Installation Manual

DIRECT DIGITIZER

REGIUS MODEL 110 HQ

CODE NO. 0404

First Edition

Manufacturer:
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Introduction

The Direct Digitizer REGIUS MODEL 110 HQ ("the unit") is designed to read REGIUS Plates. This manual provides installation precautions and a series of steps for service engineers who install this machine (or system including this machine). The manual should be kept in a place handy for quick reference.

Prior to starting the installation, thoroughly read the safety warnings and precautions in the operation manual and service manual and familiarize yourself with the precautions when handling the unit.
Chapter 1

Before Installation

This chapter describes the matters you need to be aware of before installing the unit.

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1.1 Preparations for Installation
Check the following items prior to installation.

1.1.1 Checking Installation Requirements
Check that the installation location meets the following requirements.

**Installation location**
- Place where the machine is not exposed to water.
- Place where atmospheres pressure, temperature, humidity, ventilation, sunlight, dust, salt, inflammable gas or air containing sulphur does not adversely affect the machine.
- Place where the machine is level and not subject to floor unevenness, vibration or shock (including during transportation).
  (The maximum level difference that can be accommodated with the adjuster feet of the unit is 12mm.)
- Place where chemicals are not stored.
- Place where gas is not emitted.
- Place away from noise sources.
- Place away from underfloor cables or pipe bit covers.
  (Stripes may appear in the image.)

**Installation Space**
Find a place where an installation location as shown below can be secured.

**Horizontal installation**
- Front: 300mm minimum
- Front: 700mm minimum
- Front: 1440mm minimum
- Front: 600mm minimum
- Front: 700mm minimum
- Front: 1215mm minimum

**Vertical installation**
- Front: 150mm minimum
- Front: 100mm minimum
- Front: 300mm minimum
- Front: 1540mm minimum
- Front: 815mm minimum
1.1 Preparations for Installation

1.1.2 Checking Maintenance Space

Check that maintenance space shown below can be secured at the installation location.

Maintenance Space

1.1.3 Checking Power Requirements

Check that the wall outlet that meets the requirements is provided in the installation location.

1.1.4 Checking Route for Power Cable and Network Cable

Check with a person in charge of the facility on the following points:

- Position of the hub to which the unit is connected, route for Ethernet cable, and the necessary cable length.
- Position of the wall outlet (3P) into which the unit is to be plugged, the route for the power cable, and the length of the required power cable. Furthermore, check that the power cable can be safely laid, for example, so that it will not be routed over the passage.
1.1 Preparations for Installation

1.1.5 Checking Unpacking Area

Check that the unpacking area meets the following requirements:

- Check that the area has an indoor environment equivalent to that of the installation location.
- Make a space as described below available for performing unpacking work.

![Diagram of unpacking area with dimensions and labeling.]

The surface where a packing label is attached along the longer side is the front side.

1.1.6 Checking Transfer Path

The unit has casters for mobility.

Check that the transfer path from the unpacking area to the installation location meets the following requirements:

- There are no steps or steep slopes, etc. that may affect the unit during transfer.
- The doorway of the room through which the unit (width: 365mm) will pass through should be sufficiently large.
- There should be no deformations on the floor surface even after transporting the unit (weight: approximately 102kg).

1.1.7 Checking Network

When connecting to the facility network, contact the network administrator for the following information.

- IP address and subnet mask of the unit
- IP address of the gateway (if a gateway is used)
### 1.1.8 Equipment and Tools Necessary for Installation

Before installing, prepare the following equipment and tools.

<table>
<thead>
<tr>
<th>Name</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Completion Check Sheet/Report</td>
<td>Used to check the installation of the unit and receive sign-off on installation completion.</td>
</tr>
<tr>
<td>Cutter</td>
<td>Used for unpacking.</td>
</tr>
</tbody>
</table>
| Cutter with a guide              | Used to open moisture-proof bags (during unpacking).  
Name of the recommended product: Opener  
Manufacturer: OLFA  
Product number: 30B |
| Phillips head screwdriver        | Used to remove protective parts.                                        |
| Soft cloth                       | Used to clean the machine (external).                                   |
| Ethernet cable                   | Used to temporarily connect a REGIUS console to the unit for setting up the network. Use a category 5e or higher cable.  
A cross cable can be used instead.  
Interface specifications:  
- RJ-45 connector  
- 100 Base-TX/1000 Base-T |
| Network hub                      | Used when setting up the network for the unit without using an existing REGIUS console in the system.  
Since it is used instead of a REGIUS console, the REGIUS console application must be installed in the PC. |
| Maintenance PC                   | The application program must be upgraded when the current REGIUS console application does not support the unit to be connected to the existing REGIUS console.  
The following versions of the REGIUS console application support the unit.  
- CS-3: Version 3.01 R00 and later  
- CS-2: Version 1.40 R00 and later |
| CD containing the new version of the REGIUS console program | |
1.2 Name of Parts

The names of the parts that you need to be aware of when installing the unit are shown below.

- **Unit Exterior**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Air intake</td>
<td>2</td>
<td>Cassette insertion slot</td>
</tr>
<tr>
<td>3</td>
<td>Status lamp</td>
<td>4*</td>
<td>Dummy operation panel</td>
</tr>
<tr>
<td>5*</td>
<td>Operation panel</td>
<td>6</td>
<td>Second front cover</td>
</tr>
<tr>
<td>7</td>
<td>First front panel</td>
<td>8</td>
<td>Power supply circuit breaker</td>
</tr>
<tr>
<td>9</td>
<td>Second front back panel</td>
<td>10</td>
<td>Power supply port</td>
</tr>
<tr>
<td>11</td>
<td>Ethernet connection port</td>
<td>12</td>
<td>First front back panel</td>
</tr>
</tbody>
</table>

*: For vertical installation, interchange the dummy operation panel and operation panel locations.

**Vertical Installation Configuration**

This machine is designed to change the front side (the user access direction) by interchanging the operation panel locations.

Horizontal installation configuration (Factory configuration)

Vertical installation configuration

Horizontal installation configuration: The first front is the front side. (The machine is shipped in this configuration.)

Vertical installation configuration: The second front is the front side.

For vertical installation, interchange the operation panel locations.
1.2 Name of Parts

- **Operation Panel**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Message display window</td>
</tr>
<tr>
<td>2</td>
<td>&quot;operation&quot; lamp</td>
</tr>
<tr>
<td>3</td>
<td>&quot;operation&quot; switch</td>
</tr>
<tr>
<td>4</td>
<td>&quot;erase&quot; lamp</td>
</tr>
<tr>
<td>5</td>
<td>&quot;erase&quot; switch</td>
</tr>
<tr>
<td>6</td>
<td>Speaker</td>
</tr>
</tbody>
</table>
1.3 Installation Workflow

To realize efficient installation, follow the workflow shown below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpacking and Installation</td>
<td>Perform the work from unpacking and installing the delivered product to</td>
</tr>
<tr>
<td></td>
<td>checking the startup of the single unit.</td>
</tr>
<tr>
<td></td>
<td>1. Unpacking</td>
</tr>
<tr>
<td></td>
<td>2. Removing Protective Parts</td>
</tr>
<tr>
<td></td>
<td>3. Changing Operation Panel Installation Position (Vertical Installation</td>
</tr>
<tr>
<td></td>
<td>Configuration Only)</td>
</tr>
<tr>
<td></td>
<td>4. Moving to and Fixing at Installation Location</td>
</tr>
<tr>
<td></td>
<td>5. Connecting Power Cable</td>
</tr>
<tr>
<td></td>
<td>6. Checking Startup and Shutdown</td>
</tr>
<tr>
<td></td>
<td>For further details, refer to &quot;Chapter 2 Unpacking and Installation&quot;.</td>
</tr>
</tbody>
</table>

| System Connection and         | Connect the unit to the system. Check that the machine operates         |
| Operation Check               | properly in the system before handing it over to the user.              |
|                               | For further details, refer to "Chapter 3 System Connection and Operation|
|                               | Check".                                                                 |

Installation Completed
Chapter 2

Unpacking and Installation

This chapter describes how to unpack and install the product after its arrival.

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2.7 Connecting Power Cable .................................2-24
2.8 Checking Startup and Shutdown of Unit ..........2-25
2.1 Flow of Unpacking and Installation

This section describes the workflow from unpacking to installing the delivered product.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpacking</td>
<td>Unpack goods after arrival. For further details, refer to &quot;2.2 Unpacking&quot;.</td>
</tr>
<tr>
<td>Removing Protective Parts</td>
<td>Remove the protective parts from the machine interior. For further details, refer to &quot;2.3 Removing Protective Parts&quot;.</td>
</tr>
<tr>
<td>Changing Operation Panel Installation Position (Vertical Installation Configuration Only)</td>
<td>For the vertical installation configuration, change the installation position of the operation panel. For further details, refer to &quot;2.4 Changing Operation Panel Installation Position&quot;.</td>
</tr>
<tr>
<td>Moving to and Fixing at Installation Location</td>
<td>Move the machine and fix it at the installation location. For further details, refer to &quot;2.5 Moving to and Fixing at Installation Location&quot;.</td>
</tr>
<tr>
<td>Checking of Input Voltage</td>
<td>Check the input voltage. For further details, refer to &quot;2.6 Checking of Input Voltage&quot;.</td>
</tr>
<tr>
<td>Connecting Power Cable</td>
<td>Connect the power cable. For further details, refer to &quot;2.7 Connecting Power Cable&quot;.</td>
</tr>
<tr>
<td>Checking Startup and Shutdown</td>
<td>Check that the machine starts up and shuts down properly. For further details, refer to &quot;2.8 Checking Startup and Shutdown of Unit&quot;.</td>
</tr>
</tbody>
</table>

Unpacking and Completion of Installation
2.2 Unpacking

This section describes the packaging format of the product and the procedure for unpacking the product after its arrival.

**Caution**
- The unit weighs approximately 102kg. Secure sufficient space to transport and move it, and work carefully.
- Place a palette in a level location before starting unpacking. If unpacking is carried out on a sloping surface, the machine may move.

**Important**
- Unpack the product in an area with sufficient space. When the product is unpacked in a place other than the installation location, check that there are no steps or obstacles in the way to the installation location. For information about the unpacking space, refer to "1.1.5 Checking Unpacking Area".
- If the machine is unpacked immediately after it is moved in, dew condensation may form inside the machine due to indoor/outdoor temperature differences (approximately 10°C or more). To prevent this, let the product stand for approximately one hour at the installation location before unpacking.

**Requirements**
The procedures described in this manual require the following tools:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tools</th>
<th>No.</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cutter</td>
<td>2</td>
<td>Cutter with a guide</td>
</tr>
</tbody>
</table>

**Note**
It is recommended that a cutter with a guide be used to avoid damaging the main unit when opening the moisture-proof bag.

Name of the recommended product: Opener
Manufacturer: OLFA
Product number: 30B
2.2 Unpacking

2.2.1 Packaging Format

The unit is shipped in the following packaging format.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fixing band</td>
<td>2</td>
<td>Outer case (cardboard box)</td>
</tr>
<tr>
<td>3</td>
<td>Palette</td>
<td>4</td>
<td>Accessory bag</td>
</tr>
<tr>
<td>5</td>
<td>Buffer material (Four pieces)</td>
<td>6</td>
<td>Slope</td>
</tr>
<tr>
<td>7</td>
<td>Moisture-proof bag (containing the main unit*)</td>
<td>8</td>
<td>Fixture (Two pieces)</td>
</tr>
<tr>
<td>9</td>
<td>Buffer material</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*: Two buffer materials are attached to the bottom of the main unit. Security parts are installed inside the device.

**Note**

The surface where a packing label is attached along the longer side is the front side. Install the slope in front of the palette and move the main unit down on it.
2.2 Unpacking

2.2.2 Removing Packing Materials

Remove the cardboard outer case and moisture-proof bag.

1. While holding the fixing band in one hand, cut it using a cutter.
   - Two fixing bands
   
   **Caution**
   Avoid standing right in front of the bands. When a tightly stretched fixing band is cut, it may hit the worker.

2. Cut the adhesive tape on the top and bottom of the outer case using a cutter.

   **Caution**
   Be careful not to damage the items inside.

3. Open the upper part of the outer case and take out the accessory bag.

   **Note**
   The items in the accessory bag are checked in "2.2.4 Checking Accessories" described later.

4. Remove the following items that are placed around the main unit.
   - One slope
   - Four pieces of buffer material

   **Important**
   Do not discard the slope. It is used when moving the main unit down to the floor.
2.2 Unpacking

5 Pull up to remove the outer case.

6 Using a cutter with a guide, cut around the bottom of the moisture-proof bag.

Be careful not to damage the main unit.

Caution

7 Pull up to remove the moisture-proof bag.

This is the final step in the process of removing the packing materials.
2.2 Unpacking

2.2.3 Taking Out Main Unit

Install the slope against the palette and move the main unit down from the palette.

Observe the following instructions when tilting the main unit.

- Do not hold the bottom of the first front panel when lifting the main unit. (The panel may be damaged.)
- Do not tilt the main unit excessively. (The main unit may tip over, causing personal injury or damage to the machine.)

1. Check that the four adjuster feet are in the top position.
   If any adjuster foot is not in the top position, move it up by turning it by hand.

2. Press the first front side until it contacts the stopper on the back side.

3. With the device slanted by pushing the top of the first front panel (the bottom of the front side is floating), pull it to remove the lower buffer material toward you.

4. Press the back of the first front side until it contacts the stopper on the front side.

---

Caution

Observe the following instructions when tilting the main unit.

- Do not hold the bottom of the first front panel when lifting the main unit. (The panel may be damaged.)
- Do not tilt the main unit excessively. (The main unit may tip over, causing personal injury or damage to the machine.)

Important

Do not remove the buffer material (cardboard) that is taped to the bottom of the device. When you unload the device from the palette, remove this material.

Important

Do not dispose of the lower buffer material. It is used as the base of the slope.
2.2 Unpacking

5 With the top of the back side pressed to an inclined position, turn the rotation plates on both sides of the back side as shown in the figure. The casters on the back side are placed on the palette.

6 Install the slope by inserting the tenons (bar-shaped projections) into the holes in the palette on the front side.

7 Disassemble the buffer material removed in step 3 and place it at the correct height under the slope.

8 Remove the tape from two locations that fix the rotation plates on both sides of the front side.

9 Press the first front side until it contacts the stopper on the back side.

Caution

You can step on the installed slope while carrying out the work. However, check again that it is installed properly.

- The tenons on the slope must be inserted in the holes into the palette.
- The buffer material is placed at the correct height under the slope.
2.2 Unpacking

10 With the top of the first front panel in an inclined position, turn the rotation plates on both sides of the front side as shown in the figure. The casters on the front side are placed on the palette.

11 Check the condition of the installed slope.
   • The tenons on the slope must be inserted into the holes in the palette.
   • The buffer material is placed at the correct height under the slope.

   If the slope is not installed correctly, it may fall off the palette when moving down the main unit, causing the main unit to tip over. This can also cause personal injury.

12 Carefully move the main unit down the slope, while supporting the main unit with both hands. Move one side of the main unit and then the other, so that the casters touch the floor one after another.

   A jolt may be felt at the moment when the main unit comes off the slope and onto the floor. Move the main unit as slowly as possible.

13 Remove the tape from eight places to remove two buffer materials from the bottom of the device. Once you remove these tapes, pull the buffer material toward the arrow indicated in the illustration.
2.2 Unpacking

14 Clear the palette, slope, and other packing materials.

Caution
When disposing of packaging materials, be sure to do so by using authorized industrial waste disposal firms in accordance with applicable ordinances and regulations of the local government concerned.

This is the final step in the process of taking out the main unit.

2.2.4 Checking Accessories

The following accessories are included with shipment. Check for any missing items.

<table>
<thead>
<tr>
<th>Name</th>
<th>Quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item list</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Inspection card</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>OPERATION MANUAL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Power cable</td>
<td>1</td>
<td>Length: 3m</td>
</tr>
</tbody>
</table>

Important
If any items are missing, handle them as defective arrived goods.

This is the final step in the process of checking accessories.
2.3 Removing Protective Parts

This machine incorporates protective parts to protect internal components from damage caused by vibration experienced during transportation. Remove these protective parts (red parts).

<table>
<thead>
<tr>
<th>Protective Parts</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixture (red part)</td>
<td>Six pieces</td>
</tr>
</tbody>
</table>

Requirements
The procedures described in this manual require the following tools:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Phillips head screwdriver</td>
</tr>
</tbody>
</table>

2.3.1 Removing External Panels

Remove the external panels to remove the protective parts (red parts) from the machine interior.

1. Remove the first front back panel.
   - Seven screws (M4 × 8)
   - Hold the bottom of the panel with both hands and pull it towards you to remove it.

2. Remove the first front panel.
   - Six screws (M4 × 8)
   - Hold the bottom of the panel with both hands and pull it towards you to remove it.

This is the final step in the process of removing the external panels.
2.3.2 Removing Protective Part (First Front Side)

Remove protective part A on the first front side.

Remove protective part A

1. Remove protective part A.
   - Top: Three hexagonal Phillips socket screws (M5 × 10)
   - Right and left: Four hexagonal Phillips socket screws (M4 × 8)

This is the final step in the process of removing the protective part on the first front side.
2.3.3 Removing Protective Parts (Second Front Side)

Remove protective parts B and C on the second front side.

Removing Protective Part B

1. Remove protective part B.
   - Four hexagonal Phillips socket screws (M5 × 10)
   - Remove the screws while supporting protective part B so that it will not drop.

Removing Protective Part C

2. Remove the screws on the top of protective part C.
   - Two hexagonal Phillips socket screws (M5 × 10)

3. Slide the optical part to the back.

4. Remove the other screws of protective part C.
   - Two hexagonal Phillips socket screws (M5 × 10)

5. Remove protective part C.

This is the final step in the process of removing the protective parts on the second front side.
2.3 Removing Protective Parts

2.3.4 Removing Protective Parts (Back of First Front Side)

Remove protective parts D through F on the back of the first front side.

Removing Protective Part D

1. Remove protective part D.
   • Four hexagonal Phillips socket screws (M5 × 10)

   Caution: Remove the screws while supporting protective part D so that it will not drop.

Removing Protective Part E

2. Remove protective part E.
   • Four hexagonal Phillips socket screws (M5 × 10)

Removing Protective Part F

3. Remove protective part F.
   • Three hexagonal Phillips socket screws (M5 × 10)

This is the final step in the process of removing the protective parts on the back of the first front side.
2.3 Removing Protective Parts

2.3.5 Checking Removal of Protective Parts

Check that the six protective parts have all been removed.

**Caution**

Starting the main unit while protective parts still remain inside will cause damage to the main unit.

<table>
<thead>
<tr>
<th>Protective Parts</th>
<th>Mounting Screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective part A</td>
<td>Top: Three hexagonal Philips socket screws (M5 x 10)</td>
</tr>
<tr>
<td></td>
<td>Right and left: Four hexagonal Philips socket screws (M4 x 8)</td>
</tr>
<tr>
<td>Protective part B</td>
<td>Four hexagonal Philips socket screws (M5 x 10)</td>
</tr>
<tr>
<td>Protective part C</td>
<td>Four hexagonal Philips socket screws (M5 x 10)</td>
</tr>
<tr>
<td>Protective part D</td>
<td>Four hexagonal Philips socket screws (M5 x 10)</td>
</tr>
<tr>
<td>Protective part E</td>
<td>Four hexagonal Philips socket screws (M5 x 10)</td>
</tr>
<tr>
<td>Protective part F</td>
<td>Three hexagonal Philips socket screws (M5 x 10)</td>
</tr>
</tbody>
</table>

This is the final step in the process of checking the removal of the protective parts. Next, conduct the work described below.

- For vertical installation, proceed to "2.3.6 Installing External Panels" to install the external panels.
- For horizontal installation, proceed to "2.4 Changing Operation Panel Installation Position" to change the installation position of the operation panel.
2.3 Removing Protective Parts

2.3.6 Installing External Panels

Install the removed external panels.

1. Install the first front panel.
   - Six screws (M4 x 8)
     Hold the bottom of the first front panel with both hands and push the top of the panel into the top panel.

2. Close the second front cover.

3. Install the first front back panel.
   - Seven screws (M4 x 8)
     Hold the bottom of the first front back panel with both hands and push the top of the panel into the top panel.

This is the final step in the process of installing the external panels. Proceed to "2.5 Moving to and Fixing at Installation Location" to move the machine and fix it at the installation location.
2.4 Changing Operation Panel Installation Position

For vertical installation, change the installation position of the operation panel.

Requirements
The procedures described in this manual require the following tools:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Phillips head screwdriver</td>
</tr>
</tbody>
</table>

Operation Panel Installation Position

<table>
<thead>
<tr>
<th>Horizontal installation configuration (Factory configuration)</th>
<th>Vertical installation configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Operation Panel Installation Position Diagram" /></td>
<td><img src="image" alt="Operation Panel Installation Position Diagram" /></td>
</tr>
</tbody>
</table>

1. Remove the second front back panel.
   - Six screws (M4 x 8)
   - Four spacers

2. Remove the circuit board cover.
   - A: 3 screws (M3 x 6)
     Loosen all screws.
   - B: 3 screws (M3 x 20)
     Remove all screws.

3. Remove the connectors from the MDU, and remove the cable from the wire saddle.
   - CN1 (MCN1: Cable)
   - CN2 (MCN2: Cable)
2.4 Changing Operation Panel Installation Position

4. Remove the screws of the insertion unit.
   - Five hexagonal Phillips socket screws (M4 × 8)

5. Remove the insertion unit.
   Place the removed insertion unit upside down in a level location where the replacement work can be performed.
   Take out the cables removed in step 3 being careful to ensure they are not caught.

6. Remove the dummy operation panel.
   - Four tapping screws (M4 × 10)

7. Remove the operation panel cable from the clamps.
   - Clamps at two locations
2.4 Changing Operation Panel Installation Position

8 Remove the operation panel.
   • Four tapping screws (M4 × 10)

9 Install the operation panel in the place where the dummy operation panel was installed.
   • Four tapping screws (M4 × 10)

   **Important**
   Confirm that the light-shielding sponge is contained properly in the cable area for the operation panel.

10 Connect the operation panel cable as shown in the figure.
   • Clamps at four locations

11 Install the dummy operation panel.
   • Four tapping screws (M4 × 10)

   **Important**
   Install the operation panel so that the bottom side of the "Loading Cassette/Do Not Sit On" label shows on the operation side.
2.4 Changing Operation Panel Installation Position

12 Install the insertion unit to the main unit.
   • Five hexagonal Phillips socket screws (M4 × 8)
     Tighten the screws in the following order:
     1. Tighten three screws loosely on the first front side.
     2. Tighten a screw firmly on the second front side.
     3. Tighten the three screws firmly that have been
        loosened on the first front side.
     4. Tighten a screw on the back of the second front side
        firmly.

   \[\text{Caution}\]
   Check the route of the cable to ensure it will
   not become trapped.

13 Connect the cables on the insertion unit to the
   MDU, and then put the cables through the wire
   saddle.
   • MCN1 \(\rightarrow\) CN1 (MDU circuit board)
   • MCN2 \(\rightarrow\) CN2 (MDU circuit board)

14 Install the circuit board cover.
   • A: 3 screws (M3 × 6)
   • B: 3 screws (M3 × 20)

15 Install the first front panel.
   • Six screws (M4 × 8)
     Hold the bottom of the first front panel with both hands
     and push the top of the panel into the top panel.

16 Close the second front cover.
2.4 Changing Operation Panel Installation Position

17 Install the first front back panel.
   • Seven screws (M4 × 8)
   Hold the bottom of the first front back panel with both hands and push the top of the panel into the top panel.

18 Install the second front back panel.
   • Six screws (M4 × 8)
   • Four spacers

This is the final step in the process of changing the installation position of the operation panel. Proceed to "2.5 Moving to and Fixing at Installation Location" to move the machine and fix it at the installation location.
2.5 Moving to and Fixing at Installation Location

Move the machine and fix it at the installation location.

1. Move the optical part to the second front side and fix it with the quick lock.
   - When the optical part is moved all the way to the front, the locking rod moves down automatically to lock into position.
   - The second front cover does not close completely when the quick lock is engaged. (This is to remind you to disengage the lock)

2. Move the unit to the planned installation location.

3. Install the machine temporarily at the installation location.

4. Disengage the quick lock.
   Pulling the blue knob up disengages the lock.

   When pulling the knob up, push the optical part slightly towards the back. When the optical part is placed in the front, the locking rod may lower again and return to the lock position. After disengaging the lock, shift the optical part and make sure that the locking rod is not in the lowered position.

5. Adjust the four adjuster feet to fix the machine.
   While checking the level inside the second front cover, ensure that the bubble is in the circle.

6. Rock the main unit gently to make sure that it is fixed securely.

This is the final step in the process of moving to and fixing at the installation location.
2.6 Checking of Input Voltage

Remove the rear cover to ensure that the wiring color of the TAP connector suits to the power voltage provided from the facility.

- The wiring color is associated with each power voltage (AC). Following list shows the correspondence between the wiring color and power voltage.

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>Brown</th>
<th>Red</th>
<th>Orange</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Voltage</td>
<td>100V</td>
<td>110V</td>
<td>115V</td>
<td>120V</td>
</tr>
<tr>
<td>TAP Connector</td>
<td></td>
<td></td>
<td>200V</td>
<td>220V  230V 240V</td>
</tr>
</tbody>
</table>
2.7 Connecting Power Cable

Connect the power cable that comes with the machine.

**Caution**
Eliminate the clearance between the cable and the floor or wall to avoid hazards to people walking over it. Otherwise, someone may trip over, resulting in injury or damage to the cable or machine.

1. Check that the power breaker is turned OFF. If the power breaker is ON, turn it OFF.

2. Connect to power cable to the power supply port.

3. Plug the power cable into the wall outlet (3P) in the facility.

4. Fix the power cable as required by the conditions at the installation location.

This is the final step in the process of connecting power cable.
2.8 Checking Startup and Shutdown of Unit

Turn ON the machine to check that it starts up and shuts down properly.

1. Turn ON the facility power supply.
2. Turn ON the power breaker of the unit.
3. Press the "operation" switch.

4. Check the following:
   - The message display window shows the message "INITIALIZING" and a progress indicator bar.
   - The bar extends to the right during the initialization process.
   - When the bar reaches the right end, "NETWORK ERROR [24000]" appears in the upper part of the message display window.
   - The factory-set IP address of the machine is displayed in the lower part of the message display window.
5. Press the "operation" switch for at least three seconds.
   The backlight of the message display window goes off.
6. Turn OFF the power breaker.

This is the final step in the process of checking startup and shutdown of the unit.
Chapter 3

System Connection and Operation Check

This chapter describes the procedures for connecting the machine to the system, checking operations, and handing over the machine.

3.1 Flow of System Connection and Operation Check ................................................. 3-2
3.2 Connecting System ........................................................................................................... 3-3
  3.2.1 Upgrading REGIUS Console ................................................................. 3-3
  3.2.2 Setting Up Network ......................................................................................... 3-4
  3.2.3 Connecting to Network .................................................................................. 3-5
3.3 Checking Operations and Backing Up Setup Data ......................................................... 3-6
  3.3.1 Checking Images ............................................................................................. 3-6
  3.3.2 Checking Coordinative Operations ............................................................... 3-6
  3.3.3 Setting Sound Volume ................................................................................. 3-6
  3.3.4 Checking Safety Interlock Operation ........................................................... 3-7
  3.3.5 Backing Up Setup Data ................................................................................. 3-7
3.4 Handing Over ............................................................................................................... 3-8
  3.4.1 Cleaning ......................................................................................................... 3-8
  3.4.2 Instruction and Handover .............................................................................. 3-8
3.1 Flow of System Connection and Operation Check

This section describes the workflow from connecting to the system, checking operations, and handling over the machine.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecting System</td>
<td>Follow the procedure described below to connect the unit to the system.</td>
</tr>
<tr>
<td></td>
<td>1. Upgrading REGIUS console, when the REGIUS console application does not support the unit</td>
</tr>
<tr>
<td></td>
<td>2. Setting Up Network</td>
</tr>
<tr>
<td></td>
<td>3. Connecting to Network</td>
</tr>
<tr>
<td></td>
<td>For further details, refer to &quot;3.2 Connecting System&quot; and the REGIUS console Installation/Service Manual.</td>
</tr>
<tr>
<td>Setting Up REGIUS Console</td>
<td>Set up the REGIUS console. The settings related to the unit are as follows:</td>
</tr>
<tr>
<td></td>
<td>• System (reader) configuration setting (Configuration setting for the reader to be connected)</td>
</tr>
<tr>
<td></td>
<td>• Cassette reader information setting (Network information setting for the reader to be connected)</td>
</tr>
<tr>
<td></td>
<td>For further details, refer to the REGIUS console Installation/Service Manual.</td>
</tr>
<tr>
<td>Checking Operations and Backing Up Setup Data</td>
<td>Check whether the unit operates in the system to read images successfully. It the machine operates successfully, back up the unit setup data in the REGIUS console. For further details, refer to &quot;3.3 Checking Operations and Backing Up Setup Data&quot; and the REGIUS console Installation/Service Manual.</td>
</tr>
<tr>
<td>Handling Over</td>
<td>Check whether the unit is free from dirt and hand it over. For further details, refer to &quot;3.4 Handling Over&quot;.</td>
</tr>
</tbody>
</table>
3.2 Connecting System

Connect the unit to the system.

3.2.1 Upgrading REGIUS Console

Upgrade the application program when the unit is connected to an existing CS-3 or CS-2 REGIUS console in the system.

The following versions of the REGIUS console application support the unit:

- CS-3: V3.01 R00 or more
- CS-2: V1.40 R00 or more

Requirements

The procedures described in this manual require the following tools:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CD containing the new version of the REGIUS console program</td>
</tr>
</tbody>
</table>

For information about the procedure for upgrading, refer to the REGIUS console Installation/Service Manual.

This is the final step in the process of upgrading the REGIUS console.
3.2 Connecting System

3.2.2 Setting Up Network

Connect the REGIUS console to the unit one to one and configure settings for network connection.

When Connecting to an Existing REGIUS Console

For establishing temporary connection with the unit, the settings for the REGIUS console must be reset to the factory settings (1:1 connection and post-registration). Back up the setup information (system and JM information) of the REGIUS console, then change the settings as described below.

- Network address setting screen
  IP address: 192.168.20.90; Subnet mask: 255.255.255.0

- JOBM INFO screen
  Select Built-in Job Manager and Post-registration.

- CCU INFO screen
  Host name: R170-0001; Host name (on the Job Manager): r170-00001; IP address: 192.168.20.170

- PostgreSQL access tool
  c_status screen: Set to CS#-0001 only;
  r_status screen: Set to r170-0001 only;
  relations screen: Set to Only one relationship between CS#-0001 and r170-0001;
  sys_config screen: Set reg_type to 1 (CS#: CS1 for CS-3, CS2 for CS-2)

For information about the procedure for changing the REGIUS console settings, refer to the REGIUS console Installation/Service Manual.

Requirements

The procedures described in this manual require the following tools:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tools</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethernet cable (2)</td>
<td>Used to connect the REGIUS console to the unit. A cross cable can be used instead.</td>
</tr>
<tr>
<td>2</td>
<td>Ethernet hub</td>
<td>Use a category 5e or higher cable.</td>
</tr>
<tr>
<td>3</td>
<td>Maintenance PC</td>
<td>Used as an alternative to the REGIUS console. The REGIUS console application must be installed.</td>
</tr>
</tbody>
</table>
3.2 Connecting System

Work Procedure
Set up the network from the REGIUS console.

- Network settings for the unit: Host name, IP address, host name of the JM, host name of the REGIUS console to be connected, etc.
- Network settings for the REGIUS console and JM: Host name, IP address, host name of the unit, etc.

For information about the procedure for setting the network, refer to the REGIUS console Installation/Service Manual.

This is the final step in the process of setting up the network.

3.2.3 Connecting to Network

Connect the unit to the network.

1. Connect the unit to the system using Ethernet cables.
   (The figure shows the connection of the unit to the Ethernet connection port.)
   Fix the Ethernet cables as required by the conditions at the installation location.

2. Check the network connection.
   After the network connection is completed, turn ON the REGIUS console and the unit to check that no network error occurs.

For information about the procedure for making and checking the network connection, refer to the REGIUS console Installation/Service Manual.

This is the final step in the process of connecting to the network.

Next, set up the REGIUS console. For information about the settings and procedure, refer to the REGIUS console Installation/Service Manual.

Proceed to "3.3 Checking Operations and Backing Up Setup Data" to check whether the unit operates in the system to read images successfully.
3.3 Checking Operations and Backing Up Setup Data

Check whether the unit operates in the system to read images successfully. If the machine operates successfully, back up the unit setup data in the REGIUS console.

3.3.1 Checking Images

Use a solid image to check whether it has been read successfully. At the same time, check that the unit operates correctly.

For information about the procedure for checking images, refer to the REGIUS console Installation/Service Manual.

This is the final step in the process of checking images.

3.3.2 Checking Coordinative Operations

Check that the image is read on all REGIUS consoles connected to the unit.

For information about the operation procedure, refer to the REGIUS console Operation Manual.

This is the final step in the process of checking coordinative operations.

Proceed to “3.3.3 Setting Sound Volume” to change the sound volume setting for the speaker of the unit. When you do not need to change the sound volume, proceed to “3.3.4 Checking Safety Interlock Operation” to check that the interlock mechanism of the unit operates correctly.

3.3.3 Setting Sound Volume

The speaker sound volume is set at low level at the time of shipment. To increase the sound volume, change the "Volume" setting on the "Settings" panel of the "Unit Test" screen. (Three setting values are available: "1 (Low)" (Default), "2 (Normal)", and "3 (High)".)

For information about the "Settings" panel and the procedure for changing the setting, refer to "Service Tool Screen (Unit Test)" in the unit Service Manual.

This is the final step in the process of setting the sound volume.
3.3 Checking Operations and Backing Up Setup Data

### 3.3.4 Checking Safety Interlock Operation

The unit is equipped with the following safety interlock. Check that the interlock mechanism operates correctly.

<table>
<thead>
<tr>
<th>Position</th>
<th>Condition to be Detected</th>
<th>Machine Status Caused by Interlock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second front cover</td>
<td>Opened door while the power supply is ON</td>
<td>• Turns OFF the driving power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shuts down the laser power supply</td>
</tr>
</tbody>
</table>

Check that opening the second front cover during initialization stops the driving operation.

1. Open the second front cover when the unit is in READY status.
2. Close the second front cover. The initialization process starts.
3. Open the second front cover after the driving operation starts. The driving operation stops when the interlock mechanism works properly.
4. Close the second front cover. The initialization process starts again. When it finishes, "READY" appears in the message display window.

This is the final step in the process of checking the safety interlock operation.

### 3.3.5 Backing Up Setup Data

Back up the unit setup data in the REGIUS console.

Note: The setup data for the unit is stored on the CF card mounted on the CIU circuit board.

For information about the procedure for backing up the data, refer to the REGIUS console Installation/Service Manual.

This is the final step in the process of backing up the setup data.
3.4 Handing Over

3.4.1 Cleaning

Check whether the unit is free of dirt. If any dirt is discovered, wipe it off gently with a soft dry cloth. If the product is very dirty, use a cloth moistened with a small amount of water, then wipe the moisture off with a dry cloth.

3.4.2 Instruction and Handover

Hand the unit over to the user.

Items to be Handed Over to the User (Other than Those Installed)

<table>
<thead>
<tr>
<th>No.</th>
<th>Items to be Handed Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inspection card</td>
</tr>
<tr>
<td>2</td>
<td>OPERATION MANUAL</td>
</tr>
</tbody>
</table>

Instructions to be Given to the User

<table>
<thead>
<tr>
<th>No.</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information described in &quot;Installation Completion Check Sheet/Report&quot;</td>
</tr>
<tr>
<td>2</td>
<td>Information described in the OPERATION MANUAL</td>
</tr>
<tr>
<td>2-1</td>
<td>Safety Precautions and Warnings</td>
</tr>
<tr>
<td>2-2</td>
<td>Product Outline</td>
</tr>
<tr>
<td></td>
<td>• Outline of Unit</td>
</tr>
<tr>
<td></td>
<td>• Name of Parts</td>
</tr>
<tr>
<td></td>
<td>• Operation Outline</td>
</tr>
<tr>
<td>2-3</td>
<td>Starting and Shutting Down</td>
</tr>
<tr>
<td></td>
<td>• Power ON/OFF</td>
</tr>
<tr>
<td></td>
<td>• How to Start/Shut down</td>
</tr>
<tr>
<td>2-4</td>
<td>Cassette Operation</td>
</tr>
<tr>
<td></td>
<td>• Handling the Cassette</td>
</tr>
<tr>
<td></td>
<td>• Reading Exposed Cassette Images</td>
</tr>
<tr>
<td></td>
<td>• Erasing the REGIUS Plate</td>
</tr>
<tr>
<td>2-5</td>
<td>Troubleshooting</td>
</tr>
<tr>
<td></td>
<td>• Error Display and Solutions</td>
</tr>
<tr>
<td></td>
<td>• Handling Cassette Jams</td>
</tr>
<tr>
<td></td>
<td>• Removal of Foreign Objects from Cassette Insertion Slot</td>
</tr>
<tr>
<td></td>
<td>• Troubleshooting for Cassette</td>
</tr>
<tr>
<td></td>
<td>• Cleaning the Optical Unit</td>
</tr>
<tr>
<td>2-6</td>
<td>Maintenance, Items to be Checked, and Schedule</td>
</tr>
<tr>
<td></td>
<td>• Cleaning the REGIUS Plate</td>
</tr>
<tr>
<td></td>
<td>• Cleaning Cassette Insertion Slot</td>
</tr>
<tr>
<td></td>
<td>• Cleaning Exterior of Main Unit</td>
</tr>
<tr>
<td></td>
<td>• Cleaning Air Intake</td>
</tr>
<tr>
<td></td>
<td>• Replacing Erase Lamp (Halogen Lamp)</td>
</tr>
<tr>
<td>2-7</td>
<td>Appendix</td>
</tr>
</tbody>
</table>