System 98XT

The System 98XT IABP *with* CardioSync 2™ featuring R-*Trac*™

Datascope introduces the System 98XT with the autotiming supervisor, "R-Trac", a highly advanced second generation IAB timing control system. It combines the sophistication of CardioSync 2 with rapid QRS identification and the fastest IAB inflation and deflation speeds available*.

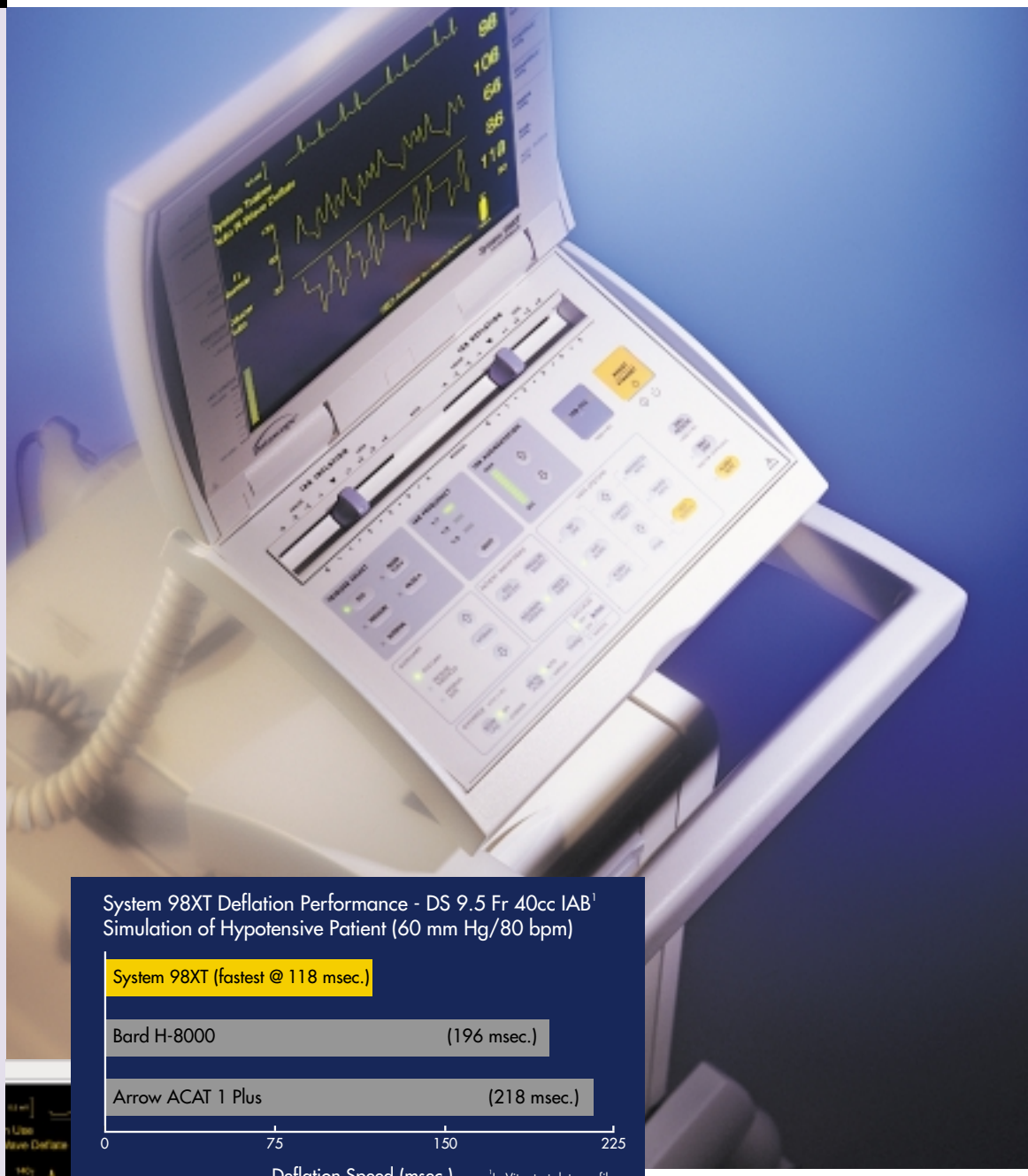
For the Patient...

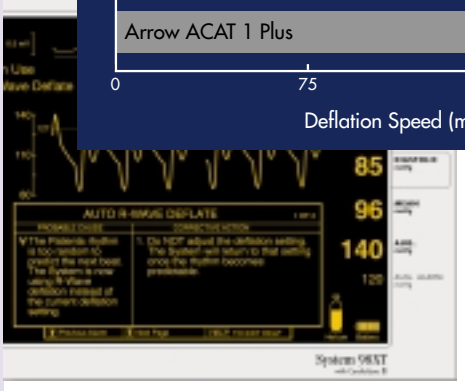
- R-Trac™ automatically matches the most appropriate deflation timing method to the patient's rhythm.
- CardioSync 2 Software and Fast Pneumatics provide highly accurate and reliable ventricular support, enhancing augmentation and LV unloading over a broad range of transient and sustained rhythm disturbances.
- CardioSync 2 improves tracking in ECG with automated management of ectopic patterns, including isolated PVC's, bigeminy, and couplets. Timing rapidly adapts to sudden changes in heart rate.
- CardioSync 2 delivers reliable tracking in pressure trigger during atrial fibrillation

For the Clinician...

- Automated controls and a significantly larger, brighter display enhance ease-of-use:
  - – Rapid start-up function
  - – Single ECG trigger mode
  - – Advanced pressure trigger:
    - • Beat-to-beat threshold adaptation
    - • Auto reassessment of timing
  - – Display and printer preferences menu
  - – Keypad selectable signal sources
  - – Advanced information display:
    - • Auto R-wave deflation mode advisory
    - • Auto scaling and positioning of pressure waveform
    - • On-screen helium/battery indicators

** Inflation/deflation speed measured from command to 90% IAB inflation/deflation.*





Datascope®

innovation is the best medicine

SYSTEM 98XT WITH CARDIOSYNC 2 SUMMARY TECHNICAL SPECIFICATIONS

EL Display:	8.3"(21.1 cm)W x 6.2"(15.8 cm)H; 160° viewing angle; Rotates 330°; Tilts 180°; Detachable; Laptop-like closure for storage and protection; Remote monitor mount (optional)
Preferences Menu:	User may select display *sweep speed* (25 or 50 mm/sec), *brightness* (low, med., high); *balloon waveform* (on/off); *ECG inflation markers* (on/off); *AP waveform auto-scaling* (on/off); *flashing alarms* (on/off)
ECG ECG Trigger:	Threshold dynamically adjusted by system for improved sensitivity and selectivity of the R-wave detection; Minimum = 120µV ± 20µV at normal gain; 40µV at max. gain
Pressure Trigger:	*In automatic mode:* adjusted to 50% of the difference between peak systolic and end diastolic (avg. over multiple cycles); *In variable mode:* User adjustable between 7 and 30 mmHg ± 3 mmHg
Pacer A Trigger:	R-wave detection (as above) except blanking is extended to 100 ms
Pacer V/A-V Trigger:	*V Pacer:* fixed at rate up to 185 bpm (no demand pacing) *A-V Pacer:* fixed at rate up to 125 bpm (no demand pacing) with A-V intervals between 80-224 ms
Internal Trigger:	*Variable mode:* 40-120 bpm; *Normal mode:* 80 ± 1 bpm
Tall T-Wave Rejection: *(ECG and Pacer A mode)*	Rejects all T-Waves where Q-T interval is <300 ms and the amplitude is <70% of QRS input amplitude
Pacer Rejection: *(ECG and Pacer A mode)*	Rejects all pulses of amplitude ± 2.0 mV to ± 700 mV and durations between 0.1 ms to 2.0 ms with: 1) No tail; 2) 100 ms time constant tail < 1 mV; 3) 25 ms time constant tail < 1 mV; 4) 4 ms time constant tail < 2 mV
ECG Leads:	I, II, III, AVR, AVL, AVF, V (12 lead compatibility) On-keypad switch between direct leads and external monitor
ECG Gain (default):	1 V output per 1 mV input ±5% (waveform automatically scaled to occupy ECG display window)
Gain (variable):	0.15 cm to 3.0 cm/mV ±20% (autoscaling disabled)
Frequency Response:	0.5-12 Hz (display); 0.5-135 Hz (Output to Monitor)
Defibrillator Protection:	Discharge levels ≤360 J (trace returns to screen in 2 sec. max)
ESIS:	Automatic suppression with internal ECG amplifier
AP Source Selection:	On-keypad switch (transducer/external)
AP Input Sensitivity:	5.0µV/V/mm Hg
Excitation:	+5 VDC ± 5% @ 130 mA (max)
Frequency Response:	0.5 to 12 Hz (-3 dB max atten.)
Timing Modes:	Automatic (R-Trac ON or OFF); Manual
ECG Connector:	6-pin 5-lead AAMI standard
Pressure Connector:	6-pin AAMI standard
External Mon. Inputs:	*ECG:* 1 V/mV (nominal); *AP:* 1 V/100 mm Hg (nominal)
ECG/BP Output:	Phone Jack: ECG 1V / 1 mV, BP 1V/100 mm Hg
Mains Voltage/Frequency:	100-120 VAC ± 10% or 220-240 VAC ± 10% ; 50/60 Hz ± 3 Hz
Internal Battery:	24 VDC (nominal), 17.2 Amp-hour, 2.25 hrs. (min. @ 120 bpm)
Type:	Maintenance free; Sealed lead-acid
System Compressor:	Dual head diaphragm pump with brushless DC motor
IAB Helium (He^+):	Medical-grade; 0.5 L (2900 psi) or 0.69 L (2200 psi)
He+ Endurance (nominal):	1.8 mo. (.5 L); 2 mo. (0.69 L): continuous operation - 24 hrs./day
Condensate Removal:	Fully automatic condensate removal and disposal
PC-IABP (optional):	Software for remote clinical assistance and training
Service Diagnostics:	Built-in software for system analysis and troubleshooting
Modem Data Rate:	Up to 9,600 baud
Modem Certifications:	Registered with FCC and accepted in ≥89 countries

Size on Cart:	43.3"H x 16.8"W x 22.3"D (109 cm x 42.7 cm x 56.6 cm)
Size off Cart:	26.9"H x 10.8"W x 20.5"D (68.3 cm x 27.4 cm x 52.1 cm)
Console Weight:	76.8 lbs.(34.8 Kg)
Monitor:	9.45 lbs. (4.3 Kg)
Hospital Cart Weight:	61.0 lbs. (27.7 Kg)
Internal Battery:	34 lbs. (15.4 Kg)
UTS Version:	Rugged base which attaches to docking station (DS)
Lightweight DS: *(Optional)*	17.8"(45.1 cm) x 20.0"(50.8 cm)
Basic DS:	21.5"(54.6 cm) x 21.5"(54.6 cm)
Ext Battery: *(Optional)*	24 VDC (nominal), 17.2 Amp- hour, 1.8 hrs. (min. @ 120 bpm)
Aux. DC Input:	20.5-35.0 VDC
Shock and Vibration:	ECRI AIII.3.1, 3.2.2, 3.3, 3.4 Mil Std 810E method 514.4, Cat. I; RTCA DO-160C, 1989, Section B, Curve N
Op. Temp.:	10°C - 40°C
Op. Humidity:	5 - 95% (R.H.) non-condensing
Op. Altitude:	Up to 12,000 feet (3,657 m); automatic altitude correction for IAB pressure
Printer Type:	Thermal array - 50 mm wide
Printer Menu:	On-screen selection of waveforms; strip length; timed print; print on alarm; trend data; and alarm/trigger log
Waveforms (any 1 or 2):	ECG (lead number & size labeled), arterial pressure, BPW
Event Markers:	Trigger pulse (upper), inflation interval
Trend Graphs:	≤8 hrs of heart rate; peak systolic, end diastolic, mean, augmented diastolic
Additional Data:	Space for patient I.D.; Date; Time; Alarm and Advisory messages; Timing mode; Trigger; HR, Frequency; Syst/Dias (in 1:1); Assisted and Unassisted Syst/Dias (in 1:2 or 1:3); Augmented Pressure; Mean
Doppler:	8 MHZ non-directional probe
Saline Pole:	Height adjustable
Simulator*:	Emulates ventricular rhythms; Pacers; HR; A-fib
Remote Mount*:	Mounts keypad/monitor on bypass pump
Storage Case*:	3-pocket design holds cables and spare items
Pump Cover*:	Padded vinyl with pocket

** (optional)*

- IEC601-1:1988/EN60601-1:1990
- EC Medical Device Directive 93/42/EEC
- IEC 601-2-27:1994 **and** IEC 601-2-34:1994
- UL 2601-1:1997
- CSA C22.2 No.601.1-M90

CE 0044

Metrics at 25°C , unless specified

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