

Quick user guide

Installation and Connection

Thank you for purchasing the CX1011/CX1012.
The contents of CX1011 and CX1012 are the same except for the language on the package.

This is the instruction manual for installing the table-top type Robot (IAI-made TTA-A4 series) and connecting it to a PC.

Please read the included quick user guide (PC software) and the detailed instruction manual (on CD-ROM) before operating the CX1011/CX1012.

Please keep them readily accessible for reference.

1. PACKING LIST

Please check to make sure that all items listed below are included in the package.

	Part name	Part No.	HAKKO HU-100	
			Set	QTY
①	Easy programming software	CX1011/CX1012	○	1
②	Cleaner	CX1003	○	1
③	Table-top type robot (IAI-made TTA-A4 series)	-	○	1
④	HAKKO FU-500	- *	○	1
⑤	HAKKO FU-601	- *	○	1
⑥	Soldering unit mount	CX1008	○	1
⑦	Iron fixing base	CX1005	○	1
⑧	Solder reel base	CX1006	○	1
⑨	Cleaner base	CX1007	○	1
⑩	Jig table	CX1009	○	1

* Part No. for HAKKO FU-500 and FU-601 changes at destination.

Part No.		Specifications
④	⑤	
FU500-12X	FU601-32X	220V 3 wired cord & American plug for Thailand
FU500-13X	FU601-33X	220V 3 wired cord & American plug
FU500-14X	FU601-34X	220V 3 wired cord & Chinese plug
FU500-15X	FU601-35X	220V 3 wired cord & European plug
FU500-16X	FU601-36X	220V 3 wired cord but no plug
FU500-17X	FU601-37X	230V 3 wired cord but no plug
FU500-18X	FU601-38X	230V 3 wired cord & BS plug
FU500-19X	FU601-39X	240V 3 wired cord but no plug

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Please access the web address below for other distributors.

<https://www.hakko.com>

1. PACKING LIST

Easy programming software (CX1011/CX1012) is soldering program software compatible with table-top type robot (IAI-made TTA-A4 series).

Easy programming software (CX1011/CX1012) is included with the HAKKO HU-100 set.

① Easy programming software (CX1011/CX1012)

Easy Programming Software (CD-ROM)	1	Magic cable tie	1
License dongle	1	Quick user guide (PC software)	1 each
USB cable	1	Quick user guide (Installation and Connection)	1 each

② Cleaner (CX1003)

CX1003 Cleaner	1
AC adapter	1
Power cord (for cleaner)	1
Instruction manual (for cleaner)	1

③ Table-top type robot (IAI-made TTA-A4 series)

Table-top type robot	1	USB conversion adapter	1
(IAI-made TTA-A4 series)	1	Emergency stop box	1
I/O cable (for HAKKO FU-500)	1	Terminal block	1
I/O cable (for expansion I/O terminal block)	1	System I/O connector	1
RS-232C cable	1	Motor power connector	1
Power cord (for table-top type robot)	1		
Instruction manual CD-ROM (for table-top type robot (IAI-made TTA-A4 series)	1		

④ HAKKO FU-500

HAKKO FU-500	1	Feeder cable (5m)	1
Feeder unit	1	Power cord (for HAKKO FU-500)	1
Tube unit (for ø0.3 to 1.0 mm)	1	Instruction manual (for HAKKO FU-500)	1
Tube unit (for ø1.2 to 1.6 mm)	1		
Solder reel stand	1		

⑤ HAKKO FU-601

HAKKO FU-601	1	Iron cable (5m)	1
HAKKO FU-6002	1	Connecting cable	1
Flux protector	1	Power cord (for HAKKO FU-601)	1
Iron unit fixing assembly	1	Heat-resistant pad	1
Tip adjustment jig unit	1	Instruction manual (for HAKKO FU-601)	1
Feeder unit attachment screw	2		

⑥ Soldering unit mount (CX1008)

CX1008 Soldering unit mount	1
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⑦ Iron fixing base (CX1005)

CX1005 Iron fixing base	1
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⑨ Cleaner base (CX1007)

CX1007 Cleaner base	1
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⑧ Solder reel base (CX1006)

CX1006 Solder reel base	1
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⑩ Jig table (CX1009)

CX1009 Jig table	1
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2. SPECIFICATIONS

● Stroke of table-top type robot (IAI-made TTA-A4 series)

Axis type	Lead	Stroke
X axis	24 mm or equivalent	400 mm
Y axis	24 mm or equivalent	400 mm
Z axis	12 mm	150 mm
θ axis	-	±200 degrees

NOTE:
For repeated positioning accuracy and transportable mass, refer to “1.2 Mechanical Specifications” in “Chapter 1 Confirmation of specifications” of the instruction manual for table-top type robot (IAI-made TTA-A4 series).

For specifications other than the stroke and dimensions, read “Chapter 1 Confirmation of specifications” of the instruction manual for table-top type robot (IAI-made TTA-A4 series).

For the specifications for HAKKO FU-500, HAKKO FU-601 and CX1003, read

“2. Specifications” of each instruction manual.

Note that specifications and appearance are subject to change or modification without notice.

- Instruction manual in the language of Japanese, English, Chinese, French, German, and Korean can be downloaded from the HAKKO Document Portal.
(Please note that some languages may not be available depending on the product.)

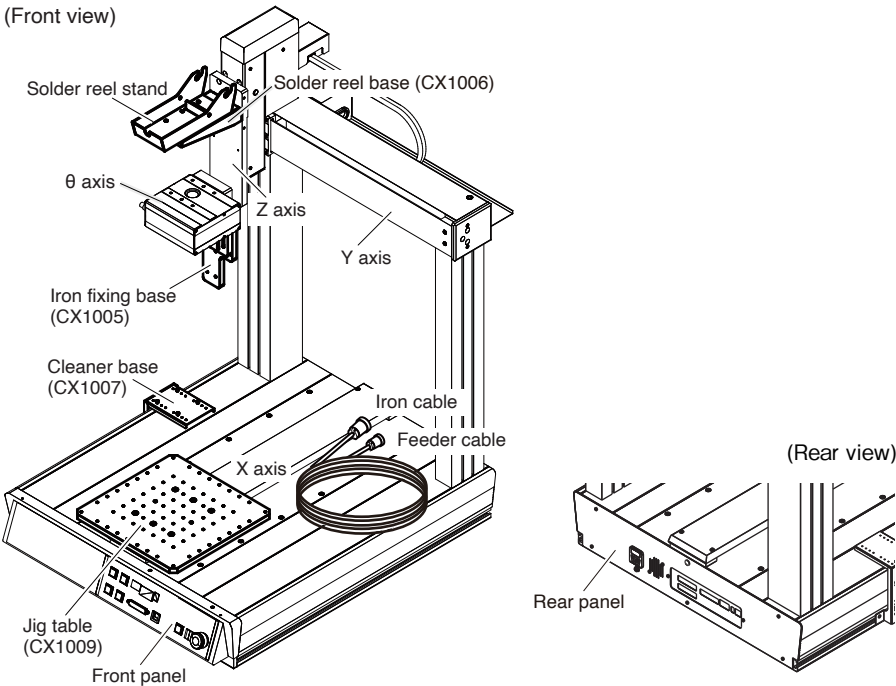
➡ <https://www.hakko.com/english/support/doc/>

NOTE:

Please read and understand “Safety Precautions for Our Products” of Instruction Manual of table-top type robot (IAI-made TTA-A4 series) and “3. Warnings, cautions and notes” of Instruction Manual of HAKKO FU-500, FU-601 or CX1003 before operating the product.

3. INSTALLATION AND CONNECTION

(Front view)



● Installation

⚠ WARNING

- Carrying the table-top type robot (IAI-made TTA-A4 series) should be done by at least 2 people, or a hand cart or a hand lift should be used.
- When transporting, or during installation work by 2 or more persons, clarify the superior-subordinate relationship, and call out to each other to perform work, while checking the safety to prevent contact and falling accidents.
- In order to avoid turning-over and falling accidents, hold and secure this unit firmly.

⚠ CAUTION

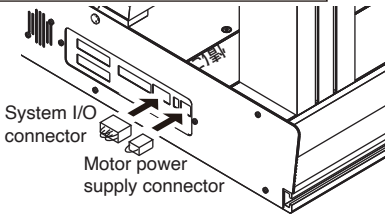
Since holding the plastic part may cause the unit to be broken, be careful not to hold the plastic part.

- ① Place the table top type robot (IAI-made TTA-14 series) on a level surface.

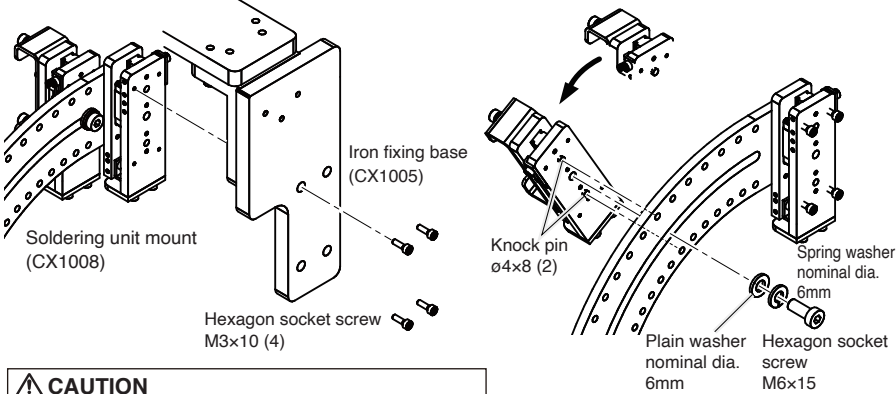
⚠ CAUTION

Be sure to connect to ground. For the grounding method of the table-top type robot (IAI-made TTA-A4 series), refer to “3.4.5 Ground wiring” of “Chapter 3 Wiring” of the instruction manual for the table-top type robot (IAI-made TTA series).

- ② Attach the system I/O connector and the motor power supply connector.



- ③ Attach the soldering unit mount (CX1008) to the iron fixing base (CX1005).

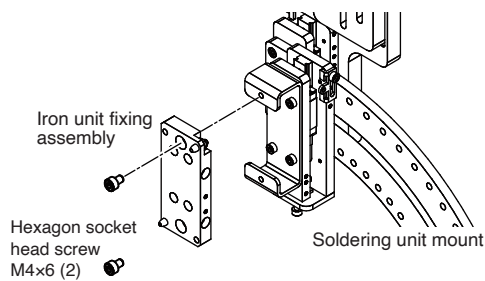


⚠ CAUTION

When changing the angle, be sure that two knock pins is inserted into the mounting hole.

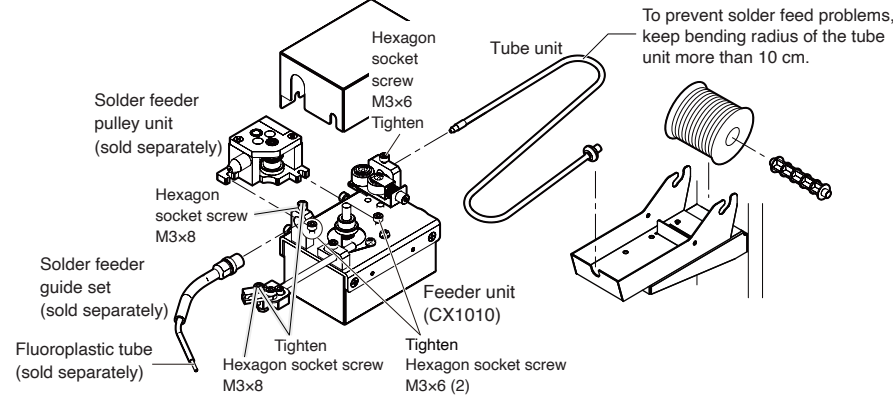
* HAKKO FU-6002 and feeder unit can be changing the mounting angle.

- ④ Attach the iron fixing assembly to the soldering unit mount (CX1008).



3. INSTALLATION AND CONNECTION

⑤ Assembling the feeder unit (CX1010) in HAKKO FU-500.



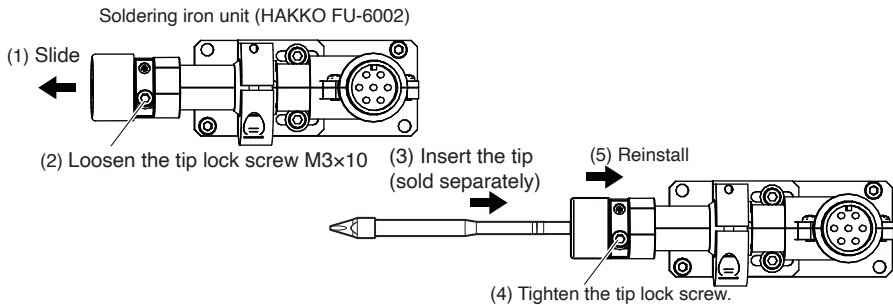
CAUTION

- Do not touch any screws other than the hexagon socket head screws indicated in this manual. Be careful not to overtighten the bolts.
- Attachment of the fluoroplastic tube and positioning of the solder feeder guide set needs adjustment. See "Adjusting the solder feed position" of the HAKKO FU-500 instruction manual.
- The attachment of the solder feed pulley unit for ø0.3 mm solder (BX1000) is different. See "How to set solder " instructions included in the BX1000.

⑥ Attach the soldering iron tip (sold separately) to the HAKKO FU-6002 included with the HAKKO FU-601.

CAUTION

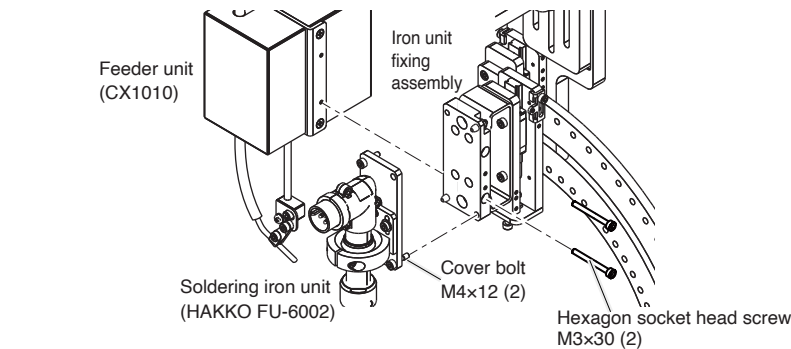
Let the soldering iron cool before replacing the tip.
When replacing while the tip is still hot, always use the heat-resistant pad.



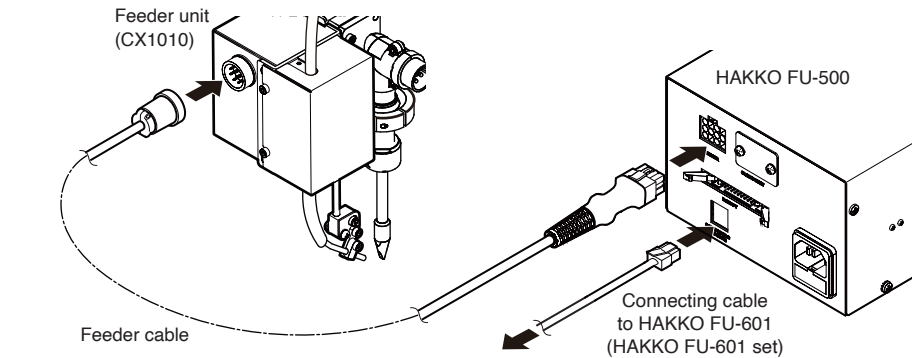
CAUTION

- Make sure that there is no clearance between the tip and the hole of the flux protector.
- When new tip is attached, adjustment of the tip position is necessary.
- Adjustment of positioning is required for the attached tip. Refer to the instruction manual of HAKKO FU-601, "How to position the iron tip".

⑦ Attach the feeder unit (CX1010) and HAKKO FU-6002 to the iron unit fixing assembly.

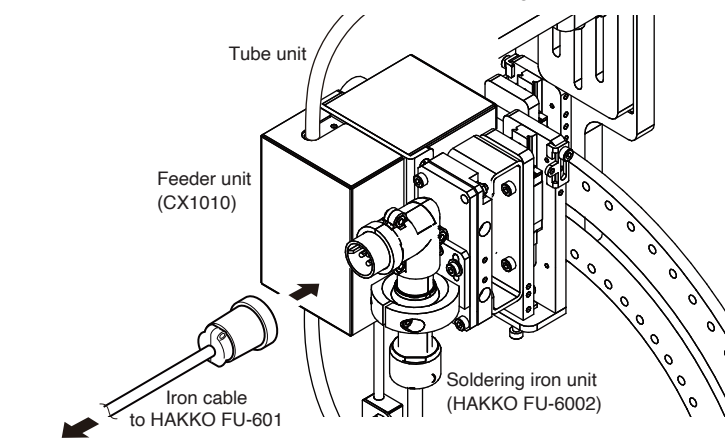


⑧ Use the feeder cable to connect the HAKKO FU-500 to the feeder unit (CX1010) and the connecting cable (HAKKO FU-601 set) to connect the HAKKO FU-601 to the HAKKO FU-500.

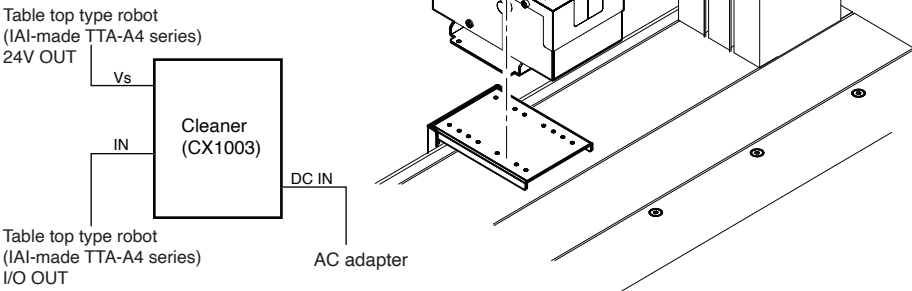


3. INSTALLATION AND CONNECTION

⑨ Connect the HAKKO FU-601 and HAKKO FU-6002 using the iron cable.



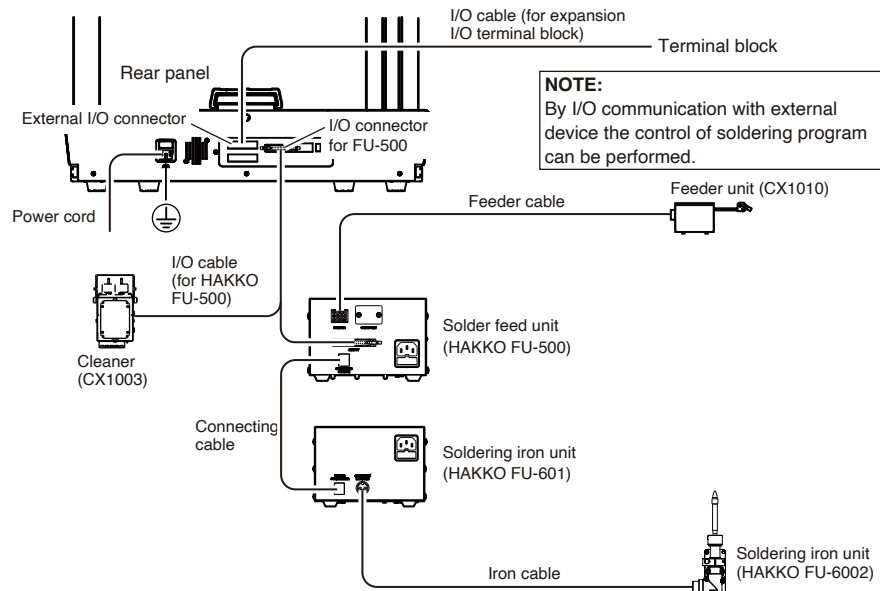
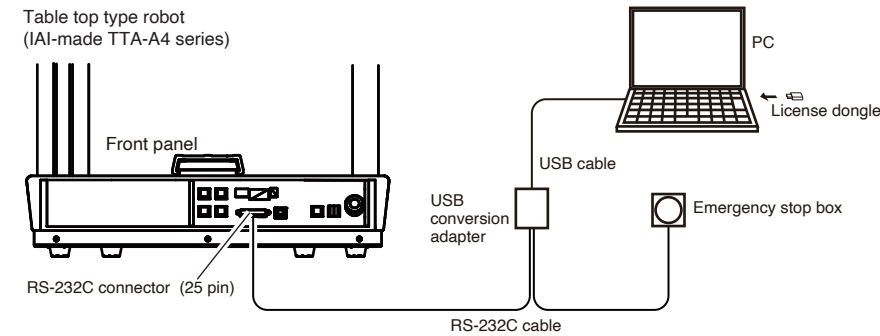
⑩ Attach the cleaner (CX1003) to the cleaner base (CX1007).



● Connection

Connection example)

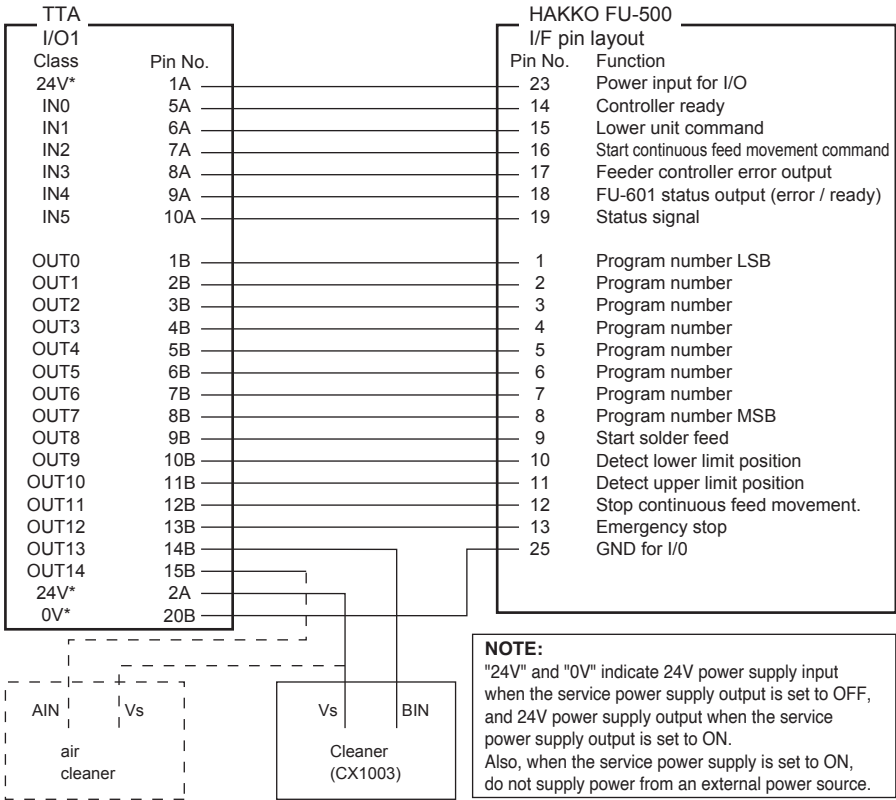
Connecting using a USB cable, USB conversion adapter, RS-232C cable, and emergency stop box.



NOTE:
By I/O communication with external device the control of soldering program can be performed.

3. INSTALLATION AND CONNECTION

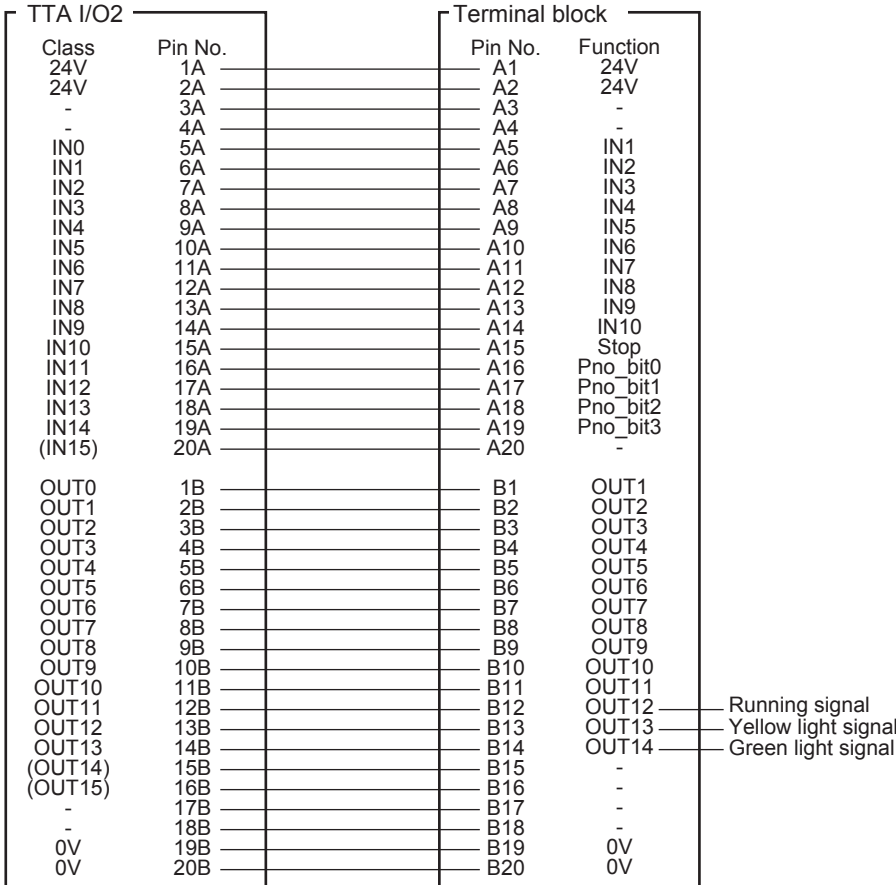
Connection of I/O connector for HAKKO FU-500



NOTE:
"24V" and "0V" indicate 24V power supply input when the service power supply output is set to OFF, and 24V power supply output when the service power supply output is set to ON. Also, when the service power supply is set to ON, do not supply power from an external power source.

NOTE:
For input/output circuitry, see instruction manual of table top type robot (IAI-made TTA-A4 series) "1.3.1 Standard I/O Input and Output Interface" of "Chapter 1 Specifications Check".

Connection of I/O connector for external input/output



NOTE:
For input/output circuitry, see instruction manual of table-top type robot (IAI-made TTA-A4 series) "1.3.3 Extension I/O Input and Output Interface" of "Chapter 1 Specifications Check".