Discontinue

CKD

SM－13363－A

# INSTRUCTION MANUAL

## REFRIGERATED AIR DRYER
## Xeroaqua G-Series

GT7120WD
GT7150WD
GT7200WD
GT7250WD
GT7300WD
GT7400WD
GT7480WD
GT7710WD
GT7960WD

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

MAY-06 4th edition
CKD Corporation

Discontinue

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# Safety instructions

This dryer must be operated by a person who has basic knowledge of electric, compressed air,liquid, piping, refrigerant, etc. We are not responsible for any accidents caused when a person who does not have the basic knowledge or who is not well trained installation, operation, repair, etc.
Improper operation may cause poor performance of the dryer or may cause accidents.
We applied a variety of safety measures to our dryers, but improper handling of dryers could cause accidents. Thus, be sure to read and fully understand this manual before using them.
"Keep this manual together with the dryer".

## Caution for safety

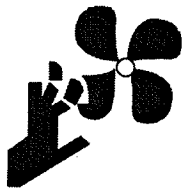
Cautions at operation are indicated in the following two ways. WARNING CAUTION

**WARNING** used when improper handling could kill or seriously harm operators

**CAUTION** used when improper handling could harm operators or damage objects

**WARNING: ROTATION**

★The fan may start rotating suddenly and may be harmful.
Do not put your hands or objects into the fan area.
●Be sure to turn off the power before inspection.



**WARNING: ELECTRICAL SHOCK**

★Power supply terminal box, switches, etc. may cause you electrical shock.
●Be sure to turn off the power before inspection. Do not operate the dryer with your wet hands.

**CAUTION: HIGH TEMPERATURE**

★The dryer is hot for a while after shut down the dryer.
●Be sure to turn off the power and to confirm that dryer becomes cool before inspection.

**CAUTION: FOOT HOLD**

★You could fall if you climb on the panel.
●Do not climb on the panel.

**EARTH CONNECTION**

★Be sure to connect earth to prevent electrical shock.

This dryer is industrials. Be sure to fully attend to using the dryer.

# Warranty

Assure next contents.

(1) **Warranty period**

One year from the date of purchase (date on delivery or invoice date ).

(2) **Repair free of charge (Note: applied dryers to use in Japan)**

a. We will repair your dryer free of charge during the warranty period if it breaks down and is used properly as indicated in this manual and labels on your dryer.

b. We will charge you repair service fee even during our warranty period if the following apply.

* breakdown or damage due to improper operation, repair, or remodeling.
* breakdown or damage due to relocation after installation, drop, or transportation damage.
* breakdown or damage due to transportation by automobile, ship, etc.
* breakdown or damage due to fire, earthquake, flood, thunder, other natural disaster, pollution, salt hazard, gas hazard, abnormal voltage, abnormal water pressure or quality, congelation, or other external causes.
* breakdown or damage not caused by your dryer.
* travel expense

**Warranty valid is only in Japan.**

(3) **After warranty expiration**

Repair costs are needed for you.

(4) **Periodical inspection (charge)**

Ask us for this service.

(5) **No second compensations**

Our warranty policy is covered only for our products. We do not compensate for other equipments, products or compensation for business what are caused by this machine's accidents or failures. Please protect second compensations by your warning systems or nonlife insurances.

# 1 . Introduction

Thank you very much for purchasing our refrigerated air dryer, Xeroaqua GT Series.
This manual explains basic points of operation to have our dryer performs at their best.
Be sure to read this manual before using your dryer.
Keep this manual together with the dryer.

# 2. Certificate of pressure vessel

## 1 . Keep the certificate of pressure vessel

This machine is installed a pressure vessel that is applied the second class pressure vessel of boiler and pressure vessel safety regulation by the Japan Ministry of Labor. The machine is shipped with a certificate of the second class pressure vessel. This certificate should be kept carefully with this machine while this machine is operated. (It is not necessary to submit the relevant documents to the labor standard inspection office from October 1, 1990.)

## 2 . Handling for the second class pressure vessel certificate

1 ) Second class pressure vessel cannot be transferred, rent, and installed without the requirements of structure. The certificates of the second class pressure vessel supplied with the machine are important documents that certify the pressure vessels meet the requirement for the structure.

2 ) Carefully keep certificates of the second class pressure vessel in a safe place so that it is not damaged, broken, or lost.

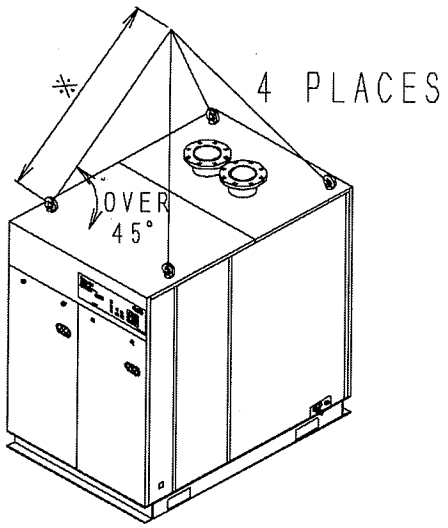
3 ) If you want reissue the certificates of second class pressure vessel, it must be within one year from individual inspection. Otherwise, it is absolutely necessary to inspect the pressure vessel again.

4 ) Inspect following items once a year by your self, then please keep those results for three years after installation of second class pressure vessels.
①Check the main body for damage.
②Check the lid tightening bolts for wear.
③Check the piping and valves for damage.

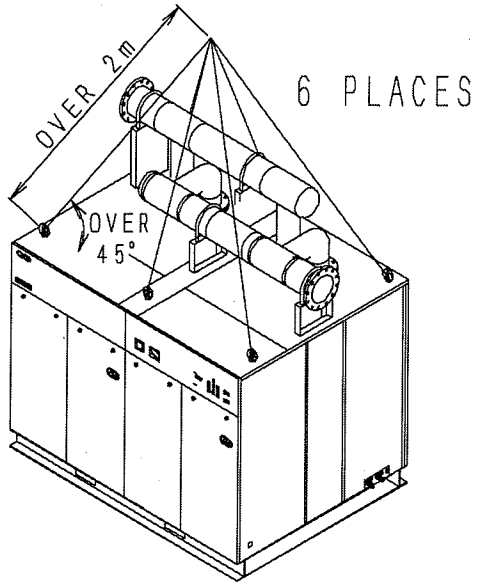
# 3. Cautions

## 3.1 Transportation

1) Always carefully deliver and transport the dryer so that personal injury or damage to the dryer does not occur, because this dryer is heavy.
2) The dryer is transported by the lifting fork holes in the dryer base with a forklift or hold the dryer up by putting cable through hooks.




GT7120WD, GT7150WD, GT7200WD
GT7250WD, GT7300WD, GT7400WD
GT7480WD




GT7710WD, GT7960WD

※ ・GT7120WD,7150WD,7200WD,7250WD is 1m or more
・GT7300WD,7400WD,7480WD is 1.5m or more

*The dryer fall to the ground and internal parts could get damaged or the forklift fall down.

3) Do not fall down the dryer. Also do not give vibration or impact to the dryer.
*Internal parts could get damaged.
4) Do not climb up on the dryer or put objects on the dryer.
*Workers could get hurt.

## 3.2 Operation environment

1) Do not install the dryer outdoor.
*This product does not have water-proof structure. Water or rain splashing to its electrical system could result in leak or fire.
2) Operating ambient temperature should be 2 to 45℃ (no condensation).
*Drain freezes under the temperature of 2℃ or below, and this could cause break-down.Operation under the temperature of 45℃ or above could stop the operation abnormally or could shorten the service life of the product.
3) Do not use the dryer in a place with direct sun light, powder dust and side of heating elements. Also, place the dryer without corrosive gas, explosive gas, ignitable gas or combustible gas.
*Breakdown, explosion, or fire may result.

### 3.3 Cautions at operation

1) Do not use the dryer to remove humidity of except compressed air.
   *Breakdown, explosion, or fire may result.
2) Install an earth leakage breaker on the power supply.
   *Electric shock may result.
3) Need to earth wiring.
   *Causes of an electric shock or a fire.
4) Operate the dryer within specification ranges.
   *Operation may stop abnormally, or the product's service life may be shortened.
5) Do not turn on and turn off the dryer frequently more than 6 times an hour. Keep it running 5 minutes or more before turning it off and hold restarting it on 5 minutes or longer. Do not operate while 3 minutes after stop this dryer, because the restart prevention circuit is operated.
   *Breakdown or shorter service life of the product may result.
6) Do not turn on the power switch without enclosures.
   *Electric shock or heat injury may result, or rotation parts could hurt workers.
7) Do not remodel this dryer.
   *Break-down or shorter life time of the product may result. If you did, the warranty is expired.
8) Turn on the power supply 4 hours before operation.
   (GT7150WD,7200WD,7250WD,7300WD,7400WD,7480WD,7710WD,7960WD)
   *A crank case heater is built in the dryer to protect the refrigeration compressor.
9) Before operation, check pressures by these refrigerant pressure gauges.
   If the temperature transrated from refrigerant pressure gages are almost same as ambient temperature, it is determined.
   *If these indications are lower than ambient temperature, it is possible to leak refrigerant gas. Thus, turn off the power supply and referring to trouble shooting.
10) Check the indicator of dew point during operation.
    *If the green lamp of the indicator turns on, operation will be stopped, and also life of compressor etc. will become short.
11) This dryer has a security function for momentary power failure what is produced by lighting ETC. Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds. Do not operate with 5 minutes after stop this dryer, because the restart prevention circuit is operated.
12) Remote start terminal D1-D2 is alternate non-voltage input.
    (GT7120WD,7150WD,7200WD,7250WD)
    Remote start terminal D1-D2 and remote stop terminal D3-D4 are momentary non-voltage input.(GT7300WD,7400WD,7480WD,7710WD,7960WD)
13) Do not touch any parts, wires, terminals or piping in side of the dryer.
    *Causes of an electric shock or a fire.
14) If emergency stop occurs during operation, remove the cause of abnormal conditions referring to the trouble shooting.
    *If the emergency stop occurs repeatedly, this may cause the dryer to malfunction.
15) Discharge drain and sludge accumulated in the heat exchangers and drain pipes when you turn off the dryer.
    Thus, turn on the manual drain switch 10 second or longer and open the manual drain valve 10 second or longer.
16) Please open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.
17) Please do not operate a local-remote change switch during operation.
    *It becomes the cause of stop.

18) Do not use the dryer for pneumatic caisson shield or respiratory medical equipment.
*It could cause an accident includes injury.
19) Do not use the dryer for transportation devices such as automobile, ship etc.
*Vibration could be a cause of break down of the internal components.
20) Do not install any water cut relay on the cooling water inlet or outlet lines which puts the dryer in the emergency stop state using the water cut signal.
If installed, the water control valve in the dryer may be opened fully depending on the operating conditions.
*If the emergency stop by water cut signal.
21) Use coolant to prevent cooling water for untifreezing during winter.
*This could cause break-down.
22) Install a strainer in a cooling water inlet.
23) Be sure to wash a condenser twice in 1 time per year.
24) Follow the standards of water quality established by next page for coolant water and the supply.

Water quality standard

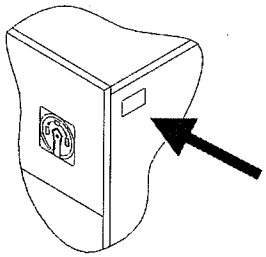
| Parameter | Chemical formula | Unit | Water quality standard |
|---|---|---|---|
| pH | — | pH(25℃) | 6.5 to 8.2 |
| Specific electric conductivity | — | mS/m(25℃){μS/cm(25℃)} | 0.2 to 80{2 to 800} |
| Chloride ions | Cl– | mg/ℓ (ppm) | 200 or less |
| Sulphate ion | SO4–– | mg/ℓ (ppm) | 100 or less |
| Alkalinity(pH4.8) | CaCO3 | mg/ℓ (ppm) | 100 or less |
| Total hardness | CaCO3 | mg/ℓ (ppm) | 200 or less |
| Calcium hardness | CaCO3 | mg/ℓ (ppm) | 150 or less |
| Silica | SiO2 | mg/ℓ (ppm) | 50 or less |
| | | | |
| Iron | Fe | mg/ℓ (ppm) | 0.5 or less |
| Copper | Cu | mg/ℓ (ppm) | 0.3 or less |
| Sulfid ion | S–– | mg/ℓ (ppm) | No detecting |
| Ammonium ion | NH4+ | mg/ℓ (ppm) | 1.0 or less |
| Residual chlorine | Cl | mg/ℓ (ppm) | 0.3 or less |
| Free carbon | CO2 | mg/ℓ (ppm) | 4.0 or less |
| Stability index | — | | 6.0 to 7.0 |
| | | | |
| Mattoson ratio | HCO3–/SO4–– | | 1.0 or more |
| Hydro carbon ion | HCO3– | mg/ℓ (ppm) | — |
| Oxygen content | | mg/ℓ (ppm) | 0.1 or less |
| Aluminum | Al | mg/ℓ (ppm) | 0.2 or less |
| Manganese | Mn | mg/ℓ (ppm) | 0.1 or less |
| Nitrate ion | N03– | mg/ℓ (ppm) | 100 or less |
| Sodium ion | Na+ | mg/ℓ (ppm) | 20 or less |
| | PO4––– | mg/ℓ (ppm) | 2.0 or less |
| | NH3 | mg/ℓ (ppm) | 0.5 or less |
| | Mn++ | mg/ℓ (ppm) | 10 or less |
| | H2S | mg/ℓ (ppm) | 0.05 or less |
| Residue on evaporation | | mg/ℓ (ppm) | 50 or less |
| Turbidity | | | 2 degrees or less |

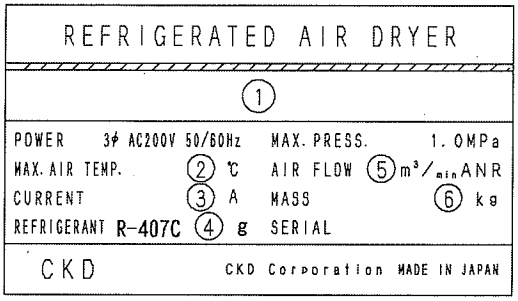
●Do not use the cooling water containing the ingredient which may deposit in a condenser or cooling-water piping, and may precipitate, or an ingredient with corrosive.
●Use hard water after performing soft water-ized processing.

# 4. Installation

## 4.1 The beginning

1) Confirm the contents on the label. (Model No., Spec. etc.)






This machine right-hand side

| ① | ② | ③ | ④ | ⑤ | ⑥ |
|---|---|---|---|---|---|
| GT7120WD-AC200V | 60 | 8.4/9.3 | | 21/24.7 | 200 |
| GT7150WD-AC200V | 60 | 10.7/11.0 | 2100 | 26/31 | 320 |
| GT7200WD-AC200V | 60 | 13.8/14.1 | 2700 | 34/39.5 | 360 |
| GT7250WD-AC200V | 60 | 15.5/15.8 | 3600 | 41/48.5 | 480 |
| GT7300WD-AC200V | 60 | 21.4/22.0 | 2000×2 | 50/59.5 | 710 |
| GT7400WD-AC200V | 60 | 27.6/28.2 | 2750×2 | 70/82.5 | 960 |
| GT7480WD-AC200V | 60 | 31.0/31.6 | 3250×2 | 82/96.5 | 980 |
| GT7710WD-AC200V | 60 | 44.0/46.0 | 5100×2 | 123/145 | 1900 |
| GT7960WD-AC200V | 60 | 60.0/64.0 | 6600×2 | 164/193 | 2000 |

*If the contents are not clear or there are any questions, please contact CKD or distributors before using the dryer.

2) Confirm damage or transformation that is made during the transportation.

3) Attachment list.

| Parts name | Quantity | Remarks |
|---|---|---|
| ◎Instruction manual | 1 set | |
| ◎Certificate of the second class pressure vessel | 1 set | |

### 4.2 Installation features

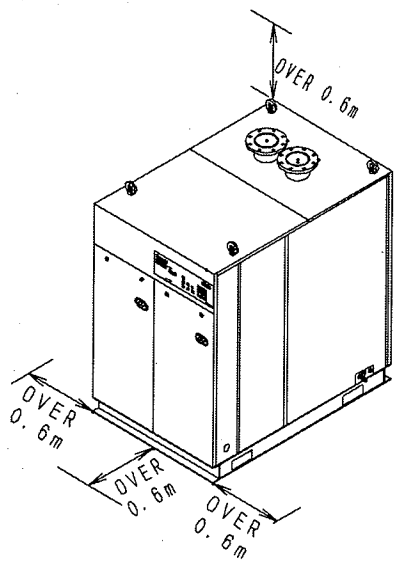
1) Do not install the dryer outdoor or high humidity place.
*This product does not have waterproof structure.
Water or rain splashing, high humidity (=85% RH or over) could cause leak or fire to electrical systems.

2) Operating ambient temperature should be 2 to 45℃ with no condensation.
*Drain freeze under the temperature of 2℃ or below, and this could cause breakdown.
Operation under the temperature of 45℃ or above could stop the operation abnormally or could shorten the service life of the product.

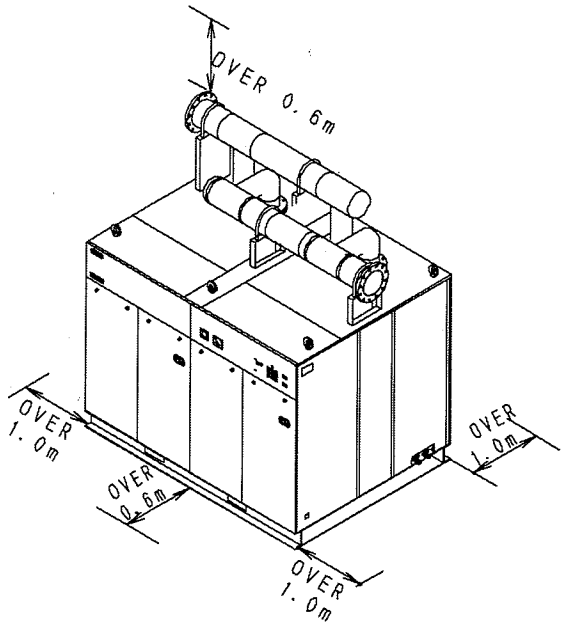
3) Install the dryer without direct sunlight, powder dust, heating elements, corrosive gas,explosive gas, inflammable gas or combustibles.
*Breakdown, explosion or ignition may result.

4) The installation floor should have a solid concrete foundation with level and flat surface.
*Weak or inclin foundation may cause noise and vibration.

5) Need to keep spaces as a following figure for maintenance.



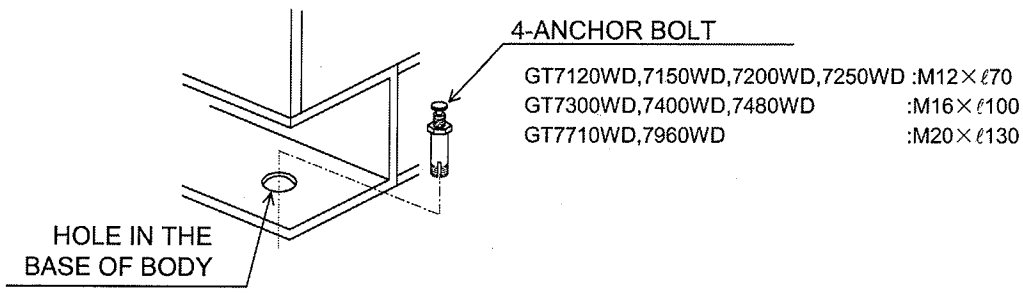

GT7120WD, GT7150WD, GT7200WD
GT7250WD, GT7300WD, GT7400WD
GT7480WD




GT7710WD, GT7960WD

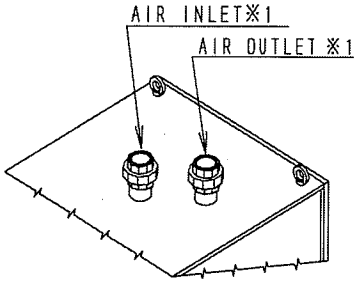
### 4.3 Fixation

Fix the dryer body by anchor bolts to avoid the dryer falling due to earthquake or impact.

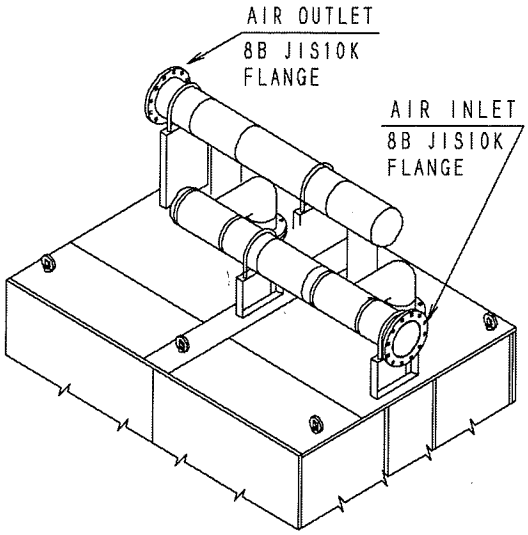


### 4.4 Air piping

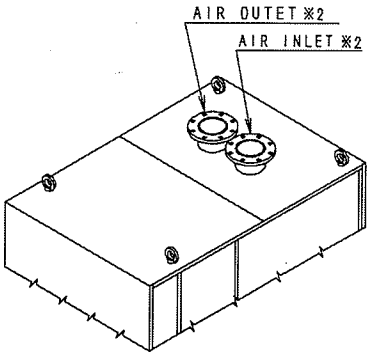
1） Confirm which is Air inlet or Air outlet before piping.




GT7120WD, GT7150WD, GT7200WD
GT7250WD




GT7710WD, GT7960WD

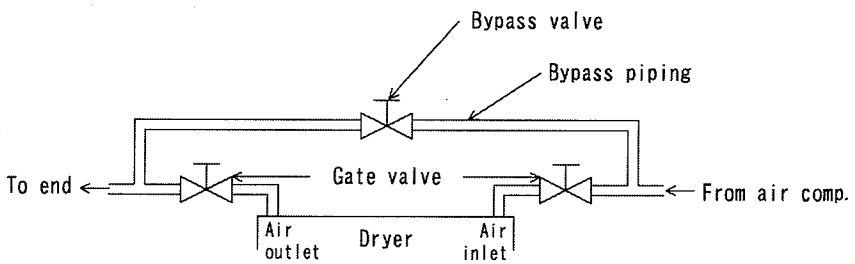



GT7300WD, GT7400WD, GT7480WD

※1 GT7120WD : $2^{1}/_{2}$B 10K FLANGE
GT7150WD,7200WD : 3B 10K FLANGE
GT7250WD : 4B 10K FLANGE

※2 GT7300WD : 4B 10K FLANGE
GT7400WD,7480WD : 6B 10K FLANGE

2） Install a bypass circuit in the air circuit.

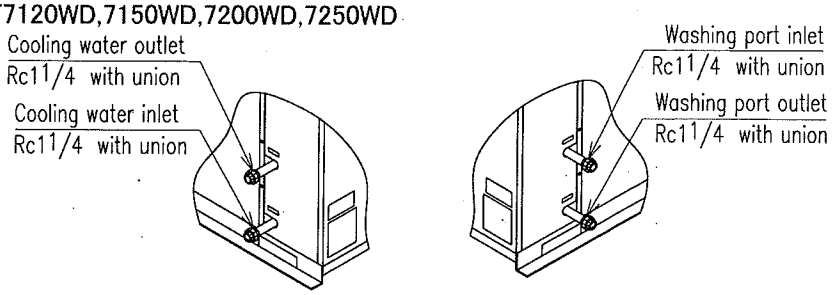



3） Make sure that the weight of the piping is not directly exerted on the dryer.
4） Make piping without transmitting vibration from the dryer operation on the dryer.
5） Piping must be able to endure the operating pressure and temperature. No air leakage is allowed from pipe connections.
6） Use zinc plated steel pipe or stainless steel pipe.
7） Make air flushing for pipes before piping to remove dusts.

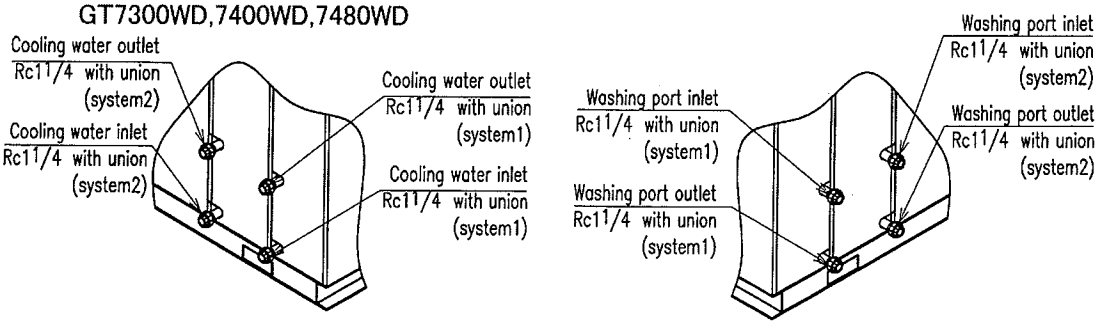
### 4.5 Cooling water piping

1) Confirm cooling water inlet and outlet locations before piping.

GT7120WD,7150WD,7200WD,7250WD

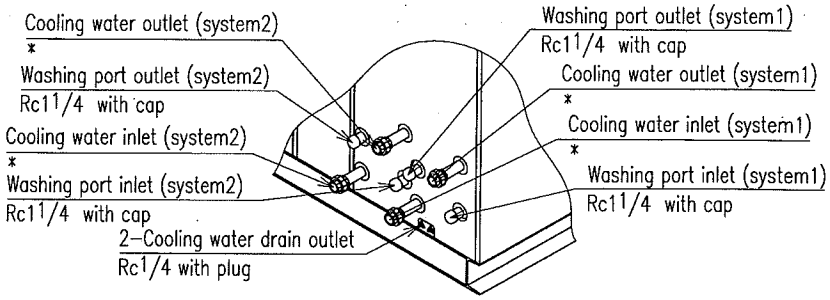



GT7300WD,7400WD,7480WD



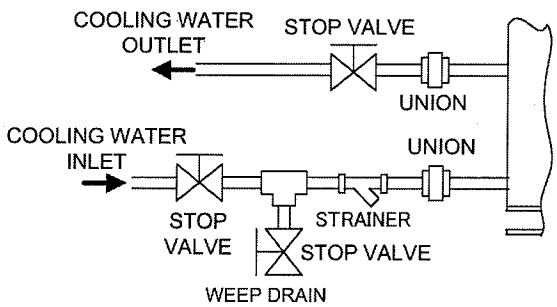

GT7710WD,7960WD

* GT7710WD : Rc $1^1/_2$
GT7960WD : Rc 2




2) Install a drain port with stop valve on the cooling water inlet line.

COOLING WATER

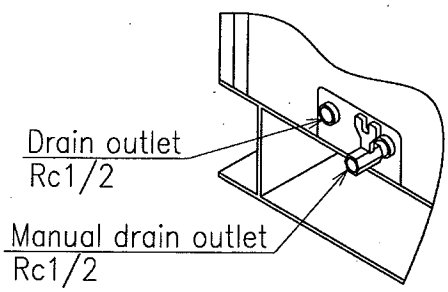



3) Make sure that the weight of the piping is not directly exerted on the dryer.
4) Piping must be able to endure the operating pressure and temperature. No water leakage is allowed from pipe connections.
5) Use zinc plated steel pipe or stainless steel pipe.
6) Make air flushing for pipes before piping to remove dusts.
7) If the ambient temperature of the dryer becomes 2℃ or less during winter when the dryer is under suspension, keep warm the dryer with appropriate insulation.
8) Since the amount of cooling water shows the value in a rated operating condition, please secure twice(more than) as many amount of water as a rated value supposing the case when dirt and load of a condenser become large.
9) Install a strainer in a cooling water inlet.
10) Follow the standards of water quality established by P.6 for coolant water and the supply.

### 4.6 Drain piping

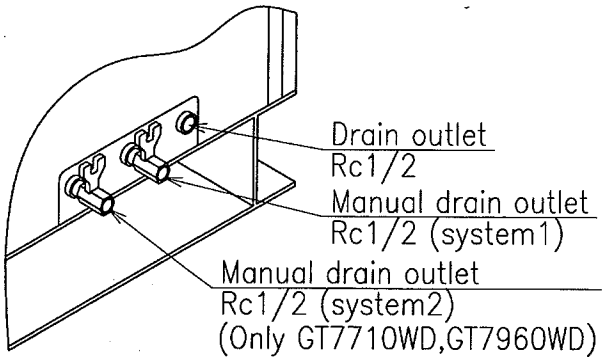
1) Confirm the drain outlet location before piping

・GT7120WD,7150WD,7200WD,7250WD




View-Bottom on the left side panel

・GT7300WD,7400WD,7480WD,7710WD,7960WD




View-Bottom on the right side panel

2) The drain pipe end should be opened to atmosphere.

3) Drain may not be discharged due to back pressure if some pipes rise up from the drain port or the drain pipe is too long or narrow. The drain piping may have declivity for smooth drain flow.

4) Fix drain discharge tube firmly, because the tube shakes strongly when drain is discharged automatically by air pressure.
※Drain scatters and there is fear of an unexpected accident.

5) Drain must be treated if oil is mixed in it. Consult with industrial waste treatment companies about this treatment.

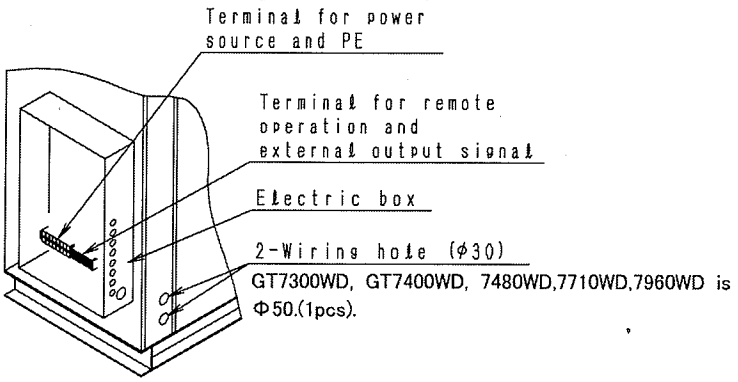
⚠ 6) Connect drain piping on the manual drain outlet.
※Open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.

### 4.7 Electrical wiring

1) Supply voltage should be within ±10% of rated voltage.
3 phase / 180~220V AC 50Hz, 180~242V AC 60Hz

2) Have an earth leakage breaker with over-load protection that has 100mA sensitivity current on the power supply line.

3) Connection for power supply, external output signal, remote operation and Ground.




⚠ ・Insert a power cable, an output signal cable, a remote operation cable and a ground cable to wire each terminals firmly without looseness or coming off.
※Looseness or coming off wiring could causes of a fire.
※Do not wire the ground line to a water pipe, gas pipe, a lighting conductor. It should wire to a ground terminal.

Discontinue

·Recommended electrical wiring

| Model | Breaker capacity (A) | Cable size($mm^2$) | | | |
|---|---|---|---|---|---|
| | | Length 10m | Length 20m | Length 30m | Length 50m |
| GT7120WD | 20 | 3.5 | 8.0 | 8.0 | 14.0 |
| GT7150WD | 20 | 8.0 | 14.0 | 22.0 | 22.0 |
| GT7200WD | 30 | 14.0 | 14.0 | 22.0 | 30.0 |
| GT7250WD | 30 | 14.0 | 14.0 | 22.0 | 30.0 |
| GT7300WD | 40 | 14.0 | 14.0 | 22.0 | 30.0 |
| GT7400WD | 40 | 22.0 | 22.0 | 22.0 | 38.0 |
| GT7480WD | 50 | 22.0 | 22.0 | 30.0 | 60.0 |
| GT7710WD | 75 | 38.0 | 38.0 | 60.0 | 100.0 |
| GT7960WD | 100 | 60.0 | 60.0 | 60.0 | 100.0 |

·Recommended wire is type IV (600V vinyl insulated wire) at ambient temperature is 40 ℃.

·Minimum power cable and ground cable sizes are shown by the cable size list as the above chart.

・Number of terminal and connect the wire

| Model # | Terminal No. | Terminal size | Description | Type of contact | Mode | Capacity |
|---|---|---|---|---|---|---|
| – | L1 | ※ | Power source | – | – | – |
| | L2 | ※ | Power source | – | – | – |
| | L3 | ※ | Power source | – | – | – |
| | PE | ※ | Ground | – | – | – |
| GT7120WD GT7150WD GT7200WD GT7250WD | D1-D2 | M3 | Remote start and stop | Input; non-voltage contact by a pulse input signal | Start at close Stop at open | – |
| | D3-D4 | M3 | Operation signal | Output; non-voltage Contact (a-contact) | Close contact at operation | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| | D5-D6-D7 | M3 | Alarm signal | Output; non-voltage Contact (c-contact) | Close contact at (D5-D7) alarm | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| | D8-D9-D10 | M3 | Abnormal dew point signal | Output; non-voltage Contact (c-contact) | Close contact at (D8-D10) dew point alarm | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| GT7300WD GT7400WD GT7480WD GT7710WD GT7960WD | D1-D2 | M3 | Remote start | Input; non-voltage contact by a pulse input signal | Start at momentary close contact | Minimum 0.5sec |
| | D3-D4 | M3 | Remote stop | Input; non-voltage contact by a pulse input signal | Stop at momentary close contact | Minimum 0.5sec |
| | D5-D6 | M3 | Operation signal | Output; non-voltage Contact (a-contact) | Close contact at operation | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| | D7-D8 | M3 | Alarm signal | Output; non-voltage Contact (a-contact) | Close contact at abnormal condition | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| | D9-D10 | M3 | Abnormal dew point signal | Output; non-voltage Contact (a-contact) | Close contact at abnormal dew point | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |
| | D11-D12 | M3 | Drain over-flow signal | Output; non-voltage Contact (a-contact) | Close contact at drain over-flow | Contact capacity; AC125V/DC110V 2A,62.5VA,30W |

※ GT7120WD :M4
GT7150WD,7200WD,7250WD,7300WD :M5
GT7400WD,7480WD,7710WD :M6
GT7960WD :M8

# 5. Startup and operation

## 5.1 Startup

1) Confirm air piping, drain piping, cooling water piping and electrical wiring those are properly connected.
2) Confirm gate valves across the dryer are opened and the gate valve of by-pass piping those are closed. Confirm supply air pressure in the pipes that is zero.
3) Confirm the stop valves for cooling water piping across the dryer those are opened and the stop valves for maintenance and the water outlet valve are closed.
4) Confirm the stop valve for manual drain outlet that is closed.
5) Turn on the main switch and turn on the power supply.
(GT7120WD)
Turn on the main switch and turn on the power supply 4 hours before operation.
(GT7150WD,7200WD,7250WD,7300WD,7400WD,7480WD,7710WD,7960WD)
"DEW POINT" lamp on the operation panel turns on.
At this moment, the lamp indicates ambient temperature.
6) Supply the cooling water.
7) To operate the dryer remotely using external signals, change the Local/Remote selector switch to remote. At the time of shipment, it is set to the local side.
8) GT7300WD,7400WD,7480WD,7710WD,7960WD
If the dryer is operated for less than 50% load. Further, the dryer is wanted to operate by the energy saving mode, turn off #1 or #2 refrigerant circuit "OPERATE / STOP".

## 5.2 Operation

1) Start up the dryer
Push "START" button on the operation panel.
In the remote control mode, close between terminal number D1 and D2.

| | |
|---|---|
| GT7120WD,7150WD,7200WD,7250WD | : Non-voltage contact, hold input |
| GT7300WD,7400WD,7480WD,7710WD,7960WD | : Non-voltage contact, Pulse input, Min.0.5sec. |

2) Starting of operation
"RUN" lamp turns on, and the dryer operates. System1 and system2 compressors operate one by one with 5 seconds time lag.
(GT7300WD,7400WD,7480WD,7710WD,7960WD)
Open supply air valve 5 minutes after dryer had been started.
※If the compressed air is flown into the dryer at the same time of the operation is started, moisturized air enters the outlet piping of the dryer, causing drain to occur.

3) During operation
After a while, dew point meter is working that should be within the green area. The drain removed by the dryer is regularly discharged compulsorily by air pressure when solenoid valve is on. You can check discharge of drain by pushing the "TEST" switch on the operation panel. When starting the dryer, discharge drain. Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds.

### 5.3 Shutdown the dryer

1) Push "STOP" button on the operation panel.
   If you are using remote control mode, open between terminal number D1 and D2.
   (GT7120WD,7150WD,7200WD,7250WD : Non-voltage contact, open input)
   If you are using remote control mode, open between terminal number D3 and D4.
   (GT7300WD,7400WD,7480WD,7710WD,7960WD : Non-voltage contact, Input pulse more than 0.5 second.)
2) "RUN" lamp will be turned off, then the dryer stops operation.
   Keep it running 5 minutes or more before turning it off and hold restarting it on 5 minutes or longer. Do not operate while 3 minutes after stop this dryer, because the restart prevention circuit is operated.
3) Finally shut the water cooling line.

### 5.4 Safety device activation

#### 5.4.1 Safety devices

##### 5.4.1.1 GT7120WD

1) Thermo switch ; When the refrigeration compressor become hot, thermo switch ST01 will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay FR01 will be working, then the dryer stops operation.
3) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch SP01 will be working, then the dryer stops operation.
4) Dew point alarm; When the dryer has an abnormal dew point, DEW POINT mater shows a yellow lamp with output signal. (D8-D10) However, the dryer operation is still continuing. When the pressure dew point become correct, the alarm condition is automatically reset.
5) Other safety devices; This machine has some fuse for control circuit.
6) Alarm indication; When those safety devices (except for fuses) are working and the dryer stop operation, the alarm lamp "HL08" and switch the warning signal "D5-D7".
7) Set points of safety devices.

| Mark | Parts name | Application | Set point | How to reset |
|---|---|---|---|---|
| ST01 | Thermo switch | External temp for refrig. comp. | 115℃ OFF<br>85℃ ON | Auto reset |
| FR01 | Over current relay | Operating current for refrig.compressor | 14A OFF | Manual reset |
| SP01 | High pressure switch | Refrig. circuit | 2.06MPa OFF<br>1.67MPa ON | Auto reset |
| SA01 | Dew point alarm output | Cooling air temp. | 23.5℃ or over and<br>–0.9℃ or less | Auto reset |
| FU01 | Thermo fuse | | 128℃ | Repare the parts (TC01) |
| FU02 | Fuse | | 1A | Repare the parts (FU02) |
| FU03 | Fuse | | 0.5A | Repare the parts (SA01) |
| FU04 | Thermo fuse | | 131℃ | Repare the parts (TC02) |

### 5.4.1.2 GT7150WD,7200WD,7250WD

1) Internal thermostat ; When the refrigeration compressor become hot, thermo switch ST01 will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay FR01 will be working, then the dryer stops operation.
3) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch SP01 will be working, then the dryer stops operation.
4) Dew point alarm; When the dryer has an abnormal dew point, DEW POINT mater shows a yellow lamp with output signal. (D8-D10) However, the dryer operation is still continuing.
5) Other safety devices; This machine has some fuse for control circuit.
6) Alarm indication; When those safety devices (except for fuses) are working and the dryer stops operation, the alarm lamp "HL08" and switch the warning signal "D5-D7".
7) Set points of safety devices.

| Mark | Model | Parts name | Application | Set point | How to reset |
|---|---|---|---|---|---|
| ST01 | GT7150WD<br>GT7200WD<br>GT7250WD | Thermo switch | Compressor discharge piping temperature | 115℃ OFF<br>105℃ ON | Auto reset |
| FR01 | GT7150WD | Over current relay | Operating current for refrig. compressor | 22A OFF | Manual reset |
| | GT7200WD | | | 26A OFF | |
| | GT7250WD | | | 28A OFF | |
| SP01 | GT7150WD<br>GT7200WD<br>GT7250WD | High pressure switch | Refrig. circuit | 2.06MPa OFF<br>1.67MPa ON | Auto reset |
| SA01 | GT7150WD<br>GT7200WD<br>GT7250WD | Dew point alarm output | Cooling air temp. | 23.5℃ or over and<br>–0.9℃ or less | Auto reset |
| FU01 | GT7150WD<br>GT7200WD<br>GT7250WD | Thermo fuse | | 128℃ | Repare the parts (TC01) |
| FU02 | GT7150WD<br>GT7200WD<br>GT7250WD | Fuse | | 1A | Repare the parts (FU02) |
| FU03 | GT7150WD<br>GT7200WD<br>GT7250WD | Fuse | | 0.5A | Repare the parts (SA01) |
| FU04 | GT7150WD<br>GT7200WD<br>GT7250WD | Thermo fuse | | 131℃ | Repare the parts (TC02) |

### 5.4.1.3 GT7300WD,7400WD,7480WD,7710WD,7960WD

1) Internal thermostat ; When the refrigeration compressor become hot, thermo switch (ST01,02) will be working, then the dryer stops operation.
2) Over current relay; When the refrigeration compressor has over current, over current relay FR01 will be working, then the dryer stops operation.
3) High pressure switch; When the refrigerant high pressure exceeds the specified level, the high pressure switch SP01,02 will be working, then the dryer stops operation.
4) Dew point alarm; When the dryer has an abnormal dew point, DEW POINT mater shows a yellow lamp with dew point alarm output(D9-D10) However, the dryer operation is still continuing. When the pressure dew point become correct, the alarm condition is automatically reset.
5) If drain level is exceeded over set point, light the drain alarm lamp"HL09"and switch the warning signal "D11-D12".However the dryer do not stop on those conditions.
6) Other safety devices; This machine has some fuse for control circuit.
7) Alarm indication; When those safety devices (except for fuses) are working and the dryer stops operation, the alarm lamp "HL10" and switch the warning signal "D7-D8".
8) Set points of safety devices.

| Mark | Model | Parts name | Application | Set point | How to reset |
|---|---|---|---|---|---|
| ST01<br>ST02 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Thermo switch | Compressor discharge piping temperature | 115℃ OFF<br>105℃ ON | Auto reset |
| FR01<br>FR02 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Over current relay | Operating current for refrig. compressor | 22A OFF<br>26A OFF<br>28A OFF<br>36A OFF<br>48A OFF | Manual reset |
| SP01<br>SP02 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | High pressure switch | Refrig. circuit | 2.06MPa OFF<br>1.67MPa ON | Auto reset |
| SA01 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Dew point alarm output | Cooling air temp. | 23.5℃or over and –0.9℃ or less | Auto reset |
| FU01 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Thermo fuse | | 131℃ | Repair the parts (TC01) |
| FU02 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Fuse | | 2A | Repair the parts (FU02) |
| FU03 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Fuse | | 0.5A | Repair the parts (SA01) |
| FU04 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Thermo fuse | | 131℃ | Repair the parts (TC02) |
| FU05 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Fuse | | 0.5A | Repair the parts (SA02) |
| FU06 | GT7300WD<br>GT7400WD<br>GT7480WD<br>GT7710WD<br>GT7960WD | Thermo fuse | | 131℃ | Repair the parts (TC03) |

### 5.4.2 Reset for the alarm

1) Turn off the power supply and main switch for "ALARM" lamp turning off.
2) The reset method of each safeguard is based on 5.4.1.
3) Remove causes that stopped the dryer abnormally. Be sure to turns off the power supply when remove causes of problems.
4) Turn on the power supply and main switch.

CAUTION: If thermal type safety devices had been working, the dryer can not restart until 10 to 15 minutes after power on, because of cooling time. You may restart after then.

# 6. Maintenance and check point

## 6.1 Items of maintenance and check point

Check following items for full performance and longer service life of the dryer.

| Checking item | Contents | | Checking cycle | | | |
|---|---|---|---|---|---|---|
| | | | Daily | Weekly | Monthly | 6-Month |
| "RUN" lamp | "RUN" lamp is lighting. | | X | | | |
| "DEW POINT" indicator | "DEW POINT" indicator lamp indicates in the green area. | | X | | | |
| Refrigerant pressure | Before operation | Equivalent to the ambient temperature by R-407C. | | X | | |
| | In operation | 0.35～0.6MPa | | | | |
| Refrigerant high pressure | Before operation | Equivalent to the ambient temperature by R-407C. | | X | | |
| | During operation | 1.1～1.9MPa | | | | |
| Running signal | Check conduction between terminal number ※1 in operation. | | | | X | |
| Drain switch | When you push "DRAIN" switch on the operation panel, drain is discharged properly. | | X | | | |
| Condenser | No water scale is sticking in the condenser . | | | | | X (Cleaning) |
| Refrigerant compressor | No abnormal noise is generated. | | X | | | |
| Air leak | No air leaks. | | | | X | |

※1 D3-D4
GT7120WD,7150WD,7200WD,7250WD
D5-D6
GT7300WD,7400WD,7480WD,7710WD,7960WD

## 6.2 Removal of contaminant accumulated in the heat exchanger

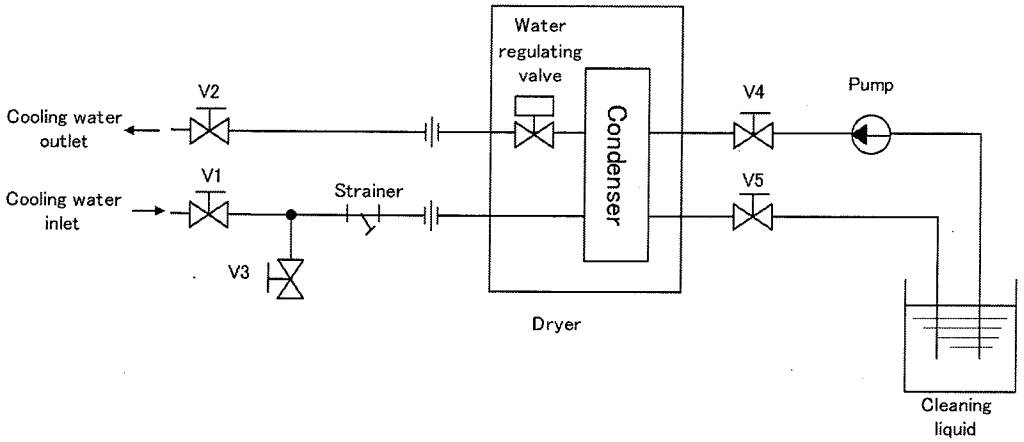
Open the manual drain valve once or twice of about ten seconds a week, because contaminant that is accumulated in the pressure vessel need to be exhausted.

### 6.3 Cleaning of condenser

If the condenser is contaminated with water scale, the temperature difference between inlet and outlet cooling water becomes small and the refrigerant high pressure getting higher than normal.If this phenomenon occur, clean the inside of condenser.

As for the model with two systems, both systems should clean.

Neglect of cleaning of condenser will cause machine trouble.




Clean up procedure

1) Shut down the dryer.
2) Install the cleaning circuit as above.
3) Open the stop valve V3 to discharge remaining water from the water circuit.
   After water has been discharged completely, close the stop valve V3.
4) Close the stop valves V1 and V2.
5) Open the stop valve V4 and V5, then cleaning the water circuit.
   Select cleaning solution suitable for cleaning of water scale.
   Parts of these condensers are made by copper. Thus, use cleaning liquid that does not corrode copper.
6) After cleaning the condensers, drain the cleaning solution, sufficiently. Then, wash the condenser by water well.
7) Close the stop valves V4 and V5, and takes the cleaning circuit out from the water circuit.
8) Open the stop valves V1, and V2.
9) Pass the cooling water into the circuit and restart the dryer operation.
10) Please also clean periodically the strainer installed in the cooling water inlet.

### 6.4 Consumables and maintenance parts

(Note: pcs/set is use quantity per 1 set of these devices.)

●Consumables

(The parts which will be exchanged if the state exhausting was checked periodically and it has exhausted.)

Inspect the following parts periodically, and exchange it based on Exchange judgment standard.

| Parts name | pcs/set | Inspection frequency | Exchange judgment standard※ |
|---|---|---|---|
| Fuse | 1 | Each time | When being cut off. |

※ Be careful that it is not a guarantee value since the operation time (years) indicated changes with operating conditions (ambient temperature, installation environment, etc.). Years are a standard at the time of considering as 12 hours/day (Japan Electrical Manufacturer's Association (JEMA)) x 300 days of operating ratios.

※ We recommend you to keep a fuse as spare parts.

●Periodic maintenance parts (The main parts for which exchange is needed with a use situation)

Check the following parts periodically and exchange them based on standard exchange time.

| Parts name | pcs /set | How to exchange | Standard exchange time ※ |
|---|---|---|---|
| Compressor | Note(a) | B | 20,000 hours (6 years) |
| Electromagnetic switch (For compressor) | Note(a) | A | 20,000 hours (6 years) |
| Solenoid valve | Note(b) | A | 20,000 hours (6 years) |

※ Keep in mind that it is not a guarantee value since the operation time (years) indicated above changes with operating conditions (ambient temperature, installation environment, etc.). Years are a standard at the time of considering as 12 hours/day (Japan Electrical Manufacturers' Association (JEMA)) x 300 days of operating ratios. Moreover, since time for the rate of failure in the case where you use it above this time to increase is shown, although it is not necessary to necessarily exchange, this exchange time is exchanged when the case where there are abnormalities at the time of check, and preventive maintenance are performed

・How to exchange

A : Those who have the knowledge and experience of piping, electricity, etc. Need to perform exchange of parts.
(When there are not these knowledge and experiences, ask our company or a special contractor.)

B : Before part exchange, refrigerant recovery is required. Moreover, since technical knowledge is needed for exchange work, ask our company or a special contractor.

Note(a) : 1 pcs/set(GT7120WD,7150WD,7200WD,7250WD)
2 pcs/set(GT7300WD,7400WD,7480WD,7710WD,7960WD)

Note(b) : 1 pcs/set(GT7120WD,7150WD,7200WD,7250WD,7300WD,7400WD,7480WD)
2 pcs/set(GT7710WD,7960WD)

### 6.5 Long term keeping

If the dryer is not used long term, keep the dryer with the following procedure.

1) Close the stop valves before/after the dryer.
2) Open the manual drain valve, because contaminant that is accumulated in the pressure vessel need to be exhausted.
3) Turn off the power supply and main switch.
4) Discharge the remaining water from the water circuit refer to the procedure of 6.3 Cleaning of condenser.
5) Put a sheet over the dryer for keeping.

   Keep the dryer in a place where environment is the same as the operating specification.
6) When the dryer is started again, inspect the dryer parts and start it as the instruction in this manual.

### 6.6 After sale service

1) Contact your store, distributor or CKD you purchased this dryer to request repair services.
2) Provide the following information when requesting the repair service.

   *model number of the dryer.

   *serial number

   *date of installation

   *name of the store where you purchased the dryer

   *conditions of the dryer
3) We will repair your dryer even after the warranty period expires onerously. We will supply parts for seven years after production of your dryer is terminated except special orders.

# 7. Trouble shooting

| Condition | | Causes | | Measures |
|---|---|---|---|---|
| "DEW POINT" lamp does not turn on | | Power supply did not turn on. | | Turn on the power supply. |
| | | Main switch did not turn on. | | Turn on the main switch. |
| | | Fuse was failed | FU01 | Replace the transformer(TC01). |
| | | | FU02 | Replace the fuse. |
| | | | FU03 | Replace the main control board.(SA01) |
| | | | FU04 | Replace the transformer(TC02). |
| | | Different power supply phase pattern. | | Adjust the phase |
| | | Main control boad (SA01) was failed. | | Replace the main control boad. |
| "RUN" lamp does not turn on when the push "START" button. | | GT7120WD,7150WD,7200WD,7250WD | | |
| | | Local-Remote change over switch (SA05) was set at "REMOTE". | | Set "LOCAL" on the Local-Remote change over switch. |
| | | Main control boad(SA01) was failed. | | Replace the main control boad. |
| | | Start switch(SB01) was failed. | | Replace the main control boad. |
| | | GT7300WD,7400WD,7480WD,7710WD,7960WD | | |
| | | Local-Remote change over switch (SA06) was set at "REMOTE". | | Set "LOCAL" on the Local-Remote change over switch. |
| | | Start switch (SA07,08) was set at "OFF". | | Set "ON" on the start switch. |
| | | Run lamp (HL07,08) bulb was failed. | | Replace the run lamp bulb. |
| | | Start switch (SB01) was failed. | | Replace the start switch. |
| Dew point is abnormal | Yellow lamp (High temp. side of "DEW POINT" lamp) is turned on. | Refer to "*" mark in water comes out when the dryer is running. | | |
| | | Dew point sensor(RT01) was short-circuited. | | Replace the dew point sensor. |
| | Yellow lamp (Low temp. side of "DEW POINT" lamp) is turned on. | Ambient temp. was low. | | Adjust the temp.(2℃or higher) |
| | | Inlet air temp. was low. | | Adjust the temp.(5℃or higher) |
| | | Dew point sensor(RT01) was burned out. | | Replace the dew point sensor. |
| Water comes out when the dryer is running | Dew point is normal, but water comes out to the end of piping | The pipe temp. coming out from the dryer was lower than the dew point. | | Insurate the pipe from ambient temp. |
| | | By-pass circuit is open. | | Close the by-pass circuit. |
| | | Too much flow rate. | | Reduce the flow (Less than rated condition.) |
| | | Low inlet air pressure. | | Increase the air pressure. |
| | | Solenoid valve(YV01) for drain discharge was failed. | Open the manual drain valve | Replace the solenoid valve. |
| | | Drain piping is clogged. | | Take apart and clean the drain pipe. |
| | | Too much drain capacity. | | Watch drain do not flow in the dryer. |
| | | Drain sensor (SQ01) is broke down. | | Replace the drain sensor. |
| | "DEW POINT" lamp is on, and water comes out to the end of piping.(*) | Over spec the load.<br>·High inlet cooling water temp.<br>·Low inlet cooling water flow rate.<br>·Low inlet cooling water press.<br>·High inlet air temp.<br>·Low inlet air press.<br>·Too much flow rate. | | ·Reduce the inlet cooling water temp.<br>·Increase the inlet cooling water flow rate.<br>·Reduce the inlet air temp.<br>·Reduce the inlet air temp.<br>·Increase the air press.<br>·Reduce the flow. |
| | | Low or high power supply voltage. | | Adjust the voltage. |
| | | GT7300WD,7400WD,7480WD,7710WD,7960WD | | |
| | | Start switch (SA07,08) was set at "OFF". | | Set "ON" on the start switch. |

| Condition | | Causes | | Measures |
|---|---|---|---|---|
| The dryer suddenly stops. | "ALARM" lamp turns on. | Some safety devices were turning on.<br>·Refrigerant gas leakage.<br>·Over spec the load. | | Remove causes of problems and reset<br>· Repair the parts leaking gas and refill refrigerant.<br>·Refer the P15 ＊ mark. |
| | All the lamps turn off, and the dryer stops. | Power supply was turned off. | | Turn on the power supply. |
| | | Low or high power supply voltage. | | Adjust the voltage. |
| | | Fuse was failed | FU01 | Replace the transformer.(TC01) |
| | | | FU02 | Replace the fuse. |
| | | | FU03,FU05 | Replace the main control board |
| | | | FU04,FU06 | Replace the tranceformer (TC02). |
| | "RUN" lamp is turns on when the dryer stops. | Momentary power failure. | | Wait until the dryer is restarted by automatically.<br>(Reactivate the dryer immediately after power recovery, if instantaneous power failure is less than 0.5 seconds. Also, reactivate the dryer 3 minutes later after power recovery, if instantaneous power failure is less than 2 seconds.) |
| | "RUN" lamp is turns off, and the dryer stops. | Power failure is occurred more than two seconds. | | Please restart after three minutes or more.<br>(Do not operate while 5 minutes after stop this dryre, because the restart prevention circuit is operated.) |
| Pressure drop before/after the dryer is too large. | | Stopper valves before/after the dryer is closed. | | Fully open the valves. |
| | | Treated flow rate is too large. | | Lower the flow rate. |
| | | Congelation in the dryer. | | ·Increase ambient temp.<br>·Increase the inlet air temp. |
| Drain on pressurized air is exhausted continuously from the drain solenoid valve. | | Solenoid valve for drain discharge was failed. | | Take apart for clean or replace the solenoid valve. |
| | | Inlet air temp. sensor was burned out. | | Replace the inlet air temp. senser. |
| "DRAIN ALARM" lamp(HL09) is turns on, and "DRAIN OVER-FLOW" signal is output. | | GT7300W,7400W,7480W,7710WD,7960WD | | |
| | | Drain discharge circuit was failed or drain pipe is choked up. | Open the manual drain valve | Take apart for clean or replace the solenoid valve. |
| | | Inlet air temp. sensor was short-circuited. | | Exchange the inlet air temp. senser. |

Discontinue

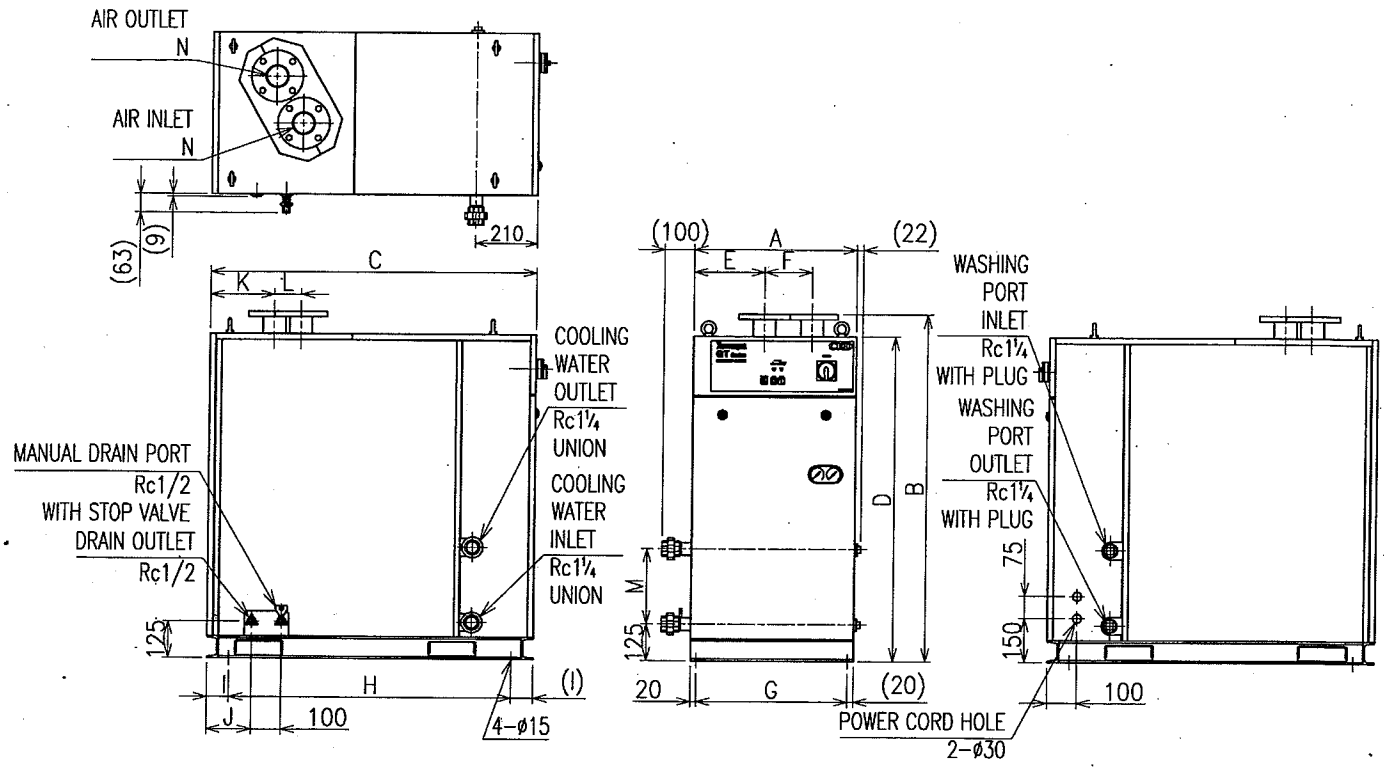
# 8. Attachment data

## 8.1 Specifications

| Model number / Description | | | GT7120WD-AC200V | GT7150WD-AC200V | GT7200WD-AC200V | GT7250WD-AC200V | GT7300WD-AC200V | GT7400WD-AC200V | GT7480WD-AC200V | GT7710WD-AC200V | GT7960WD-AC200V |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Using condition | Media | | Compressed air | | | | | | | | |
| | Inlet air temp. | ℃ | 5~60 | | | | | | | | |
| | Inlet air pressure | MPa | 0.2~1.0 | | | | | | | | |
| | Ambient temp. | ℃ | 2~45 | | | | | | | | |
| | Cooling water press. | MPa | 0.2~0.98 | | | | | | | | |
| Rated conditions | Air flow rate | $m^3$/min ANR | 21/24.7 | 26/31 | 34/39.5 | 41/48.5 | 50/59.5 | 70/82.5 | 82/96.5 | 123/145 | 164/193 |
| | Inlet air temp. | ℃ | 40 | | | | | | | | |
| | Inlet air press. | MPa | 0.7 | | | | | | | | |
| Performance | Air outlet dew point | ℃ | 10 | | | | | | | | |
| | Press. Drop | MPa | 0.008/ 0.011 | 0.009/ 0.013 | 0.014/ 0.019 | 0.011/ 0.015 | 0.011/ 0.015 | 0.0084/ 0.012 | 0.012/ 0.016 | 0.007/ 0.009 | 0.012/ 0.016 |
| | Cooling water press. drop | MPa | 0.024/ 0.034 | 0.040/ 0.055 | 0.068/ 0.093 | 0.052/ 0.072 | 0.043/ 0.059 | 0.074/ 0.10 | 0.057/ 0.078 | 0.094/ 0.129 | 0.084/ 0.115 |
| Electric characteristics | Electric power | | 3 phase AC200V 50Hz, AC200V-220V 60Hz | | | | | | | | |
| | Power consumption | kW | 2.3/2.8 | 2.9/3.4 | 3.7/4.5 | 4.0/4.9 | 5.8/6.8 | 7.4/9.0 | 8.0/9.8 | 12.4/14.6 | 17.1/20.4 |
| | Operation current | A | 8.4/9.3 | 10.7/11.0 | 13.8/14.1 | 15.5/15.8 | 21.4/22.0 | 27.6/28.2 | 31.0/31.6 | 44/46 | 60/64 |
| | Starting current | A | 55/50 | 100/91 | 126/112 | 140/122 | 200/182 | 252/224 | 280/244 | 414/374 | 612/560 |
| Refrigerant | | | R-407C | | | | | | | | |
| Piping size of air inlet and outlet | | | $2^1/_2$B 10K Flange | 3B 10K Flange | | 4B 10K Flange | | 6B 10K Flange | | 8B 10K Flange | |
| Piping size of drain outlet (main & manual) | | | 2-Rc1/2 | | | | | | | 3-Rc1/2 | |
| Mass | | kg | 250 | 320 | 360 | 480 | 710 | 960 | 980 | 1900 | 2000 |

Note1) ANR shows conditions where 20℃ atmospheric pressure and relative humidity 65%.
Note2) Pressure drop is a reference value in an initial state.
Note3) Power consumption and operation current are the values under rated conditions.

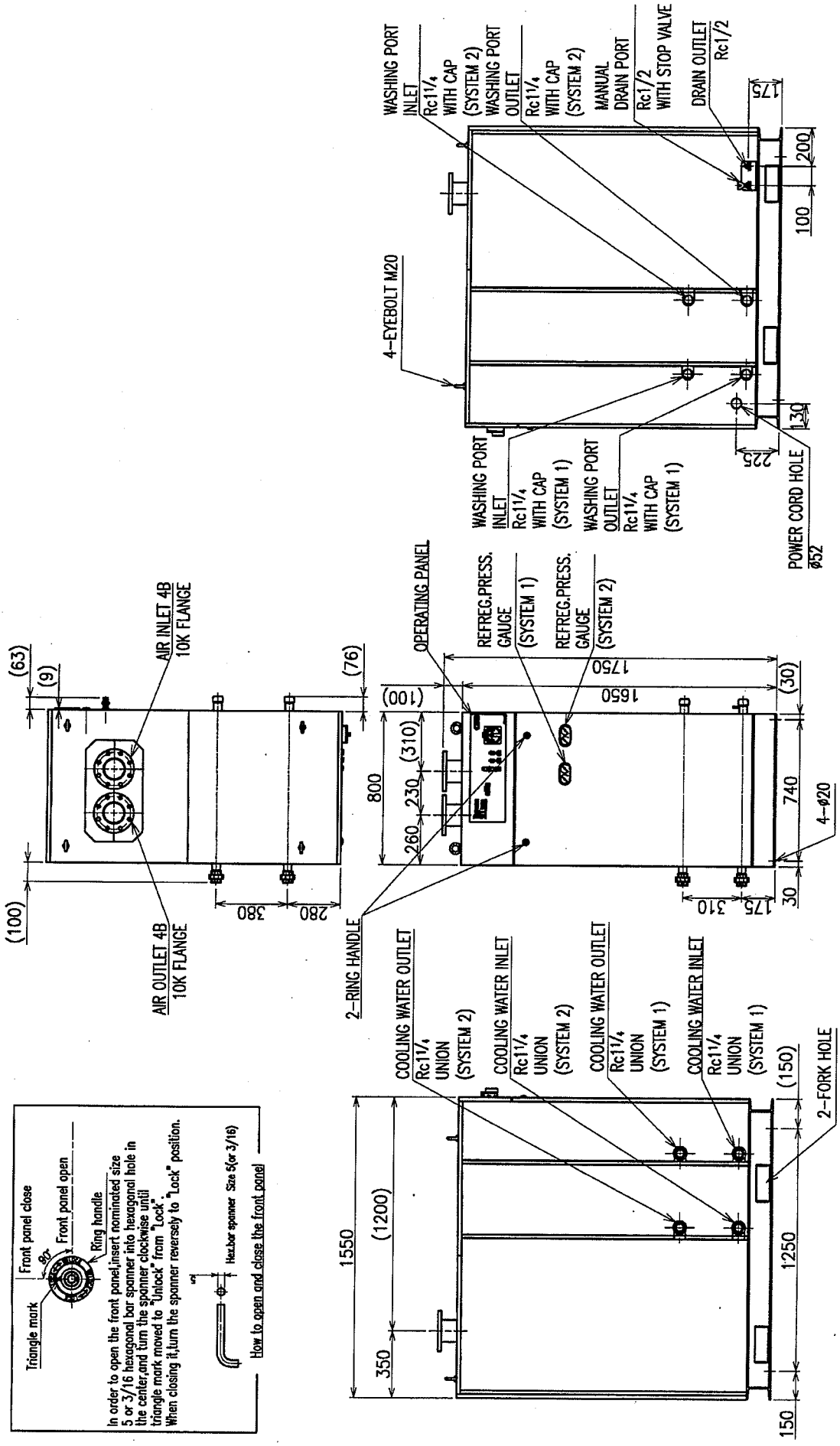
### 8.2 Outline drawing
### 8.2.1 GT7120WD,7150WD,7200WD,7250WD



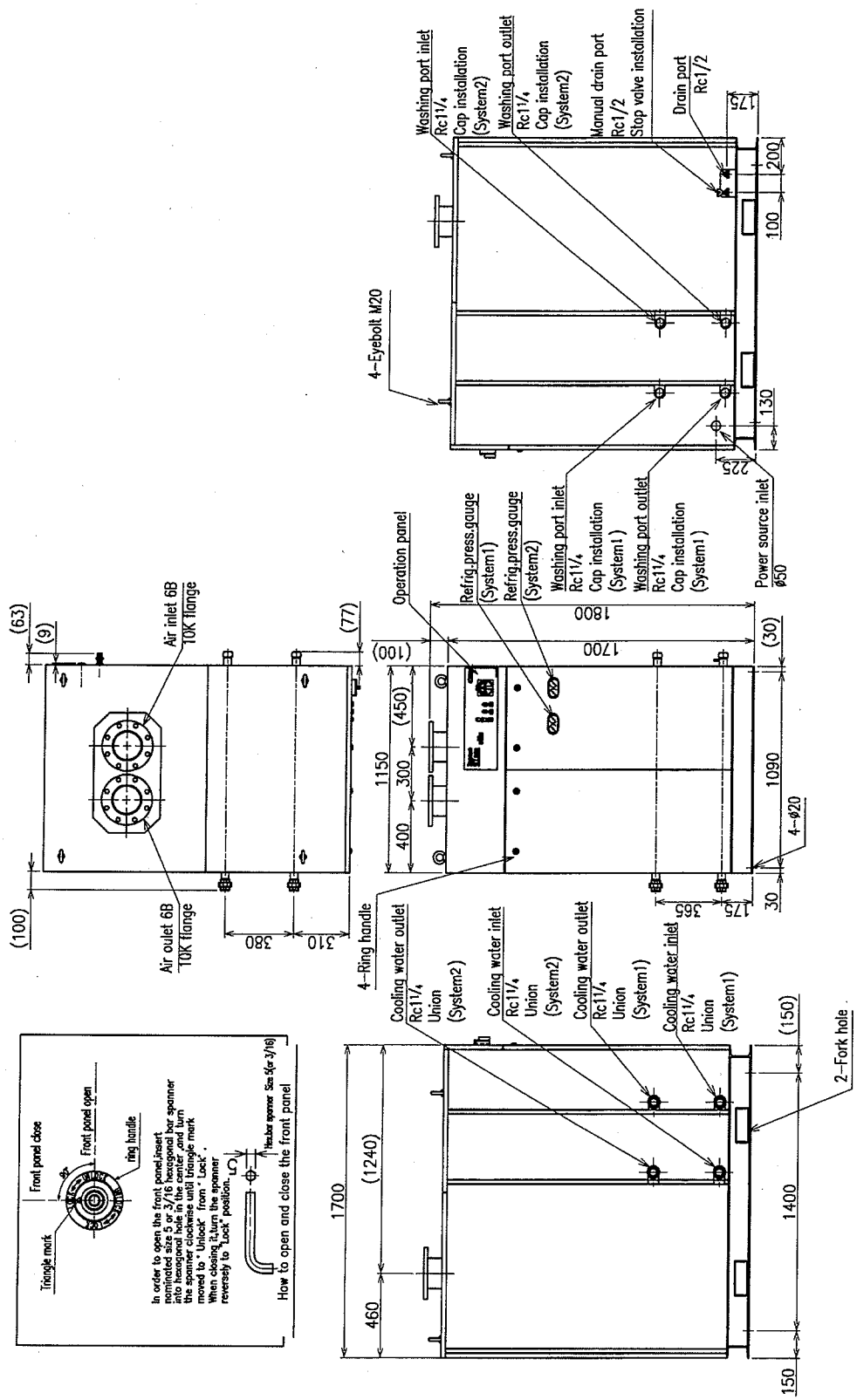

| Symbol / Model | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GT7120WD | 550 | 1175 | 1100 | 1100 | 240 | 160 | 510 | 950 | 75 | 150 | 215 | 90 | 310 | $2^1/_2$B flange |
| GT7150WD | 650 | 1375 | 1200 | 1300 | 300 | 140 | 610 | 1000 | 100 | 150 | 230 | 140 | 310 | 3B flange |
| GT7200WD | 700 | 1375 | 1200 | 1300 | 330 | 140 | 660 | 1000 | 100 | 150 | 230 | 140 | 365 | 3B flange |
| GT7250WD | 750 | 1600 | 1300 | 1500 | 292 | 156 | 710 | 1100 | 100 | 200 | 242 | 156 | 475 | 4B flange |

Discontinue

### 8.2.2 GT7300WD

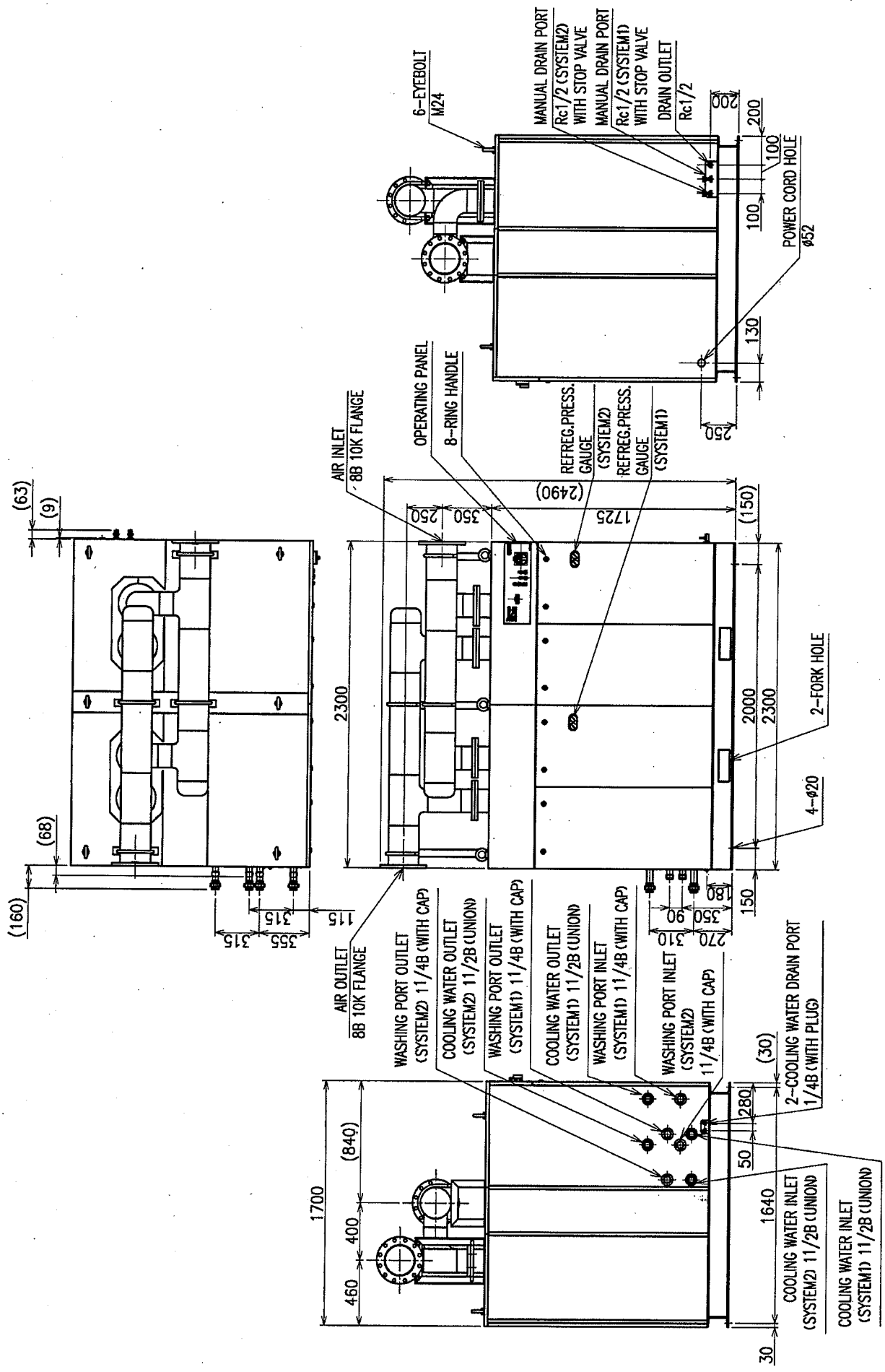


### 8.2.3 GT7400WD,7480WD



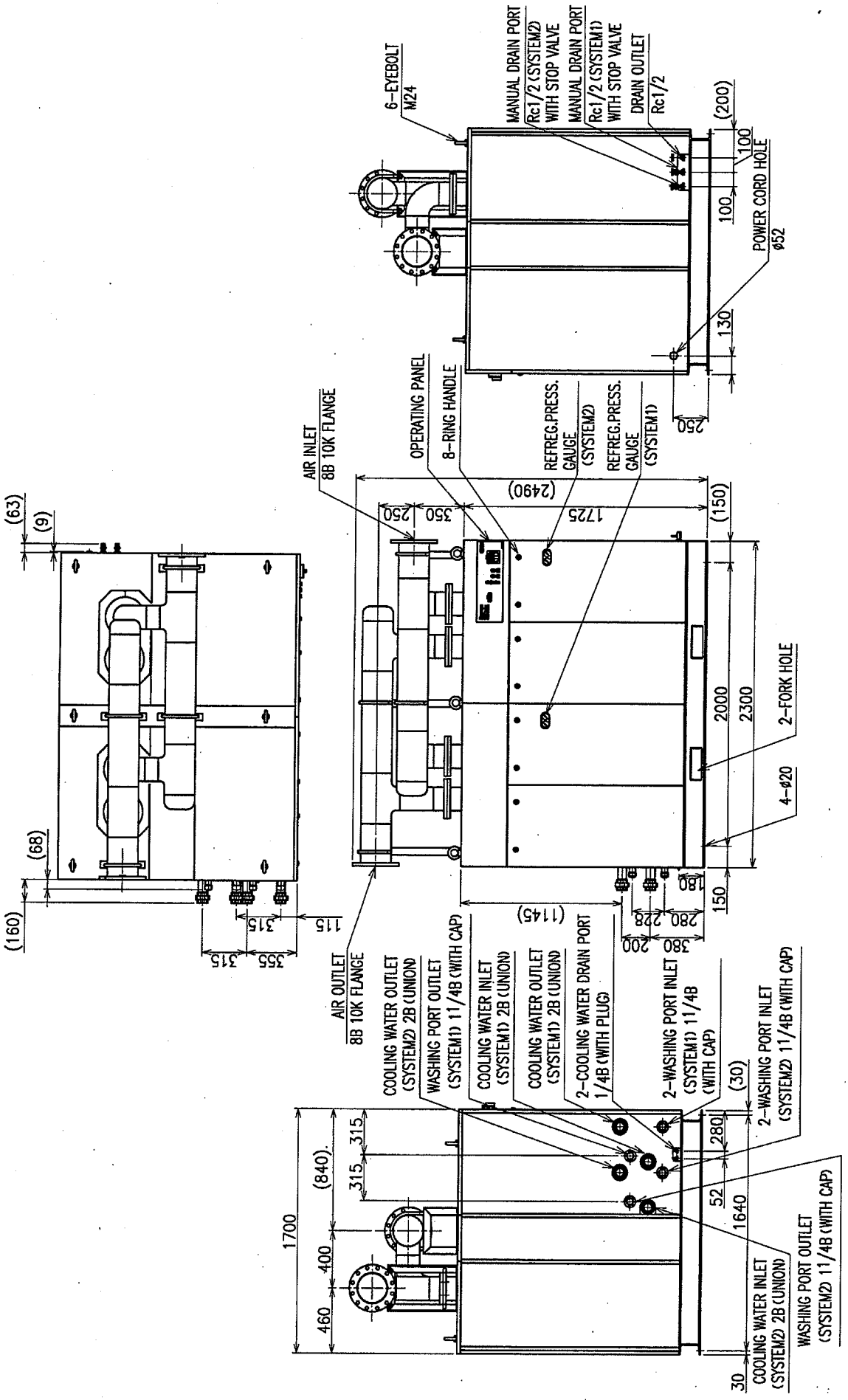
Discontinue

### 8.2.4 GT7710WD



Discontinue

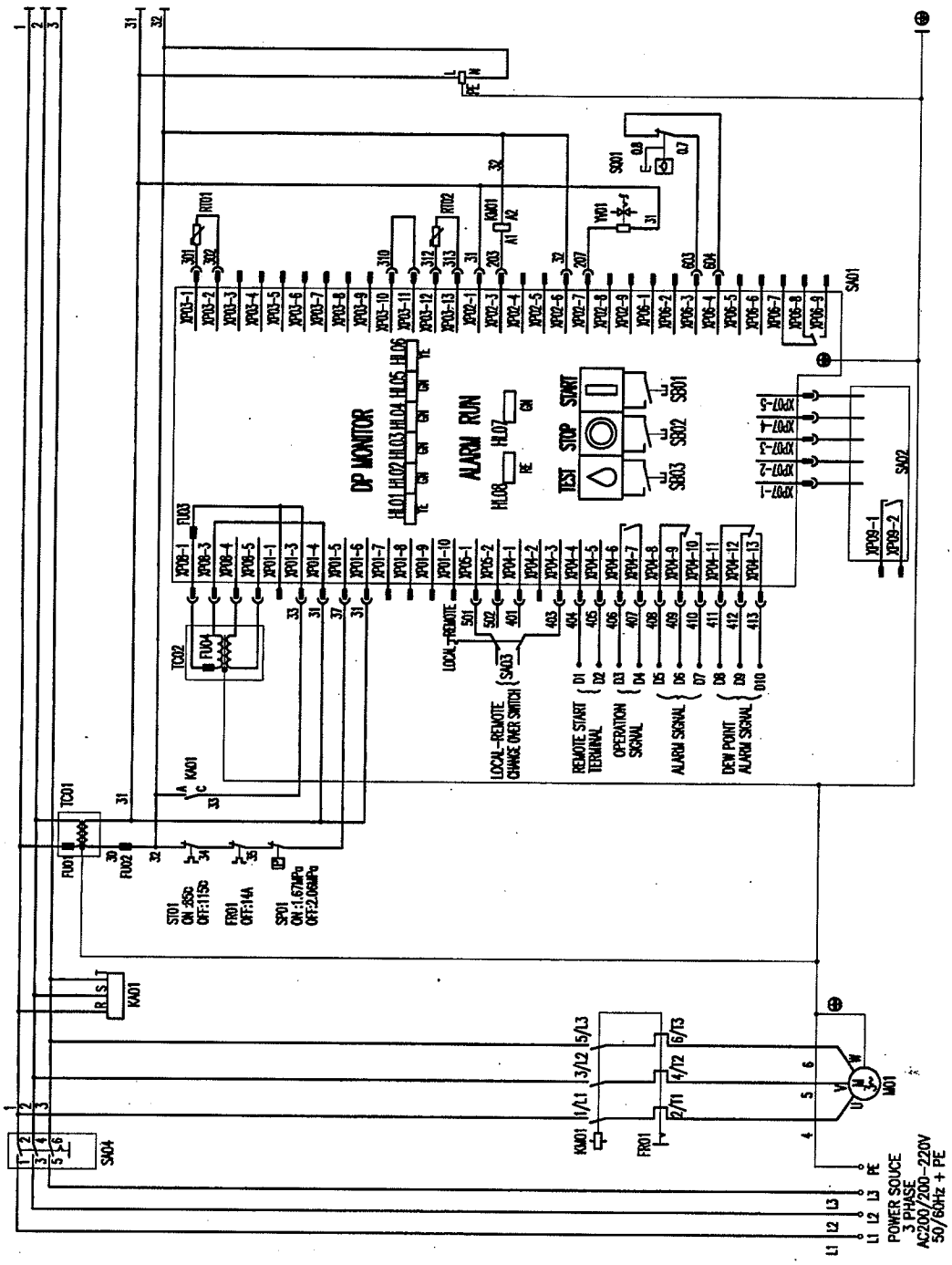
### 8.2.5 GT7960WD



Discontinue

## 8.3 Electric circuit diagram
### 8.3.1 GT7120WD

| | | | |
|---|---|---|---|
| HL01 | INDICATING LAMP | 1 | YELLOW |
| HL02 | INDICATING LAMP | 1 | GREEN |
| HL03 | INDICATING LAMP | 1 | GREEN |
| HL04 | INDICATING LAMP | 1 | GREEN |
| HL05 | INDICATING LAMP | 1 | GREEN |
| HL06 | INDICATING LAMP | 1 | YELLOW |
| HL07 | INDICATING LAMP | 1 | GREEN |
| HL08 | INDICATING LAMP | 1 | RED |
| FU01 | TEMPERATURE FUSE | 1 | 128℃,1A |
| FU02 | FUSE | 1 | 1A |
| FU03 | FUSE | 1 | 0.5A |
| FU04 | TEMPERATURE FUSE | 1 | 131℃,0.5A |
| SA01 | MAIN COTROL BOAD | 1 | |
| SA02 | PROTECTIVE BOAD OF MOMENTARY POWER FAILURE | 1 | |
| SA03 | LOCAL-REMOTE CHANGE OVER SWITCH | 1 | |
| SA04 | MAIN SWITCH | 1 | |
| SB01 | START SWITCH | 1 | |
| SB02 | STOP SWITCH | 1 | |
| SB03 | DRAIN TEST SWITCH | 1 | |
| SP01 | HIGH PRESSURE SWITCH | 1 | |
| YV01 | SOLENOID VALVE | 1 | |
| TC01 | TRANSFORMER | 1 | 200/100V |
| TC02 | TRANSFORMER | 1 | 100/16V |
| M01 | COMPRESSOR | 1 | |
| KM01 | ELECTROMAGNETIC CONTACTOR | 1 | |
| FR01 | THERMAL RELAY | 1 | |
| RT01 | TEMPERATURE SENSOR | 1 | DEW POINT |
| RT02 | TEMPERATURE SENSOR | 1 | INLET AIR TEMP. |
| ST01 | THERMO SWITCH | 1 | |
| SQ01 | WATER LEVEL SENSOR | 1 | DRAIN |
| KA01 | PHASE PROTECTOR | 1 | |
| No | PARTS | Q'TY | REMARK |




NOTE
1.Remote start terminal D1–D2 non voltage input.
Set up switches SA03 and SA04 as following
when the dryer is operated by remote control.
SA03:REMOTE,SA04:ON




2.Operation signal is non voltage a–contact.,alarm,
dew point alarm signal are non–voltage c–contact.
(Operation:D3–D4 close,Alarm:D5–D7 close,Dew point
alarm:D8–D10 close)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

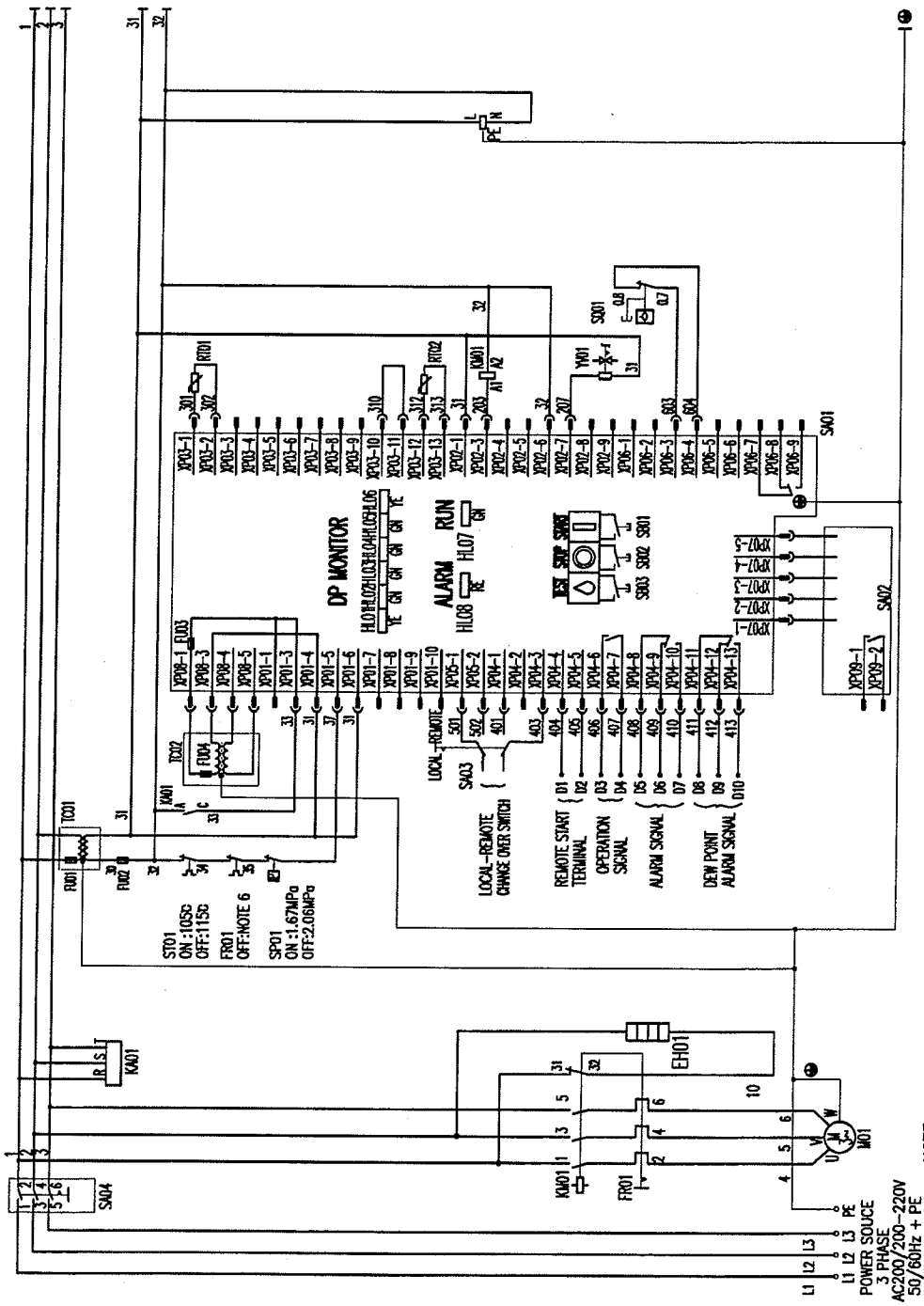
3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

Discontinue

### 8.3.2 GT7150WD,7200WD,7250WD

| No | PARTS | Q'TY | REMARK |
|---|---|---|---|
| HL01 | INDICATING LAMP | 1 | YELLOW |
| HL02 | INDICATING LAMP | 1 | GREEN |
| HL03 | INDICATING LAMP | 1 | GREEN |
| HL04 | INDICATING LAMP | 1 | GREEN |
| HL05 | INDICATING LAMP | 1 | GREEN |
| HL06 | INDICATING LAMP | 1 | YELLOW |
| HL07 | INDICATING LAMP | 1 | GREEN |
| HL08 | INDICATING LAMP | 1 | RED |
| EH01 | CRANK CASE HEATER | 1 | 200V-33W |
| FU01 | TEMPERATURE FUSE | 1 | 128℃,1A |
| FU02 | FUSE | 1 | 1A |
| FU03 | FUSE | 1 | 0.5A |
| FU04 | TEMPERATURE FUSE | 1 | 131℃,0.5A |
| SA01 | MAIN COTROL BOAD | 1 | |
| SA02 | PROTECTIVE BOAD OF MOMENTARY POWER FAILURE | 1 | |
| SA03 | LOCAL-REMOTE CHANGE OVER SWITCH | 1 | |
| SA04 | MAIN SWITCH | 1 | |
| SB01 | START SWITCH | 1 | |
| SB02 | STOP SWITCH | 1 | |
| SB03 | DRAIN TEST SWITCH | 1 | |
| SP01 | HIGH PRESSURE SWITCH | 1 | |
| YV01 | SOLENOID VALVE | 1 | |
| TC01 | TRANSFORMER | 1 | 200/100V |
| TC02 | TRANSFORMER | 1 | 100/16V |
| MO1 | COMPRESSOR | 1 | |
| KM01 | ELECTROMAGNETIC CONDUCTOR | 1 | |
| FR01 | THERMAL RELAY | 1 | |
| RT01 | TEMPERATURE SENSOR | 1 | DEW POINT |
| RT02 | TEMPERATURE SENSOR | 1 | INLET AIR TEMP. |
| ST01 | THERMO SWITCH | 1 | |
| SQ01 | WATER LEVEL SENSOR | 1 | DRAIN |
| KA01 | PHASE PROTECTOR | 1 | |




NOTE
1.Remote start terminal D1–D2 non voltage input.
Set up switches SA03 and SA04 as following when the dryer is operated by remote control.
SA03:REMOTE,SA04:ON

2.Operation signal is non voltage a–contact,alarm, dew point alarm signal are non–voltage c–contact.
(Operation:D3–D4 close,Alarm:D5–D7 close,Dew point alarm:D8–D10 close)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

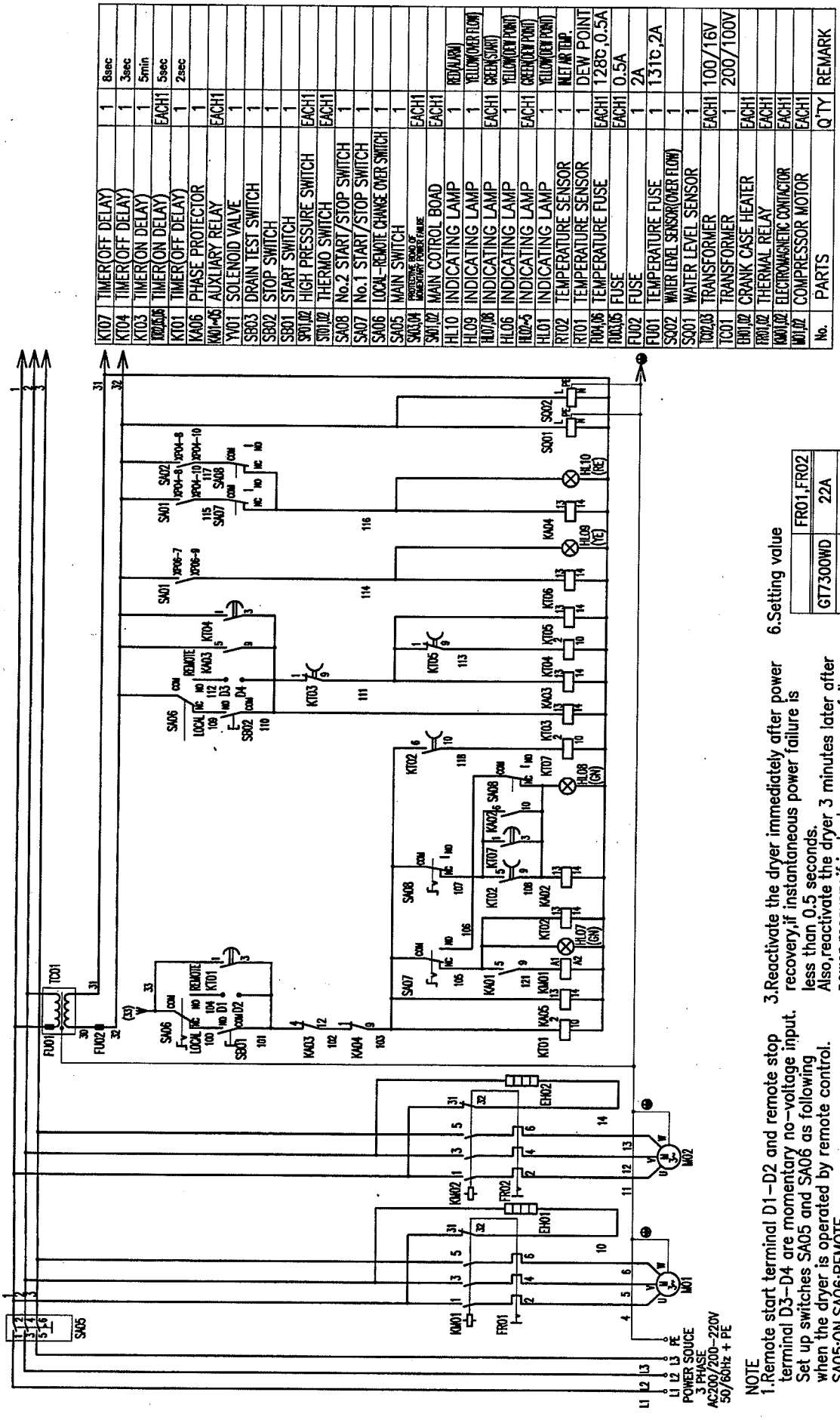
5.Do not turn off main power supply and main switch while the dryer is stop, because crank case need to be heated by electric heater.

6.Setting value

| | FR01 |
|---|---|
| GT7150WD | 22A |
| GT7200WD | 26A |
| GT7250WD | 28A |

Discontinue

### 8.3.3 GT7300WD,7400WD,7480WD



| No. | PARTS | Q'TY | REMARK |
|---|---|---|---|
| KT07 | TIMER(OFF DELAY) | 1 | 8sec |
| KT04 | TIMER(OFF DELAY) | 1 | 3sec |
| KT03 | TIMER(ON DELAY) | 1 | 5min |
| KT02,05,06 | TIMER(ON DELAY) | EACH1 | 5sec |
| KT01 | TIMER(OFF DELAY) | 1 | 2sec |
| KA06 | PHASE PROTECTOR | 1 | |
| KA01~05 | AUXLIARY RELAY | EACH1 | |
| YV01 | SOLENOID VALVE | 1 | |
| SB03 | DRAIN TEST SWITCH | 1 | |
| SB02 | STOP SWITCH | 1 | |
| SB01 | START SWITCH | 1 | |
| SP01,02 | HIGH PRESSURE SWITCH | EACH1 | |
| ST01,02 | THERMO SWITCH | EACH1 | |
| SA08 | No.2 START/STOP SWITCH | 1 | |
| SA07 | No.1 START/STOP SWITCH | 1 | |
| SA06 | LOCAL-REMOTE CHANGE OVER SWITCH | 1 | |
| SA05 | MAIN SWITCH | 1 | |
| SA03,04 | PROTECTIVE BOARD OF EMERGENCY POWER FAILURE | EACH1 | |
| SA01,02 | MAIN CONTROL BOAD | EACH1 | |
| HL10 | INDICATING LAMP | 1 | RED(ALARM) |
| HL09 | INDICATING LAMP | 1 | YELLOW(OVER FLOW) |
| HL07,08 | INDICATING LAMP | EACH1 | GREEN(START) |
| HL06 | INDICATING LAMP | 1 | YELLOW(DEW POINT) |
| HL02~5 | INDICATING LAMP | EACH1 | GREEN(DEW POINT) |
| HL01 | INDICATING LAMP | 1 | YELLOW(DEW POINT) |
| RT02 | TEMPERATURE SENSOR | 1 | INLET AIR TEMP. |
| RT01 | TEMPERATURE SENSOR | 1 | DEW POINT |
| FU04,06 | TEMPERATURE FUSE | EACH1 | 128℃,0.5A |
| FU03,05 | FUSE | EACH1 | 0.5A |
| FU02 | FUSE | 1 | 2A |
| FU01 | TEMPERATURE FUSE | 1 | 131℃,2A |
| SQ02 | WATER LEVEL SENSOR(OVER FLOW) | 1 | |
| SQ01 | WATER LEVEL SENSOR | 1 | |
| TC02,03 | TRANSFORMER | EACH1 | 100/16V |
| TC01 | TRANSFORMER | 1 | 200/100V |
| EH01,02 | CRANK CASE HEATER | EACH1 | |
| FR01,02 | THERMAL RELAY | EACH1 | |
| KM01,02 | ELECTROMAGNETIC CONTACTOR | EACH1 | |
| M01,02 | COMPRESSOR MOTOR | EACH1 | |

NOTE
1.Remote start terminal D1-D2 and remote stop terminal D3-D4 are momentary no-voltage input. Set up switches SA05 and SA06 as following when the dryer is operated by remote control.
SA05:ON,SA06:REMOTE




2.Operation signal,alarm,dew point alarm and drain over flow signal are non-voltage a-contact.
(Operation:D5-D6 close,Alarm:D7-D8 close,Dew point alarm:D9-D10 close,Drain over flow:D11-D12 close.)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

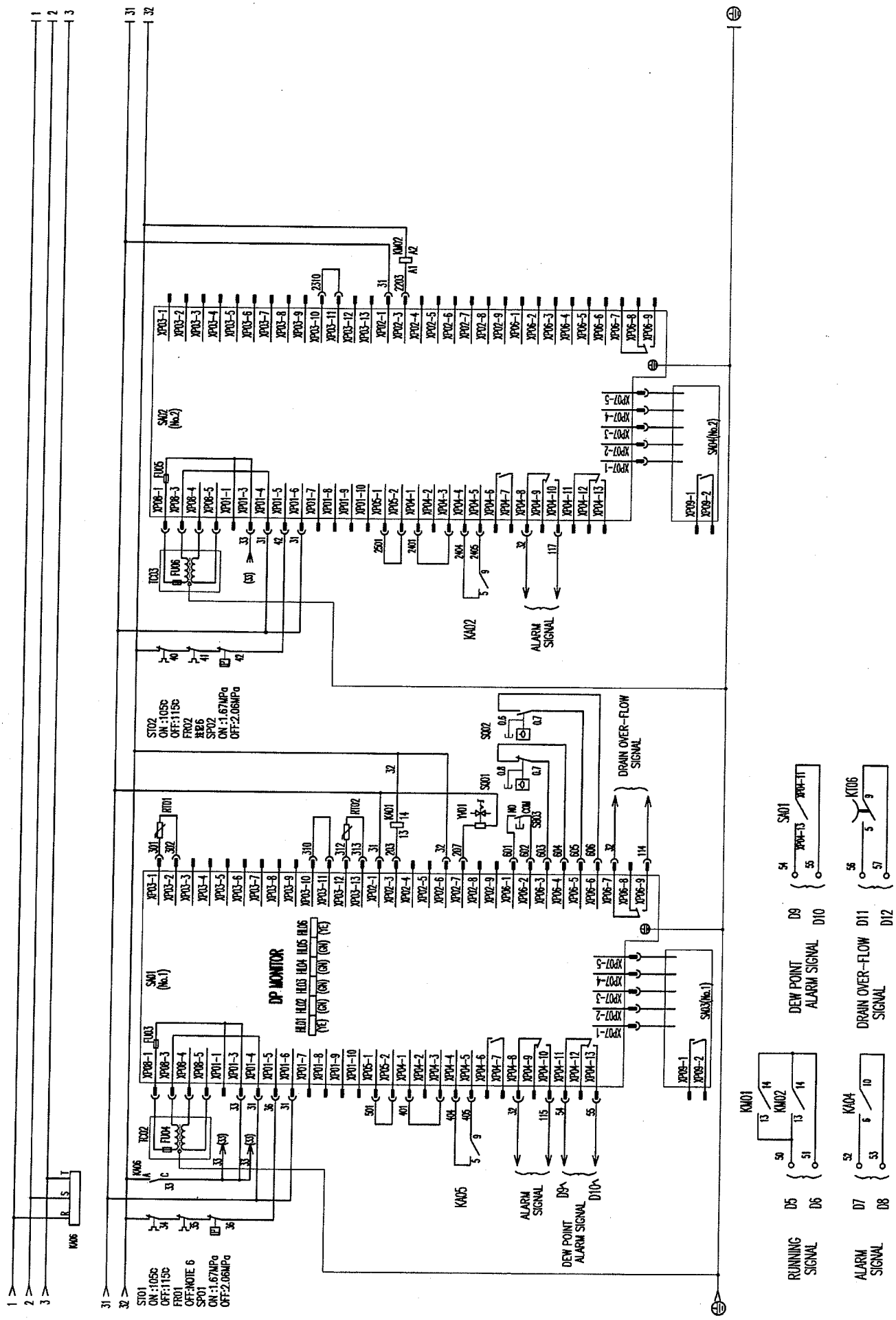
4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

5.Do not turn off main power supply and main switch while the dryer is stop, because crank case need to be heated by electric heater.

6.Setting value

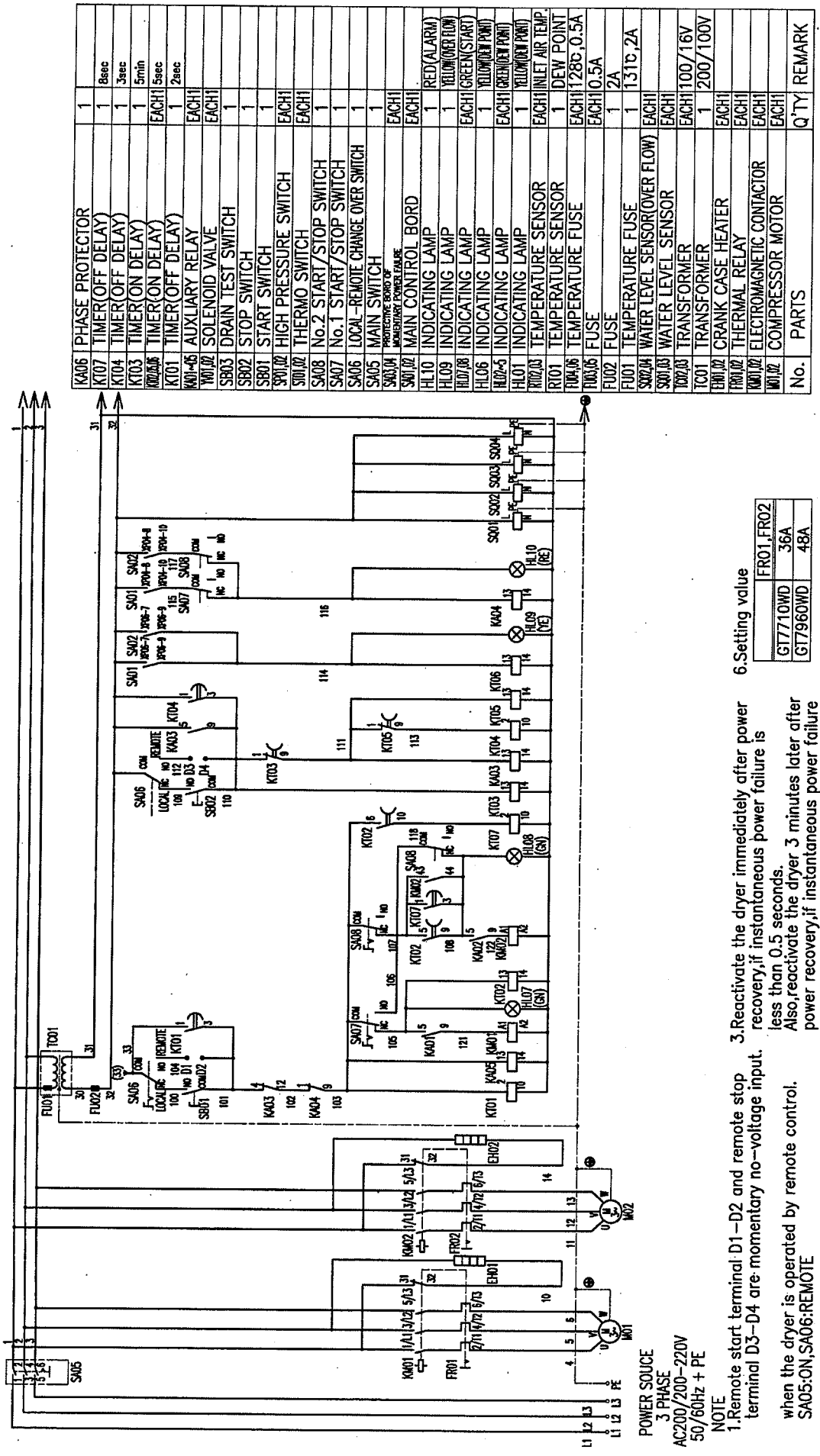
| | FR01,FR02 |
|---|---|
| GT7300WD | 22A |
| GT7400WD | 26A |
| GT7480WD | 28A |

Discontinue



Discontinue

### 8.3.4 GT7710WD,7960WD



| No. | PARTS | Q'TY | REMARK |
|---|---|---|---|
| KA06 | PHASE PROTECTOR | 1 | |
| KT07 | TIMER(OFF DELAY) | 1 | 8sec |
| KT04 | TIMER(OFF DELAY) | 1 | 3sec |
| KT03 | TIMER(ON DELAY) | 1 | 5min |
| KT02,05,06 | TIMER(ON DELAY) | EACH1 | 5sec |
| KT01 | TIMER(OFF DELAY) | 1 | 2sec |
| KA01~05 | AUXLIARY RELAY | EACH1 | |
| YV01,02 | SOLENOID VALVE | EACH1 | |
| SB03 | DRAIN TEST SWITCH | 1 | |
| SB02 | STOP SWITCH | 1 | |
| SB01 | START SWITCH | 1 | |
| SP01,02 | HIGH PRESSURE SWITCH | EACH1 | |
| ST01,02 | THERMO SWITCH | EACH1 | |
| SA08 | No.2 START/STOP SWITCH | 1 | |
| SA07 | No.1 START/STOP SWITCH | 1 | |
| SA06 | LOCAL-REMOTE CHANGE OVER SWITCH | 1 | |
| SA05 | MAIN SWITCH | 1 | |
| SA03,04 | PROTECTIVE BOARD OF MOMENTARY POWER FAILURE | EACH1 | |
| SA01,02 | MAIN CONTROL BORD | EACH1 | |
| HL10 | INDICATING LAMP | 1 | RED(ALARM) |
| HL09 | INDICATING LAMP | 1 | YELLOW(OVER FLOW) |
| HL07,08 | INDICATING LAMP | EACH1 | GREEN(START) |
| HL06 | INDICATING LAMP | 1 | YELLOW(DEW POINT) |
| HL02~5 | INDICATING LAMP | EACH1 | GREEN(DEW POINT) |
| HL01 | INDICATING LAMP | 1 | YELLOW(DEW POINT) |
| RT02,03 | TEMPERATURE SENSOR | EACH1 | INLET AIR TEMP. |
| RT01 | TEMPERATURE SENSOR | 1 | DEW POINT |
| FU04,06 | TEMPERATURE FUSE | EACH1 | 128℃,0.5A |
| FU03,05 | FUSE | EACH1 | 0.5A |
| FU02 | FUSE | 1 | 2A |
| FU01 | TEMPERATURE FUSE | 1 | 131℃,2A |
| SW02,04 | WATER LEVEL SENSOR(OVER FLOW) | EACH1 | |
| SW01,03 | WATER LEVEL SENSOR | EACH1 | |
| TC02,03 | TRANSFORMER | EACH1 | 100/16V |
| TC01 | TRANSFORMER | 1 | 200/100V |
| EH01,02 | CRANK CASE HEATER | EACH1 | |
| FR01,02 | THERMAL RELAY | EACH1 | |
| KM01,02 | ELECTROMAGNETIC CONTACTOR | EACH1 | |
| MK01,02 | COMPRESSOR MOTOR | EACH1 | |

POWER SOUCE
3 PHASE
AC200/200~220V
50/60Hz + PE

NOTE
1.Remote start terminal D1-D2 and remote stop terminal D3-D4 are momentary no-voltage input.

when the dryer is operated by remote control.
SA05:ON,SA06:REMOTE




2.Operation signal,alarm,dew point alarm and drain over flow signal are non-voltage a-contact.
(Operation:D5-D6 close,Alarm:D7-D8 close,Dew point alarm:D9-D10 close,Drain over flow:D11-D12 close.)
Contact capacity:125VAC/110VDC,2A,62.5VA,30W

3.Reactivate the dryer immediately after power recovery,if instantaneous power failure is less than 0.5 seconds.
Also,reactivate the dryer 3 minutes later after power recovery,if instantaneous power failure is less than 2 seconds.

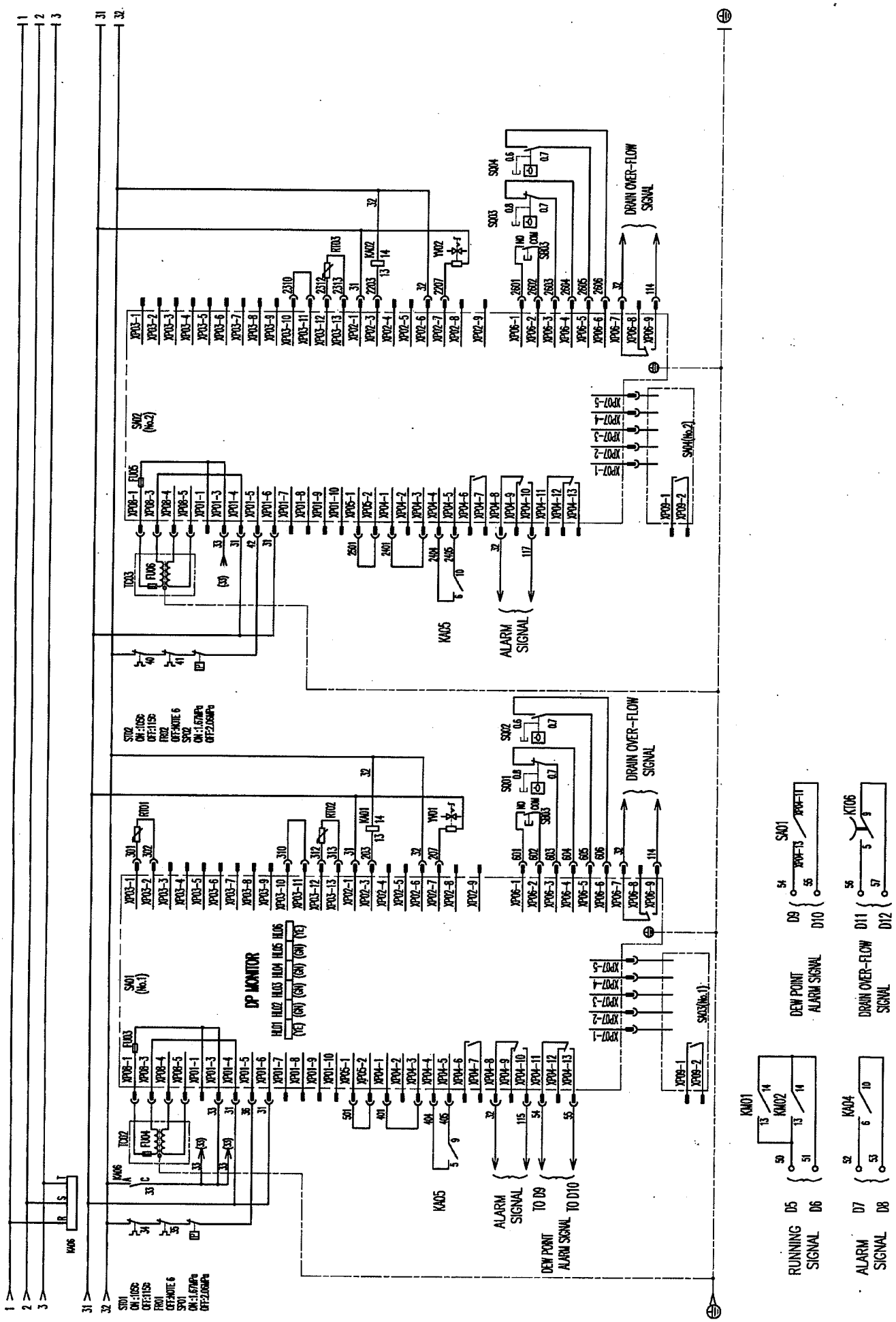
4.Do not operate while 5 minutes after stop this dryer,because the restart prevention circuit is operated.

5.Do not turn off main power supply and main switch while the dryer is stop, because crank case need to be heated by electric heater.

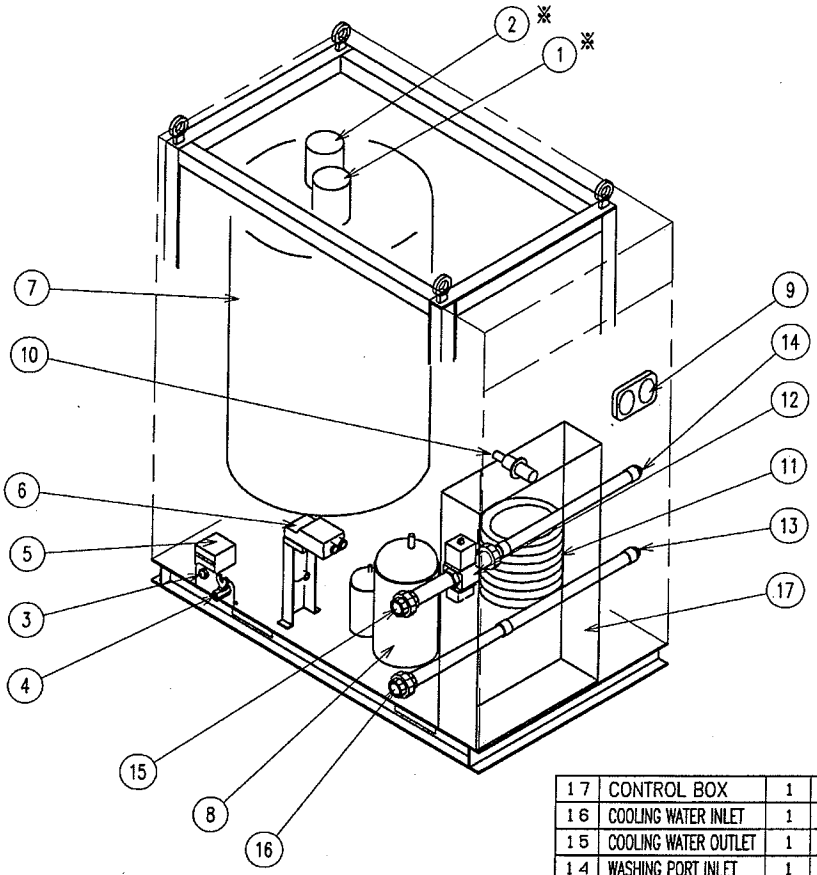
6.Setting value

| | FR01,FR02 |
|---|---|
| GT7710WD | 36A |
| GT7960WD | 48A |

Discontinue



### 8.4 Inside structure drawing
### 8.4.1 GT7120WD

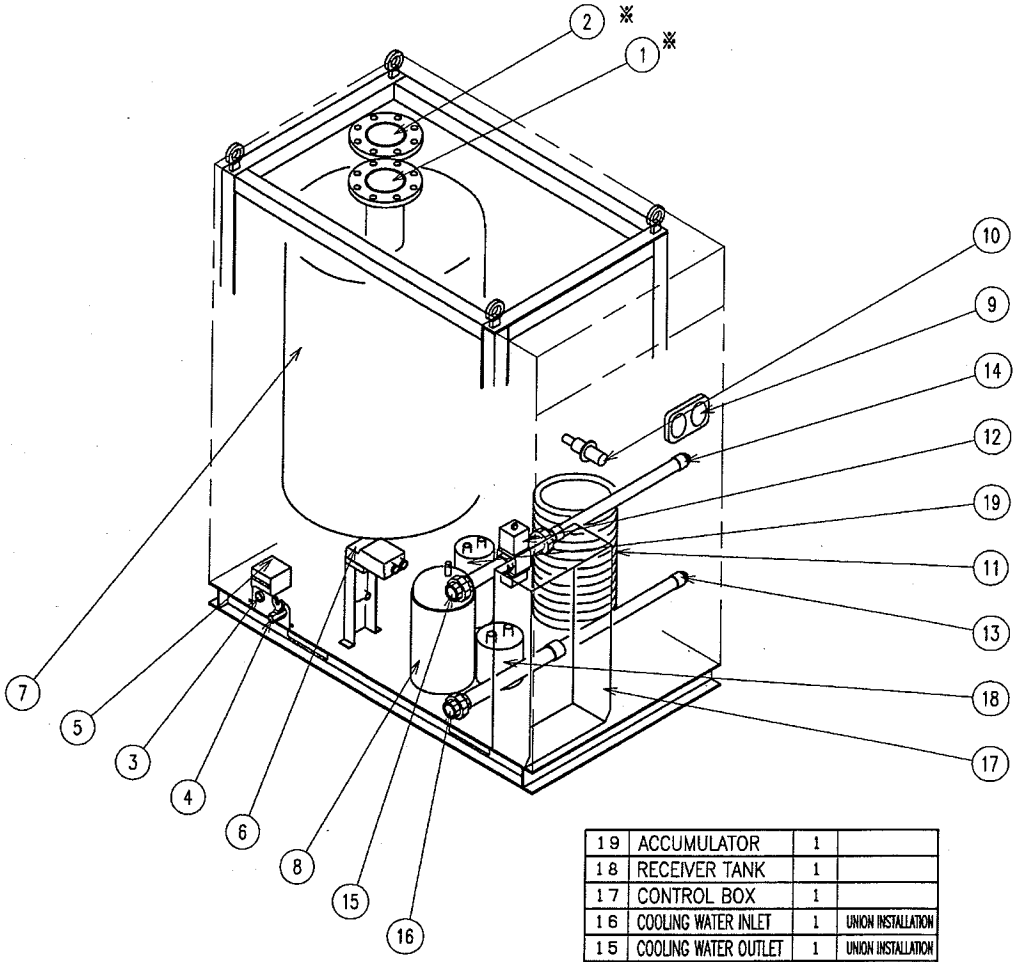



| No | PARTS | Q'TY | REMARK |
|---|---|---|---|
| 17 | CONTROL BOX | 1 | |
| 16 | COOLING WATER INLET | 1 | UNION INSTALLATION |
| 15 | COOLING WATER OUTLET | 1 | UNION INSTALLATION |
| 14 | WASHING PORT INLET | 1 | PLUG INSTALLATION |
| 13 | WASHING PORT OUTLET | 1 | PLUG INSTALLATION |
| 12 | WATER REGULATING VALVE | 1 | |
| 11 | CONDENSER | 1 | |
| 10 | CAPACITY COTROL VALVE | 1 | |
| 9 | REFRIG.PRESS.GAUGE | 1 | HIGH-LOW PRESSURE |
| 8 | COMPRESSOR | 1 | |
| 7 | HEAT EXCHANGER | 1 | |
| 6 | WATER LEVEL SENSOR | 1 | |
| 5 | SOLENOID VALVE | 1 | |
| 4 | MANUAL DRAIN OUTLET | 1 | STOP VALVE INSTALLATION |
| 3 | DRAIN OUTLET | 1 | |
| 2 | AIR OUTLET | 1 | |
| 1 | AIR INLET | 1 | |

※ Air inlet and outlet
GT7120WD :$2^{1}/_{2}$B 10K FLANGE

Discontinue

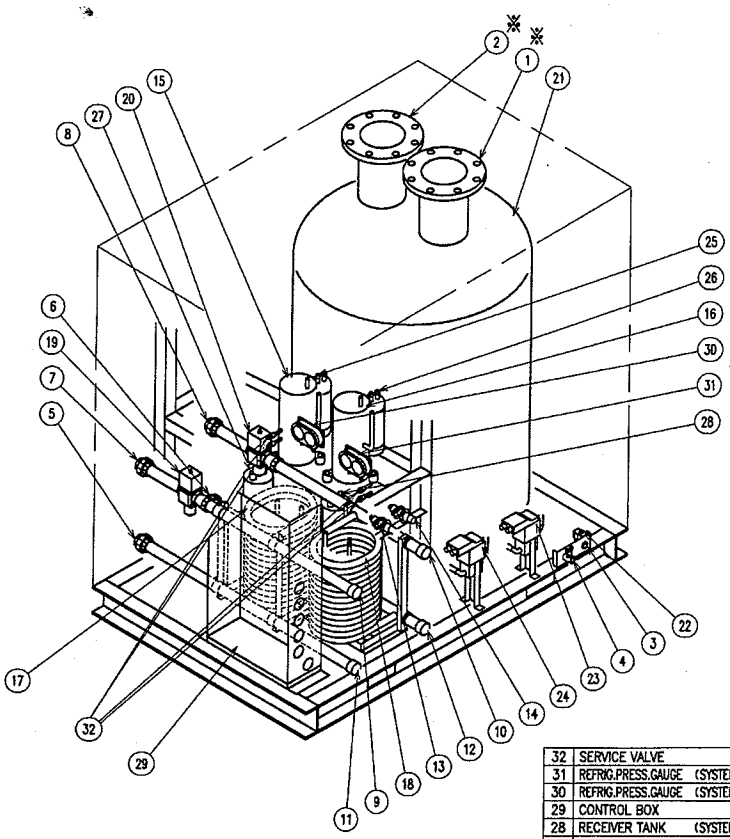
### 8.4.2 GT7150WD,7200WD,7250WD




| No | PARTS | Q'TY | REMARK |
|---|---|---|---|
| 19 | ACCUMULATOR | 1 | |
| 18 | RECEIVER TANK | 1 | |
| 17 | CONTROL BOX | 1 | |
| 16 | COOLING WATER INLET | 1 | UNION INSTALLATION |
| 15 | COOLING WATER OUTLET | 1 | UNION INSTALLATION |
| 14 | WASHING PORT INLET | 1 | PLUG INSTALLATION |
| 13 | WASHING PORT OUTLET | 1 | PLUG INSTALLATION |
| 12 | WATER REGULATING VALVE | 1 | |
| 11 | CONDENSER | 1 | |
| 10 | CAPACITY COTROL VALVE | 1 | |
| 9 | REFRIG.PRESS.GAUGE | 1 | HIGH-LOW PRESSURE |
| 8 | COMPRESSOR | 1 | |
| 7 | HEAT EXCHANGER | 1 | |
| 6 | WATER LEVEL SENSOR | 1 | |
| 5 | SOLENOID VALVE | 1 | |
| 4 | MANUAL DRAIN OUTLET | 1 | STOP VALVE INSTALLATION |
| 3 | DRAIN OUTLET | 1 | |
| 2 | AIR OUTLET | 1 | |
| 1 | AIR INLET | 1 | |

※ Air inlet and outlet
GT7150WD,7200WD :3B 10K FLANGE
GT7250WD :4B 10K FLANGE

### 8.4.3 GT7300WD,7400WD,7480WD



| No | PARTS | Q'TY | REMARK |
|---|---|---|---|
| 32 | SERVICE VALVE | 4 | |
| 31 | REFRIG.PRESS.GAUGE (SYSTEM2) | 1 | HIGH-LOW PRESSURE |
| 30 | REFRIG.PRESS.GAUGE (SYSTEM1) | 1 | HIGH-LOW PRESSURE |
| 29 | CONTROL BOX | 1 | |
| 28 | RECEIVER TANK (SYSTEM2) | 1 | |
| 27 | RECEIVER TANK (SYSTEM1) | 1 | |
| 26 | ACCUMULATOR (SYSTEM2) | 1 | |
| 25 | ACCUMULATOR (SYSTEM1) | 1 | |
| 24 | WATER LEVEL SENSOR | 1 | OVERFLOW |
| 23 | WATER LEVEL SENSOR | 1 | DRAIN OUTLET |
| 22 | SOLENOID VALVE | 1 | |
| 21 | HEAT EXCHANGER | 1 | |
| 20 | WATER REGULATING VALVE (SYSTEM2) | 1 | |
| 19 | WATER REGULATING VALVE (SYSTEM1) | 1 | |
| 18 | CONDENSER (SYSTEM2) | 1 | |
| 17 | CONDENSER (SYSTEM1) | 1 | |
| 16 | COMPRESSOR (SYSTEM2) | 1 | |
| 15 | COMPRESSOR (SYSTEM1) | 1 | |
| 14 | CAPACITY CONTROL VALVE (SYSTEM2) | 1 | |
| 13 | CAPACITY CONTROL VALVE (SYSTEM1) | 1 | |
| 12 | WASHING PORT OUTLET (SYSTEM2) | 1 | CAP INSTALLATION |
| 11 | WASHING PORT OUTLET (SYSTEM1) | 1 | CAP INSTALLATION |
| 10 | WASHING PORT INLET (SYSTEM2) | 1 | CAP INSTALLATION |
| 9 | WASHING PORT INLET (SYSTEM1) | 1 | CAP INSTALLATION |
| 8 | COOLING WATER OUTLET (SYSTEM2) | 1 | UNION INSTALLATION |
| 7 | COOLING WATER OUTLET (SYSTEM1) | 1 | UNION INSTALLATION |
| 6 | COOLING WATER INLET (SYSTEM2) | 1 | UNION INSTALLATION |
| 5 | COOLING WATER INLET (SYSTEM1) | 1 | UNION INSTALLATION |
| 4 | MANUAL DRAIN OUTLET | 1 | BALL VALVE INSTALLATION |
| 3 | DRAIN OUTLET | 1 | |
| 2 | AIR OUTLET | 1 | |
| 1 | AIR INLET | 1 | |

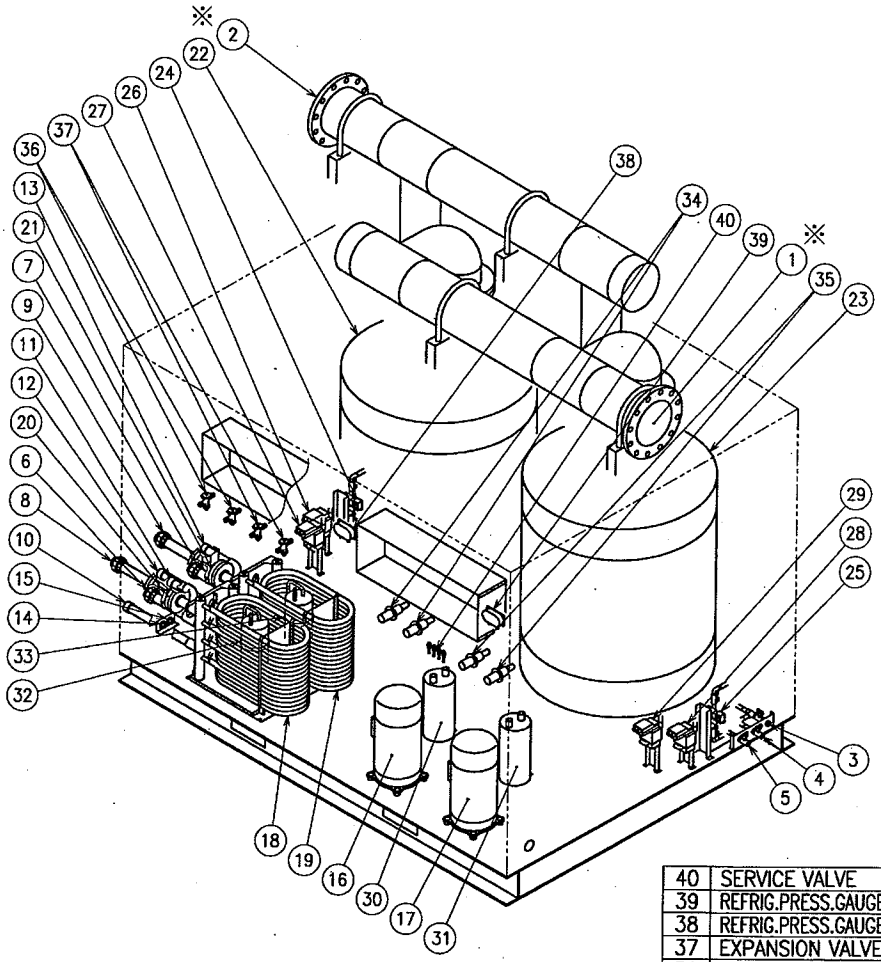
※ Air inlet and outlet

GT7300WD :4B 10K FLANGE

GT7400WD,7480WD :6B 10K FLANGE

Discontinue

### 8.4.4 GT7710WD,7960WD

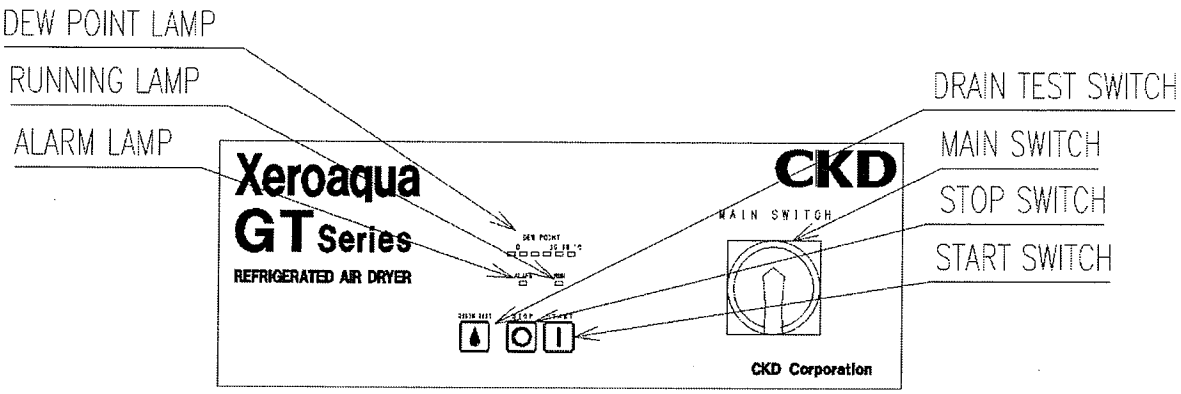



| No. | PARTS | Q'TY | REMARK |
|---|---|---|---|
| 40 | SERVICE VALVE | 4 | |
| 39 | REFRIG.PRESS.GAUGE (SYSTEM2) | 1 | HIGH-LOW PRESSURE |
| 38 | REFRIG.PRESS.GAUGE (SYSTEM1) | 1 | HIGH-LOW PRESSURE |
| 37 | EXPANSION VALVE (SYSTEM2) | 2 | |
| 36 | EXPANSION VALVE (SYSTEM1) | 2 | |
| 35 | CAPACITY CONTROL VALVE (SYSTEM2) | 2 | |
| 34 | CAPACITY CONTROL VALVE (SYSTEM1) | 2 | |
| 33 | RECEIVER TANK (SYSTEM2) | 1 | |
| 32 | RECEIVER TANK (SYSTEM1) | 1 | |
| 31 | ACCUMULATOR (SYSTEM2) | 1 | |
| 30 | ACCUMULATOR (SYSTEM1) | 1 | |
| 29 | WATER LEVEL SENSOR (SYSTEM2) | 1 | OVERFLOW |
| 28 | WATER LEVEL SENSOR (SYSTEM2) | 1 | DRAIN OUTLET |
| 27 | WATER LEVEL SENSOR (SYSTEM1) | 1 | OVERFLOW |
| 26 | WATER LEVEL SENSOR (SYSTEM1) | 1 | DRAIN OUTLET |
| 25 | SOLENOID VALVE (SYSTEM2) | 1 | |
| 24 | SOLENOID VALVE (SYSTEM1) | 1 | |
| 23 | HEAT EXCHANGER (SYSTEM2) | 1 | |
| 22 | HEAT EXCHANGER (SYSTEM1) | 1 | |
| 21 | WATER REGULATING VALVE (SYSTEM2) | 1 | |
| 20 | WATER REGULATING VALVE (SYSTEM1) | 1 | |
| 19 | CONDENSER (SYSTEM2) | 1 | |
| 18 | CONDENSER (SYSTEM1) | 1 | |
| 17 | COMPRESSOR (SYSTEM2) | 1 | |
| 16 | COMPRESSOR (SYSTEM1) | 1 | |
| 15 | COOLING WATER DRAIN OUTLET (SYSTEM2) | 1 | PLUG INSTALLATION |
| 14 | COOLING WATER DRAIN OUTLET (SYSTEM1) | 1 | PLUG INSTALLATION |
| 13 | WASHING PORT OUTLET (SYSTEM2) | 1 | CAP INSTALLATION |
| 12 | WASHING PORT OUTLET (SYSTEM1) | 1 | CAP INSTALLATION |
| 11 | WASHING PORT INLET (SYSTEM2) | 1 | CAP INSTALLATION |
| 10 | WASHING PORT INLET (SYSTEM1) | 1 | CAP INSTALLATION |
| 9 | COOLING WATER OUTLET(SYSTEM2) | 1 | UNION INSTALLATION |
| 8 | COOLING WATER OUTLET(SYSTEM1) | 1 | UNION INSTALLATION |
| 7 | COOLING WATER INLET (SYSTEM2) | 1 | UNION INSTALLATION |
| 6 | COOLING WATER INLET (SYSTEM1) | 1 | UNION INSTALLATION |
| 5 | MANUAL DRAIN OUTLET (SYSTEM2) | 1 | STOP VALVE INSTALLATION |
| 4 | MANUAL DRAIN OUTLET (SYSTEM1) | 1 | STOP VALVE INSTALLATION |
| 3 | DRAIN OUTLET | 1 | |
| 2 | AIR OUTLET | 1 | |
| 1 | AIR INLET | 1 | |

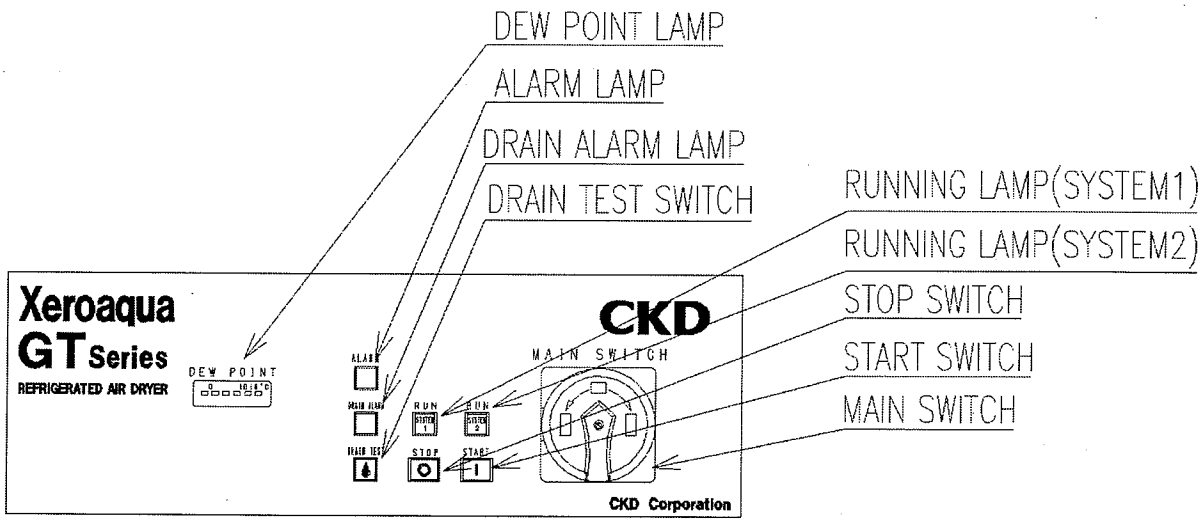
※ Air inlet and outlet
GT7710WD,7960WD :8B 10K FLANGE

Discontinue

### 8.5 Operating panel
### 8.5.1 GT7120WD,7150WD,7200WD,7250WD

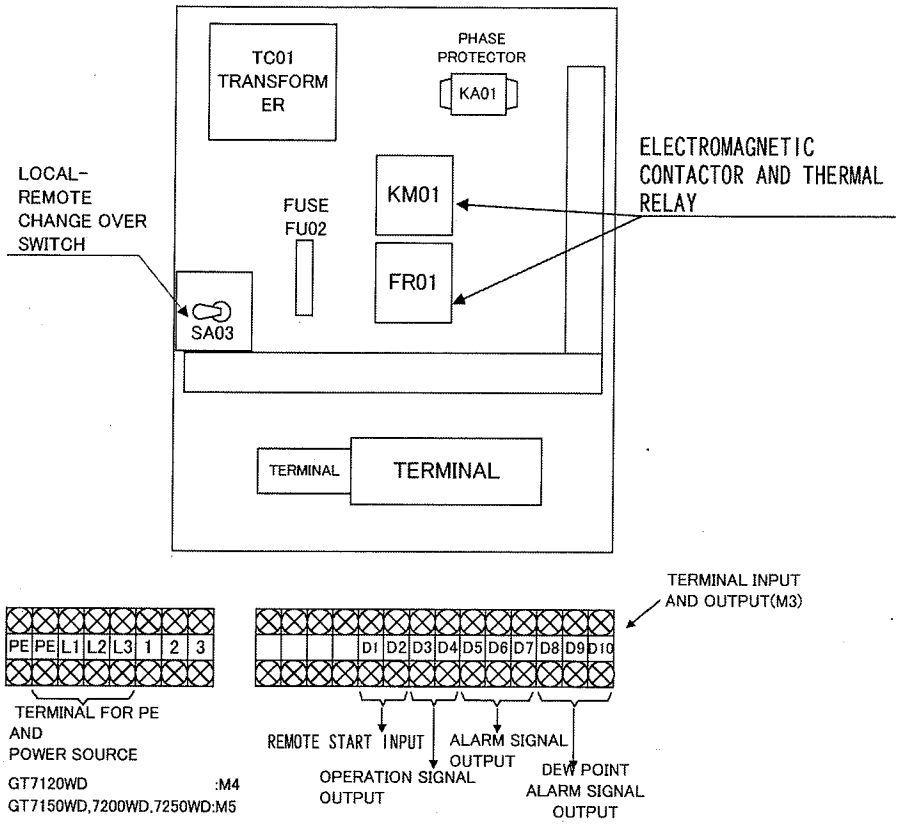



### 8.5.2 GT7300WD,7400WD,7480WD,7710WD,7960WD



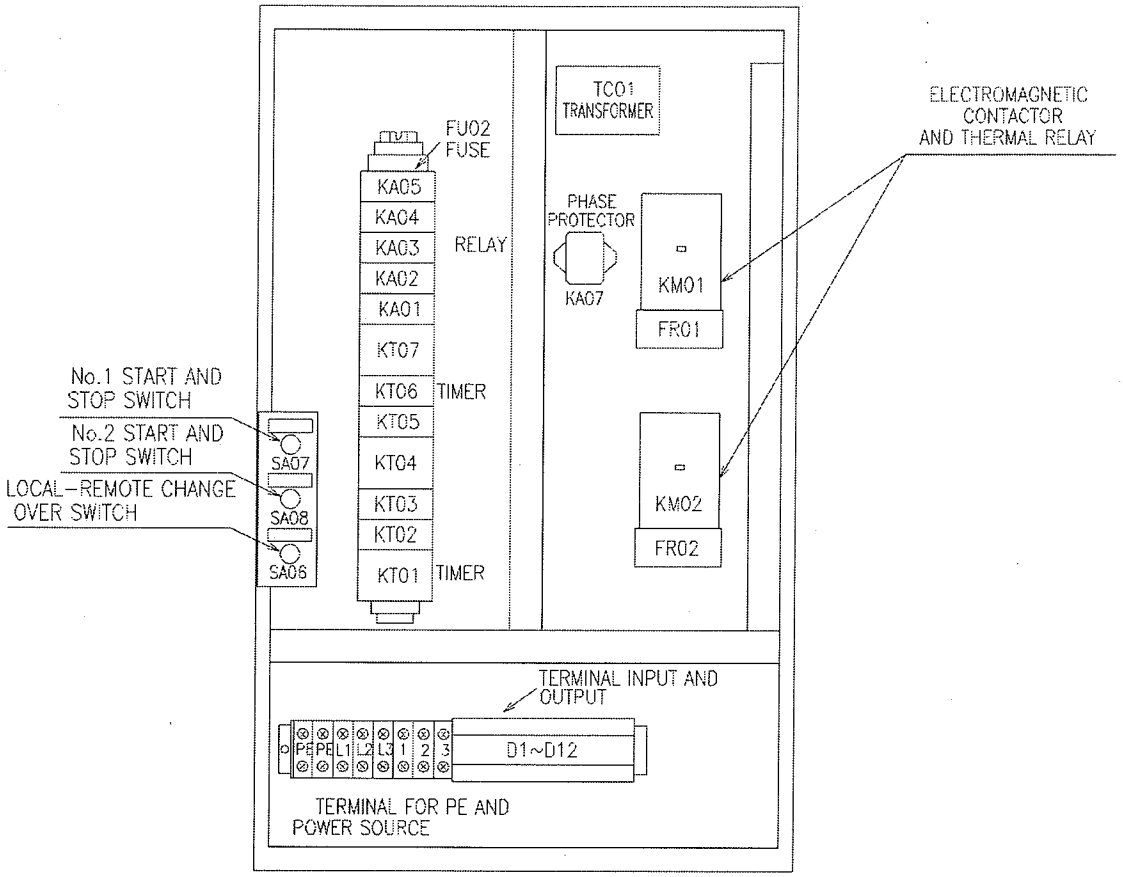
## 8.6 Electric box

### 8.6.1 GT7120WD,7150WD,7200WD,7250WD



Discontinue

### 8.6.2 GT7300WD,7400WD,7480WD




※1

GT7300WD :M5

GT7400WD,7480WD :M6

※2

D1-D2 : Remote start terminal

D3-D4 : Remote stop terminal

D5-D6 : Operation signal output

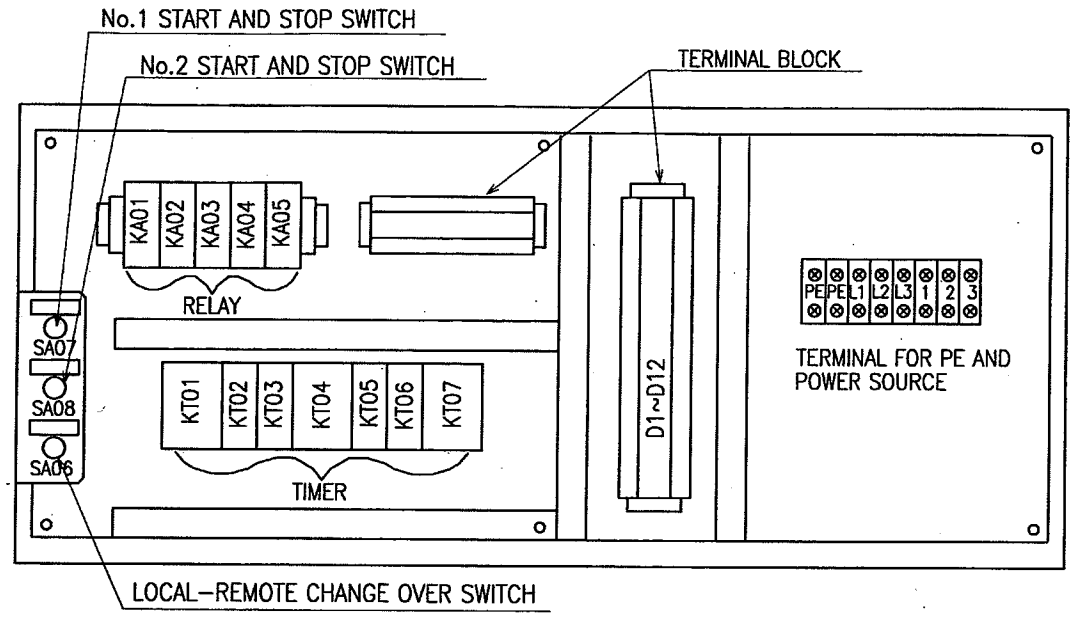
D7-D8 : Alarm signal output

D9-D10 : Dew point alarm output

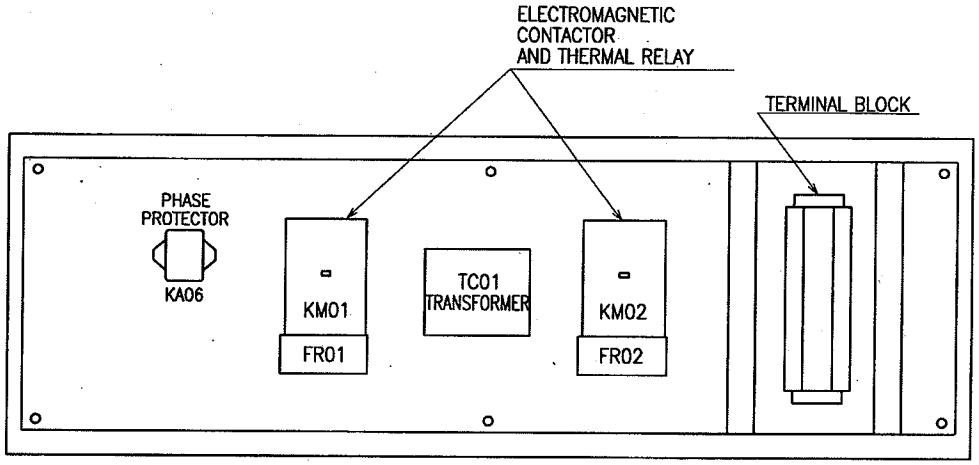
D11-D12 : Drain over flow output

### 8.6.3 GT7710WD,7960WD

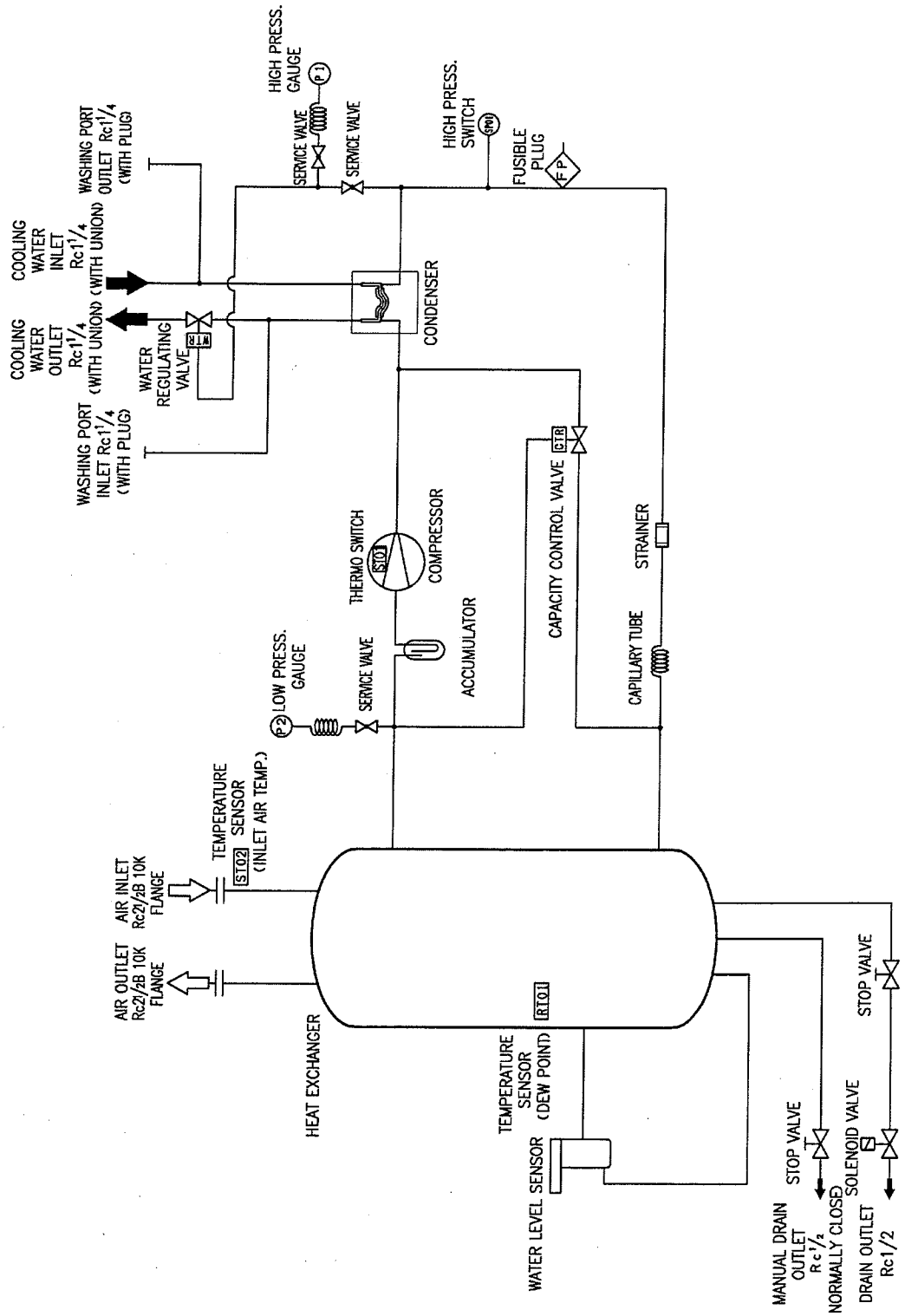
①RIGHT




②LEFT

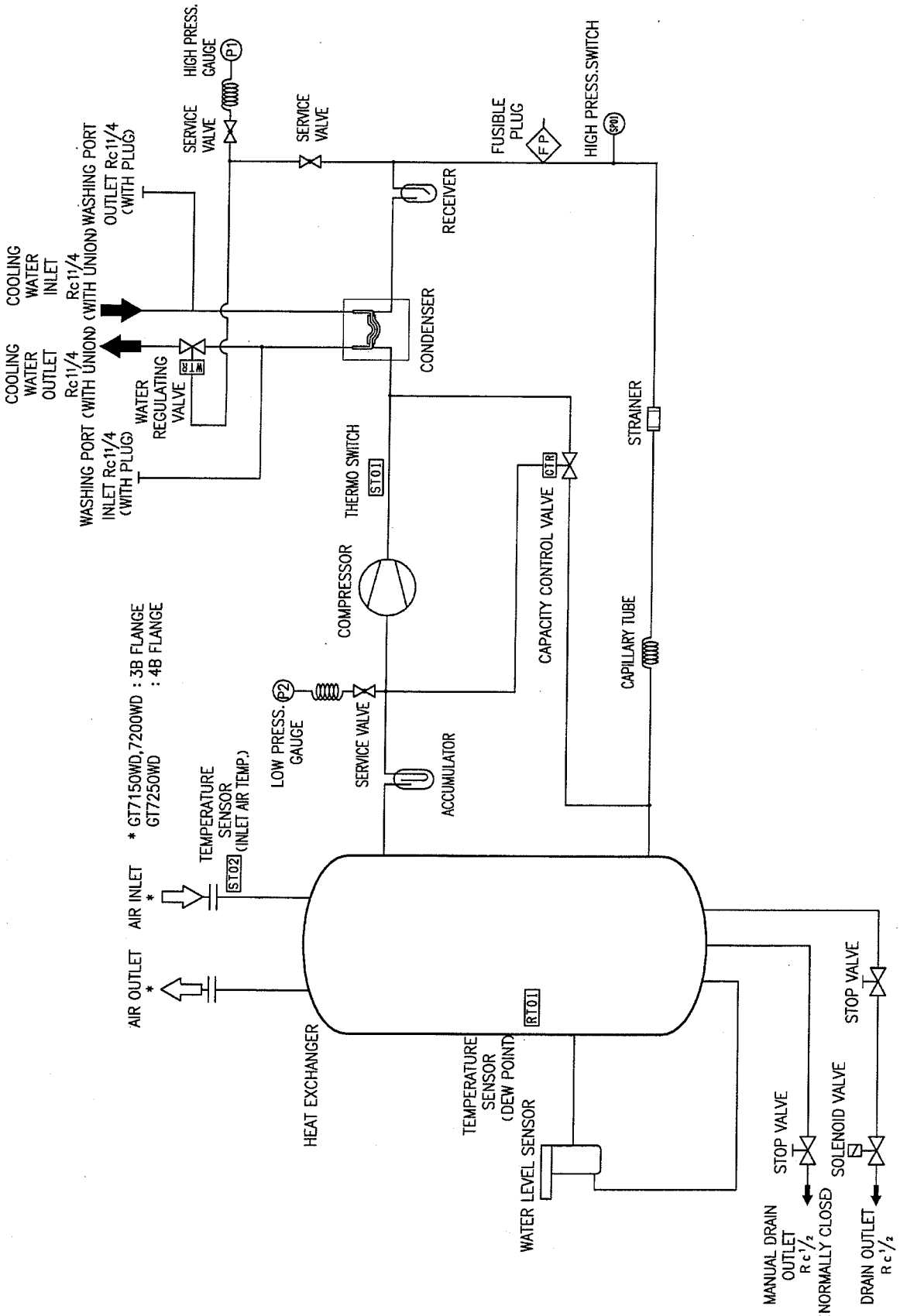


## 8.7 Flow chart
### 8.7.1 GT7120WD

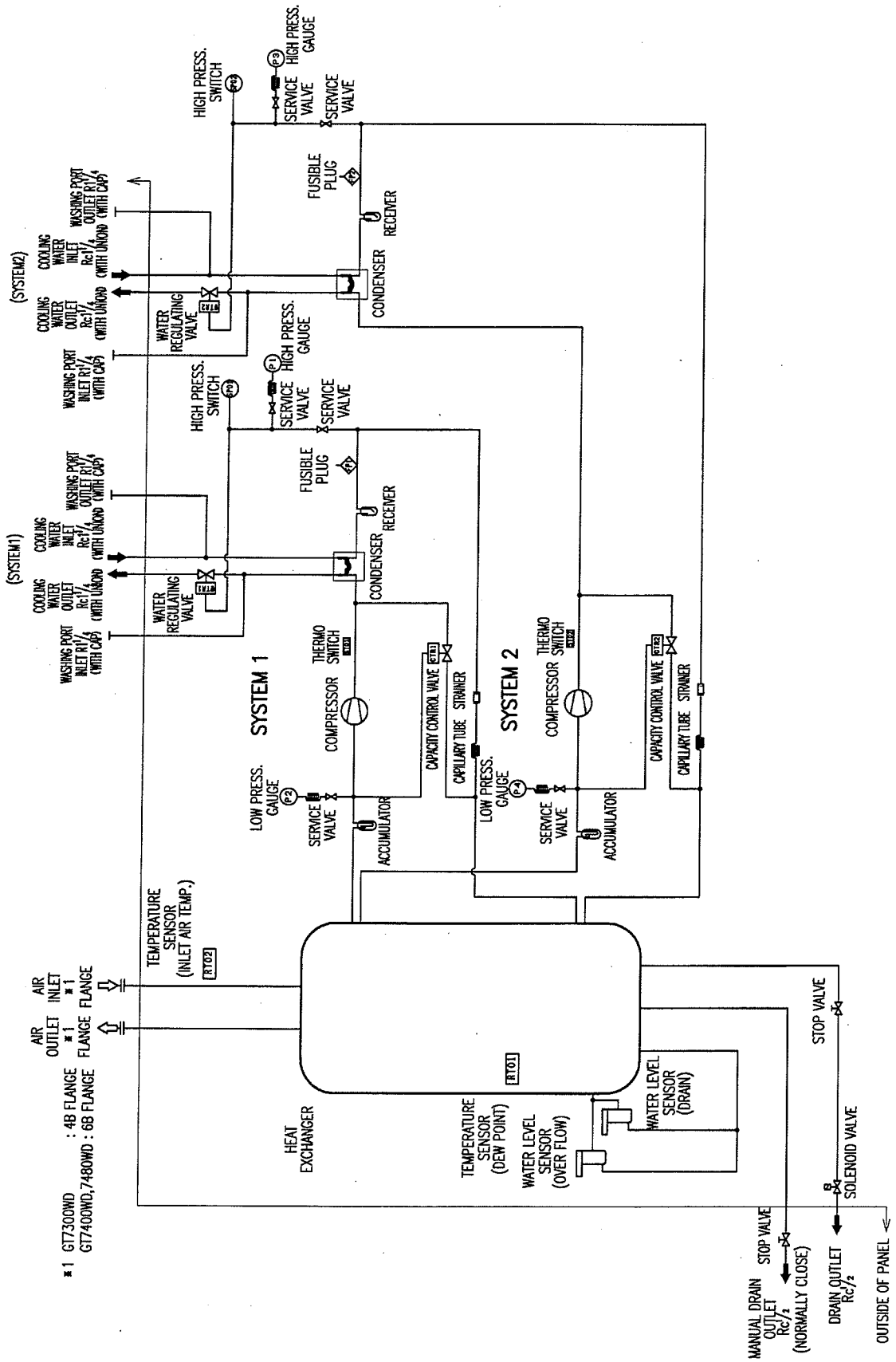


Discontinue

### 8.7.2 GT7150WD,7200WD,7250WD



### 8.7.3 GT7300WD,7400WD,7480WD



Discontinue

### 8.7.4 GT7710WD,7960WD