



INSTRUCTION SHEET

▲ 中文

HT3P Series

Original Instruction



Confirm that the delivered product is what you have ordered. Read this instruction sheet to make sure of correct operation. Make sure that the instruction sheet is kept by the end user.

Safety Precautions

In this instruction sheet, safety precautions are categorized in order of importance from Warning and Caution:

WARNING

Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

CAUTION

Caution notices are used where inattention might cause personal injury or damage to equipment.

WARNING

- HT3P is not designed for use in applications requiring a high degree of reliability and safety, such as applications for medical devices, nuclear power, railroads, aerospace, and automotive devices.
- Turn off the power to HT3P before installation, removal, wiring, maintenance, and inspection of HT3P. Failure to turn power off may cause electrical shock or fire hazard.
- Special expertise is required to install and wire operate HT3P. People without such expertise must not use HT3P.
- Take appropriate safety measures according to the safety requirements of the machine or system used and the results of the risk assessment. The control system for the emergency stop function and the enabling function should be configured the circuit to satisfy the required performance level (PLr) / control category / Safety Integrity Level (SIL) required by the requirements of the application standard and the risk assessment result. The emergency stop pushbutton switch mounted on the HT3P should be configured the circuit according to the stop category 0 or 1 based on the applicable standard IEC60204-1.
- If the HT3P and the machine are removable, be sure to install one or more emergency stop devices on the machine. If you remove HT3P, store it properly so that the user does not accidentally operate the disabled emergency stop pushbutton switch.
- Do not, under any circumstances, hold the enabling switch on HT3P in position 2 with tape, string, or deform the rubber cover. The intrinsic function of the enabling switch will be lost, and the enabling switch may not work in an emergency.
- When using HT3P, place your finger firmly on the enabling switch.
- Perform regular checks to confirm that the emergency stop switch and enabling switch work properly. It is extremely dangerous if the enabling switch no longer returns to position 1 due to a foreign object becoming lodged in the switch because position 2 will be maintained even when you remove your hand.
- Stop using HT3P if it is accidentally dropped or exposed to significant shocks, check HT3P for damage, and confirm that its various functions work safely and correctly.
- Otherwise malfunction may result due to noise. Follow the instructions below.
 - Set the FE terminals to class D grounding (Class 3 grounding : Grounding resistance : 100Ω or less).
 - Do not connect the grounding conductor to the grounding conductor of the power unit.
- Never supply power to the USB with foreign matter or water droplets on it.
- Do not place a load on the cable of the product, the USB cable used, and the connector. It could be a risk of fire or malfunction.
- Use a special option for the neck strap. Be careful not to catch or catch the neck strap during operation.

CAUTION

- HT3P is designed for indoor use only. (Not for outdoor use)
- Use of the product in hightemperature or high-humidity environments, or in locations where it is exposed to condensation, corrosive gas or large shock loads can create the risk of electrocution , fire and malfunction.
- Prevent metal fragments or wire chips from dropping inside HT3P housing. Ingress of such fragments and chips may cause fire hazard, damage, and malfunction.
- Use a power supply of the rated value. Using a wrong power supply or wiring in reverse polarity may cause fire hazard and damage.
- Install HT3P according to the instructions. Improper installation may result in, failure, electrical shock, fire hazard, or malfunction of HT3P.
- If it is used in a way incompatible with HT3P original use purpose, the function provided by HT3P may be impaired.
- Note that some tablets may interfere with the installing of the power or volume buttons and camera.
- Use within the range of use of the tablet and HT3P.
- Make sure of safety before starting and stopping HT3P. Incorrect operation of HT3P may cause mechanical damage or accidents.
- Do not attempt to disassemble, repair or modify HT3P. This can create the risk of fire, electrocution and malfunction.

1 Packing Content

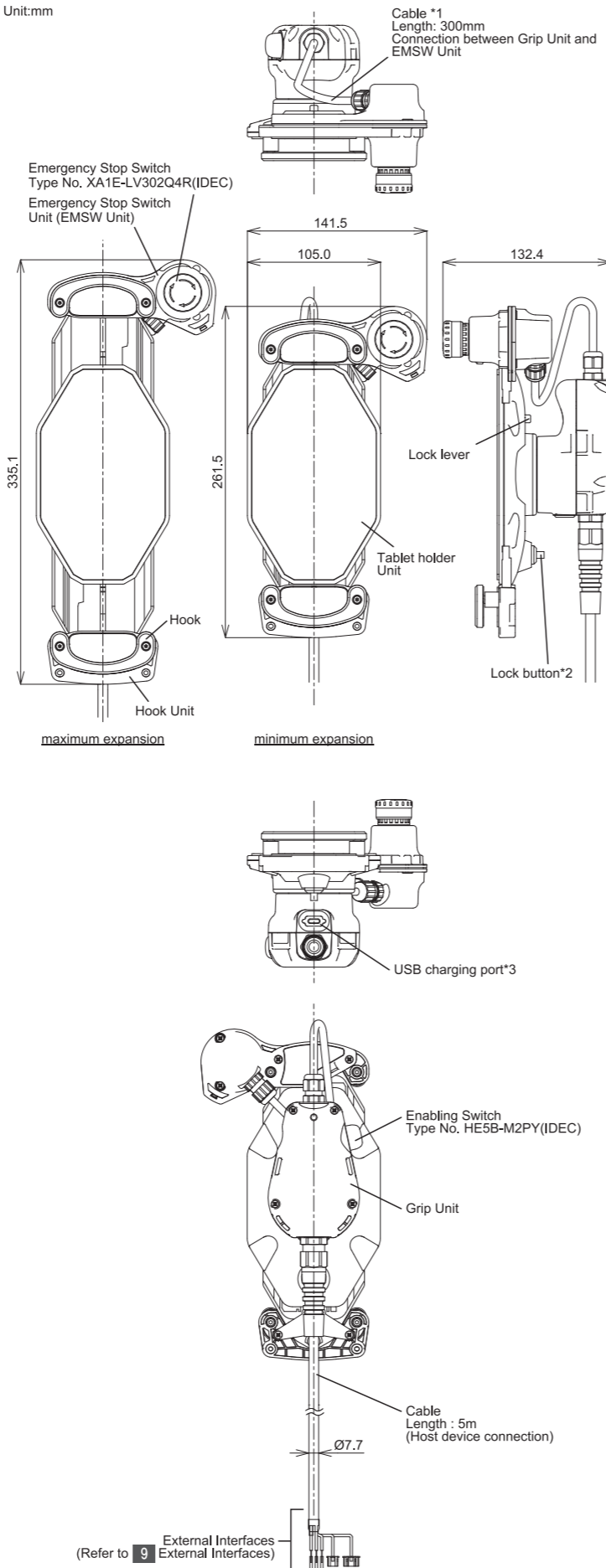
Before installing HT3P, make sure that the product conform to your order, and that no parts are missing or damaged due to accidents during transportation.

Name	Pcs.
HT3P Unit	1
Hand strap	1
Sponge sheet	1
Key	2
Instruction Sheet (Japanese / English / German)	1

2 Type Number

Type Number	HT3P-SLNP-5M
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3 Part Names / Dimensions



*1 Do not hold or hook the cable of this product.
 *2 Lock button is not intended to prevent theft.
 *3 When supplying power to the tablet, use the cable recommended by the tablet. Select a cable that takes into account the tablet's USB connector position and the rotation of the grip unit. Never supply power to the USB with foreign matter or water droplets on it.

4 Specifications

Applicable Standards		IEC/EN 60947-5-1 IEC/EN 60947-5-5(XA1E-LV302Q4R) IEC/EN 60947-5-8(HE5B-M2PY) UL 508 UL 60947-1 UL 60947-5-1 UL 60947-5-5 CSA C22.2 No.14
Safety Standards	IEC 61010-1, EN 61010-1 IEC 61010-2-201, EN 61010-2-201	
Applicable Standards for Use	ISO 12100 IEC 60204-1 ISO 10218-1 ISO 10218-2	
EMC Standards	IEC 61131-2, EN 61131-2	
Certification standards		UL 508 UL 60947-5-5
Environmental Specifications	Operating Temperature	-20 to +55°C
	Operating Humidity	45 to 85%RH(no condensation)
	Storage Temperature	-20 to +55°C
	Storage Humidity	45 to 85%RH(no condensation)
	Pollution Degree	3
Electrical Specifications *5	Operating Voltage	XA1E illuminated : 21.6V to 26.4V DC USB Power input : 20.4V to 28.8V DC *6
	Rated Insulation Voltage	60V
Contact Ratings	Type No. : XA1E-LV302Q4R(Illuminated)	Contact Rating : 2A/30V DC(resistive)(DC-12) 1A/30V DC(inductive)(DC-13)
	Type No. : HE5B-N2PY	Contact Rating : 1A/30V DC(resistive)(DC-12) 0.7A/30V DC(inductive)(DC-13)
EMC Specifications		Immunity Zone Zone A
Construction Specifications	Vibration	5 to 8.4Hz amplitude 3.5mm 8.4 to 150Hz acceleration 9.8m/s ² 2 hours on each of 3 directions
	Shock	147m/s ² 11ms 5 times on each of 6 directions
Other Structural Specifications	Degree of protection	IP54 *7
	Compatible tablet *5, *8	Compatible tablet size Tablet diagonal length : 240 to 300mm (When it is expanded to 320mm) *9 Screen size : 8 to 11 inch
		Compatible tablet thickness Standard : up to 10mm *10 (If the tablet is thin, use the sponge sheet for adjusting the thickness.)
		Compatible tablet weight maximum 1.1kg(reference)
Weight (excluding hand straps and other accessories)	530g(Approx.)(Excluding Cables) 980g(Approx.)(Including Cables)	
Rotation angle	200°(Approx.)	
Case color	Black	
USB Specifications		Charging port USB Type-C Power supply only 5V DC-1.5A output

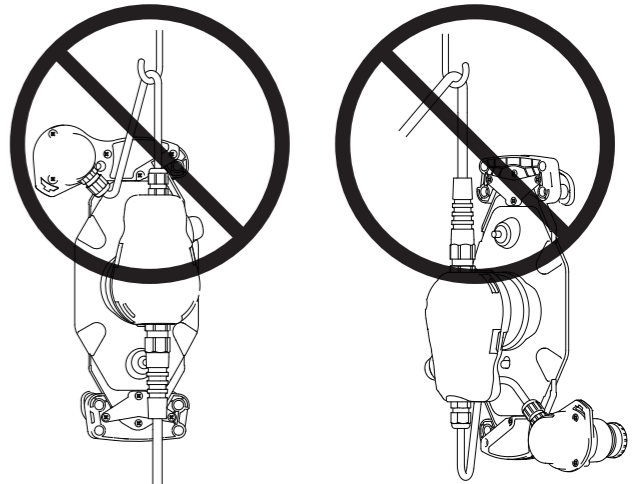
*4 The grip unit generates heat after a long power supply. Do not supply power while holding the grip unit for an extended period of time, as this may cause a low temperature burn.
 *5 Contents approved by safety agencies
 UL certification Overall Device Rated Class 2
 Switch Contact 30V dc/0.7A Resistive
 Illumination for Switch 24V dc/11mA
 USB Power Supply Input 24V dc/0.5A
 USB Power Output 5V/1.5A
 Maximum ambient temperature 40°C
 Environmental rating : Type 1
 Certified with a maximum tablet weight of 1.1 kg
 *6 If there is a risk of USB power supply and tablet malfunction or destruction due to noise from the connected power supply, use a dedicated USB power supply power supply that is independent of other power supplies.
 *7 Except when connecting a USB cable.
 *8 Some tablets may not apply depending on the shape. In addition, we do not guarantee the tablet weight.
 *9 Refer to 10 "How to change the hook" for the extension method.
 *10 The tablet thickness adjustment set (optional) can be installed up to 24 mm. HT9Z-3PHB08 for tablet thickness of 11 mm to 18 mm, and HT9Z-3PHB14 for tablet thickness of 18 mm to 24 mm.

5 Operating

- Operating Environment
- For designed performance and safety of HT3P, do not install HT3P in the following environments :
 - Where dust, briny air, or iron particles exist.
 - Where oil or chemical splashes for long time.
 - Where oil mist is filled.
 - Where direct sunlight falls on HT3P.
 - Where strong ultraviolet rays fall on HT3P.
 - Where corrosive or combustible gasses exist.
 - Where vibrations and shocks that exceed specifications are transmitted.
 - Where condensation occurs due to rapid temperature change.
 - Where high-voltage or arc-generating equipment (electromagnetic contactors or circuit protectors) exists in the vicinity.
 - Near devices that generate a lot of heat. Such as a boiler.

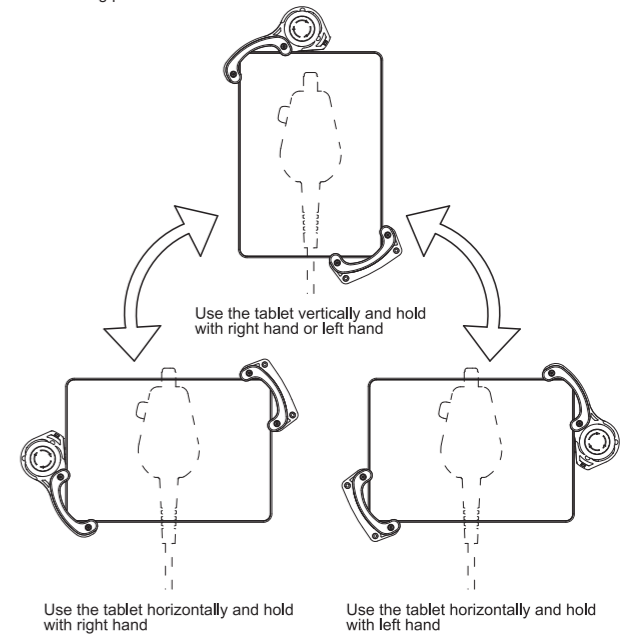
CAUTION

- Do not hold or storage the cable by hooking HT3P as below. The symbols indicated by indicate prohibited acts.

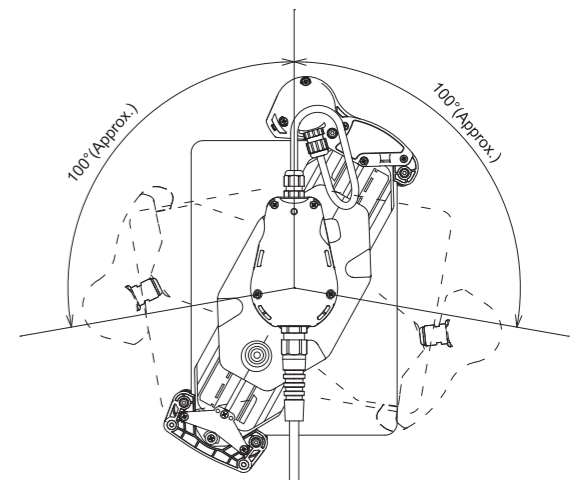


6 Tablet holder unit rotation mechanism

- Tablet base installing position



- Rotatable angle of the tablet holder unit relative to the grip unit* 11

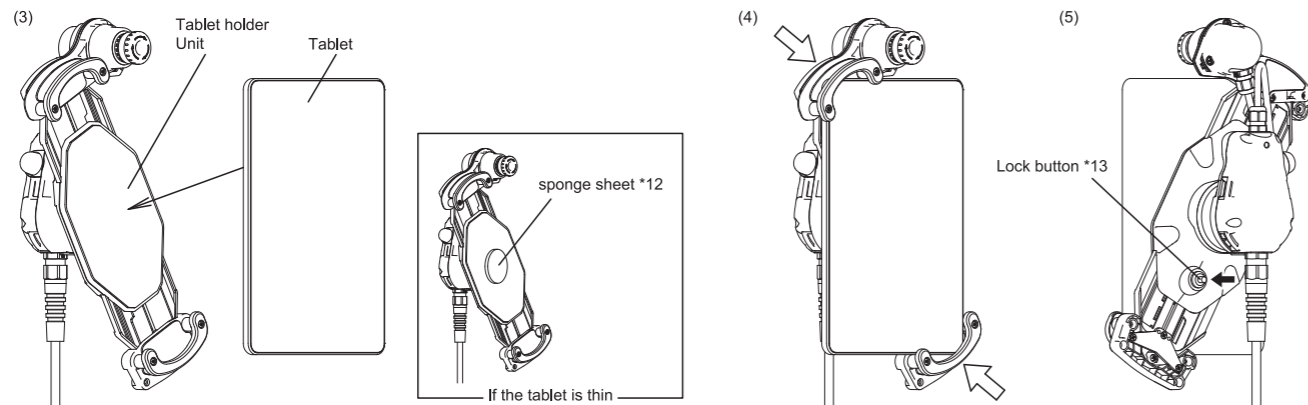
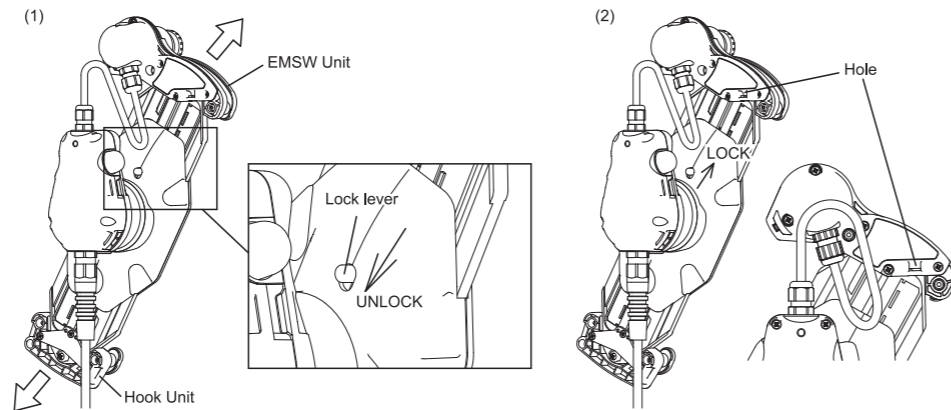


*11 Do not force the tablet holder to rotate. It will be the cause of the failure.

7 Installing and removing the tablet

7-1. Installing

- Slide the yellow lock lever on the tablet holder in the UNLOCK direction and loosen the hook.
- Slide the yellow lock lever in the LOCK direction.
If the cable connected to the grip and the EMSW Unit is loose, the cable can be tied to the hole of the product enclosure (EMSW Unit) with a binding band, etc.
Use if necessary, Prepare the binding band by the end user.
- Install the tablet on the tablet holder.
*12 If the tablet is thin, attach the sponge sheet for adjusting the thickness of the accessory to the Tablet holder Unit.
- Hold the tablet securely for every four points against the hook.
Otherwise, the tablet may drop.
- Push the lock button in the locked state and lock it.
*13 Make sure to lock the tablet holder with both keys, since the holding force of the tablet holder may be weakened if the expansion lock is not used.
Do not operate the lock button in the unlocked state.
It will be the cause of the failure.



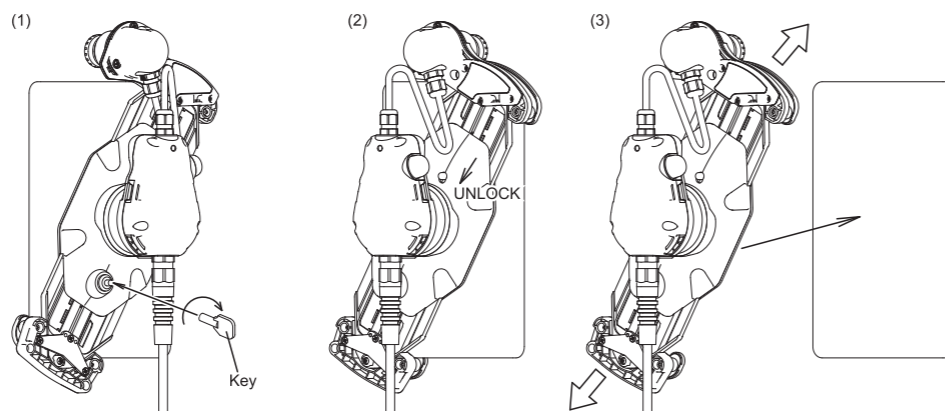
7-2. Removing

- Insert the key and turn it until you hear a click sound.
- Slide the yellow lock lever in the direction of UNLOCK.

CAUTION

- Do not drop the tablet.

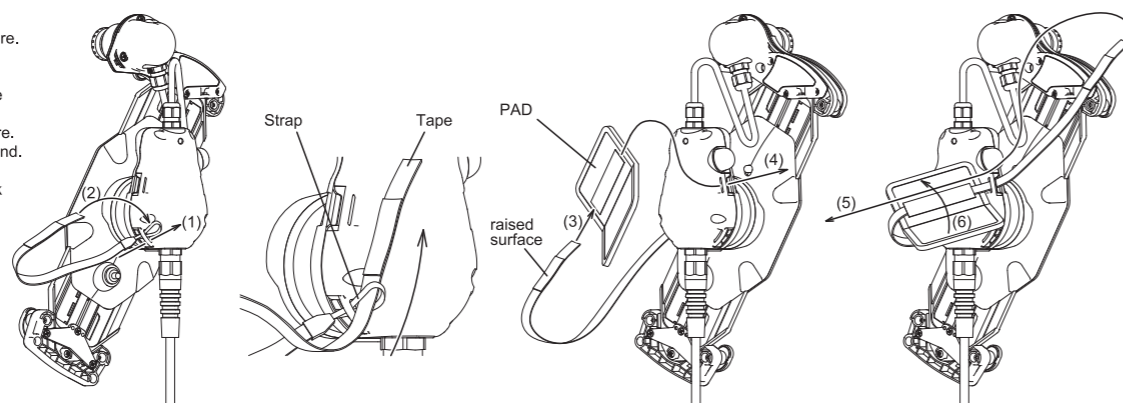
- Loosen the hook of the tablet holder and remove the tablet.



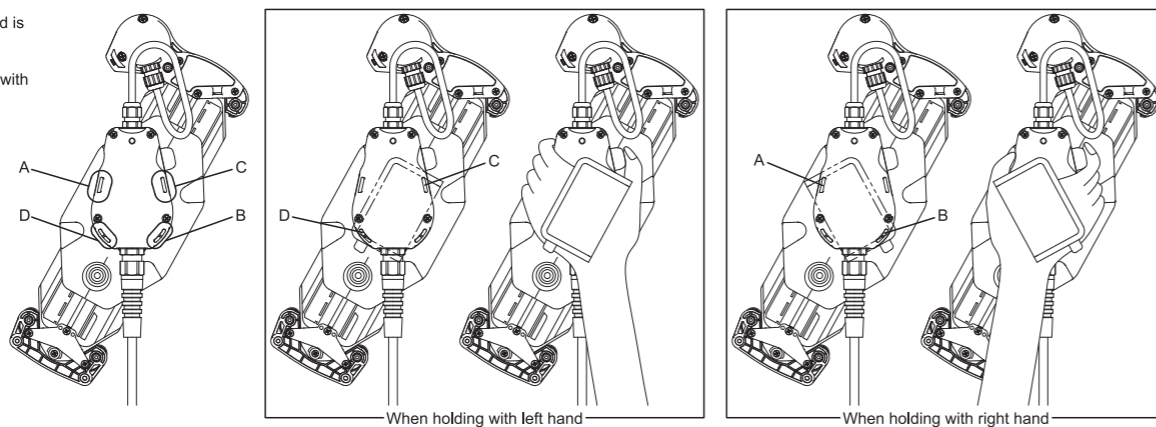
8 How to attach the hand strap

When holding with left hand *14

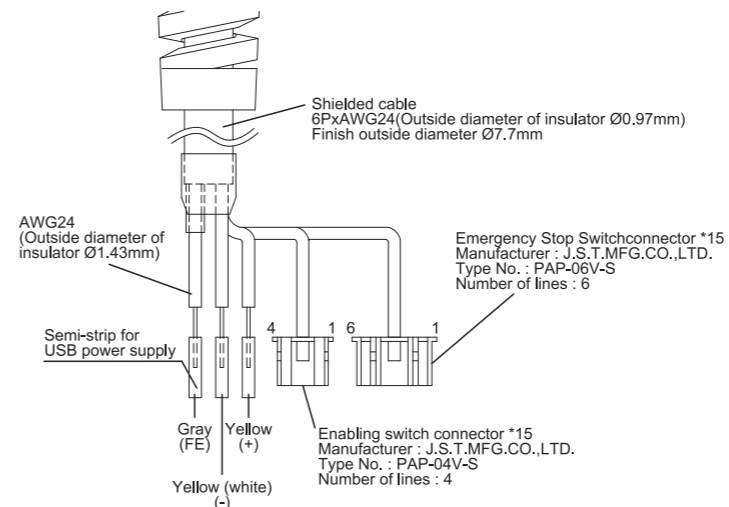
- Insert the strap into the grip hole as shown in the figure.
- Insert the tape into the hole of the strap.
- Insert the tape into the pad hole.
Insert the raised surface of the velcro as shown in the figure.
- Insert the tape into the grip hole as shown in the figure.
There is no problem with either the front hole or the end.
Please choose according to the size of your hand.
- Fold the tape on the raised surface of the velcro back onto the pad as shown in the figure and attach it.
- Fold the pad as shown in the figure.



*14 The hole used to hold it with the left or right hand is different.
Holes C and D held by the left hand,
Holes A and B should be used to hold the watch with the right hand.

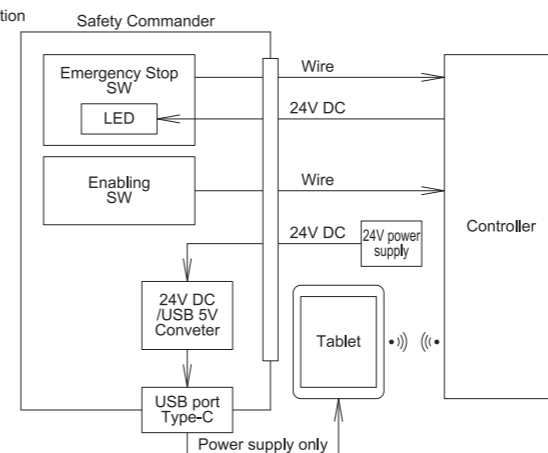


9 External Interfaces



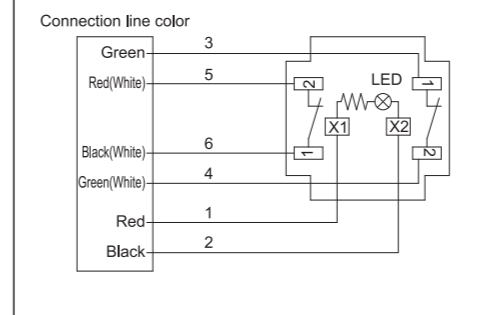
*15 If you do not need the JST connectors connected at the time of factory shipment, cut the cable and select connectors, etc. that suit your intended use and environment.
If you want to use the JST connectors as they are, select the connectors on the other sides that match the model numbers described before using them.
HT3P is approved by UL without JST connectors.

System configuration

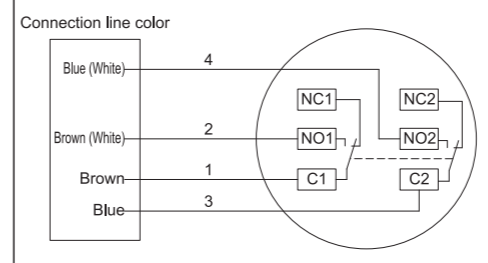


Terminal arrangements

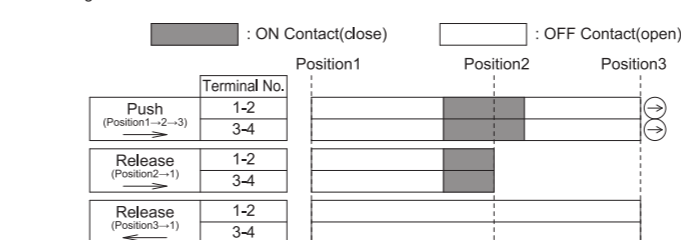
Emergency Stop Switch connector terminal arrangements



Enabling switch connector terminal arrangements



Operating Characteristics

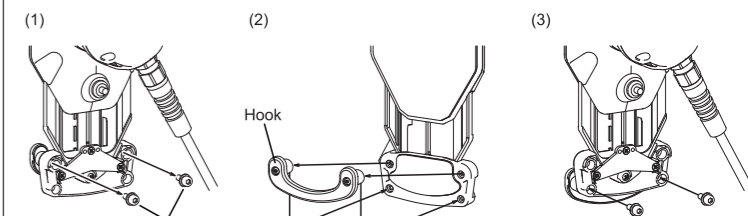


The above operating characteristics illustrate the performance when the center of the rubber boot is pressed. Pressing the edge activates one of the two 3-position switches inside earlier than the other, and may cause a delay in the operation of the grip switch.

	No.	Connection line color	Function
Emergency Stop Switch	1	Red	LED(24V DC)
	2	Black	LED(0V)
	3	Green	Contact 1(NC)
	4	Green(White)	Contact 1(NC)
	5	Red(White)	Contact 2(NC)
	6	Black(White)	Contact 2(NC)
Enabling Switch	1	Brown	Contact 1(C)
	2	Brown (White)	Contact 1(NO)
	3	Blue	Contact 2(C)
	4	Blue (White)	Contact 2(NO)
USB Power Supply		Yellow	+(24V DC)
		Yellow (white)	-(0V)
		Gray	FE

10 How to change the hook

If the tablet size cannot be mounted at the hook position at the time of shipment, replace the hook with the outside as shown below.



hexagon socket head cap screws M3x8

- Remove two hexagon socket head cap screws (hexagon wrench size : 2.5) from the hook unit.
- Replace the hook with the screw hole on the outside.
- Fix the hook firmly with the screws removed in step (1).
(Recommended tightening torque: 0.5 to 0.6 N·m)

11 Options / Maintenance Parts

Options

Name	Type No.	Remarks
Wall mounted holder	HT9Z-3PF1	-
Tablet thickness adjustment kit A	HT9Z-3PHB08	4 rubber tubes and 4 spacers(If the tablet is 11 to 18mm thick, please add it to the standard parts.)
Tablet thickness adjustment kit B	HT9Z-3PHB14	4 rubber tubes and 4 spacers(If the tablet is 18 to 24mm thick, please add it to the standard parts.)
Neck strap	HT9Z-3PS2	-

Maintenance Parts

Name	Type No.	Remarks
Sponge sheet	HT9Z-3PHA04	-
Key	HT9Z-3PK01	2pc/pack
Hand strap	HT9Z-3PS1	-
Hook	HT9Z-3PHZ	-

12 Precaution for Disposal

- Observe the laws and regulations set by each country concerning refuse disposal.

DECLARATION OF CONFORMITY

We, IDEC CORPORATION declare under our sole responsibility that the product: Safety Commander HT3P Series
Applied Union harmonized legislation and references to the relevant harmonization standards used or references to the other technical specifications in relation to which conformity is declared.

Manufacturer: IDEC CORP.

2-6-64 Nishimiyahara Yodogawa-ku, Osaka 532-0004, Japan

EU Authorized Representative: APEM SAS

55, Avenue Edouard Herriot BP1, 82303 Caussade Cedex, France

Applicable EU Directive :

Electromagnetic Compatibility Directive (2014/30/EU)
Machinery Directive (2006/42/EC),
RoHS Directive (2011/65/EU)
Applicable Standard(s) : EN 61131-2 / EN 60947-5-5 / EN IEC 63000

UK Authorized Representative: APEM COMPONENTS LIMITED

Drakes Drive, Long Crendon, Buckinghamshire, HP18 9BA, UK

Applicable UK legislation:

Electromagnetic Compatibility Regulations 2016
Supply of Machinery (Safety) Regulations 2008
Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
Applicable Standard(s) : EN 61131-2 / EN 60947-5-5 / EN IEC 63000

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