

Fig 2-14 The permissible bending radius of coaxial cable

2.4.3 Scanner installation position

1) Physical selection criteria

- Install the scanner at the center of the mast on the keel line.
- If the scanner cannot be installed at the above position for some reason, the amount of deviation must be minimized. And, reinforce the mount base and the platform and take precautions to protect the scanner from vibration and impact at the installation position.

To avoid the radiating section coming in contact with other installed objects while it is rotating, ensure that there is at least 200 millimeters from the swing circle (turning radius) to other installed objects (**Fig 2-15 Installation of scanner**). The swing circle of the JMR-7200/9100 radar's scanner is as shown in **Table 2-5 Swing circle**. See "SN.1/Circ.271 6.2(b)".

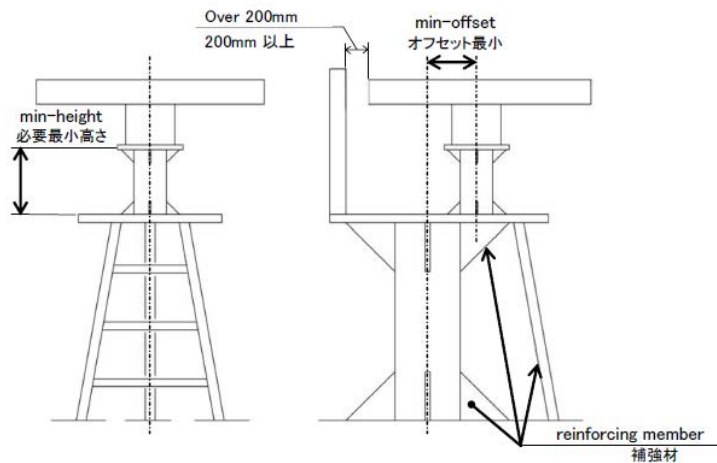


Fig 2-15 Installation of scanner

Table 2-5 Swing circle

Scanner unit (length)	Swing circle
NKE-2103-6/6HS (6ft)	1910mm
NKE-1125-6 (6ft)	
NKE-2254-6HS (6ft)	
NKE-1129-7 (7ft)	2270mm
NKE-2632/H (8ft)	2770mm
NKE-1125-9 (9ft)	2825mm
NKE-1129-9 (9ft)	
NKE-1130/1139 (12ft)	4000mm
NKE-1632 (12ft)	

- Avoid having a rope or signal flag from winding around the radiating section thereby preventing it from rotating.
- Avoid the effects of dust and heat caused by smoke from a chimney.
- When determining the appropriate scanner height and installation location, take into consideration the reduction of vibration, the strength of the hull and the scanner mount base, and maintenance properties.
- Provide for maintenance space: platform, safety link, hand rail, steps, etc. The lower edge of a radar antenna should be a minimum of 500 mm above any safety rail. See “SN.1/Circ.271 6.1(b)”.
- When installing the scanner, select a location where there are the fewest structural objects in the surrounding area so that the capability to drive the motor will not be depressed by the non-equability wind which is likely to rotate the scanner.

2) Electrical selection criteria

- The installation height of the scanner relates to the *maximum detection distance*. The higher, the better. However, if it is too high, radio wave energy greatly attenuates above the scanner's vertical beam width (the point -3dB from the peak of the main lobe). As a result, it is difficult to detect a close-in target. Sea clutter also increases. Determine the installation height by taking into consideration the weight, maximum length of the cable, and maintenance after installation. See “SN.1/Circ.271 6.3(b), 7.1”.
- If the installation height of the scanner is low, it is difficult to detect a long distance target. The ship's mast, derrick, and chimney interfere with radiating beam causing the range that cannot be viewed on the radar display to increase.

Generally, the lowest scanner installation position is supposed to be on the A-B line shown in **Fig 2-16 Lowest scanner installation height**.

In the case of the JMR-7210/7225/9210/9225 type radar, 2θ equals 20 .

In the case of the JMR-7230/7272/7282/9230/9272/9282 type radar, 2θ equals 25 . Specifically, the scanner position is normally elevated so that the chimney and the shrine-gate type mast do not interfere with radiating beam.

The A-B line, or L line of sight from the radar antenna to the bow of the ship should hit the surface of the sea in not more than 500 m or twice the ship length, depending which value is smaller, for all load and trim conditions.

See “SN.1/Circ.271 6.3(a)”.

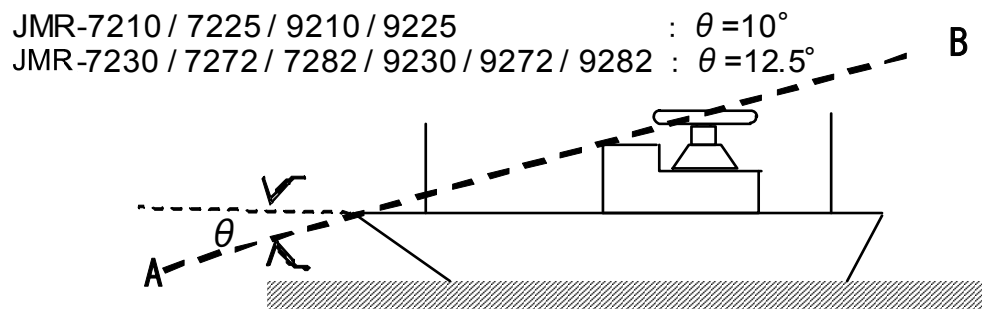


Fig 2-16 Lowest scanner installation height

- If it is considered that sufficient installation height cannot be provided when the scanner is installed directly on the roof of the wheelhouse, use a mounting rack or radar mast (**Fig 2-17 Mounting rack and mast for the scanner**). Normally, when the scanner installation height is less than 2 meters from the roof of the wheelhouse, provide a mounting rack assembled at an angle frame to install the scanner. When the scanner installation height is 2 meters or higher from the roof of the wheelhouse, provide a cylindrical radar mast to install the scanner. Consider the convenience of the service staff who take care of installation, maintenance, adjustment, and repair of the scanner by providing adequate footholds to the mounting rack and the radar mast.

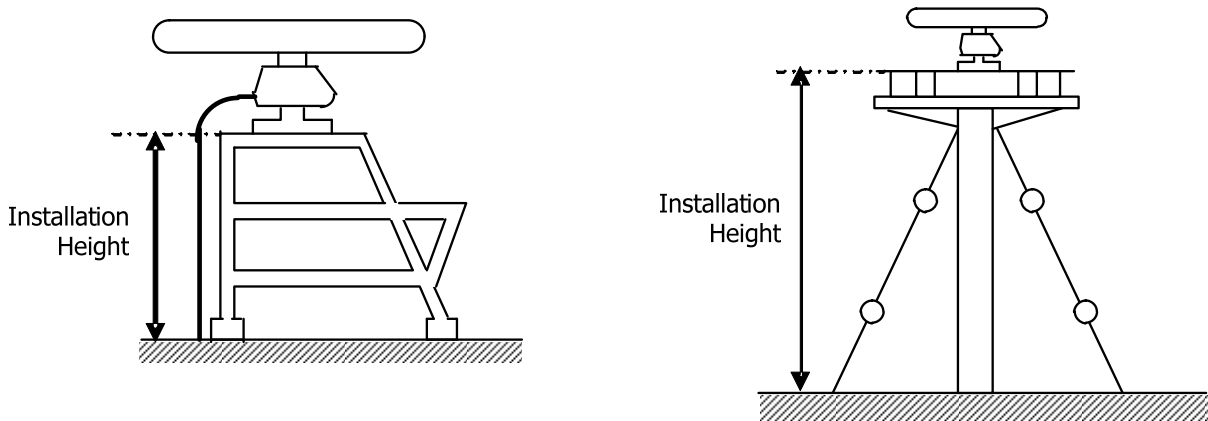


Fig 2-17 Mounting rack and mast for the scanner

- When installing the scanner, select a location where there are the fewest structural objects in the surrounding area so that false echoes which interfere with target detection will not be generated by signal reflection from other scanners, deck structures, and cargo. Only as a guide, note that structural objects should not exist within the range of the vertical beam width (**Fig 2-18 Scanner and the surrounding structural objects**). See “SN.1/Circ.271 6.2(a)”.

Vertical beam width of X-band: Approx. 20 (10.0 when the height of the radiating section is 0)

Vertical beam width of S-band: Approx. 25 (12.5 when the height of the radiating section is 0)

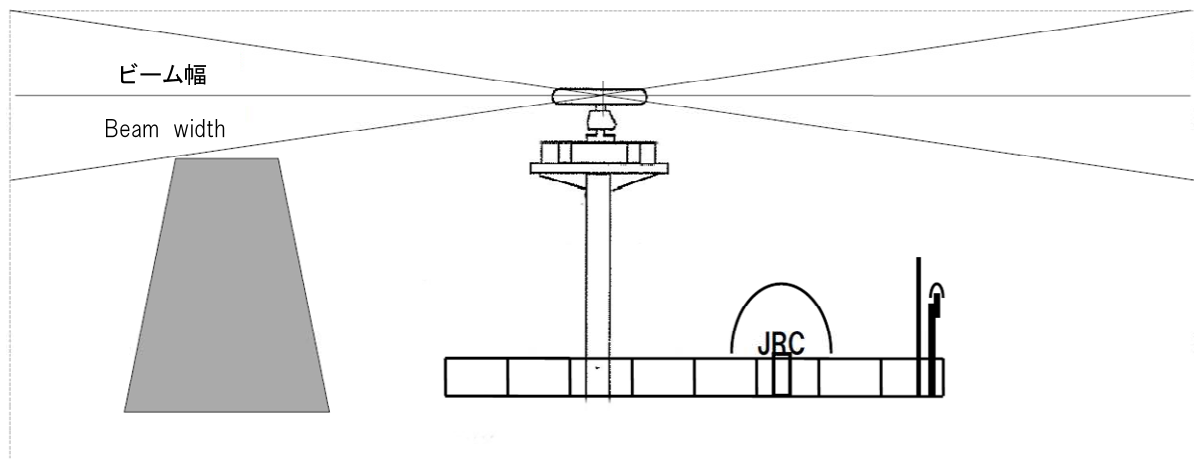
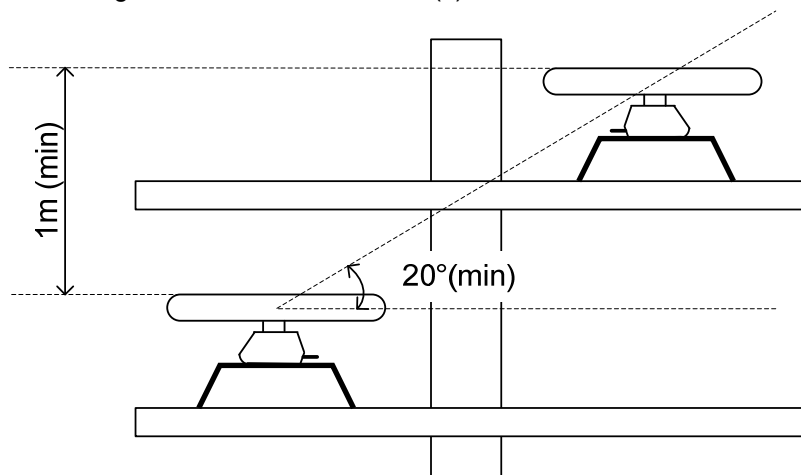


Fig 2-18 Scanner and the surrounding structural objects

- When installing two or more scanners, scanners in close proximity should have a minimum vertical elevation separation angle of 20 and a minimum vertical separation of 1m where possible, so that those scanners do not enter each other's vertical beam width range. See "SN.1/Circ.271 6.1(c)".



- To avoid interference with other equipment and to prevent radio noise from generating, do not place the VHF antenna, GPS antenna, and INMARSAT's dome within the range of the vertical beam width. See "SN.1/Circ.271 6.1(a)".
- Keep a record of installation height data. The data is necessary for the initial setting of the display unit.
- Minimize the blind sector, and ensure the adequate view angle so that the blind sector does not exist in the range 22.5 from side to rear (**Fig 2-19 Ensuring view angle**). Specifically, ensure a sufficient view field in the straight front (relative bearing 000). See "SN.1/Circ.271 6.3(c)".
- Individual blind sectors of more than 5, or a total arc of blind sectors of more than 20, should not occur in the remaining arc, excluding the arc in **Fig 2-19 Ensuring view angle**. See "SN.1/Circ.271 6.3(d)".
- For radar installations with two radar systems, where possible, the antennas should be placed in such a way as to minimize the blind sectors. See "SN.1/Circ.271 6.3(e)".

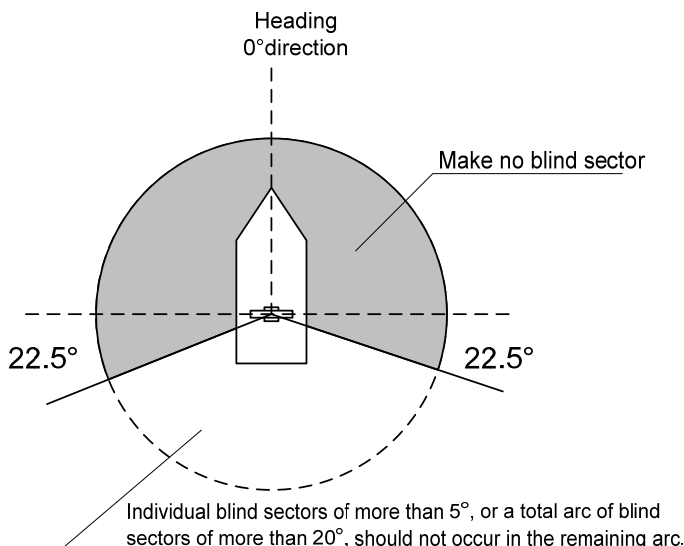



Fig 2-19 Ensuring view angle

- Magnetron which has strong magnetic force is included in the scanner. Install the scanner at least 6 meters away from nautical instruments including magnetic compasses and chronometers. See "SN.1/Circ.271 6.2(c), 7(c)".

*If there is a concern that structural objects existing within the vertical beam width may generate false echo, equip the structural objects with a radio wave absorber. (There are two types of absorbers: broadband type having no specific resonant frequency and narrowband type which can absorb a band with a specific frequency. Use those where applicable.) Furthermore, it is effective to install a metal reflector, which reflects radio waves upwardly, between the scanner and a structural object so that the radar's radio wave will not directly come in contact with the structural object.

When the structural objects exist in the surrounding area of Scanner unit, the false echo may appear. The sector blank function is effective to reduce the signal reflection from the structural objects. Because it can stop transmission. Therefore, it may reduce the false echo appearance.

	<p>Because most radio wave absorbers have poor durability, some must be replaced every year. When installing a reflector, the area to the rear of the reflector becomes a blind sector. Therefore, minimize the size of the reflector.</p> <p>When the sector blank function set to on, ensure a sufficient view field in the straight front.</p>
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*The above procedures for selecting an scanner installation position are described based on the radar's scanner. Comprehensively select the scanner position by considering other scanners' installation procedure manual, hull's structure, strength of the selected position, and vibration.

2.4.4 Confirmation during test run

If the scanner vibrates a lot during test run, try to reduce or prevent vibration by reinforcing the scanner mount base or using wire stays attached to the radar mast.

2.4.5 Others

- The design of the mounting platform for the scanner should take into account the vibration requirements of resolution A.694(17) and furthermore defined by IEC 60945. See "SN.1/Circ.271 7(d)".

Vibration	2 to 13.2Hz	Amplitude	+/-1mm +/-10%
	13.2 to 100Hz	Acceleration	7m/s ²
- All installations should facilitate protection of equipment, including cabling, from damage.
- The cables should be kept as short as possible to minimize attenuation of the signal. See "SN.1/Circ.271 7.2(b)".
- Crossing of cables should be done at right angles(90°) to minimize magnetic field coupling. See "SN.1/Circ.271 7.2(e)".
- Eliminating the interference on frequencies used for marine communications and navigation due to operation of the radar. All cables of the radar are to be run away from the cables of radio equipment. (ex. Radiotelephone. Communications receiver and direction finder, etc.) Especially inter-wiring cables between scanner unit and display unit of the radar should not be run parallel with the cables of radio equipment. See "SN.1/Circ.271 7.2(h)".
- Cable, coaxial cable and flexible wave guide should not be exposed sharp bends. See also section 2.4.2 (4) "3) Permissible bending radius". See "SN.1/Circ.271 7.2(g)".
- The grounding of equipment units should be carried out according to 0
- Installation for the specified scanner model and 2.3 Installation of Transmitter Receiver See "SN.1/Circ.271 7.2(i)".


3. Installation of Display Unit

3.1 Confirmation of Various Units


3.1.1 In case of JMR-9200Series/JAN-9201/JAN-9202

● Standard equipment


● Stand alone type




NDC-1590
CENTRAL CONTROL UNIT (CCU)



NBD-913
POWER SUPPLY UNIT (PSU)

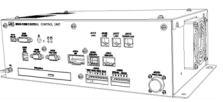


NCE-5605
TRACKBALL OPERATION UNIT (TOPU)

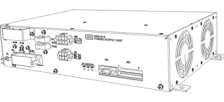


CWA-246
26inch DISPLAY UNIT MOUNT KIT


● Desktop type



NDC-1590
CENTRAL CONTROL UNIT (CCU)



NBD-913
POWER SUPPLY UNIT (PSU)



NCE-5605
TRACKBALL OPERATION UNIT (TOPU)


CWB-1595
26inch Desktop Frame

CWB-1596
OPU Desktop Frame


● Desktop type cable

CML-901-F
DISPLAY UNIT INTERCONNECTION(F)

● Select equipment

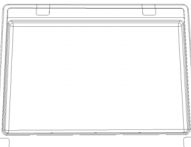


NCE-5625
KEYBOARD OPERATION UNIT (KOPU)




NWZ-208
26inch MONITOR UNIT (26 inch MNU)

OR




CWB-1593
LARGE TRAY

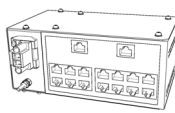


NWZ-208-TP
26inch TOUCH PANEL MONITOR UNIT (26 inch T.P. MNU)

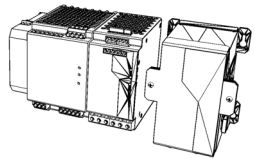
● Option equipment



NQE-1143
JUNCTION BOX (JB)



NQA-2443
SENSOR LAN SWITCH UNIT



UPS

- QUINT-PS/1AC/24DC/20
- QUINT-BAT/24DC/3.4AH
- QUINT-DC-UPS/24DC/20
- ME-MAX-NEF/QUINT20

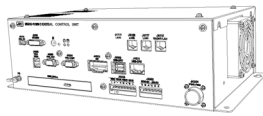
Fig3-1: JMR-9200Series/JAN-9201/JAN-9202 Equipment

3.1.2 In case of JMR-7200 Series/JAN-7201/JAN-7202

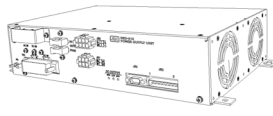
● Standard equipment

● Stand alone type

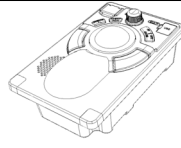
● NCM-928 Control Unit



NDC-1590
CENTRAL CONTROL UNIT
(CCU)



NBD-913
POWER SUPPLY UNIT
(PSU)



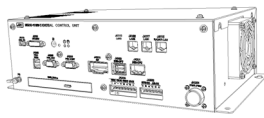
NCE-5605
TRACKBALL OPERATION UNIT
(TOPU)



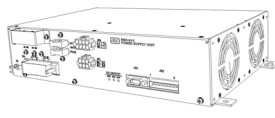
CWA-245
19inch DISPLAY UNIT MOUNT KIT

● Desktop type

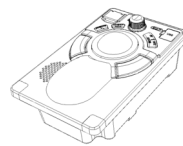
● NCM-928 Control Unit



NDC-1590
CENTRAL CONTROL UNIT
(CCU)



NBD-913
POWER SUPPLY UNIT
(PSU)



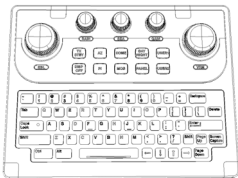
NCE-5605
TRACKBALL OPERATION UNIT
(TOPU)

CWB-1594
19inch Desktop Frame

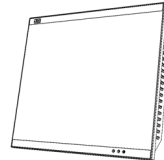
CWB-1596
OPU Desktop Frame

● Desktop type cable
CML-901-F
DISPLAY UNIT
INTERCONNECTION(F)

● Select equipment

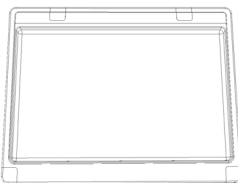


NCE-5625
KEYBOARD OPERATION UNIT
(KOPU)



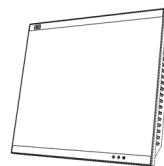
NWZ-207
19inch MONITOR UNIT
(19 inch MNU)

OR



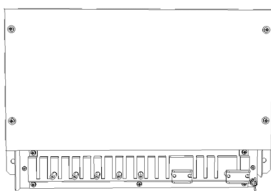
CWB-1593
LARGE TRAY

OR

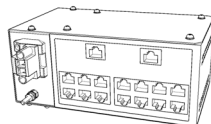


NWZ-207-TP
19inch TOUCH PANEL
MONITOR UNIT
(19 inch T.P. MNU)

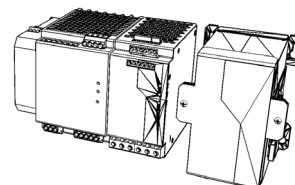
● Option equipment



NQE-1143
JUNCTION BOX
(JB)



NQA-2443
SENSOR LAN SWITCH UNIT



· QUINT-PS/1AC/24DC/20
· QUINT-BAT/24DC/3.4AH
· QUINT-DC-UPS/24DC/20
· ME-MAX-NEF/QUINT20
UPS

Fig 3-2: JMR-7200Series/JAN-7201/JAN-7202 Equipment

3.2 Confirmation of Various Interface Boards

NQE-1143 Junction Box (JB) consists of interface boards that correspond with the suffix.

Type of interface board is as follow.

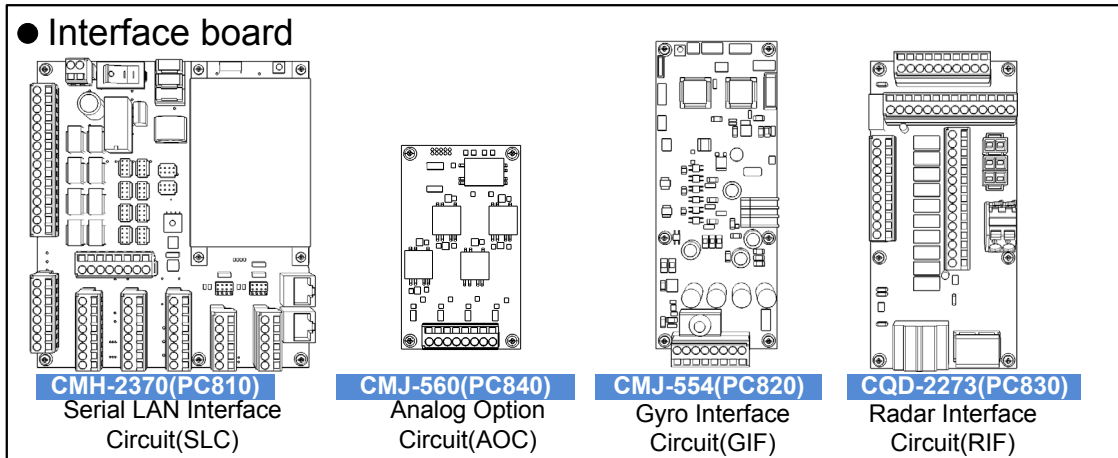


Fig 3-3: Outline of Interface board

Table 3-1: Definition of the JB Type

Suffix	SLC	AOC	GIF	RIF	SLC#2
-R				✓	
-S	✓				
-SR	✓			✓	
-SS	✓				✓
-GR			✓	✓	
-SAR	✓	✓		✓	
-SA	✓	✓			
-SGR	✓		✓	✓	
-SAGR	✓	✓	✓	✓	
-SG	✓		✓		
-SAG	✓	✓	✓		
-SAS	✓	✓			✓

Therefore, the type of JB :「NQE-1143-SAGR」is shown that JB consists of SLC, AOC, GIF and RIF.

3.3 Selecting the Location for Installation

Determine the installation location of the display unit by considering following conditions:

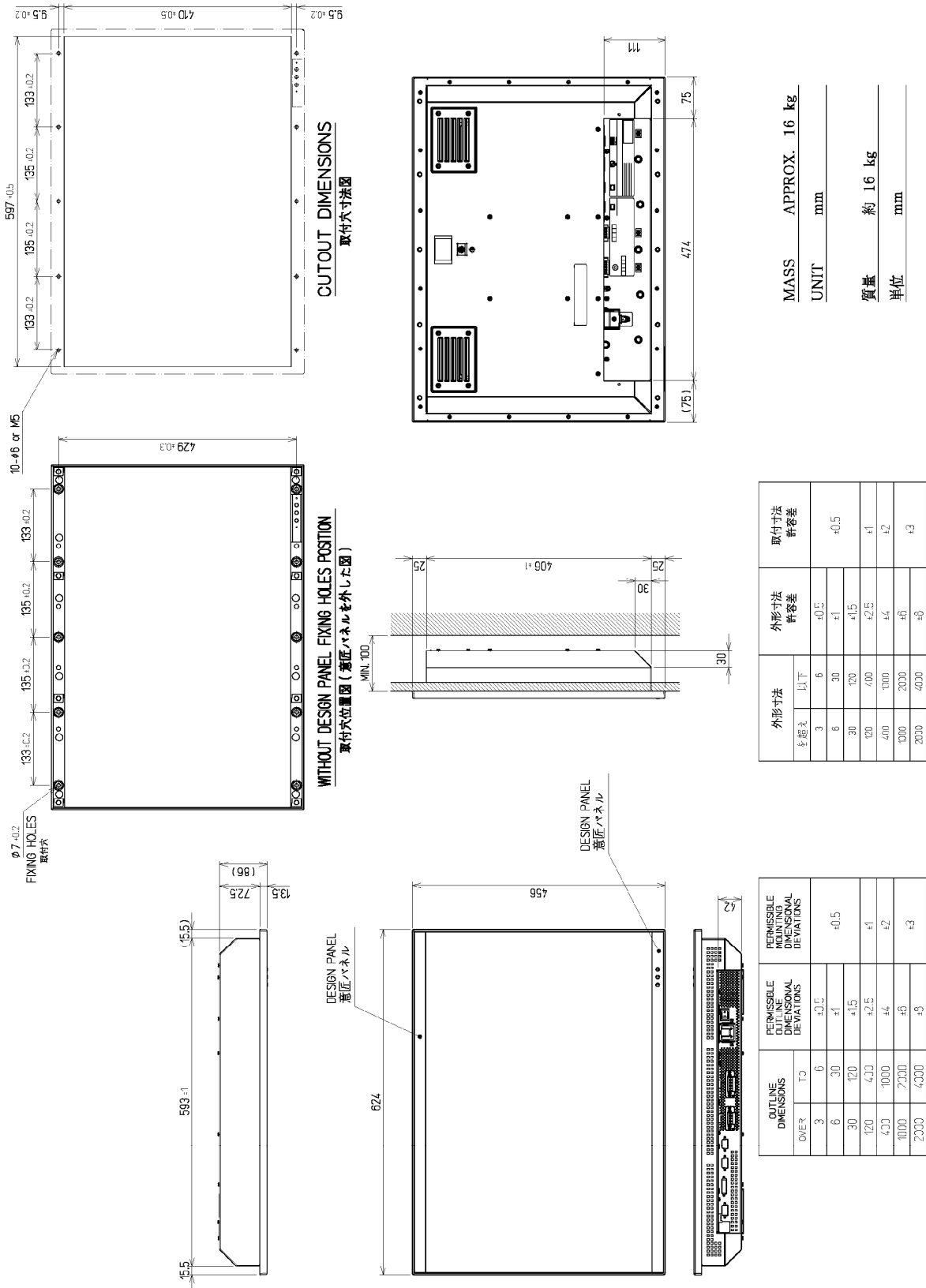
- 1) Consider size of each unit that described in outline drawing, and install them which it is possible to insert a cable from the installation and the base of the bolt.
- 2) Do not place obstructions around the front side of the unit so that a user can eject a DVD and USB.
- 3) To decrease an influence over the magnetic compass, separate from the compass by more than 3.0m at least. See "SN.1/Circ.271 7(c)".
- 4) Eliminating the interference on frequencies used for marine communications and navigation due to operation of the radar. All cables of the radar are to be run away from the cable of radio equipment. (Ex. Radiotelephone, communications receiver and direction finder. Etc...)
Especially inter-wiring cables between scanner unit and display unit of the radar should not be run parallel with the cable of radio equipment.
- 5) Install the monitor unit so that when the user is looking ahead, the lookout view is not obscured. See "SN.1/Circ.271 7.4(b)".
- 6) Away from spray of seawater or rainwater from windows or doors of bridge.
- 7) Don't install near the equipment which generates the place, and the heat which gets the direct sunlight.
- 8) Establish a next-page, considering an equipped position to the reference.

Confirm the position of cable inlet for Display Unit Mount Kit(CWA-245, CWA-246).

- **3.3.10 Outline Drawings of CWA-246 26inch Display Unit Mount Kit**

- **3.3.11 Outline Drawings of CWA-245 19inch Display Unit Mount Kit**

3.3.1 Outline Drawings of NWZ-208 26inch Monitor Unit



NWZ-208

MONITOR UNIT OUTLINE DRAWING

SCNWZ5077-0

Fig 3-4: Outline Drawings of NWZ-208 26inch Monitor Unit

3.3.2 Outline Drawings of NWZ-207 19inch Monitor Unit

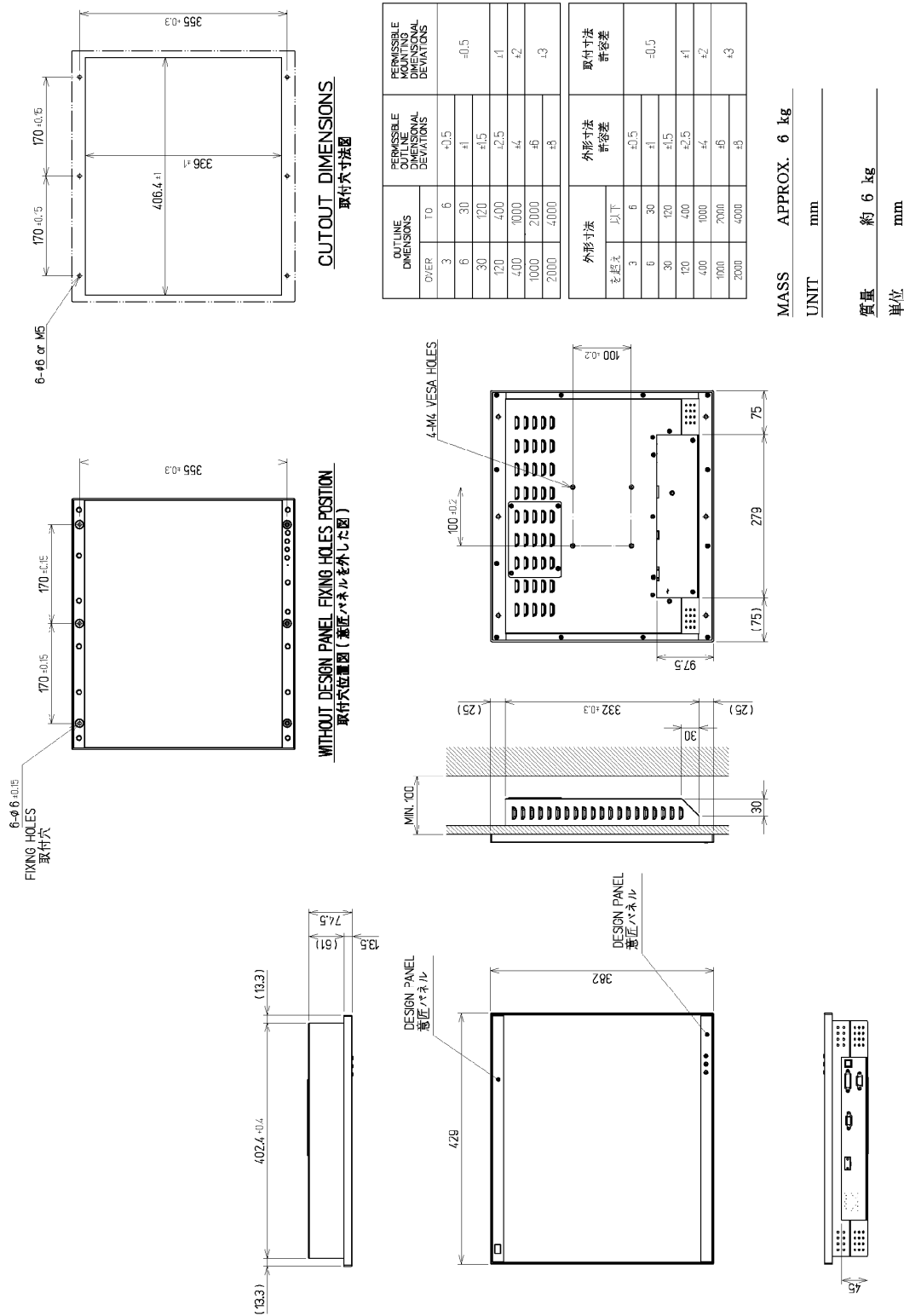
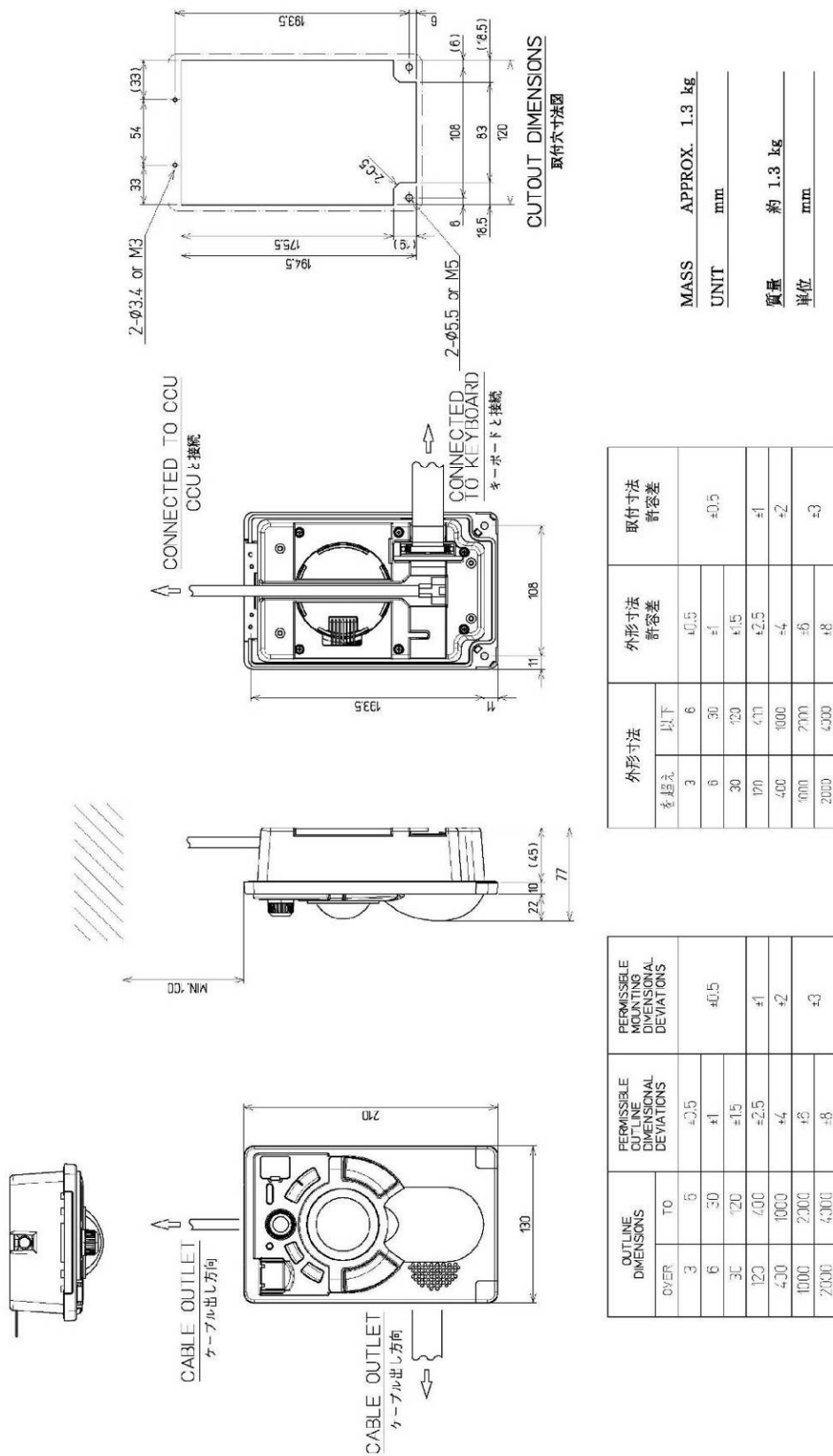


Fig 3-5: Outline Drawings of NWZ-207 19inch Monitor Unit

3.3.3 Outline Drawings of NCE-5605 Trackball Operation Unit



NCE-5605

TRACKBALL OPERATION UNIT OUTLINE DRAWING

SCNCE5367

Fig 3-6: Outline Drawings of NCE-5605 Trackball Operation Unit

3.3.4 Outline Drawings of NCE-5625 Keyboard Operation Unit

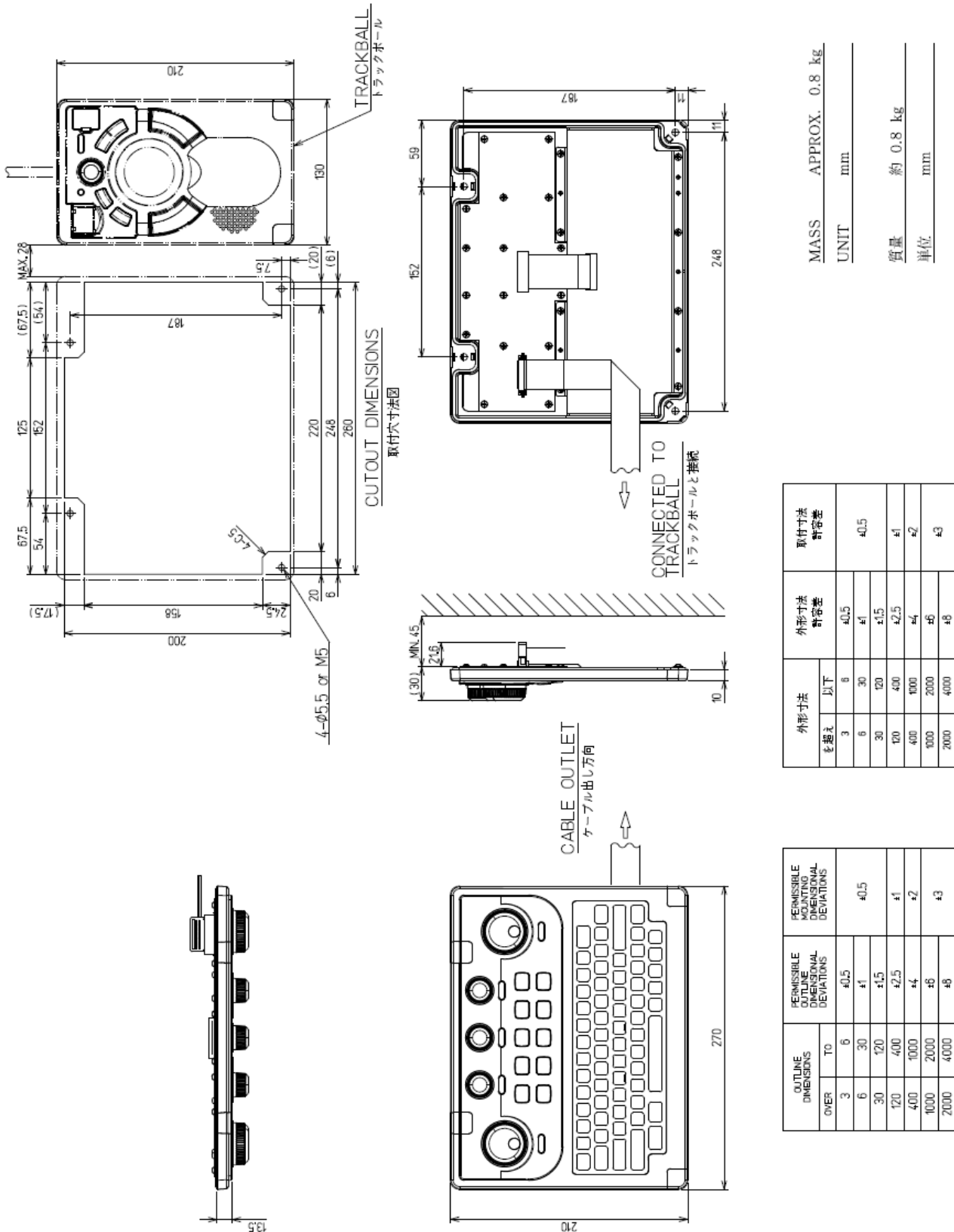
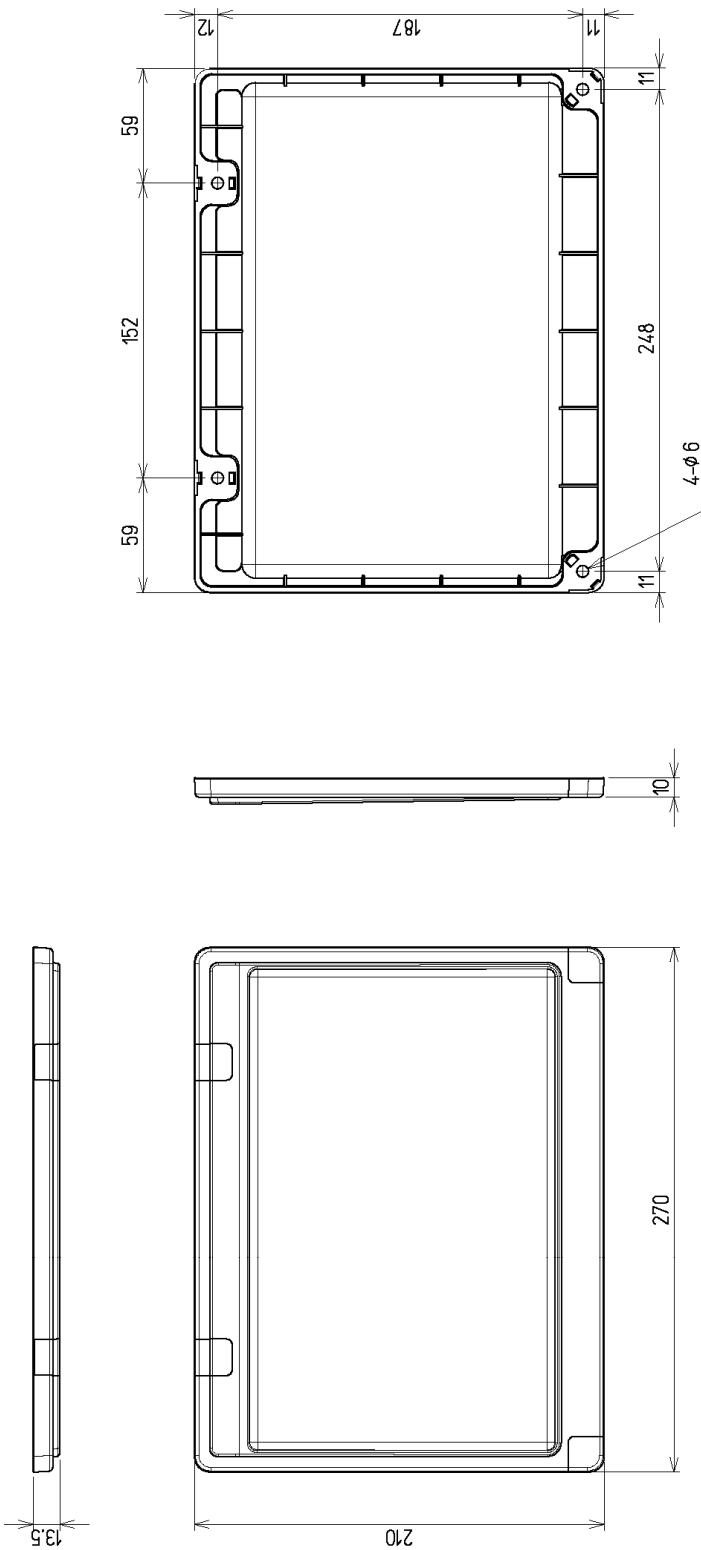


Fig 3-7: Outline Drawings of NCE-5625 Keyboard Operation Unit

3.3.5 Outline Drawings of CWB-1593 Large Tray



MASS	0.3 kg
UNIT	mm
質量	0.3 kg
単位	mm

OUTLINE DIMENSIONS		PERMISSIBLE OUTLINE DIMENSIONAL DEVIATIONS	PERMISSIBLE MOUNTING DIMENSIONAL DEVIATIONS
OVER	TO		
3	6	±0.5	±0.5
6	30	±1	±0.5
30	120	±1.5	±0.5
120	400	±2.5	±1
400	1000	±4	±2
1000	2000	±6	±3
2000	4000	±8	±3

外形寸法		外形寸法 許容差	取付寸法 許容差
を 超え	以下		
3	6	±0.5	±0.5
6	30	±1	±0.5
30	120	±1.5	±0.5
120	400	±2.5	±1
400	1000	±4	±2
1000	2000	±6	±3
2000	4000	±8	±3

SCYW05611

LARGE TRAY OUTLINE DRAWING

CWB-1593

Fig 3-8: Outline Drawings of CWB-1593 Large Tray

3.3.6 Outline Drawings of NDC-1590 Central Control Unit

外形寸法		外形寸法 許容差	取付寸法 許容差
を 超え	以下		
3	6	±0.5	±0.5
6	30	±1	
30	120	±1.5	±1
120	400	±2.5	±2
400	1000	±4	±3
1000	2000	±6	
2000	4000	±8	

OUTLINE DIMENSIONS		PERMISSIBLE OUTLINE DIMENSIONAL DEVIATIONS	PERMISSIBLE MOUNTING DIMENSIONAL DEVIATIONS
OVER	TO		
3	6	±0.5	±0.5
6	30	±1	
30	120	±1.5	±1
120	400	±2.5	±2
400	1000	±4	±3
1000	2000	±6	
2000	4000	±8	

MASS APPROX. 5.6 kg
UNIT mm

質量 約 5.6 kg
単位 mm

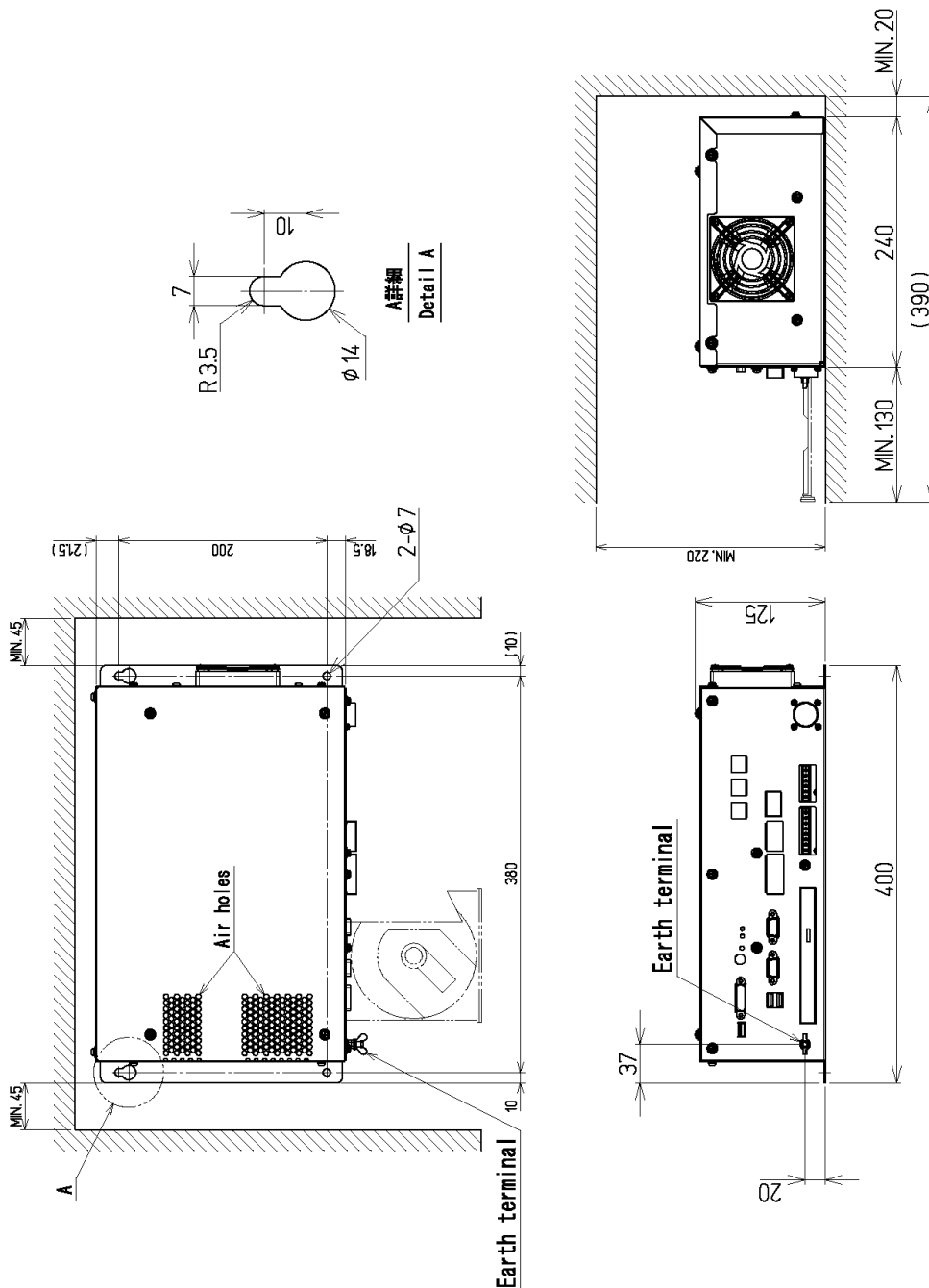


Fig 3-9: Outline Drawings of NDC-1590 Central Control Unit

3.3.7 Outline Drawings of NBD-913 Power Supply Unit

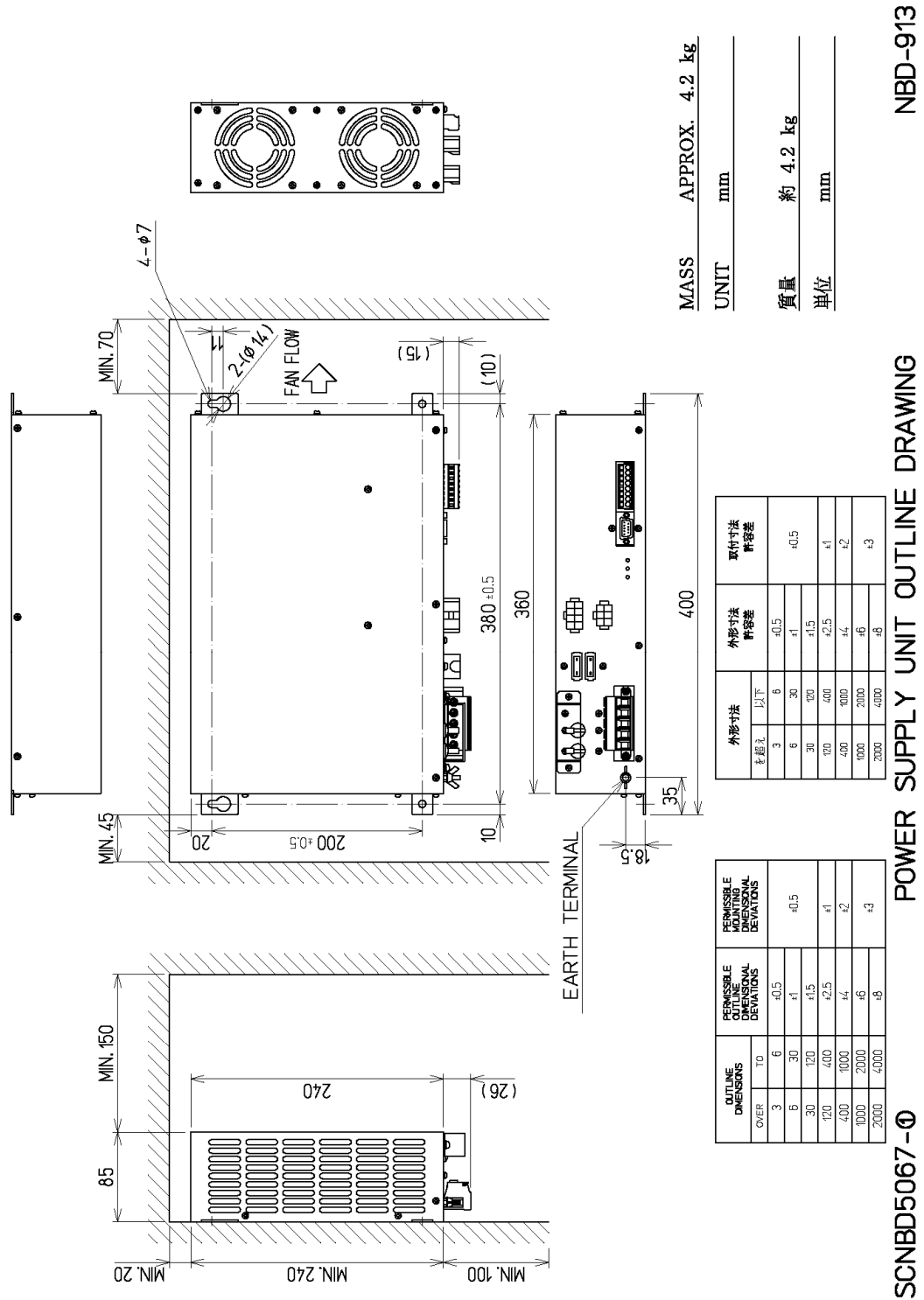


Fig 3-10: Outline Drawings of NBD-913 Power Supply Unit

3.3.8 Outline Drawings of NQE-1143 Junction Box

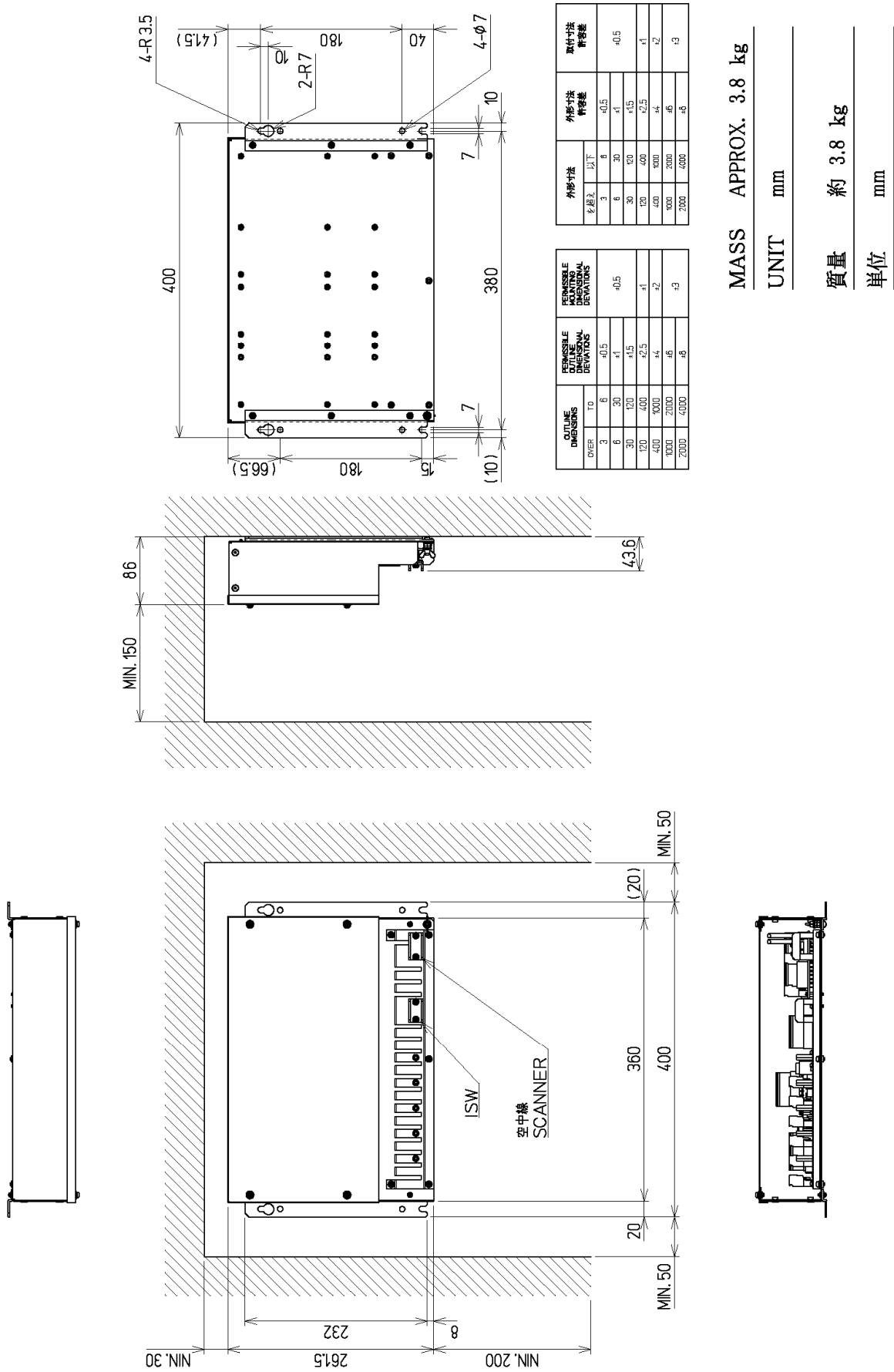
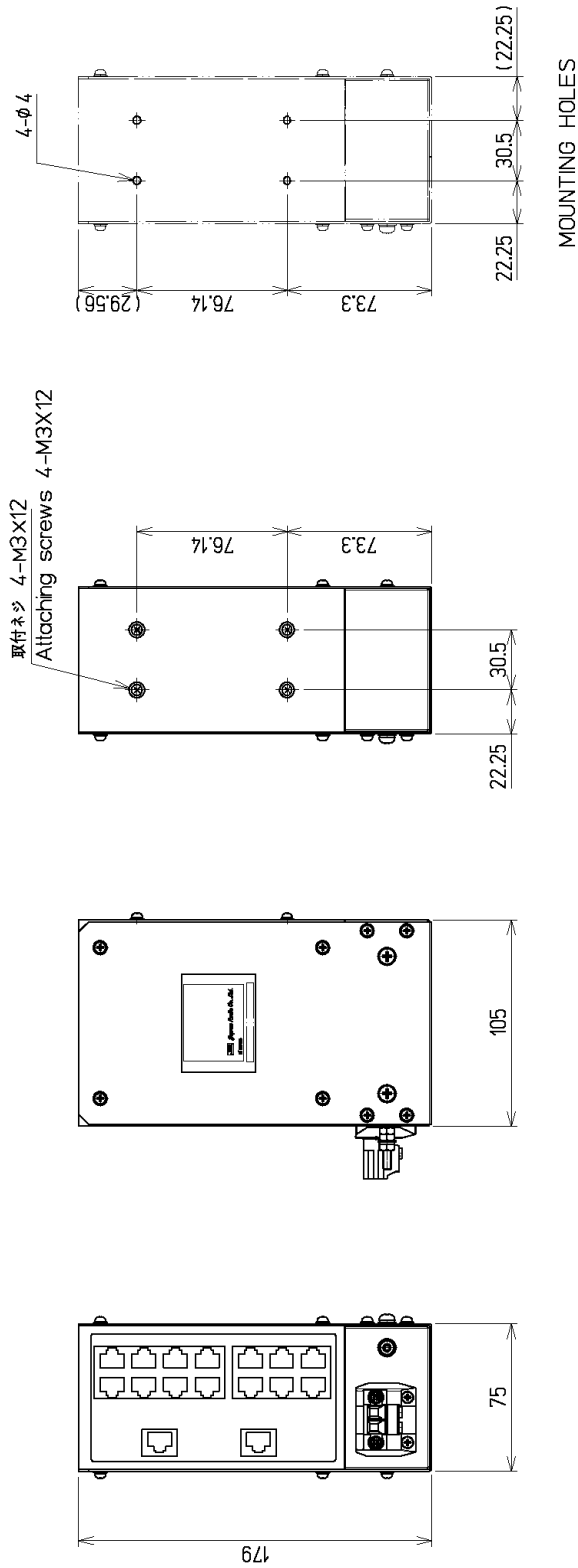


Fig 3-11: Outline Drawings of NQE-1143 Junction Box

3.3.9 Outline Drawings of NQA-2443 Sensor LAN Switch Unit



MASS	1.5 kg
UNIT	mm
質量	1.5 kg
単位	mm

OUTLINE DIMENSIONS		PERMISSIBLE OUTLINE DIMENSIONAL DEVIATIONS	PERMISSIBLE MOUNTING DIMENSIONAL DEVIATIONS
OVER	TO		
3	6	±0.5	±0.5
6	30	±1	±0.5
30	120	±1.5	±0.5
120	400	±2.5	±1
400	1000	±4	±2
1000	2000	±6	±3
2000	4000	±8	±3

外形寸法		外形寸法 許容差	取付寸法 許容差
を 超え	以下		
3	6	±0.5	±0.5
6	30	±1	±0.5
30	120	±1.5	±0.5
120	400	±2.5	±1
400	1000	±4	±2
1000	2000	±6	±3
2000	4000	±8	±3

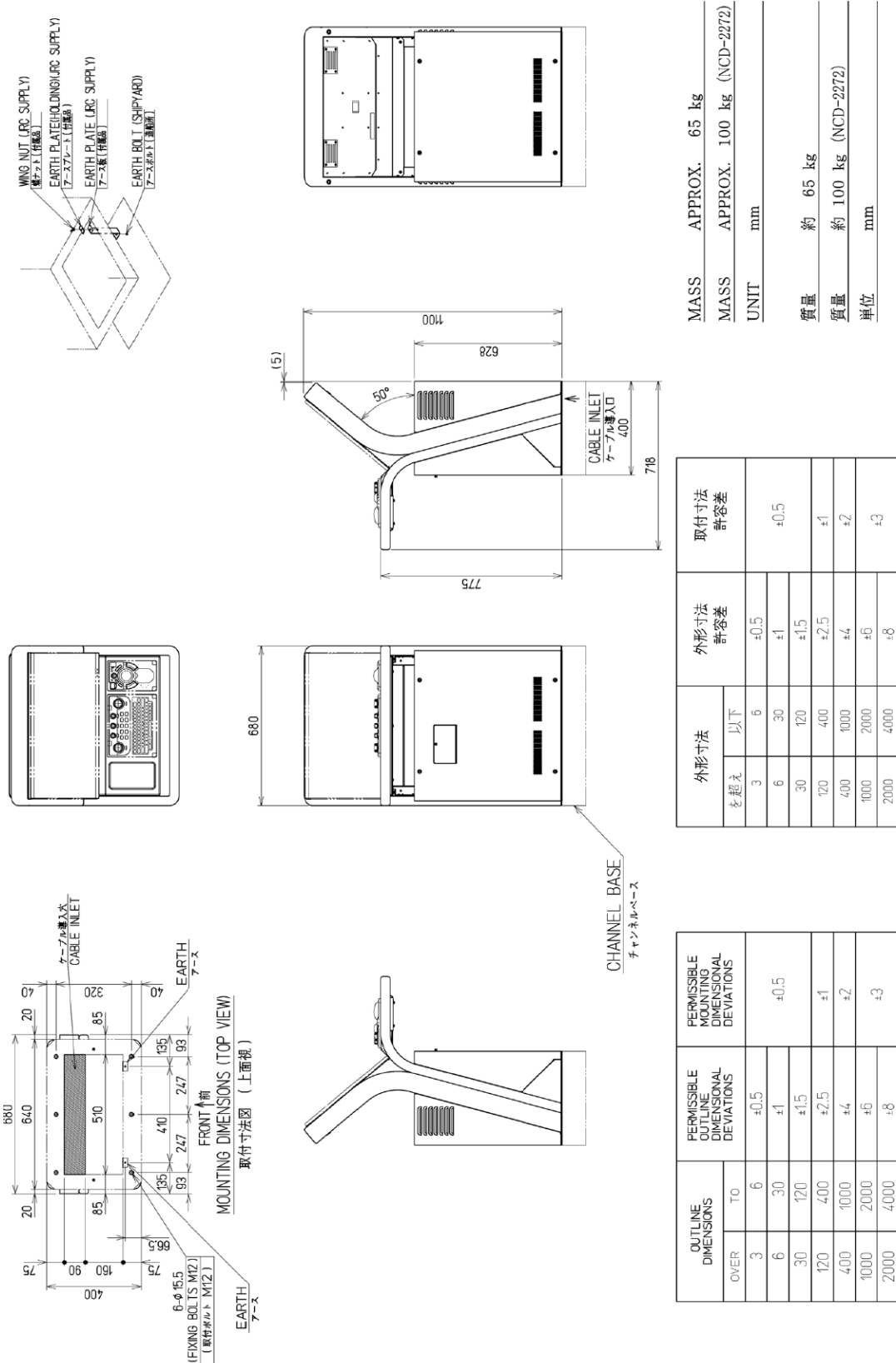
NQA-2443

SENSOR LAN UNIT OUTLINE DRAWING

SCNQA5173

Fig 3-12: Outline Drawings of NQA-2443 Sensor LAN Switch Unit

3.3.10 Outline Drawings of CWA-246 26inch Display Unit Mount Kit



CWA-246

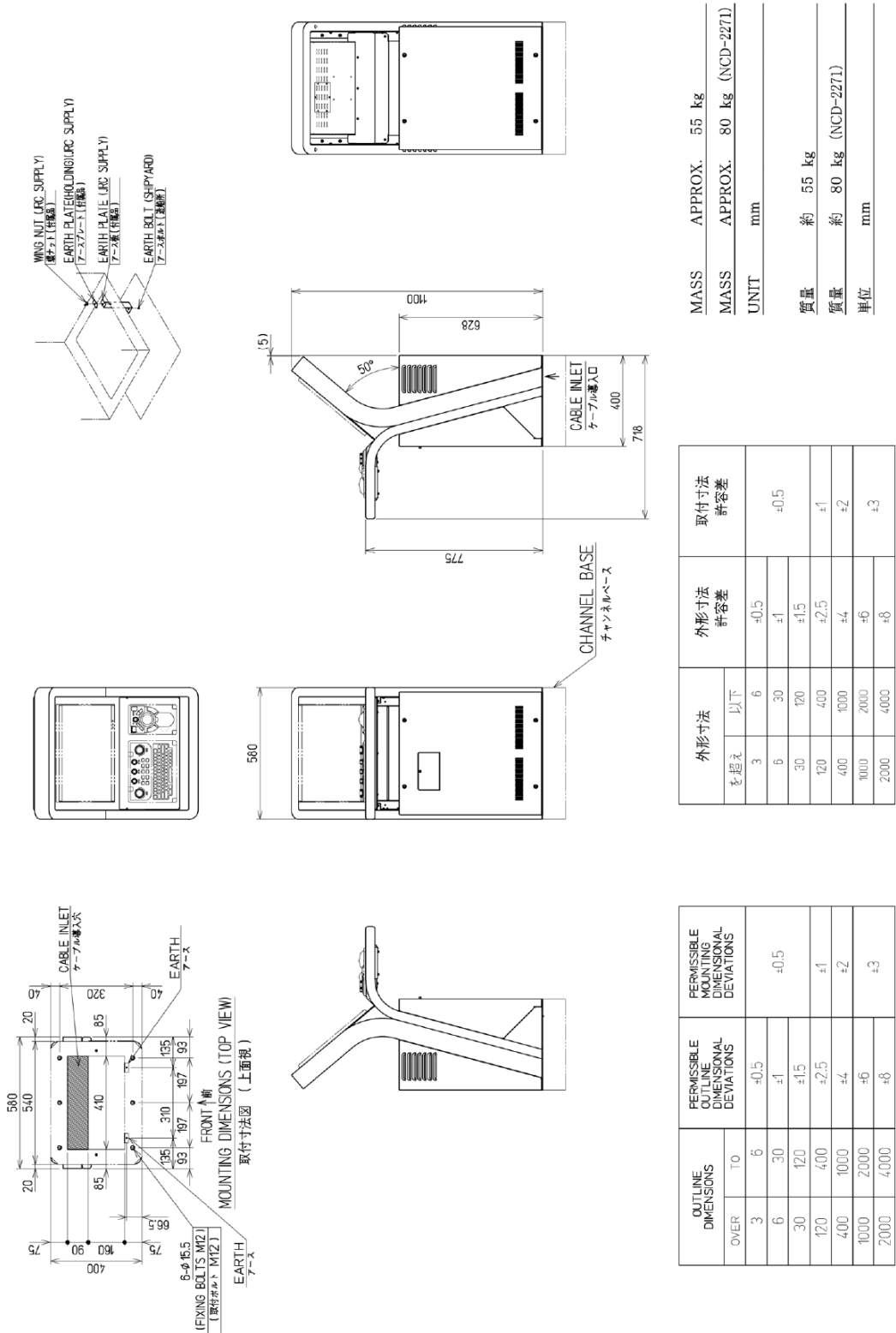
DISPLAY UNIT MOUNT KIT OUTLINE DRAWING

SCYW05607-③

Fig 3-13: Outline Drawings of CWA-246 26inch Display Unit Mount Kit

(With display, trackball operation unit and keyboard operation unit installed)

3.3.11 Outline Drawings of CWA-245 19inch Display Unit Mount Kit



CWA-245

DISPLAY UNIT MOUNT KIT OUTLINE DRAWING

SCYW05606-3

Fig 3-14: Outline Drawings of CWA-245 Display Unit Mount Kit

(With display, trackball operation unit and keyboard operation unit installed)

3.3.12 Outline Drawings of CWB-1595 26inch Desktop Frame

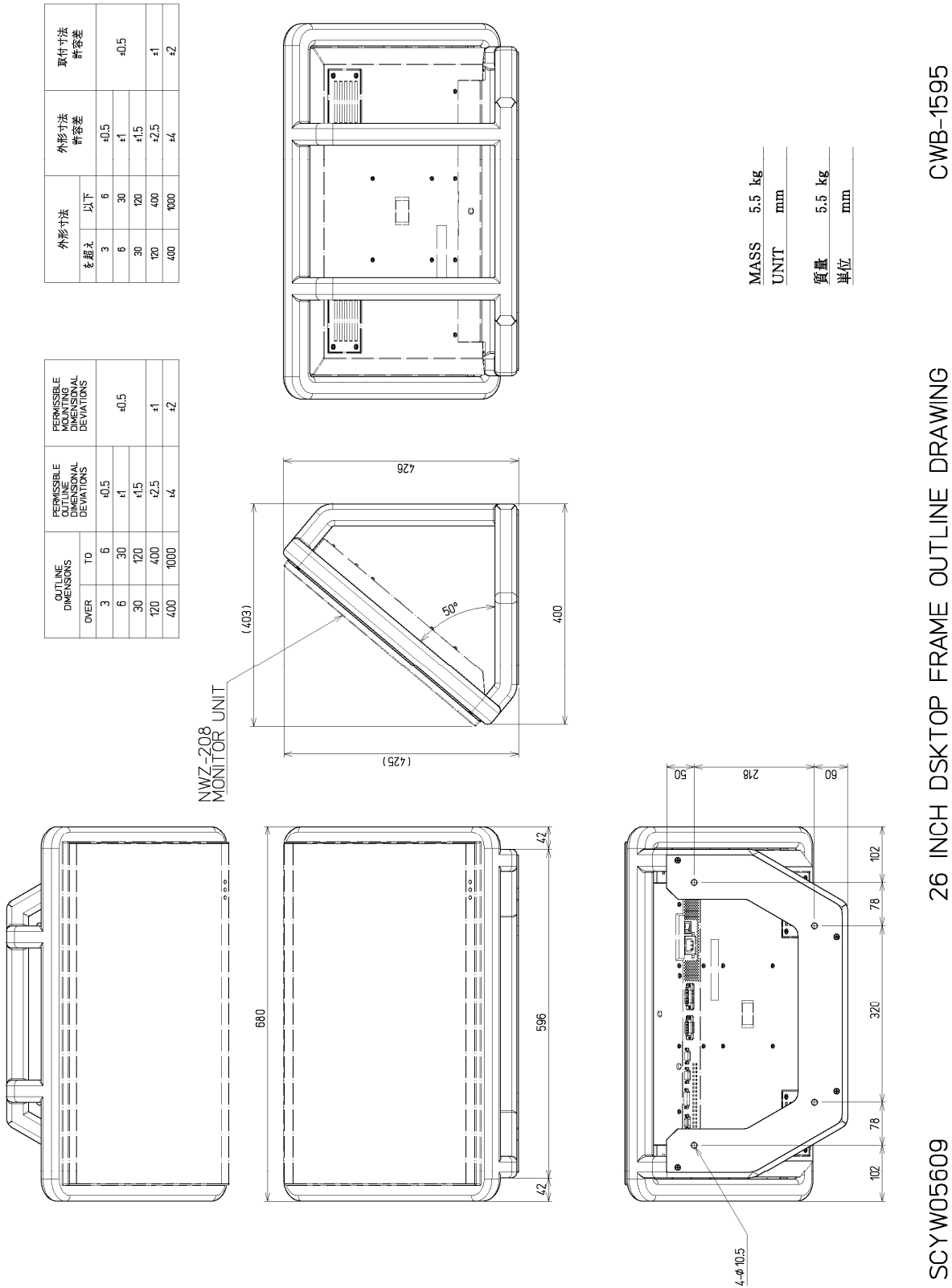
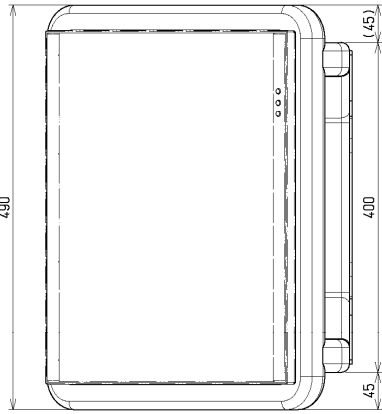
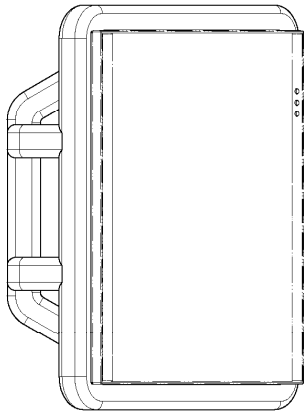


Fig 3-15: Outline Drawings of CWB-1595 26inch Desktop Frame

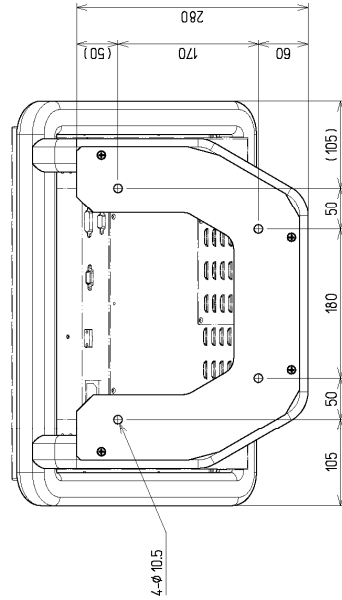
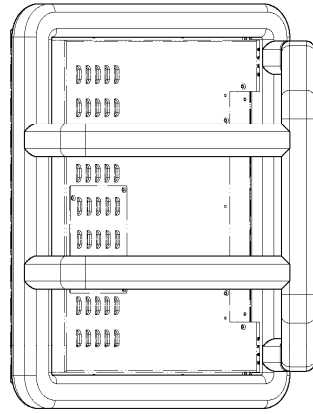
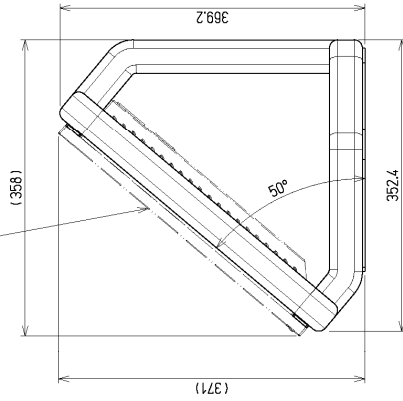
3.3.13 Outline Drawings of CWB-1594 19inch Desktop Frame

外形寸法		取付寸法 許容差
全記入	以下	
3	6	±0.5
6	30	±1
30	120	±1.5
120	400	±2.5
400	1000	±4

OUTLINE DIMENSIONS		PERMISSIBLE OUTLINE TOLERANCES	PERMISSIBLE MOUNTING TOLERANCES
OVER	TD		
3	6	±0.5	±0.5
6	30	±1	
30	120	±1.5	±1
120	400	±2.5	
400	1000	±4	±2



NWZ-207
MONITOR UNIT



MASS APPROX. 3.6 kg
UNIT mm
質量 約 3.6 kg
単位 mm

SCYW05608

19 INCH DESKTOP FRAME OUTLINE DRAWING

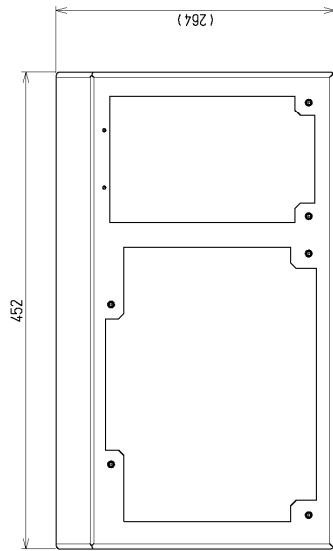
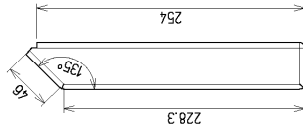
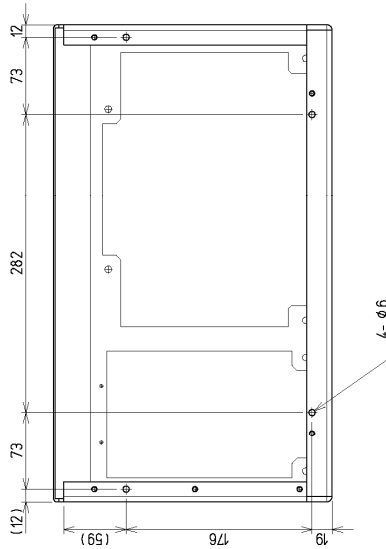
CWB-1594

Fig 3-16: Outline Drawings of CWB-1594 19inch Desktop Frame

3.3.14 Outline Drawings of CWB-1596 OPU Desktop Frame

外形寸法		取付寸法 許容差
寸法	以下	
3	6	+0.5
6	30	±1
30	120	±1.5
120	400	±2.5
400	1000	±4

OUTLINE DIMENSIONS		PERMISSIBLE MOUNTING DIMENSIONAL DEVIATIONS
OVER	TOL	
3	6	+0.5
6	30	±1
30	120	±1.5
120	400	±2.5
400	1000	±4



MASS APPROX. 1 kg
UNIT mm

質量 約 1 kg
単位 mm

SCYW05610

OPU DESKTOP FRAME

CWB-1596

Fig 3-17: Outline Drawings of CWB-1596 OPU Desktop Frame

3.3.15 Precautions for transporting and storing the display unit

- A display unit is a heavy load. Be very careful about handing it.
- Do not allow the scanner fall on its side while it is stored or being installed.
- Be careful when transporting display unit to prevent damage to the monitor unit.

- When lifting the 26inch stand alone type Display Unit
 - When hoisting the scanner by a crane, do not hoist it by attaching a belt or a rope only to the handrail of display unit.(See **Fig 3-18 Improper way to hoist**)

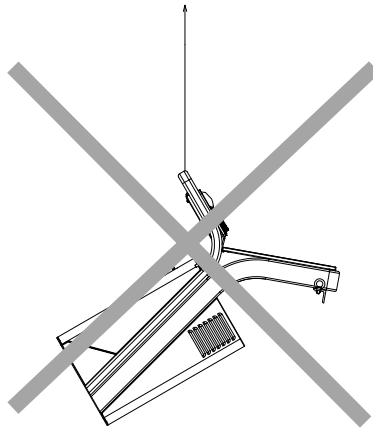


Fig 3-18 Improper way to hoist

- Attach to the display unit the lifting lugs specified and eye bolt. And lift over the rope at four positons eyebolts. (See **Fig 3-19 When the stand alone type display unit(26inch)**)

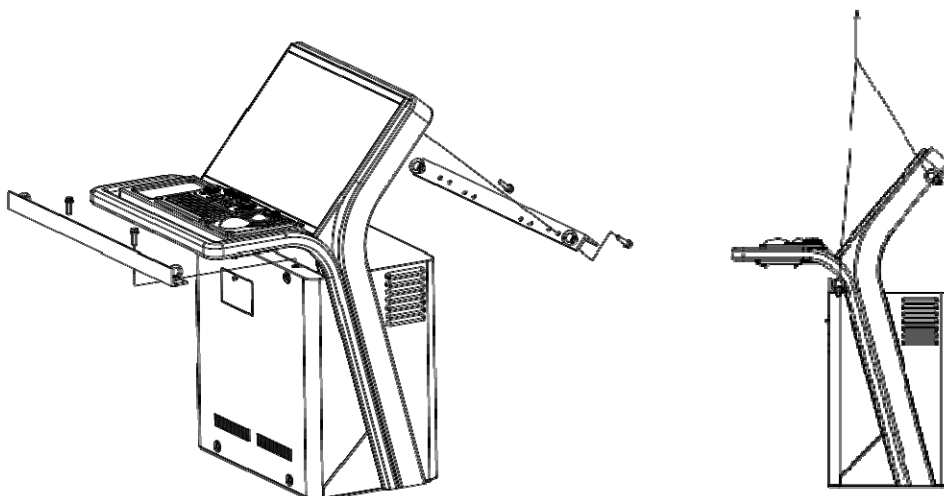


Fig 3-19 When the stand alone type display unit(26inch)

- When lifting the 19inch stand alone type Display Unit
 - When hoisting the scanner by a crane, do not hoist it by attaching a belt or a rope only to the handrail of display unit.(See **Fig 3-20 Improper way to hoist**)

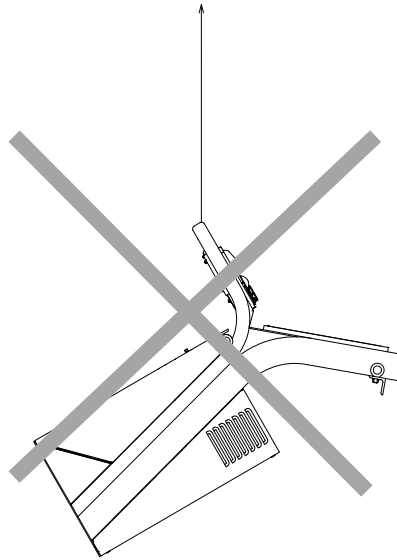


Fig 3-20 Improper way to hoist

- Attach to the display unit the lifting lugs specified and eye bolt. And lift over the rope at four positions eyebolts. (See **Fig 3-21 When the stand alone type display unit(19inch)**)

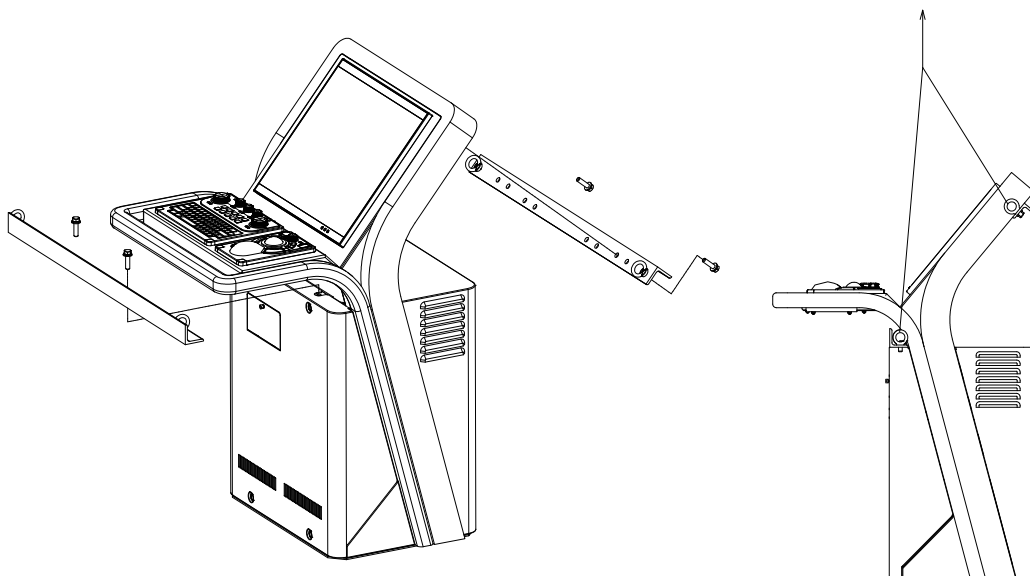


Fig 3-21 When the stand alone type display unit(19inch)

3.3.16 Detaching the front frame of the Display unit mount kit

WARNING



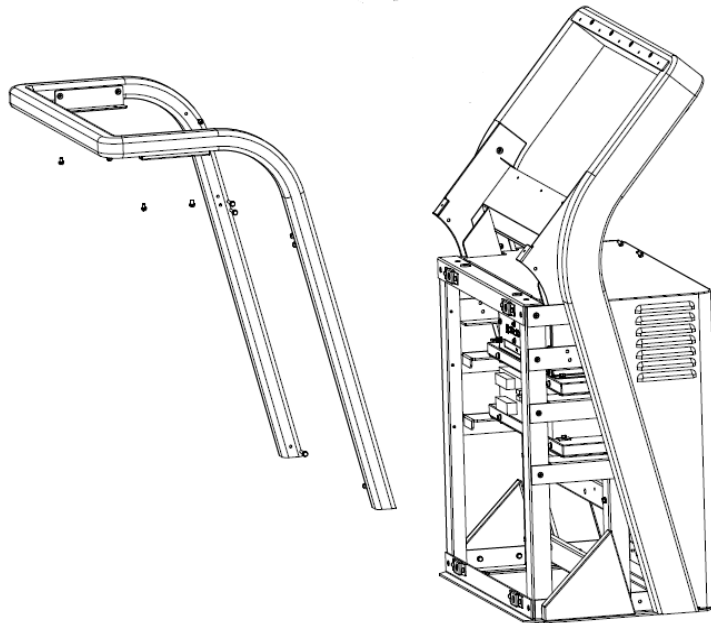
Do not detach the front frame except under unavoidable circumstances for the sake of the ship's structure. It may lead to unexpected accidents.



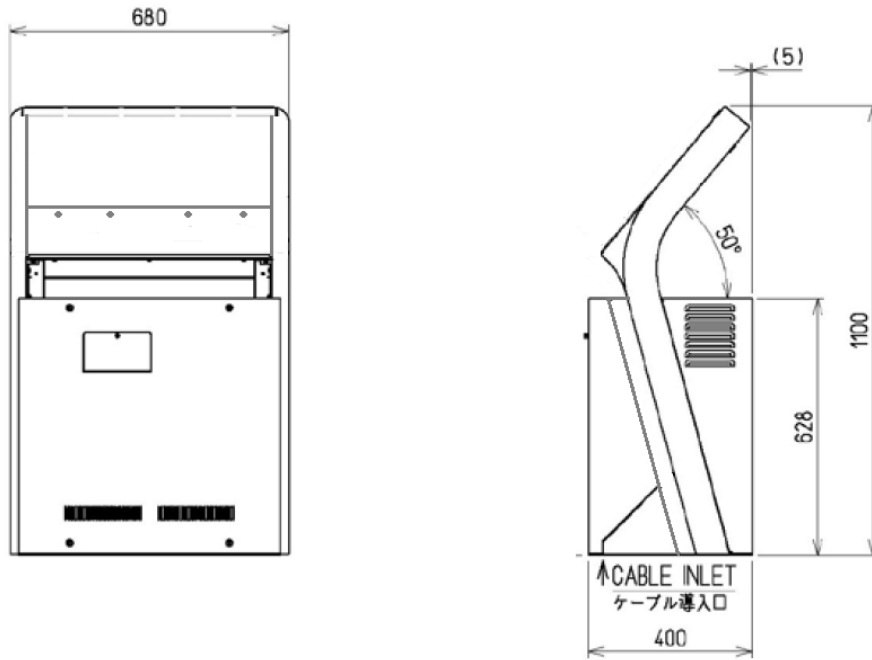
Be sure to do it with at least two persons.

If only one person does this work, he/she may lead to unexpected accidents.

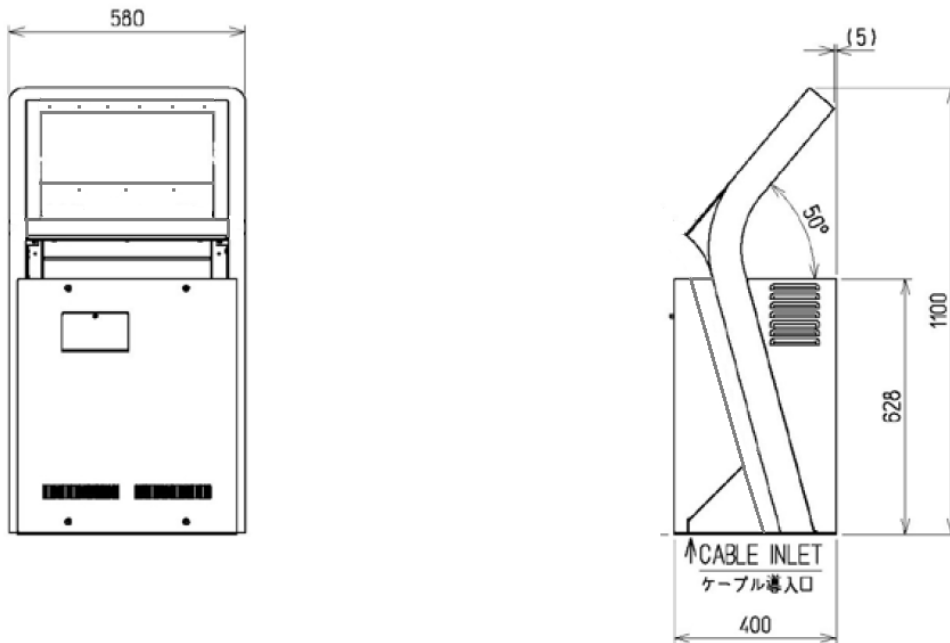
You can pull out the front frame of the Display Unit mount kit if the door of the bridge is too narrow for Display units.



Dimension diagrams of the Display unit mount kit without a front frame



Dimension diagrams of CWA-246: 26inch Display Unit mount kit without a front frame





Dimension diagrams of CWA-245: 19inch Display Unit mount kit without a front frame

【 Required Tools 】

The tools shown in the following table are required for this work

Table Required Tools

No	Name	Size	Appearance
1	Phillips screwdriver	Size #2	
2	Phillips stubby screwdriver	Size #2	



Do not lose the screws as they will be needed again

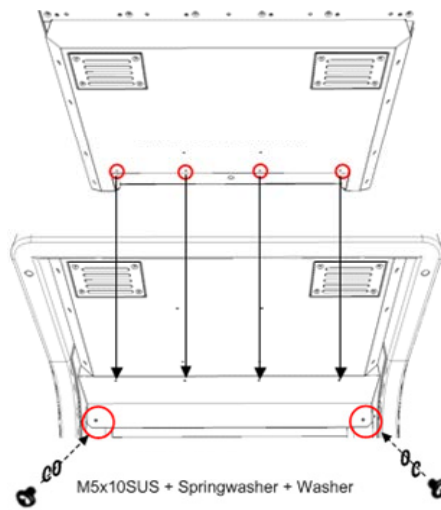
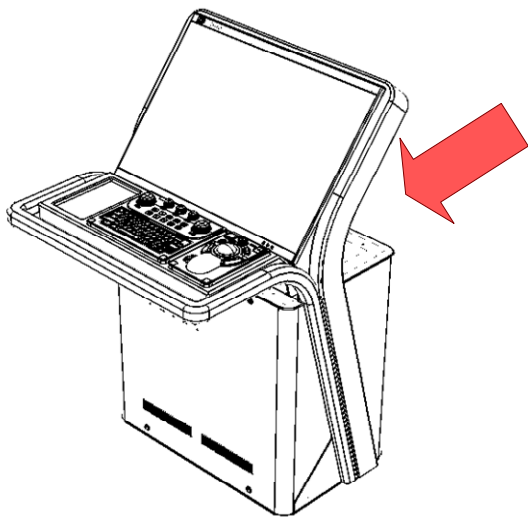


Do not detach the front frame except under unavoidable circumstances for the sake of the ship's structure. It may lead to unexpected accidents.

Step 1 Remove the monitor

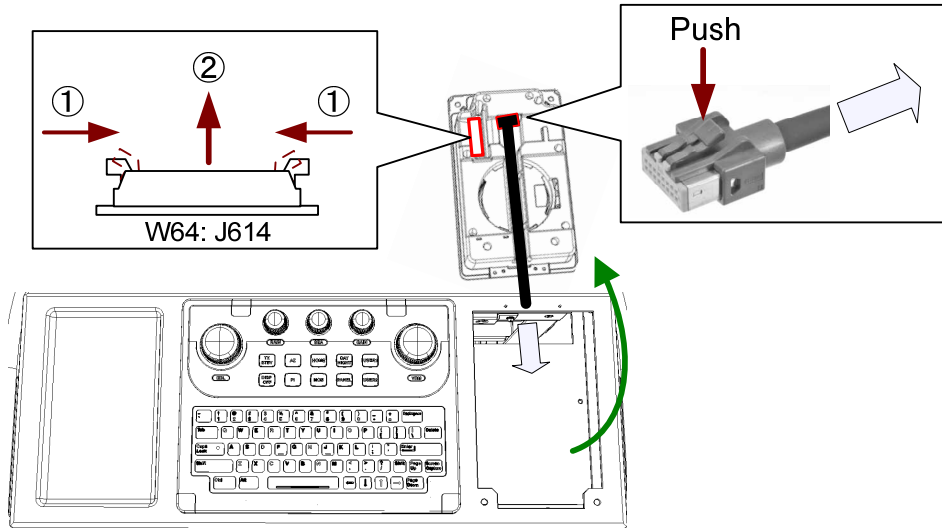
Remove the monitor from the Display Unit mount kit on the reverse order of installation.

Refer to the 3.4.1 Installation of Monitor Unit NWZ-208/NWZ-207/NWZ-208-TP/NWZ-207-TP.



Step 2 Remove the Trackball Operation Unit

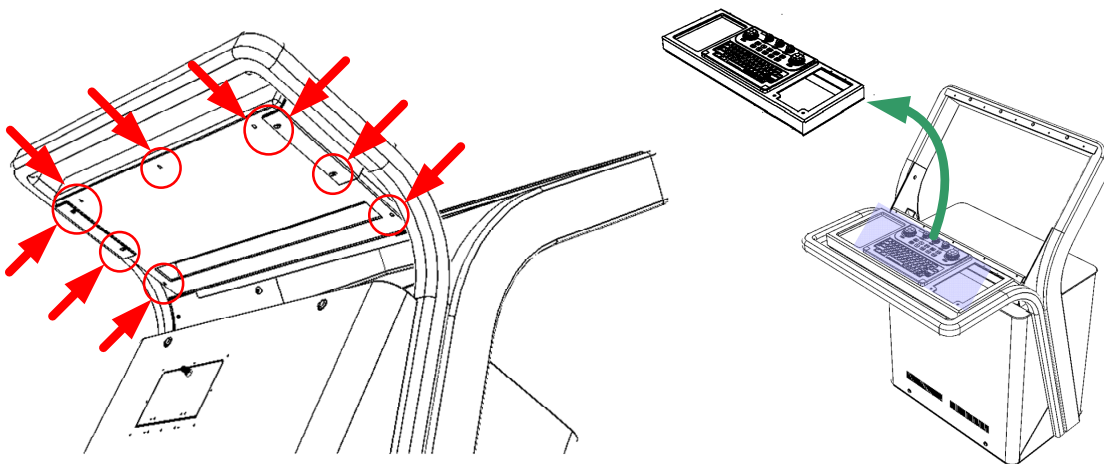
Remove the Trackball Operation Unit from the Display Unit mount kit on the reverse order of installation. Refer to the 3.4.2.3 Installation of Trackball Operation Unit (NCE-5605).



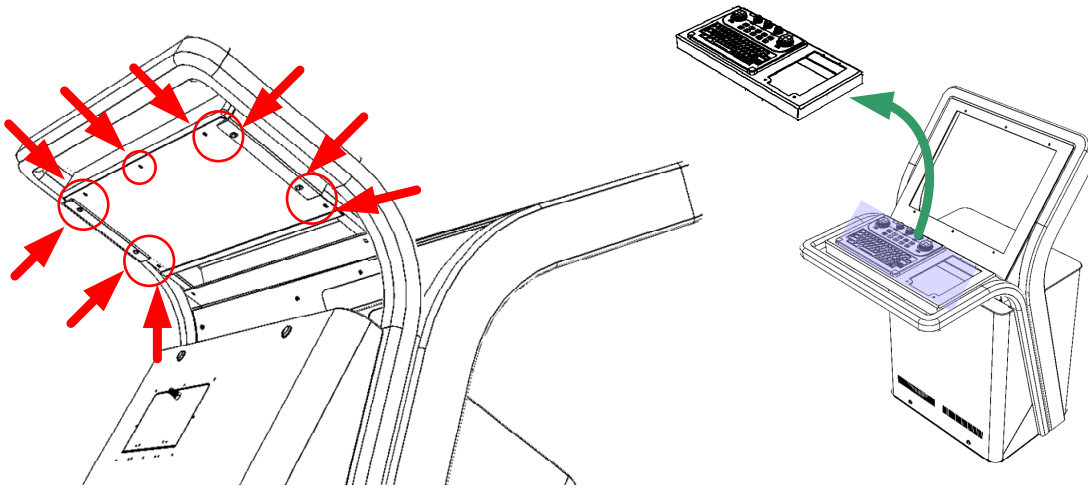
It is not necessary to remove Keyboard Operation Unit. (If it has been installed.)

Step 3 Remove Operation Unit frame

Remove the screws (M4: 9 locations) that fasten the Operation Unit frame and then take out it.



Taking out the Operation Unit frame from 26inch Display Unit mount kit

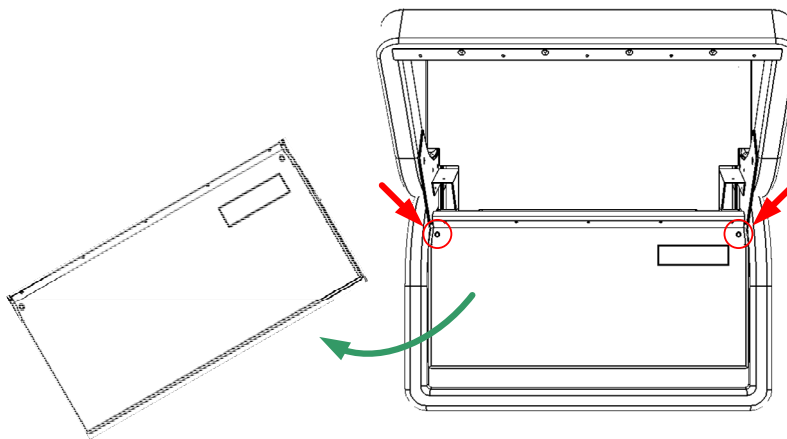


Taking out the Operation Unit frame from 19inch Display Unit mount kit

Step 4 Remove the bottom sheet metal

Remove the bottom sheet metal of Operation Unit frame.

In the 26inch Display Unit mount kit, Remove the screws (M3: 2 locations) that fasten the sheet metal and then take out it.

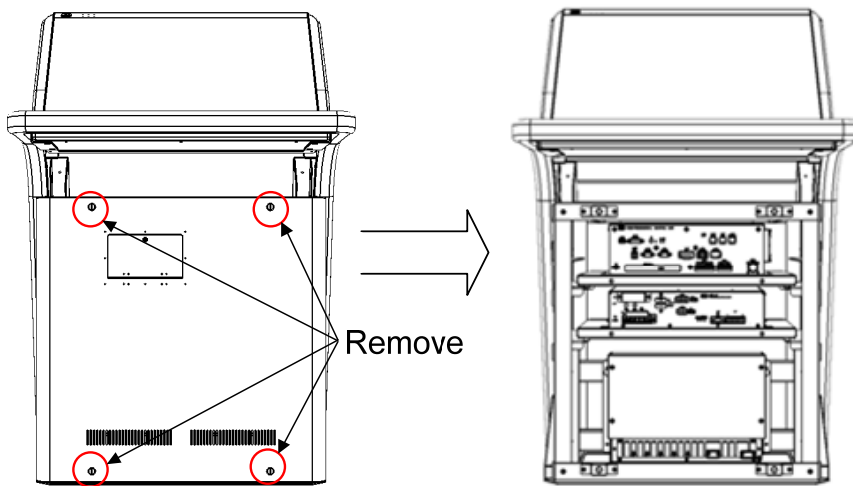


Taking out the Operation Unit sheet metal from 26inch Display Unit mount kit

In the 19inch Display Unit mount kit, you can remove the sheet metal and Operation Unit frame together.

Step 5 Remove the front cover and the Junction Box

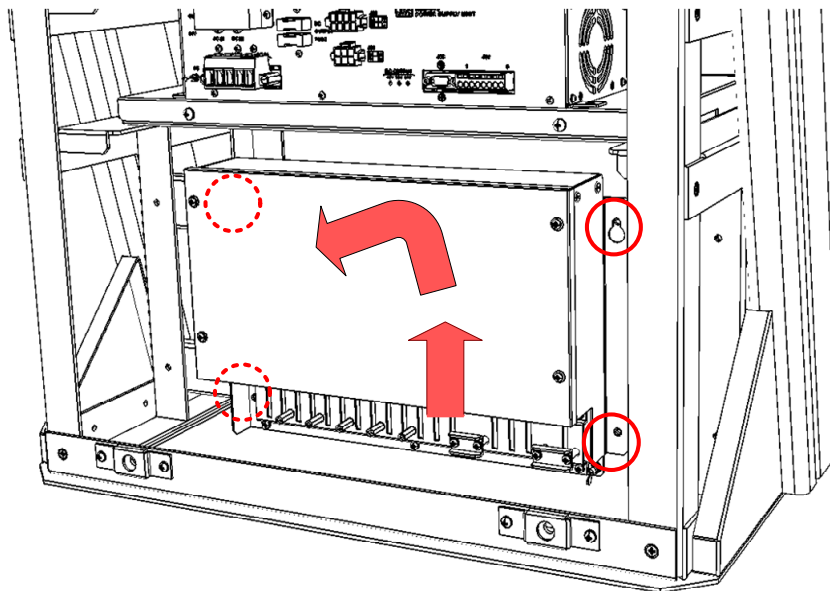
Remove the front cover from the Display Unit mount kit.



•When the Junction box has been installed

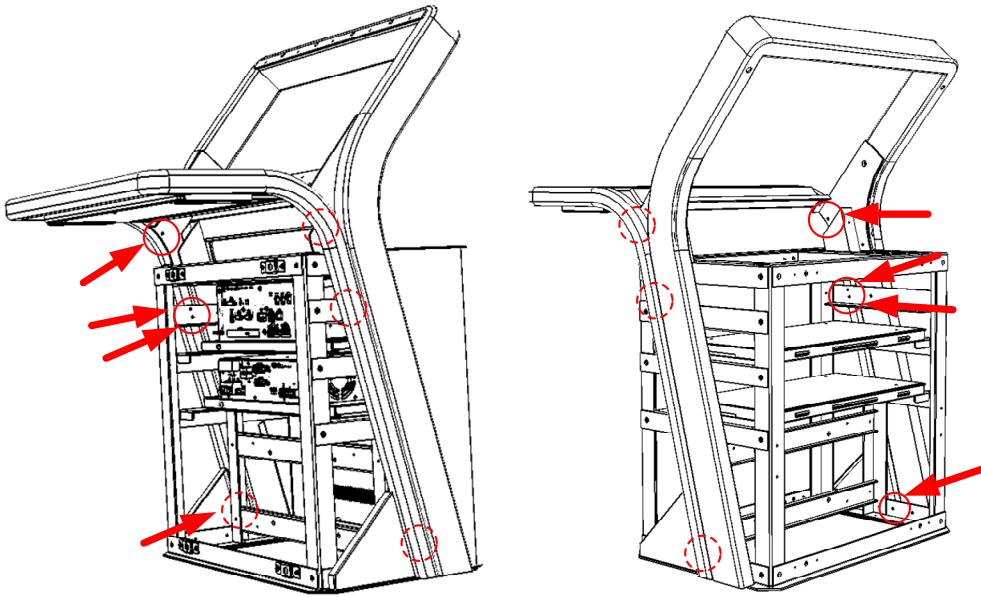
Remove the Junction box from the Display Unit mount kit on the reverse order of installation.

Refer to the 3.5.1 Installation of Junction Box.

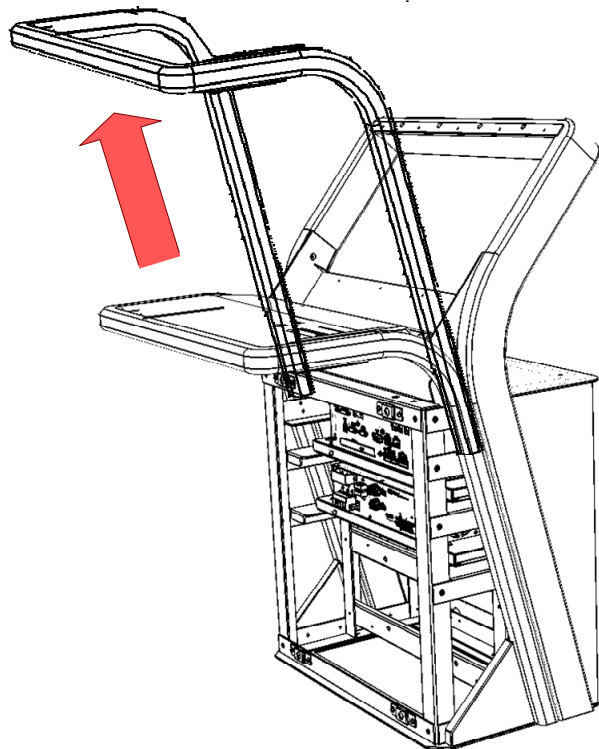


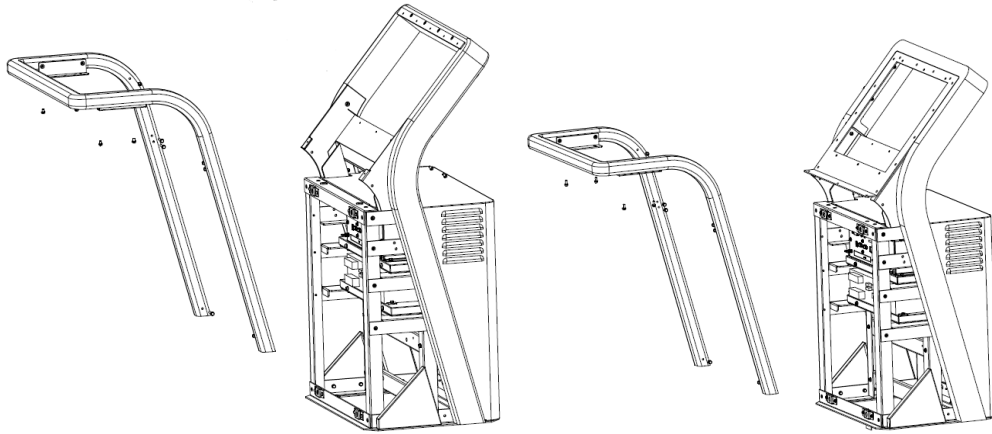
Step 6 Remove the front frame

Using a Phillips stubby screwdriver, remove the M4 screws that fasten the front frame. They are 4 locations in one side, 8 locations in total.



Pull up the front frame slowly in the obliquely upward direction along its line and take away.





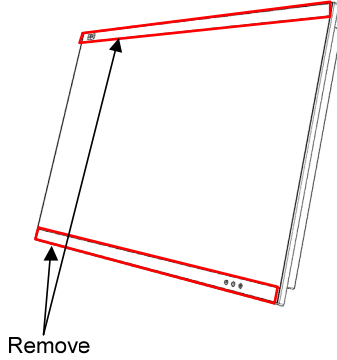
After carrying in the Display Unit is completed, assemble to the original condition by repeating the same procedure in the reverse order. Please make sure to tighten all the screws and connect all the cables back in place.

This completes carrying in the Display Unit into the bridge that has a narrow door by detaching its front frame.

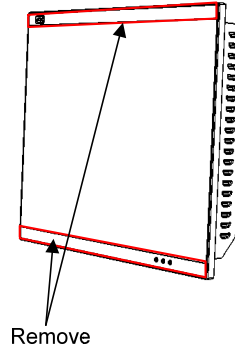
3.4 Installation of Standard Equipment

3.4.1 Installation of Monitor Unit NWZ-208/NWZ-207/NWZ-208-TP/NWZ-207-TP

- 1) Remove the screw covers on the top and bottom spaces in the monitor(NWZ-208 / NWZ-207 / NWZ-208-TP / NWZ-207-TP).



Monitor unit(26inch) NWZ-208/NWZ-208-TP



Monitor unit(19inch) NWZ-207/NWZ-207-TP



Insert a small flat blade screwdriver into the end of the screw cover and remove the cover by the principle of leverage. If you try to remove forcibly, the panel will break or unit will damage.

