BASELINE®

Back-Leg-Chest Dynamometer

Baseline® back-leg-chest dynamometer

Measure strength of back, leg and chest. Base provides sure footing. Chain length is adjusted to accommodate for height differences or to vary the point of force application. Shows pounds and kilograms. Pointer remains at maximum until reset. Unit comes with everything in upper left picture. Available models below.

12-0403	large base, 660 lb. adult
12-0400	regular base, 600 lb. adult
12-0401	regular base, 330 lb. adolescent
12-0402	regular base, 165 lb. child

additional back-leg-chest hardware accessories

| handles		chains/straps	
12-0442	single handle	12-0443	chain (ft)
12-0441	double handle	12-0444	strap (ft)
bases		**ovals**	
12-0406	regular base	12-0445	snap oval
12-0407	large base	12-0446	threaded oval

Parts and Assembly

The following parts make up the Back-Leg-Chest dynamometer: Body (face), Dial, Pointer, Footstand (base), Grip and Chain. Locate all of these parts. When assembled, should look like diagram and like photographs on previous page.
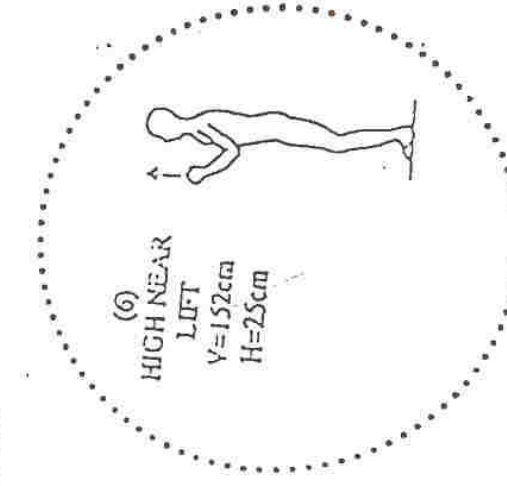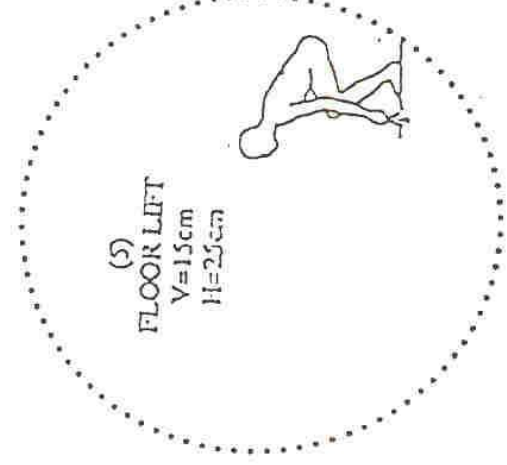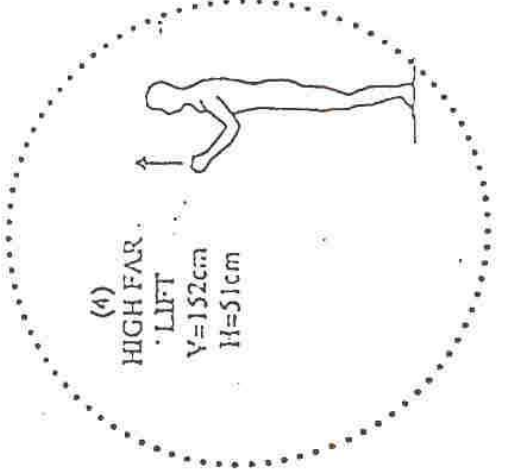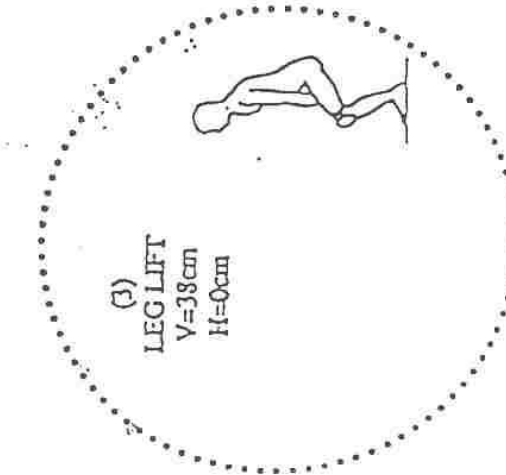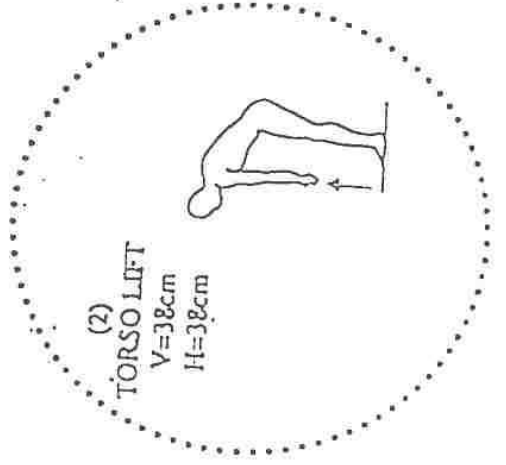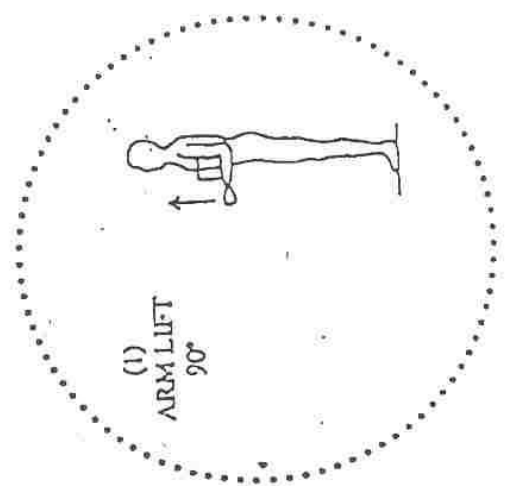
To assemble your unit:
1) Locate and remove contents from packaging.
2) Attach handle/chain unit to swivel on top of face by using adjustable chain link. Make chain shorter by putting adjustable chain link higher on the chain. If chain is not long enough obtain additional chain footage (stock number 12-0443). Unit is now ready for use.

Handle/Grip

Chain

Nut-eye swivel

Pointer

Body/Face

Dial

Footstand/base
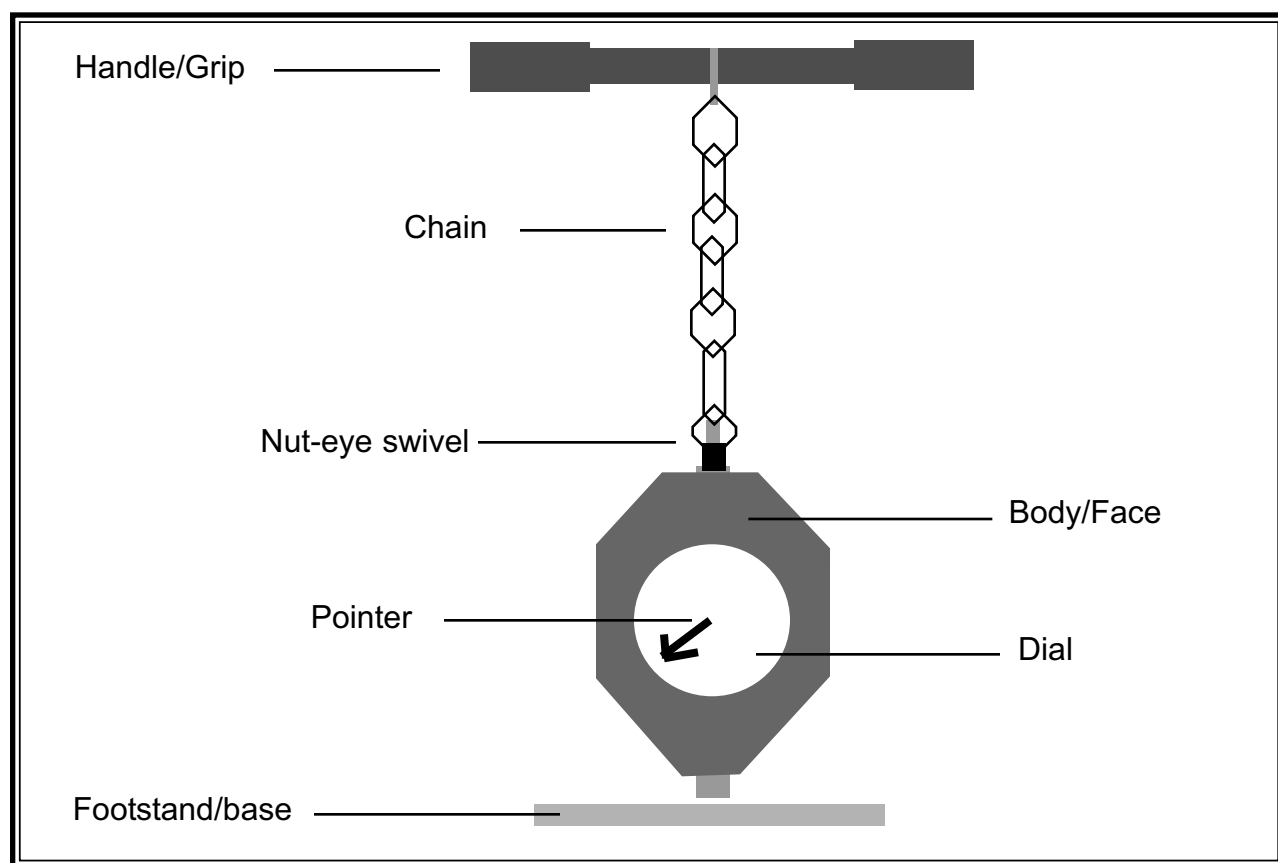
Back-Leg-Chest dynamometer in raised postion

Testing Protocol

1. Subject should stand with both feet on base. (see picture on upper right corner of previous page)

2. Adjust chain to accomodate test protocol. Perform the test. Subject should lift in a gradual vertical motion.

3. The pointer on the dial indicates the force exerted. Each test should consist of three trial measurements. The result is the average.

(1) ARM LIFT 90°

(2) TORSO LIFT V=38cm H=38cm

(3) LEG LIFT V=38cm H=0cm

(4) HIGH FAR LIFT V=152cm H=51cm

(5) FLOOR LIFT V=15cm H=25cm

(6) HIGH NEAR LIFT V=152cm H=25cm

Maximal Voluntary Isometric Strength (Pounds)

Test	Males		Population Percentile					Females		Population Percentile				
	Sample Size	Coeff. of Variation	10	25	50	75	90	Sample Size	Coeff. of Variation	10	25	50	75	90
Arm Lift (1)	1052	0.07	51	68	86	106	123	187	0.08	20	33	48	62	75
Torso Lift (2)	1052	0.09	57	75	99	132	169	187	0.10	29	37	53	73	97
Leg Lift (3)	638	---	42	152	200	251	295	133	---	11	59	88	117	141
High Far Lift (4)	309	0.09	35	42	51	62	75	35	0.12	20	24	29	35	42
Floor Lift (5)	309	0.08	130	163	200	238	271	35	0.08	70	97	123	152	176
High Near Lift (6)	309	0.08	77	97	121	145	167	35	0.11	35	26	64	79	92

References: Keyserling, W.M., Herrin, G.D. and Chaffin, D.B. "An Analysis of Selected Work Muscle Strength." Proceedings of the Human Factors Society 22nd Annual Meeting, Detroit 1978.