatter inhibitors application

3 At the end of work, turn OFF the power switch.



## Specification

Name	W II type
Model	K-2725
Nozzle diameter	13mm、(16mm)、(19mm)*
Power supply	AC100V 50/60Hz
Electric power consumption	52/57W
Cleaning time	About 20 seconds
Weight	9.7kg
Adaptive wire diameters	1.6 mm or smaller
Accessories	A set of specific fixture metals, Chip receiver can kit, Guide fixture metal, Spatter adhesive inhibitor can kit.

\*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 ( $\phi$ 1 3)	5096-145	Rotation Drill/ Attached as standard
2	Drill ( $\phi$ 1 6)	5096-146	Rotation Drill
3	Drill ( $\phi$ 1 9)	5096-147	Rotation Drill
4	Bush ( $\phi$ 1 3)	5096-148	for Guide Bushing/ Attached as standard
5	Bush ( $\phi$ 1 6)	5096-149	for Guide Bushing
6	Bush ( $\phi$ 1 9)	5096-150	for Guide Bushing
7	Cutter (1)	5096-306	for rotation side
8	Cutter (2)	5096-307	for fixed side
9	Adhesive Spatter Inhibitors*	2670-026	1000m l / Recommended parts

\*This parts is sold separately.

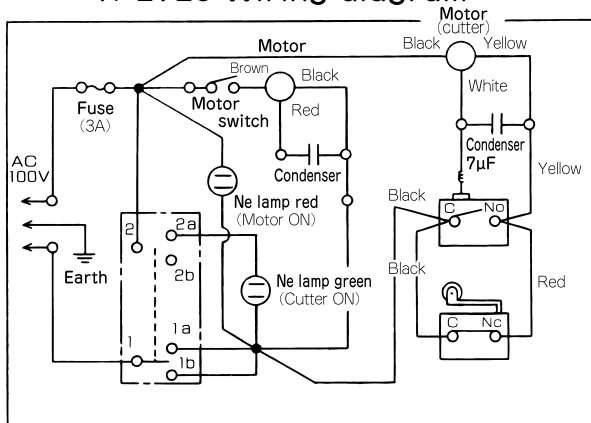
# Before you request repairing

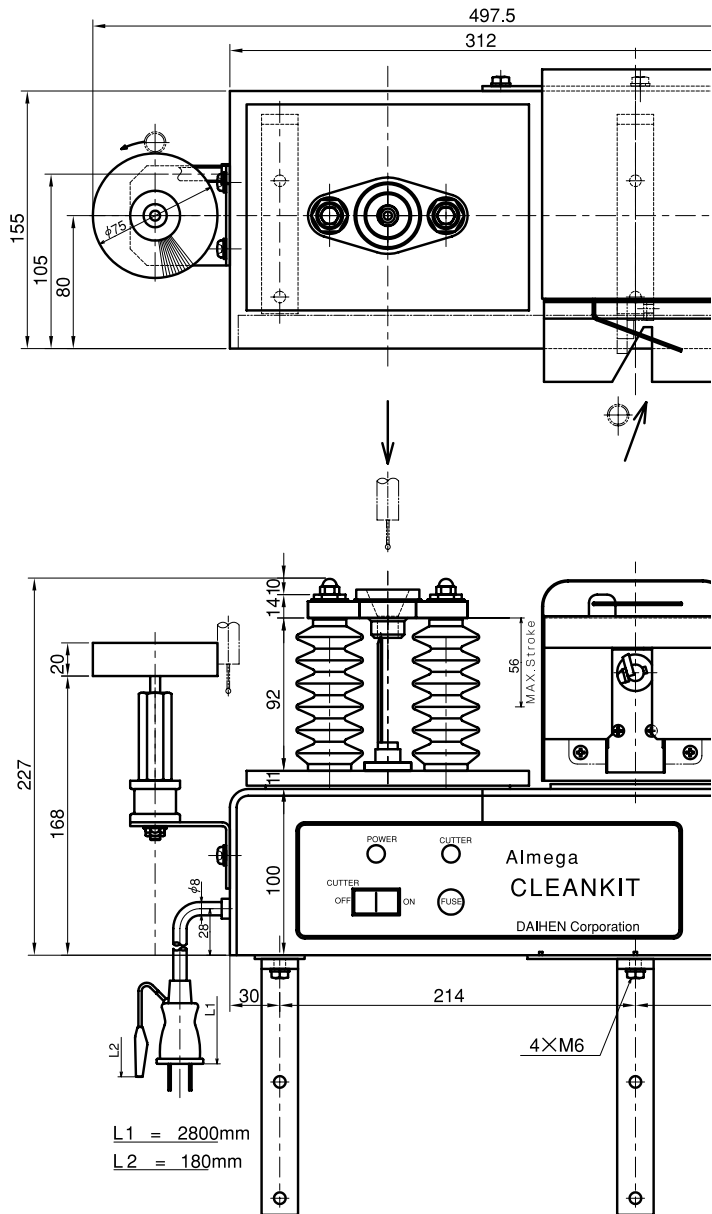
Check the following items again. If the machine doesn't work normally even after checking them, it may be at fault. So, please contact to your dealer.

Problem	Causes	Solutions
Motor at cleaning side doesn't run	<ol style="list-style-type: none"> <li>1. Safety device of motor functioned.</li> <li>2. Nozzle has not entered vertically. (Cutter and nozzle are jammed.)</li> <li>3. Diameters of nozzle and cutter are mismatched.</li> <li>4. Loosen set screw of cutter.</li> <li>5. Power plug got off from outlet.</li> </ol>	<ol style="list-style-type: none"> <li>1. Once turn off power switch. Actuate again after stopping for about 30 minutes.</li> <li>2. Try again teaching to enter nozzle vertically to cutter.</li> <li>3. Adjust.</li> <li>4. Tighten again by using hexagon wrench.</li> <li>5. Plug power plug to outlet.</li> </ol>
Motor at rotary cutter side doesn't run	<ol style="list-style-type: none"> <li>1. Power switch is in CUTTER OFF position.</li> <li>2. Switch isn't in ON position.</li> <li>3. Teeth of rotary cutter are jammed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn ON power switch.</li> <li>2. Adjust as being ON at cutting position of switch in which wire is bent.</li> <li>3. Adjust teeth.</li> </ol>

# Circuit diagram

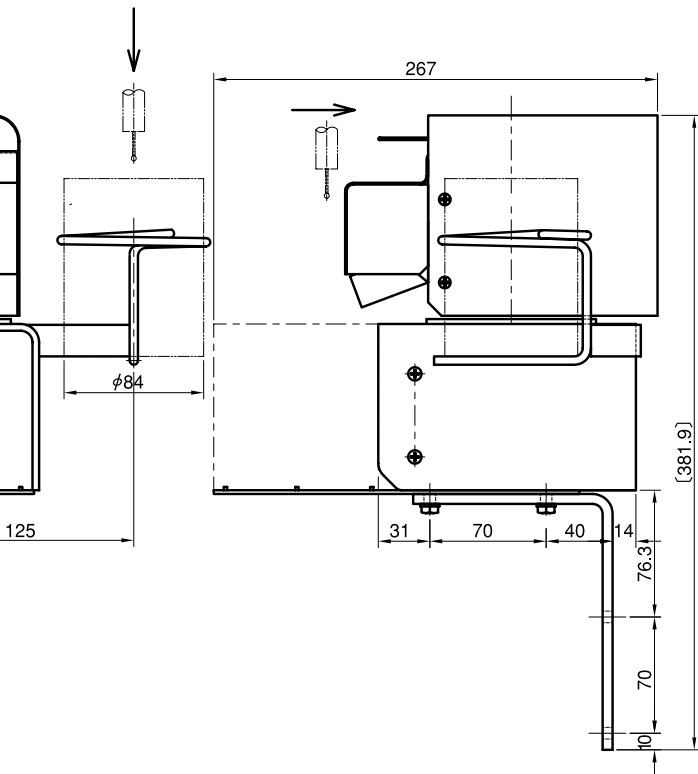
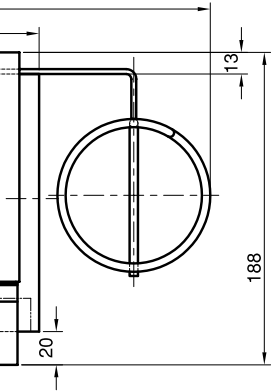
K-2725 Wiring diagram





# Outline drawing

Type WII





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