

RYODEN

DUMBWAITER

Table Type / Floor Type / Unit Type

G series

The Ryoden Dumbwaiter G Series features a new operation panel that further improves operability, functionality, and safety.

The new operation panel supports delivery work with advanced specifications by an agglomeration of various enhanced functions, including a large-size digital display.



Enhanced Point!
1

Hands-Free Interphone

- Convenient, requiring few button operations during use.
- Offers clear, distinct sound for a soft voice with a highly sensitive pin microphone.
- Enables a volume corresponding to installed conditions with three-stage volume control.



Enhanced Point!
2

Large-Size Display Panel

- Enables sure verification of the car status (arrival, up travel, down travel, and others), even from far away.
- Displays the dumbwaiter status by code (symbols and numbers).

B1/Floor number display



E2/Error display (display example)



Enhanced Point!
3

Seat Switch

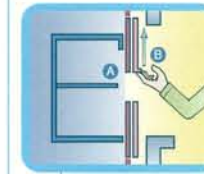
- Quickly enables removing of any moisture or grease that adheres by work with dirty hands.
- Offers smooth operation with easy-to-press large-sized display panel buttons.



Standard Equipment

Simultaneous opening/closing of car door

The car door (inner door) automatically opens and closes when the service door is opened or closed by hand. This eliminates the double work required when taking out or putting in deliverables.



- A The car door automatically opens when the dumbwaiter arrives on your floor.
- B Open the service door by hand.



- A Deliver the deliverables.



- A Close the service door by hand.
- B The car door automatically closes.



- A Specify the target floor using the operation panel. The car automatically moves to the target floor.

Status display

The dumbwaiter status is displayed on the operation panel with alarm call when trouble occurs, enabling quick response.



Equipped with car door gate switch

The car door gate switch keeps the deliverables from sticking out from the cage, preventing dumbwaiter failure.



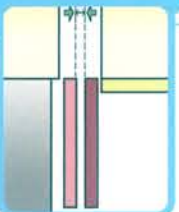
Door lock device

The door remains locked until the car arrives, preventing workers from carelessly opening the door and causing the deliverables to fall out.



10mm space between car and doorsill

The space between the floor-type car and doorsill is 10mm, allowing carts to be smoothly taken out and put in with inverter control.



Overload alarm device

The overload alarm device prevents trouble caused by overload. An alarm call is made when the carrying capacity is exceeded, thereby preventing product failure and accidents. ※RU: Option



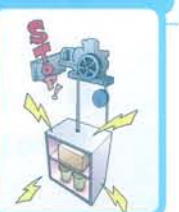
Inverter control

The inverter accurately controls the car stop position. The stop position is maintained with high accuracy, regardless of carrying capacity.



AST system

The AST system automatically stops the motor when trouble is detected during car operation.



Overrun control switch

A switch for preventing the car from passing its destination is provided in duplicate. Users are notified of switch failure by an error code displayed on the operation panel.



Door switch

The door switch ensures that the car does not travel when the door is open. A "door closed light" is provided, allowing users to confirm that the door is fully closed.



Variable shelf boards

The table type and unit type allow the shelf boards to be set at five different heights in accordance with the size of the deliverables.



Environment Compatibility

Friendly specifications for environment

Reducing environment risk

Ryoden has proactively incorporated activities to eliminate substances subject to environmental compliance regulations (such as lead, chromium hexavalent, and cadmium), thereby achieving a Pb free substrate.

Recycling

Ryoden displays the material on molded parts to improve recycle ability.



page 2

The RT type is provided with an opening at waist height, ensuring smooth operation.
This type is ideal for transporting small deliverables and the like.



Table Type

- The RT type is available to three types corresponding to the load capacity: 30kg, 50kg, and 100kg. The type can be selected with customer needs.
- The shelf boards inside the car can be changed to the height matched with deliverables.
- The three standard-color panels are available to accommodate the various installed environments.

Standard-color variation

◆ Note that the actual colors may vary slightly from those below due to the printing process.



NO.601



NO.602

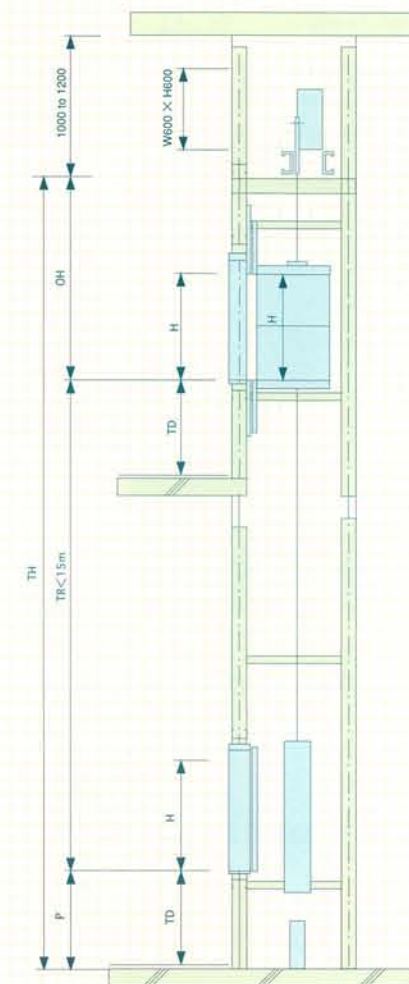


NO.603

Item	Standard specification		Option specification	
	Material	Front surface finish	Material	Front surface finish
Jamb	Steel sheet	Painted	Stainless steel	Hairline
Service door (Bi-Parting door)				
Table	Stainless steel	Hairline	—	—
Cage (ceiling and walls)	Steel sheet	Painted	Stainless steel	Hairline
Cage (shelf board)				
Cage (floor)	Stainless steel	Hairline	—	—
Cage (Bi-Parting door)	Steel sheet	Painted	Stainless steel	Hairline
Operation panel	ABS resin	—	—	—

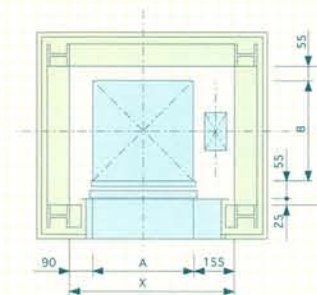
Remark : For other option specifications besides above-mentioned / please apply to RYODEN

Steel Frame Structure

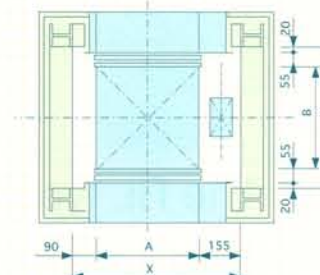


■ Dumbwaiter construction
■ Separate construction

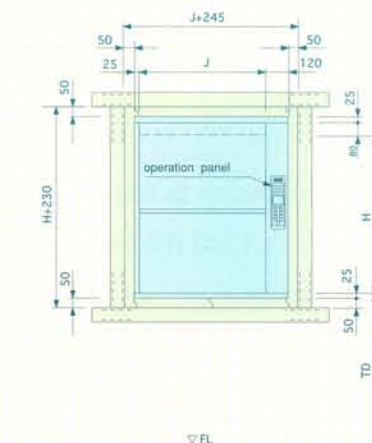
HOISTWAY ELEVATION



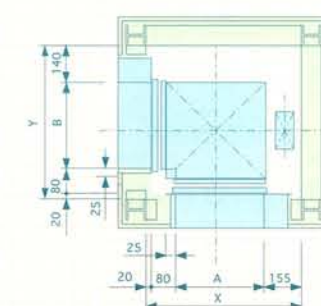
S OPENING



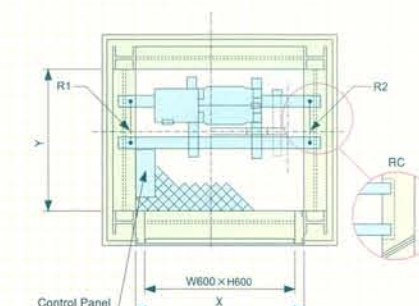
D OPENING



ENTRANCE OPENING



LD OPENING



MACHINE ROOM PLAN

Power supply equipment (power supply voltage: 200VAC 50/60Hz)

Model	Power consumption (KVA)	Primary side NFB rating (A)	Max. lead length (m) by power cable size			Min. ground cable size (mm ²)
			2.0mm ²	3.5mm ²	5.5mm ²	
RT-30	1.0	10	97	170	268	2.0
RT-50	1.0	10	97	170	268	2.0
RT-100	1.7	10	58	102	160	2.0

RT type (table type) common dimensions

Model	Entrance opening	Capacity (kg)	Motor (kW-poles)	Speed (m/min.)	Cage internal dimensions (mm) (A) × (B) × (H)			Hoistway dimensions (mm)			Entrance dimensions (mm) (J) × (H)		Pit (mm) P	Table height (mm) TD	Machine beam reaction load		No. of Cage shelf boards
								X	Y	OH					R1 (kN)	R2 (kN)	
Table type	RT-30-S-45	30	0.4-4	45	500×500×750			745	635	1425	500×750	700	700	1.2	2.3	1	
	RT-30-D-45							745	650								
	RT-30-LD-45							755	740								
	RT-50-S-45	50	0.4-4	45	600×600×750			845	735	1425	600×750	700	700	1.6	2.9	1	
	RT-50-D-45							845	750								
	RT-50-LD-45							855	840								
	RT-100-S-45	100	0.75-4	45	750×750×900			995	885	1650	750×900	650	650	2.7	4.4	2	
	RT-100-D-45							995	900								
	RT-100-LD-45							1005	990								

● When the hoist distance exceeds 15m, contact Ryoden. ● Take into account building pitch accuracy in hoistway related dimensions.

The RL type is capable of transporting handcarts and service tables. Heavy deliverables can be loaded on carts into the car.

Floor Type

- The RL type is available to three types corresponding to the load capacity: 200kg, 300kg, and 500kg.
- The maximum car size of 1000 (W) x 1000 (D) x 1200 (H) (mm) offers a comfortable amount of transporting space.
- The three standard-color panels are available to accommodate the various installed environments.

Standard-color variation

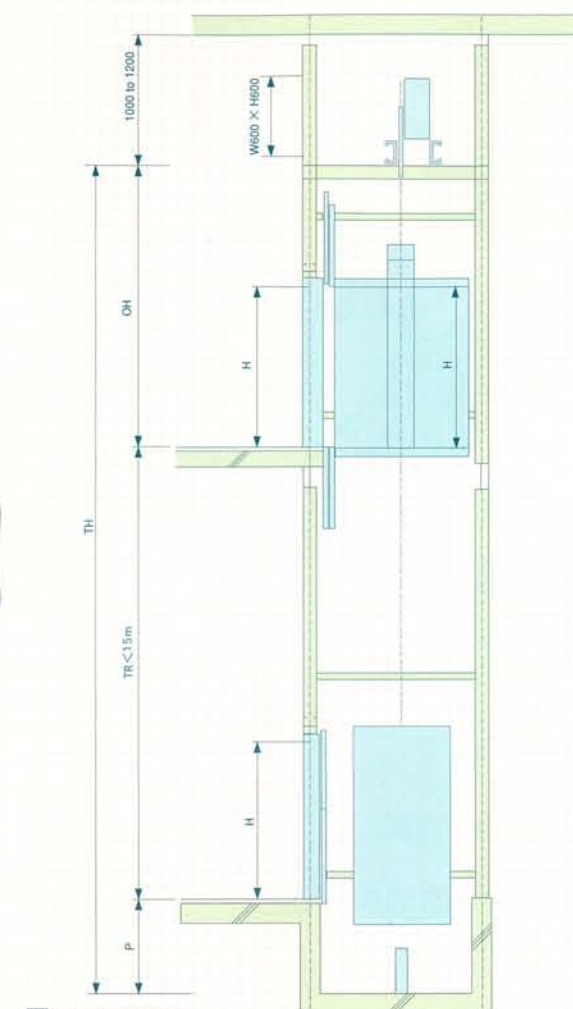
Note that the actual colors may vary slightly from those below due to the printing process.



Item	Standard specification		Option specification	
	Material	Front surface finish	Material	Front surface finish
Jamb	Steel sheet	Painted	Stainless steel	Hairline
Service door (Bi-Parting door)				
Doorsill	Angle steel	Painted	Stainless steel	Hairline
Cage (ceiling and walls)	Steel sheet	Painted	Stainless steel	Hairline
Cage (floor)	Checkered steel	Painted	Stainless steel	Hairline
Cage (Bi-Parting door)	Steel sheet	Painted	Stainless steel	Hairline
Operation panel	ABS resin			

Remark : For other option specifications besides above-mentioned / please apply to RYODEN

Steel Frame Structure



Dumbwaiter construction
Separate construction

HOISTWAY ELEVATION

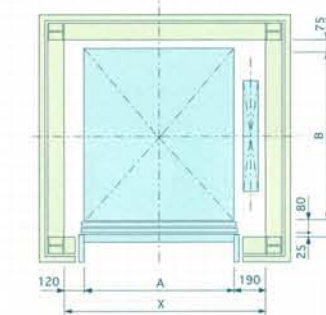
Power supply equipment (power supply voltage: 200VAC 50/60Hz)

Model	Power consumption (KVA)	Primary side NFB rating (A)	Max. lead length (m) by power cable size			Min. ground cable size (mm ²)
			2.0mm ²	3.5mm ²	5.5mm ²	
RL-200	3.0	15	29	51	80	2.0
RL-300	4.1	20	21	37	58	2.0
RL-500	4.1	20	21	37	58	2.0

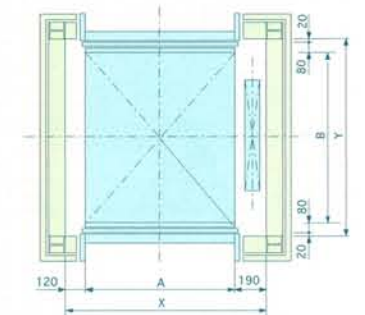
RL type (floor type) common dimensions

Model		Entrance opening	Capacity (kg)	Motor (kW-poles)	Speed (m/min.)	Cage internal dimensions (mm) (A) × (B) × (H)		Hoistway dimensions (mm)			Entrance dimensions (mm) (J) × (H)		Pit (mm) P	Machine beam reaction load R ₁ (kN) R ₂ (kN)		Roping
Table type	RL-200-S -45	Single opening	200	1.5-4	45	900×1100×1200	1210	1280	2100	900×1200	700	5.5	8.1	1 : 1		
	RL-200-D -45	Front and back opening				1000×1000×1200	1310	1180		1000×1200						
	RL-200-LD-45	Front and side opening				900×1100×1200	1210	1300		900×1200						
						1000×1000×1200	1310	1200		1000×1200						
	RL-300-S -45	Single opening	300	2.2-4	45	900×1100×1200	1210	1280	2100	900×1200	700	6.7	9.8	1 : 1		
	RL-300-D -45	Front and back opening				1000×1000×1200	1310	1180		1000×1200						
	RL-300-LD-45	Front and side opening				900×1100×1200	1210	1300		900×1200						
						1000×1000×1200	1310	1200		1000×1200						
	RL-500-S -23	Single opening	500	2.2-4	23	900×1100×1200	1210	1280	2100	900×1200	700	7.7	15.1	2 : 1		
	RL-500-D -23	Front and back opening				1000×1000×1200	1310	1180		1000×1200						
						900×1100×1200	1210	1300		900×1200						
	RL-500-LD-23	Front and side opening				1000×1000×1200	1310	1200		1000×1200						
					900×900×1200	1240	1200		900×1200							

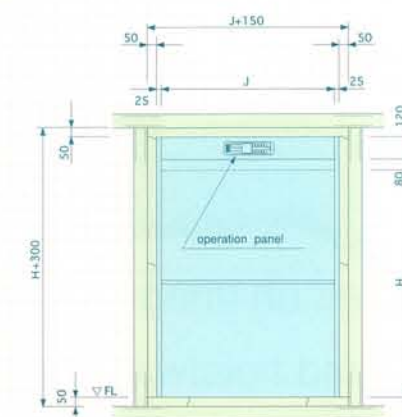
●When the hoist distance exceeds 15m, contact Ryoden. ●Take into account building pitch accuracy in hoistway related dimensions.



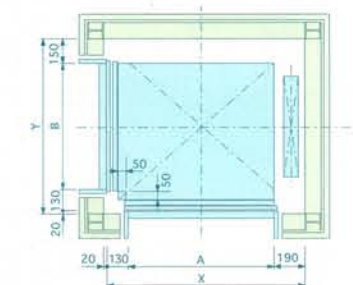
S OPENING



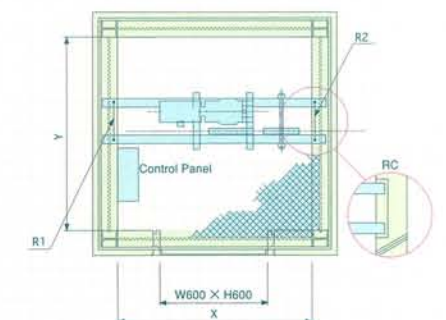
D OPENING



ENTRANCE OPENING



LD OPENING



MACHINE ROOM PLAN



The RU type features an integrated design of the dumbwaiter and hoistway. This table type dumbwaiter is installable in existing buildings as well.

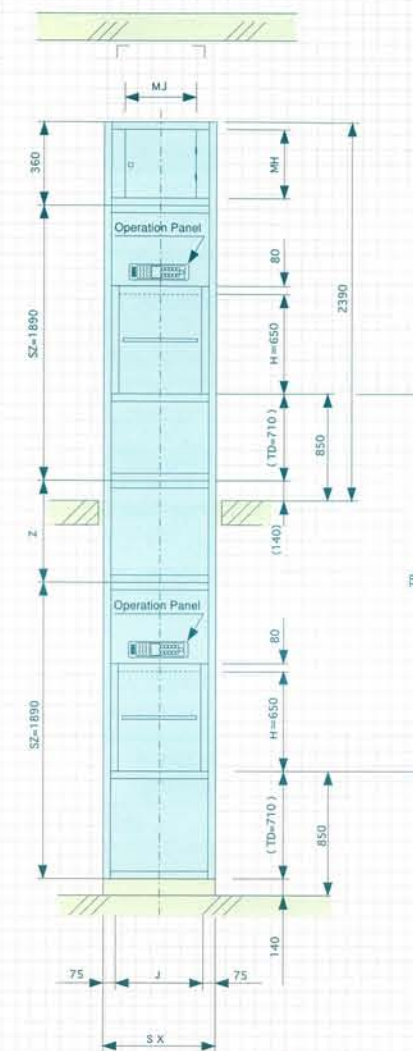
Unit Type

- The RU type is available to three types corresponding to the load capacity : 30kg, 50kg, and 75kg.
- This unit type can easily be installed in existing offices, factories, warehouses, stores, houses, and the like.

Item	Standard specification		Option specification	
	Material	Front surface finish	Material	Front surface finish
External panel	Steel sheet	Painted (No. 601)	Stainless steel	Hairline
Jamb				
Service door (Bi-Parting door)				
Table	Stainless steel	Hairline	—	—
Cage (ceiling and walls)	Steel sheet	Painted (No. 601)	Stainless steel	Hairline
Cage (shelf board)	Stainless steel	Hairline	—	—
Cage (floor)				
Cage (Bi-Parting door)	Steel sheet	Painted (No. 601)	Stainless steel	Hairline
Operation panel	ABS resin	—	—	—

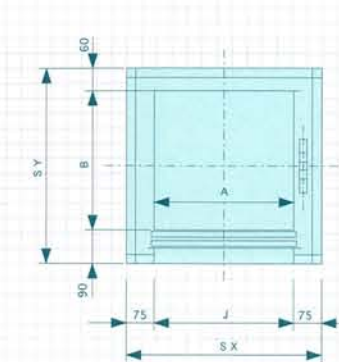
Remark : For other option specifications besides above-mentioned / please apply to RYODEN

Steel Frame Structure

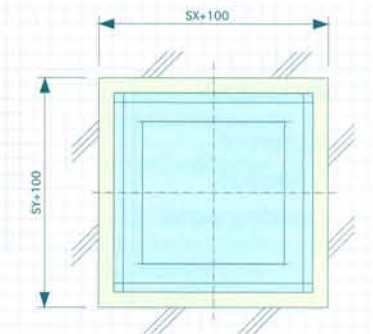


HOISTWAY ELEVATION

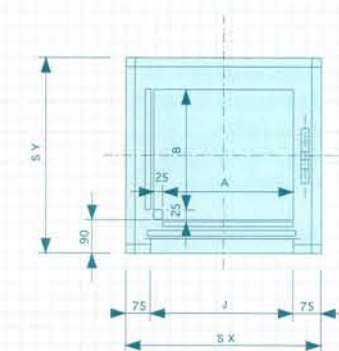
- Dumbwaiter construction
- Separate construction



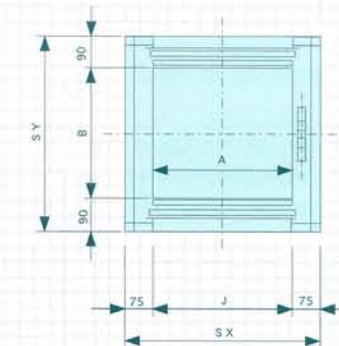
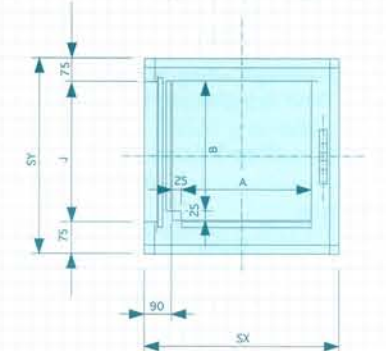
S OPENING



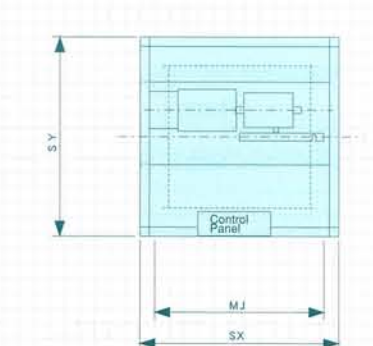
Upper floor opening



LD OPENING



D OPENING

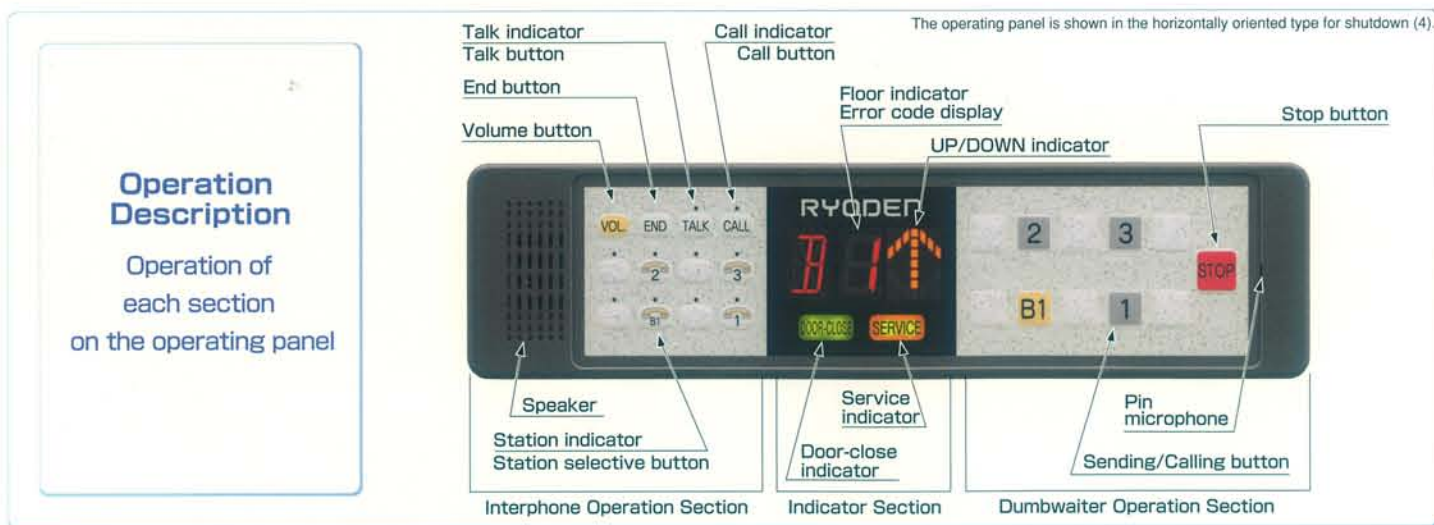


MACHINE ROOM PLAN

Power supply equipment (power supply voltage: 200VAC 50/60Hz)

Model	Power consumption (KVA)	Primary side NFB rating (A)	Max. lead length (m) by power cable size			Min. ground cable size (mm ²)
			2.0mm ²	3.5mm ²	5.5mm ²	
RU-30	1.0	10	97	170	268	2.0
RU-50	1.0	10	97	170	268	2.0
RU-75	1.7	10	58	102	160	2.0

Model	Entrance opening	Capacity (kg)	Motor (kW-poles)	Speed (m/min.)	Cage internal dimensions (mm) (A) × (B) × (H)	Hoistway dimensions (mm)			Inspection Window Dimensions MJ×MH	Entrance dimensions (mm) (J) × (H)	TD (mm)	No. of Cage shell boards	Weight (kg)
						SX	SY	TR					
RU- 30-S -45	Single opening	30	0.4-4	45	500×500×650	650	650	MAX 12m	500×296	500×650	710	1	410
RU- 30-D -45	Front and back opening				500×470×650								
RU- 30-LD-45	Front and side opening				460×460×650								
RU- 50-S -45	Single opening	50	0.4-4	45	600×600×650	750	750	MAX 12m	500×296	600×650	710	1	510
RU- 50-D -45	Front and back opening				600×570×650								
RU- 50-LD-45	Front and side opening				560×560×650								
RU- 75-S -45	Single opening	75	0.75-4	45	700×700×650	850	850	MAX 12m	500×296	700×650	710	1	610
RU- 75-D -45	Front and back opening				700×670×650								
RU- 75-LD-45	Front and side opening				660×660×650								



Operation of Each Section on the Operating Panel

① Dumbwaiter operation section

Item	Function
Sending/Calling button (your floor is indicated in yellow.)	<ul style="list-style-type: none"> ● Calls or sends the car. ● The target floor name in the indicator section flickers when registered.
Stop button	<ul style="list-style-type: none"> ● Stops the car when the car senses an error during operating. ● The "E0" lamp in the error code display turns on while the button is pressed.

② Indicator Section

Item	Function
Travel indicator (orange)	<ul style="list-style-type: none"> ↑ : Indicates the car is upward. ↓ : Indicates the car is downward.
Floor indicator (red)	<ul style="list-style-type: none"> ON : Indicates the name of the floor where the car is stopped. Flicker : Indicates the target floor name while the car is traveling.
Error code display (red)	E0 to E9 : Indicates an error occurred.
Door-close indicator (green)	● Indicates that the service door and car door are fully closed.
Service indicator (yellow)	● Indicates that the service door is open, or that the car is in operation.

③ Interphone operation section

Item	Function
Station selective button (indicator: red)	<ul style="list-style-type: none"> ● Talk with the target floor. ● The indicator turns on when the station is selected.
Call button (indicator: red)	<ul style="list-style-type: none"> ● Sounds in tremolo on the selected floor. (This button also allows you to call the selected floor by voice.) ● The indicator turns on while the call button is pressed.
Talk button (indicator: red)	<ul style="list-style-type: none"> ● Switches the talk mode from hands-free to press-talk. ● The indicator turns on in press-talk mode. (The indicator turns off in hands-free talk mode.) ● The indicator turns on when the interphone is in use in an area other than your station.
End button	● Ends talking.
Volume button	● Adjust the volume of the call, talk, and auto announcement sound to one of three levels, in the order of low R medium R high.
Speaker	● Sounds call, talk, and auto announcement.
Pin Microphone	<ul style="list-style-type: none"> ● Picks up voices. (The microphone is highly sensitive and does not require proximity during talking.)

WORKS NOT INCLUDED IN INSTALLATION CONTRACT

1. THE CONSTRUCTION WORKS OF HOISTWAY AND MACHINE ROOM.
2. HOLES OF MACHINE ROOM FLOOR AND OPENINGS OF EACH FLOOR.
3. MACHINE ROOM ENTRANCE.
4. OPENING FOR CARRYING CONTROL PANEL AND MACHINE, AND THEIR POURING.
5. PIT WATERPROOF WORKS.
6. WIRINGS FOR POWER SUPPLY INCLUDING EARTHING TO POWER RECEIVING BOX IN MACHINE ROOM.
7. WIRING FOR SIGNAL POWER SUPPLY TO POWER RECEIVING BOX IN MACHINE ROOM.
8. ILLUMINATION EQUIPMENT WORKS IN MACHINE ROOM AND ELECTRIC OUTLET FOR INSPECTION.
9. IF A GROUND FAULT INTERRUPTER IS USED AS THE CIRCUIT BREAKER, SET THE CURRENT SENSITIVITY TO 100 mA OR GREATER.

How to Use the Dumbwaiter Operation Section

- ① Call the car.
Press the button of your floor (yellow).
- ② The car arrives.
- ③ Load the deliverables.
Open the service door manually and load the deliverables.
- ④ Send the car.
Manually close the service door, and press the sending/calling button of the destination floor.
- ⑤ The car arrives.
- ⑥ Receive the deliverables.
Manually open the service door, and carefully remove the deliverables. After use, manually close the service door.

Remarks

- The service indicator turns on when a car call registration command is received.
- Whether or not the car is on your floor is verifiable by viewing the floor indicator (flickering) and sending/calling indicator (on).
- Car arrival is indicated by the sending/calling indicator turning off and the bells chime. In addition, the car door automatically opens and the service indicator turns off.
- The service indicator turns on once again when the service door is opened.
- The service indicator turns on when a car send registration command is received.
- The car door automatically closes.
- The door-close indicator turns on when the service door and car door are fully closed.
- The start of car travel can be checked by viewing the floor indicator (flickering) of the target floor and the sending/calling indicator (on).
- Car arrival is indicated by chime. In addition, the car door automatically opens and the service indicator turns off.
- The service indicator turns on once again when the service door is opened.
- The car door also automatically closes and the door-close indicator turns on when the service door is closed.
- When the service indicator turns off, the car waits for the next call/send command.

How to Use the Interphone Operation Section

When calling and talking to another party.

- ① Call the other party.
Press the station selective button of the name of the floor of the party with whom you want to talk, and press the call button.
- ② Wait for a response from the party.
- ③ Talk with the party.
[Hands-free talk mode] Talk as is without pressing any buttons.
[Press-talk talk mode] Talk while pressing the talk button.
- ④ End talking.
Press the end button.

Remarks

- It is not possible to talk with multiple parties at once.
- The station indicator turns on when the station is selected.
- A tremolo sound is produced on the selected floor when the call button is pressed. Call by voice is also possible.
- Once the other party responds, you can talk with each other in hands-free mode.
- The mode switches to press-talk mode and the talk indicator turns on as soon as the talk button is pressed.
- ※ When changing the selected station floor, press the station button of the target station. (Sequential send function)
- Operate the end button on the call side. The call/talk indicator on the floor of the other party turns off.

When called from another party

- ① A call arrives from another party.
A call arrives, indicated by a tremolo or voice sound.
- ② Respond to the party.
Respond by voice in hands-free mode.

Remarks

- The call indicator and talk indicator turn on.
- After responding, you can talk with the other party in hands-free mode. (Mutual, hands-free talk mode)

How to Adjust the Volume

- [Adjusting the volume of the call sound]
Press the volume button while pressing the call button.
- [Adjusting the volume of the talk sound]
Press the volume button while pressing the talk button.
- [Adjusting the volume of the alarm and chime]
Press the volume button while pressing the end button.

Remarks

- A confirmation ring sounds in the order of low R medium R high.
- A confirmation chime sounds in the order of low R medium R high.

NOTES

1. VOLTAGE FLUCTUATION SHALL BE WITHIN +5%~-10%
2. THE FOLLOWING CONDITIONS ARE REQUIRED FOR MAINTAINING THE PREDETERMINED PERFORMANCE.
 - (1) TEMPERATURE OF MACHINE ROOM SHALL BE BELOW 40°C.
 - (2) MOISTURE SHOULD BE BELOW 90% ON A MONTHLY AVERAGE AND BELOW 95% ON A DAILY AVERAGE.
 - (3) MACHINE ROOM AND THE HOISTWAY SHOULD BE FREE OF DUST OR HARMFUL GAS.
3. THE TUBE APPARATUS FOR ELECTRICITY OR WATER SUPPLY SHALL NOT BE BURIED INTO HOISTWAY WALL.



 **MITSUBISHI ELECTRIC Group**
Changes for the Better



RYODEN ELEVATOR CONSTRUCTION LTD

HEAD OFFICE:KS BLDG.,2-4 ICHIGAYA SADOHARACHO.
SHINJUKU-KU.TOKYO 162-8422 JAPAN
TEL.:+81-3-3235-9242