



## CoaguChek® Pro II Operator Training

Woodlands Health

# Training Objectives

- Product Overview
- Perform Measurement
  - ✓ Liquid Control Test
  - ✓ Patient Test
- Troubleshooting
- Review Results
- Maintenance and Care

# Introduction

## *Product Overview*

- Parameters available:
  - PT (Prothrombin Time)
- Units:
  - PT
    - INR:
    - INR / %Quick
    - INR / SEC



**CoaguChek<sup>®</sup>**



# Introduction

## *Product Overview*

- Sample Types:
  - Capillary blood from fingertip
  - Untreated venous whole blood
- Sample Volume:
  - For each test at least 8 $\mu$ L
- Measurement Time:
  - PT only seconds
- Memory:
  - 2000 patient test results
  - 500 liquid QC tests
  - 60 test strip code chips and 60 control solution code chips



**CoaguChek<sup>®</sup>**



# Introduction

## *Product Overview*

## Components

CC Pro II meter



CC Pro II Base Unit



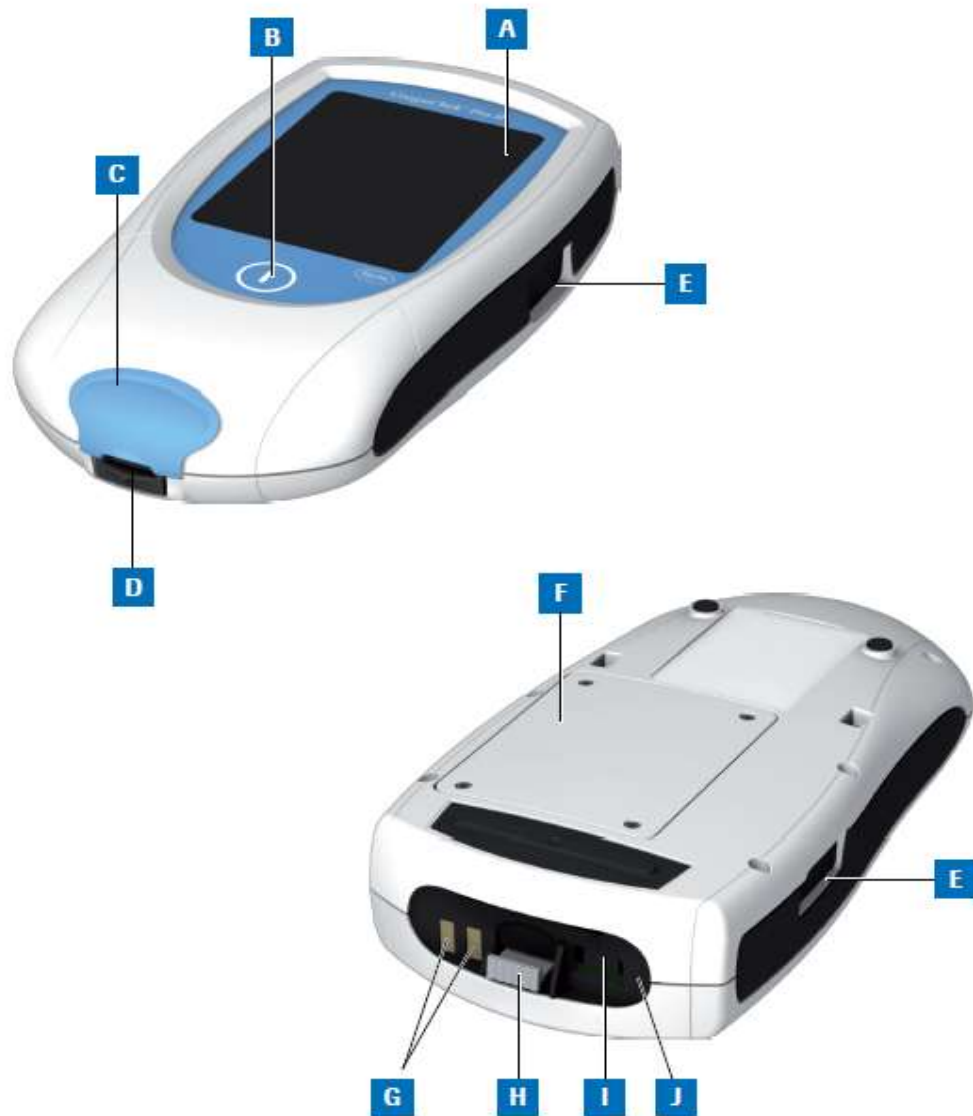
Power Supply



USB cable

# CoaguChek Pro II

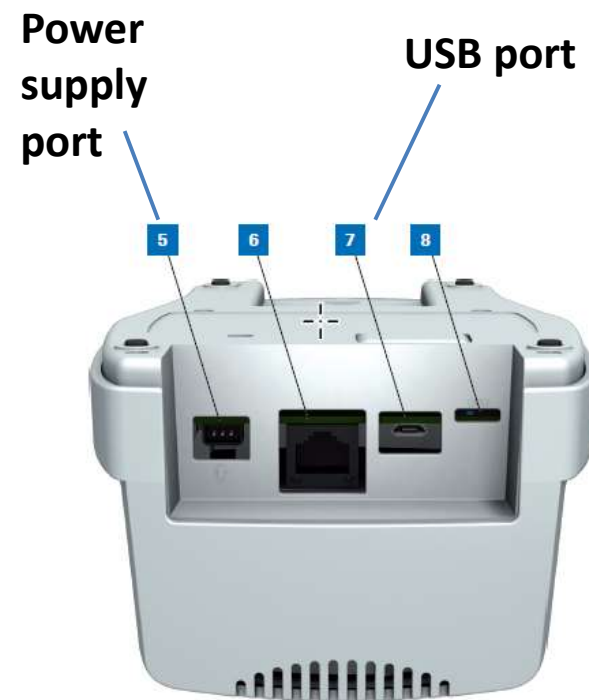
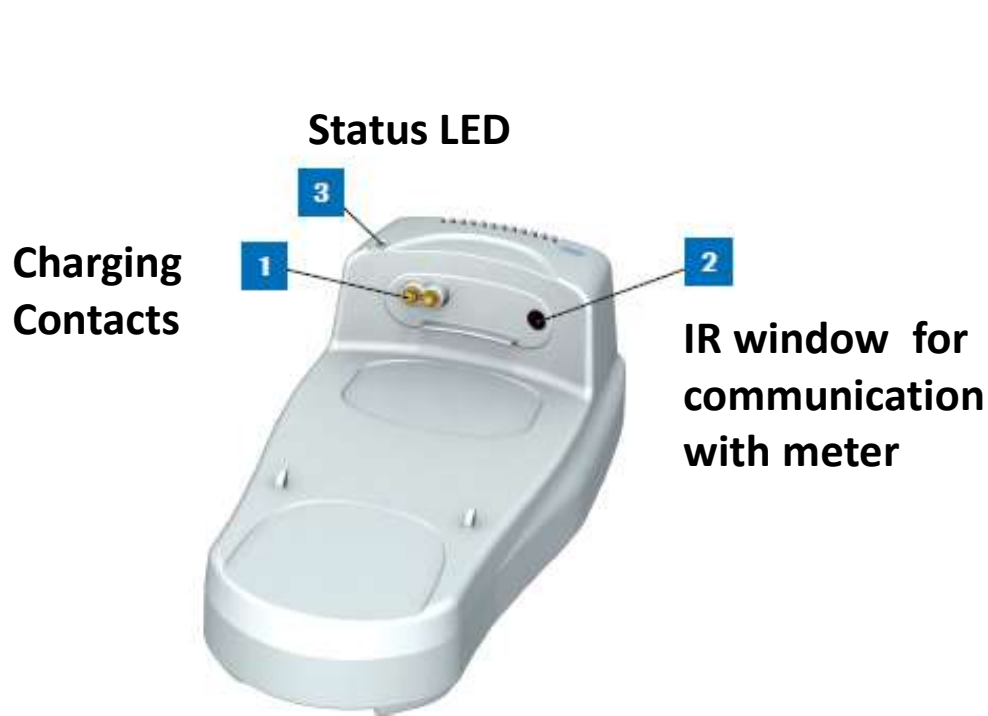
## *Meter Overview*



- A. Touchscreen
- B. On/Off Button
- C. Test strip guide cover
- D. Test strip guide
- E. Barcode scanner
- F. Battery compartment cover
- G. Charging contacts
- H. Code chip slot
- I. Connection socket for power adapter
- J. Infrared interface

# CoaguChek Pro II

## Base Unit Overview



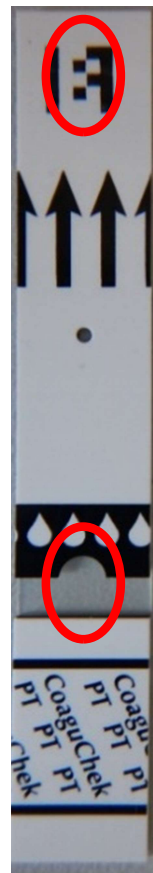
- LED **Red** : Booting-up
- LED **Flashing "Red"** : Error
- LED **Green** : Ready

# CoaguChek Pro II

## PT test strip



- 24 strips per bottle (2x24's/box)
- 1 code chip per bottle
- Lot-specific info (S\_lot number) such as expiration date and calibration data, test method in code chip



→ Barcode

→ Dosing area

### Measuring Range

INR: 0.8 – 8.0

%Qck: 120 – 5

Sec: 9.6 - 96



→ Test & quality control chamber

# Coaguchek Pro II

## *Liquid Control*

- 2 Levels of control available
- Controls are range-specific (only viewable on the meter or ciPOC)
- 1 box contains:
  - 4 x Level 1
  - 4 x Level 2
  - 8 x diluent bulbs
  - 1 x code chip (labelled C\_lot number)
  - Store at 2-8 degrees
- QC requires reconstitution
  - Diluent comes in ready-to-use bulbs
  - Reconstituted QC is stable for 30 mins



## ***Quality Control – Preparation PT and aPTT***



Let the bottle **sit closed for 5 minutes** in order to reconstitute

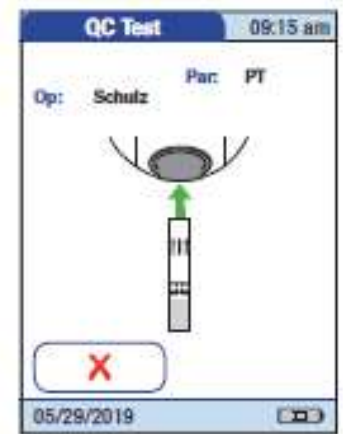
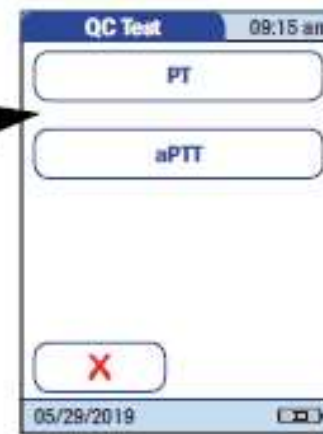
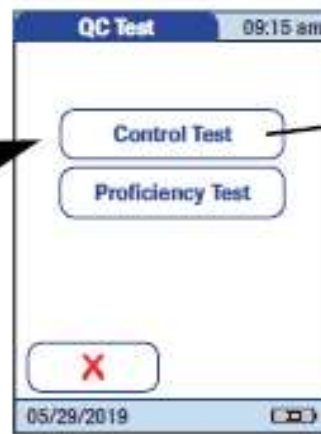
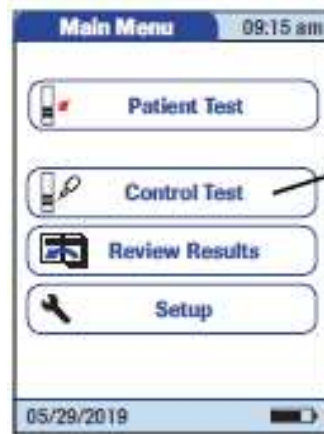
Mix **carefully** by swirling the bottle using a **circular motion**, avoid foam formation


**Do not shake the vial or turn it on its side!**

**The reconstituted control material is stable for 30 minutes.**

# Perform Measurement

## *Liquid Control Test*



1. Press  to turn the meter ON.  
Scan Operator ID.

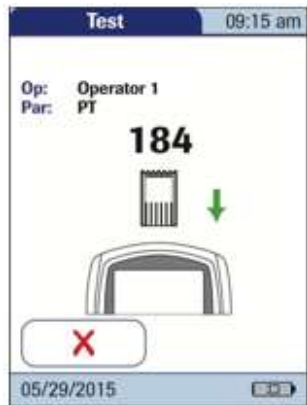
2. Select **Control Test**.

3. Select PT.

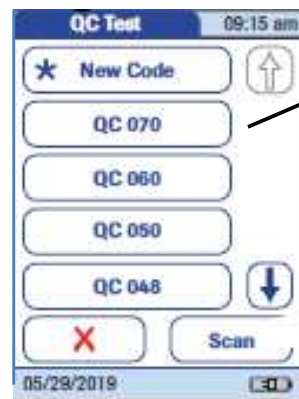
4. Insert the test strip into the test strip guide in the direction indicated by the arrows.

# Perform Measurement

## *Liquid Control Test (code stored on current lot)*



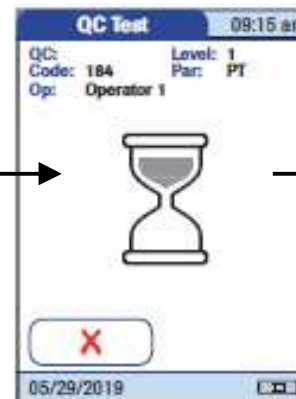
5. If new test strip lot is used, insert the test strip code chip.



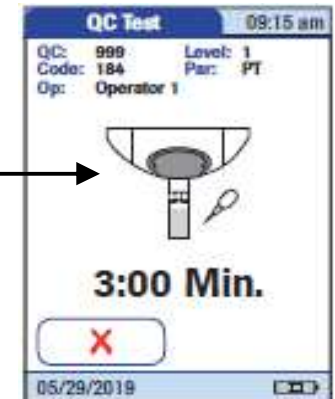
6. Select the code stored for your current control Solution.



7. Select the level for the measurement.



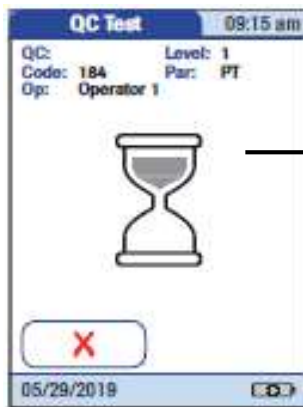
8. The test strip is warming Up.



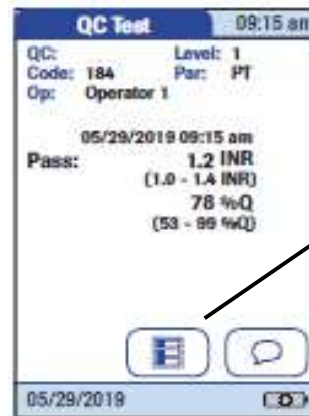
9. Apply control solution when dropper icon flashes. *(within 3 min)*

# Perform Measurement

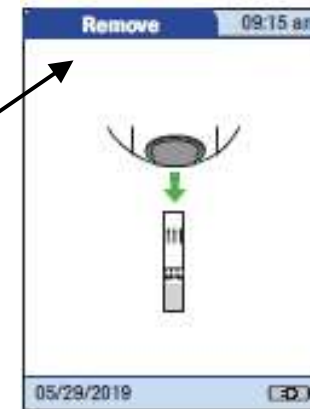
*Liquid Control Test (code stored on current lot)*




10. The dropper icon disappears and the test starts.



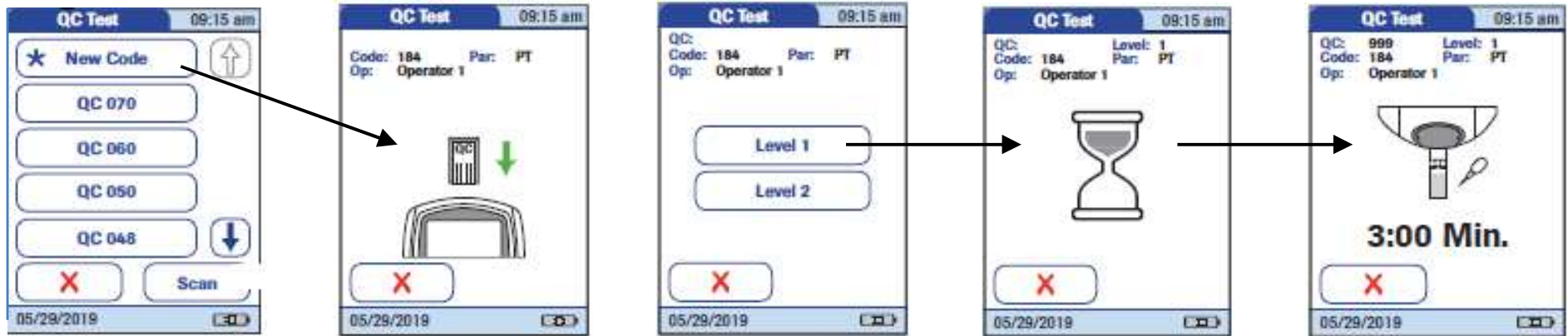
11. Ensure QC results are **Pass** and within acceptable range.



12. Select  to remove test strip from meter.

# Perform Measurement

## Liquid Control Test (new QC lot)



5. Select **New Code** to use new lot of control solution.

6. Remove the strip code chip from the meter and insert the control code chip.  
*(Capital C in front of lot)*

7. Select the level for the measurement.

8. The test strip is warming up.

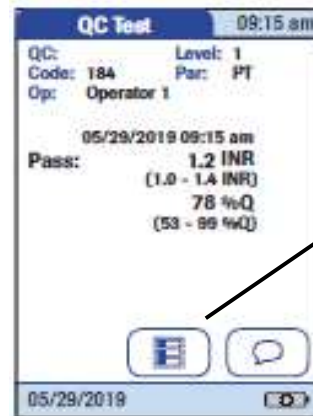
9. Apply control solution when dropper icon flashes.  
*(within 3 min)*

# Perform Measurement

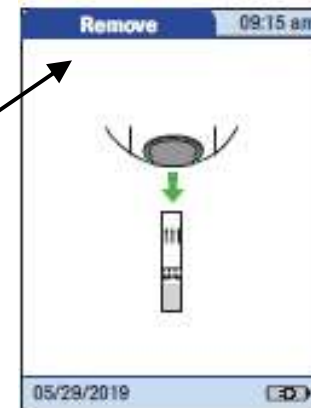
## *Liquid Control Test (new QC lot)*




10. The dropper icon disappears and the test starts.



11. Ensure QC results are **Pass** and within acceptable range.



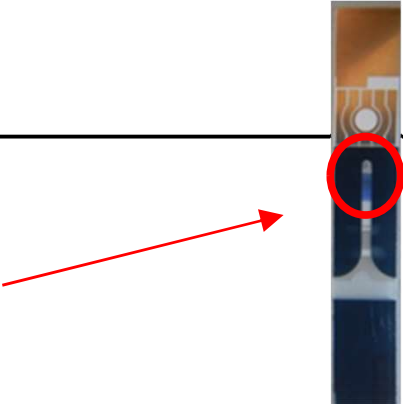
12. Select  to remove test strip from meter.

# Perform Measurement

## Liquid Control Test



### What to do when QC is out of range?

- Check when was the control reconstituted
- Check the integrity of the test strips (blue reagent) 
- Ensure that the correct level of control solution (Level 1 or 2) was dosed according to the control level selected on the meter.
- Ensure that the test strip was freshly taken out of the vial.
- Ensure that the controls and test strips were stored appropriately.

### Repeat Control test:

1. Using the same vial of strips and controls.
2. Using a new vial of controls.
3. Using a new vial of test strips.

If you are still unsure of the problem, please contact your POCT coordinator.

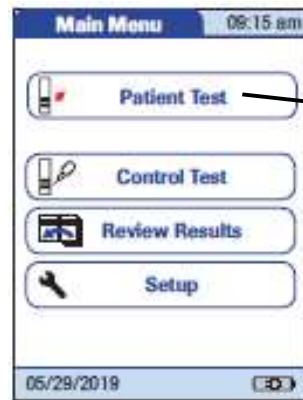


# Perform Measurement

## *Patient Test*



1. Press **ⓘ** to turn the meter ON. Scan Operator ID.



2. Select **Patient Test** at Main Menu



3. Key in Patient ID manually using the keypad.

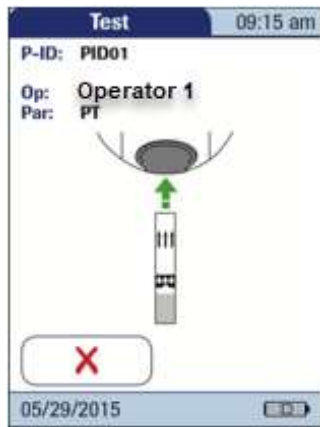
OR



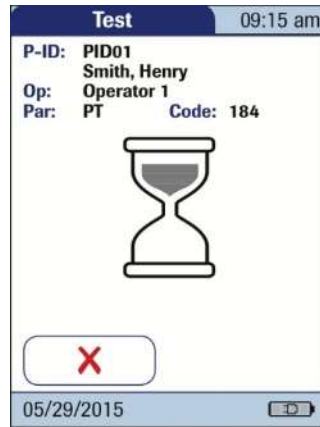
Scan Patient ID using in-built barcode scanner.

# Perform Measurement

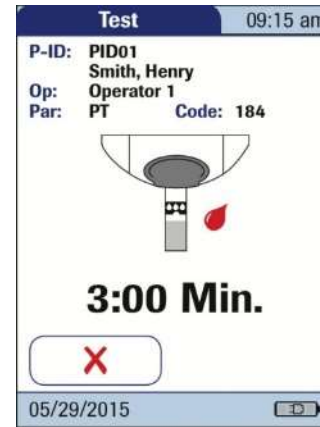
## *Patient Test*



4. Insert test strip when prompted



5. The test strip is warming up



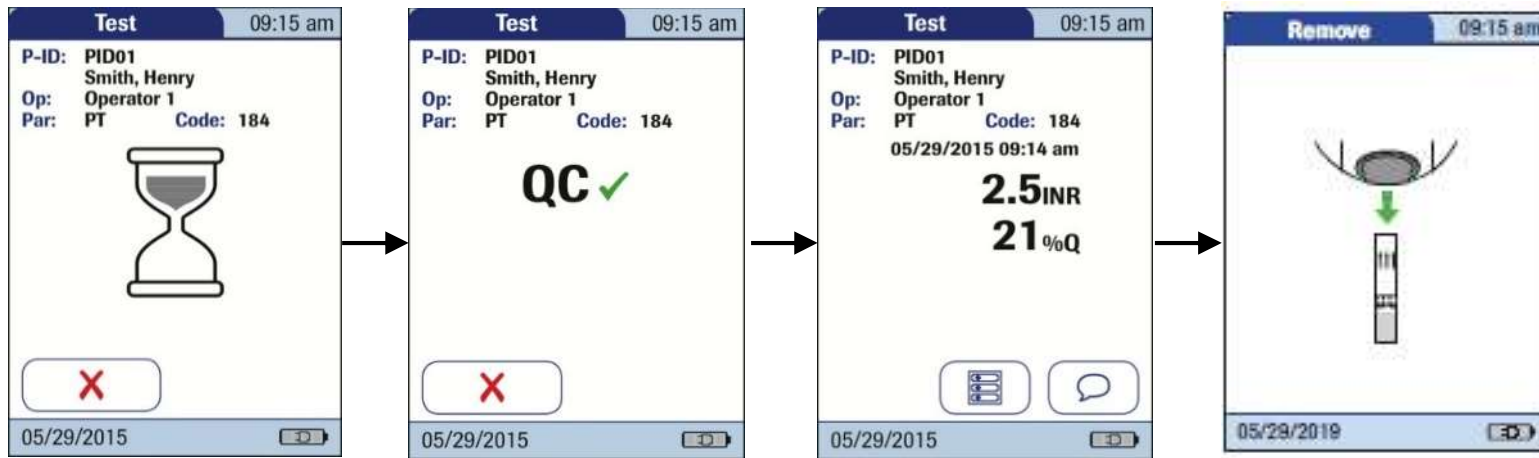
6. A **3 minute** countdown begins.  
Puncture and apply a drop of blood to the test strip before countdown ends



7. Apply **first drop** of blood from side or top to the application area of the strip

# Perform Measurement


## *Patient Test*



8. Beep tone and blood symbol disappear. Test starts.

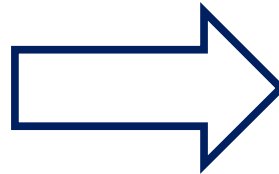
9. Measurement includes a QC of test strip. A successful QC shows ✓

10. When measurement is finished the result is displayed.

11. Select  to remove test strip from meter

# Transmitting Data

*Base Unit – docking station to upload and download data*



# Transmitting Data

## Base Unit - Troubleshooting

### Base Unit Status Display

- **Red** : Booting-up
- **Flashing "Red"** : Error
- **Green** : Ready



### What can you do when Base Unit is **flashing Red**?

1. Check the USB connection to the PC.
2. Power off and on the base unit, wait for green light.
3. Re-dock the meter.
4. If problem still persist, dock the meter in another Base Unit for transmission while reporting the problem.

# CC Pro II Base Unit Troubleshooting



Base Unit is **blinking Red** OR Meter **unable to sync.**

## ROCHE HBU/BU - Control Panel



CDM Port	RX	TX	Serial Number	Mode	Status	Connection	
COM7			0000000041060843	POCT1-A	Not connected	rdap-cit1k-t01:33333	Edit...

- Ensure that the status shows **Connected**.
- Dock the meter.
- If problem persists, dock the meter in another Base Unit while reporting the problem.

# Perform Measurement

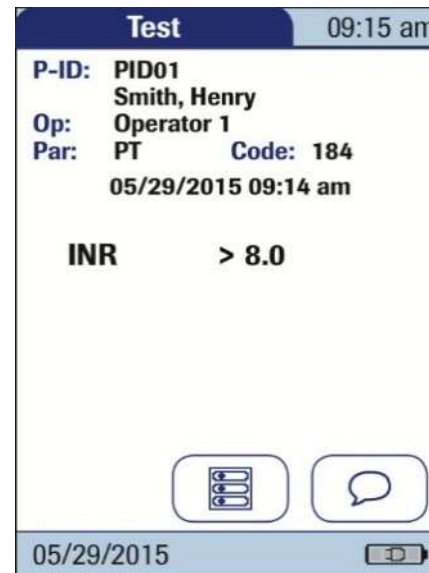
## *Patient Test Results*

If result is outside measurement range a “<” smaller than, or “>” greater then sign is displayed

INR      0.8 – 8.0

%Q      120 – 5

Sec      9.6 – 96



# Perform Measurement

## *Patient Test Results*

If a “C” is displayed along with the result:

- the hematocrit value is very low (<15%)
- Due to erroneous blood collection (e.g., wet hands)

If a “\*” is displayed along with the result:

- the test result is out of normal range



# Troubleshooting

## *Meter Restart / Reset*

If the meter hangs in a screen and the icons on the display doesn't react,

- Restart the meter.
- Press the power button for only **5 sec**, till Roche logo appear and a single beep sounds.



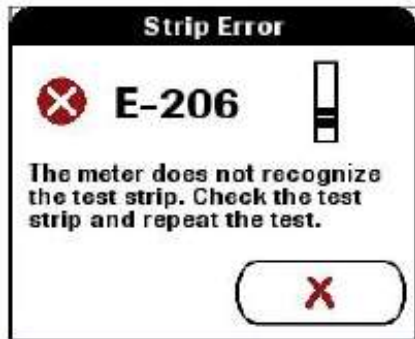
If this do not work,

- Reset the meter.
- Press and hold the power button of the meter for at least **12 sec** prior release.

*Note: Date & time setting will be lost during reset of meter.  
Re-dock meter to sync data.*

# Troubleshooting

## *E-206: Strip error*



### Reason:

- Test strip has abrasions on the gold foil, or is defective.
- Test strip was NOT inserted correctly.
- Contaminated plug contacts in the meter

### Solution:

- Power the meter off and on. Repeat the test with a new test strip.
- Make sure the strip does not have abrasions/scratch marks on the gold foil.
- Occasionally clean the pad under the test strip port cover.

# Troubleshooting

## *E-403: Dosing error*



Possible causes:

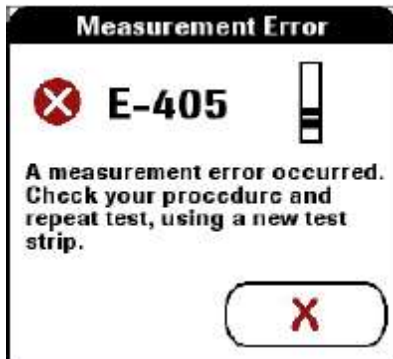
- Insufficient sample volume applied to the test strip OR due to double dosing.
- Sample applied too early
- Test strip wet

Solution:

- Repeat the measurement using a new test strip from the same vial and blood from a new puncture.

# Troubleshooting

## *E-405: Measurement error*



Possible causes:

- Test strip was moved during measurement
- Hematocrit too high (>55%)
- Instrument has no proper contact with test strip
- Compromised/wet test strip

Solution:

- Make sure the strip does not have abrasions/scratch marks on the gold foil.
- Repeat the measurement using a new test strip from the same vial and blood from a new puncture.

# Troubleshooting

## *E-406: Sample Error; Unsuitable sample composition*



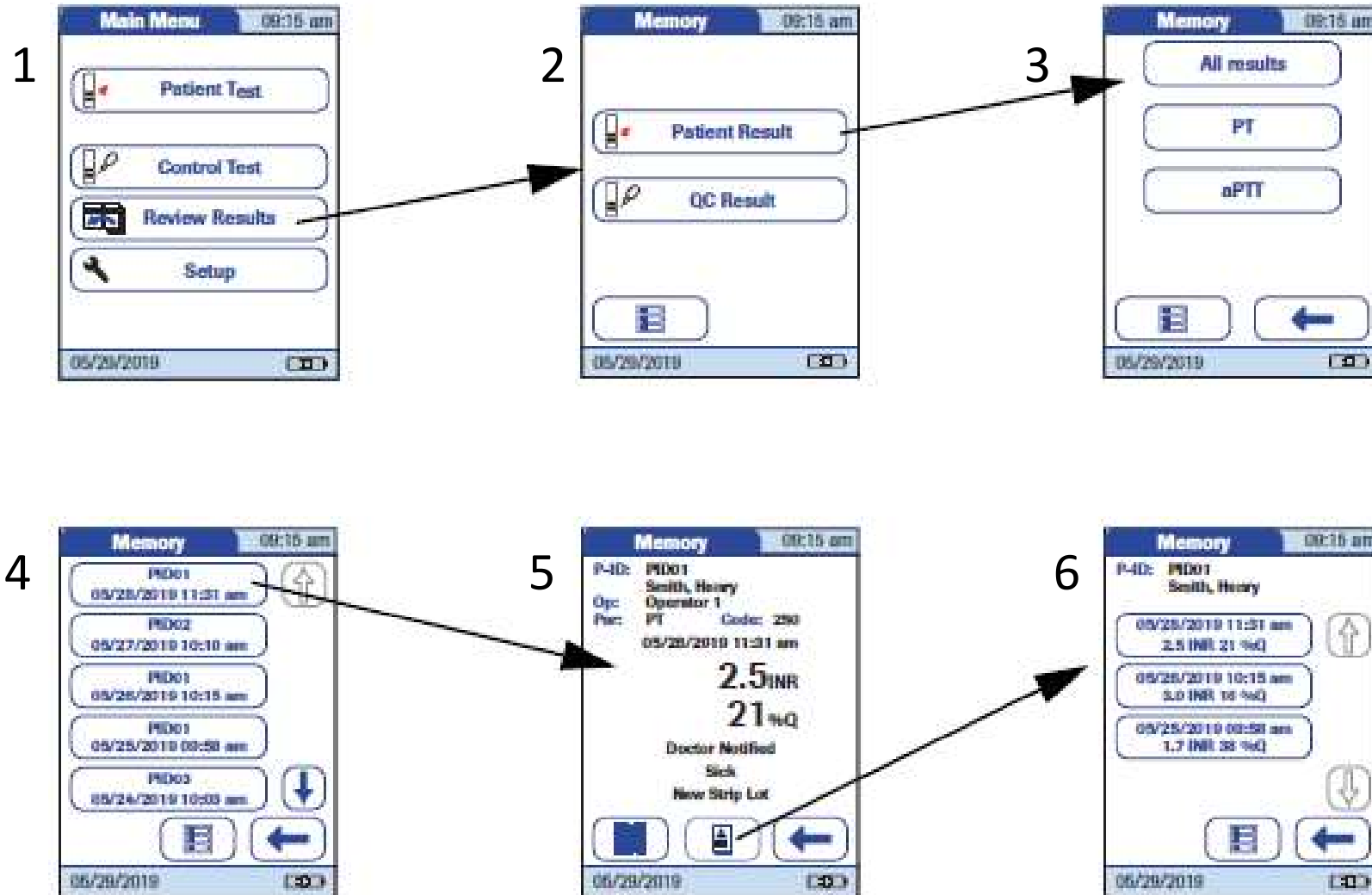
Possible causes:

- Sample is anti-coagulated/usage of heparin or citrate blood
- Blood sample has a very long coagulation time (>8 INR)

Solution:

- Repeat the measurement using a new test strip from the same vial and blood from a new puncture.
- Observe proper pre-analytics, and correct sample type.

# Review Results





# Maintenance and Care

## *Do's and Don'ts*



- DO NOT get moisture, liquid, blood, or cleaning agents in the test strip port
- DO NOT spray any cleaning agents onto the meter
- DO NOT drop the meter
- DO NOT use sharp objects to press on the touchscreen

**Each meter costs \$2500**

# Maintenance and Care

## *Do's and Don'ts*



- DO check the test strip guide regularly for signs of soiling.

If necessary clean this area:

- Power OFF the meter.
- Remove test strip guide cover by pressing upwards from the front.
- Rinse the test strip guide cover with water and dry for 10 minutes.
- Clean the easily accessible white areas with a moistened cotton swab/bud.
- Re-attach the test strip guide cover.

# Maintenance and Care

*Clean and disinfect the exterior (meter housing)*



For cleaning only:

- A soft cloth slightly dampened (*not wet*) with a small amount of liquid soap diluted in water

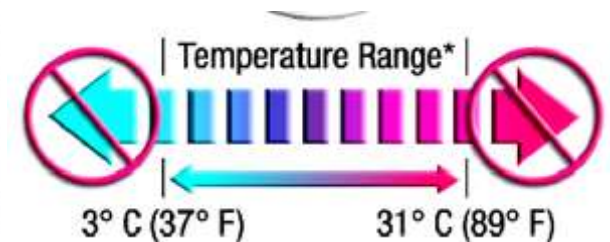
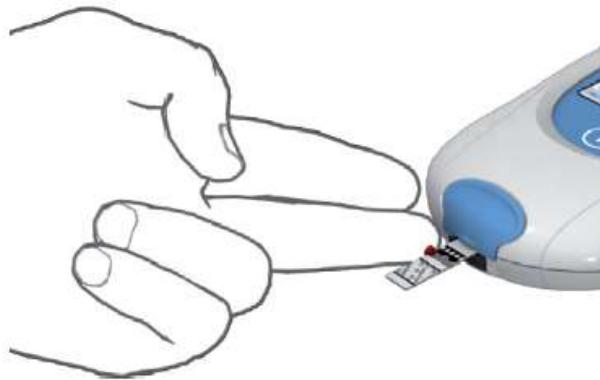
For cleaning and disinfection:

- Rubbing alcohol (70% ethanol or isopropyl alcohol)
- 10% sodium- hypochloride solution  
(1 part bleach to 9 parts de-ionized water)

# Maintenance and Care

## Reminders:

- Place the meter on a horizontal surface before dosing
- Always keep the test strip vial tightly closed when not in use



***Doing now what patients need next***