

HA Repair Guide Refrigerator

SSEDA – RS261*



SSEDA-PJT Repair Guide

[RS261M*]

No Ice



- No Ice / dispensing problem
- Shortage of ice

No Water



- No Water / Water Dripping
- Water Leak

Defrost



- Evap Defrost build

Noise



- Water hose Noise
- Unit Noise

Cooling



- Weak Cooling(F/R)
- Cooling Too Cold

Error CODE



- Detail Error Code

















● Ice & Water

#1. Symptom : No Ice Repair Schematic

| Chassis | Project | Basic Model | Type |
|---------|---------|-------------|-------------------|
| SBS | SSEDA | RS261M* | Plastic Ice Maker |



❌ Ice Off  → Check Display "ICE off" selecting

| Check-1 | Reason Step | Check-2 | Tip Code | Block | | |
|--|---|--|--|-------------------------------|---------------------|------------|
| | | | | # 1 | # 2 | # 3 |
| Ice Bucket ice exist (dispensing problem)  | Display selection problem  | ➤ Inspect Display Water & Ice selection | 1-1  | Panel-PBA | Wire Harness | Main PBA |
| | Lever S/W sensing problem  | ➤ Inspect LEVER S/W operation ➤ Inspect Bucket assembly | 1-2  | Panel-PBA | Wire Harness | Ice Bucket |
| | Auger Motor S/W defect  | ➤ Inspect Auger Motor S/W operation | | Auger Motor S/W | Wire Harness | |
| | Auger Motor failure  | ➤ Inspect ASSY AUGER-MOTOR operation | 1-3  | ASSY Auger Motor | Wire Harness | Main PBA |
| Ice Bucket No ice/less ice (ice making problem)  | Ice maker water supplying problem  | ➤ Inspect WATER connection/ supply | 2-1  | External conn. (Water supply) | Water Hose | Filter |
| | | ➤ Inspect Ice Valve operation | 2-2  | Wire Harness | Ice Valve | |
| | | ➤ Inspect ASSY PIPE-WATER (HEATER) freezing | 2-3  | Pipe - WATER | | |
| | Ice maker/sensor / Fan Motor problem  | ➤ Self diagnosis test Display "Lighting" + "Energy Saver" | 2-4  | Ice Maker Sensor Fan Damper | Wire Harness | Main PBA |
| | Cooling power failure (Water exist on Tray) | ➤ Measure cooling power inspection ➤ Inspect Comp / Fan motor | 2-5  | Comp Relay | Cycle Shield System | C-fan |

Tip 1-1. Inspect Display Water & Ice selection



Check Point Inspect "Ice Type" button select operation



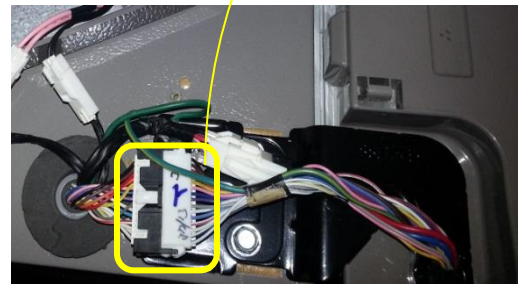
Step 1

- ① Check "Child Lock" selection
- ② Inspect "Ice Type" Key operation
 - Key normal → Inspect Tip 1-2
 - Key failure → Inspect Step 2



Step 2

- ① Check PANEL PBA WIRE HARNESS contact
 - Inspect No.10(WHT)"and 14(W/BLK)" WIRE
- ② Check Wire harness after disassemble the HINGE-UPP COVER
 - Inspect No.10(WHT)and 14(W/BLK) Wire



Step 3

- ① Disassemble Main PBA Cover which is on the back
- ② Inspect Connector which is on the right bottom
 - Inspect CN51 No.10(WHT)and No.12(W/BLK)
- ③ If there is no problem fro all
 - Check the PANEL PBA replacement and repairing



If it is not solved
- Replace and repair MAIN PBA

Tip 1-2. Inspect Lever S/W & Auger Motor S/W operation



Check Point Inspect Dispenser Lever S/W operation.



Step 1

- ① Check the Auger motor rotation sound which is inside of F room with pushing DISPENSER LEVER.

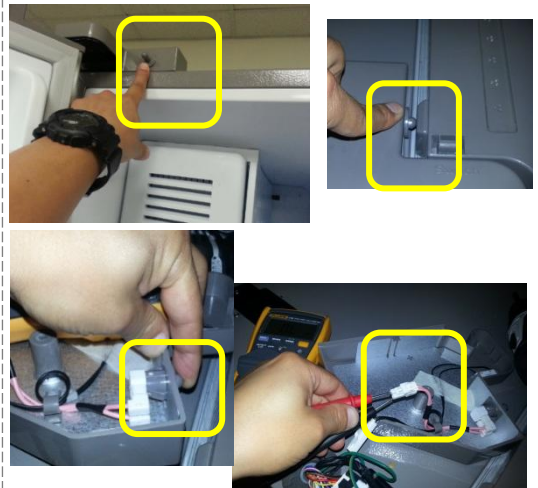
- When operation sound does not appear, check Step 2
- **When operation sound appears, check "STEP 4"**



Step 2

- ① Check Auger Motor S/W which is on the door top of F room
- Check the S/W button with F room door closing condition.
(Check it couldn't push or damaged)
- ② After disassemble Connector and set Tester as resistance and push S/W with hand, check that is "0Ω"

※ **It does not operate when the F room door S/W is failure**

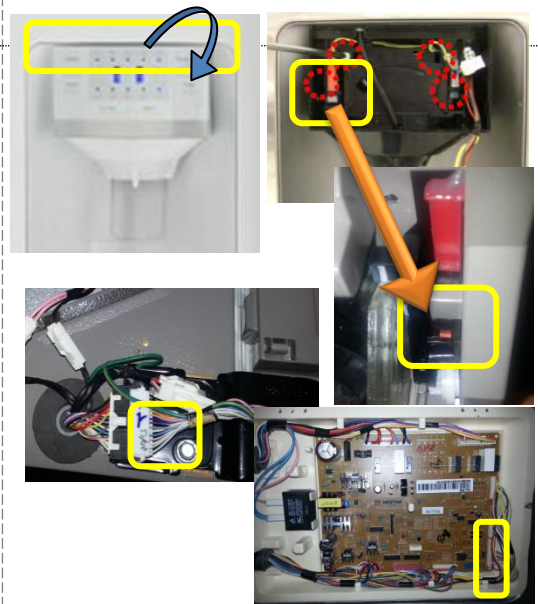


Step 3

- ① After disassemble Display, push Lever and check the Micro S/W pushing check which is on left side.
※ Check it couldn't push or damaged.

When there is no problem

- ① Check the wire Harness contact after disassemble HINGE-UPP COVER
- Inspect No.6(YEL)and 10(GRAY) Wire
- ② Inspect Main PBA Connector
- Inspect CN50 No.6(YEL) and 10(GRAY) Wire



Step 4

- ① Inspect less inserting of Ice Bucket.
- Pull the Bucket with pushing up toward top
※ if less inserting, Auger Motor rotation is not passed and ice does not dispense



Tip 1-3. Inspect ASSY Auger Motor operation



Check Point Inspect Auger Motor.



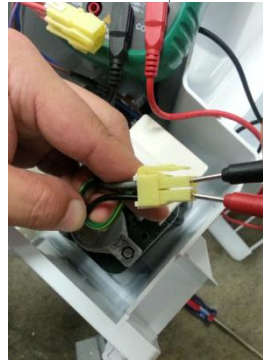
Step 1

- ① Disassemble ice Bucket which is in F room.
- ② Disassemble 3 screws on the top.



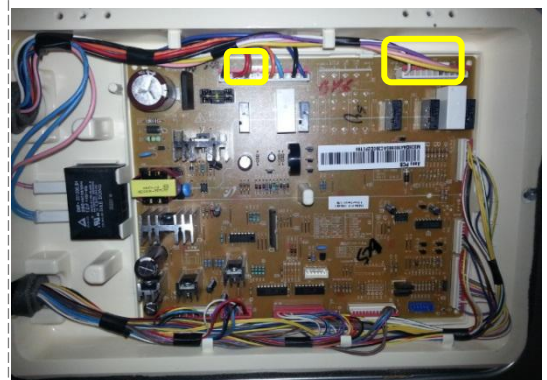
Step 2 (Single product inspection)

- ① Disassemble ice bucket which is in freezer.
- ② Disassemble Auger Motor, inspect Motor
 - Normal product GRY+BLK 3~4 Ω
 - Failure part : Open & 0 Ω



Step 3

- ① Disassemble the Main PBA Cover which is on the back
- ② Inspect Connector which is on right bottom
 - Inspect CN70 No.3(REDF)and CN73 No.9(PRK)



Tip 2-1. Inspect Water supply / supply



Check Point Inspect Water supply failure



※ **Need lever operation for 3 min on initial and after replace** !

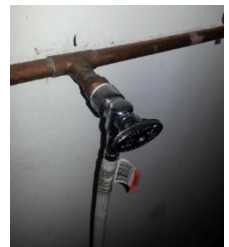
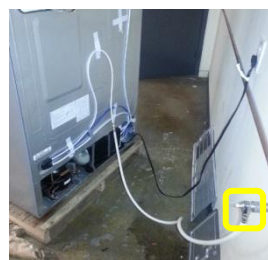
Step 1

- ① Inspect water comes when lever operation after Water selection.
※ Initial product needs Water Tank filling time
- When the water does not come → Check Step 2
- **When the water comes → Check TIP 2-4**



Step 2 (Connection problem- Bending Hose)

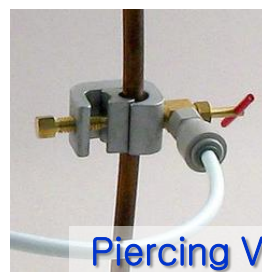
- ① Inspect connection condition between external tap and product connect
- Inspect connection of water pipe
- Inspect tap is closed.
- ② Inspect back Water Hose bending.



Step 3 (Piercing Valve using problem)

- ① Check hole blocking to not supplying water when use Piercing Valve.

※ Check water supplying after disassemble refrigerator connecting Hose



Piercing Valve



Step 4 (Filter Case problem)

- ① Water supplies after remove Water Filter, but water does not come after connect.

- Replace filter case in same problem when replace other filters.



Step 5

- ① When the water comes well through water line, check water pressure when use external water filter.

※ **Water pressure of supplying should over 20PSI.**



Tip 2-2. Inspect Ice Valve operation

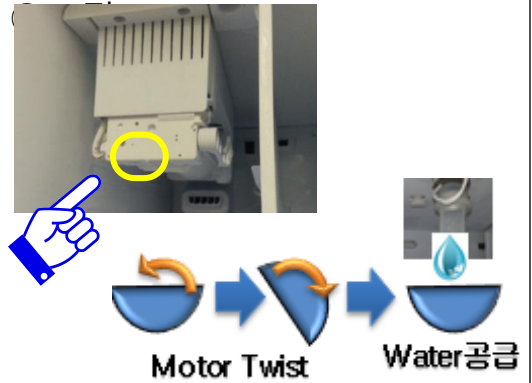


Check Point Inspect ice maker Water supplying problem



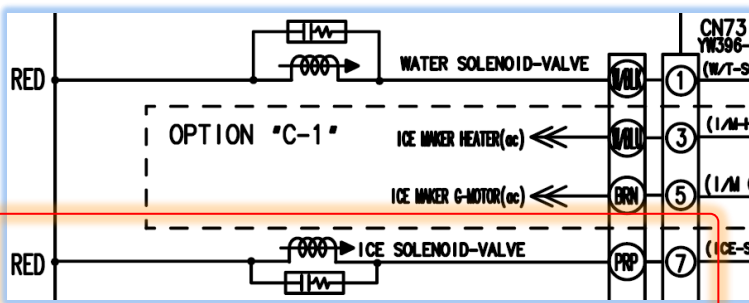
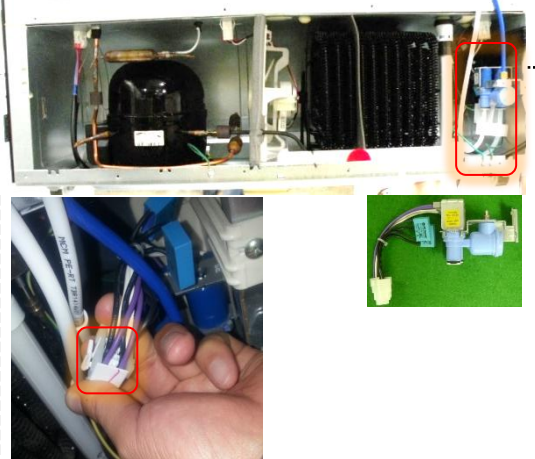
Step 1

- ① Push the button for 2 sec which is on the bottom of ice maker after disassemble Ice Bucket.
- ② Check the water supplying after ice maker tray twist operation.
 - When the water does not come → Check the Step 2
 - **When the water comes → Check TIP 2-5**



Step 2

- ① Disassemble the backside Unit Cover .
- ② Check Purple 2-Wire after disassemble ASSY Valve
 - Normal part: 350~450 Ω
 - Failure part : Open or 0 Ω
- ③ Disassemble the Main PBA Cover which is on the back
- ④ Inspect Connector which is on right bottom
 - Inspect CN70 No.3(RED) and CN73 No.7(PRP)



- ① Disassemble Unit Cover 2- inspect Wire CN 73 No.7(PRP) + CN70 No. 3(RED)



Tip 2-3. Inspect ASSY PIPE-WATER (Heater) freezing



Check Point

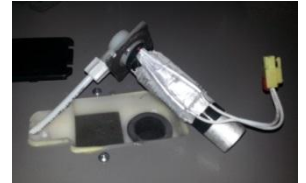
Inspect ice maker Water supply problem



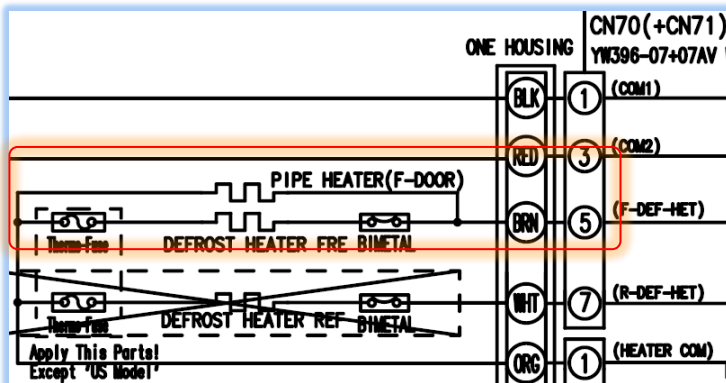
Step 1



- ① Disassemble the Ice Maker which is on top of F room.
- ② Disassemble top PIPE-WATER Heater Wire.
 - Normal product 1.8 ~ 2.5 KΩ
 - Failure part : Open or 0 Ω



Circuit diagram



- ① Inspect 2-Wire connector

-Main PBA : CN70
No.5(BRN) + CN71
No.1(ORG)

Main PBA



Tip 2-4. Inspect Self diagnosis test (※ Must select "Power Freeze" first)

※ **Fan motor Fan motor displays failure for power on condition.**

Touch Display "Lighting" + "Energy Saver" Key for 8 sec at the same time.

- Press until all LED blink and "dingdong" sound appears.

- **No problem on self-diagnosis→check TIP 2-2**



| Display (Image) | Failure Item | Measure | IMAGE |
|-----------------|-----------------------------------|--|-------|
| | Ice Maker Sensor | Inspect F ice maker + Wire Harness ① F room icemaker connector | |
| | Ice Maker function failure | ② Main PBA CN90 | |
| | F cabinet Sensor | Disassemble Cover Multi Front ① Inspect Sensor Wire ② Main PBA CN40 No.5(YEL) CN50 No.5(GRY) | |
| | F defrost SENSOR | Disassemble Cover Evap ① Inspect Sensor Wire ② Main PBA CN40 No.6(BLU) CN50 No.5(GRY) | |
| | F-cabinet FAN | Disassemble Cover Multi ① Inspect Fan Wire ② Main PBA CN75 No.4(YEL)+No.5(BLK)+No.10(GRY) | |
| | F defrost Error | Check Evap Cover disassemble defrost heater ① Inspect defrost heater housing ② CN70 No.5(BRN)+CN72 No.1(ORG) | |
| | R cabinet Sensor | Disassemble R Cover Damper ① Main PBA CN40 No.9(BLK) CN50 No.5(GRY) | |
| | R vibration Damper Heater | Disassemble R Cover Damper ① Inspect Main PBA CN76 No.4~9 | |
| | C-FAN ERROR | Inspect machinery room COVER disassemble C-Fan | |
| | External air SENSOR | Check R door HINGE-UPP disassemble ① Main PBA CN40 - No.1(YEL)+2(YEL) | |

Tip 2-4-1. Inspect self-diagnosis test



→ Inspect Ice Maker

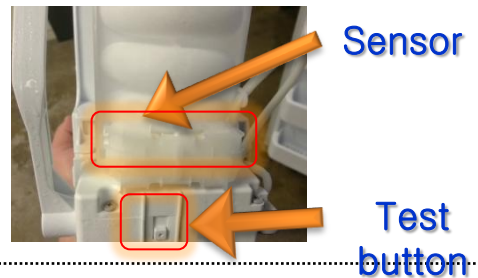
Block



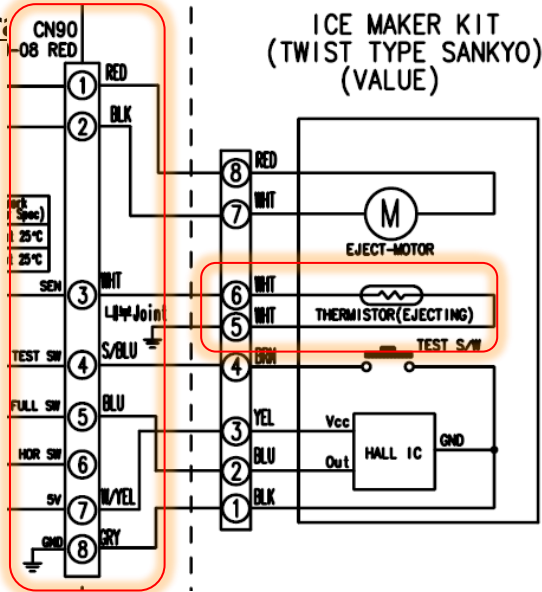
- ① Disassemble F Ice Maker Screw Top
- ② Inspect Wire Harness connection which is on The top part.

※ Ice maker test operates and water does not come, Check TIP 2-2

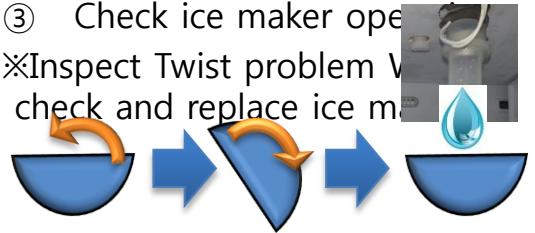
※ No problem on Test and water supply, check TIP 2-5



Circuit diagr:



- ① When Sensor failure :Inspect No.5(WHI) + 6(WHI)
- ② When the Sensor is normal : Ice Maker bottom Test button
※ Press 2sec
- ③ Check ice maker operation
※Inspect Twist problem Water supply check and replace ice maker



Motor Twist → Water supply

Main PBA



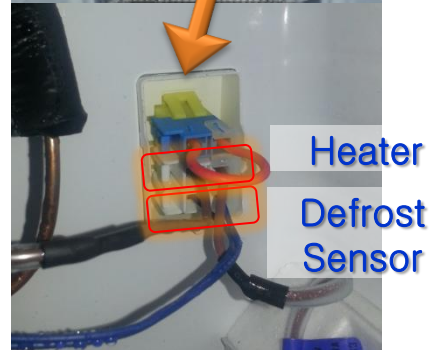
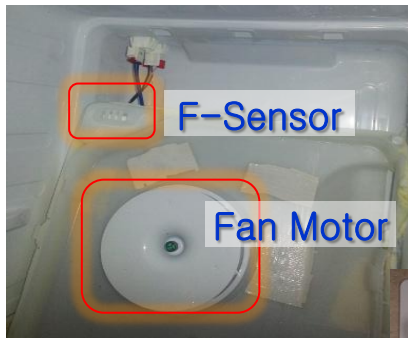
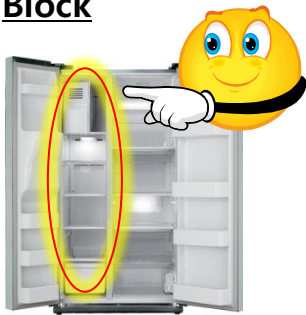
- ① When the Sensor is failure "CN 90" : Inspect No.5(WHI) + 6(WHI)
- ② When the Ice Maker Test operation is failure Inspect "CN 90"
- rotate operation: 1(RED)=2(BLK)
- output sensing: 5(BLU)
- Test input: 4(S/BLU)

Tip 2-4-2. Inspect self-diagnosis test



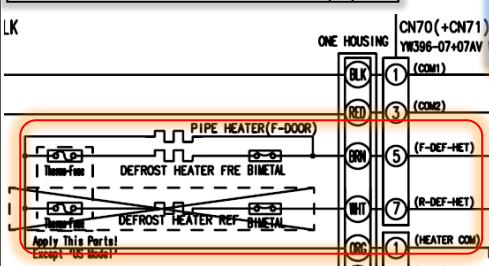
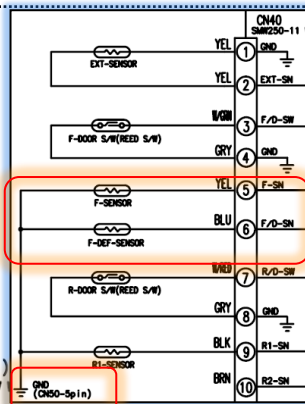
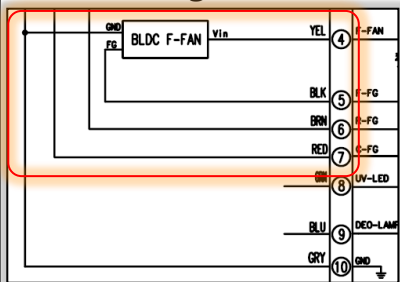
→ F Sensor / Cabinet Fan / Defrost Sensor / Defrost Error

Block



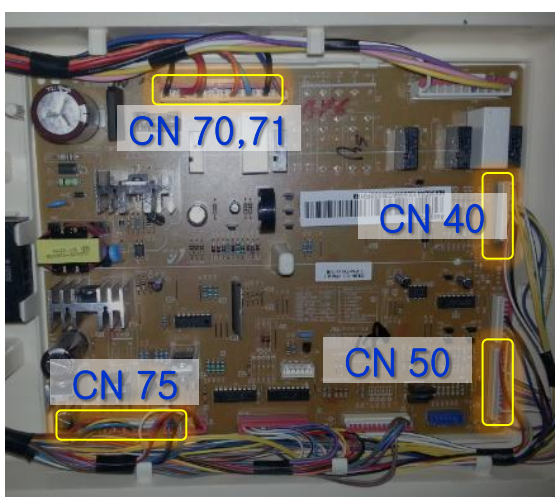
- ① Disassemble F Ice Maker Screw top
- ② Inspect Cover Multi Front disassemble
- ③ Inspect Evap Cover disassemble

Circuit diagram



- ① When the F cabinet Sensor failure
: Inspect disassembled Cover Multi Front blue 2-Wire connector
-Main PBA : CN40 No.5(YEL) + CN50 No.5(GRY)
- ② When F Fan is failure
: Inspect disassembled Cover Multi Front 3-Wire connector
-Main PBA : CN75 No.4(YEL) / No.5(BLK) / No.10(GRY)
- ③ When the Defrost Sensor is failure
: Inspect Evap Cover disassembled blue 2-Wire
-Main PBA : CN40 No.6(BLU) + CN50 No.5(GRY)
- ④ Defrost Error
: Inspect brown 2-Wire connector
-Main PBA : CN70 No.5(BRN) + CN71 No.1(ORN)

Main PBA

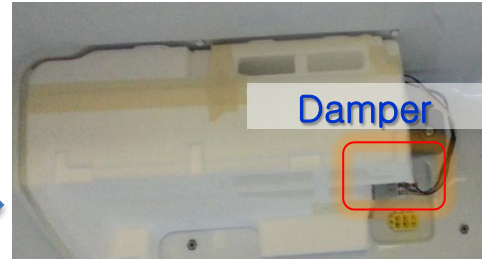
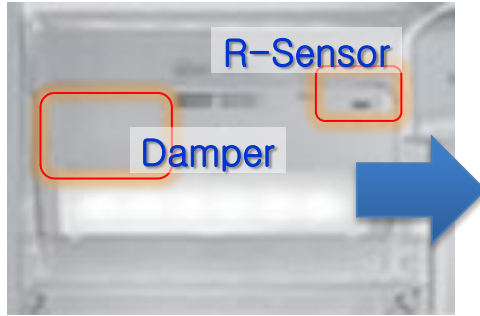


Tip 2-4-3. Inspect self-diagnosis test

→ R Sensor / F Damper Motor



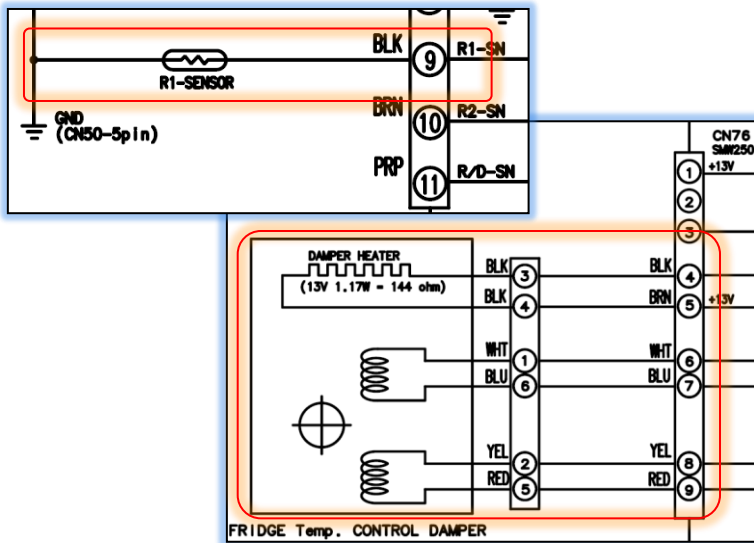
Block



- ① Disassemble R Ice Maker Screw top
- ② Inspect Cover Multi Front disassembly
- ③ Inspect Evap Cover disassembly

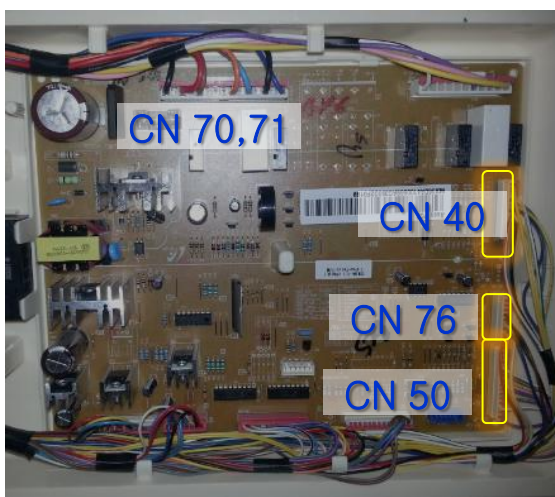
R-Sensor

Circuit diagram



- ① When the R cabinet Sensor is failure
: Inspect disassembled Cover Damper blue 2-Wire connector
-Main PBA : CN40 No.9(BLK) + CN50 No.5(GRY)
- ② When the R Damper Motor is failure
: Inspect disassembled Cover Damper 6-Wire connector
-Main PBA : CN76 No.4(BLK) / 5(BRN) / 6~9

Main PBA

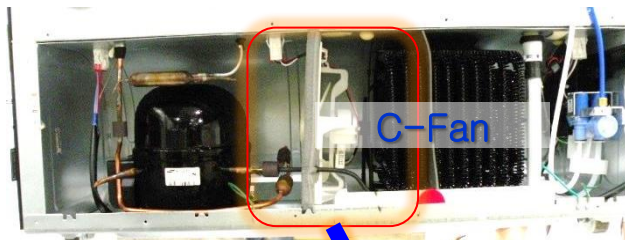


Tip 2-4-4. Inspect self-diagnosis test



→ External R Sensor / C-Fan Motor

Block



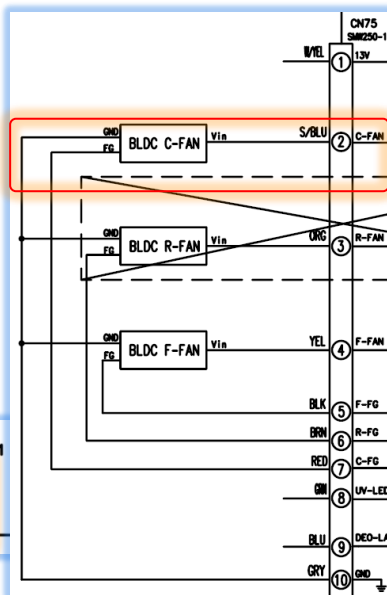
- Inspect external air sensor

- ① Inspect R top HINGE-UPP Cover disassembled Wire

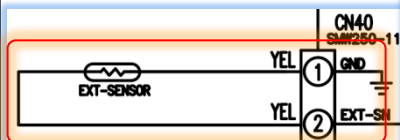
- Inspect C-Fan Error

- ① Inspect disassembled Unit Cover Fan restriction / Wire

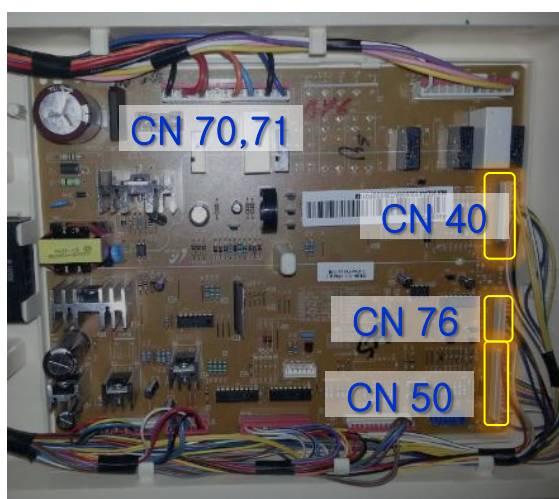
Circuit diagram



- ① When external air Sensor is failure
: Inspect R HINGE-UPP Cover disassembled yellow 2-Wire
-Main PBA : CN40 No.1(YEL) + 2(YEL)
- ② When the C-Fan Motor is failure
: Inspect Unit Cover disassembled 3-Wire connector
-Main PBA : CN75 No.2(S/BLU) / 7(RED) / 10(GRY)



Main PBA



Tip 2-5. Inspect cooling power (※ Must select "Power Freeze" first)

Freezer
/Hold 3 sec
for Power Freeze

※ Do not off the power → Measure self-diagnosis test on "TIP 2-4"

Step 1

Press Display "Lighting" + "Energy Saver" Key for 8sec at the same time.
- Press until all LEDs are Blinking and "dingdong" sound appears

※ When the Error occur → Move to TIP 2-4
-If there is no problem → Check Step 2



Step 2 (Inspect Comp operation)

① Press Display "Freezer" for 3sec to being "Power Freeze".
※ Satisfy setting temperature and defrost performance comp off.
(Operate 7min off when the COMP operate again)

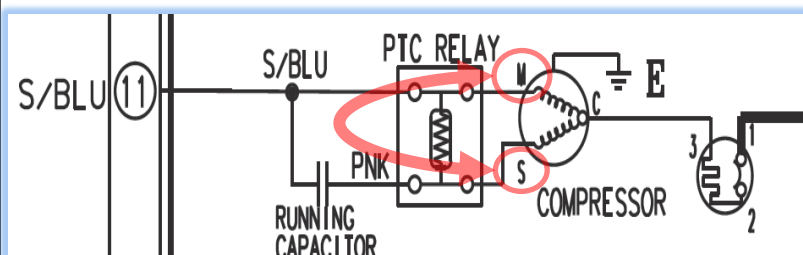
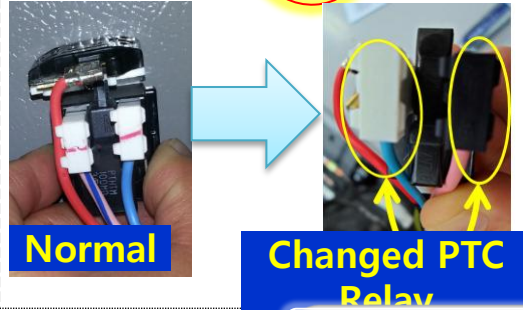
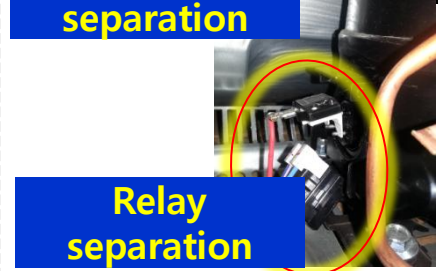
② Inspect backside Comp operation.
(Check operation with touching comp using hand.)

- Comp does not operated → Check Step 3
- Comp operates → Check Step 6



Step 3 (Inspect Comp Wire)

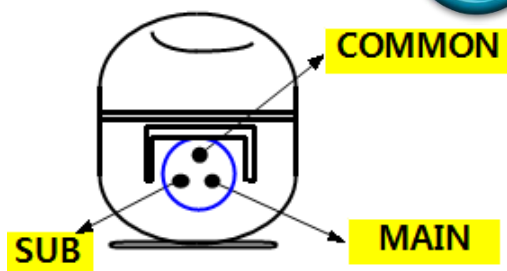
- ① Inspect backside left of Unit Comp Wire Connector
- ② Disassemble Comp left Relay Cover and inspect OLP & PTC-Relay separation
- ③ Inspect PTC-Relay Wire changing
- Sub Coil left PNK, Main right S/BLU





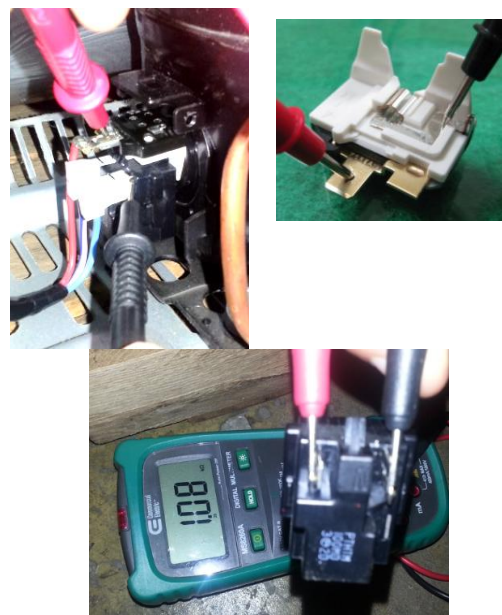
Step 4 (Comp single product operation failure)

- ① Inspect rotation failure by Comp Coil cutting
 - Measure Common + Sub resistance
 - Measure Common + Main resistance
 Normal : 1~50 Ω
 Failure : Open ∞ Ω



Step 5 (Comp Relay Failure)

- ① Inspect power supply Line
 - Comp operation condition is normal : AC 100~125 V
 - Failure : AC voltage non-applying (Inspect power line)
- ② Inspect Comp OLP(Over Load Protection)
 - Normal : applying an electric current 0~1 Ω
 - Failure : Open ∞ Ω
- ③ Inspect PTC Relay
 - Normal : 0.8~1.4 KΩ
 - Failure : Open ∞ Ω

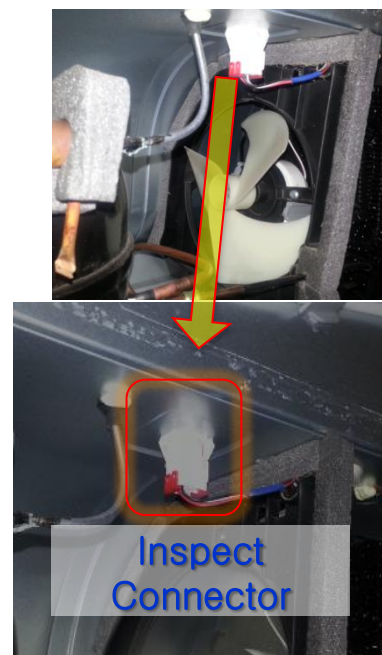
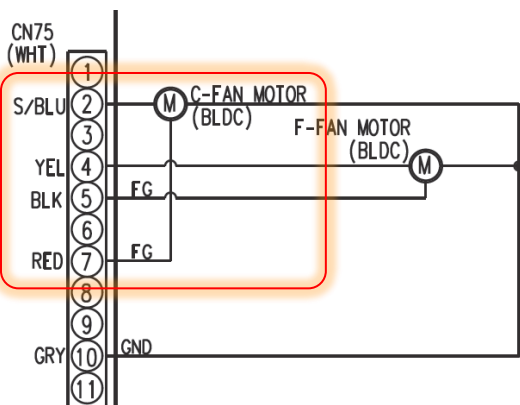


Step 6 (Gas Leak failure)

- ① Comp operates but, if Comp-dome & Pipe-Condenser temperature is not high, repair cycle shield system because it is failure of Gas Leak & Clogged

Step 4 (When C-Fan is failure)

- ① When C-Fan operates or "FG" Signal is failure, comp stops after 60min..
 - ※ Must check "FG" failure through self-diagnosis test, even the Fan is still rotating.









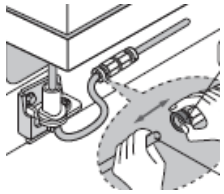

● Ice & Water






#2. Symptom : No Water & other(LEAK) Repair distribution diagram

| Chassis | Project | Basic Model | Type |
|---------|---------|-------------|-------------------|
| SBS | SSEDA | RS261M* | Plastic Ice Maker |

※ **Check Display** Child Lock  **"Hold" selection**



| Check-1 | Reason Step | Check-2 | Tip Code | Block | | |
|---|---|--|--|------------------------------------|--------------|--------------|
| | | | | # 1 | # 2 | # 3 |
| No Water  | WATER supply problem  | <ul style="list-style-type: none"> Inspect WATER connection / supply ASSY CASE-WATER FILTER supply failure | 3-1  | External connection (Water supply) | Water Hose | CASE-FILTER |
| | WATER VALVE problem | <ul style="list-style-type: none"> Inspect WATER VALVE | 3-2  | WATER VALVE | WIRE HARNESS | |
| | WATER LEVER S/W  | <ul style="list-style-type: none"> Inspect LEVER S/W operation Door S/W | 3-3  | LEVER S/W | DOOR S/W | WIRE HARNESS |
| | WATER Hose  | <ul style="list-style-type: none"> WATER HOSE bending Inner door hose blocking/freezing | 3-4  | TUBE-FITTING | F-DOOR | |

| | | | | | | |
|---|--|--|--|--------------|-------------|-------------|
| Other Water Leak & Noise | WATER LINE Leak  | <ul style="list-style-type: none"> CONNECTOR WATER LINE | 4-1  | TUBE-FITTING | CASE-FILTER | WATER VALVE |
| | DISPENSER DRIP - WATER DROP - ICE ROUTE | <ul style="list-style-type: none"> Inspect connection part Inspect WATER VALVE Inspect supplied WATER | 4-2  | TUBE-FITTING | WATER VALVE | COCK |
| | WATER HOSE  | <ul style="list-style-type: none"> Inspect FILTER CASE (quake failure) | 4-3  | cock | CASE-FILTER | |

Tip 3-1. Inspect WATER connection / supply

 **Check Point** Inspect Water supply failure



※ Need lever operation for 3 min on initial and after filter replacement !

Step 1

- ① Inspect lever water coming after Water selecting.
※ Takes water tank filling time of initial product
- When the water does not come → Check Step 2
2
- **When the water comes → Check TIP 2-4**



Step 2 (Connection problem-Hose bending)

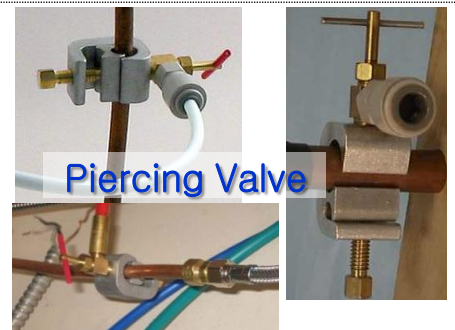
- ① Inspect external tap and product connection condition
- Inspect the water pipe is not connected
- Inspect the tap is closed.
- ② Inspect backside Water Hose bending.



Step 3 (Piercing Valve using problem)

- ① Check the water supplying when use Piercing Valve.

※ Check water supplying after disassemble refrigerator hose

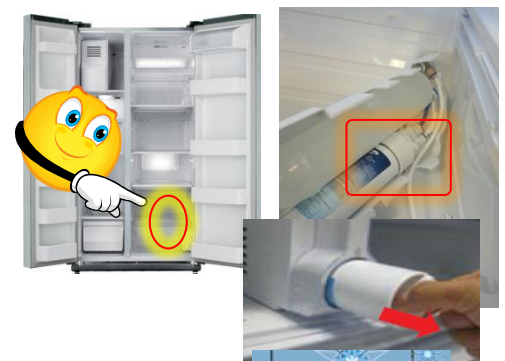


Step 4 (CASE WATER Filter problem)

- ① When remove Water Filter water supplies, when connect it water does not come.
※ When the other filter replace, and same symptom appear, Replace case water filter.

※ Check Filter & Water tank freezing when Too Cold

- ① Replace filter for long term using FILTER



Freeze the filter & tank

Step 5 (Water pressure problem)

- ① If the water supplies well through water line, check water pressure can be decreased when the external Water Filter using.

※ Supply water should be at least over 20PSI.



Tip 3-2. Inspect WATER VALVE operation



Check Point Inspect WATER VALVE failure



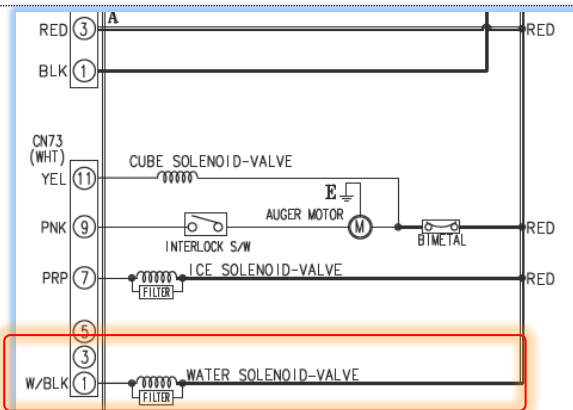
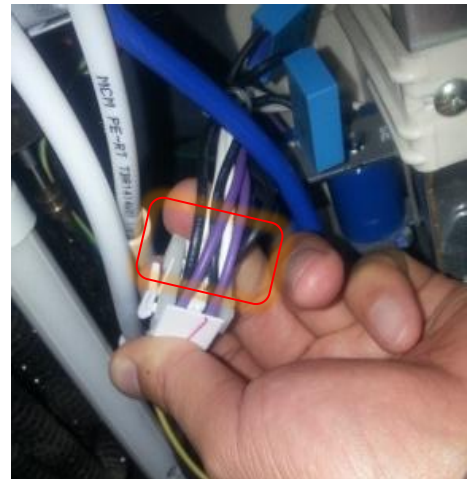
Step 1

- ① Disassemble backside UNIT COVER.



Step 2

- ① After disassemble ASSY Valve and check WHITE 2-Wire
 - Normal parts : 350~450 Ω
 - Failure parts : Open or 0 Ω
- ② Disassemble Main PBA cover which is in the backside
- ③ Inspect Connector which is on the right bottom
 - Inspect CN70 No.3(RED)and CN73 No.1(W/BLK)



- ① Inspect disassembled Unit Cover 2-Wire
CN 73 No.1(W/BLK) + CN70 No.3(RED)



Tip 3-3. Inspect WATER Lever S/W operation



Check Point Inspect Dispenser Lever S/W operation.



Step 1

- ① After select DISPENSER WATER and check water coming with pressing LEVER

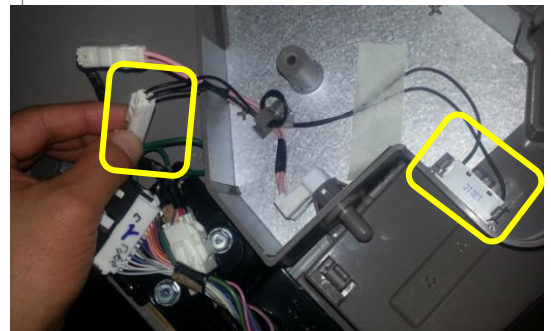


Step 2

- ① Inspect F DOOR UPP MAGNET existence
- ② Inspect disassembled HINGE-UPP COVER DOOR S/W & WIRE CONNECTOR OPEN

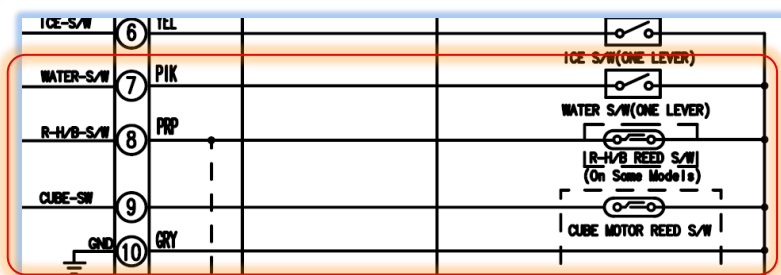


※ Not operation when DOOR S/W is failure



Step 3

- ① After disassemble Display, check left micro S/W pressing to press Lever.
※Check non-pressing, damage
- ② After disassemble HINGE-UPP COVER and check WIRE HARNESS connection
- Inspect PINK & GRAY Wire
- ③ Inspect Main PBA Connector
- Inspect CN50 No.7(PIK)and 10(GRAY) Wire



Tip 3-4. Inspect WATER HOSE

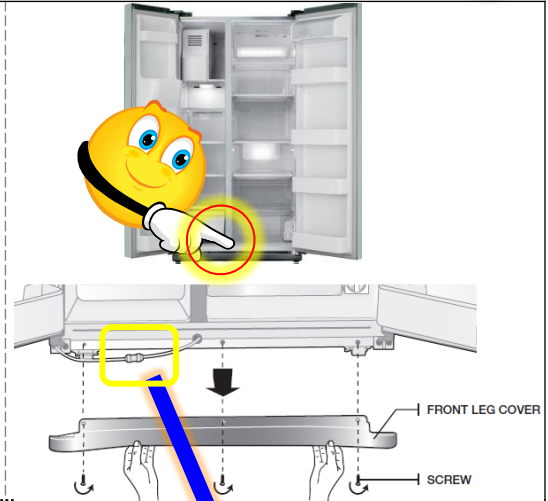


Check Point Inspect WATER HOSE LINE



Step 1

- ① Disassemble COVER-LEG FRONT.

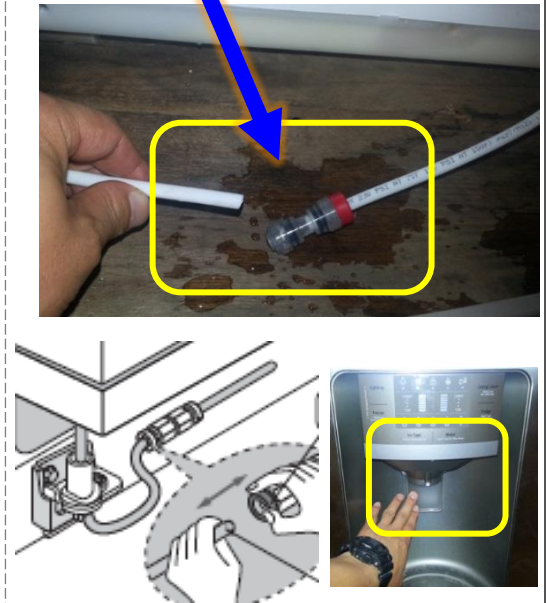


Step 2

- ① Check it is the problem of WATER HOSE TUBE FITTING connection and disassemble it if there is no problem.
- ② On DOOR ALL CLOSE condition, check the water comes of hose when WATER LEVER operate.

- Inspect F door hose if Hose from CABINET side flows water → STEP 3

※ When the water doesn't come from HOSE → Check TIP 1-1



Step 3

- ① Check F-DOOR HINGE-LOW part WATER HOSE bending.
- ② Replace the door because of Clogged problem or inner water hose freezing when there is no problem on F DOOR HINGE-LOW HOSE.



Tip 4-1. Inspect WATER LINE LEAK



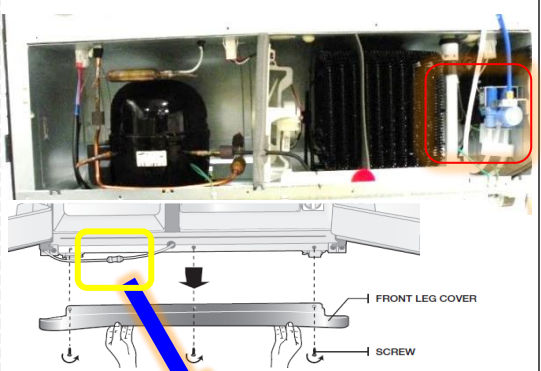
Check Point Inspect WATER HOSE LINE LEAK



Step 1

① Disassemble COVER-LEG FRONT.

- FRONT WATER LEAK
- ROOM WATER LEAK
- BACK WATER LEAK

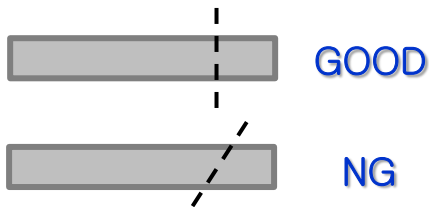


Step 2

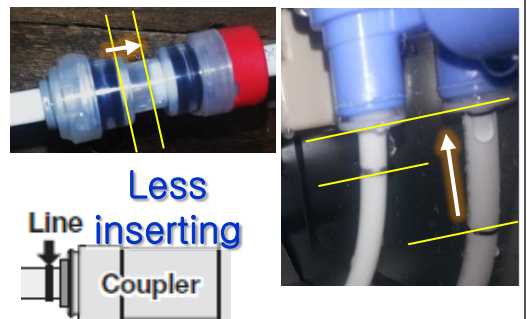
① Inspect WATER HOSE SCRATCH
→ Re-connection after cutting the SCRATCH part

② Less inserting amount of TUBE FITTING HOSE
→ Re-insert to the inside

③ HOSE CUTTING as diagonal.
→ Connect after re-cutting as right



HOSE SCRATCH



Step 3

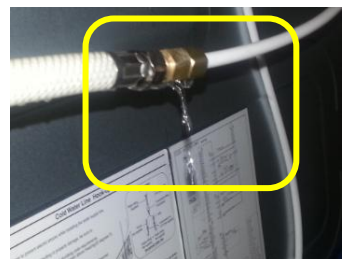
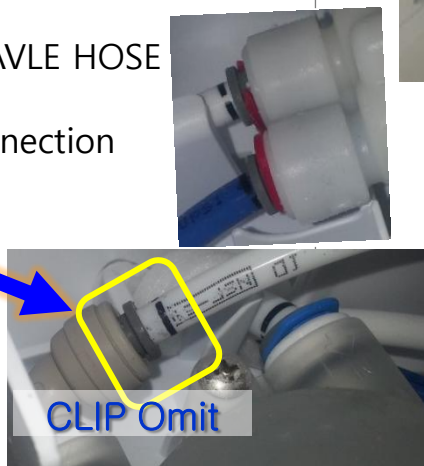
① Inspect R CASE FILTER inner TUBE FITTING connection part CLIP connect omit and HOSE inserting failure

② Inspect backside WATER VAVLE HOSE

③ Inspect backside HOSE connection



CLIP



Tip 4-2. Inspect WATER DISPENSER DRIPPING



Check Point

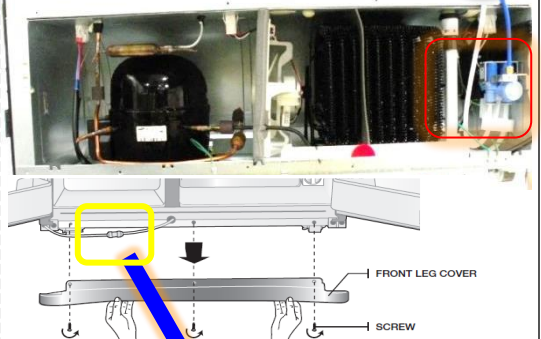
Inspect WATER HOSE LINE LEAK



Step 1

- ① Disassemble COVER-LEG FRONT

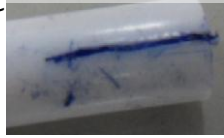
※ WATER DRIPPING occurs as WATER LINE AIR



Step 2

- ① Inspect WATER HOSE SCRATCH
→ Re-connect after cutting SCRATCH part

HOSE SCRATCH



Step 3

- ① Inspect WATER TANK AIR
- ② Pressing WATER LEVER and shake CASE FILTER as left-right to dispense inner Air to outside.



Step 4

- ① Disassemble UNIT WATER VALVE HOSE and inspect water leak on Closing condition.



Step 5

- ① Disassemble Water hose which is connected to product.
- ② Inspect bubble occurrence in the water when supply water to container.
- When BUBBLE appears it is not the problem of the product.

BUBBLE



Step 6

- ① Ice which is made during ICE dispensing melt and flow to CASE DISPENSER is normal phenomenon.

- Customer explanation



Tip 4-3. Inspect WATER HOSE NOISE

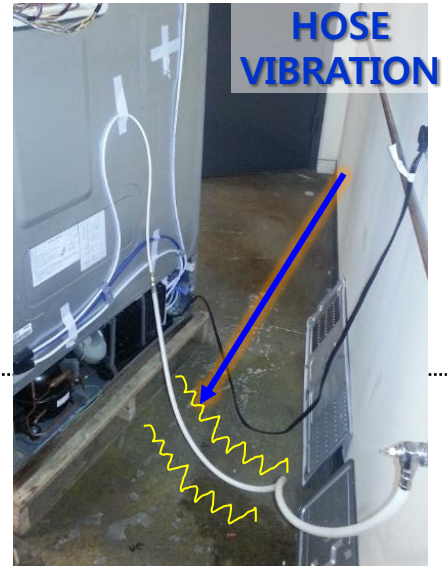


Check Point Inspect WATER HOSE LINE LEAK



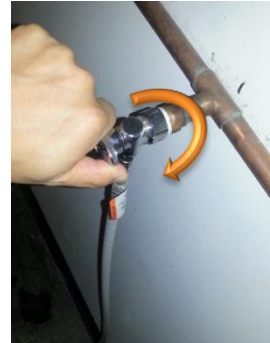
Step 1

- ① Dispense water with pressing WATER LEVER.
 - Inspect supply water pressure problem
 - Inspect CASE-FILTER problem



Step 2

- ① Check backside hose quake sound when operate with pressing WATER LEVER.
- ② Improve supplied water pressure with VALVE adjusting.



Step 3

- ① When hose continuously shakes even adjusting water pipe VALVE
- ② Disassemble FILTER.
 - After disassemble the FILTER and hose is not shaken after dispensing WATER replace FILTER CASE.





● DEFROST

#1. Symptom : EVAP / ICE ROUTE DEFROST Repair

| Chassis | Project | Basic Model | Type |
|---------|---------|-------------|-------------------|
| SBS | SSEDA | RS261M* | Plastic Ice Maker |



※ Operate self-diagnosis test

| Check-1 | Reason Step | Check-2 | Tip Code | Block | | |
|-------------------------|---|--|----------|-------------------|--------------|----------|
| | | | | # 1 | # 2 | # 3 |
| EVAP DEFROST BUILD | DEFROST ERROR / sensor / Fan Motor problem | <ul style="list-style-type: none"> ➤ Self diagnosis test Display "Lighting"+ "Energy Saver" | 5-1 | Sensor Fan Damper | WIRE HARNESS | Main PBA |
| | EVAP DEFROST BUILD problem  | <ul style="list-style-type: none"> ➤ Only the top of the EVAP ice. ➤ Only the bottom of the EVAP ice. ➤ All EVAP ice. | 5-2 | DEF-Sensor | HEATER | Main PBA |
| DISPENSER DEFROST BUILD | ICE ROUTE assembly problem  | <ul style="list-style-type: none"> ➤ Inspect COVER-ICE ROUTE LEAK ➤ Inspect CASE-LEVER DISP | 6-1 | COVER-ICE ROUTE | | |

Tip 5-1. Self diagnosis test inspection (※ Must select "Power Freeze" first)

※ Fan motor displays failure for power on condition.

Press Display "Lighting" + "Energy Saver" Key for 8sec at the same time.

- Press until all LEDs are Blinking and "Dingdong" sound occur

- Normal on self-diagnosis test → check TIP 5-2



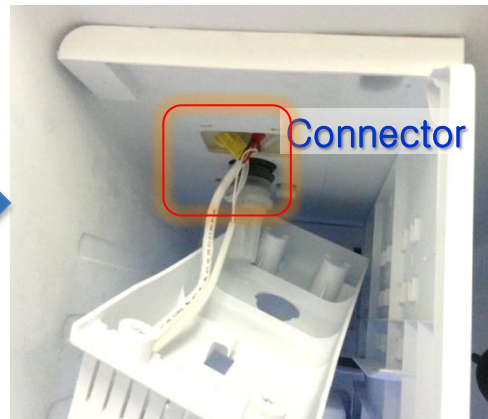
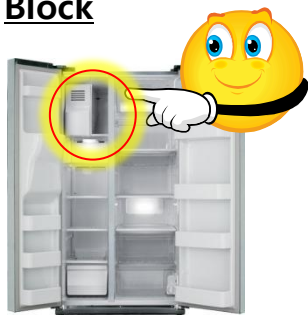
| Display (Image) | Failure Item | Measure | IMAGE |
|-----------------|-----------------------------------|--|-------|
| | Ice Maker Sensor | Inspect F ice maker + Wire Harness ① F icemaker connector | |
| | Ice Maker function failure | ② Main PBA CN90 | |
| | F cabinet Sensor | Disassemble Cover Multi Front ① Inspect Sensor Wire ② Main PBA CN40 No.5(YEL) CN50 No.5(GRY) | |
| | F defrost SENSOR | Disassemble Cover Evap ① Inspect Sensor Wire ② Main PBA CN40 No.6(BLU) CN50 No.5(GRY) | |
| | F-cabinet FAN | Disassemble Cover Multi ① Inspect Fan Wire ② Main PBA CN75 No.4(YEL)+5(BLK)+10(GRY) | |
| | F defrost Error | Check disassemble Evap Cover defrost heater ① Inspect defrost heater housing ② CN70 No.5(BRN)+CN72 No.1(ORG) | |
| | R cabinet Sensor | Disassemble R Cover Damper ① Main PBA CN40 No.9(BLK) CN50 No.5(GRY) | |
| | R vibration Damper Heater | Disassemble R Cover Damper ① Inspect Main PBA CN76 No.4~9 | |
| | C-FAN ERROR | Inspect machinery room COVER disassembled C-Fan | |
| | External air SENSOR | Check R door HINGE-UPP disassembly ① Main PBA CN40 - No.1(YEL)+2(YEL) | |

Tip 5-1-1. Inspect self-diagnosis test



→ Inspect Ice Maker

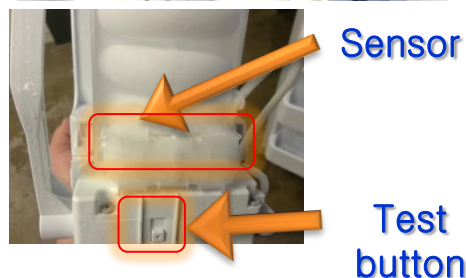
Block



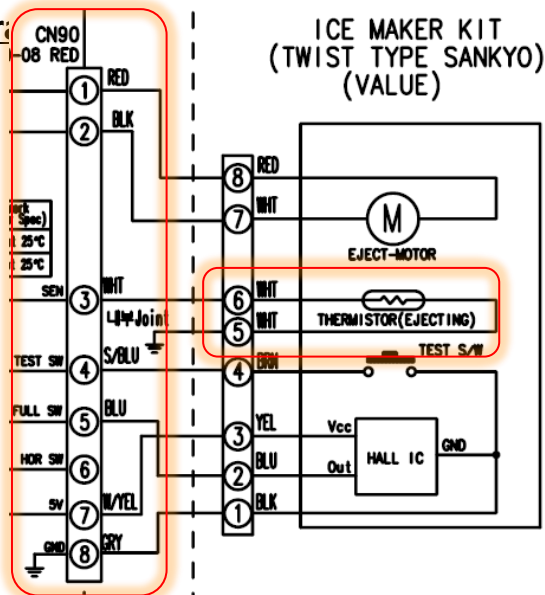
- ① Disassemble F Ice Maker Screw top
- ② Inspect wire harness contact on the top.

※ Ice maker test operation but water doesn't come refer to TIP 2-2

※ Test and water supply don't have problem, refer to TIP 2-5



Circuit diagram:



- ① When the Sensor is failure : Inspect no.5(WHI) + 6(WHI)
- ② When the Sensor is normal : Ice Maker bottom Test button
※ Press for 2sec
- ③ Check icemaker operation
※After check the Twist problem Wire inspection, replace icemaker



Main PBA



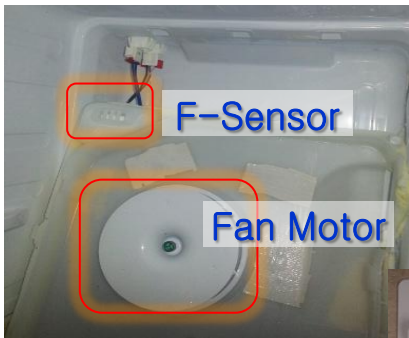
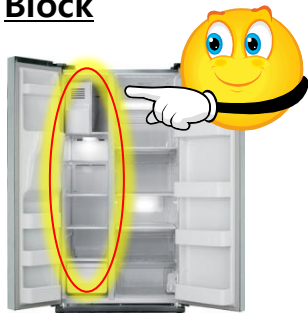
- ① When the Sensor is failure "CN 90": inspect no.5(WHI) + 6(WHI)
- ② Inspect "CN 90" when Ice Maker Test operation failure
 - Rotating operation: 1(RED)=2(BLK)
 - Output sensing: 5(BLU)
 - Test input: 4(S/BLU)



Tip 5-1-2. Inspect self-diagnosis test

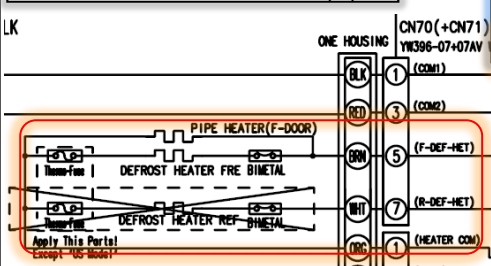
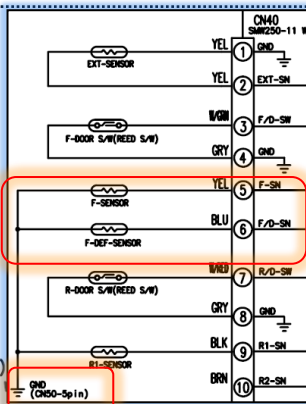
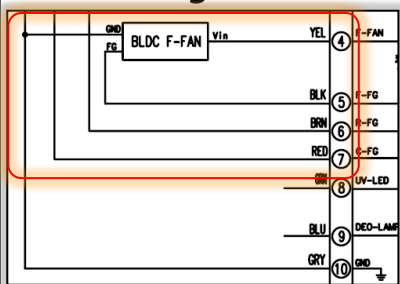
→ F Sensor / cabinet Fan / Defrost Sensor / Defrost Error

Block



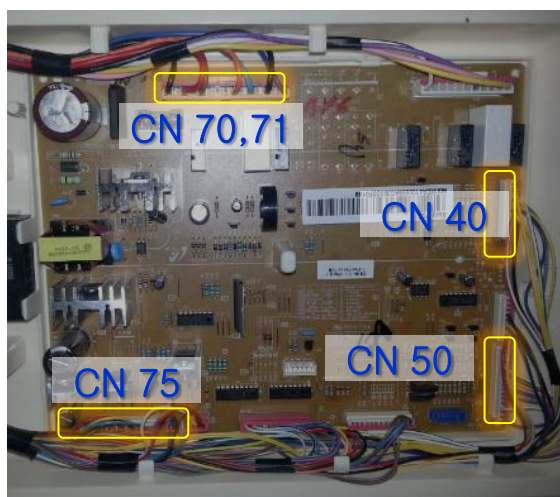
- ① Disassemble F Ice Maker Screw top
- ② Inspect disassembled Cover Multi Fro
- ③ Inspect disassembled Evap Cover

Circuit diagram



- ① F cabinet Sensor is failure
: Inspect disassembled Cover Multi Front blue 2-Wire connector
-Main PBA : CN40 No.5(YEL) + CN50 No.5(GRY)
- ② When F Fan is failure:
Inspect disassembled Cover Multi Front 3-Wire connector
-Main PBA : CN75 No.4(YEL) / No.5(BLK) / No.10(GRY)
- ③ When the Defrost Sensor is failure
: Inspect disassembled Evap Cover blue 2-Wire
-Main PBA : CN40 No.6(BLU) + CN50 No.5(GRY)
- ④ Defrost Error
: Inspect brown 2-Wire connector
-Main PBA : CN70 No.5(BRN) + CN71 No.1(ORN)

Main PBA

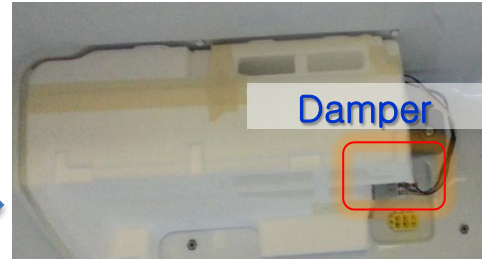
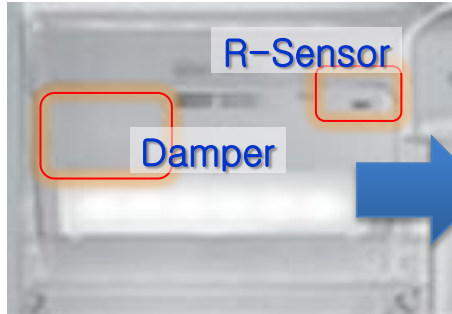


Tip 5-1-3. Inspect self-diagnosis test

→ R Sensor / F Damper Motor



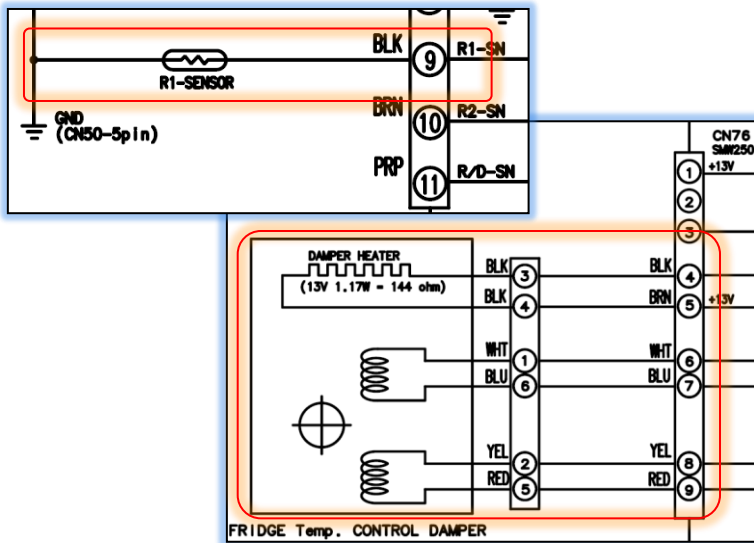
Block



- ① Disassemble F Ice Maker Screw top
- ② Inspect disassembled Cover Multi Front
- ③ Inspect disassembled Evap Cover

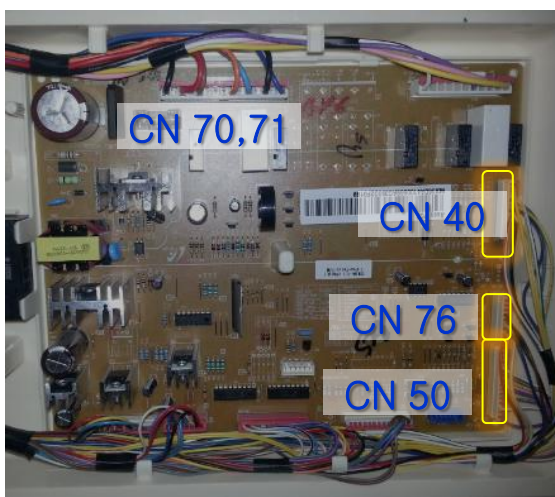
R-Sensor

Circuit diagram



- ① When the R cabinet Sensor is failure
: Inspect disassembled Cover Damper blue 2-Wire connector
-Main PBA : CN40 No.9(BLK) + CN50 No.5(GRY)
- ② When the R Damper Motor is failure
: Inspect disassembled Cover Damper 6-Wire connector
-Main PBA : CN76 No.4(BLK) / No.5(BRN) / No.6~9

Main PBA

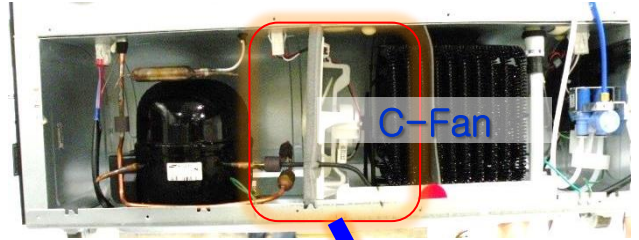


Tip 5-1-4. Inspect self-diagnosis test



→ External air R Sensor / C-Fan Motor

Block



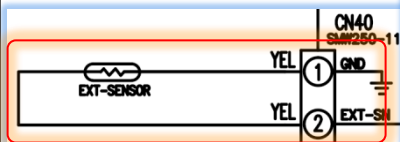
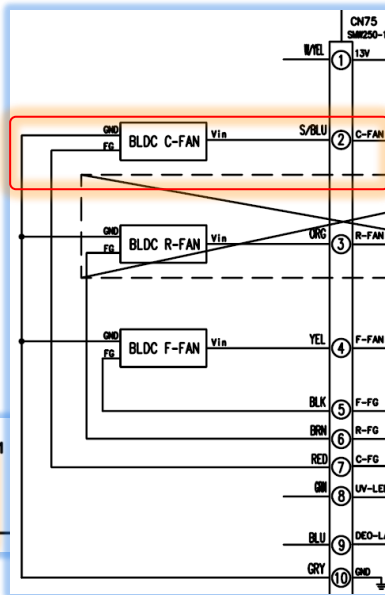
- Inspect external sensor

① Inspect disassembled R top HINGE-UPP Cover Wire

- Inspect C-Fan Error

① Inspect disassembled Unit Cover Fan restriction / Wire

Circuit diagram



① When the external air Sensor is failure

: Inspect disassembled R HINGE-UPP Cover yellow 2-Wire

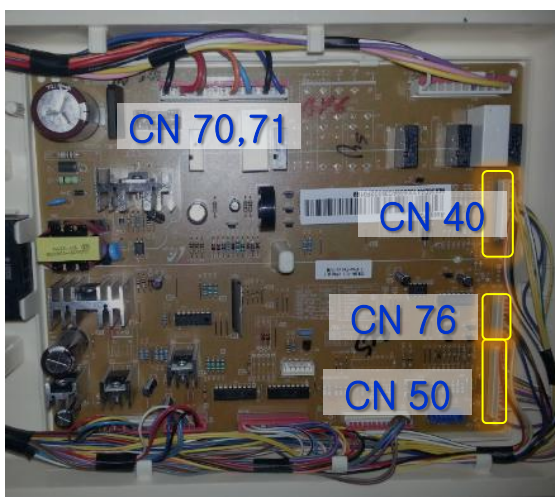
-Main PBA : CN40 No.1(YEL) + No.2(YEL)

② When the C-Fan Motor is failure

: Inspect Unit Cover disassembled 3-Wire connector

-Main PBA : CN75 No.2 (S/BLU) / No.7(RED) / No.10(GRY)

Main PBA



Tip 5-2. Inspect EVAP DEFROST BUILD

※ **Do not off the power and operate self-diagnosis test on "TIP 5-1" first.**

→ **Must check the forced defrost operation after defrosting repair.**

Step 1

Press Display "Lighting" + "Energy Saver" Key for 8 sec at the same time until "Dingdong" sound appear.

※ **When the Error occurs → Measure it to move TIP 5-1.**

- **When there is no ERROR, or DEFROST ERROR → Check Step2**



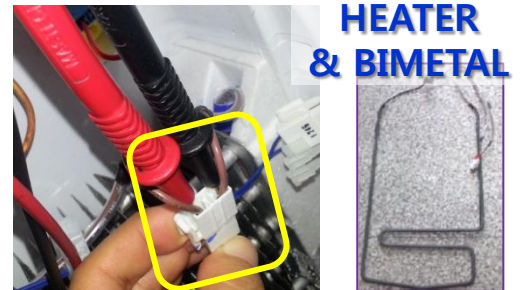
Step 2

- ① Disassemble EVAP COVER EVAP-FRE FRONT & COVER Multi.
- ② Melt right CONNECTOR part with STEAMER and disassemble the COVER.



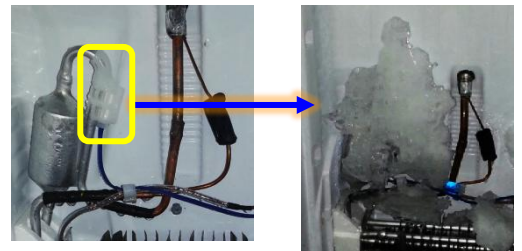
Step 3

- ① Measure BROWN WIRE resistance.
 - Normal part : 35~60 Ω
 - **Failure part : Open or 0 Ω**→ **Replace it because of HEATER & BIMETAL OPEN failure**



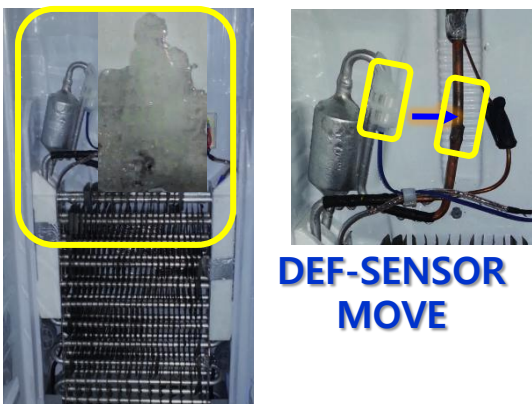
Step 4

- ① When freezing appears on DEFROST SENSOR part, replace it **because it is SENSOR failure.**



Step 5

- ① Bottom and DEF-SENSOR part don't have freezing and top center has freezing only.
 - Location of DEF-SENSOR should move to center pipe.





Step 6

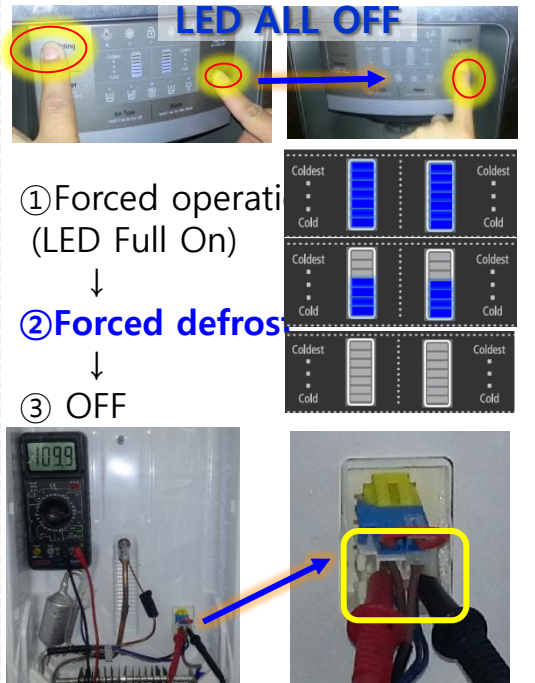
- ① When it freezes only EVAP BOTTOM
- Improve DRAIN freezing.
- ② Check the drain hole blocking with removing freezing with STEAMER.
(Remove DRAIN freezing and foreign substance)
- ③ Bend the HATER to bottom with hand.
- DRAIN HOLE should be closed.
★ HEATER can not contact to PLATE.



Step 7 (Total inspection after defrost repairing)

- ① Check the heater operation with forced defrost operation after complete repairing. Press "Lighting" + "Fridge" at the same time and operate forced defrost to press "Fridge" key 2times after all LED off.

→ Check the HEATER (Brown-wire) AC voltage supplying when "beep" sound appears.
- ② Off with same way when there is no problem.

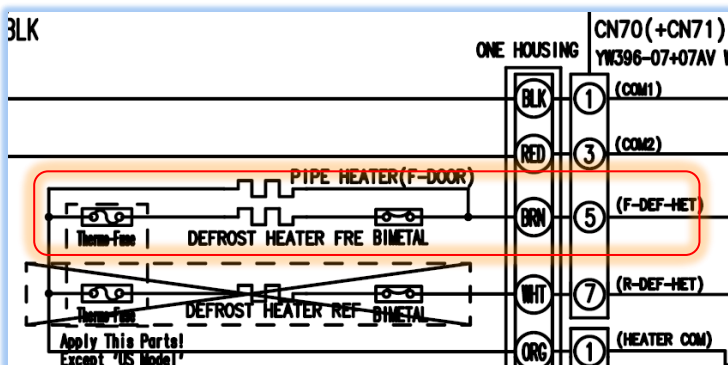


Step 8

- ① Inspect Main PBA and Connector open when the AC power is not supplied.
- ② Replace the Main PBA if there is no problem.

Inspect MAIN PBA CN70 No.5 (BRN)+CN71 No.1(ORG)

- LINER CONNECTOR BROWN 2WIRE





Step 1

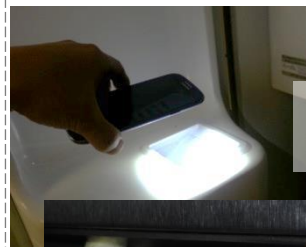
- ① Check frost attachment with ICE ROUTE on F-DOOR OPEN condition.

- If the frost appears on ICE ROUTE only, it appears because of ICE dispensing so that is normal.

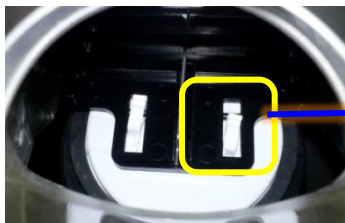


Step 2 (When freezing appears until ICE BUCKET bottom)

- ① Inspect water leakage with flashing on F-DOOR OPEN ICE ROUTE top or pouring water
- ② Failure when water or light leak
- ③ Assemble to check the COVER ICE ROUTE assembly condition and should be no swerving.



When the light leaking



Step 3

- ① Replace ASSY CASE-LEVER DISP if it is not assembly problem.





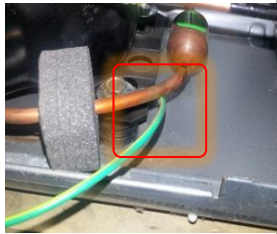

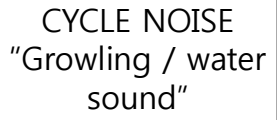

● NOISE

#1. Symptom : Water Hose & UNIT NOISE Repair distribution diagram

| Chassis | Project | Basic Model | Type |
|---------|---------|-------------|-------------------|
| SBS | SSEDA | RS261M* | Plastic Ice Maker |



※ Operate self-diagnosis test

| Check-1 | Reason Step | Check-2 | Tip Code | Block | | |
|------------------|---|---|--|-----------------|-----|-----|
| | | | | # 1 | # 2 | # 3 |
| Water HOSE NOISE | WATER HOSE Noise  | ▶ Inspect FILTER CASE (Quake failure) | 7-1  | Case-Filter | | |
| | UNIT NOISE  | ▶ Inspect COVER-ICE ROUTE LEAK ▶ Inspect CASE-LEVER DISP | 8-1  | Cover-Ice Route | | |
| UNIT NOISE | CYCLE NOISE "Growling / water sound"  | ▶ Refrigerant NOISE ▶ DRYER | 8-2  | EVAP | | |

Tip 7-1. Inspect WATER HOSE NOISE

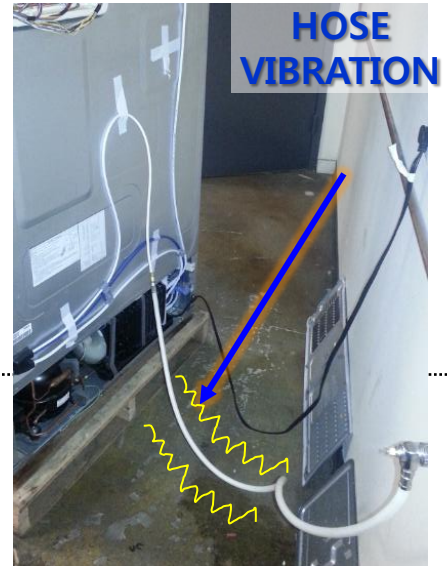


Check Point Inspect Noise when WATER dispensing



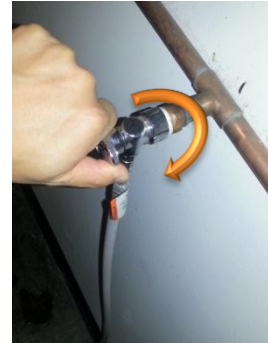
Step 1

- ① Dispense water with pressing WATER LEVER.
 - Inspect supplied water pressure problem
 - Inspect CASE-FILTER problem



Step 2

- ① Check backside hose quake sound with pressing WATER LEVER.
- ② Improve supplied water pressure adjusting water pipe VALVE.



Step 3

- ① When quake hose even adjusting water valve
- ② Disassemble FILTER.
 - Replace Filter case when the Hose does not quake after disassemble FILTER and dispense water.



Tip 8-1. Inspect UNIT NOISE



Check Point Inspect UNIT NOISE



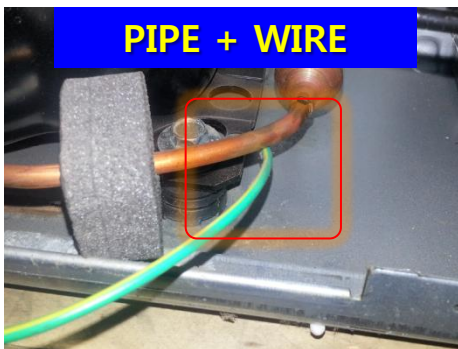
Step 1

- ① Disassemble backside UNIT COVER.



Step 2

- ① Inspect selecting "Power Freeze" and COMP ON.
- ② Disassemble the part which is friction.



Tip 8-2. Inspect CYCLE NOISE



Check Point Inspect NOISE



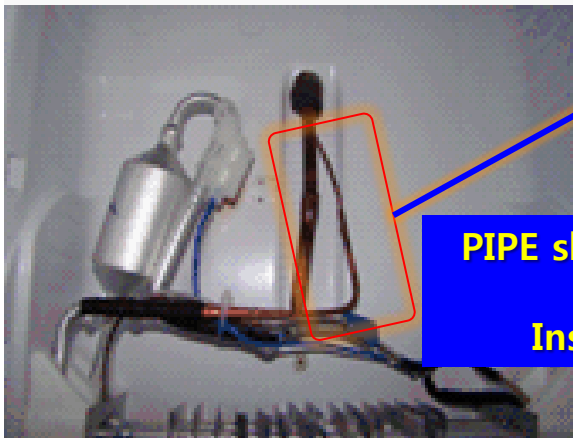
Step 1

- ① Disassemble backside UNIT COVER.



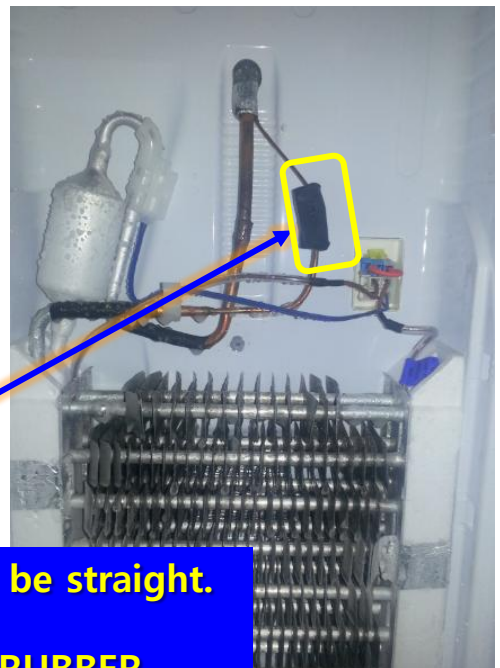
Step 2

- ① When "Pooo~" "growling" sound occurs in the cabinet
- ② Disassemble EVAP COVER.
- Capillary Pipe welding part should be as "-" shape.
- ③ Cover it with RUBBER.

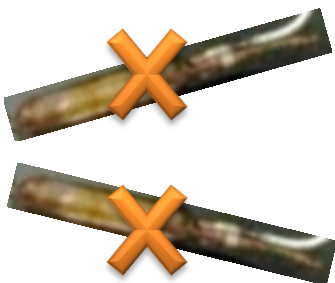


PIPE should be straight.

Inspect RUBBER



- ④ Dryer angle in backside machinery should be horizontal.



DRYER angle



DRYER angle should be horizontal.

● COOLING

#1. Symptom : WEAK COOLING & TOO COLD Repair

| Chassis | Project | Basic Model | Type |
|---------|---------|-------------|-------------------|
| SBS | SSEDA | RS261M* | Plastic Ice Maker |



※ Operate self-diagnosis test

| Check-1 | Reason Step | Check-2 | Tip Code | Block | | |
|--------------|------------------------|--|----------|--------------------------------------|---------------------------|-------------|
| | | | | # 1 | # 2 | # 3 |
| WEAK COOLING | Inspect F WEAK COOLING | <ul style="list-style-type: none"> ➤ Self diagnosis test Display "Lighting" + "Energy Saver" | 9-1 | Ice Maker Sensor Fan Damper | Wire Harness | Main PBA |
| | Inspect R WEAK COOLING | <ul style="list-style-type: none"> ➤ Measure cooling power inspection ➤ Inspect Comp / Fan motor | 9-2 | Comp Relay | Cycle Shield System | C-fan |
| | | <ul style="list-style-type: none"> ➤ DEFROST BUILD | 9-3 | DEF-Sen sor | Heater | Main PBA |
| TOO COLD | R TOO COOLING | <ul style="list-style-type: none"> ➤ Inspect ASSY COVER DAMPER ➤ Inspect ASSY INS-DAMPER | 10-1 | Cover Damper | INS- Damper | |

Tip 9-1. Inspect self-diagnosis test (※ Must select “Power Freeze” first)

※ Fan motor displays failure only for power On condition.

Press Display “Lighting”+ “Energy Saver” Key for 8sec at the same time.

- Press until “Dingdong” sound appear after all LEDs is blinking



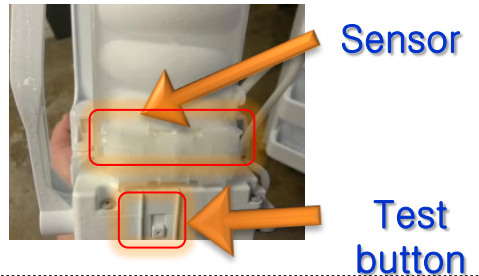
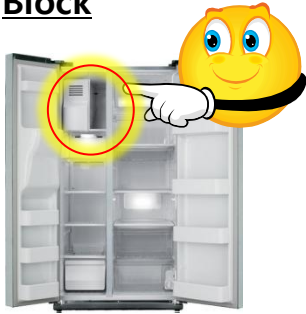
| Display (Image) | Failure Item | Measure | IMAGE |
|-----------------|-----------------------------------|---|-------|
| | Ice Maker Sensor | Inspect F ice maker + Wire Harness ① F ice maker connector | |
| | Ice Maker function failure | ② Main PBA CN90 | |
| | F cabinet Sensor | Disassemble Cover Multi Front ① Inspect Sensor Wire ② Main PBA CN40 No.5(YEL) CN50 No.5(GRY) | |
| | F room defrost SENSOR | Disassemble Cover Evap ① Inspect Sensor Wire ② Main PBA CN40 No.6(BLU) CN50 No.5(GRY) | |
| | F-cabinet FAN | Disassemble Cover Multi ① Inspect Fan Wire ② Main PBA CN75 No.4(YEL)+No.5(BLK)+No.10(GRY) | |
| | F defrost Error | Check disassembled Evap Cover defrost heater ① Inspect defrost heater housing ② CN70 No.5(BRN)+CN72 No.1(ORG) | |
| | R cabinet Sensor | Disassemble R Cover Damper ① Main PBA CN40 No.9(BLK) CN50 No.5(GRY) | |
| | R vibration Damper Heater | Disassemble R Cover Damper ① Inspect Main PBA CN76 No.4~9 | |
| | C-FAN ERROR | Inspect disassembled machinery room COVER C-Fan | |
| | External air Sensor | Check disassembled R door HINGE-UPP ① Main PBA CN40 - No.1(YEL)+No.2(YEL) | |

Tip 9-1-1. Inspect self-diagnosis test



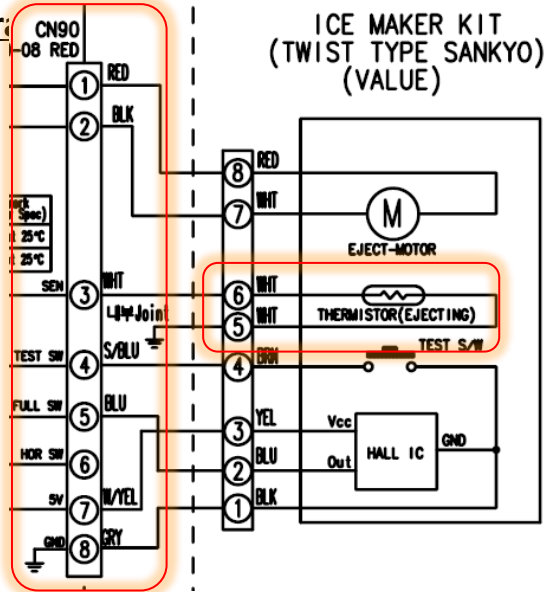
→ Inspect Ice Maker

Block

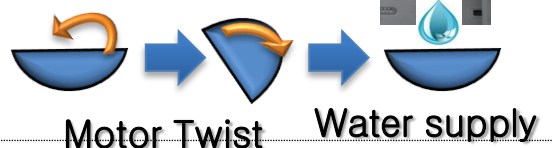


- ① Disassemble F Ice Maker Screw top
 - ② Inspect Top Wire Harness contact.
- ※ Water doesn't come even ice maker operates Test, TIP 2-2
- ※ If there is no problem on water supply problem and Test, TIP 2-5

Circuit diagr:



- ① When the Sensor is failure : inspect no.5(WHI) + no.6(WHI)
- ② When the Sensor is normal시 : Ice Maker bottom Test button
※ Press for 2sec
- ③ Check ice maker operation
※ Replace ice maker after inspect Twist problem Wire



Main PBA



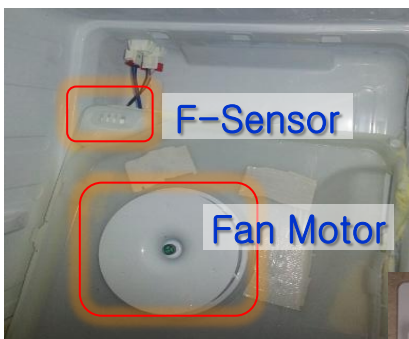
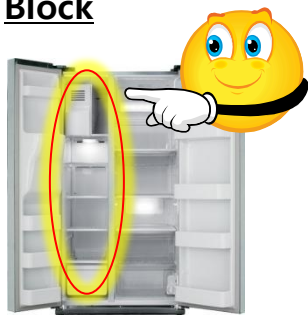
- ① When Sensor is failure "CN 90"
:Inspect No. 5(WHI) + 6(WHI)
- ② When the Ice Maker Test operation is failure inspect "CN 90"
- Rotate operation: 1(RED)=2(BLK)
- Output sensing: 5(BLU)
- Test input: 4(S/BLU)

Tip 9-1-2. Inspect self-diagnosis test



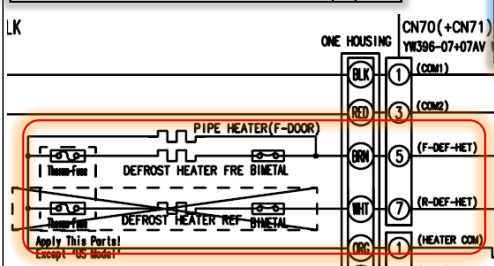
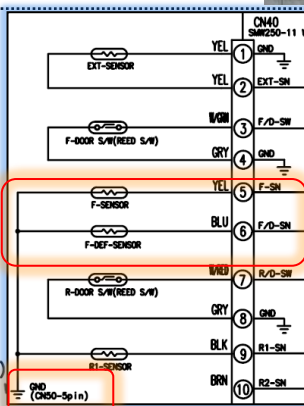
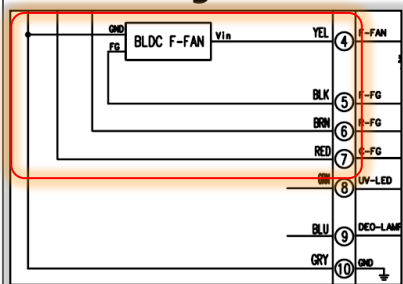
→ F Sensor / cabinet Fan / Defrost Sensor / Defrost Error

Block

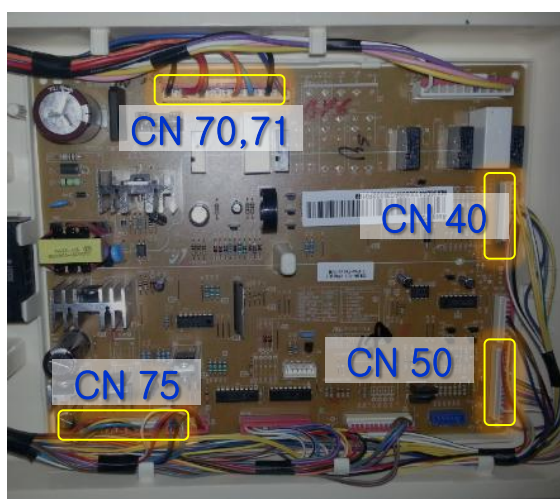


- ① Disassemble F Ice Maker Screw top
- ② Inspect disassembled Cover Multi Front
- ③ Inspect disassembled Evap Cover

Circuit diagram



Main PBA



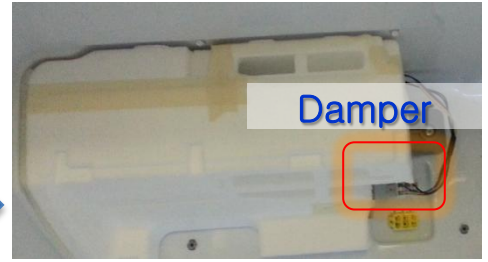
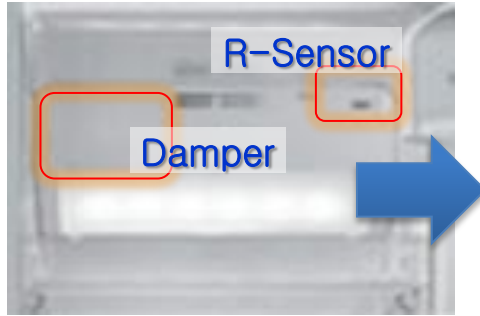
- ① When F cabinet Sensor is failure
: Inspect disassembled Cover Multi Front blue 2-Wire connector
-Main PBA : CN40 No.5(YEL) + CN50 No.5(GRY)
- ② When F Fan is failure
: Inspect disassembled Cover Multi Front 3-Wire connector
-Main PBA : CN75 4번(YEL) / 5번(BLK) / 10번(GRY)
- ③ When Defrost Sensor is failure
: Inspect disassembled Evap Cover blue 2-Wire
-Main PBA : CN40 No.6(BLU) + CN50 No.5(GRY)
- ④ Defrost Error
: Inspect brown 2-Wire connector
-Main PBA : CN70 No.5(BRN) + CN71 No.1(ORN)

Tip 9-1-3. Inspect self-diagnosis test

→ R Sensor / R Damper Motor



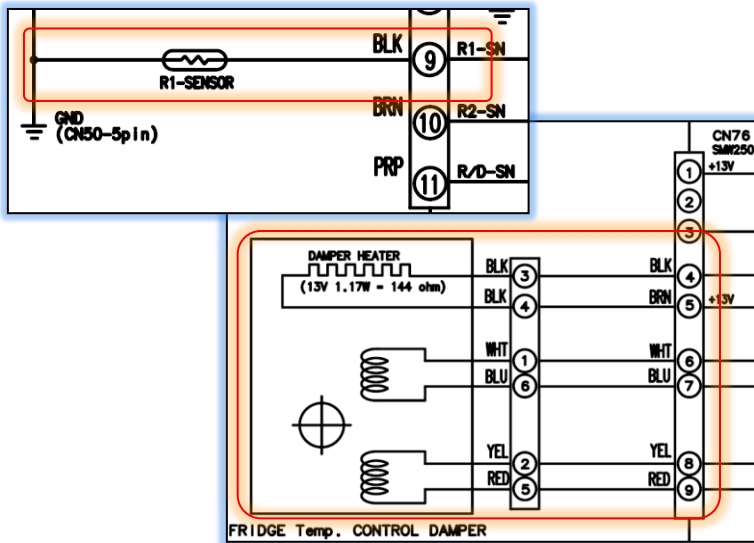
Block



- ① Disassemble F Ice Maker Screw top
- ② Inspect disassembled Cover Multi Front
- ③ Inspect disassembled Evap Cover

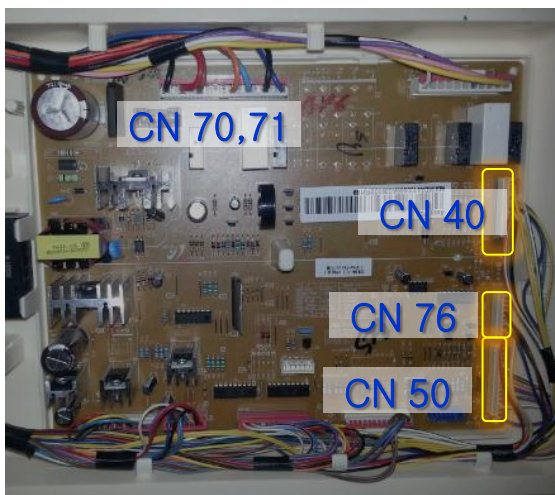
R-Sensor

Circuit diagram



- ① When R cabinet Sensor is failure
: Inspect disassembled Cover Damper blue 2-Wire connector
-Main PBA : CN40 No.9(BLK) + CN50 No.5(GRY)
- ② When R Damper Motor is failure
: Inspect disassembled Cover Damper 6-Wire connector
-Main PBA : CN76 No.4(BLK) / No.5(BRN) / No.6~9

Main PBA

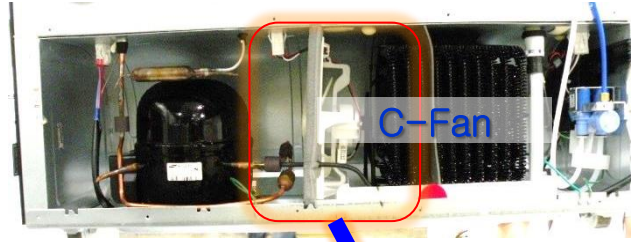


Tip 9-1-4. Inspect self-diagnosis test



→ External R Sensor / C-Fan Motor

Block



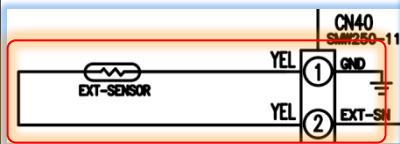
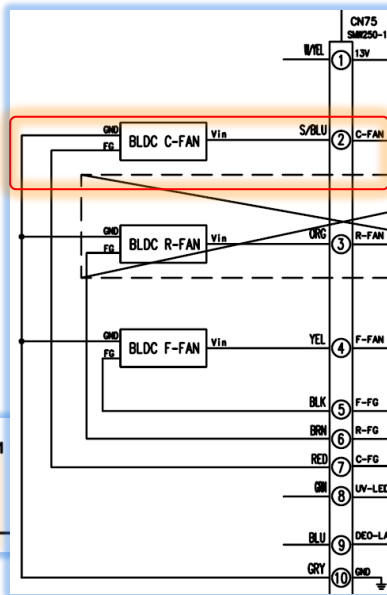
- Inspect external sensor

- ① Inspect disassembled R top HINGE-UPP Cover Wire

- Inspect C-Fan Error

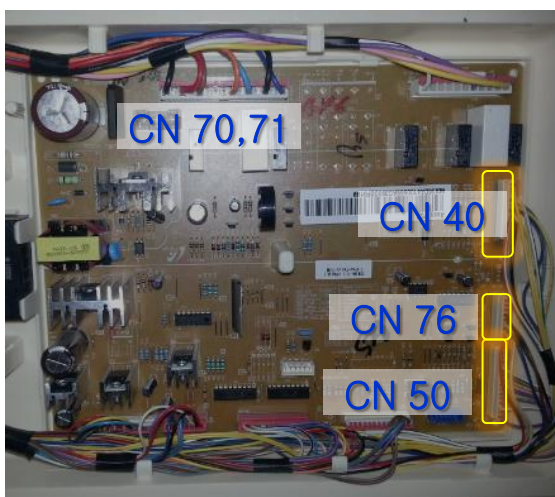
- ① Unit Cover disassembled Fan restriction / Wire inspection

Circuit diagram



- ① When external air Sensor is failure
: Inspect disassembled R HINGE-UPP Cover yellow 2-Wire
-Main PBA : CN40 No.1(YEL) + No.2(YEL)
- ② When C-Fan Motor is failure
: Inspect disassembled Unit Cover 3-Wire connector
-Main PBA : CN75 No.2(S/BLU) / No.7(RED) / No.10(GRY)

Main PBA



Tip 9-2. Inspect cooling power (※ Must select "Power Freeze" first)

Freezer
/Hold 3 sec
for Power Freeze

※ Do not off the power → Measure self diagnosis test inspection on "TIP 9-1"

Step 1

Press Display "Lighting" + "Energy Saver" Key for 8 sec at the same time.

- Press until all LEDs are Blinking and "DingDong" sound appear

※ When the Error occur → Move to TIP 2-4

- When there is no problem → inspect Step 2



Step 2 (Inspect Comp operation)

① Press Display "Freezer" for 3sec to being "Power Freeze".

※ Setting temperature satisfaction & defrost performance Comp Off.
(When COMP operate again after 7 min off)

② Inspect the backside Comp's operation.
(Check operation with touching comp with hand)

- When Comp doesn't operate → Check Step 3

- When Comp operates → Check Step 6

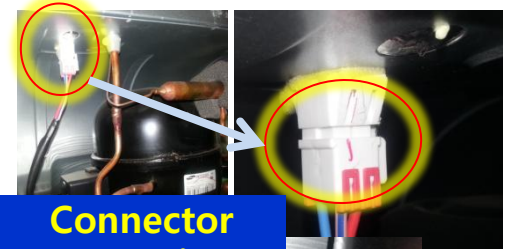


Step 3 (Inspect Comp Wire)

① Inspect backside Unit left-side Comp Wire Connector assembly problem

② After disassemble the Comp left Relay Cover and inspect OLP & PTC-Relay separation

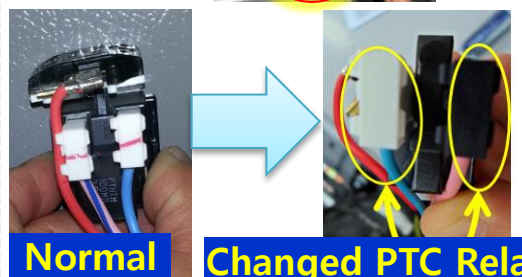
③ Inspect changing of PTC-Relay Wire
- Sub Coil left PNK, Main right S/BLU



Connector separation

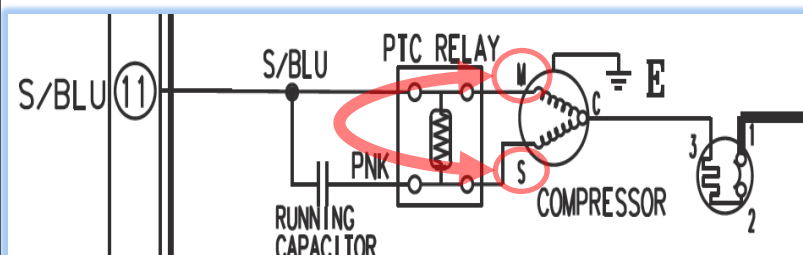


Relay separation



Normal

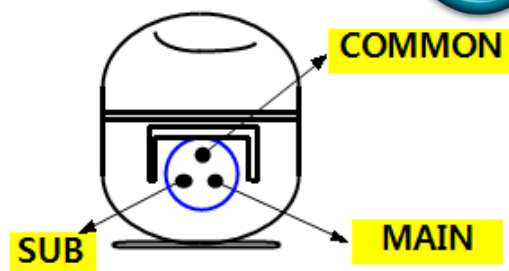
Changed PTC Relay





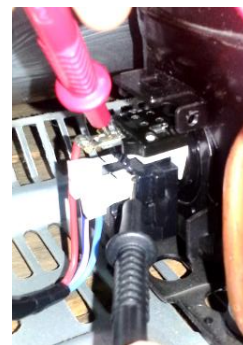
Step 4 (Comp single product operation failure)

- ① Inspect rotating failure by Comp Coil cutting
 - Measure Common + Sub resistance
 - Measure Common + Main resistance
 Normal : 1~50 Ω
 Failure : Open ∞ Ω



Step 5 (Comp Relay failure)

- ① Inspect power supply Line
 - Comp operate condition is normal : AC 100~125 V
 - Failure : Non applying AC voltage (Inspect power line)
- ② Inspect Comp OLP(Over Load Protection)
 - Normal : applying an electric current 0~1 Ω
 - Failure : Open ∞ Ω
- ③ Inspect PTC Relay
 - Normal: 0.8~1.4 KΩ
 - Failure : Open ∞ Ω

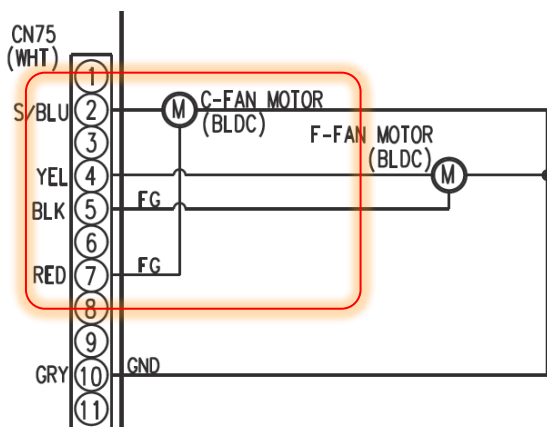


Step 6 (Gas Leak Failure)

- ① Comp operates, but if temperature of Comp-dome & Pipe-Condenser is not high, repair cycle shield system repair because of gas leak & Clogged failure.

Step 4 (When C-Fan is failure)

- ① When C-Fan operation or "FG" Signal failure, Comp will stop after 60 min.
 ※ Check "FG" failure through self-diagnosis test even the fan rotates.



Tip 9-3. Inspect EVAP DEFROST BUILD

※ Do not off the power and operate self-diagnosis test to "TIP 5-1" first.

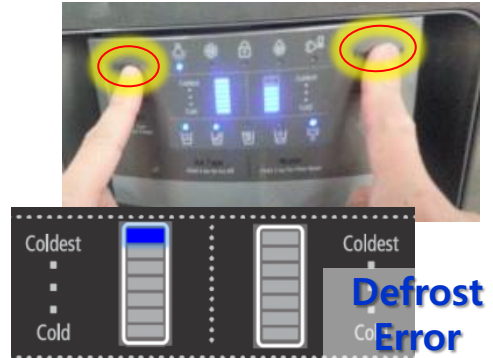
→ Must check the forced defrost operation after defrost repairing.

Step 1

Press Display "Lighting" + "Energy Saver" Key for 8sec at the same time until "Dingdong" sound appears

※ when the Error occurs → Measure to move TIP 5-1.

- When there is no ERROR, DEFROST ERROR → Check Step2



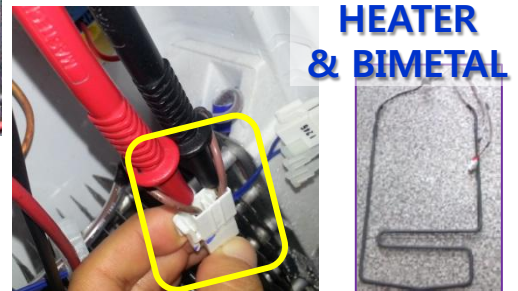
Step 2

- ① Disassemble EVAP COVER EVAP-FRE FRONT & COVER Multi.
- ② Melt the right connector with steamer and disassemble the cover.



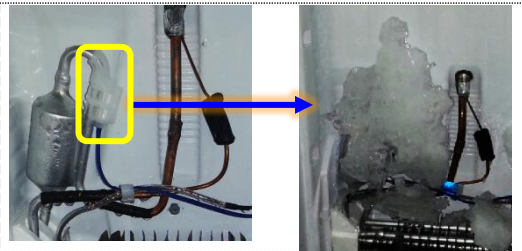
Step 3

- ① Measure BROWN WIRE resistance.
 - Normal part : 35~60 Ω
 - Failure part : Open or 0 Ω→ Replace HEATER & BIMETAL OPEN because it is failure.



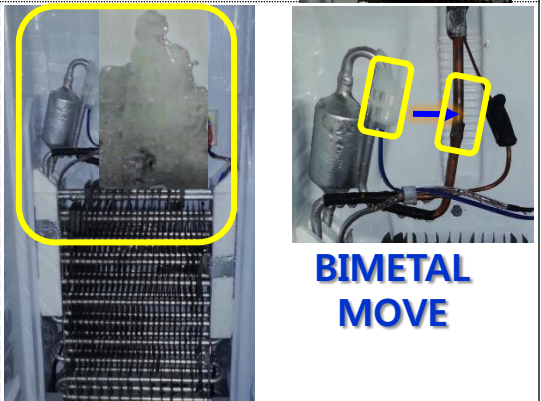
Step 4

- ① When DEFROST SENSOR part is freezing, replace it because it is the failure of Sensor.



Step 5

- ① There is no freezing on bottom and DEF-SENSOR and top middle part has freezing
 - Move DEF-SENSOR location to center of pipe.





Step 6

- ① When EVAP BOTTOM is freezing only - improve DRAIN freezing.
- ② Check Drain hole blocking with remove freezing with STEAMER. (Remove DRAIN freezing and foreign substance)
- ③ Bending the HATER to bottom with hand. - DRAIN HOLE Should be closed.
★ HEATER can not contact to PLATE.

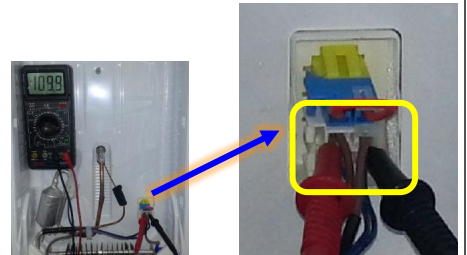
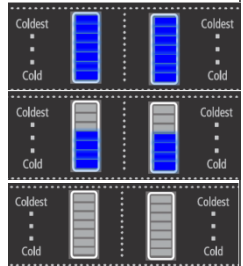


Step 7 (Total inspection after defrost repairing)

- ① Check Heater operation with forced defrost operation after complete repairing. Press "Lighting" + "Fridge" at the same time to make ALL LED OFF and operate forced defrost with pressing "Fridge" key 2times.
 → Check heater(Brown-wire) AC voltage supplying when the "beep" sound appears.
- ② Off with same way if there is no problem.



- ① Forced operation (LED Full On)
- ↓
- ② Forced defrost
- ↓
- ③ OFF

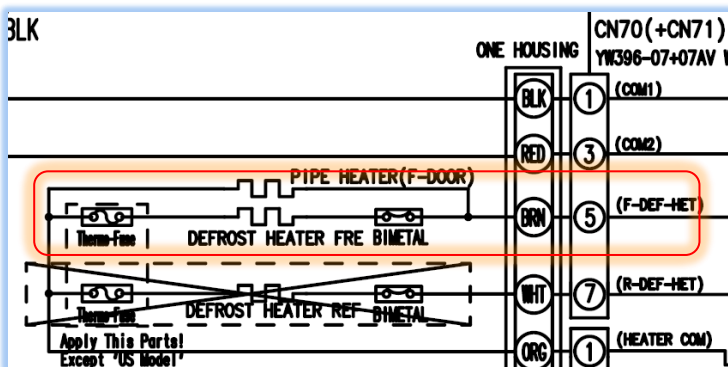


Step 8

- ① When there is no AC power supplying, inspect MAIN PBA and CONNECTOR OPEN .
- ② Replace Main PBA if there is no problem.

Inspect MAIN PBA CN70 No.5 (BRN)+CN71 No.1(ORG)

- LINER CONNECTOR BROWN 2WIRE



Tip 10-1. Inspect R TOO COLD

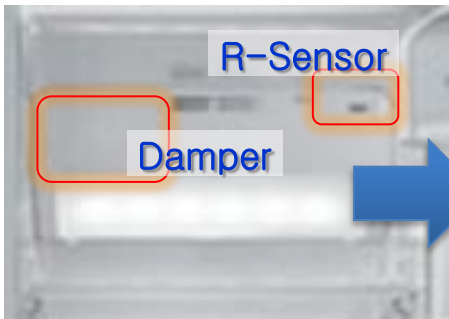


Check Point Inspect COVER DAMPER



Step 1

- ① Disassemble the R ASSY COVER DAMPER.



Step 2

- ① Inspect the location fixing condition of R-SENSOR
- TOO COLD occurs when separate or cover the front with protection vinyl.
- ② Inspect DAMPER
- Inspect Damper Closing condition when disassemble

※ Close condition when open R door after power restarting on CONNECTOR condition.

- Failure when it is opened
→ Replace INS-DAMPER.

