

# Cold Storage

USER MANUAL

EN



**MODEL:** SWC 80C  
SWC 100C  
SWC 80F  
SWC 100F

Thank you for your trust and cooperation!

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# INTRODUCTION

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## ***PRODUCTION PURPOSE:***

With the purpose to preserve and store goods for a long time and keep the best quality of product, Nguyen Phuong company with Slightwind® brand developed and manufactured cold storage with advanced features and utilities in use.

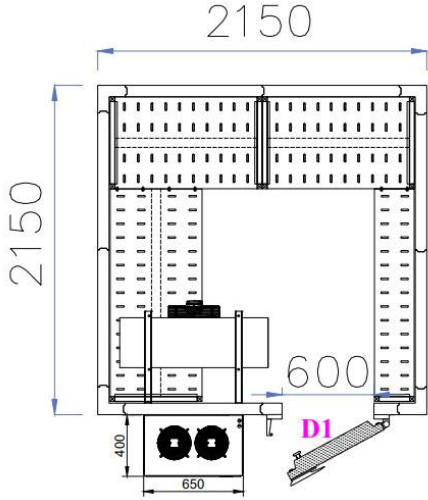
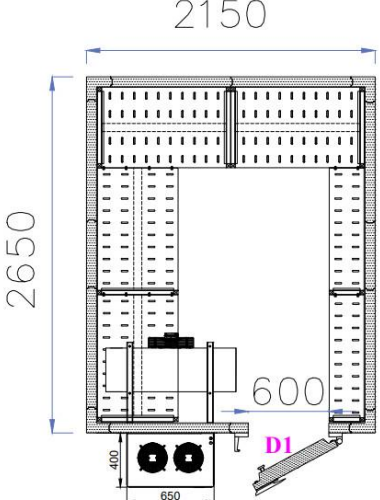
Cold storage is the solution for restaurants, clubs, bars, hotels, convenience stores, medicine storage, agriculture, biology.

## ***STANDARD FEATURES:***

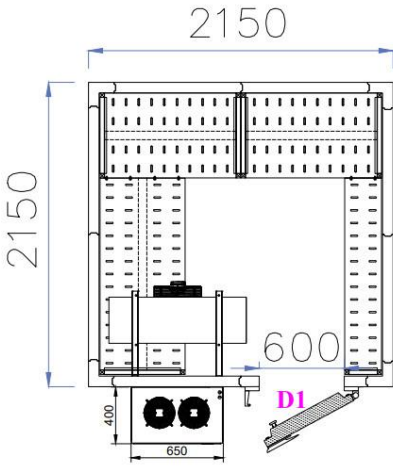
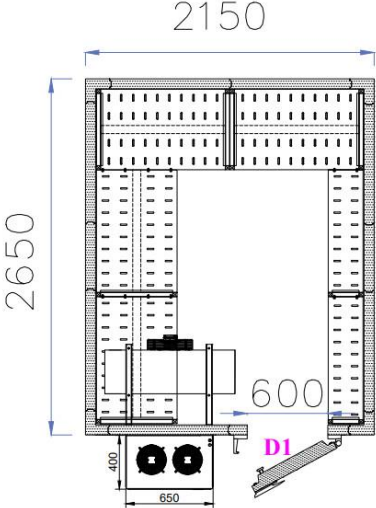
- Insulation by polyurethane with 100mm thickness. 2 sides are covered by powder-coated toles for durability and high aesthetics.
- The volume of cold room is from **8m<sup>3</sup>** to **10m<sup>3</sup>**
- The shelves come with cold room are made by stainless 304 steel.
- The floor is made by ribbed stainless steel with high thickness and stronger.
- The cold room can operate in ambient temperature up to **+43°C**.
- The temperature controller is with digital technology.
- Tecumseh compressor operates smoothly and durably.
- EBM Fans, and the devices integrated in systems with the Danfoss brand are used.
- The temperature can be adjusted for chiller room from **0°C** to **5°C**.
- The temperature can be adjusted for freezer room from **-12°C** to **-20°C**.
- Very easy for delivrey and installation.

# SPECIFICATION

## CHILLER ROOM:

Model	SWC80C	SWC100C
Dimension (W x D x H)	 <p>2150 x 2150 x 2150 (mm)</p>	 <p>2150 x 2650 x 2150 (mm)</p>
Floor Material	Polyurethane 100mm 304 ribbed stainless steel	Polyurethane 100mm 304 ribbed stainless steel
Panel Material	Polyurethane 100mm Powder-coated tole	Polyurethane 100mm Powder-coated tole
Operating temperature	From 0°C to 5°C	From 0°C to 5°C
Power supply	220-240V-50Hz-1Ph	220-240V-50Hz-1Ph
Cooling capacity	2563W (T <sub>0</sub> = -5°C)	2563W (T <sub>0</sub> = -5°C)
Defrost type	Electric	Electric
Refrigerant	R404A	R404A
Usable volume	8.0m <sup>3</sup>	10.0m <sup>3</sup>

## FREEZER ROOM:

Model	SWC80F	SWC100F
Dimension (W x D x H)	 <p>2150 x 2150 x 2150 (mm)</p>	 <p>2150 x 2650 x 2150 (mm)</p>
Floor Material	Polyurethane 100mm 304 ribbed stainless steel	Polyurethane 100mm 304 ribbed stainless steel
Panel Material	Polyurethane 100mm Powder-coated tole	Polyurethane 100mm Powder-coated tole
Operating temperature	From -12°C to -20°C	From -12°C to -20°C
Power supply	380V-50Hz-3Ph	380V-50Hz-3Ph
Cooling capacity	2800W ( T <sub>0</sub> = -25°C)	2800W ( T <sub>0</sub> = -25°C)
Defrost type	Electric	Electric
Refrigerant	R404A	R404A
Usable volume	8.0m <sup>3</sup>	10.0m <sup>3</sup>

# **INSTALLATION AND OPERATION**

## ***INSTALLATION:***

**Note:** The installation should be performed by expert and experienced personnel with this type of equipment to avoid unnecessary damage.

**THE PRODUCT HAS BEEN TESTED FOR QUALITY, TECHNIQUE AND SAFETY AT THE FACTORY BEFORE PACKING**

### **A. Before installation:**

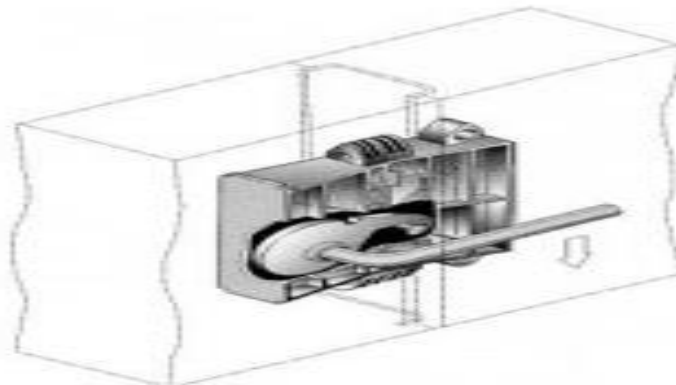
#### **Step 1: Check the product**

- Check the packaging, if there is damage or peeling, immediately notify the shipping unit and supplier.
- Check the correct and sufficient number of packages delivered by the supplier.
- Check the marked serial numbers, and arrange them in sequence to facilitate installation.

#### **Step 2: Prepare the installation location**

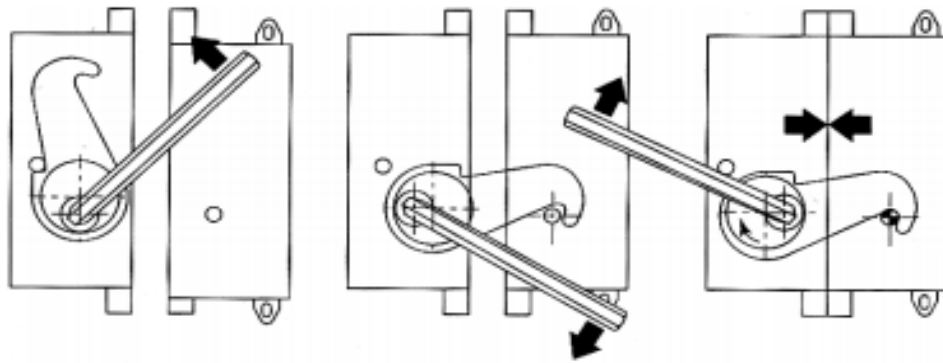
- The ground and floor should be flat and dry.
- **DO NOT** install cold storage near heat sources, toxic chemicals, etc.
- The installation place must be ventilated to ensure good air circulation for the outdoor unit to work efficiently.

#### **Step 3: For more information about Camlock lock**



*Picture 1: "Camlock lock"*

1. Insert the hexagonal lock into the lockhole and ensuring the hexagonal lock must be into the lockhole totally (*Picture 1*).
2. Turn the hexagonal lock counterclockwise to the end of the rotation (*Picture 2*)
3. Turn the hexagonal lock at the same clockwise to lock, ensure the lockchain hooked to the adjacent latch (*Picture 3*)
4. Continue turning the hexagonal lock at the same clockwise until the panels close together (*Picture 4*)



Picture 2

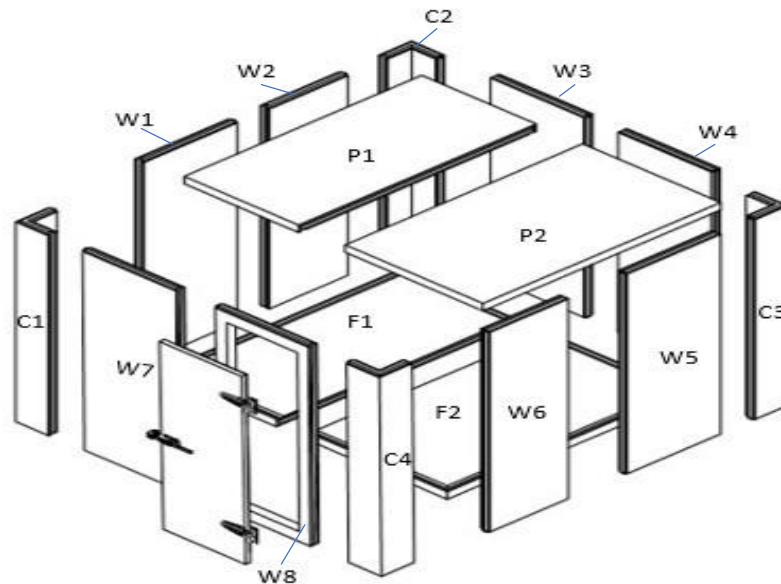
Picture 3

Picture 4

**Note:**

- If the locking process of Camlock lock does not link 2 panels together, reperform the process from 1 to 4.
- Do not turn the hexagonal lock so hard, which can damage the lock.

**B. Installation:**



Picture 5

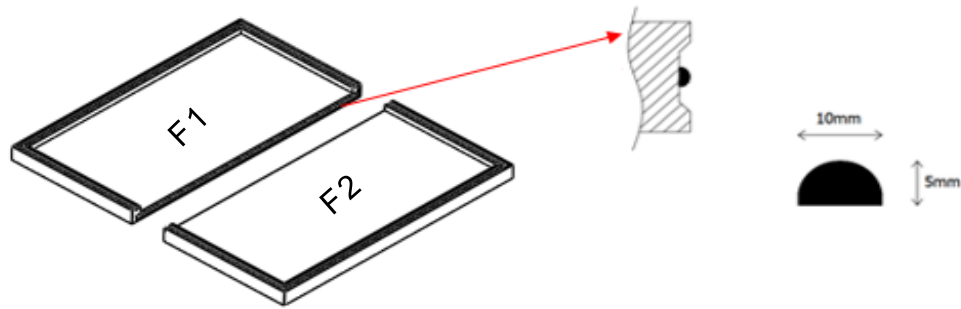
**Note:**

- MC202 silicon joints between panels with 5mmx10mm of silicon line.
- The camplock's lockhole on the panel is directed inward.

**Step 1: Installation of floor panels**

1. Place 2 panels with the sign F1, F2 on a dry and flat floor.

2. MC202 silicon joints between panels to assemble (Picture 6).

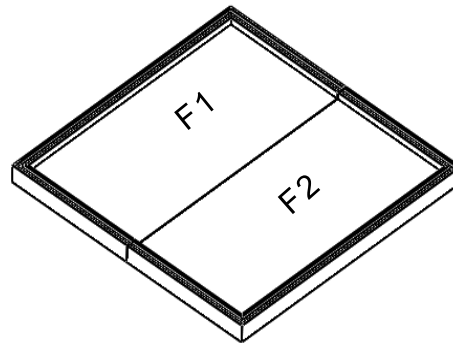


Picture 6

3. Proceed to lock camlock. When locking the lock, it is necessary to be aligned so that the 2 panels are close to each other and flat, the maximum opening allows <math><3\text{mm}</math> (Picture 7, picture 8).



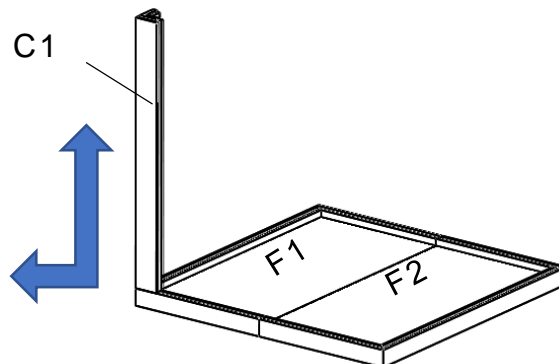
Picture 7



Picture 8

## Step 2: Installation of wall panels

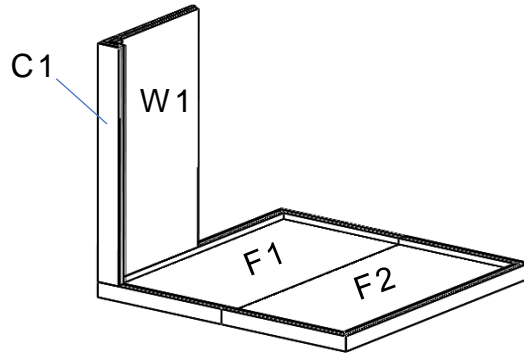
1. Joint silicon into the corner of the floor panel. Install the corner panel with the sign C1 into a position perpendicular to the floor panel in the direction of the arrow (Picture 9)



Picture 9

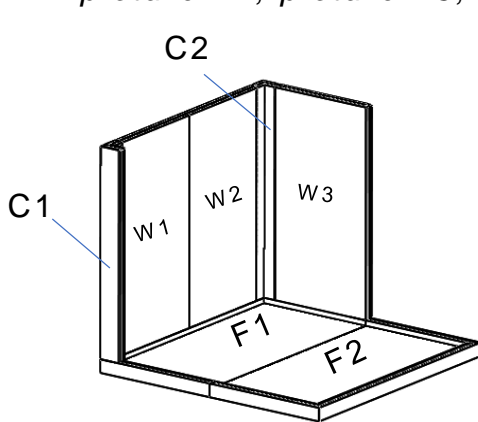


2. Joint silicon on the floor panel, between the corner panel (C1) and the wall panel with the sign W1 then install the wall panel (W1). Lock Camlock on W1 with C1 and the floor (Picture 10)

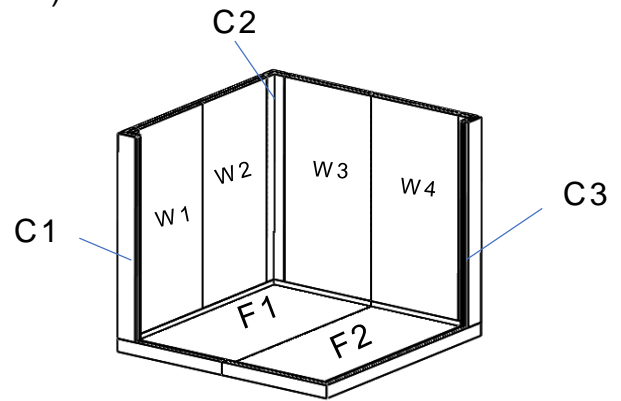


Picture 10

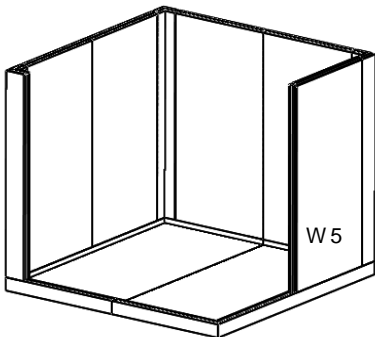
3. Continue with the next wall panels and corner panels (Picture 11, picture 12, picture 13, picture 14)



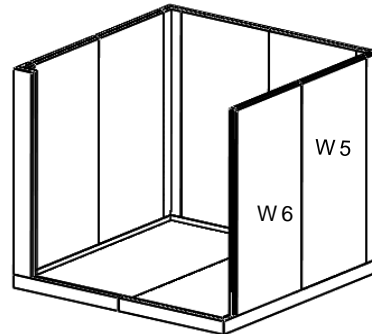
Picture 11



Picture 12

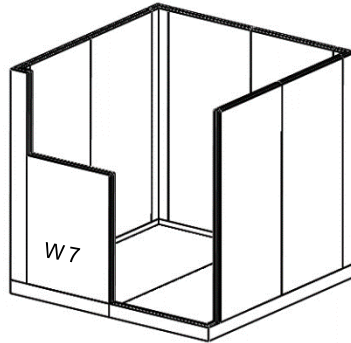


Picture 13



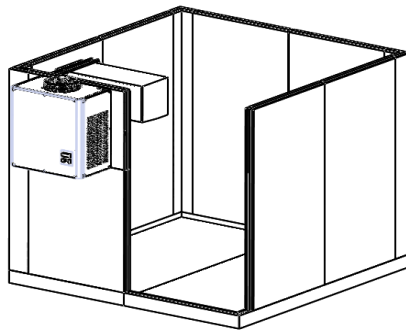
Picture 14

4. Install the wall panel with the sign W7 (*Picture 15*)



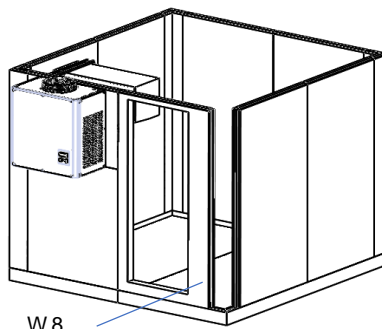
*Picture 15*

5. Link panel to hang outdoor and indoor units (*Picture 16*)



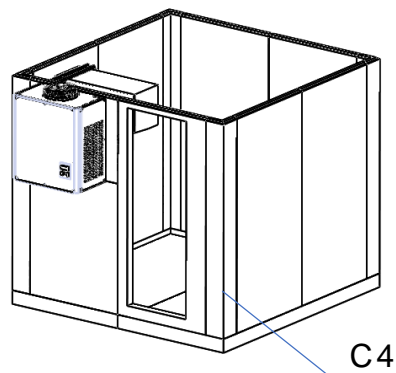
*Picture 16*

6. Install the door frame with the sign W8 (*Picture 17*)



*Picture 17*

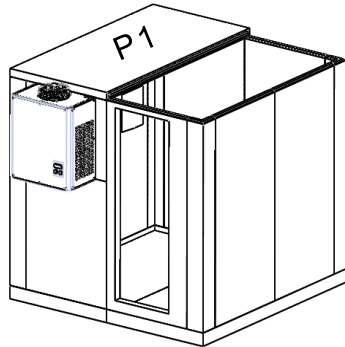
7. Install the corner panel with the sign C4, lock all camlocks (*Picture 18*)



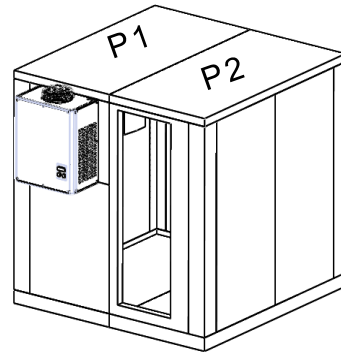
*Picture 18*

### Step 3. Install roof panels

Put the roof panels with the sign P1, P2 into position, fill MC2020 silicon between the roof panels and the wall panels. Lock all Camlocks (*Picture 19, picture 20*).



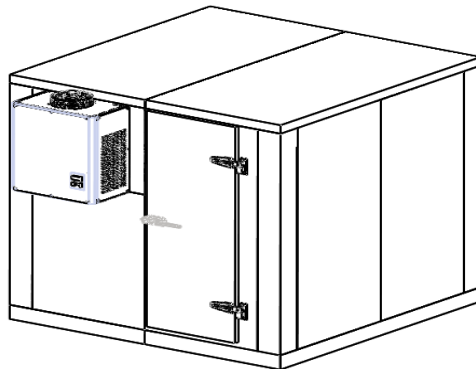
*Picture 19*



*Picture 20*

### Step 4: Install cold storage door

1. Install hanging rods and curtains
2. Install the door into the hinges and rotate it. Ensure closed door and safety latch locks (*Picture 21*)



*Picture 21*

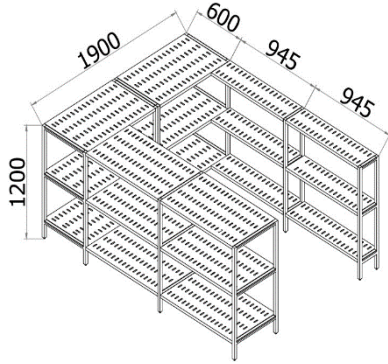
### Step 5: Finish the cold storage shell

Fill all gaps with MC504 white dry silicon (*Picture 22*).

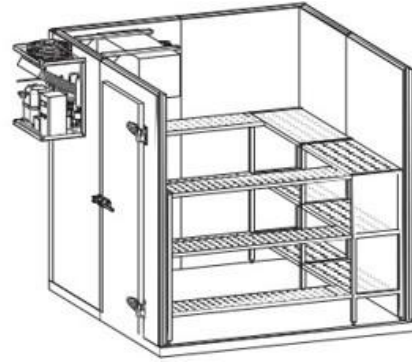


*Picture 22*

**Step 6: Install the shelves** (Picture 23, picture 24)



Picture 23



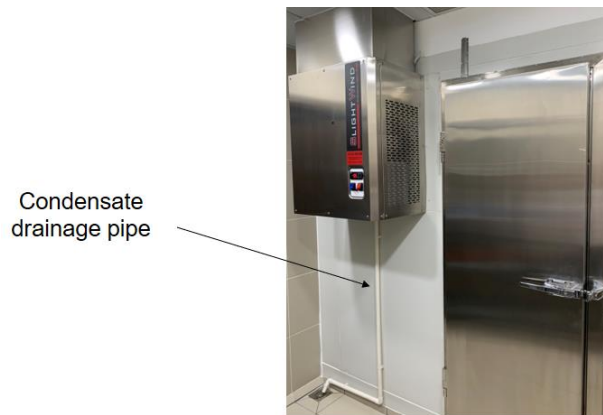
Picture 24

**Step 7: Connect the door dryer jack** (Picture 25)



Picture 25

**Step 8: Install the condensate drainage pipe to drainage system**  
(Picture 26)



Picture 26

**OPERATION :**

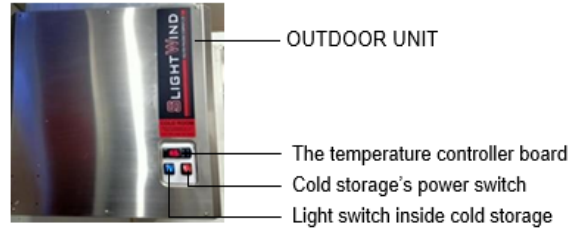
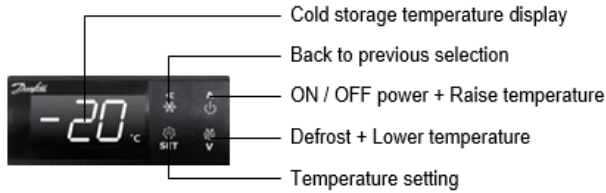
After completing the installation in accordance with the instructions, you start to check out operation:

Step 1: Turn on the power supply for the cold storage. Make sure the power supply is supplied in accordance with the manufacturer's index.

Step 2: Turn on the ON/OFF switch on the cluster .

Step 3: Set temperature to use.

❖ DESCRIPTION OF CONTROLLER BOARD



❖ CONTROLLER SETTING INSTRUCTION

BUTTON	OPERATION	FUNCTION
	Press	Raise temperature .
	Press and hold	Turn on/off power of controller board.
	Press	Lower temperature.
	Press and hold	Manual defrost.
	Press	Back to previous selection.
	Press and hold	Run Pump Down.
	Press	Set the temperature.
	Press and hold	Set advanced programs.

❖ STEPS OF OPERATE COLD STORAGE

STEP	OPERATION
➔ <u>Step 1</u> :	Close door, turn on the power supply for the cold storage.
➔ <u>Step 2</u> :	Turn on the cold storage's power switch.
➔ <u>Step 3</u> :	Turn on power of controller board.
➔ <u>Step 4</u> :	Set the temperature for the goods .
➔ <u>Step 5</u> :	Turn on the light switch inside cold storage.
➔ <u>Step 6</u> :	When the cold storage reaches the temperature, put the goods into storage.
➔ <u>Step 7</u> :	Check the cold storage's door before closing.
➔ <u>Step 8</u> :	Turn off the light switch inside cold storage.

**Note:**

- The power supply for cold storage must always be stable.
- The heat exchange area of the outdoor unit is always ventilated well.
- Cover the air exchange section on the indoor unit side.
- When unusual noise happens during operation, stop machine immediately and take corrective action.
- Goods in cold storage are always arranged neatly.
- Close door carefully.
- Limit the opening of cold storage door when it is unnecessary.
- Avoid strong impact on cold storage details and cold storage shell.
- **DO NOT** allow standing water in cold storage floor.
- **DO NOT** change the design, structure of the cold storage.
- **DO NOT** touch any electrical components except operating parts.
- **DO NOT** touch air-cooled condenser and fan with hands or with other objects when they are in operation.
- **DO NOT** touching compressor, discharge line and condenser in case of scald when they are in operation.
- When there are abnormal phenomena, call your provider immediately for specific instructions.

## ***SAFETY INFORMATION:***

- Use the required voltage of cold storage in electrical specifications.
- Make sure all power sources are disconnected before any circuit check-up.
- When unusual noise happens during operation, stop machine immediately and take corrective action.
- When cold storage is off-work for a long period of time, main power supply should be shut down.
- **DO NOT** leave water or any wet objects near electrical cabinets.
- **DO NOT** be flammable or explosive material that should be placed in the vicinity of cold storage.
- **DO NOT** touch any electrical components except for operating parts.
- **DO NOT** touch air-cooled condenser and fan with hands or with other objects when they are in operation.
- **DO NOT** touch compressor, discharge line and condenser in case of scald when they are in operation.
- **DO NOT** change the design, structure of the cold storage.

# TROUBLESHOOTING

Problem	Probable cause	Remedy
The unit is not working	No power supply	Check the power supply
	The switch is in OFF position	Turn switch to ON position
The temperature is not cold enough.	Temperature setting is not correct	Check the temperature setting
	No refrigerant in the system	Contact company service for assistance.
	The compressor is not working	Contact company service for assistance.
	Air filter is dirty	Clean the air filter
	Evaporator is dirty	Clean the evaporator
Evaporator fan is not working	Capacitor is failed	Contact company service for assistance.
	Fan is damaged	Contact company service for assistance
There is ice on Evaporator	The fan is not working	Contact company service for assistance
	Defrosting heater is not working	Contact company service for assistance.
	Evaporator is dirty	Check and clean
The light is not working	Lighting switch is in OFF position	Turn switch to ON position
	The light is damaged	Check and change new light.
Compressor is noisy	Mounting loose at the compressor's legs	Check and adjust the screws of the compressor's legs
	Internal parts of compressor broken or worn	Contact company service for assistance.
	The compressor has problems	Contact company service for assistance.
The condenser fan is not working	No power supply to the fan	Contact company service for assistance.
	The capacitor is failed	Contact company service for assistance
	Fan is burned	Contact company service for assistance.

Problem	Probable cause	Remedy
There is ice on the door gasket	The door heater is not working	Contact company service for assistance.
	The door gasket is not good	Check and change the new door gasket
	The door is not closed carefully	Close the door carefully
	Defrosting cycle is too long	Contact company service for assistance
Non-defrost	Defrosting time is too short	Contact company service for Assistance.
	Defrosting heater is not working	Contact company service for assistance.
	The control board is not working	Contact company service for assistance.
Error A01	Room temperature is too high	Contact company service for assistance
Error A02	Room temperature is too low	Contact company service for assistance
Error E29	Room temperature sensor is failed	Contact company service for assistance
Error E27	Evaporator temperature sensor is failed	Contact company service for assistance
Indicate <b>-d</b>	System is in defrosting process	Contact company service for assistance

## **CONTACT INFORMATION:**

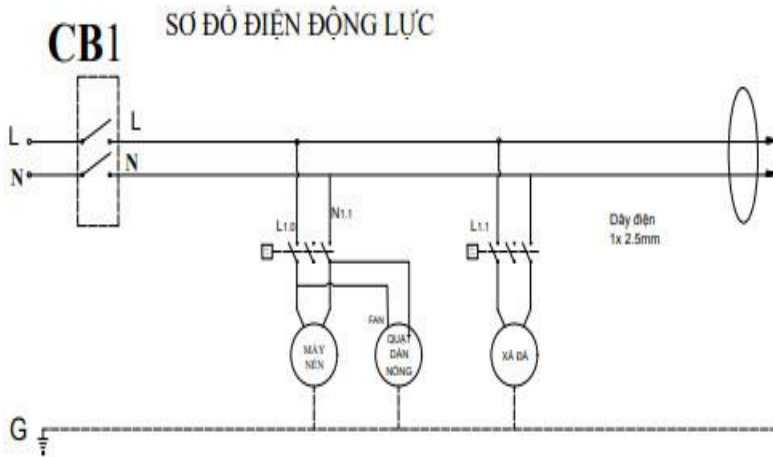
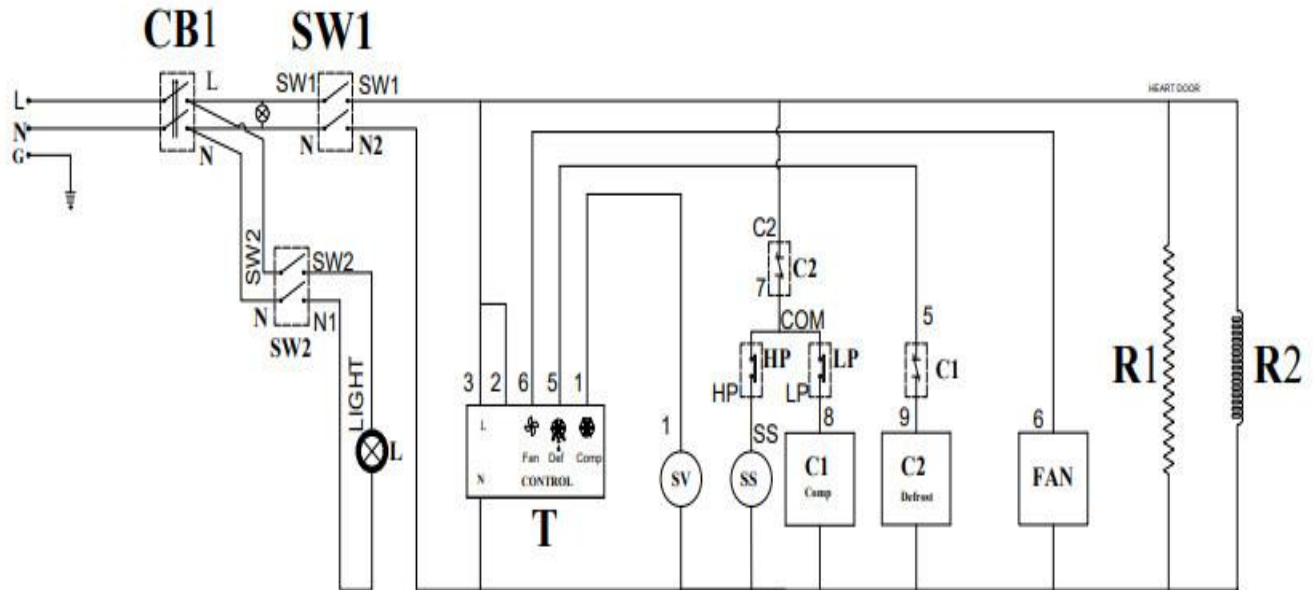
- For service, purchase: 0919.120.068
- For technical issues:
  - Ho Chi Minh City: 0919.120.068
  - Ha Noi City: 0936.104.698
  - Hue City: 0933.524.133
  - Email: [nguyenphuong@slightwind.com.vn](mailto:nguyenphuong@slightwind.com.vn)

Additional information can be found by visiting our website at: [www.slightwind.com.vn](http://www.slightwind.com.vn)



# DRAWING

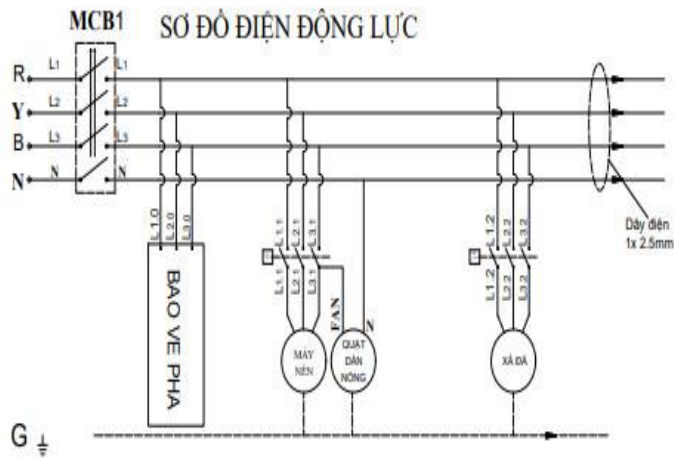
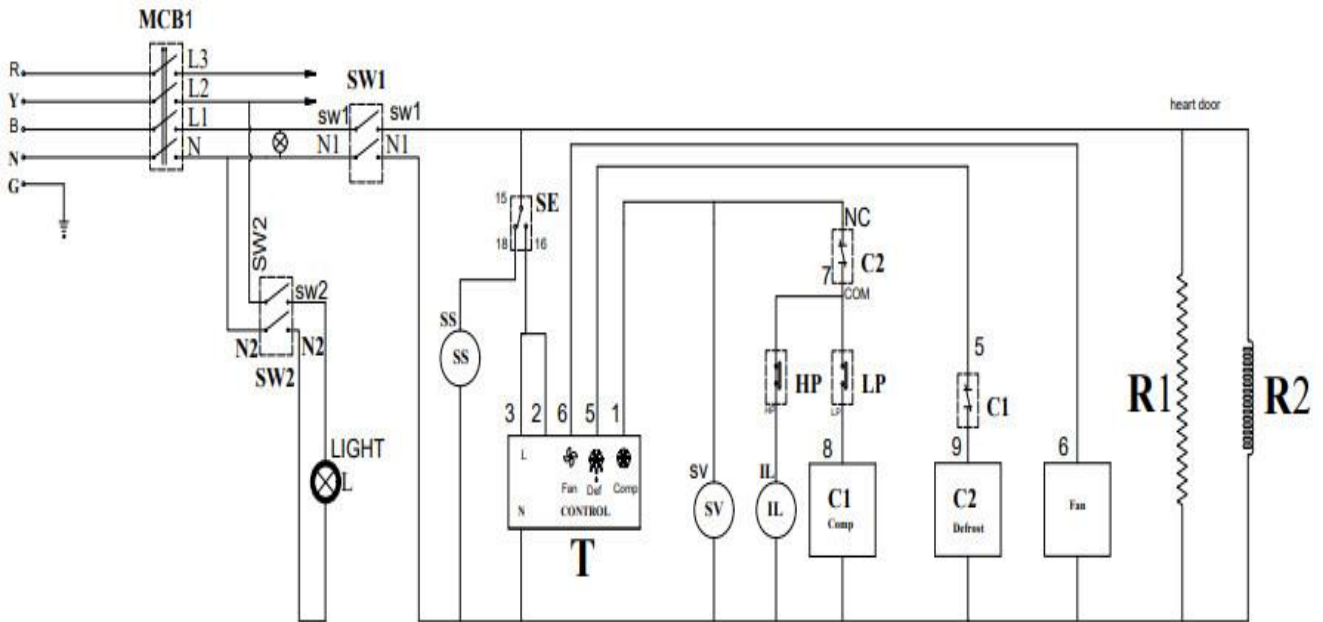
## A. CHILLER ROOM ELECTRICAL WIRING DIAGRAM FOR SWC80C & SWC100C



**GHI CHÚ :**

- L,N,G : Nguồn 1 phase, 3 dây
- CB1 : Aptomat tổng 2P
- SW1 : Công tắc nguồn cấp khiển
- SW2 : Công tắc đèn kho
- T : Bộ điều khiển nhiệt độ
- C1 : Contactor máy nén, quạt dàn nóng
- C2 : Contactor điện trở xả đá
- SV : Van điện từ
- FAN : Quạt dàn lạnh
- L : Đèn chiếu sáng trong buồng kho lạnh
- LP : Relay áp suất thấp
- HP : Relay áp suất cao
- R1 : Điện trở sấy ron cửa
- R2 : Điện trở sấy van thông áp
- IL : ĐÈN BÁO SỰ CỐ
- ⊗ : Đèn báo nguồn

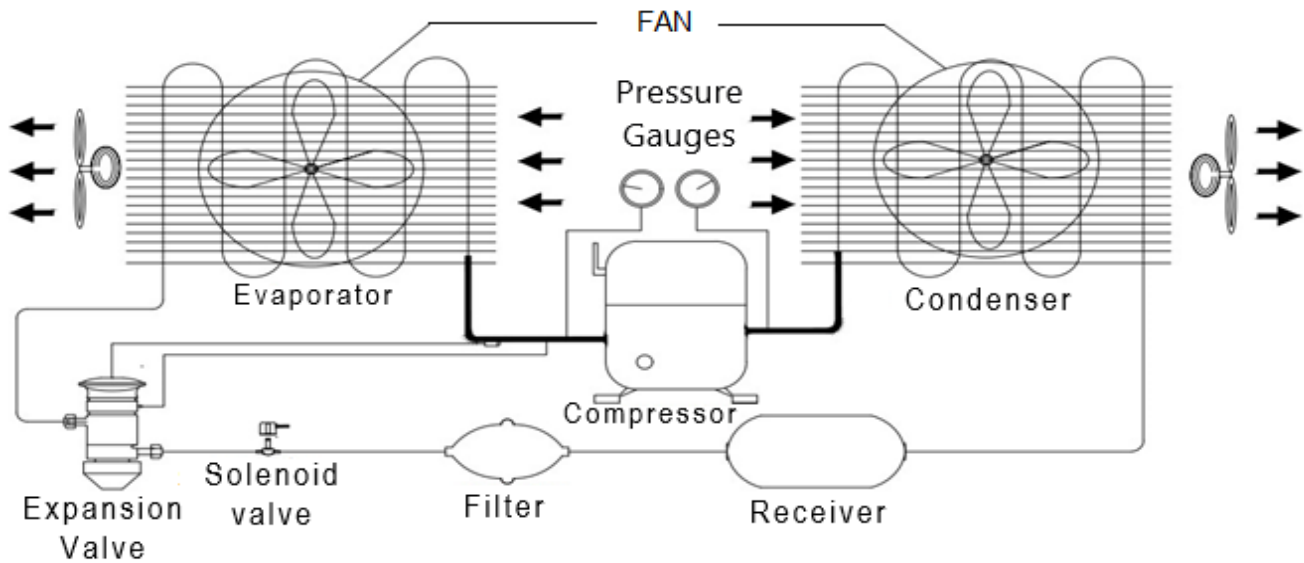
# B.FREEZER ROOM ELECTRICAL WIRING DIAGRAM FOR SWC80F & SWC100F



## GHI CHÚ :

- R,Y,B,N,G : Nguồn 3 phase, 5 dây
- CB1 : Aptomat tổng 3P
- SW1 : Công tắc nguồn cấp khiển
- SW2 : Công tắc đèn kho
- T : Bộ điều khiển nhiệt độ
- C1 : Contactor máy nén, quạt dàn nóng
- C2 : Contactor điện trở xả đá
- ⊗ : Đèn báo nguồn
- SV : Van điện từ
- L : Đèn chiếu sáng trong buồng kho lạnh
- LP : Relay áp suất thấp
- HP : Relay áp suất cao
- R1 : Điện trở sấy ron cửa
- R2 : Điện trở sấy van thông áp
- SE : bao ve pha
- SS : CÒI BẢO SỰ CỘ PHA
- IL : CÒI BẢO SỰ CỘ

### C. PRINCIPLE OF OPERATION:

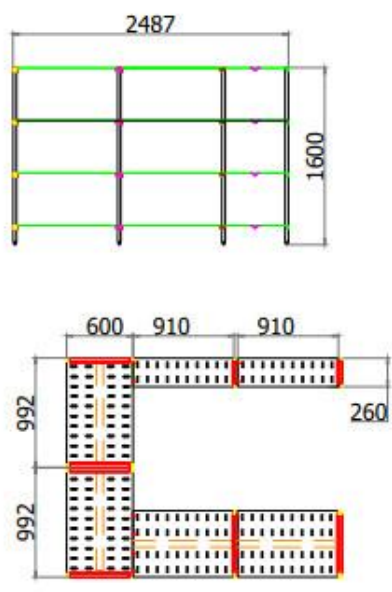


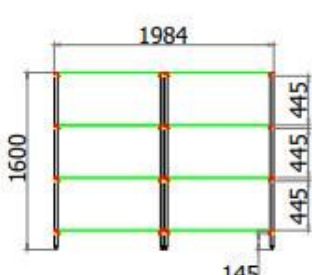
### D. PARTS LIST:

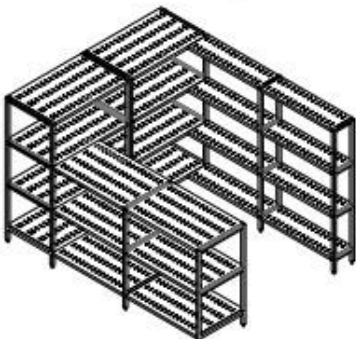
Item	Description	PartNumber	SWC80C SWC100C	SWC80F SWC100F
1	Condenser fan 220v-1Ph-50HZ	SW21-001C	01	02
2	Receiver - Slightwind	SW21-002C	01	01
3	Filter- DML053S	SW21-003C	01	01
4	Compressor 220V - 50Hz -1Ph	SW21-004C	01	00
5	Compressor 380V- 415V - 50Hz - 3Ph	SW21-005C	00	01
6	High & low pressure switch DNS-D606XM	SW21-006C	01	01
7	Solenoid valve DANFOSS-031F1208	SW21-007C	01	01
8	Expansion Valve DANFOSS-TES2/No1	SW21-008C	01	01
9	Condenser - Slightwind	SW21-009C	01	01
10	Power switch 220v-50Hz-1Ph	SW21-010C	02	02
11	Temperature controller DANFOSS-ERC213	SW21-011C	01	01


Item	Description	PartNumber	SWC80C SWC100C	SWC80F SWC100F
12	Contacteur 12A Schneider - 220V - 50Hz - 1Ph	SW21-012C	02	02
13	Phase Protection Relay 220V-50Hz-1Ph	SW21-013C	00	01
14	LED Light 220V-50Hz-1Ph	SW21-014C	01	01
15	Door heater 220V-50Hz-1Ph	SW21-015C	01	01
16	Door handle CM-1178	SW21-016C	01	01
17	Door hinges CM-1132 HSL	SW21-017C	02	02
18	Air filter - Slightwind	SW21-018C	02	02

➤ THE SHELVES FOR SWC100C & SWC100F

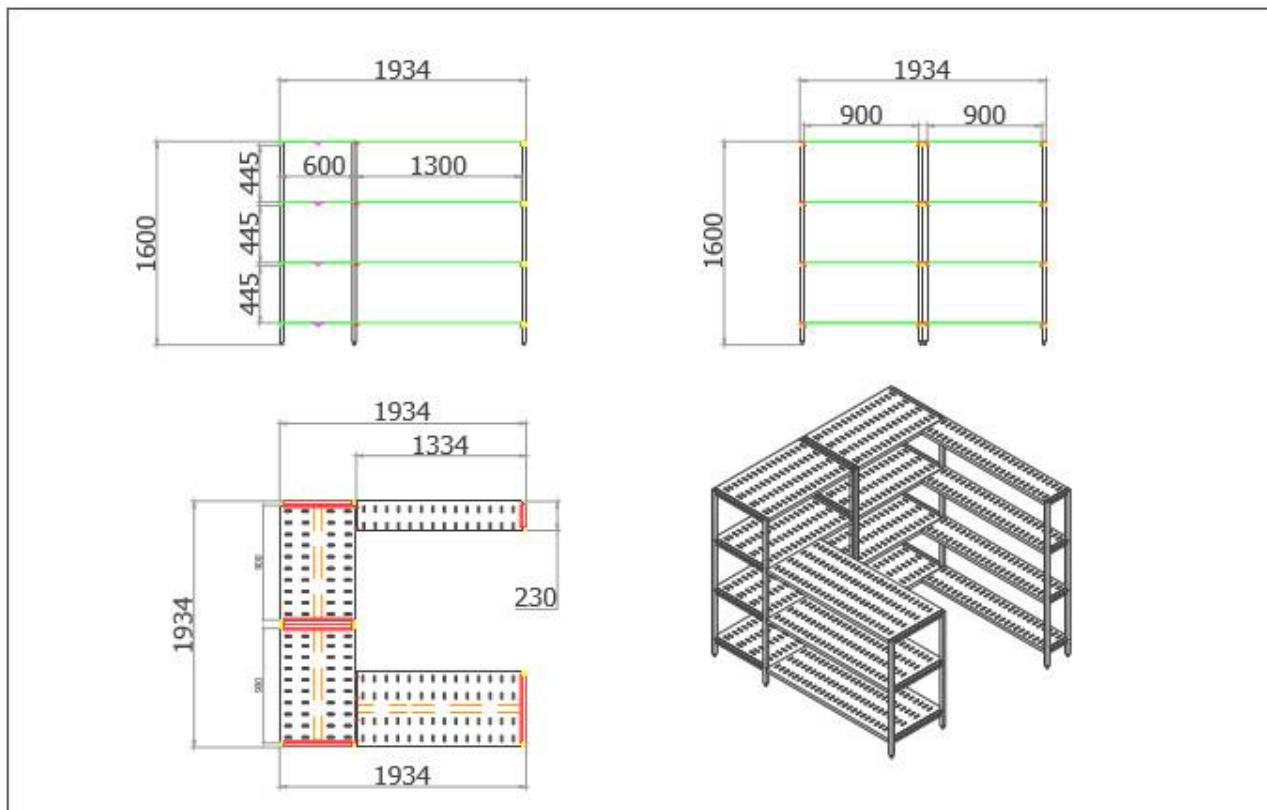







 <p style="font-size: small;">CÔNG TY TNHH TM-DV-SX NGUYỄN PHƯƠNG 62 PHAN ĐÌNH PHÙNG, P. TÂN THÀNH Q. TÂN PHÚ, TP. HỒ CHÍ MINH</p>	Item Hạng mục	Project name Dự án		QTY/SLƯỢNG	SCALE/TL	
	DIRECTOR/G.ĐỐC	DESIGNER/T.KẾ	PRODUCE/S.XUẤT	CUSTOMER/K.HÀNG	01 BỘ	1/20
	NGUYỄN ĐUY PHƯƠNG	PHAN QUỐC VIỆT	BÙI THANH TÙNG		DATE/NGÀY	PAGE SỐ S. TRANG
	KÝ XÁC NHẬN	KÝ XÁC NHẬN	KÝ XÁC NHẬN	KÝ XÁC NHẬN	PRODUCT/S. PHẨM	
					Kho Đông 2150x2650x2150	

➤ THE SHELVES FOR SWC80C & SWC80F



 <p>CÔNG TY TNHH TM-DV-SX NGUYỄN PHƯƠNG 62 PHAN ĐÌNH PHÙNG, P. TÂN THÀNH Q. TÂN PHÚ, TP. HỒ CHÍ MINH</p>	Item	Project name			QTY/SƯỜNG	SCALE/TL
	Hạng mục	Dự án			01 90	1/20
	DIRECTOR/G. ĐỐC	DESIGNER/T. KẾ	PRODUCE/S. XUẤT	CUSTOMER/K. HÀNG	DATE/NGÀY	PAGE NO
	NGUYỄN DUY PHƯƠNG	PHAN QUỐC VIỆT	BÙI THANH TÙNG			S. TRANG
	KÝ XÁC NHẬN	KÝ XÁC NHẬN	KÝ XÁC NHẬN	KÝ XÁC NHẬN	PRODUCT/S. PHẨM	
				Kho Đông 2150x2150x2150		

COLD STORAGE



Food Warmer Display  
SWHB Series



Food Warmer Display  
SWHC Series



Food Warmer Display  
SWHA Series



Food Warmer Display  
SWHD Series

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