

TM Mobile Workstation Manual



This Manual contains information of the Techman Robot product series (hereinafter referred to as the TM Robot). The information contained herein is the property of Omron Corporation (hereinafter referred to as the Corporation) and Techman Robot Inc. No part of this publication may be reproduced or copied in any way, shape or form without prior authorization from the Corporation. No information contained herein shall be considered an offer or commitment. It may be subject to change without notice. This Manual will be reviewed periodically. The Corporation will not be liable for any error or omission.

TM Mark is the registered trademark of Techman Robot Inc., and the Company reserves the ownership and copyright of this Instruction and its copies.

Revision History Table.....	4
1. Product Function and Specification	5
1.1 Function	5
1.2 Specification.....	5
1.3 Three-view Diagram.....	6
1.4 Flange Surface.....	6
2. Packing List.....	7
3. Installation	8
3.1 Control Box Installation.....	8
3.2 Robot Arm Installation.....	11
3.3 TM Mobile Workstation Application.....	12
3.4 Casters Setting	12
3.5 Terminal Block Wiring	13

Revision History Table

Revision	Date	Revised Content
01	October 2018	Original release

1. Product Function and Specification

1.1 Function

TM Mobile Workstation is a convenient tool for users to organize and store TM Robot, control box and other components. Users can move TM Mobile Workstation with TM Robot to different work cells to achieve easy and flexible deployment.

1.2 Specification

Depth	729mm
Width	700mm
Height	800mm
Weight	110kg
Applicable Robot	TM5-700 、TM5-900
Max. Recommended Profile(TM5-700/TM5-900):	Up to 80% of max. speed with half max. payload and default acceleration rate (500ms for Time to top speed).

*Max. recommended profile is highly relevant to pose/motion/acceleration, and the status of ground surface.

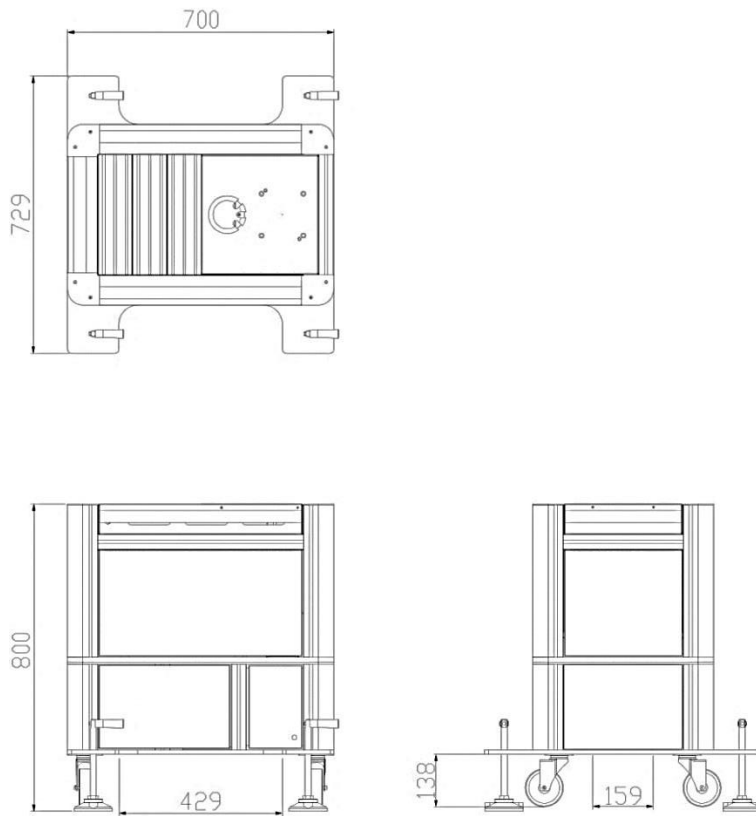


DANGER:

Before installing and using this product, the user must first perform a risk assessments based on the conditions of use. The stability of the center of gravity is highly correlated with robot kinematics (including velocity, acceleration and poses) and environmental factors (including characteristics of the floor surface and structure).

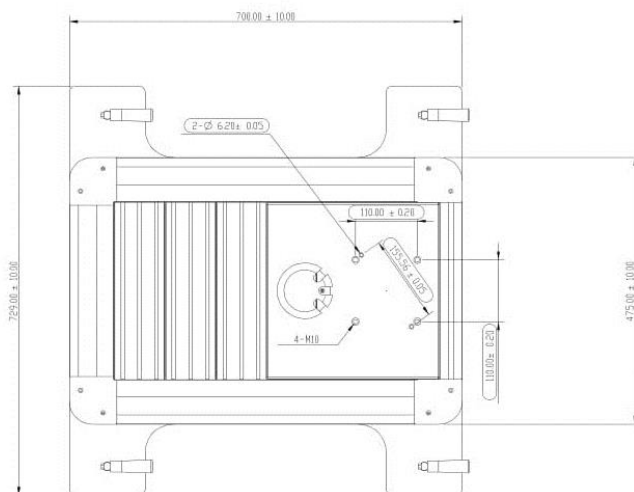
The Corporation clearly specifies the following risks: the product can tip over causing serious injury or death, or damage to itself and other equipment, due to improper risk assessment or test and failure to read and comply with the manuals. Max. recommended profile and related data shall not be considered as a guarantee by the Corporation.

1.3 Three-view Diagram



* The distances have deducted the wheel range.

1.4 Flange Surface



2. Packing List

TM Mobile Workstation has the following items in package.

TM Mobile Workstation ×1



Power Cord* ×1



Desktop Cover ×1



Bracket(1) ×2



Bracket(2) ×2



Bracket(3) ×2



M4L6 Flat Screw ×6



M4L6 Screw ×6

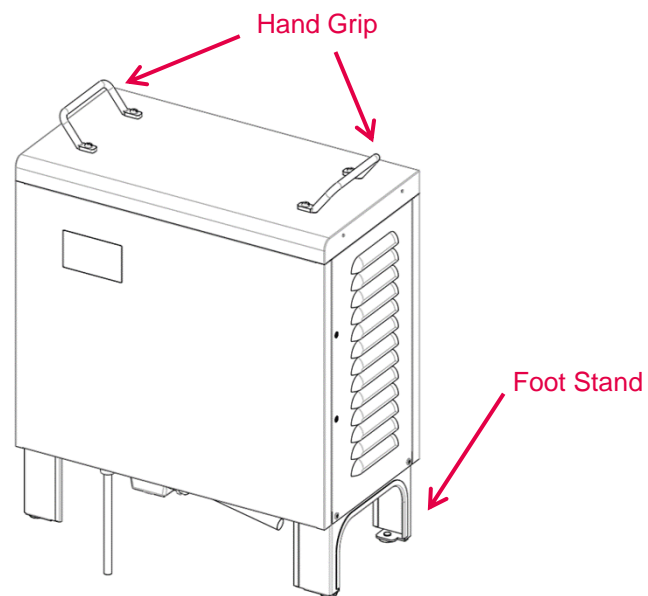


*The specification of power cord is Type B (mainly use in Taiwan, Japan, and American). To be compatible with regional socket and power cord, we recommend the user uses the power cord which is contained in TM Mobile Workstation to connect control box with TM Mobile Workstation. As for external power, please use the power cord which is contained in TM Robot.

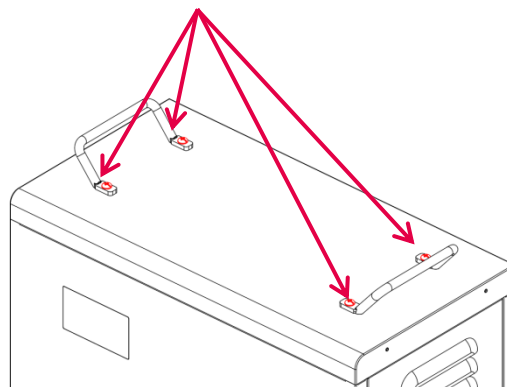
3. Installation

3.1 Control Box Installation

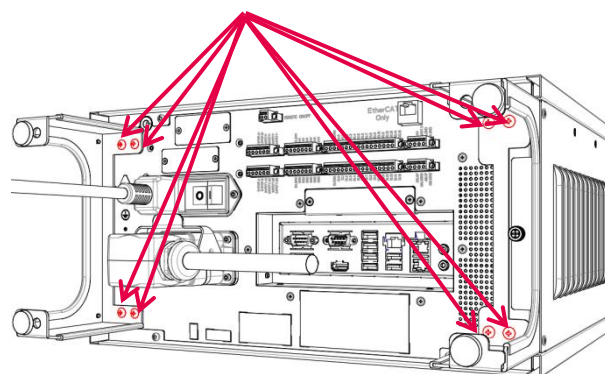
- Remove the hand grips and the foot stands.



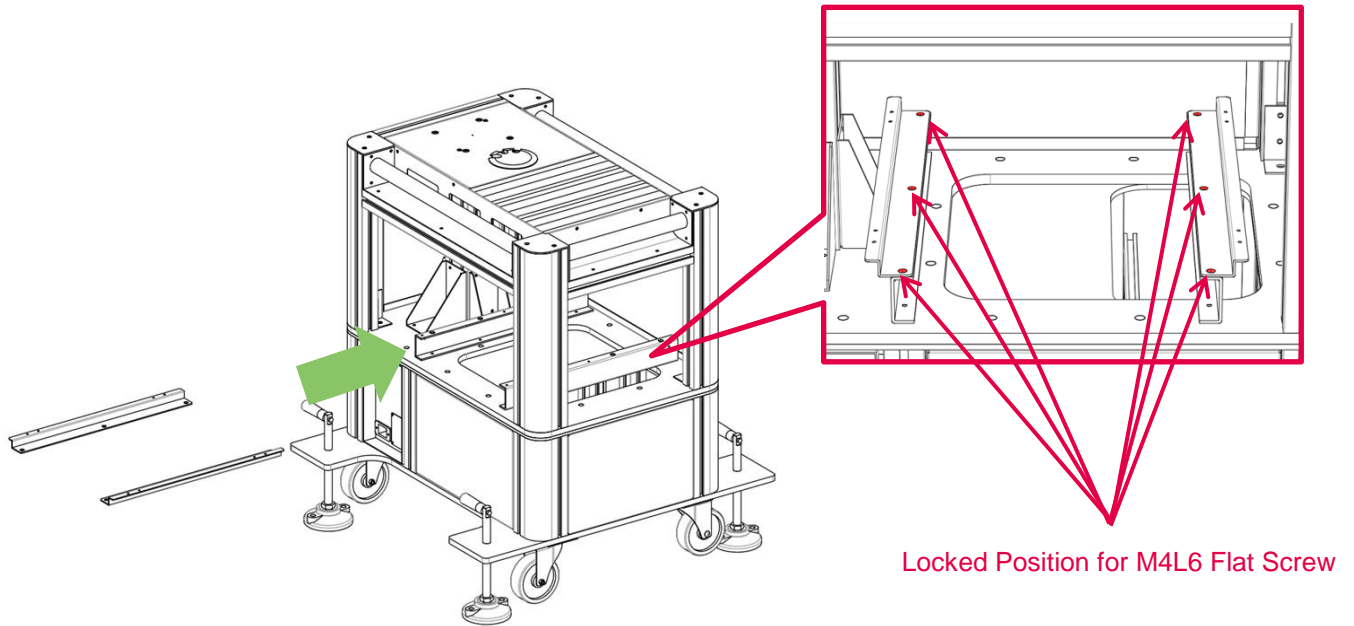
Disassembled Position for Hand Grip



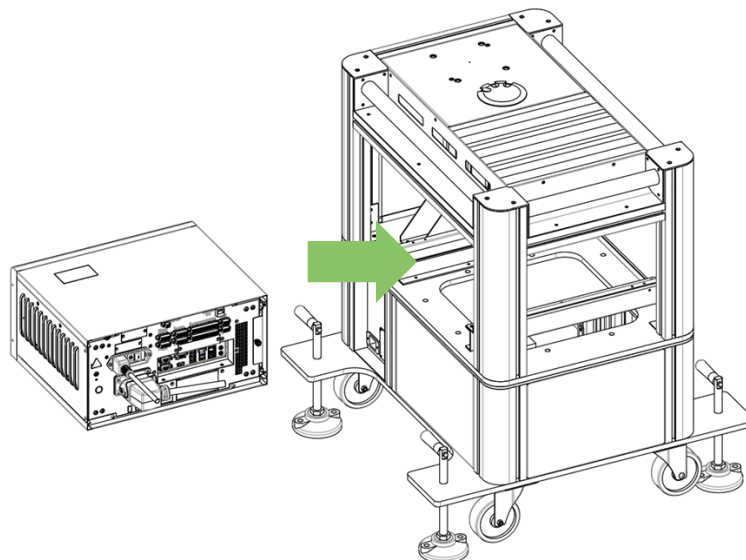
Disassembled Position for Foot Stand

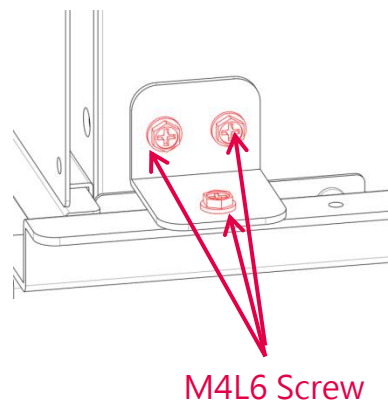
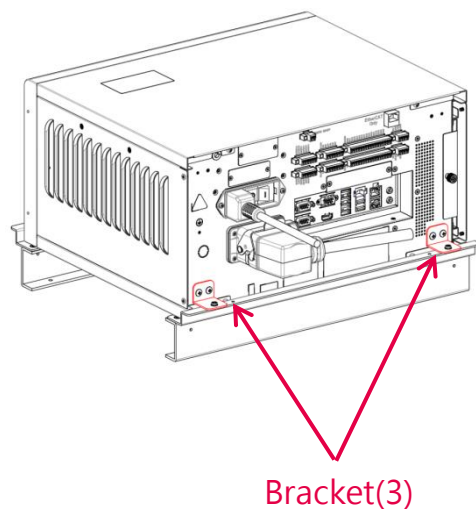
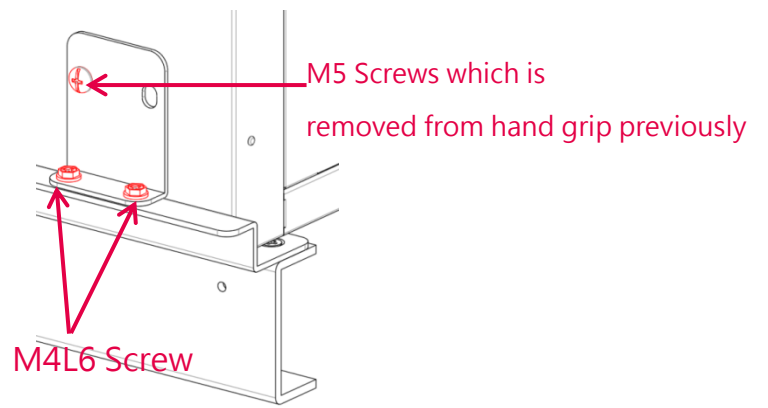
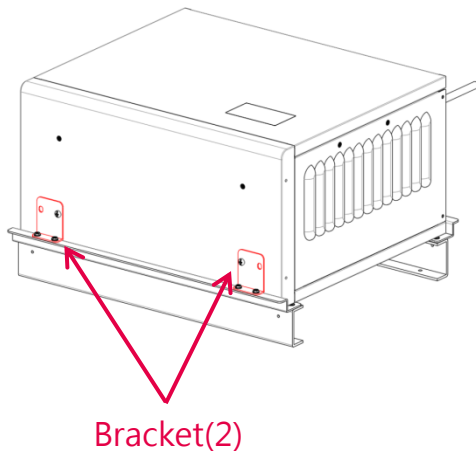


- Put Bracket(1) into TM Mobile Workstation and fix with M4L6 flat screws.



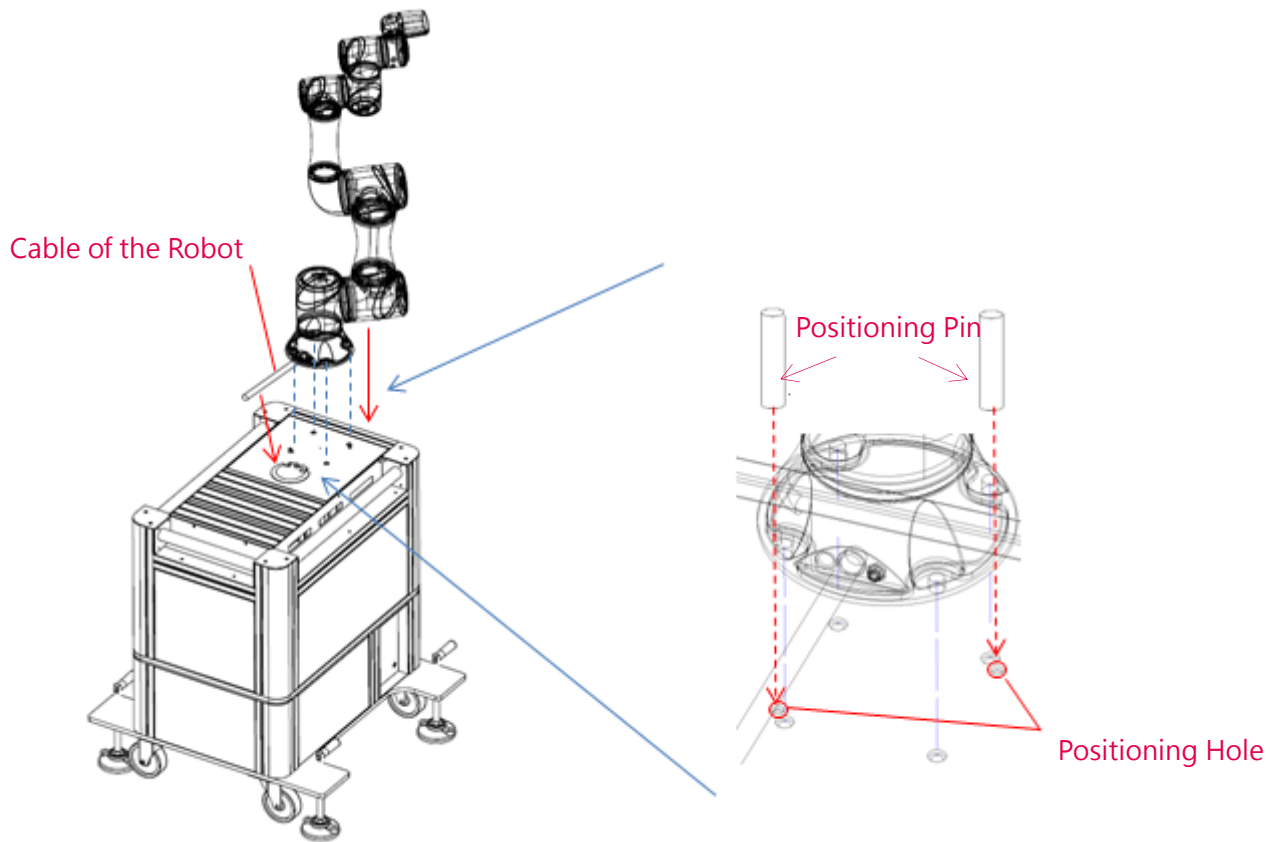
- Put control box into TM Mobile Workstation along Bracket(1), then assemble Bracket(2) and Bracket(3).
(Recommended screw type: take reference for figures shown below.)



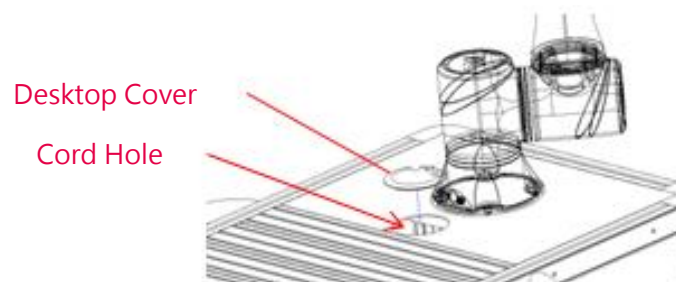


3.2 Robot Arm Installation

- Orient cable of the robot towards the cord hole. Locate TM Robot with positioning pins. Then secure TM robot with M10 screws.

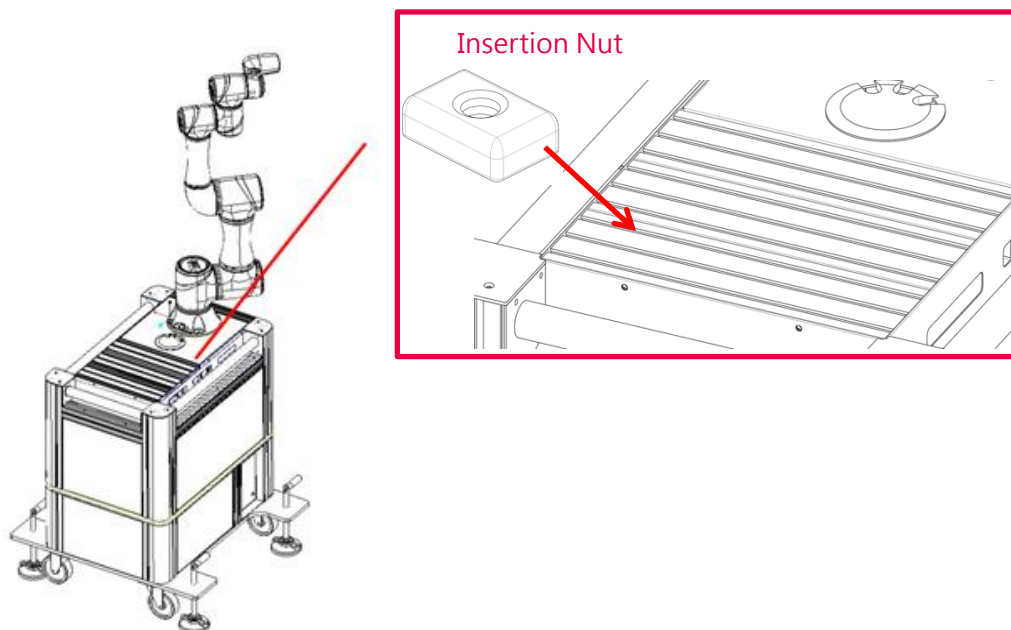


- Pass cable of the robot through the cord hole and connect to control box. Cover the cord hole with desktop cover.



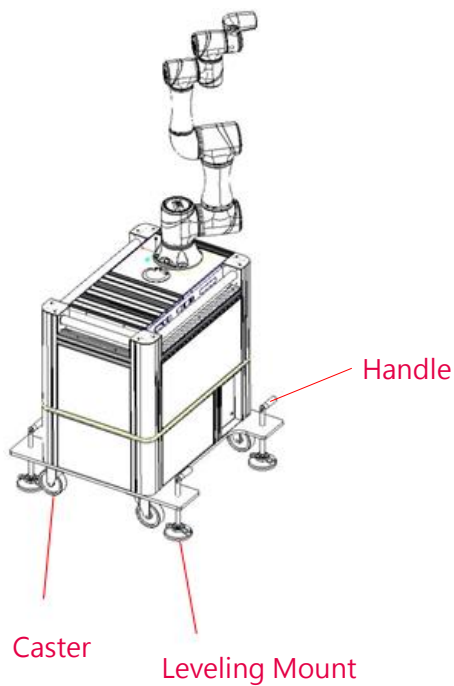
3.3 TM Mobile Workstation Application

- The user can put insertion nuts (Recommended nut type: 10mmx5mm; M5 or M6) into the slot of the desktop, and uses screws to lock required application on these nuts.



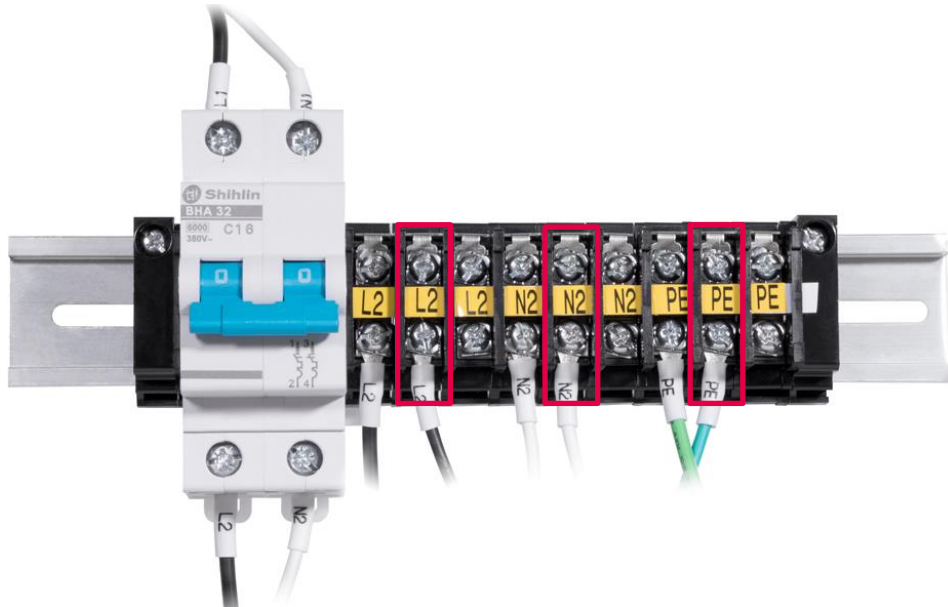
3.4 Casters Setting

- To move the TM Mobile Workstation: Turn the handles counterclockwise. The casters would touch the ground.
- To fix the TM Mobile Workstation: Turn the handles clockwise. The casters would be lifted.

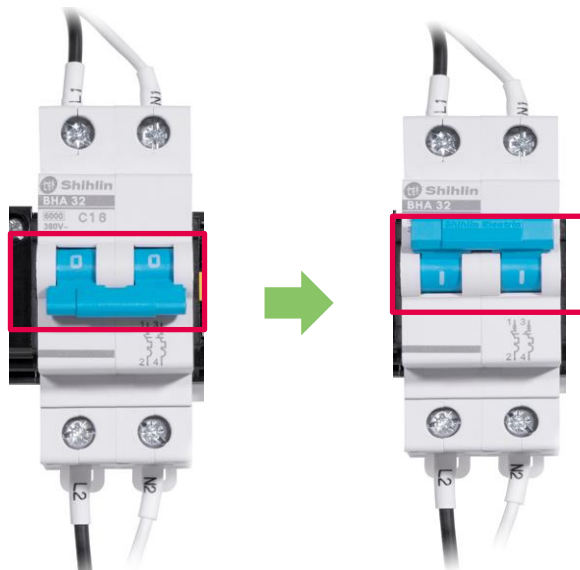


3.5 Terminal Block Wiring

- After shutting down Control Box and turning off the no-fuse breaker, connect L2, N2, PE with the extension cord.



- Turn on the no-fuse breaker.



OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • www.omron247.com

OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • www.omron247.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE

México DF • 52.55.59.01.43.00 • 01-800-226-6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Apodaca, N.L. • 52.81.11.56.99.20 • 01-800-226-6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE

São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

OMRON ARGENTINA • SALES OFFICE

Cono Sur • 54.11.4783.5300

OMRON CHILE • SALES OFFICE

Santiago • 56.9.9917.3920

OTHER OMRON LATIN AMERICA SALES

54.11.4783.5300

OMRON EUROPE B.V. • Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. • +31 (0) 23 568 13 00 • www.industrial.omron.eu

Authorized Distributor:

Controllers & I/O

- Machine Automation Controllers (MAC) • Motion Controllers
- Programmable Logic Controllers (PLC) • Temperature Controllers • Remote I/O

Robotics

- Industrial Robots • Mobile Robots

Operator Interfaces

- Human Machine Interface (HMI)

Motion & Drives

- Machine Automation Controllers (MAC) • Motion Controllers • Servo Systems
- Frequency Inverters

Vision, Measurement & Identification

- Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

Sensing

- Photoelectric Sensors • Fiber-Optic Sensors • Proximity Sensors
- Rotary Encoders • Ultrasonic Sensors

Safety

- Safety Light Curtains • Safety Laser Scanners • Programmable Safety Systems
- Safety Mats and Edges • Safety Door Switches • Emergency Stop Devices
- Safety Switches & Operator Controls • Safety Monitoring/Force-guided Relays

Control Components

- Power Supplies • Timers • Counters • Programmable Relays
- Digital Panel Meters • Monitoring Products

Switches & Relays

- Limit Switches • Pushbutton Switches • Electromechanical Relays
- Solid State Relays

Software

- Programming & Configuration • Runtime