

# Let Nihon Kohden's creativity increase your Product Value through Expansion Options

## *Model ECG-9320A Expansion Options*

- Exercise Test Recorder
- Exercise Test Controller
- Exercise Test System



Nihon Kohden's Model ECG-9320A is expandable to exercise test recording capabilities. Through the economical addition of various options, the device may be transformed into an exercise test recorder as a "stand alone" unit or an integral component of an exercise test system.

## EXERCISE TEST PRODUCT SPECIFICATIONS

### PROGRAM MODES

- Resting Mode: Pre-test documentation
- Warm-up Mode: Warm-up to accommodate patient to treadmill prior to stress test
- Exercise Mode: Observation and documentation of actual stress test
- Recovery Mode: Observation and documentation of patient recovery immediately concluding the stress test
- Final Report Mode: Documentation of entire stress test process

### DISPLAY PRESENTATIONS

- Displays: Partitioned into two sections, a Left Section and a Right Section. The Left Section presents an average complex display featuring one or three leads. The Right Section presents a choice amongst 3-lead waveforms, 12-lead average complexes, and single lead ST-HR Loop plot.

#### Left Section (all presentations):

1 or 3 Average Complexes, lead-selectable, baseline versus current comparisons of ST Elevations and ST Slopes for complexes displayed

#### Right Section (three different presentations):

1. 3-channel rhythm leads with 6 second trace pattern per lead, leads same as for Left Section Complexes
2. 12-channel Average Complexes with Baseline to Real-time comparisons of ST values
3. ST-HR Graph for selectable lead including option to select lead with max ST deviation

#### Additional annotations:

- Protocol, Protocol Stage, Stage Speed, Stage Elevation, Stage Elapsed Time, Total Test Elapsed Time, Patient Heart Rate, Target Heart Rate, Date and Time
- Average Complexes updated every 5 seconds
- Rhythm Trace lengths: 6 seconds
- Rhythm Trace speeds: 25 mm/sec
- Rhythm Trace sensitivities: 5, 10, 20 mm/mV
- Variables: Heart Rate, ST Elevation, ST Slope
- Target Heart Rate Limit: Formula or Definable

- Trends: Heart Rate, Blood Pressure
- Trendgraph Ranges: bpm HR/mm Hg by 60 min.
- Heart Rate Range: 0 to 250 bpm
- Blood Pressure Range: 0 to 300 mm. Hg.
- ST Variable Limits: Definable
- ST Level Initiation: 0, 10, 20, 30, 40, 50, 60, 70, 80 ms
- ST Slope Initiation: 40, 50, 60, 70, 80, 90 ms
- ST Maximum Range:  $\pm 5$  mm.
- Rhythm Lead: 15 seconds, lead selectable\*

### RECORDING PRESENTATIONS

- Resting Mode: Average Complexes with measurement indices, 12-lead waveforms or selectable 6-channel rhythm format
- Exercise Mode: 1, 2, 3, 4, or 5 minute interval recordings in 12-lead or 6-channel rhythm formats, ST measurements
- Recovery Mode: Same as for Exercise Stage
- Final Report Mode: Summary or Full Report; featuring selectable waveforms, trendgraphs, calculations, alarm violations, and RPE Scale, and Comments including symptoms and reasons for test cessation
- Waveforms: Interval 12-lead, Interval Rhythms, Pre-selectable segments, beat-by-beat
- Graphs and Trendgraphs: ST-HR Loop, Patient parameters vs. time, Test parameters vs. time, Calculations vs. time
- Patient Parameters: Heart Rate, R Amplitude, ST Elevation, ST Slope, Blood Pressure (systolic/diastolic)
- Calculations: Percent Target Heart Rate, ST Index, DP Work Product, METs, Calories

### TREADMILL CONTROLLER

- Applicable Treadmill Interface: Parker PM Treadmill
- Programs: Balke, Bruce, Modified Bruce, Sheffield and operator definable
- Program Maximum Stages: 30
- Program Stage Time Frames: 30 seconds to 60 minutes
- Program Speeds Range: 0 to 12.5 miles per hour
- Program Elevation Range: 0 to 25 %

\*1 channel, 15 seconds, lead selectable.

*This device is intended for use only by qualified medical personnel.*



90 Icon Street, Suite A, Foothill Ranch, CA 92610  
(800) 325-0283