

# Post Market Monitoring

## Cold Chain Information Systems Application

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### User Manual & Guide



# App Installation & Set up

## Before You Begin

- ODK-X apps work on Android devices only (not supported on iOS or Windows).
- Ensure your Android device is connected to Wi-Fi.
- Make sure any older versions of ODK-X apps are uninstalled.
- You will need server credentials provided by your administrator to authenticate and sync.

1

Download and install the **ODK-X Services** from the following link

[ODK - X Services App](#)



2

Download and install the **ODK-X Survey app** from the following link

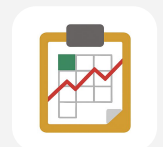
[ODK - X Survey App](#)



3

Download and install the **ODK-X Tables app** from the following link

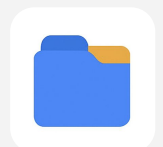
[ODK - X Tables App](#)



4

Install the **OI File Manager** if not already installed on the device

[OI File Manager](#)





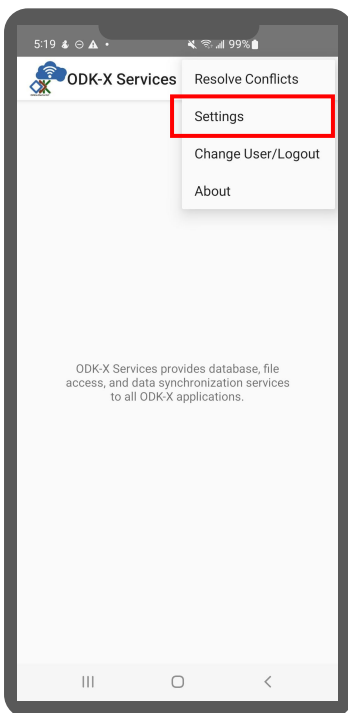
# Accessing & Configuring Settings



## Launch the ODK-X Services App

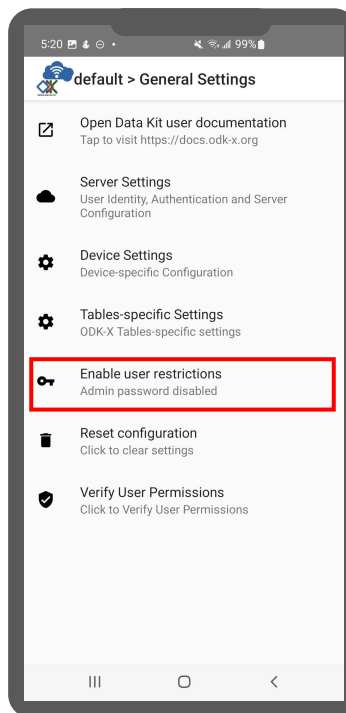
1

Select **Settings** from the three dots :



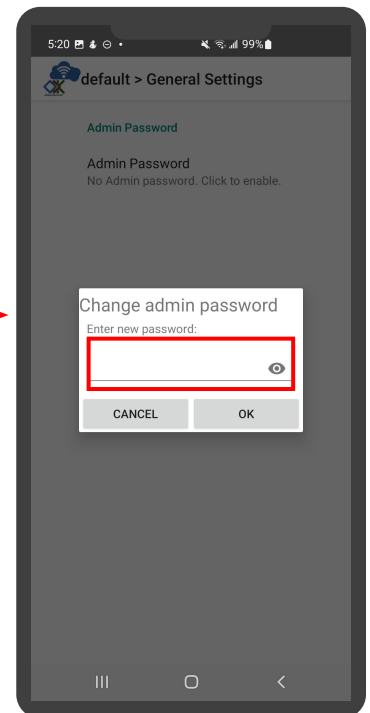
2

Select **Enable User Restrictions**

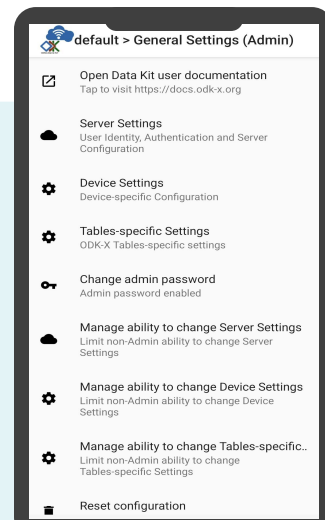


3

Set a **password** for your own device



Tap back to see the **enabled options**





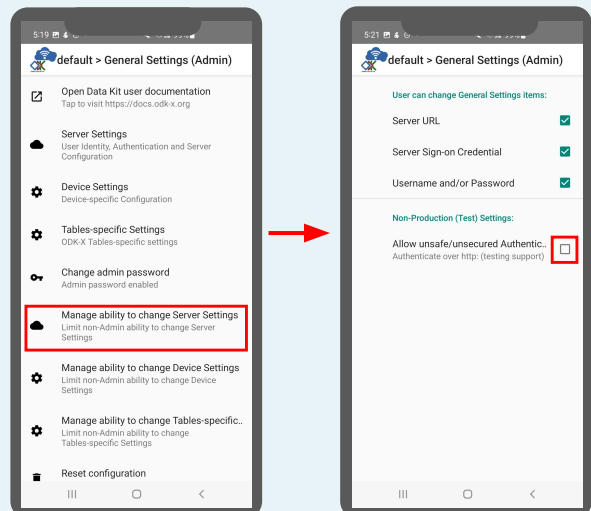
# Server Configuration

Make sure your environment is **SSL enabled**:

- Open your app or server URL in a web browser.
- Check the address bar:
  - **https:// + padlock icon** → SSL is enabled.
  - **http:// (no padlock)** → SSL is not enabled.

IF you don't have an SSL-enabled environment, in the general settings:

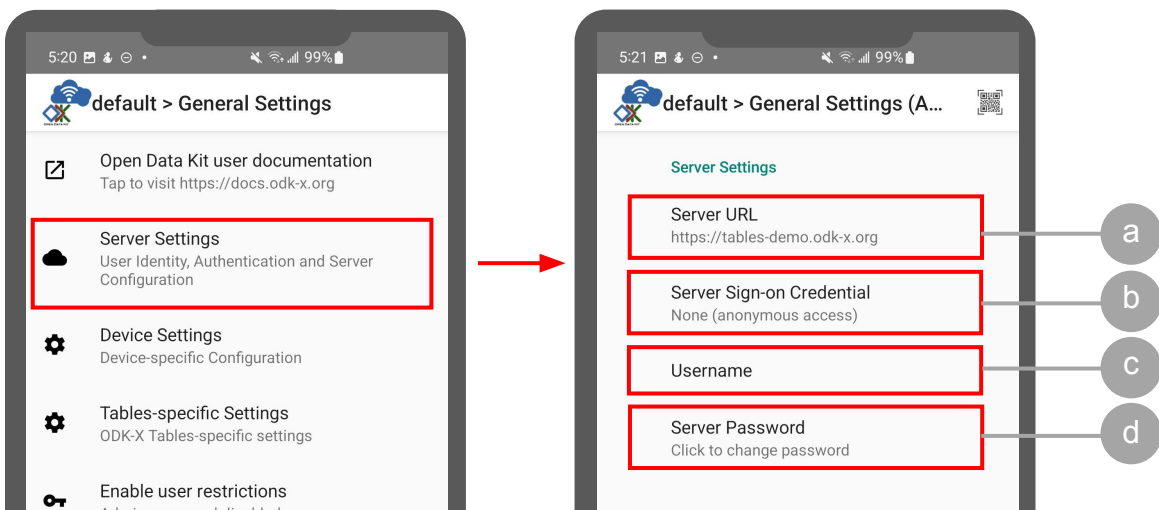
- Select **Manage Ability to Change Server Settings**
- Under Non-Production (Test) Setting, check **Allow unsafe/unsecured authentication**



**1** Go back and select **Server Settings**

**2** Enter the following details

- a. Server URL provided by administrator
- b. Select Sign-on Credential as Username
- c. Add Username
- d. Add Password

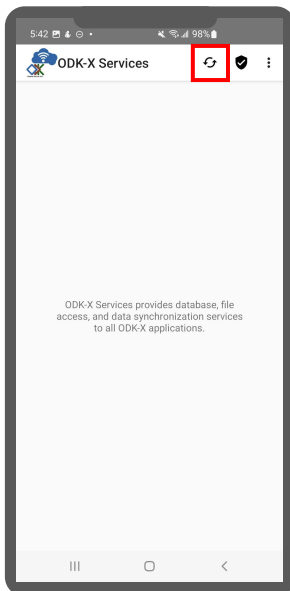




# User Authentication & Sync

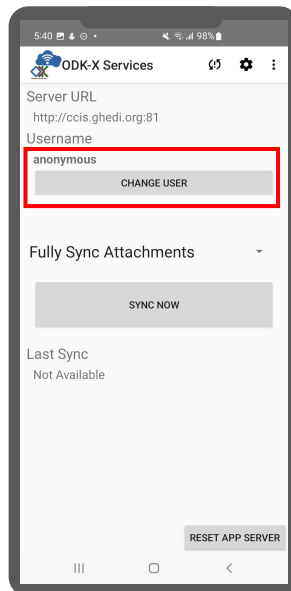
1

Return to the Main Screen of ODK-X Services & tap **Refresh**



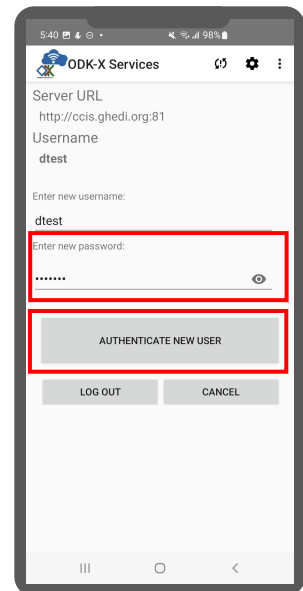
2

On the new prompted User Authentication & Sync screen, select **Change User**



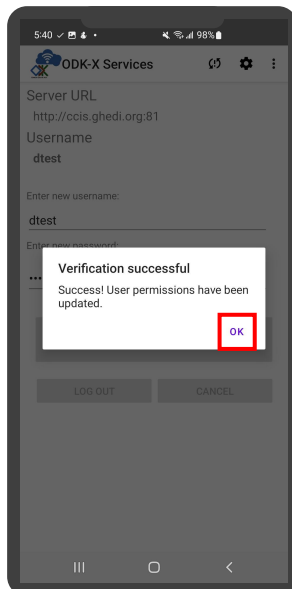
3

Add password & tap **Authenticate New User**



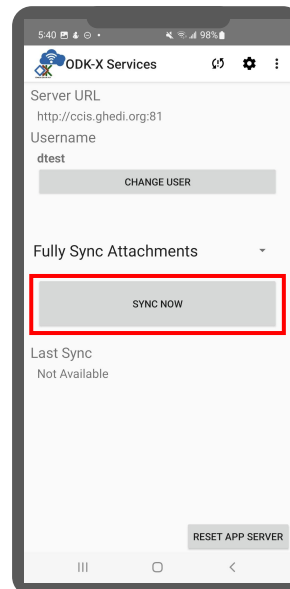
4

Tap **OK** when shown successful verification message



5

Go back and press **Sync Now**





# Navigation & Equipment Overview

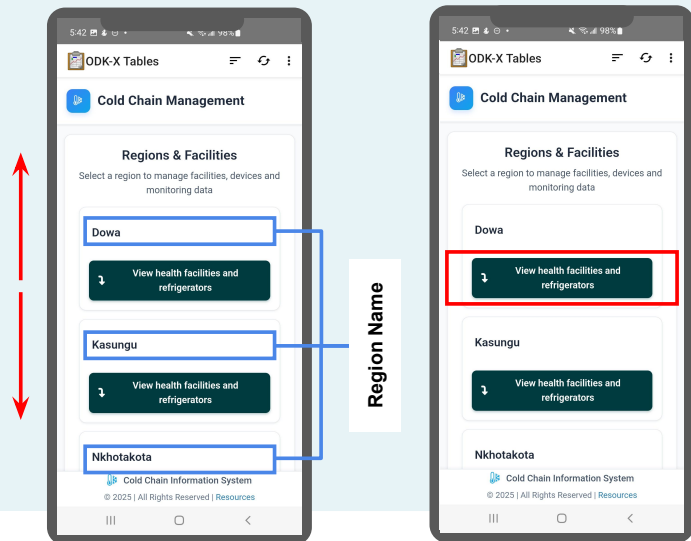


## Launch the ODK-X Tables App

1

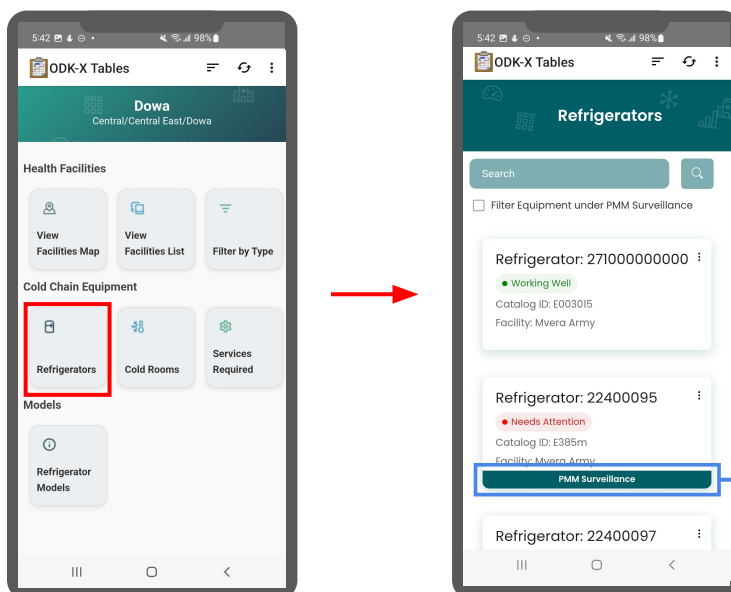
Scroll to locate your region

Tap **View Health Facilities and Refrigerators** to see your region's details



2

Select **Refrigerators** to find the complete list of equipment



Items labeled **PMM Surveillance** indicate those currently being monitored.

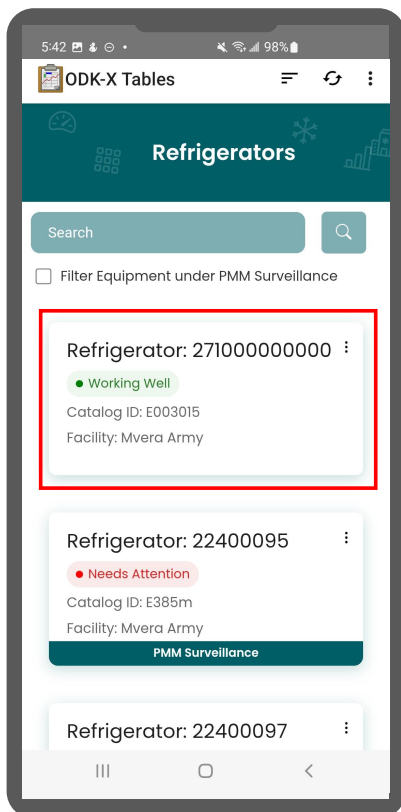


# Tagging Equipment for Post Market Monitoring (PMM) Surveillance

Only the **System Administrator** can tag equipment for PMM surveillance

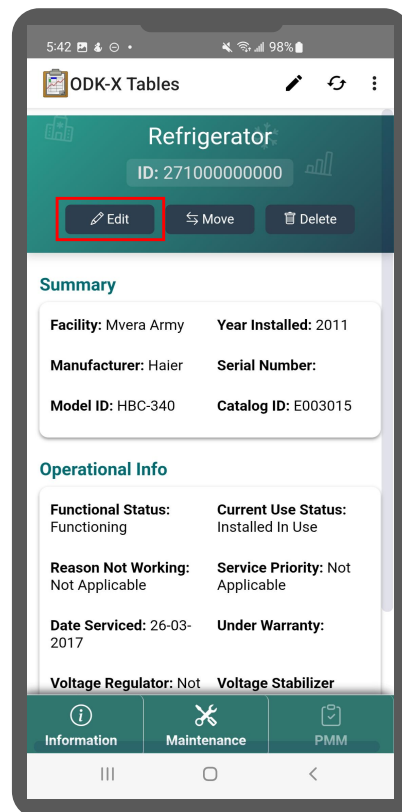
1

Select the equipment you want to tag



2

Select **Edit** on the equipment record



3

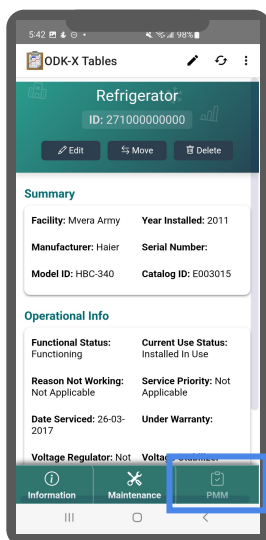
In the form that opens, go to the last question and answer **Yes**, to mark the equipment under surveillance



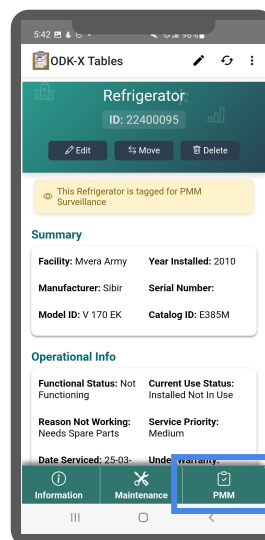
# PMM Drawer Access & Functions

## PMM Drawer Access

The PMM Drawer—located at the bottom of the screen—activates only when the selected equipment is under surveillance.



**PMM Drawer  
Disabled**



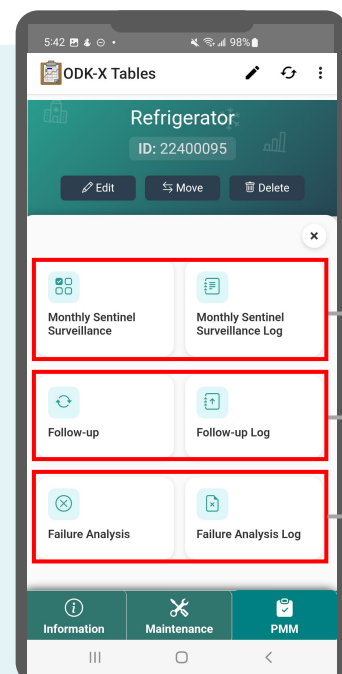
**PMM Drawer  
Enabled**

## PMM Drawer Functions

The PMM drawer provides quick access to:

- Monthly Sentinel Surveillance
- Follow-up Survey
- Failure Analysis

Click each tab to see its details.



a

b

c



## a. Monthly Sentinel Surveillance

Use the Monthly Sentinel Surveillance form to ensure consistent data collection across all sentinel sites. This form helps:

- Track post-market performance of cold chain equipment after installation.
- Identify whether each refrigerator is functioning properly or needs follow-up by sentinels or EPI technicians.

### Instructions for Use

**1** Tap **Monthly Sentinel Surveillance** to open the form

The screenshot shows the ODK-X Tables app interface. At the top, it says 'Refrigerator' with ID: 22400095. Below this are buttons for 'Edit', 'Move', and 'Delete'. The main area contains six tiles: 'Monthly Sentinel Surveillance' (highlighted with a red box), 'Monthly Sentinel Surveillance Log', 'Follow-up', 'Follow-up Log', 'Failure Analysis', and 'Failure Analysis Log'. At the bottom are tabs for 'Information', 'Maintenance', and 'PMM'.

**2** Enter the **Date of Reporting** and tap **Next** to continue

The screenshot shows the 'CCE Identification' form. It has a table with 'Field' and 'Value' columns. The 'Refrigerator ID' is 'R1318'. Below the table, it says 'Enter the date of the reporting' and 'Enter the date for the reporting period'. The date field is highlighted with a red box and a circled '1'. The 'Next' button is highlighted with a red box and a circled '2'.

**3** Complete the form **once each month** for every refrigerator at your site

The screenshot shows the 'Functional Status' form. It has a section titled 'Functional Status' with a red icon. The text says: 'Please assess whether the equipment is functional or non-functional. This assessment should be based on the technician's observation and feedback from the facility. Use the Functional Status section to mark the equipment condition accurately before proceeding. Record the number of heat and freeze alarms observed in the temperature log for the past month.' The 'Next' button is highlighted with a red box.

**4**

**For each unit, record:**

- Any heat or freeze alarms triggered.
- Spare parts replaced during the month.
- Any build quality issues observed.
- Any attached devices (e.g., voltage stabilizers).

Tap **Next** once the form is complete

The screenshot shows the 'Build Quality' form. It has a section titled 'Build Quality' with a red icon. The text says: 'Have there been any issues related to build quality in the past month?' and 'Was there a second issue related to build quality in the past month?'. There are radio buttons for 'Yes' and 'No' for each question. The 'Next' button is highlighted with a red box.



The screenshot shows the 'Temperature Excursions' form. It has a section titled 'Temperature excursions indicate possible refrigerator malfunctioning.' with a red icon. The text says: 'Please complete the Follow-Up survey.' and 'Survey completed. Pressing NEXT will save and exit.' The 'Next' button is highlighted with a red box.

**5**

**Review the automatic assessment:**

The system will automatically indicate if the equipment is working properly or malfunctioning.

If malfunctioning, the app will redirect you to a **follow-up survey** for additional details

## b. Follow-up Survey

The Follow-Up procedure ensures systematic and consistent documentation of refrigerator performance issues identified through Post-Market Monitoring (PMM). It is used only for equipment flagged for follow-up based on PMM indicators.

This process helps to:

- **Collect consistent** data to understand immediate and long-term causes of faults or failures.
- **Identify issues** that can be resolved directly by the sentinel or core user without technician assistance.
- Determine when a **technician visit** is required for Failure Analysis.
- Provide technicians with **pre-visit information** to improve efficiency during maintenance.
- Ensure **follow-up questions** are asked during the same call or visit as the PMM indicators survey for continuity.

## Instructions for Use

### 1. Confirm Follow-Up Requirement

- Use this procedure **only for refrigerators flagged for follow-up** through PMM indicators.
- Conduct the follow-up **during the same call or visit** as the PMM indicators survey.
- Review the PMM indicator results to confirm that follow-up is required.

The screenshot shows a mobile app interface for 'Follow-up'. At the top, there are navigation buttons: 'Follow-up', '< Back', and 'Next >'. Below this is a section titled 'CCE Identification' which contains a table with two columns: 'Field' and 'Value'. The table has four rows: 'Refrigerator ID' with value 'R1318', 'Brand' with value 'Sibir', 'Model' with value 'V 170 EK', and 'Health Facility' with value 'Mvera Army'. Below the table is a question 'Are you onsite or remote?' with a dropdown menu currently showing 'Onsite'.

Field	Value
Refrigerator ID	R1318
Brand	Sibir
Model	V 170 EK
Health Facility	Mvera Army

Are you onsite or remote?  
Onsite

### 2. Complete Section A – Initial Assessment

- Evaluate **placement, environmental conditions, drainage, gasket, and corrosion**.
- This section can be completed **on-site or remotely** via phone with the core user.
- If the **failure cause is not identified**, proceed to **Section B**.

The left screenshot shows the 'Section A' header with a note: 'This section can be completed by the Surveillance Officer either remotely or on-site.' The right screenshot shows a question: '14. Has the refrigerator been making any loud noises or producing abnormal smells during the past 30 days? [?]'. Below the question is a text box containing a message: 'The page at "http://localhost" says: Failure cause not known. Please proceed to Section B.' with an 'OK' button. Below this is another question: '18. Has the cause of the failure been identified?' with two radio button options: 'Yes - continue to report the failure and causes' and 'No - continue on to Section B with more detailed follow-up questions'.

### 3. Complete Section B – Detailed Evaluation

- Assess **build quality** and complete detailed follow-up questions.
- Proceed to Section B **only** if the cause of failure was not identified in Section A **and** the officer is **on-site** and able to inspect the appliance directly.
- **Upload photos** where possible to support findings.

### 4. System-Directed Next Steps

- If the **failure cause remains unidentified** after Section B, the app will automatically prompt you to open the **Failure Analysis Survey** for further technical review.

Follow-up   ◀ Back   Next ▶

☐ Plug/Receptacle damage

☐ Refrigerator plug type and voltage stabilizer receptacle type mismatched

☐ Other:

38. If a voltage stabilizer for the refrigerator is available on site but...

The page at "http://localhost" says:  
Follow up has not identified the cause of failure. Please complete the Failure Analysis Survey.

☐ No

40. Has the cause of the failure been identified?

☐ Yes

☒ No

Follow-up   ◀ Back   Next ▶

Information for Technicians

Is Failure Analysis visit needed?

☐ Yes

☐ No

Enter any repairs attempted, or concerns for technician:

not specified

Enter any replacement part(s) needed:

not specified

- If the **failure cause is identified**, the app will proceed to **Failure Reporting** and record the affected components.

Follow-up   ◀ Back   Next ▶

Failure Reporting

Create new instance

## c. Failure Analysis

The Failure Analysis procedure identifies and records the root cause of refrigerator faults or failures that could not be resolved during follow-up. It is used for refrigerators that:

- Are **malfunctioning** or not cooling properly.
- Have new **build quality issues**.
- Have a **faulty voltage stabilizer**.
- Have an **active warranty claim** during the reporting period.
- Show any other concern reported by the user or sentinel

This procedure must be performed **on-site** by a **trained CCE technician** or another **qualified assessor**. It requires **advanced diagnostic tools** to test and verify component performance.

## Instructions for Use

### 1. Record Failures and Components

- Log each observed failure and specify the affected components and suspected causes.

### 2. Log Performance Data

- Enter any performance readings or measurements relevant to the issue.

### 3. Add Observations

- Note any additional information that may support diagnosis or repair.

### 4. Use Survey Questions as Reference

- Use the detailed survey questions to guide your inspection, but complete only the fields relevant to identifying or recording the fault.

The image displays four smartphone screens showing the Failure Analysis app interface. The top row shows the 'Instructions for Failure Analysis' screen and the 'Power Supply System' troubleshooting screen. The bottom row shows the 'Failure Reporting' screen and the 'Non-Failure Observations' screen.

**Instructions for Failure Analysis**

A trained cold chain equipment technician—or another trained and qualified assessor—should complete this procedure and use this tool to:

- Record observed failure(s), including the specific component(s) and suspected cause(s)
- Log any relevant performance data required during the assessment
- Note any additional observations that may assist in evaluating equipment status

Please note: The detailed survey questions are provided to support troubleshooting and do not need to be completed in full. Use them as a reference and document only the data that helps with diagnosing or recording the issue.

**Power Supply System**

Use this and the following sections to enter physical data and observations taken while troubleshooting the failure. You do not need to fill in each field, only those that you observe or record while troubleshooting.

1. AC voltage as measured (volts)  
not specified
2. AC frequency as measured (Hz)  
not specified
3. Appliance AC voltage requirement (volts)  
not specified
4. Appliance AC frequency requirement (Hz)  
not specified
5. LED diagnostic result (if applicable)  
not specified

**Failure Reporting**

Create new instance

**Non-Failure Observations**

Enter any issues or concerns noted with the appliance that are not failures.

Create new instance

# Completing Forms



5:42 98%

Troubleshootin... < Back Next >

### Instructions for Failure Analysis

A trained cold chain equipment technician—or another trained and qualified assessor—should complete this procedure and use this tool to:

- Record observed failure(s), including the specific component(s) and suspected cause(s)
- Log any relevant performance data required during the assessment
- Note any additional observations that may assist in evaluating equipment status

Please note: The detailed survey questions are provided to support troubleshooting and do **not** need to be completed in full. Use them as a reference and document only the data that helps with diagnosing or recording the issue.

## Form Structure

All forms are divided into multiple sections for easier data entry. Each section includes a short description explaining its purpose and how to complete it.

## Field Hints

Each question includes a hint icon [?]

Tap the icon to view helpful instructions or examples for that specific field.

5:42 98%

Follow-up < Back Next >

### Section A

1. Where is the FT2 (or FT2 sensor) placed inside the refrigerator? [?]

☐ Bottom of vaccine compartment

☐ Walls of vaccine compartment

☐ On shelf or basket

☐ Inside of door

☐ Other:

2. Do any temperature alarms appear to have been caused by the removal of FT2 (or FT2 sensor) from refrigerator? [?]

☐ Yes

☐ No

☐ Unknown



5:42 98%

Follow-up < Back Next >

### Section A

1. Where is the FT2 (or FT2 sensor) placed inside the refrigerator? [?]

The page at "http://localhost" says:  
Ask where the FT2/sensor is usually placed. Confirm if it stays in one place or is moved (e.g., to access vaccines).  
If onsite: visually verify the placement and note any differences.  
If the sensor is regularly moved, select 'Other' and explain.

OK

2. Do any temperature alarms appear to have been caused by the removal of FT2 (or FT2 sensor) from refrigerator? [?]

☐ Yes

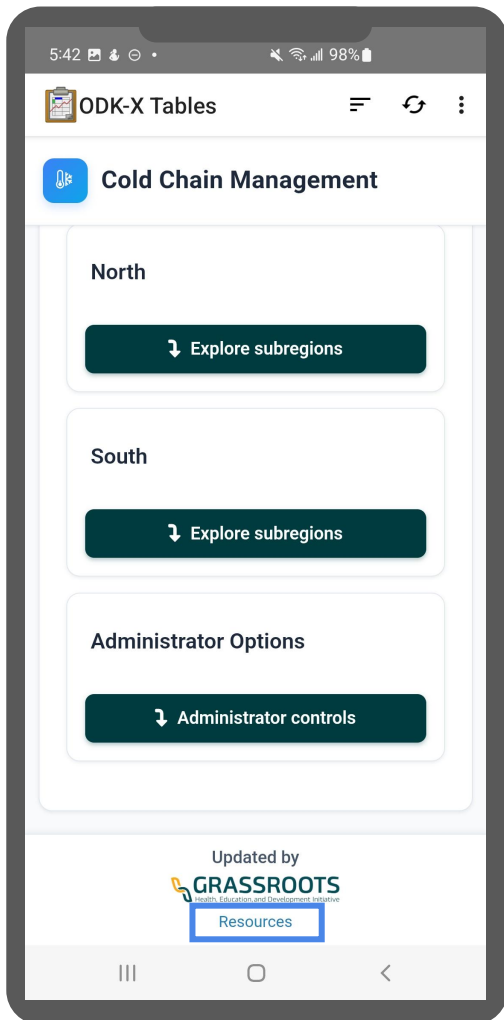
☐ No

☐ Unknown



# Reference Resources

## PMM Taxonomy for accurate data entry



The PMM taxonomy is available in the **Resources** folder in the footer. Use it to identify equipment parts accurately and report them correctly in surveys.