

# Multifunctional Aluminium Alloy Paint Curing Lamp With Distance and Temperature Sensors

**NT13-03-DTS**

**OPERATION MANUAL**



PLEASE READ THIS OPERATION MANUAL CAREFULLY BEFORE USING AND THE EQUIPMENT AND REFER TO IT AS NEEDED TO ENSURE THE CONTINUED SAFE OPERATION OF THE EQUIPMENT.

THIS OPERATION MANUAL SHOULD BE READ COMPLETELY BEFORE ATTEMPTING TO USE OR SERVICE THE EQUIPMENT. FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.

THE SAFETY ADVICE IN THIS MANUAL IS IN ADDITION TO, AND DOES NOT REPLACE, THE GENERAL SAFETY REGULATIONS IN FORCE IN THE REGION WHERE THE EQUIPMENT IS OPERATED.



➤ Magnetic fields can affect pacemakers. Pacemaker wearers keep away from the equipment. Wearers should consult their doctor before going near equipment operations.



➤ Do not touch any live electrical parts. Wear dry, hole-free insulating gloves and body protection. The input power circuit and machine internal circuit are live with high voltage when power is on. Touching live electrical parts can cause fatal shocks or severe burns. High voltage exists in the power supply socket. Never touch the conductor terminals with bare hand.

➤ Never disassemble, repair, alter or rebuild the equipment without approval from the manufacturer. There is a risk for electrical shock and fire.

➤ Do not operate or place the device near water or in wet locations. Risk for electrical shock or damage to the device.

➤ Replace power cord/wire/cable immediately bare wiring can kill.

➤ Frequently inspect input power cord and regularly clean the unit to remove dust and dirt. Any worn or damaged power cord or internal components in heavy dust may cause electrical shock, short circuit or fire.

- Electric shock can kill. Properly ground this equipment according to its user manual and national standard.
- The equipment must be used by qualified personnel familiar with electronic equipment.
- Input power installation must meet national standard. All electrical connections must be made by a qualified electrician. Insulated gloves and shoes must be worn when connecting input power or maintaining equipment.
- In the event of abnormal, operation must be immediately stopped. If smoke, smell or abnormal noise is produced by the unit, disconnect the power cord immediately and contact your local dealer. Do not use it until the problem is fixed.
- Use only well-maintained device. Inspect and maintain the device for safety every 12 months, including cleaning and removing dust. Repair or replace damaged parts/cables at once.
- Make sure the supply cable is up to national standard or local code. Use only the right gauge of electrical wire/cable. There is a risk of fire or electrical shock if overload building wiring be sure power supply system is properly sized, rated and protected to handle this unit.
- Do not step on, twist or pull the power cord.
- Frequently inspect input power cord and regularly clean the unit to remove dust and dirt. Any worn or damaged power cord or internal components in heavy dust may cause electrical shock, short circuit or fire.
- Do not operate the equipment in potential hazardous areas: chemicals, oil, gas and mining, or the worksites where power supply system is in poor condition.
- The equipment is designed for curing paint only. Do not use the equipment for other purposes. This may cause fire or electrical shock.
- Never place any materials/objects on top of the equipment to avoid fire and electrical shock.
- Do not locate equipment on, over, or near combustibles.
- Use only the spare parts supplied or approved by manufacturer.
- Do not place the equipment on unstable or uneven ground. The equipment might fall causing injuries and damage to the equipment. During operation process, the equipment should keep a distance about 10 cm from the wall to keep air way clear.
- Avoid using the equipment in the environments with high humidity ( above 90% ) , high temperature ( above 40 °C), low temperature (below 5 °C), high frequency source nearby, chemical and drug, water vapor for condensation, dust or vibration.
- Make sure the facility supply voltage and frequency are the same as shown on name plate. The supply cable must be properly sized and rated.

- The connection between the main power supply and the equipment should be as short as possible.
- Use a dry cloth to clean the dirt on the equipment.
- Follow the instructions of this user manual to operate the equipment.
- We have made installation and operation quick and easy. Please operate the buttons and switches gently with your hands, only one button each time. The sensitive control circuit will be damaged if pressing the buttons with a hard and sharp thing such as screw driver and, pen.
- Turn off all equipment when not in use.
- Follow the installation and operation instruction to ensure user safety and proper equipment performance. It is the responsibility of the owner to ensure that the equipment has been installed and operated as specified in the instructions provided. The manufacturer takes no responsibility for any loss or damage suffered as a result of using the equipment incorrectly or improperly.

## **MAINTENANCE**

- Never disassemble, repair, alter or rebuild the equipment without approval from the manufacturer.
- Use only well-maintained device. Inspect and maintain the device for safety every 12 months, including cleaning and removing dust. Repair or replace damaged parts/ cables at once.
- Use only the spare parts supplied or approved by manufacturer.
- Do not forget to take back all repair tools/objects inside the equipment after repair/ maintenance, such as screws, bolts or nuts. The left out metallic objects inside the equipment can cause damage to the equipment.

## **STORAGE**

- Avoid storing the instrument in conditions of high humidity.

## **ITEM DESIGN HANGE**

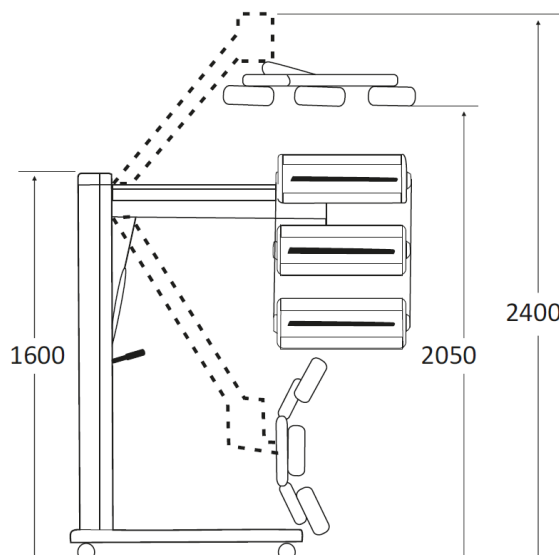
It is forbidden to make changes to the design of the tool without the consent of the manufacturer.

## **DISPOSAL**

When disposing of the tool or individual components, observe the local regulations in force in the region where the equipment is used.

## **TECHNICAL SPECIFICATION**

| Model       | Input Power, W | Curing Area, mm | Temperature, °C | Time Setting, min | Light Intensity, % | Curing Distance, mm | Input Voltage |
|-------------|----------------|-----------------|-----------------|-------------------|--------------------|---------------------|---------------|
| NT13-03-DTS | 3 × 1000       | 1200 × 1000     | 35 - 100        | 0 - 99            | 10 - 100           | 200 - 1200          | 220V, 50-60Hz |



## CONTROLS

1. LCD display
2. Lamp selector (each lamp can be controlled separately)
3. Power adjustment
4. Time adjustment
5. Setting:
  - Press the button once, it will enter into «Routine» mode when the lamp is on.
  - Press again, it will enter into «Pulse» mode when the lamp is on.
  - Press and hold to enter into curing parameters setting mode.
6. Auto
7. Start
8. Stop

### 1. Setting for Distance

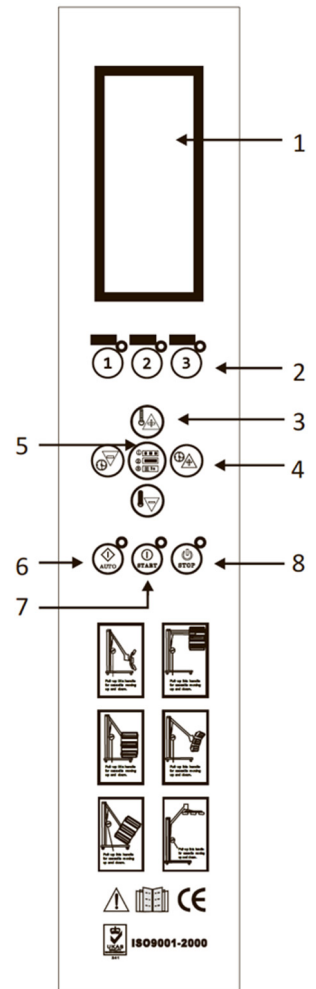
➤ Press and hold the «Setting» (button 5) to enter into setting mode. Set the curing parameters according to the requirements of different paints. Nearest distance: The equipment will stop automatically when the distance between the panel and emitter is less than its preset distance. Farthest distance: The equipment will stop automatically when the distance between the panel and emitter exceed its preset distance. The equipment works only in the preset distance range.

### 2. Setting for Temperature

➤ Press «Power adjustment» (button 3) when the lamp is ready to use to set the temperature.

### 3. Setting for Automatic Mode

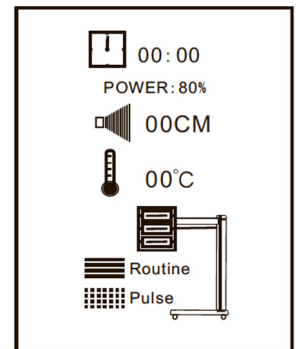
Press «Setting» (button 5) when the lamp is ready to use to set curing parameters (shown on LCD display) according to the requirements of different paints to achieve the best.



## OPERATING

### 1. Automatic Mode

- Properly assemble the curing system according to the instruction.
- Switch on the power supply. The system is ready to use when the graphic appears on the display screen as follows
- Move the cassette forward or backward from the paint surface to adjust to the best distance for curing. The distance data will be detected and shown on the display screen automatically. The measuring range is 20 – 120 cm and beyond it is blind zone. The curing distance between the cassette and paint surface should be set according to the paint material and weather conditions (air humidity). Usually, keeping a distance of about 45cm from the paint surface is recommended.



- Press the «Auto» button and then press «Start» to go into the automatic curing mode. Once the automatic mode is selected, four related cure programs become available to the user – STEP 1- 4. (The curing time and power should be set according to the requirements of the paint material).

- The time and power cannot be set directly during the program running.
  1. The data can be set before the program started.
  2. The data can also be adjusted during program with a long press on the button «Setting» changing the interface to set the data.
  3. Nearest distance (20 cm)
  4. Farthest distance (70 cm)
  5. Lowest Temperature (35 °C)
  6. Highest Temperature (75 °C)

|        |                                     |
|--------|-------------------------------------|
| Step 1 | Routine time (5 min)<br>Power (60%) |
| Step 2 | Pulse time (15 min)<br>Power (60%)  |
| Step 3 | Routine time (5 min)<br>Power (60%) |
| Step 4 | Pulse time (15 min)<br>Power (60%)  |

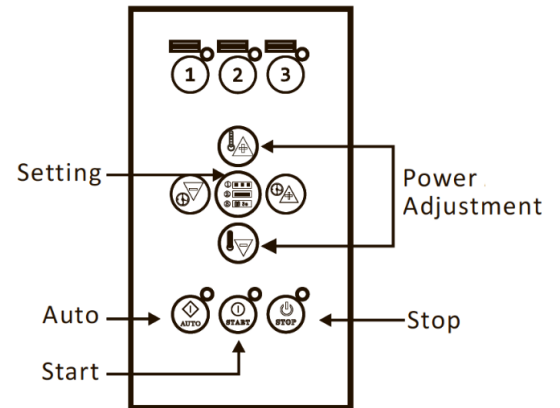
- Setting curing time. Press the navigation buttons «Time +» or «Time -» (button4) when the lamp is ready to use to adjust curing time.
- Protect the lamp against shocks and vibrations when the lamp is in use.
- After this program is completed, the system is able to carry out other programs. Make sure to turn off the system when the equipment is not in use and keep the equipment securely in place.

**2. Manual Mode**

- Press the navigation buttons «Power +/-» and «Time +/-» when the lamp is ready to use to adjust the curing power and time.
- Press the button «Setting» to set the mode of «Routine» or «Pulse».
- Press the button «Start».
- The curing distance between the cassette and paint surface should be set according to the paint material and weather (air humidity). Usually, keeping a distance of about 45 cm from the paint surface is recommended.
- The curing time and power should be set according to the requirements of the paint material. Usually, «Pulse» is set to 5 min and «Routine» to 10 min.
- Turn off the equipment when the work is completed.

**3. Pulse Mode**

- Set power and time. Press the button «Setting» and select «Pulse».
- Press the «Start» button.
- The curing distance between the cassette and paint surface should be set according to the paint material and weather (air humidity). Usually, keeping a distance of about 45 cm from the paint surface is recommended.
- After this program is completed, the system is able to carry out other programs. Make sure to turn off the system when the equipment is not in use.

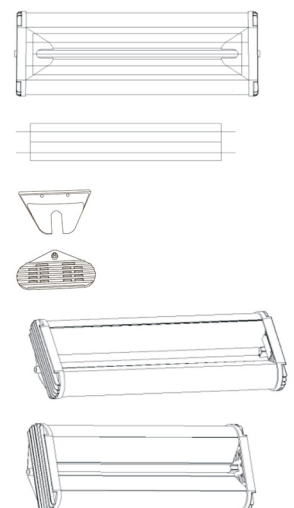


**TROUBLESHOOTING**

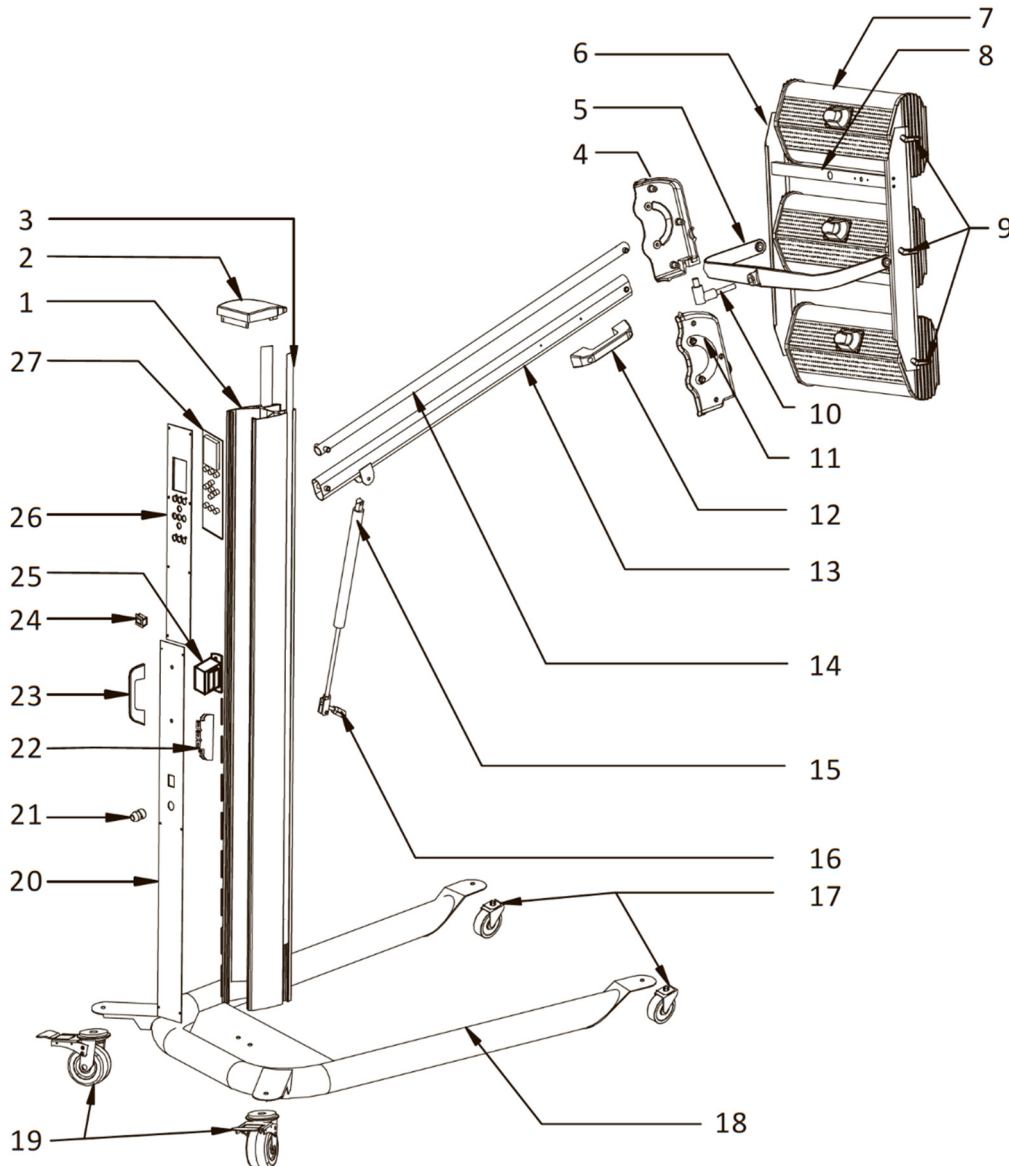
| PROBLEM                                   | CAUSE   | SOLUTION   |
|---|---|--|
| Light tube does not work                  | Light tube damaged<br>Lamp is not plugged in<br>Control silicon damaged | Check light tube<br>Check the connections<br>Check control silicon |
| Light tube does not turn off              | Control silicon damaged   | Check control silicon  |
| Digital display is blank or is incomplete | Unplugged flat wire in circuit board<br>Digital display damaged         | Check flat wire<br>Check digital display                           |
| Temperature and time cannot be adjusted   | Switch imbalance<br>Key board has exclusion                             | Check the installation of switch<br>Check keyboard exclusion       |

**LIGHT TUBE REPLACEMENT**

- Prepare the cassette which needs replacement.
- Remove the grille of cassette.
- Remove the plates from both ends of the cassette.
- Remove the fixed plates from both ends of the cassette.
- Loosen fixed screws and cut off connections, the light tube can be replaced.
- Repeat the steps above in reverse order to replace the light tube.



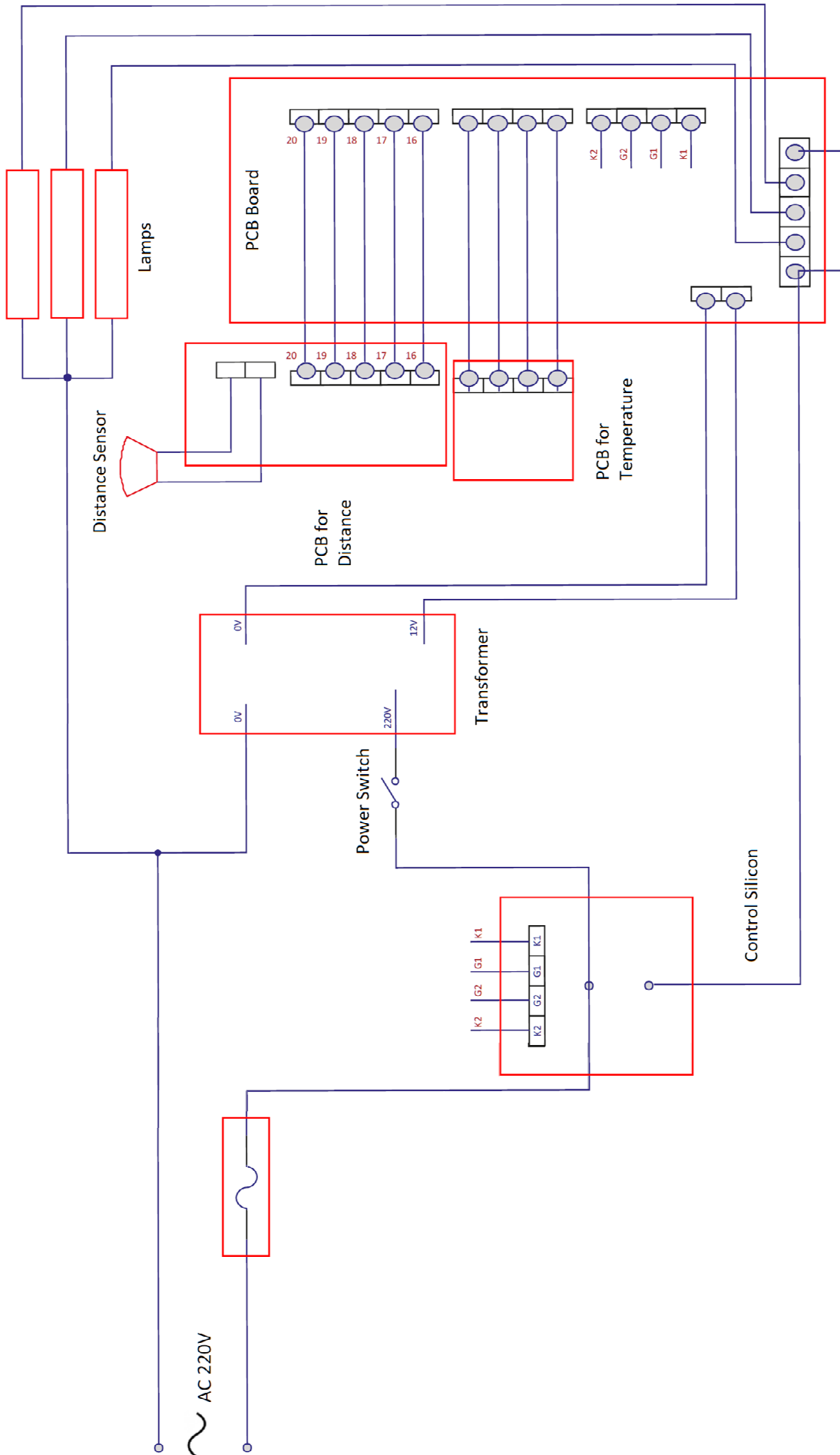
## Parts



| No. | Description        | Part No.  |
|-----|--------------------|-----------|
| 1   | Upright post       | NT13S-021 |
| 2   | Top cover          | NT13S-023 |
| 3   | Plastic band       | NT13S-024 |
| 4   | Connector (left)   | NT13S-012 |
| 5   | Bracket            | NT13S-014 |
| 6   | Clamping bar       | NT13S-011 |
| 7   | Cassette           | NT13S-027 |
| 8.1 | Temperature sensor | NT13S-002 |
| 8.2 | Distance sensor    | NT13S-001 |
| 9   | Plastic nut        | NT13S-026 |
| 10  | Connecting axle    | NT13S-032 |
| 11  | Connector (right)  | NT13S-028 |
| 12  | Handle             | NT13S-003 |
| 13  | Lower support arm  | NT13S-018 |
| 14  | Upper support arm  | NT13S-019 |

| No. | Description                   | Part No.  |
|-----|-------------------------------|-----------|
| 15  | Lifter                        | NT13S-004 |
| 16  | Lifter handle                 | NT13S-005 |
| 17  | Front caster                  | NT13S-007 |
| 18  | U-type base                   | NT13S-008 |
| 19  | Back wheel                    | NT13S-006 |
| 20  | Cover plate (lower)           | NT13S-009 |
| 21  | Flange                        | NT13S-025 |
| 22  | Control silicon               | NT13S-010 |
| 23  | Handle                        | NT13S-017 |
| 24  | Power switch                  | NT13S-015 |
| 25  | Transformer                   | NT13S-013 |
| 26  | Cover plate (upper)           | NT13S-029 |
| 27  | Circuit board                 | NT13S-022 |
| 28  | «GOLD» light tube (not shown) | NT13S-020 |

**ELECTRICAL SCHEMATIC**





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