

Objectives

- Understand the basic functions of the Android device
- Gain familiarity with the use of ODK Scan to scan and process forms
- Know how to export processed forms to ODK Collect and send to ODK Aggregate

ANDROID DEVICE BASICS

Turning the device on and off



To turn the device on and off, press the on/off switch located at the top left corner of the device.

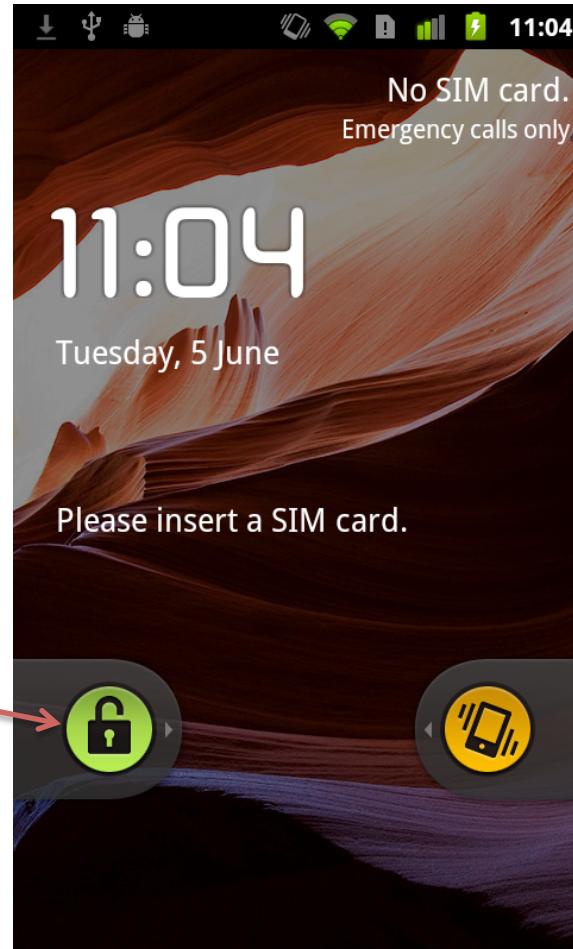
To save battery, it is important to turn the device off when it is not in use.

Android basics - unlocking

When the device isn't used for a period of time, it needs to be turned on from a sleep mode and unlocked.

To turn on, tap the power button, which is located on the top or side of the device.

To unlock, slide the lock icon to the right side of the screen by pressing your finger on the lock and moving it to the right.

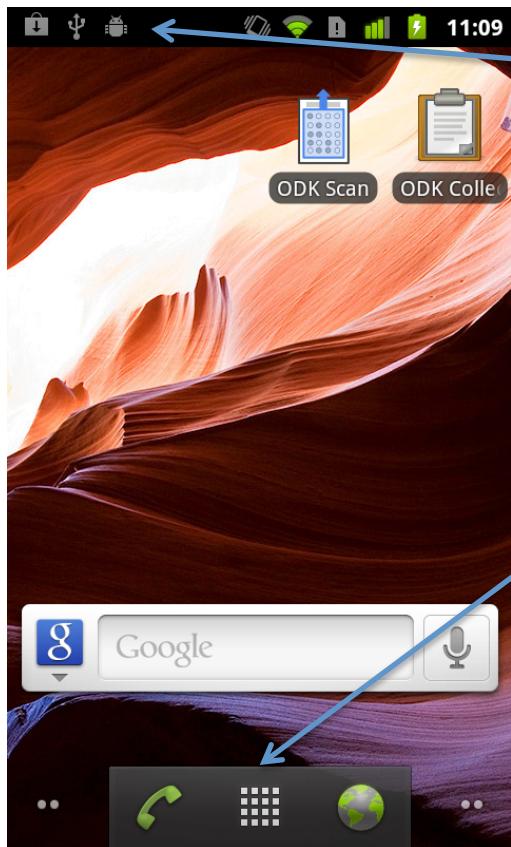


Android basics – 4 primary buttons



- **BACK** button – returns to the previous screen viewed
- **MENU** button – opens the menu options for the application that is running
- **HOME** button – returns to the main home screen
- **SEARCH** button – search within the page that is open

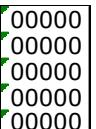
Android basics – Top Bar and Application drawer



TOP BAR – shows the date, time, battery charge and internet connectivity. Sliding the top bar by placing a finger and moving it downward will open the device's notifications

APPLICATION DRAWER button – opens the device's entire list of applications including those that are not on the main home screen

ODK Scan → ODK Collect → ODK Aggregate

- ODK Scan allows the user to scan a form using the Android device and digitize the data contained in bubbles: and check boxes: Yes
- ODK Collect allows the user to edit the data that has been digitized using ODK Scan and submit to a database - ODK Aggregate.
- ODK Aggregate is cloud-based server that allows user to submit digitized data to a central database.

ODK SCAN

Using ODK Scan



ODK Scan uses computer vision to convert paper forms into digital information.

To open the ODK Scan application,
Tap the ODK Scan image with your finger from the device home screen

Using ODK Scan

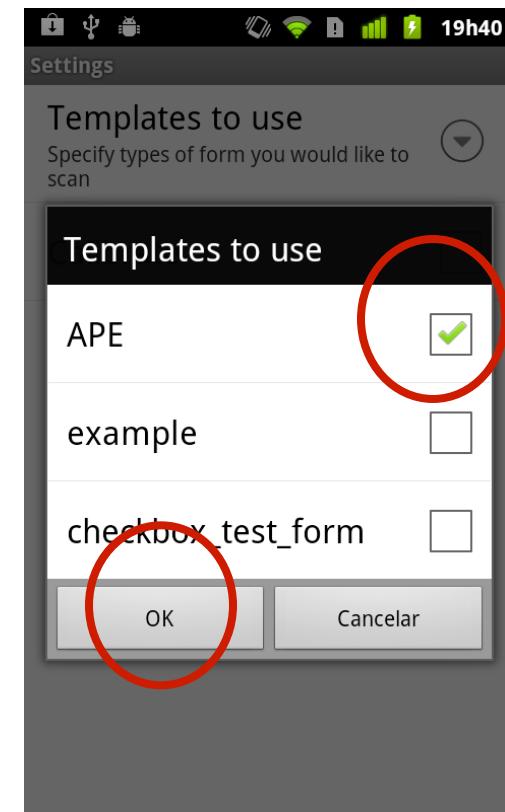
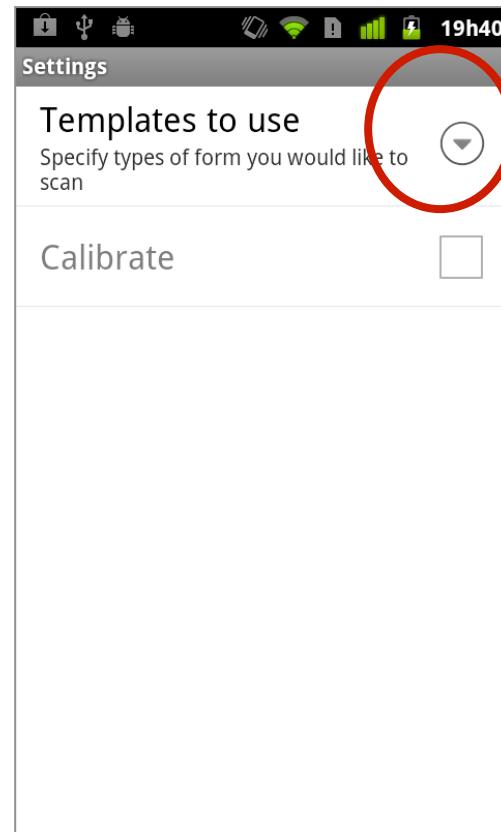
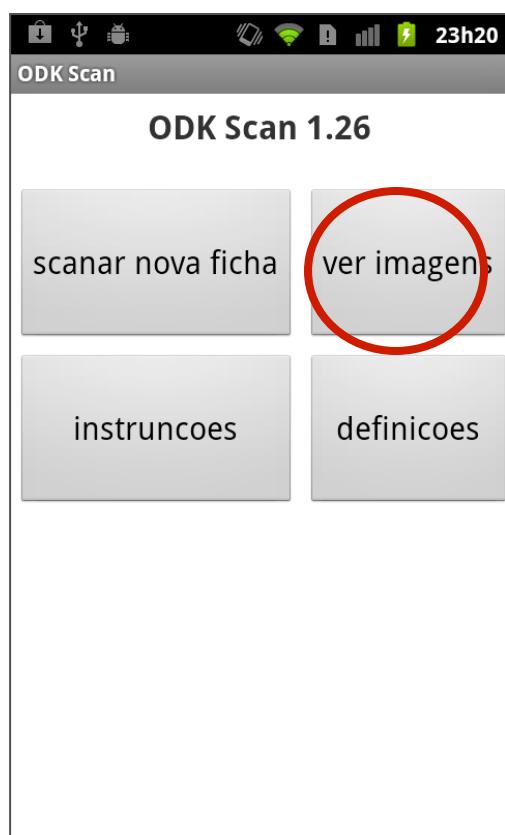
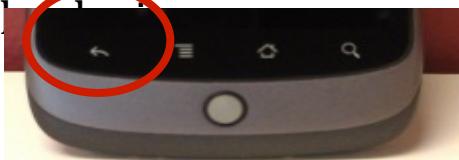


This is the ODK Scan home screen. There are four buttons to select from.

- “*scan new form*” – opens the camera function to take the photo of a new form.
- “*view images*” – provides a list of images that have been scanned with the device.
- “*instructions*” – provides a short explanation of how to use the application. Unfortunately, the instructions are only available in English at this time.
- “*settings*” – allows a user to select the appropriate template form for scanning.

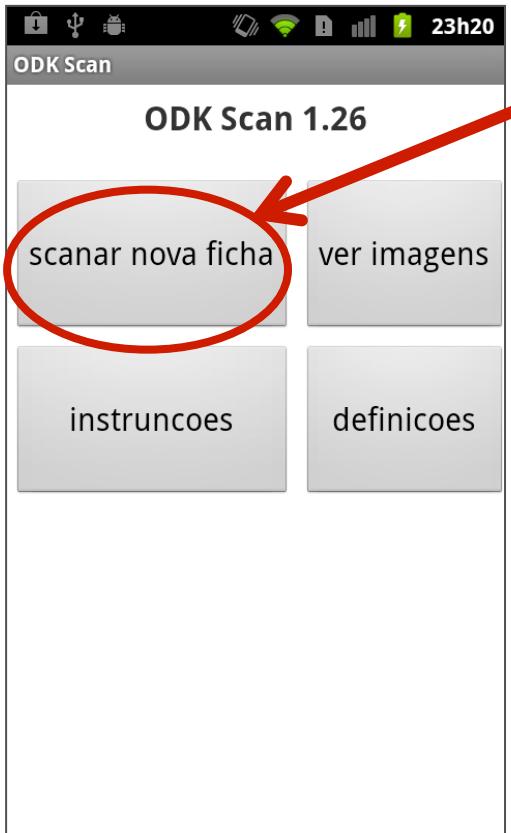
Template Selection

To start using ODK Scan for the APE pilot, first make sure your device is set for the correct template. This will ensure that the camera recognizes the form that it is supposed to scan and process. To return to the ODK Scan home screen, tap the back button on the device.



Scanning a new form

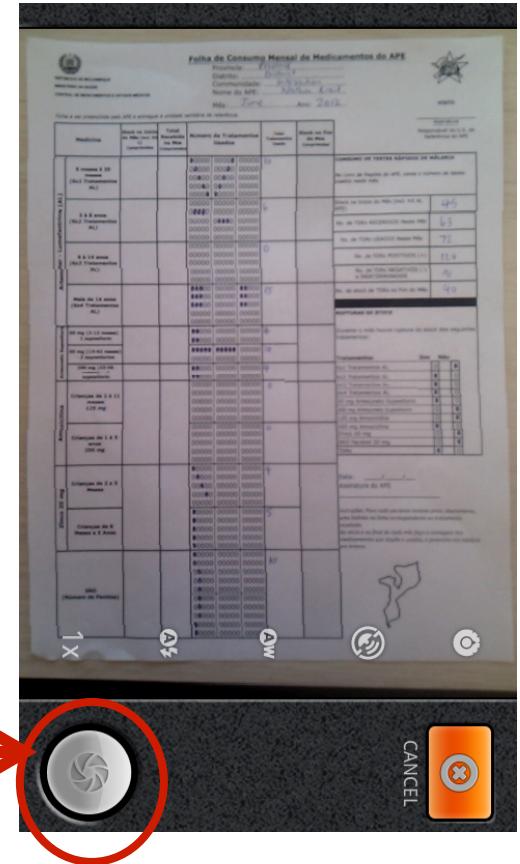
Once the device is positioned in the stand, it is ready to begin scanning new forms.



On the ODK Scan home screen, tap the “scanar nova ficha” button.

Look at the image of the form through the device’s camera. Check that all 4 corners of the form are included in the image screen.

Once the form is aligned well in the image screen, tap “camera” icon in the lower left corner of the screen to capture the image.



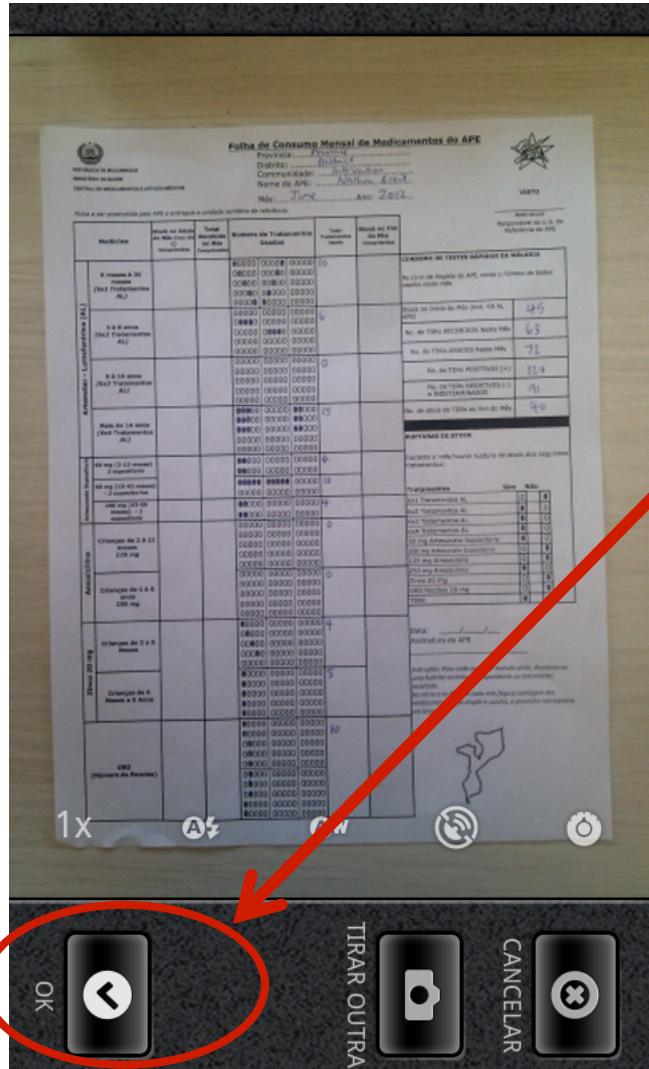
Using the stand

Using the stand will help align the image of the form and ensure that the scale of the image is accurate.

To assemble the stand and device, place the device on the markings atop the platform so that the camera is pointed through the hole in the platform. Place the form underneath the platform so that it is in full view. The form should be flat with no bends or wrinkles.



Check the image the form



Look at the image of the form to check that the entire form is included in the picture and the image is clear.

If you think the image is good, tap “OK.”

If the image is not good, you can retake the image by tapping “TIRAR OUTRA.”

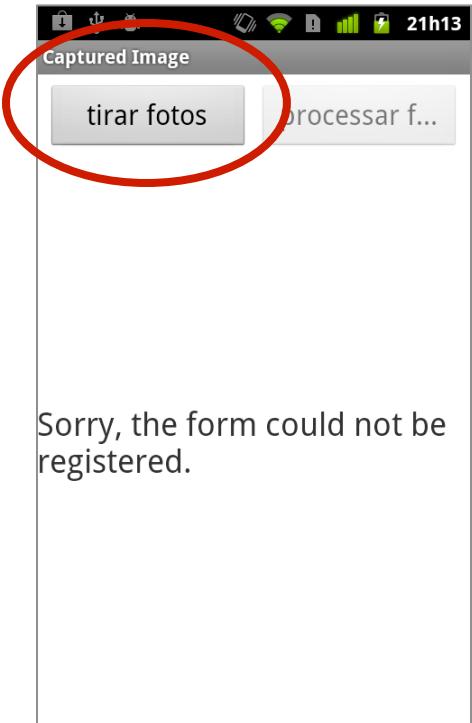
Aligning the form



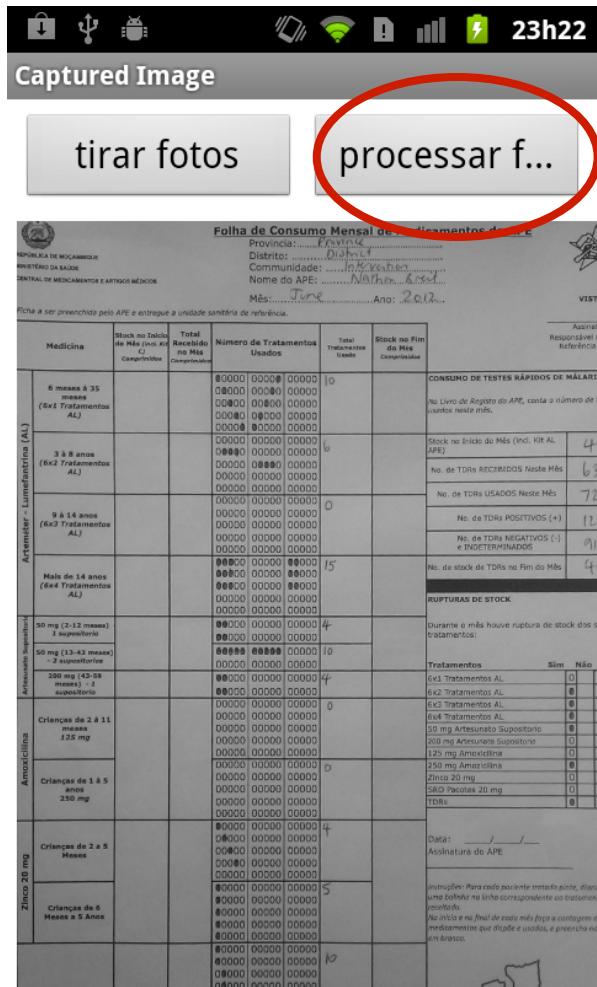
ODK Scan will then align the form and you will see a screen that says “alinhar ficha.”

If the form is aligned you will see an image of the form. Sometimes, the image cannot be aligned and you will receive a message that says “Sorry, the form could not be registered.”

If this happens, try again by tapping “tirar fotos.”



Process the form



If the form is aligned well, ODK Scan will prompt you to “processar” the form.

First, check to make sure that the image is clear and complete. If so, tap “processar ficha.”

Sometimes, ODK Scan will align the form poorly and a new image should be taken. If this happens, tap “tirar fotos” to try again. Examples of poor quality images are:



Process the form

USB connected

Health Center: unspecifiedHC

Folha de Consumo Mensal de Medicamentos do APE

Medicina	Stock no Início do Mês (incl. kit complementar)	Total Tratamentos no Mês	Número de Tratamentos Usados	Stock no Fim do Mês Complementar
6 meses à 35 meses (6x2 tratamentos AL)			10?	
3 a 8 anos (8x2 tratamentos AL)			6?	
9 a 14 anos (8x3 tratamentos AL)			02	
Mais de 14 anos (8x4 tratamentos AL)			15?	
Azitromicina - Lamefazina (AL)			4?	
Alendronato Dispergante 50 mg (3-12 meses) 2 comprimidos			102	
Alendronato Dispergante 300 mg (43-59 meses) - 2 comprimidos			4?	
Cloxacilina de 2 a 11 meses 125 mg			0?	
Cloxacilina de 1 a 5 anos 250 mg			0?	
Zinc 20 mg			5	
Grilex de 2 a 5 Meses			5?	
Grilex de 6 Meses a 5 Anos			5?	
Export to Collect		102	Main Menu	

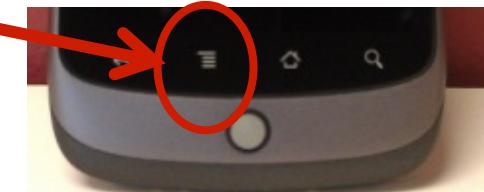
ODK Scan will then process the form and you will see an image of the form with colored lines and numbers.

ODK Scan automatically counts the number of treatments filled in for each commodity as well as processes the stock out occurrences.

To view the form close up, you can zoom on the image by placing two fingers together on the screen and moving them away from each other.

Now, you will tap the button “Export to Collect.”

Note: If the “Export to Collect” button does not appear, tap the “MENU” button on the device.



Process the form

Folha de Consumo Mensal de Medicamentos do APE

Provincia: **ENDEZERA**
 Distrito: **DIAVETE**
 Comunidade: **INANZHELE**
 Nome do APE: **Nathan Kwele**
 Mês: **Janeiro** Ano: **2012**

VISTO

Assinatura Responsável da U.S. de Referência do APE

Medicina	Stock no Início do Mês (Ind. Kit AL) Comprimidos	Total Recebido no Mês Comprimidos	Número de Tratamentos Usados	Tratamento no Fim do Mês Comprimidos	
6 meses à 35 meses Ex1 Tratamentos AL)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	10?		0	CONSUMO DE TESTES RÁPIDOS DE MALARIA
3 à 8 anos Ex2 Tratamentos AL)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	9?			No Livro de Registo de APE registre o número de testes usados neste mês.
9 à 14 anos Ex3 Tratamentos AL)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	0?			Stock no Início do Mês (Ind. Kit AL APE)
Mais de 14 anos Ex4 Tratamentos AL)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	15?			No. de TDRs RECEBIDOS Neste Mês
1 mg (2-12 meses) 2 supositorios	00000 00000 00000 00000 00000 00000 00000 00000 00000	4?			No. de TDRs USADOS Neste Mês
1 mg (13-42 meses) - 2 supositorios	00000 00000 00000 00000 00000 00000 00000 00000 00000	10?			No. de TDRs POSITIVOS (+)
200 mg (43-59 meses) - 2 supositorios	00000 00000 00000 00000 00000 00000	4?			No. de TDRs NEGATIVOS (-) e INDETERMINADOS
Crianças de 2 à 11 meses 125 mg	00000 00000 00000 00000 00000 00000 00000 00000 00000	0?			No. de stock de TDRs no Fim do Mês
Crianças de 1 à 5 anos 250 mg	00000 00000 00000 00000 00000 00000 00000 00000 00000	0?			RUPTURAS DE STOCK
Crianças de 2 a 5 Meses	00000 00000 00000 00000 00000 00000 00000 00000 00000	4?			Durante o mês houve ruptura de stock dos seguintes tratamentos:
Crianças de 6 Meses a 5 Anos	00000 00000 00000 00000 00000 00000 00000 00000 00000	5?			Tratamentos Sim Não
SITQ (nro de Pacotes)	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	10?			6x1 Tratamentos AL 6x2 Tratamentos AL 6x3 Tratamentos AL 6x4 Tratamentos AL 50 mg Artesunate Supositorio 200 mg Artesunate Supositorio 125 mg Amoxicilina 250 mg Amoxicilina Zinc 20 mg SRD Pacotes 20 mg TDRs
					Data: ____/____/ Assinatura do APE
					Instruções: Para cada paciente tratado pintar, diariamente, uma bolinha na lâmina correspondente ao tratamento recebido. No final e no final de cada mês faga a contagem dos medicamentos que dispõe e usados, e preencha nos espaços em branco.

All of the fields from the form with colored boxes around them will be processed with ODK Scan and ODK Collect.

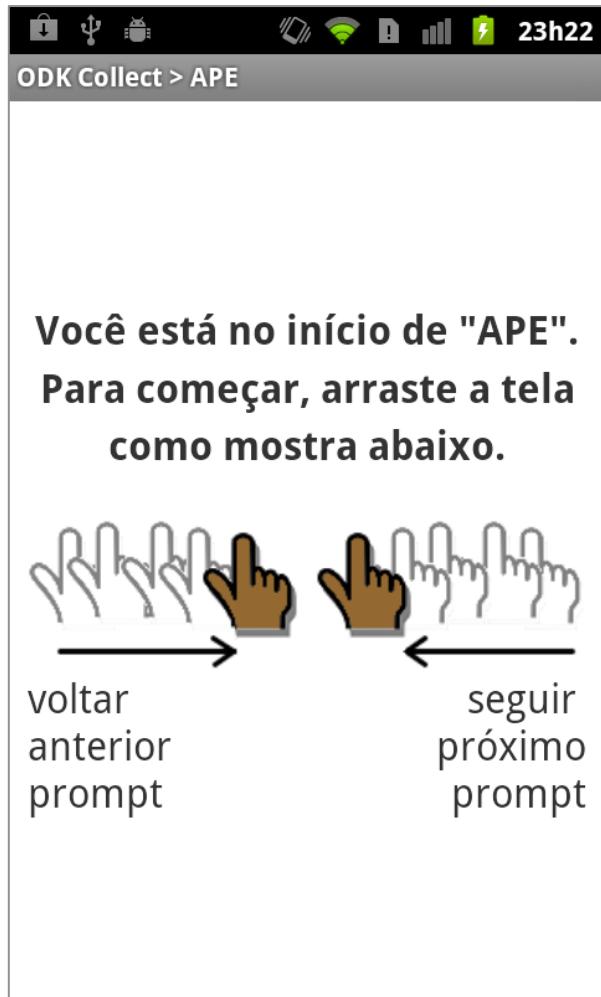
The fields with handwritten text will need to be selected through ODK Collect. Instructions for how to do this are included in this manual. The text fields include:

- Provincia
- Distrito
- Comunidade
- Nome do APE
- Month
- Ano

In addition, the fields with handwritten numbers for stock levels will also need to be entered.

ODK COLLECT

ODK Collect



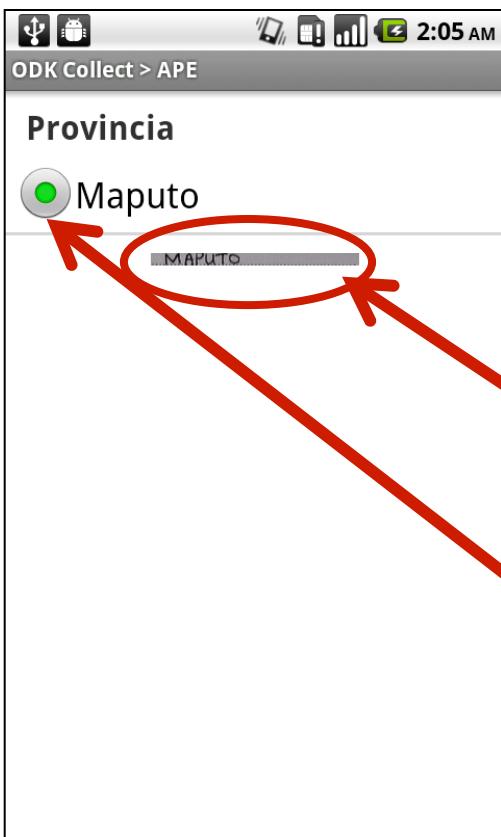
ODK Collect will allow you to add information to the form and edit any numbers that are in error. This is an image of the start screen for the APE consumption form in ODK Collect.

Each screen in ODK Collect will correspond to a data entry field on the form. As shown, the user will navigate the screens by placing a finger on the screen and sliding it:

- to the left to advance to the next screen or
- to the right to go back to a previous screen.

To start, slide a finger to the left.

ODK Collect



The first data field will be “Provincia” and it corresponds to the Provincia field on the form.

You will see an image of the information entered onto the form to help with selecting the correct response. Select the response by tapping the circle next to the correct province (in this case, the only province is Maputo, so there is only one selection). The circle will then turn green indicating that it is selected.

Once you are finished and the provincia selected matches the text in the image, slide your finger to the left to advance to the next screen.

ODK Collect

This screenshot shows a list of districts under the heading "Distrito". The first item, "Marracuene", has a green dot next to it, indicating it is selected. The other items are "Manhica" and "Moamba". At the bottom of the screen, there is a small bar with the text "MARRACUENE" on it.

Distrito
Marracuene
Manhica
Moamba

This screenshot shows a list of communities under the heading "Communidade". The first item, "Community1", has a green dot next to it, indicating it is selected. The other items are "Community2" and "Community3". At the bottom of the screen, there is a small bar with the text "...OSINA ... MACHE" on it.

Communidade
Community1
Community2
Community3

This screenshot shows a list of APE names under the heading "Nome de APE". The first item, "APE1", has a green dot next to it, indicating it is selected. The other items are "APE2", "APE3", "APE4", and "APE5".

Nome de APE
APE1
APE2
APE3
APE4
APE5

Work your way through the text fields to select the correct information from the form. If the form is blank, you can simply slide your finger to advance to the next screen without entering information.

Use the text that appears in the image to guide the data entry. After each entry, place your finger on the screen and slide to the left to advance to the next screen.

ODK Collect



After the text fields, you will be prompted to enter the numeric fields.

If the keyboard does not automatically change to numbers, tap on the number button.

Enter the number that is shown in the image below the text field and advance to the next screen.



ODK Collect

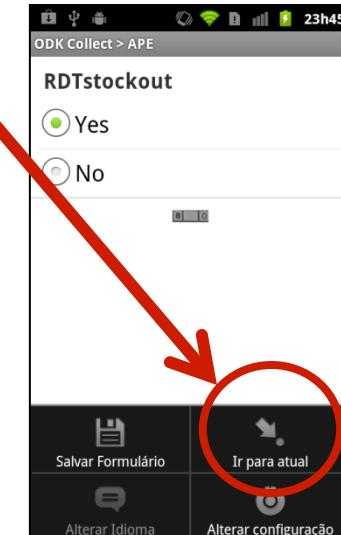


After completing the numeric fields, you will be prompted to review the bubble information.

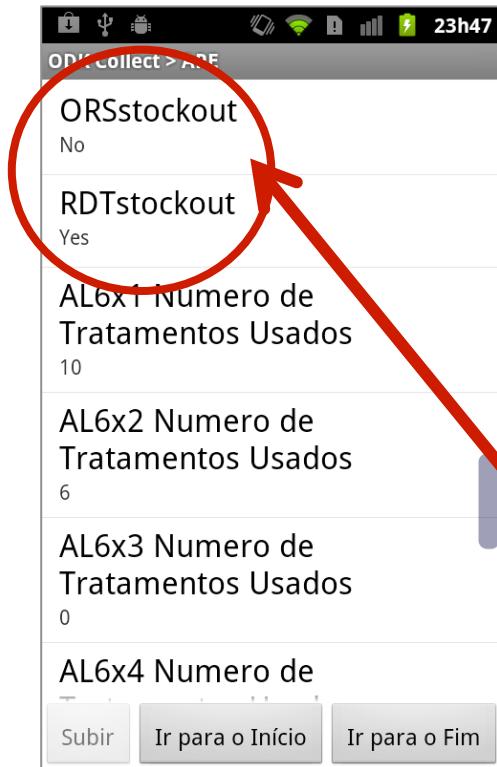
You do not need to review each field one by one if you do not want to!

To view the fields all at once, tap the “MENU” button on the device.

Then tap “Ir para actual”



ODK Collect



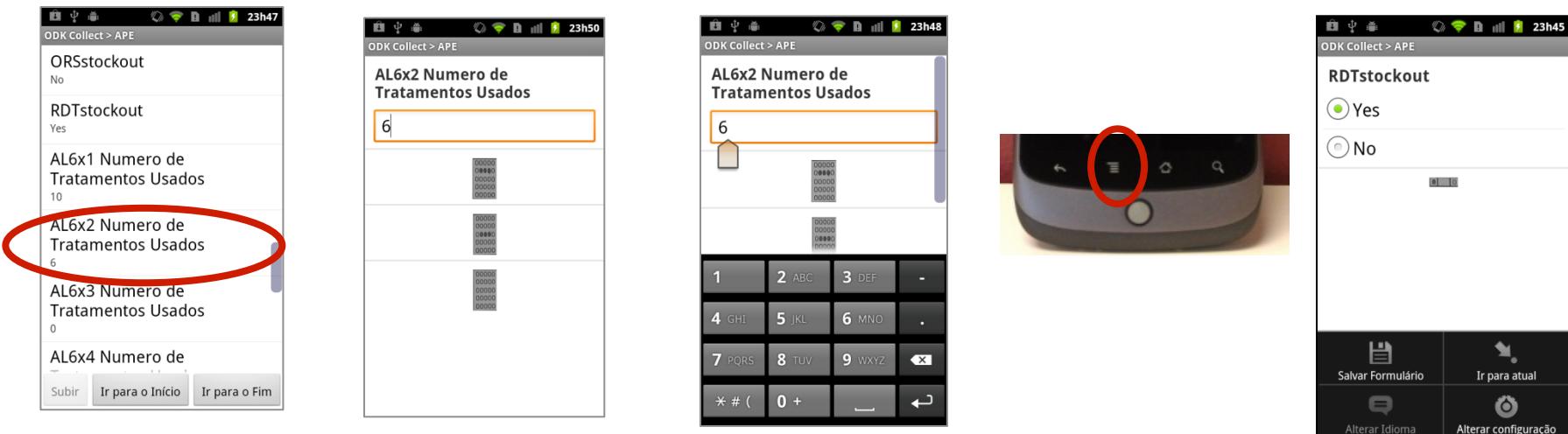
After pressing “Ir para actual” you will see a list of all the fields and the data entered for each entered below. Review the fields to check the accuracy of the data entry.

In the example, there are “No” stockouts of ORS but Yes” stockouts of RDTs.

ODK Collect

If there is a field with an error, tap on the field to change the entry.

In the example, AL 6x2 Numero de Tratamentos Usados" was incorrectly processed as "6" but instead should instead be "7." To change this: 1. tap on the "AL 6x2" field. 2. Place your finger in the text box. 3. Delete the "6" and enter the correct number "7." To finish, tap "MENU" on the device and select "Ir para actual."



If the keyboard does not appear, press the scroll button on the device



After making a correction, to return to the list of entry, tap on the "MENU" Button on the device and then tap "Ir para Actual"

ODK Collect

ODK Collect > APE

ORSstockout
No

RDTstockout
Yes

AL6x1 Numero de Tratamentos Usados
10

AL6x2 Numero de Tratamentos Usados
6

AL6x3 Numero de Tratamentos Usados
0

AL6x4 Numero de

Subir Ir para o Início Ir para o Fim

After reviewing the form and ensuring that the data are correct, it is time to finalize the form. Tap on “Ir para o Fim” to complete the form.

Tap the box to indicate that the form is final.

Then, tap “Salvar Formulario e Sair” to finish.

ODK Collect > APE

Você está no fim de "APE".

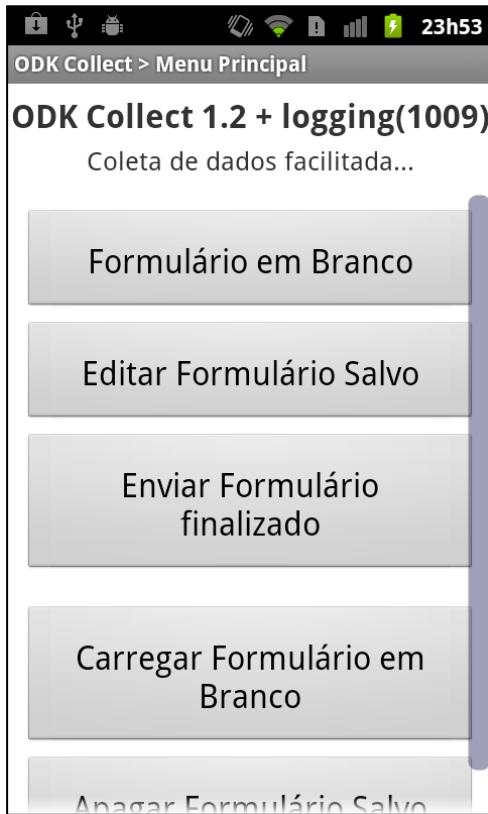
Nomear este Formulário:

APE_taken_2012-06-19_23-49

Marcar formulário como finalizado

Salvar Formulário e Sair

Send Form to ODK Aggregate

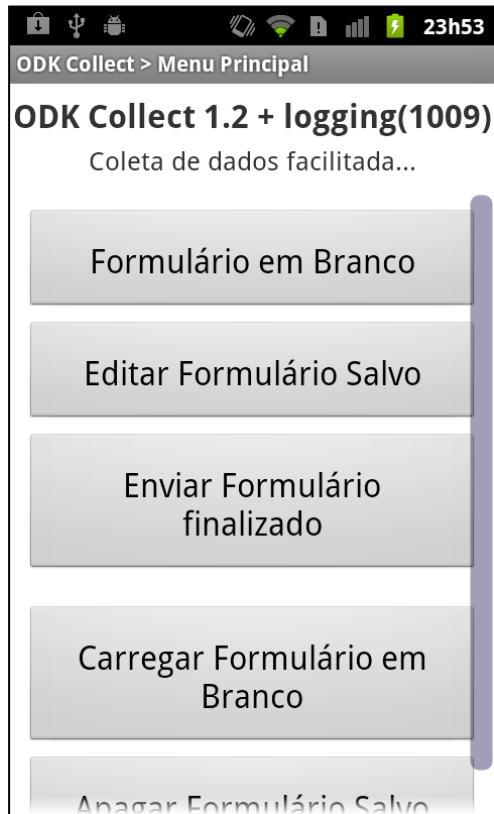


After completing the form, you will be directed to the ODK Collect home screen. If you have forms that are ready to submit, you can continue by following the steps in the next section. If you have multiple forms to scan, you may prefer processing the forms all at once. To scan the next form, simply tap the “HOME” button on the device and open ODK Scan again.



If you don't see the ODK Collect home screen, tap the “HOME” button on the device and select the ODK Collect application.

ODK Collect Menu Options



From the ODK Collect home screen, you can select a variety of options.

Formulario em Branco – will allow you to select a form to fill without using the ODK Scan function. This will require more data entry into the device because the bubble fields will not automatically be entered.

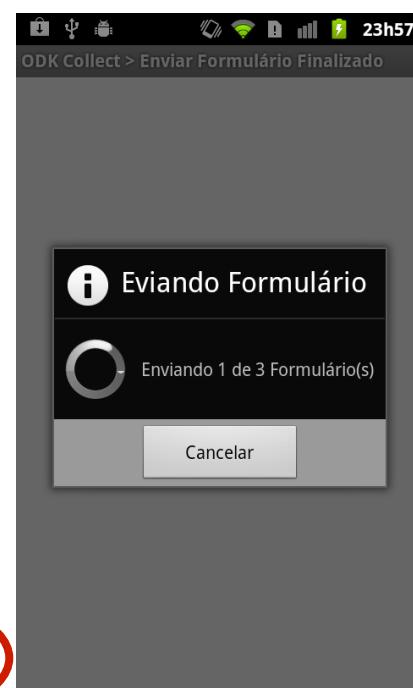
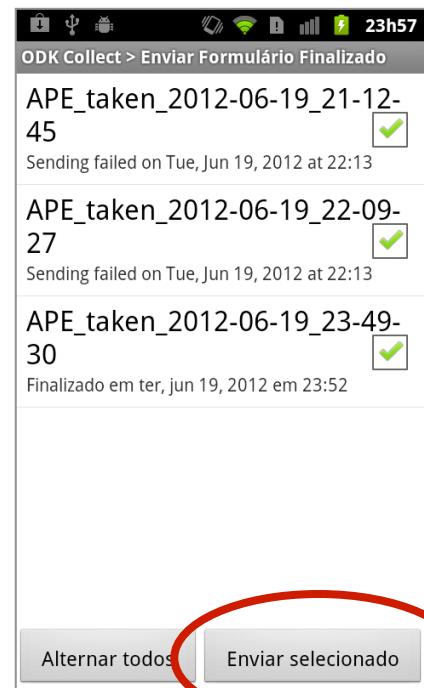
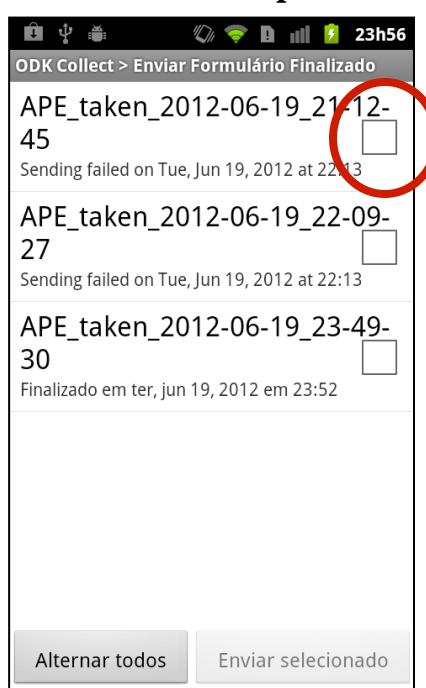
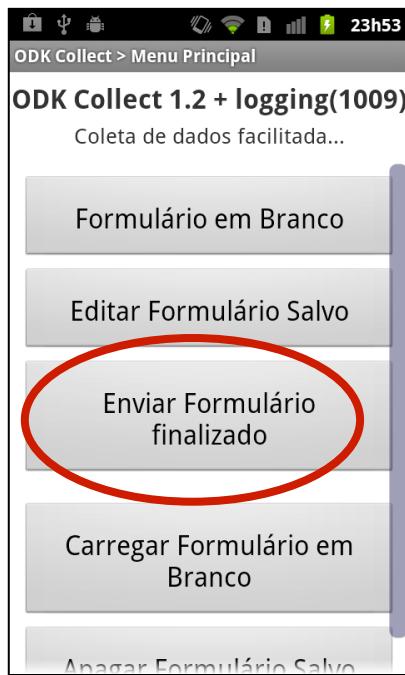
Editar Formulario Salvo – will allow you to select a form that has been finalized but not sent and make changes to it.

Enviar Formulario finalizado – allows you to send final forms to the database.

Apagar Formulario Salvo – allows you to delete any forms that have been saved. Only delete forms that have been sent to the database. You may want to delete the forms after you send them to save memory space on the device.

Send Form to ODK Aggregate

To submit the forms, tap on “Enviar Formulario finalizado.” You will then see a list of all completed forms. Select the completed forms you would like to send to the database by tapping the box next to each form or tapping “Altenar todos” to select all. Then, select “Enviar selecionado.” You will then see the message “Enviando Formulario.” Depending on the number of forms and the internet connection, this may take a few minutes. Please wait until this is complete.

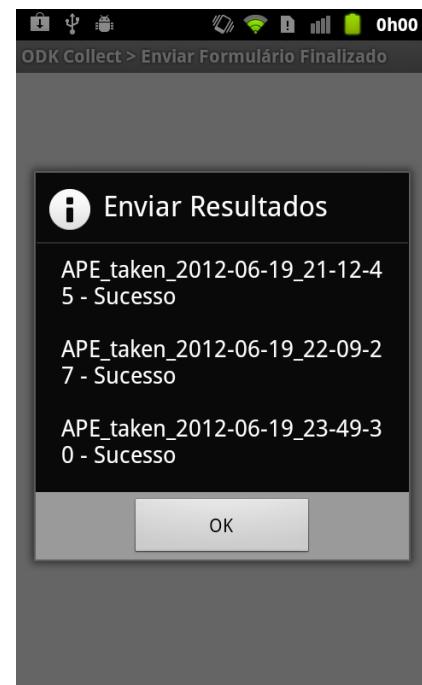


Send Form to ODK Aggregate

You may be prompted to enter the correct authentication. The device is already set up with the appropriate user name and password. Simply select OK. If you need to enter a username and password, please contact the administrator for that information.



If the forms send correctly, you will receive a message indicating the results. Tap OK to complete the process.



Troubleshooting Problems and Common Errors

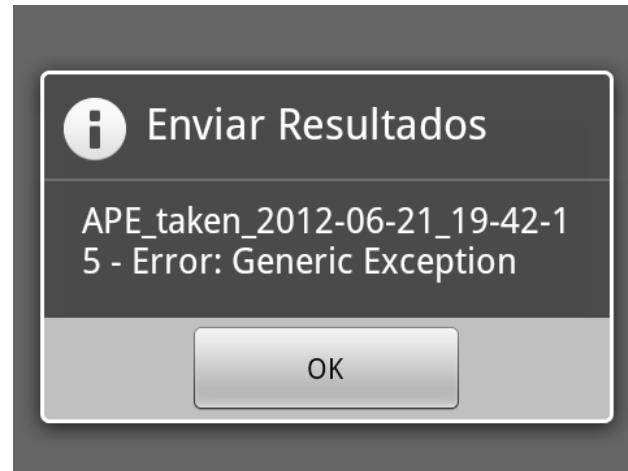
Force Close Message



If you see this message, the application has encountered an error. Most of the time, tapping “Forcar fechamento” and opening ODK Scan again will solve the problem.

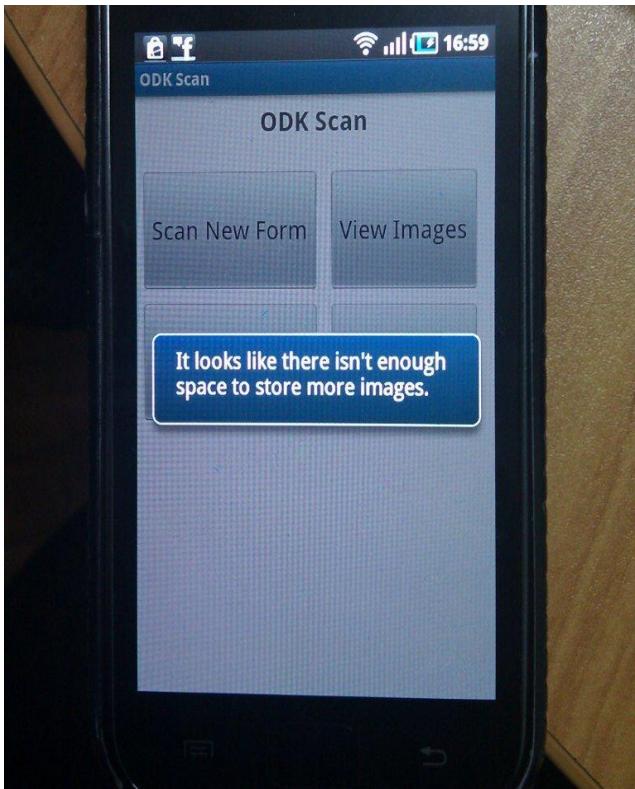
If you see the error again, sometimes you can solve the problem by unselecting the template and selecting the template again (as shown on page 12).

Sending Error



Sometimes you may receive an error message when you try to send a form. First check that there is air time. If you continue to have problems, call the administrator and tell him the error message.

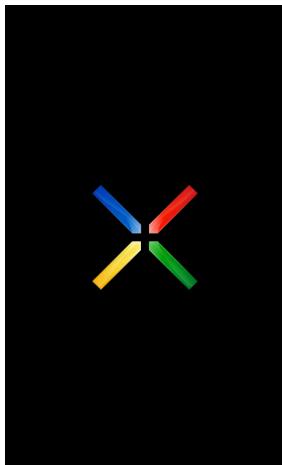
Memory Full Error



If the memory becomes too full to store and process form images, you will receive a message that there isn't enough space. When this happens, delete images from the gallery on the device. If you have trouble, contact the administrator and tell him the error message.

Device errors

- On rare occasions the device will not start properly. The start screen will appear and the device will vibrate. When the start screen image disappears, it will reappear and vibrate again. This never ending cycle is called a *boot loop*. To stop the boot loop, remove the back of the device and remove the battery.



- Be sure that the device is not attached to a computer by a USB connection.
- Put the battery back in, keep the device unconnected, and turn the device on again.