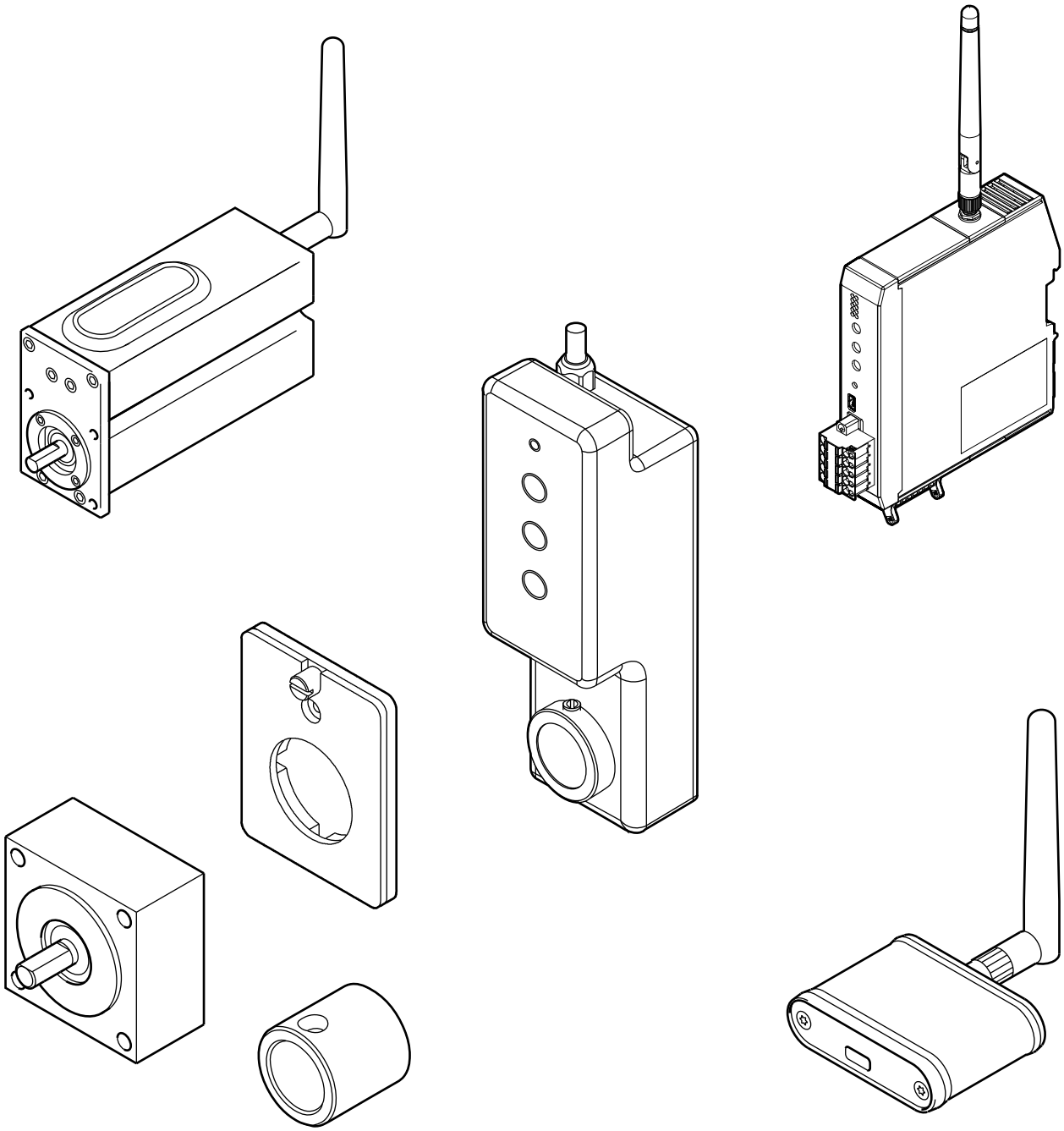
# Wireless Positioning Units

# Product Configuration



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# Introduction

Thank you very much for purchasing this **Wireless Positioning Unit** from Nabeya Bi-Tech Kaisha.

Read the instruction manual of each product carefully prior to use. Only use once the correct usage method of each product is understood.

## ■Regarding Applications of this Product Line

This product line is designed for general industrial applications, such as feed screw drives.
Do not use in applications where incorrect operation or failure may lead to death or personal injury, or in applications where failure could cause serious social damage or adverse impact.

- **Contact us when considering use for special applications.**
- **Always install the fail-safe function if using for applications involving equipment that may cause serious accident or loss.**

## ■About Disposal

When disposing this product, follow the rules and regulations of each local government and dispose of it as industrial waste.



Due to product improvements, some of the specifications described in this document are subject to change without notice.

## ■Contact

Customer Service Business Hours: 8:00 to 17:00 on weekdays, Eastern Standard Time
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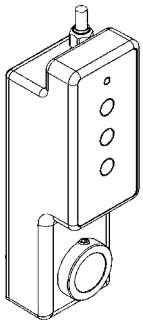
# Contents

# 1 Product Overview

Wireless Positioning Units are designed for feed screw drives. The product consists of a unit that drives the feed screw, a transceiver that controls the unit, other optional parts for the unit, as well as dedicated software for configuration and operation.

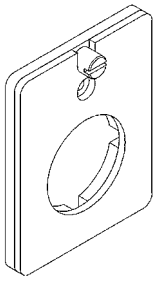
## 1.1 Product Overview



**Wireless Positioning Unit (EPU-200-W5-R60)**

- These units automate positioning mechanisms with a feed screw. By replacing the feed screw operating handle with this unit, equipment and device positioning mechanisms can be automated.

### ■ Option

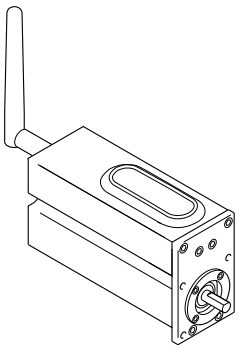


**Adapter Plate (EOAP-200)**

- If replacing the digital position indicator and handle attached to a machine with a Wireless Positioning Unit, use the positioning pin for the digital position indicator of the machine as-is to mount the Wireless Positioning Unit.

**Collar (EOCL-200)**

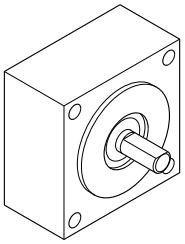
- The Wireless Positioning Unit bore diameter can be changed to match the rotation shaft.



**Wireless Positioning Unit (EPU-100-W5-R60)**

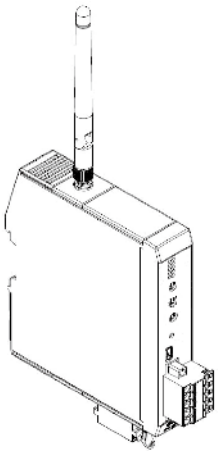
- These units automate positioning mechanisms with a feed screw. By replacing the feed screw operating handle with this unit, equipment and device positioning mechanisms can be automated.

## ■ Option



**Lock Adapter (EPL-48-D6-D6)**

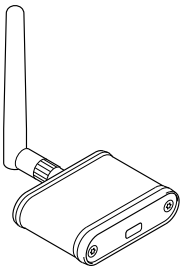
- Position retention (locking) components are parts used in combination with Wireless Positioning Units.
- The torque from the input side (unit side) is transmitted to the output side, but the torque load from the output side is not transmitted to the input side.



**Transceivers for Wireless Positioning Units (EPC-200-CC)**

- Transceivers dedicated for use with Wireless Positioning Units.
- With a PLC and CC-Link connection, Up to 32 Wireless Positioning Units can be used with simultaneous automated control.
- Configuration of transceivers can be easily performed with a PC and dedicated EPU-COM software.
- Use a DIN rail foot to enable mounting to DIN rails with one touch.

*Caution*
EPC-200-CC is a remote station device that supports CC-Link Ver. 2.00.
CC-Link Ver. 1.10 is not supported.
CC-Link is a registered trademark of Mitsubishi Electric Corporation.



**Transceivers for Wireless Positioning Units (EPC-100)**

- Transceivers dedicated for use with Wireless Positioning Units.
- With a PC and USB connection, Wireless Positioning Units enable wireless operation.
- Batch operation of up to 32 Wireless Positioning Units is possible.

**Dedicated Software (EPU-COM)**

- Dedicated software for easy configuration and operation using commercially available PCs. This can be downloaded from the NBK website free of charge.

# 2 Equipment Selection

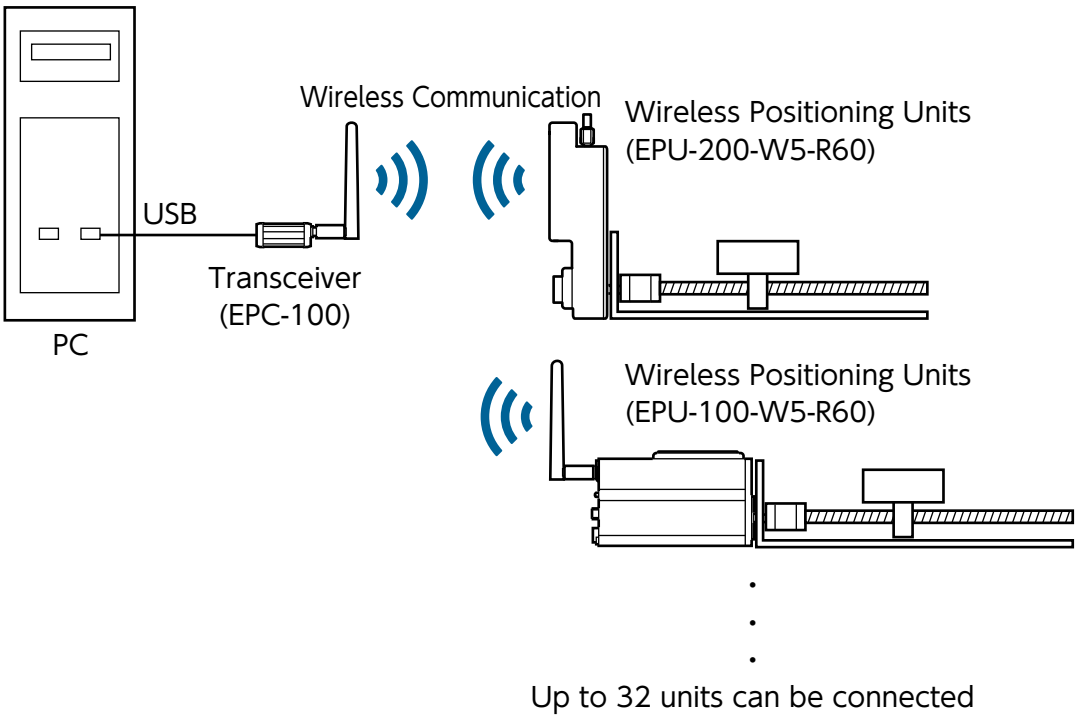
The follow configurations are for controlling Wireless Positioning Units. Select a configuration according to your required specifications.

## 2.1 Equipment Configuration

| Host | Unit/Connection Method | Transceiver | Connection Example |
|---|---|---|---|
| PC | EPU-200 / Wireless Connection<br>EPU-100 / Wireless Connection | EPC-100 | Connection Example (1) |
| | EPU-100 / Wired Connection (RS-232C) | Not required | Connection Example (2) |
| | EPU-200 / Wired Connection (RS-485) | EPC-200-CC | Connection Example (3) |
| PLC | EPU-200 / Wireless Connection<br>EPU-200 / Wired Connection (RS-485)<br>EPU-100 / Wireless Connection | EPC-200-CC | Connection Example (4) |

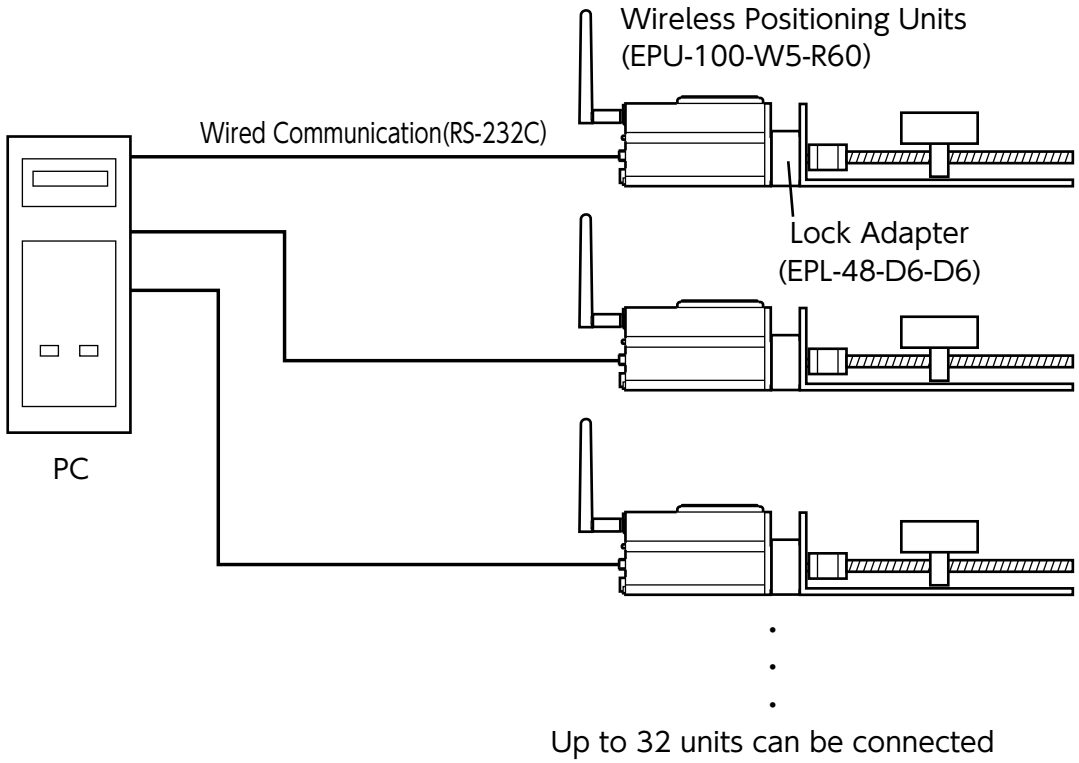
## 2.2 Connection Example

### Connection Example (1)



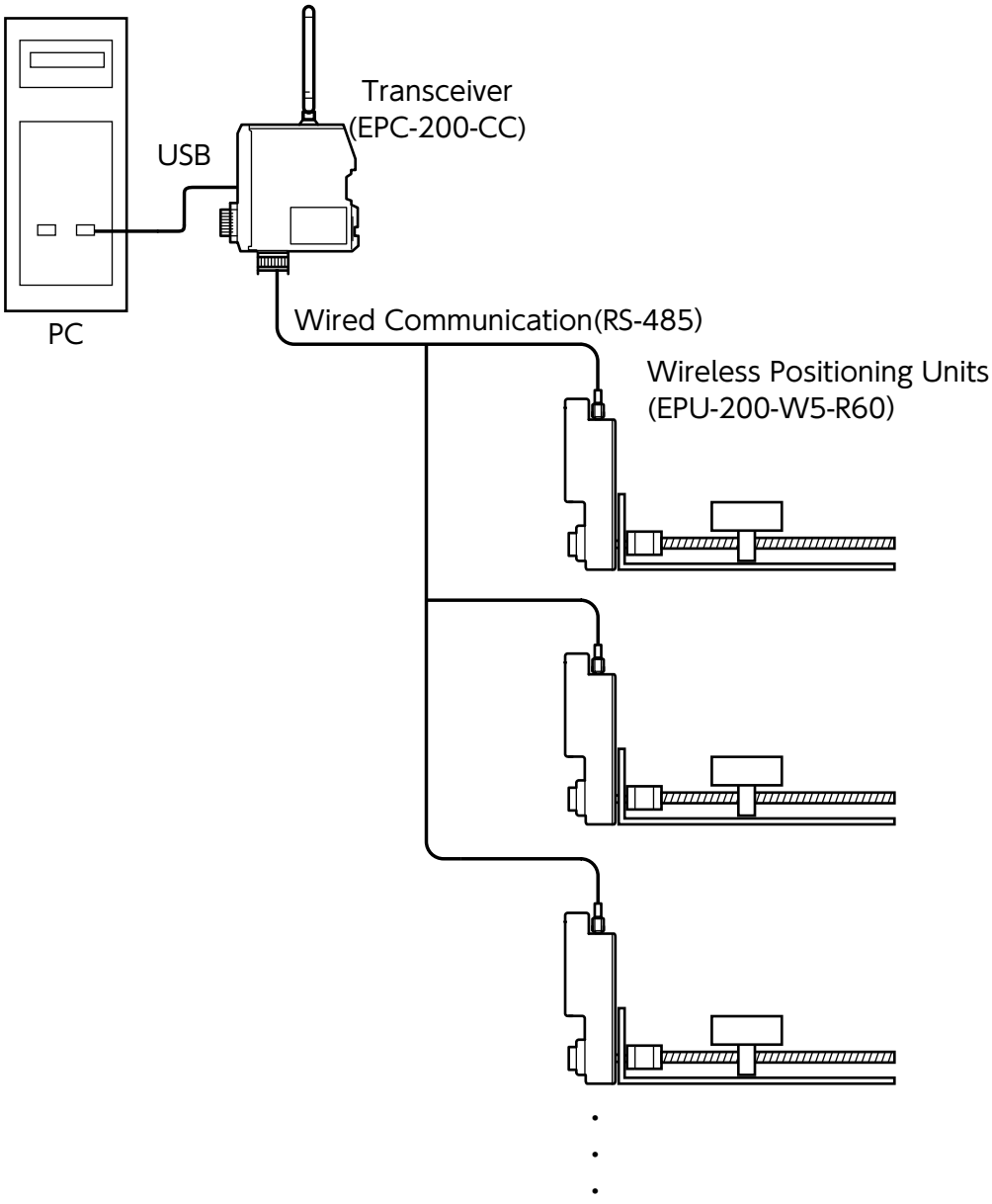

- Can be used in conjunction with connection example (2) (wired communication). In such cases, the maximum number of units regardless of wired/wireless connection is still 32.

## Connection Example (2)




- For EPU-100 wired communication, An RS-232C communication port is required for each unit.
- Can be used in conjunction with connection example (1) (wireless communication). In such cases, the maximum number of units regardless of wired/wireless connection is still 32.

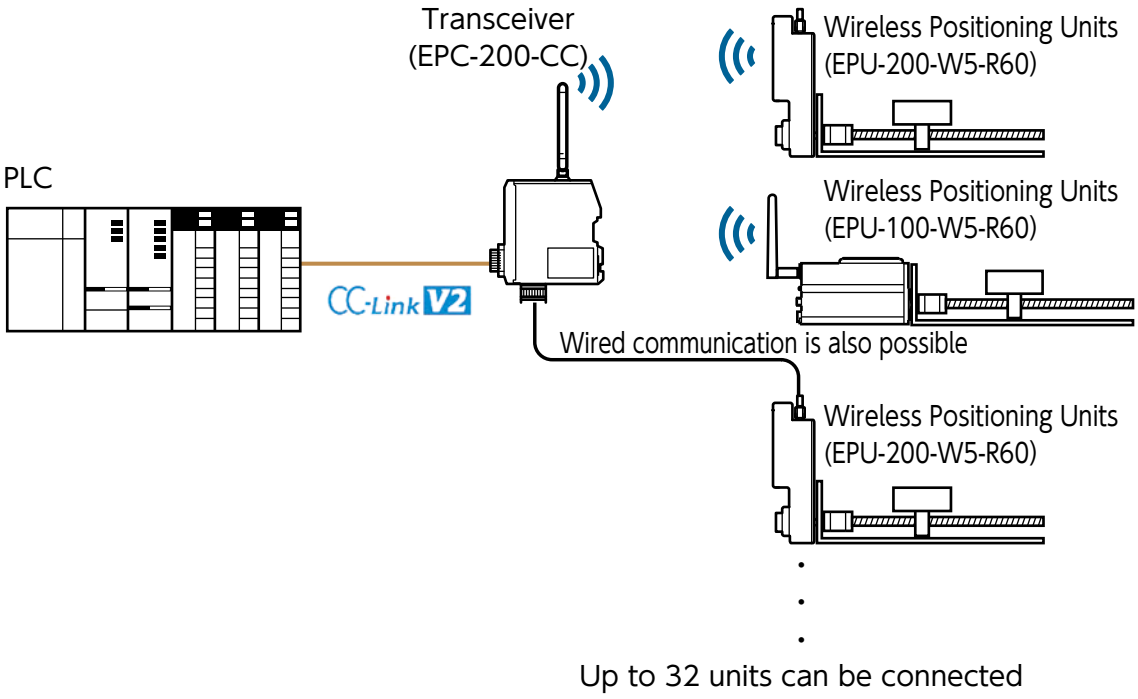
## Connection Example (3)




Up to 32 units can be connected

- For EPU-200 wired communication, each unit is connected together from the EPC-200-CC in series (daisy chain).
- Install a 120Ω termination resistor for wired communication.
- Wireless communication is also possible with EPU-100 and EPU-200. In such cases, the maximum number of units regardless of wired/wireless connection is still 32.

## Connection Example (4)




- For EPU-200 wired communication, each unit is connected together from the EPC-200-CC in series (daisy chain).
- Install a 120Ω termination resistor for wired communication.
- The maximum number of units regardless of wired/wireless connection is 32.

# Revision History

| Date | Identification Number | Revision Contents |
|---|---|---|
| February 2020 | UM-EPU-SC-01E | Initial Release |

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Initial Release February 2020
UM-EPU-SC-01E