Biometrics Ltd

ELINK

EP20M - Evaluation & Exercise System

A comprehensive system ideal for rehabilitation!

EP20M - Evaluation & Exercise System

This contains one complete E-LINK system for upper and lower extremity rehabilitation.

- ✓ Typically used in therapy units and educational facilities for hand therapy through to stroke and neuro rehabilitation
- ✓ Suitable for pediatric units through to elderly care
- ✓ Facilitates exercise from a flicker of muscle activity through to full work-hardening exercise for the upper and lower extremities, neck and back
- ✓ Provides weight-bearing balance evaluation combined with innovative exercise
- ✓ Accommodates grip and pinch assessment and exercise
- ✓ Generates progress reports for grip, pinch, joint ROM and weight-bearing balance
- ✓ Easily quantifies the force applied during Manual Muscle Testing
- ✓ Creates full comprehensive reports, including impairment calculation
- ✓ Facilitates data export for audit and research purposes
- ✓ ROM measurements are speedily undertaken for upper and lower extremities

Wireless elements promote greater portability and ease of use, particularly for upper extremity rehabilitation.

EP20M System Includes

Upper Limb Exerciser, Wireless Exercise Kit, Hand Kit with Hand Grip Dynamometer and Pinchmeter, MyoMeter, Range of Motion Kit, Single and Dual-Axis ForcePlates, Wireless Kit 3, an InterX Unit and E-LINK Evaluation Software, including Impairment Calculation.

▶ Upper Limb Exerciser

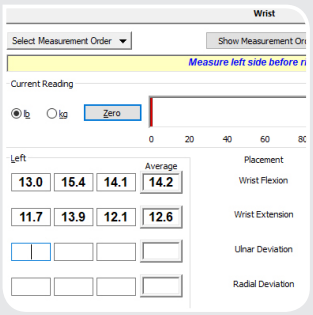
biometricsltd.com/upper-limb-exerciser

- ✓ Includes the Resistance Control Unit and 11 tool handles
- ✓ Provides functional, gradable exercise for the Upper Limb
- ✓ Totally focused on the individual patient
- ✓ Enables exercise from as little as 2° ROM through to a full normal range of motion
- ✓ Resistance can be graded for muscle strengthening and work-hardening exercise
- ✓ Programs are highly gradable so realistic goals can be set and achieved at the patient's own pace
- ✓ The "fun" element maximizes the motivation to exercise
- ✓ Encourages muscle strengthening & restoration of normal movement patterns
- ✓ Simple to set up and quick to use
- ✓ Ideal for individual or group therapy sessions throughout the whole rehabilitation process

▶ MyoMeter

biometricsltd.com/elink-myometer

The E-LINK MyoMeter enables the user to speedily quantify the force applied during Manual Muscle Testing. The MyoMeter is held by the clinician with the small or large curved anvil placed against the body part to be tested. The limb is stabilized and held in the desired starting position. Force is gradually applied until the limb is depressed. The force required to move the limb is referred to as the 'breaking force' and the result is seen immediately on the screen.



- ✓ The MyoMeter accurately registers force from 0.1 - 50kg/110lb, measuring in 0.1 increments
- ✓ E-LINK software includes Standard Peak Force and Sustained Force tests
- ✓ Individual screens document test results for the neck, shoulder, elbow, hip, knee and ankle
- ✓ Reports analyzing progress over time are easily generated
- ✓ Data is readily exported for audit or research purposes
- ✓ The E-LINK MyoMeter is the perfect clinical tool when strength testing is undertaken for the upper and lower extremities

▶ Hand Kit

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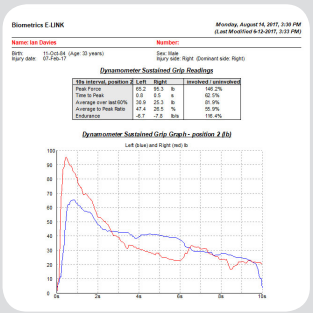
The E-LINK Hand Kit comprises a Dynamometer and Pinchmeter - precision devices that are designed for accuracy, ease and speed of data collection as well as being sensitive to record very small measurements:



- ✓ The Dynamometer accurately registers force applied from 0.1 – 90kg/200lb, Pinchmeter 0.1 – 22kg/50lb, measuring in 0.1 increments
- ✓ Sensitive to detect very small readings the E-LINK Hand Kit is perfect to use for weak patients with chronic debilitating conditions, such as rheumatoid arthritis, enabling progress to be monitored where there may only be minimal change over time
- ✓ Tests include Standard Peak and Sustained force assessment for Grip and Pinch, RET for Grip
- ✓ The E-LINK Dynamometer is an industry standard design and the software enables Peak Force Test results to be compared to normative data
- ✓ Progress reports are easily generated and utilized as definitive outcome measures
- ✓ Data is readily exported for audit and research purposes
- ✓ In addition, the Hand Kit is perfect for therapeutic exercise immediately following evaluation
- ✓ The fun element of the inclusive E-LINK Activities promotes inspiring exercise
- ✓ The highly gradable levels of play enable therapeutic goals to be set and achieved for patients of all ages and in every clinical area of rehabilitation
- ✓ The E-LINK Hand Kit is the ideal module to quantify and monitor the effectiveness of various interventions for the upper extremity, even in early rehabilitation

▶ Wireless Exercise Kit

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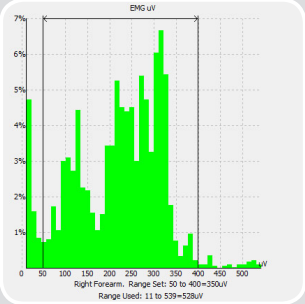
This includes the Myo-EX Sensor, Large and Small AngleX Sensors, 350 medical grade adhesive tapes, 5 reels of medical grade tape and scissors. These sensors communicate direct with the Dongle.

Myo-EX



- ✓ Uses surface EMG for exercise
- ✓ Sensor is easy to apply and gives immediate biofeedback
- ✓ Myo-EX can be used where there is the smallest flicker of muscle activity, even where there is no visible joint movement
- ✓ Facilitates focused, highly motivational exercise for the upper and lower extremities, the face, neck and back
- ✓ Helps focus on normal movement patterns rather than recruiting other compensatory movements
- ✓ Totally focused on the individual patient
- ✓ Programs are highly gradable
- ✓ Realistic goals can be set and achieved at the patient's own pace
- ✓ The "fun" element maximizes the patient's motivation to exercise
- ✓ Encourages muscle strengthening & restoration of normal movement patterns

AngleX

- ✓ Simply attached close to the joint to be exercised AngleX responds to active movement against gravity, providing focused exercise for upper and lower extremities
- ✓ The smaller sensor is lightweight and ideal for exercising each individual hand joint – perfect for patients with rheumatoid arthritis
- ✓ The larger sensor AngleX is used for the forearm, elbow, shoulder, hip, knee and ankle joints – suits all areas of rehabilitation
- ✓ AngleX encourages normal patterns of joint movement and discourages compensatory ones
- ✓ Totally focused on the individual patient

▶ Range of Motion (ROM) Kit

biometricsltd.com/range-of-motion-kit

- ✓ The E-LINK ROM Kit consists of a small and a large Goniometer which are designed for accurate and speedy data collection
- ✓ This module is invaluable for busy clinical environments and for individual patients in need of a fast assessment to minimize discomfort from pain associated with lengthy evaluations
- ✓ The Goniometer is simply placed over a joint and at the single click of a button the reading is entered automatically into the software and seen on the graphic
- ✓ ROM test results are viewed immediately following assessment and help focus on the effectiveness of any treatment undertaken
- ✓ E-LINK software easily generates progress reports that can be utilized as definitive outcome measures
- ✓ E-LINK software also incorporates a powerful export function which is ideally placed for clinical research or audit

▶ Single & Dual-Axis ForcePlates

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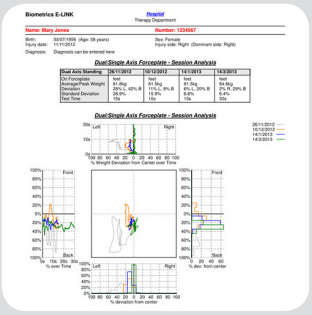

Multiple ForcePlates require the InterX Unit as the interface to the computer.

- ✓ The DFP4 ForcePlate module is designed to accurately and objectively assess a patient's ability to maintain postural stability on a static surface
- ✓ The patient simply stands on the ForcePlates and the software allows the clinician to easily perform a timed balance test
- ✓ Fluctuations in the weight distributed over the ForcePlates are measured and the results displayed for immediate feedback
- ✓ Stability and symmetry of stance are documented
- ✓ Progress over time can be analyzed and reports easily generated for outcome measures
- ✓ Another major benefit is balance training through the integration of gradable computer based Activities for interactive exercise
- ✓ Settings are based on the patient's own comfortable limits of stability so that goals are achievable, maximizing the patient's motivation for exercise
- ✓ The innovative Activity modules contribute a fun element to the therapy session encouraging the patient to exercise and strengthen the lower extremities
- ✓ Simultaneously proprioception and motor control are addressed, aiding neuromuscular re-education and balance co-ordination for patients with a variety of balance problems

▶ Single ForcePlate

biometricsltd.com/single-forceplate

The ForcePlate registers weight as little as 0.1kg/lb. to 100kg (220lbs). It is perfectly designed for upper and lower extremity weight-bearing exercise, accepting even the light touch of one finger to full weight bearing on one limb. It is the ideal device for:

- ✓ Light touch/short duration desensitization exercise in pain management programs
- ✓ Full weight loading for strengthening joints and encouraging specific movement patterns
- ✓ Controlled purposeful activity whilst minimizing joint loading - invaluable for patients with arthritis and other conditions where low force on the joints is desirable
- ✓ Applications include: upper extremity weight bearing for the hand, arm and shoulder, standing balance, seated balance and isometric ankle dorsiflexion / plantar-flexion
- ✓ Immediately following assessment of applied force the patient can undertake exercise. Movement of objects in the activity modules is controlled by the application and relaxation of force within an achievable range
- ✓ The Activities are highly gradable and motivate the patient to exercise further and longer, thus addressing functional therapeutic goals

▶ Wireless Kit 3

biometricsltd.com/elink-wireless

Wireless E-LINK is greatly beneficial as it does not require access to standard Wi-Fi. It has been designed to minimize interference with normal Wi-Fi channels by using proprietary UHF Wi-Fi and the frequencies used are not standard Wi-Fi frequency channels. The system also utilizes frequency hopping which minimizes data collisions.

- ✓ Greater portability: When used with a laptop or tablet, E-LINK can be freely moved from the clinic, to the bedside, or into the community
- ✓ Ease of use: No wires to tangle in chairs or other equipment and the user can be positioned away from the desk, perhaps to use a larger viewing screen
- ✓ Ease of set up: Insert the Dongle, connect the Adaptor, press the button and you are ready to go!

▶ Activities

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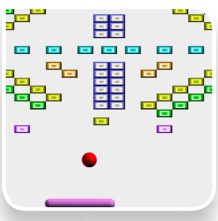
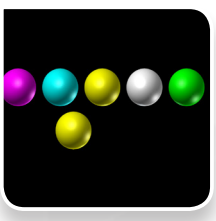
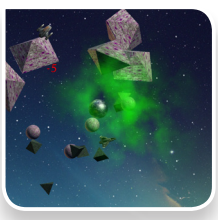
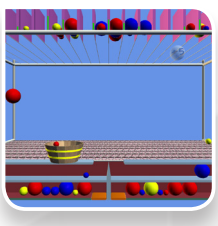
E-LINK takes well proven concepts and utilizes a computer environment to create a comprehensive system for functional exercise. Activities with simple graphics are appropriate for patients with neurological conditions, whereas Activities with exciting complex graphics are challenging for patients in hand therapy and spinal injury units.

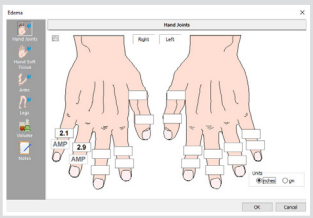


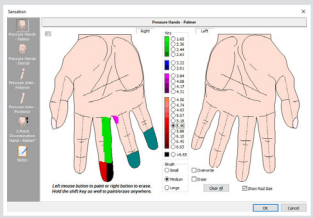






▶ Upper Extremity Evaluation Software





This module contains tests to document manually collected data for the upper extremity in a standardized format.

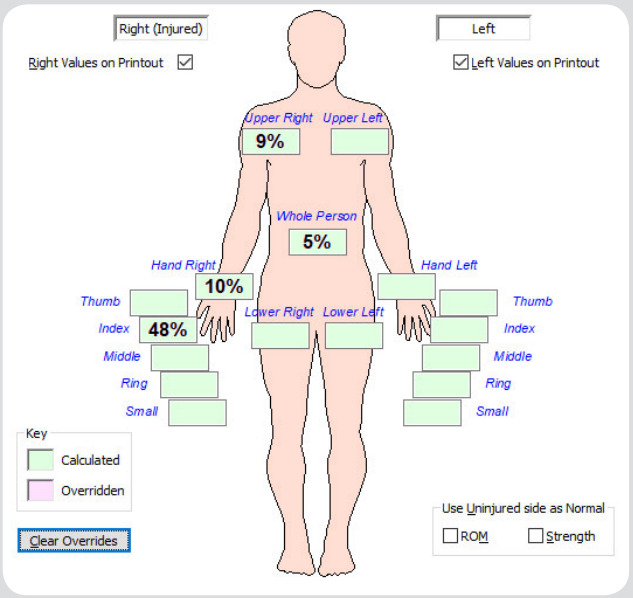
The test sequence lists all available tests in the system and permits the clinician to set up several sequences of tests to be considered for a determined clinical protocol. The clinician can then move through each screen in a consistent manner and enter the appropriate data where needed.

Test screens include Amputation, Coverage/Cosmesis, Sensation Tests, Pain, Oedema, Manual Muscle Test, Dexterity and Provocative Tests, Outcome Measures, Activities of Daily Living, Other Tests.

▶ Upper Extremity Impairment Calculation Software

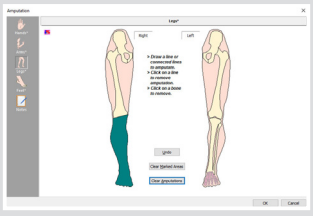
E-LINK contains all the tests needed to calculate impairment for the upper extremity based on the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment (revised 4th and 5th editions) or the Florida Workers Compensation Guide.

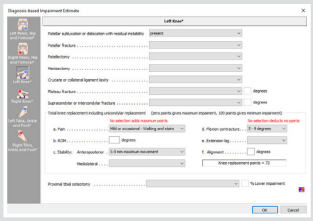
To obtain a fast, accurate calculation for upper extremity impairment this module is used in conjunction with the E-LINK Hand Kit (Dynamometer and Pinchmeter), the E-LINK ROM Kit (small and large goniometers) and the ESW Upper Extremity Evaluation Software. Extra screens included in the ICSW module are those needed to document peripheral nerve disorders and vascular disorders for the impairment calculation.



- ✓ As the tests are undertaken, the impairment rating is automatically calculated saving substantial time for the clinician over using manual data collection. It also avoids manual calculation errors
- ✓ The impairment calculation can be viewed immediately in the impairment summary screen
- ✓ The full report meticulously provides detailed charts and text confirming how the summary values were calculated
- ✓ The selected Guides table and page references are included in the detailed text report
- ✓ The impairment report also includes the ability to select the uninvolved side as normal values for the calculation of ROM and strength impairments
- ✓ The option is available to not print any values for the uninvolved side
- ✓ The option is also given to paste these notes into the report
- ✓ Additional notes can be entered in the notepad

▶ Lower Extremity Evaluation and Impairment Calculation Software





Similar to the Upper Extremity Evaluation Software, this software standardizes data collection for the lower extremity and impairment calculation is also included.

Data collection is enhanced when the E-LINK ROM Kit is used with this module.

E-LINK

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Clinical Applications

- Upper & Lower Extremity Rehabilitation
- Hospital and Community
- Orthopedics
- Stroke Units
- Neurological Rehabilitation
- Burns & Plastics
- Pediatrics
- Educational Facilities
- Private Practices
- Sports Injury
- Amputee Services
- Spinal Injury Units
- Hand Clinics

More information on the use of E-LINK equipment for various clinical applications can be viewed on our website:

Medical Evaluation:	biometricsltd.com/medical-eval
Hand Therapy:	biometricsltd.com/hand-therapy
Stroke Rehab:	biometricsltd.com/stroke
Pediatric Rehabilitation:	biometricsltd.com/pediatrics
Neuro Rehabilitation:	biometricsltd.com/neuro
Spinal Cord Injury Rehabilitation:	biometricsltd.com/spinal

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