# PRECISE, RELIABLE THE TRUSTED STANDARD



# **ACT Plus<sup>™</sup> System**

The ACT Plus™ Automated Coagulation Timer is recognized worldwide as the trusted standard for activated clotting time testing, delivering the accurate, precise and timely results you need.



### PRECISE, RELIABLE CLOT DETECTION TECHNOLOGY

The ACT Plus<sup>TM</sup> System combines the trusted standard in precise clot detection technology with data management and connectivity-ready capabilities. Unlike algorithm-based test measurement, the ACT Plus<sup>TM</sup> System provides real-time clot detection, ensuring accurate and precise clotting time results.

### **SYSTEM HIGHLIGHTS**

- Dual well testing verifies your results are accurate
- Real-time clot detection ensures precise results
- Connects to industry standard pointof-care LIS interfaces, including MAS RALS®-Plus, TELCOR Quick-Linc®, AegisPOC®, and others.\*
- Enhanced data management meets all POC testing requirements
  - Stores up to 1000 patient and QC records
  - Holds up to 600 operator IDs
  - Downloads data to a USB or floppy storage device
- Enables QC and user lockout
- Bar code scanner available for quick, accurate entry of cartridge and control information, and patient and user IDs

The ACT Plus™ System is used with point-of-care testing during critical procedures, when accurate ACT results are necessary.

- Cardiovascular and vascular surgery
- Cardiac catheterization lab
- Critical care units
- Hemodialysis units
- Pediatric care
- ECMO
- Interventional radiology

Medtronic is the global leader in medical technology — alleviating pain, restoring health, and extending life for millions of people around the world. As an acknowledged expert in the area of blood management and clot detection technology for more than 20 years, Medtronic leads the way in delivering reliable, cost-effective solutions.

<sup>\*</sup> Check with your local Medtronic representative for country-specific information.

# CARTRIDGES, CONTROLS AND ACCESSORIES

### **Quality Control**

A full range of controls are available to verify instrument, cartridge and operator performance and meet regulatory quidelines for testing.

# OUR UNIQUE DUAL CHANNEL CARTRIDGE DESIGN ALLOWS YOU TO INSTANTLY VERIFY YOUR RESULTS, ELIMINATING THE NEED TO RETEST.

- Real-time clot detection reflects patient's ability to form a clot (rather than mathematically calculated results)
- Liquid suspended Kaolin activator for uniform mixing with blood sample
- Room temperature storage saves refrigerator space

## MULTIPLE TESTING APPLICATIONS

- High Range Activated Clotting Time (HR-ACT) for use with fresh whole blood samples in cardiovascular surgery, vascular surgery and percutaneous transluminal coronary angioplasty (PTCA)
- Low Range Activated Clotting Time (LR-ACT) for use with fresh whole blood samples in dialysis, ECMO and therapeutic heparin monitoring
- Recalcified Activated Clotting Time (RACT) for use with citrated whole blood samples in dialysis and therapeutic heparin monitoring
- Heparinase Test Cartridge (HTC) for use with fresh whole blood samples to identify the presence of presurgical and postsurgical heparin in various clinical settings, allowing you to:
  - Determine baseline clotting time in the presence of heparin
  - Determine the appropriate time to pull sheath
  - Confirm heparin reversal
  - Identify heparin rebound

High Range ACT Precision					
	Baseline ACT (sec) (0 units/ml heparin)		Heparinized ACT (sec) (4 units/ml heparin)*		
	Within lot	Between lot	Within lot	Between lot	
Mean	130	130	582	582	
SD	3.3	6.6	19.0	27.1	
%CV	2.6%	5.1%	3.3%	4.7%	
N	63	63	162	162	

<sup>\*</sup> Internal Medtronic Data

The HR Heparinase Cartridge is a two channel activated clotting time test: Channel 1 with heparinase and Channel 2 without. The clotting time results for the two channels are compared.

Example for Interpreting HR Heparinase Results				
Channel 1 (with heparin)	Channel 2 (without heparin)	Interpretation		
120	120	Patient at baseline. No heparin in sample.		
120	260	Sample contains heparin. Extension due to eect of heparin only.		
260	260	May be an underlying coagulopathy unrelated to heparin.		
260	360	Heparin in the blood sample and patient may have an underlying coagulopathy.		





### CLOTtrac™ Coagulation Controls

Lyophilized controls provide sufficient volume for testing with multiple instruments.



### ACTtrac™ Electronic Control

Provides a multi-level quality check to make quality control easier and faster to perform.



### ACT™ Easy Fill Accessory

- Fill lines are easily visible, even in low light settings
- Needleless system
- Available for high range and low range cartridges

# ACT Plus™ EDM EXTERNAL DATA MANAGER

### MANAGE YOUR ACT PLUS™ SYSTEM DATA EFFICIENTLY AND EFFECTIVELY.

Get instant access to the charts, reports and spreadsheets you need when you combine the ACT Plus<sup>TM</sup> EDM External Data Manager with the ACT Plus<sup>TM</sup> System. This versatile Microsoft® Access®-based software solution helps you to analyze test results and make informed decisions more effectively — allowing you to stay focused on improving patient outcomes.

- Manages patient, QC, instrument and user ID data efficiently
- Provides powerful PC-based software to manage data, without an LIS interface
- Delivers 13 preformatted patient and quality control reports



## **FEATURES AND**BENEFITS

### **EASY-TO-USE INTERFACE**

- Intuitive features allow users to be up and running with minimal training
- Prompts lead EDM users through the data import function, eliminating all guesswork

### **TIME-SAVING REPORTS**

- Preformatted reports increase efficiency
- Provides visual assessment of QC data and ability to trend QC results
- Ability to track all results for a specific patient

### **CUSTOM REPORTING**

- Flexibility in report design and data management
- Data can be exported to Microsoft® Excel® for graphical and statistical analysis

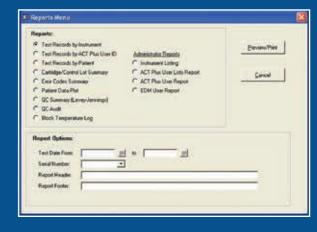
### SIMPLIFIED ADMINISTRATIVE MANAGEMENT

- View the location of all ACT Plus<sup>™</sup> Systems at your site
- Group ACT Plus<sup>™</sup> System users into lists to upload into the ACT Plus<sup>™</sup> System
- Manage your list of all ACT Plus<sup>™</sup> System users and their certification

### **SECURE SYSTEM**

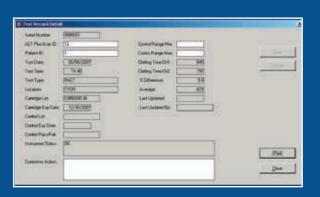
- Password protection ensures that only authorized EDM users access the information
- Can be backed up onto your network server to ensure safety of and access to information anytime

The ACT Plus™ EDM External Data Manager is not available in all countries.



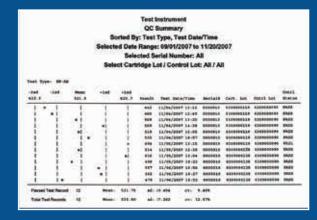
### Reports Menu

Users can select from a list of all preformatted reports to view the desired information and associated options



### **Display Detail Option**

Users can view a complete listing for a single record and note corrective action taken



**QC Summary (Levey-Jennings)** 

#### ORDERING INFORMATION **ACT Plus™ System Components** Catalog Description Number ACT100 ACT Plus™ Instrument ACT200 ACT Plus™ Instrument Outside US Version ACTSC ACT Plus™ Bar Code Scanner ACTtrac™ Electronic Control for ACT Plus™ 31363 **ACTEDM** ACT Plus™ External Data Manager Software **Cartridges and Controls** Catalog Description Packaging Number ACT™ Disposable Test Cartridges 402-03 High Range Activated Clotting Time (HR ACT™) 50 cartridges per box 402-01 Low Range Activated Clotting Time (LR ACT™) 50 cartridges per box 402-07 Heparinase Test Cartridge (HTC) 20 per box 402-02 Recalcied Activated Clotting Time (RACT™) 50 cartridges per box Act™ CLOTtrac™ Coagulation Controls 550-07 15 vials\* per box CLOTtrac™ HR Coagulation Control 550-08 CLOTtrac™ HR Abnormal Coagulation Control 15 vials\* per box 550-13 CLOTtrac™ HR Control Pack 1 box of HR 550-07 and 1 box of 550-08 550-01 CLOTtrac™ CWB Control (normal) - for Low Ran-15 vials\* per box geACT™ and RACT cartridges 550-09 CLOTtrac™ LR Abnormal Coagulation Control 15 vials\* per box 550-10 CLOTtrac™ RACT Abnormal Coagulation Control 15 vials\* per box 550-11 Calcium Chloride – for use with the Low Range ACT 1 vial per box 550-12 CLOTtrac™ HTC Coagulation Control 15 vials\* per box ACT™ Accessories Temperature Verication Cartridge for ACT Plus™ 313-11 1 per box 313-50 HEPline Kit Each 303-58 Actuator Cleaning Kit Fach High Range ACT™ Easy Fill Accessory **ACTFILHR** 100 per box

Low Range ACT™ Easy Fill Accessory

100 per box

### Medtronic

### Europe

ACTFILLR

Medtronic International Trading Sàrl. Route du Molliau 31 Case postale CH-1131 Tolochenaz Tel. +41 (0)21 802 70 00

### medtronic.eu

### ACT Plus™ System Specifications

### **Dimensions**

Height: 11.9 in (30.2 cm) Width: 9.0 in (22.9 cm) Depth: 13.6 in (34.5 cm) Weight: 11.5 lb (5.22 kg)

### **Data Ports**

- Serial Data Port: 19200 baud,8 data bits, 1 stop bit, no parity
- Bar Code Scanner Port: used with the optional ACT Plus™ Bar Code Scanner
- Floppy Drive: PC compatible, 1-44 MB, 3.5 inch floppy disk
- USB: used with Medtronic approved USB storage device

### **Power**

Voltage: 100-240 V ~ Single Phase Frequency: 50-60 Hz Maximum Current: 1.0 A (100-240)

### **Operating Limits**

Temperature: 14°C to 32°C (57°F to 90°F)

Humidity: 10% to 90%, noncondensing

### Storage Limits

Temperature: 0°C to 49°C

(32°F to 120°F)

Humidity: 5% to 90%, noncondensing

Warnings: Proper Instrument and Cartridge Use The ACT Plus System must only be used in the manner and purpose for which they are intended. Instructions for proper use are included in the manual and in the cartridge package inserts. Read all warnings, precautions and Instructions for Use carefully prior to use.

Microsoft Access and Excel are registered trademarks of Microsoft Corporation.
AegisPOC is a registered trademark of Laboratory Data Systems, Inc. ACT, ACT Plus, ACTtrac, and CLOTtrac are registered trademarks of Medtronic, Inc.MAS RALS-Plus is a registered trademark of Medical Automation Systems, Inc. (MAS). Quick-Linc is a registered trademark of TELCOR, Inc.

<sup>\* 15</sup> vials of control and deionized water