Intercom system

(Troubleshooting)

Digital Door Locks

1. Only one unregistered unit from the lobby station
2. Unregistered units from the lobby station
3. Touch screen or key button issue on the monitor
4. Video issue (strange video or black screen)
5. Audio issue
6. Monitor lost the power
7. The entrance door is not opening when tenants presses the open button on the monitor
8. The lift function is not working when the user opens the door for the visitor
9. How to get the log data of the lift access of the visitors
10. Special case
    1) Bentleigh apartment
    2) Aria apartment

1. Only one unregistered unit from the lobby station

1. Symptom
   1) When the visitor makes a call from the lobby station, but the lobby station says "unregistered unit"
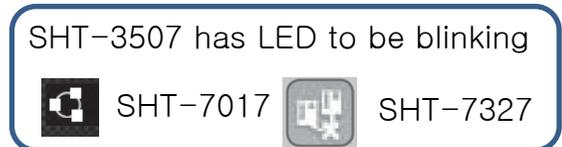   2) It happens to only one unit, but it's O.K to make the call to other units.
2. Check point
   1) Lobby station : Need to check whether the unit number was entered correctly.
      a) Some projects have special way to call
         • Uptown : Tower A requires the prefix "2", tower B requires "1"
           E.g) Unit 401 in Tower A : 2401
         • Avantra : North building requires building no. "1", South building : "2" when the call made from the car park
           E.g) Unit 401 in North building : 1 + "*" + 401 + "Call" button
      b) Some customers don't know what is the call button
   2) The monitor
      a) Screen : Need to check the error icon.
      b) ID setting : Need to check if the ID is correct. (ID can't be changed automatically, but sometimes wrong ID was reported)
         • To check the detail, refer to the monitor manual.
3. Solution through phone
   1) Case 1 : **1)-a) or 1)-b)** : Customer's misuse
   2) Case 2 : **2)-a) and 2)-b)** : Change the ID correctly.
4. Solution by the service agent
   1) Case 3 : **2)-a) but ID is correct** : Service agent needs to visit the site to check
      a) the cable connection
      b) Check the RJ-45 jack status : If it's bent little bit, try to fix it. If not, replace the monitor.
      c) Try new monitor

> SHT-3507 has LED to be blinking
> SHT-7017   SHT-7327

2. unregistered units from the lobby station

1. Symptom
   1) When the visitor makes a call from the lobby station, but the lobby station says "unregistered unit"
   2) It happens to many units at the site.

2. Check point
   1) Lobby station
      a) Need to check if it has the network error icon.
      b) Need to check only one lobby station has this issue
   2) The monitor
      a) Need to check if it has the network error icon, and it happened
         i. One level
         ii. Certain level
         iii. Whole building
   3) Building Distributor (SHT-5820) if the strata can check this for us.
      a) Need to check the power first
      b) Need to check the which LED is **NOT** blinking
         i. Home A : Data Comm for Home A side
         ii. Home B : Data Comm for Home B side
         iii. ENT : Data Comm for Lobby station
         iv. DIST : Data Comm for main controller or other building distributor
3. Solution through phone : None

> SHT-3507 has LED to be blinking
> SHT-7017   SHT-7327

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4. Solution by Service agent
    1) Case 1 : **1)-a) and 1)-b)** : The lobby station has the issue
        *   Check the data cable connection
        *   Check if the lobby station is faulty by replacing with new one.
    2) Case 2 : **2)-a)-i.** : FD issue
        *   power failure : Replace the power supply.
        *   Data cable connection is unstable : Make the connection firmly.
        *   FD is faulty : Replace the FD.
    3) Case 3 : **3)-a)** : Building distributor power issue
        *   Power supply : Check LED and the power output. If it's not 24V, replace it.
        *   Power line connection : If any power line is disconnected, turn off the power and connect the power line again firmly.
    4) Case 4 : **1)-a) and 3)-b)-iii)**
        *   Check the data comm. With the laptop. If it doesn't work, replace the building distributor.
        *   If the issue is not resolved after replacing the building distributor, then trace the data line.
    5) Case 5 : **2)-a)-ii and 3)-b)-i or -ii.** : One block lost the data communication.
        *   Check the data comm. With the laptop. If it doesn't work, replace the building distributor.
        *   If the issue is not resolved after replacing the building distributor, then trace the data line.
    6) Case 5 : **2)-a)-iii and 3)-b)-i, ii and iii** : Building distributor issue
        *   Check the data comm. With the laptop. If it doesn't work, replace the building distributor.
    7) Case 6 : **2)-a)-iii and 3)-b)-iv** : Main controller issue
        *   Cable or Power failure : Replace the power or reconnect the data cable
        *   Faulty main controller : try to access the main controller with laptop and check the data comm.

3. Touch screen or key button issue on the monitor

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1. Symptom
    1) Touch screen : SHT-7017, SHT-7327, SHT-7610
        a) No response from the touch screen
        b) Only certain area detects the finger or wrong point is detected when the user touches the other point.
    2) No response from the push buttons : All models

2. Check point
    1) Get the video and check if it's really touch screen issue.
    2) Check the monitor make key tone when touch screen is touched, or the push button is pressed.

3. Solution through phone
    1) Case 1 : From the check point 1) and 2), it's obvious that the touch screen or push button has the issue
        • Try to reset the monitor by pressing the reset button or turning off and on the monitor
            ✓ Reset button : SHT-7017, SHT-7327, SHT-7610 : At the bottom
            ✓ Power switch : SHT-3507 : At the bottom

4. Solution by Service agent
    1) Case 2
        • Need to try after dismantling the monitor. Sometimes, the cable is pushing the monitor and it can cause this issue. : Make the space for the cable in the mounting hole.
        • If it still doesn't work, the monitor is faulty. Replace the monitor.

4. Video quality is not good or only black screen

1. Symptom
    1) Video quality is bad, or it doesn't display anything – black screen.
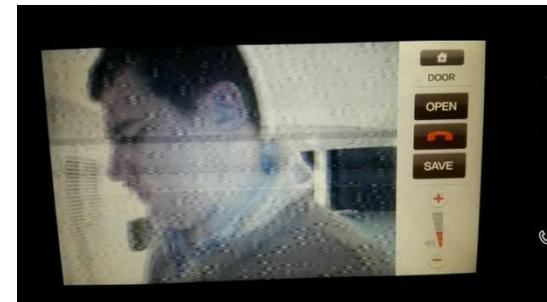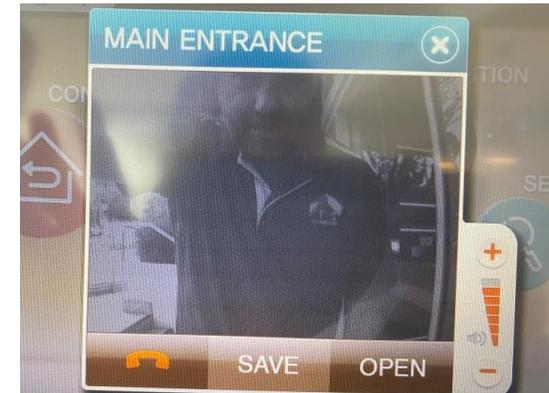   2) Definition of bad quality
        1) Video is black and white <u>during daytime</u>

        2) <u>Video is "Black and White" at night.</u>

        3) Video has too many white lines or sometimes distorted

        4) Video is very dark, and it looks like flickering.

2. Check point
1) Video quality Definition
a) Video is black and white during daytime
b) Video is "Black and White" at night.
c) Video has too many white lines and distorted a lot.
d) Video has a few white lines or sometimes distorted
e) Video is very dark, and it looks like flickering.
2) Monitor
a) Check the size of the issue
i. Only one unit has this issue
ii. Only one level
iii. Certain levels or block
iv. Whole building
b) Check what video has the issue
i. Lobby video from the lobby station
ii. Door camera video from the door camera (Only for Futra, Uptown and Avantra)
iii. Whole user interface is ruined.
3) Lobby station
a) Only one lobby station with whole building
b) Check other lobby stations or all lobby station also have the same issue

3. Solution through the phone
    1) Case 1 : **1)-b)** : Normal
        • Samsung lobby stations and door cameras have IR LED for the night vision, but it cannot make the video color.
    2) Case 2 : **1)-c) or d)** : If it's very bad, then send out the service agent, but for the most case, normal.
        • The video can be affected by the unstable power or other electric devices. In that case, the video will have "some" white or "small" distortion. we can't resolve the issue as it's caused by the external noise source. It might be back to normal after some time.
        • If the customer keeps complaining, then consider to send out the service agent

4. Solution for Service agent : Applicable for 1)-a) or e) + from case 2
    1) Case 3 : <u>**2)-a)-i and anything from 2)-b)**</u> : Monitor issue
        • This can be Cable issue : Check if it's cut or broken. If the connector is loose, it can be happened.
        • This can be the FD port issue : If the cable is alright, try sample monitor from the same port on FD.
        • This can be the monitor issue : If FD is alright and cable is also alright, replace new monitor
    2) Case 4 : <u>**2)-a)-iv and 3)-a)**</u> : Lobby station issue
        • This can be Cable issue : Check if it's cut or broken. If the connector is loose, it can be happened.
        • This can be connection issue : Please check the wiring diagram first
            ➢ Star topology : All lobby stations have direct cabling to the comms room
                ✓ Check Building distributor's video input port
            ➢ Daisy chain : The video lines are connected from lobby 1 to lobby 2 and lobby 3 and so on.
                ✓ Check the second lobby station video input port
            ➢ Auto selector : It has the star topology, but auto selector gets the video.
                ✓ Check the Auto selector input port
        • The lobby station issue : Replace the lobby station or terminal board : DO NOT FORGET TO TURN OFF THE POWER BEFORE YOU DISCONNECT THE GREY FLAT CABLE.

3) Case 5 : **2)-a)-ii, iii, iv** : Video Block issue
  ❖ "Tester" required : "CCTV tester" is recommended. If the service agent doesn't have it, 1 working sample monitor and spare patch cables can be used as "Tester", but someone needs to make a call from the lobby station continuously. Also it should have the right ID setting.
  ❖ Main cause for each case of video quality definition
    ➢ Video is black and white during the daytime : The signal is weak. Need to find the damaged cable.
    ➢ Video has too many white lines and sometimes distorted
      ✓ The video line might be damaged and touch another video line. Check the cable
      ✓ If the lobby station is damaged, it can be happened as well.
    ➢ Video is very dark and flickering : The video line must be damaged. It can be happened when the video signal ground is floating or the touching other circuit.
  a) Step 1 : Open the wiring diagram and check the main points – input port for lobby video on the building distributor or video auto-selector or VDA.
  b) Step 2 : Find the faulty point with the tester.
  c) Step 3 : Check the cable status for the faulty point.
  d) Step 4 : If the cable is alright, but still no video comes in, consider that the video selector or building distributor might be faulty. Replace them.
    ➢ Video selector is very robust, but it might be off. Please check the red LED. If it's off, check the power or press "Auto select" button.
    ➢ When you replace the building distributor, make sure that all setting should be same as the original one. If the setting is wrong, the video might not be working.

5. Audio issue

1. Symptom
    1) No audio from the monitor or from the lobby station
    2) No audio from both the monitor and the lobby station
    3) Big noise from the monitor or from the lobby station
    4) Big noise from both the monitor and the lobby station
2. Check point
    1) Monitor
        a) Only one monitor
        b) Only one level or certain levels
        c) Whole buildings
    2) Lobby station
        a) Only one lobby station with whole buildings
        b) Some lobby station or whole lobby station
3. Solution through the phone
    1) Case 1 : **1-1) and 2-1)-a)** or **1-3) and 2-1)-a)**: Monitor issue
        a) Check the volume setting and check if any sticker covers the speaker or mic
        b) If all setting is good but still it has the issue, consider to send out the service agent
4. Solution for service agent
    1) Case 2 : **1-2) and 2-1)-a)** or **1-4) and 2-1)-a)** : Monitor issue
        a) Cable issue : Check the cable from the monitor and the FD including RJ-45 jack pins.
        b) FD or monitor issue : Try to replace the monitor first and check FD port as well.
    2) Case 3 : **1-2) and 2-2)-a)** or **1-4) and 2-2)-a)** : Lobby station issue
        a) Cable issue : Check the cable from the lobby station and the BD including RJ-45 jack pins.
        b) Lobby station or BD issue : Try to replace the Lobby station or BD.
    3) Case 4 : **Other situation** : Block issue
        a) Check the drawing and try to find the faulty point.

6. Monitor lost the power

1. Symptom
    1) The monitor lost the power
    2) No response when the touch screen is touched or the push button is pressed. (No key tone)
2. Check point
    1) Monitor model
        a) SHT-3507
        b) Other models
    2) Monitor
        a) Only one monitor
        b) Certain level or certain block
        c) Whole building
3. Solution through the phone
    1) Case 1 : **2-1)-a) and 2-2)-a)** : SHT-3507 Monitor
        a) This monitor has the power switch at the bottom. Please make sure it's ON.
        b) If it doesn't help, consider to send out the service agent.
    2) Case 2 : **2-1)-b) and 2-2)-a)** : SHT-7017, SHT-7327, SHT-7610
        a) Most of Samsung monitors are quite warm when it has the power. So even though nothing is on the screen, the customer can try to reset it by pressing the reset button located at the bottom
4. Solution for the service agent
    1) Case 3 : **Not resolved issue from case 1 and case 2** : Faulty monitor or power cable issue
        a) Cable issue : Check the cable from FD.
        b) Monitor issue : Replace new monitor after checking the cable.
    2) Case 4 : **2-2-b) or 2-2-c)** : Power failure for certain block
        a) Power supply or power outlet issue : Check the power supply and power outlet
        b) Faulty FD may cause one block down.

7. The entrance door is not opening.

1. Symptom
   1) When the visitor makes a call to the apartment unit and the tenant presses "OPEN" button, it should open the door.
   2) But it doesn't work.
2. Check point
   1) Monitor
      a) One monitor
      b) Whole building
   2) Lobby station
      a) One lobby station
      b) All lobby station
3. Solution through the phone
   1) Case 1 : **2-1)-a)** : Logically, this is not possible. Please check if the customer really presses the open button. It might be "3. Touch screen or key botton issue on the monitor"
4. Solution for the service agent
   1) Case 2 : **2-2)-a)** : Lobby station issue
      a) Cable issue : Check the dry contact output from the lobby station to the main entrance door lock or to the ACS input board.
      b) Lobby station issue : If the cable is alright, then check if the dry contact signal comes out from the port when the door open is requested. If it doesn't have any output, the terminal board or the lobby station faulty.
   2) Case 3 : **2-2-b)** : ACS input board or Lift board issue : Check the door lock control system
      a) ACS input board (Epping or Bowden project) : Check if ACS input board (MCP040) is ON.
      b) Lift board (SHT-ESC100) : Check if it's on and no issue with the data communication.
      c) Industrial PC : Check if it's on and no issue with the data communication.

8. The lift function is not working

1. Symptom
   1) When the visitor makes a call to the apartment unit and the tenant presses "OPEN" button, then the visitor can press the floor number where the tenant stays.
   2) But it doesn't work.

2. Check point
   1) Monitor
      a) One monitor
      b) Whole building
   2) Lobby station
      a) One lobby station
      b) All lobby station
   3) Lift
      a) Only certain floor
      b) Whole floors

3. Solution through the phone
   1) Case 1 : **2-1)-a)** or **2-2)-a)** : Logically, this is not possible. Please check if the customer really presses the open button. It might be "3. Touch screen or key button issue on the monitor"

4. Solution for the service agent
   1) Case 2 : **2-2-b) and 2-3)-a)** : Relay board issue
      1) Cable between Lift relay board (SHT-ESC110) and ACS relay board
      2) Lift relay board itself (SHT-ESC110) : Check the dry contact output and LED light.
      3) Relay board from MCP040 (Epping and Bowden project) : Check the dry contact output and LED light.

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2) Case 3 : **2-2-b) and 2-3)-b)** : ACS system or Lift board issue
   a) Industrial PC
      i. Connect the monitor and check if it's on and no issue with the data communication.
      ii. If the program is stopped or crashed, send the log data to DDL and rerun the program.
      iii. If Industrial PC is faulty and it doesn't power up again, consider to replace this industrial PC.
   b) Cable issue
      i. Check the data between SHT-ESC100 and industrial PC or building distributor
   c) RS-485 converter
      i. If the cable is alright, check the data communication from the lift program (if the industrial PC is installed). If no data communication for the lobby station, check RS-485 converter.
   d) Lift board (SHT-ESC100)
      a) Check if it's ON and no issue with the data communication.
   e) Lift relay board (SHT-ESC110) : Check if the grey IDC cable or the board itself is damaged.
   f) ACS relay board (Epping or Bowden project) : MCP040 output is connected to the relay board one by one. Check the power of relay board if it's ON or not.
   ❖ If any device is faulty, replace it after checking the setting data. Wrong setting would cause the issue.

1. Request from the Strata company (This is not the issue!)
    1) When any incident happened in the apartment, strata asks DDL if we can get any visitor's log data.
2. Check point
    1) Check if that project has the industrial PC for lift control function. If yes, you can get the log data.
    2) But our service agent needs to visit the site with the PC monitor to check the detail.
    3) This is not covered by the warranty.
3. Solution for Service agent
    1. Bring the PC monitor and other peripherals to connect and get the log data.
    2. Max 1,000 events can be stored. If the requested time is in too far past, then it would have a chance that we might not have the data.
    3. Refer to "Lift Control Program" manual how to get this data.

10. Special Case – 1 : Bentleigh apartment

1. SHT-587 – Security phone
   1) The visitor can call this security phone, and at that time the visitor's video will be displayed.
   2) If the video is not displayed, check
      a) Auto selector
      b) Cable connection from the auto selector to SHT-587

2. Special unit numbers for Bentleigh project
   1) Samsung provided very special firmware only for this project which has the hardcoding unit numbers.
   2) When you need to replace SHT-5820, please make sure that you upgraded the firmware.
   3) The firmware is in the project folder.
   4) Refer to the upgrade manual.
   5) Special unit numbers
      a) Unit number in the system : This is programmed unit number in SHT-5820. It exists in the system, but the tenants don't know this unit number.
      b) Unit number for the users : But actual visitor will use this number to make the call.
      c) This issue happened due to 2 reasons
         ➢ Samsung system can't have unit number 100, 200
         ➢ This project structure is different, so some tenant wanted to have special unit number such as unit 240

Unit number in the system	Unit number for the users
179	240
241	100
242	200
243	199

10. Special Case – 2 : Aria Project

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1. CCTV integration
    1) Aria has the CCTV integration feature.
    2) If CCTV video doesn't come out, there would 3 possibilities
        1) Case 1 : SHT-5840 CCTV distributor is not working.
        2) Case 2 : Cables from the CCTV encoder are damaged
        3) Case 3 : CCTV encoder is frozen.
    3) Our service agent can visit the site without CCTV technician, but if it's CCTV encoder issue, then we can't fix this issue. We can check only case 1 and 2.

2. Lighting control
    1) Aria has the lighting Control integration for the penthouse only.
    2) If just one or 2 lighting zones are not controlled, it shouldn't be our issue. Clipsal lighting controller setting might be changed.
    3) If it's the lighting module issue, it should be replaced, but the module is installed in the power board panel, so the power should be turned off while this service is on progress.
    4) The spare module is in the office. They are all programmed.
        ✓ As we don't have any Clipsal sample, we can't check the module is working or not from the office.

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