

# 

CORONARY

**PROCEDURE GUIDE** 

# Coroventis CoroFlow<sup>‡</sup> System

Information contained herein for PRESENTATION outside of the U.S. only. Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. © 2020 Abbott. All rights reserved. 1-EH-4-11292-01 05-2020 Page i of 31

### **Air Mouse Remote Control**

### Tilt mouse with small movements to move cursor on PC screen



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 2 of 31

### 1. Select Room

- 1. Click <u>Room</u> Menu, Wi-boxes in radio range are displayed
- 2. Click <u>Refresh</u> Icon if needed
- 3. Select Room/AO Source by clicking Connect
- Click <u>Set as Default</u> to automatically connect to this AO-Source next time
- Click and enter a unique room name to simplify connection



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 3 of 31

### 2. Register New Patient - Manually

- 1. Click <u>Patient</u> menu
- 2. Click New
- 3. Enter patient info
- 4. Optionally enter baseline characteristics and treatment info
- 5. Click + New Measurement

Room Patient	Line Review	Research 9	FR Original	Patient/Study Info
New	Petent Name	Patient ID	Suci	General Info Baseline Characteristics Treatment
Open Enit	Anderson Block Garlson	658748774-2121 652312-2123 128748774-2121	FAME3 FAME3 PREDICT	Patient name (Required) Huges Amy Mrs
Q II	CoroPiour CoroPiour Davies M De Cierk DE COCK L Johnson LEEMANS M	PAT005 123456789	CORAL TTIME CORAL	Patient ID Age Gender PAT007 F Comment
	Lindson Lindstrom LORIS A Rialbring Willoon Walf	1234507 652312-2123 223424234-2123 123424234-2122 003456789	CORAL FAME3 ORBITA FAME3 COURAGE	- Physician Study
Volume Info 17 Falent Eiden 168 Measurments				Subject ID
Fit	ėr			Dicom Study UID
				+New Measurement Cancel

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 4 of 31

### 2. Register New Patient – Dicom Worklist

- 1. Click <u>Patient</u> menu
- 2. Click New
- 3. Click <u>Connect</u> icon
- 4. Select scheduled patient and click Select
- 5. Optionally enter baseline characteristics and treatment info
- 6. Click New Measurement



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 5 of 31

### 3. Zero AO

- 1. Open AO transducer to Air
- 2. Place mouse over the AO field the Zero AO button is visible
- 3. Click ZERO AO
- 4. Close AO transducer.



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 6 of 31

# 4. Connect PW

- 1. Place packaging coil on a flat surface and flush with saline
- 2. Place mouse over the PW field the CONNECT PW button is visible
- 3. Click CONNECT PW
- 4. Turn ON PressureWire<sup>™</sup> X Guidewire transmitter

Connect: Turn Wire OFF then ON

 Room1
 Coroventis

 Pa
 - 

 0
 - 

 0
 Pd
 No Wire

 2ERO PW
 Pd
 0

 EQUALIZE
 Pd/Pa
 0,000

Note: Order is important, FIRST Click 'Connect PW' in CoroFlow, then turn ON PressureWire. If PW was turned on too early, turn PW OFF then ON again.

Cancel

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 7 of 31

# **5. Equalize Pressures**

- 1. Advance PressureWire<sup>™</sup> Guidewire until the sensor element is just outside of the guide catheter.
- 2. Flush guide
- 3. Click EQUALIZE
- 4. Pd /Pa value should equal 1.00
- 5. Advance PressureWire<sup>™</sup> distally



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 8 of 31

### 6. Select Measurement Mode

- Click <u>Mode Selector</u> to select measurement mode:
  - FFR
  - RFR
  - AbsFlow
  - CFR and IMR
  - IMR
  - Temperature
  - dP/dt & Tau



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 9 of 31

### **FFR: Record**

- 1. Click <u>Rec</u> to record
- 2. Measure FFR at maximum hyperemia.
- 3. Click <u>Marker</u> [M] to place marker
- 4. Optionally add marker info
- 5. Click <u>Stop</u> to end recording and the Review window is opened.



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 10 of 31

### **FFR: Review**

- Validate cursor position
- Set case annotation
- Optionally add Pd/Pa cursor
- Optionally right-click on graph to add/edit marker
- Optionally <u>Lock</u> recording
- Click <u>Live</u> to return to live view



Caution: Always confirm valid cursor positions

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 11 of 31

### **FFR: Pullback**

- Click <u>Pullback</u> to record a Pullback
- Scale is maximized and Pressure filter is set to 1 beat
- Click <u>Stop</u> to Review Pullback recording



Caution: Always refer to CoroFlow<sup>†</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 12 of 31

### **FFR: Review Pullback**

- FFR and Pd/Pa cursors are placed automatically at Min and Max Pd/Pa
- Validate cursor positions
- Set case Annotation
- Optionally <u>Lock</u> recording
- Click <u>Live</u> to return to live view



Caution: Always confirm valid cursor positions

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 13 of 31

### **RFR: Quick Measure**

- Confirm correct proximal pressure Equalization with overlapping pressure waveforms
- Select RFR Mode
- Advance distal to lesion
- Click <u>RFR</u> button to start
- System captures next 5 heart beats automatically



Caution: Always confirm correct Equalization

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 14 of 31

### **RFR: Review Quick Measure**

- Confirm valid waveforms and marker positions
- Set case annotation
- Optionally <u>Lock</u> recording
- Click <u>Live</u> to return to live view



Caution: Always confirm valid pressure tracings and marker positions

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 15 of 31

### **RFR: Record Pullback**

- Confirm correct proximal pressure Equalization with overlapping pressure waveforms
- Select RFR mode
- Place wire distal in vessel
- Click <u>Pullback</u>
- Scale is maximized and averaging is set to 1 beat
- Slowly pull back wire to guide
- Click <u>Stop</u> to review pullback recording

Room Patent Live Review Research 🤱 CoroFlow 😵	Coroventis 🔀
200	
160 ·····	<u>    102    </u>
	<sup>Pd</sup> 103 <sup>139/81</sup>
80	EQUALIZE
40 20 0 101-	<sup>rfr</sup> <i>≛</i> 3 0,99
μ	RFR -
099- 098- 097-	14:39 LAD Pre RFR 0,91 13:30 FFR 0,92 12:44 FFR 0,96
096- 096- 094-	
0,93-	Pullback
0.91-	
? RFR ▼ Marker Select • Vessel • Step • 30 s • 70	O0:12

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 16 of 31

### **RFR: Review Pullback**

- Validate cursor positions and waveform quality
- Set case annotation
- Optionally <u>Lock</u> recording
- Click <u>Live</u> to return to live view



Caution: Always confirm valid pressure tracings and marker positions

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 17 of 31

### **Record CFR and IMR**

- Advance wire distally
- Flush guide with saline
- Click Start
- Vigorously inject 3 cc and close the injection port on manifold to monitor pressure
- Inject again when prompted
- Repeat 3 times at rest and 3 times at max hyperemia
- Click Press to End and Save



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 18 of 31

### **Review CFR and IMR**

- Validate cursor position
- Set case Annotation
- Optionally add Pd/Pa cursor
- Optionally click on T<sub>mn</sub> value to erase it
- Optionally <u>Lock</u> recording
- Click Resume to resume recording of the same case
- Click <u>Live</u> to return to live view
- Note: If  $T_{mn}$  variability is too high the average  $T_{mn}$  is highlighted in yellow

### Caution: Always confirm valid cursor positions



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 19 of 31

### **Record IMR**

- Advance wire distally
- Induce hyperemia
- Flush guide with saline
- Click Start
- Vigorously inject 3 cc
- Close valve, wait
- Inject again when prompted
- Repeat 3 times at max hyperemia
- Click Press to End and Save



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

### **Review IMR**

- Validate cursor position
- Set case Annotation
- Optionally click on  $T_{mn}$  value to erase it
- Optionally <u>Lock</u> recording
- Click <u>Live</u> to return to Live view
- Note: If  $T_{mn}$  variability is high the average  $T_{mn}$  is highlighted in yellow



### Caution: Always confirm valid cursor positions

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 21 of 31

### **Export Recording**

- 1. Open <u>Review</u> screen
- 2. Click on <u>Options bar</u> to show recording list
- 3. Click Export
- 4. Select Export format:
  - Raw waveform, Excel CSV
  - Result summary, Excel CSV
  - Max & Min values, Excel CSV
  - Screenshot, PNG image
  - CoroFlow<sup>+</sup> data set
  - DICOM
- 5. Click Export



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 22 of 31

### **Change Graph Scales/Sweep Rate**

### <u>Y-scale:</u>

- Click on graph
- Use arrows to set max/min

or

Click <u>Autoscale</u>

### X-scale/Sweep rate:

- Click Sweep rate button
- Select 10/30/60/120 seconds



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 23 of 31

### Shut Down Coroflow<sup>†</sup>

- Click on tools icon to open settings menu
- Click Exit CoroFlow<sup>+</sup>
- Click OK



Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 24 of 31

# Troubleshooting

Problem Description (AO Source)	Solution
AO source (Wi Box) not found. Basic	<ol> <li>Verify that Wi Box is powered with green light and within ~5 m from CoroHub<sup>†</sup></li> <li>Ensure CoroHub<sup>†</sup> is connected to USB port on PC</li> <li>Click on the Room Menu in CoroFlow<sup>†</sup></li> <li>Click Refresh</li> </ol>
AO source (Wi Box) not found. Advanced	<ol> <li>Ensure CoroHub<sup>†</sup> is connected to USB port on PC</li> <li>Open Settings Menu, Click CoroHub<sup>†</sup> Tab</li> <li>Click Reconnect CoroHub<sup>†</sup></li> <li>Verify that PW Receiver and AO Receiver are detected and in Acquisition or Tracking mode</li> <li>If modules are not detected - Re-connect CoroHub<sup>†</sup> and click Reset CoroHub<sup>†</sup></li> <li>If modules are still not detected - restart CoroFlow<sup>†</sup> PC</li> </ol>

Caution: Always refer to CoroFlow<sup>†</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. © 2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 25 of 31

Problem Description (CFR/IMR)		Cause/Solution	
Error Message:	Error Slow Inject 0,65s	<ul> <li>Injection too slow (&gt;0.6 s)</li> <li>Use smaller (5 ml) syringe and max 3 ml injection bolus</li> <li>Draw saline from reservoir and inject with a vigorous motion</li> <li>Make certain each injection is ended abruptly</li> </ul>	
Error Message:	Error Timeout	<ul> <li>Temperature did not return to baseline within time limit (8 s)</li> <li>Zero temperature and retry</li> </ul>	
Error Message:	Error Low Amp	<ul> <li>Temperature did not reach minimum limit during injection (1°C)</li> <li>Flush guide with fresh room temperature saline before injecting</li> <li>Verify guide engagement</li> <li>Zero temperature and repeat injection</li> </ul>	

Caution: Always refer to CoroFlow<sup>†</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. © 2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 26 of 31

### **Problem Description (General) Cause/Solution Error Message:** CPU Performance is too low to handle incoming data stream, CoroFlow<sup>†</sup> is buffering too much data Caution **Probable Cause/Solution:** PC Performance too low, buffer overflow Please verify:

- 1. PC is running on battery which may cause Windows to reduce CPU performance. Change Energy saving scheme to High Performance (Windows Control Panel) or plug into mains power
- 2. PC CPU has too low performance to run application. Upgrade to high performance PC
- 3. Windows is performing resource consuming tasks in the background, such as Windows Update. Reschedule updates to occur when PC is not being used with CoroFlow<sup>+</sup>

Caution: Always refer to CoroFlow<sup>+</sup> IFU for full safety information and handling instructions.

Information contained herein for PRESENTATION outside of the U.S. only. Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0



<b>Problem Description</b>	Cause/Solution	
Error Message: CoroHub Receiver disconnected Reconnect CoroHub and Click Connect	<ul> <li>CoroHub<sup>†</sup> has been disconnected</li> <li>Reconnect CoroHub<sup>†</sup> and click "Connect"</li> <li>Alternatively click "Use Offline" to use CoroFlow<sup>†</sup> only for offline review/demo</li> </ul>	
Coroventis Connect Use Offline		

Caution: Always refer to CoroFlow<sup>†</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 28 of 31

<b>Problem Description</b>	Cause/Solution	
Error Message:	<ul> <li>CoroHub<sup>†</sup> is not detected</li> <li>Connect CoroHub<sup>†</sup> and click "Retry"</li> <li>Alternatively click "Use Offline" to use CoroFlow<sup>†</sup> only for offline review/demo</li> </ul>	
CoroHub Receiver not detected. Reconnect CoroHub and Click Retry		
Coroventis		
Retry Use Offline		

Caution: Always refer to CoroFlow<sup>†</sup> IFU for full safety information and handling instructions.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force. ©2020 Abbott. All rights reserved. MAT-2004057 v1.0

Page 29 of 31

CAUTION: This product is intended for use by or under the direction of a physician. Prior to use, reference the Instructions for Use, inside the product carton (when available) or at eifu.abbottvascular.com or at medical.abbott/manuals for more detailed information on Indications, Contraindications, Warnings, Precautions and Adverse Events.

**Information contained herein for PRESENTATION outside of the U.S. only.** Not to be reproduced, redistributed or excerpted. Check the regulatory status of the device in areas where CE marking is not the regulation in force.

Illustrations are artist's representations only and should not be considered as engineering drawings or photographs. Photos on file at Abbott.

Abbott International BVBA Park Lane, Culliganlaan 2B, 1831 Diegem, Belgium, Tel: 32.2.714.14.11

<sup>TM</sup> Indicates a trademark of the Abbott Group of Companies. <sup>‡</sup> Indicates a third-party trademark, which is property of its respective owner.

www.cardiovascular.abbott © 2020 Abbott. All rights reserved. 1-EH-4-11292-01 05-2020

Page 30 of 31

