

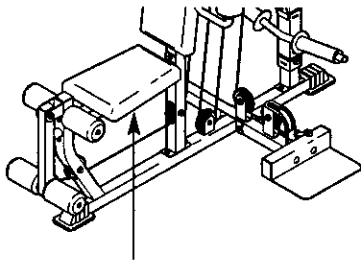
# WEIDER<sup>®</sup> 2100

## USER'S MANUAL

Model No. 831.159010

Serial No. \_\_\_\_\_

Write the serial number in the space above for reference.



Serial Number Decal (under seat)

EXERCISE  
EQUIPMENT

QUESTIONS

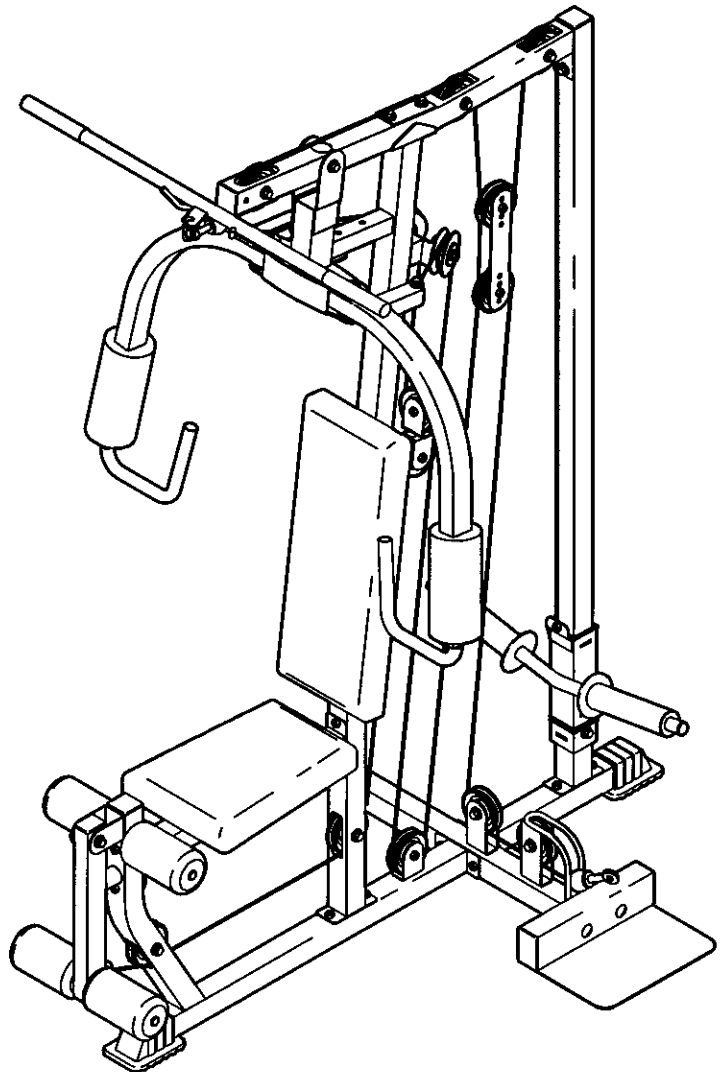
HELPLINE!

1-800-736-6879

SEARS, ROEBUCK AND CO.  
HOFFMAN ESTATES, IL 60179

### **CAUTION**

Read all precautions and instructions in this manual before using this equipment. Save this manual for future reference.



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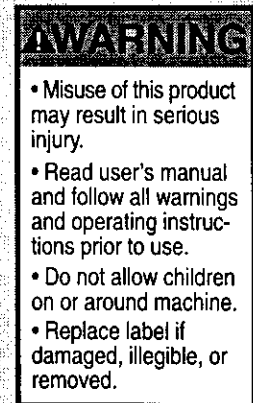
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Note: A PART IDENTIFICATION CHART and a PART LIST/EXPLODED DRAWING are attached in the center of this manual. Remove the PART IDENTIFICATION CHART and the PART LIST/EXPLODED DRAWING before beginning assembly.

# IMPORTANT PRECAUTIONS

**▲ WARNING:** To reduce the risk of serious injury, read the following Important precautions before using the weight system.

1. Read all Instructions in this manual and in the accompanying literature before using the weight system. Use the weight system only as described in this manual.
2. It is the responsibility of the owner to ensure that all users of the weight system are adequately informed of all precautions.
3. The weight system is intended for home use only. Do not use the weight system in a commercial, rental, or Institutional setting.
4. Use the weight system only on a level surface. Cover the floor or carpet beneath the weight system to protect the floor.
5. Make sure all parts are properly tightened each time the weight system is used. Replace any worn parts immediately.
6. Keep children under the age of 12 and pets away from the weight system at all times.
7. Keep hands and feet away from moving parts.
8. Always wear athletic shoes for foot protection when using the weight system.
9. The weight system is designed to support a maximum user weight of 300 pounds. Do not place more than 150 pounds on the weight carriage. Note: The weight system does not include weights.
10. Never release the press arm, butterfly arms, leg lever, lat bar, or handle while weights are raised; the weights will fall with great force.
11. Make sure that the cables remain on the pulleys at all times. If the cables bind while you are exercising, stop immediately and make sure that the cables are on all of the pulleys.
12. Always stand on the foot plate when performing an exercise that could cause the weight system to tip.
13. Always disconnect the lat bar from the weight system when performing an exercise that does not use the lat bar.
14. If you feel pain or dizziness at any time while exercising, stop immediately and begin cooling down.
15. The warning decals shown here have been placed on the weight system in the locations shown on page 4. If a decal is missing or illegible, please call our toll-free HELPLINE at 1-800-736-6879, Monday through Saturday, 7 a.m. until 7 p.m. Central Time, to order a free replacement decal. Place the decal on the weight system in the location shown.



Decal 1



Decal 2

**▲ WARNING:** Before beginning this or any exercise program, consult your physician. This is especially important for persons over the age of 35 or persons with pre-existing health problems. Read all Instructions before using. SEARS assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

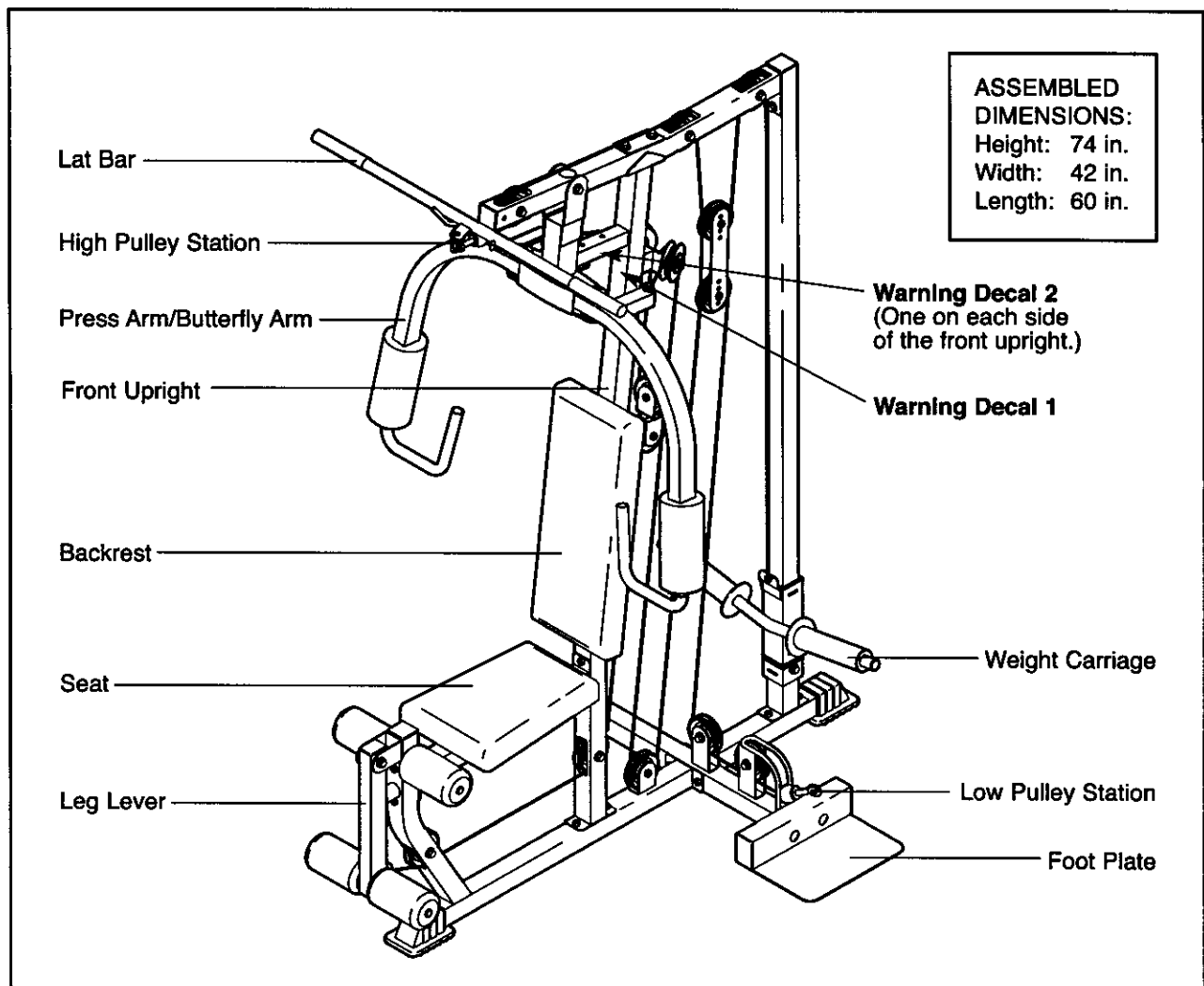
# BEFORE YOU BEGIN

Thank you for selecting the versatile WEIDER® 2100 weight system. The WEIDER® 2100 offers a selection of weight stations designed to develop every major muscle group of the body. Whether your goal is to tone your body, build dramatic muscle size and strength, or improve your cardiovascular system, the WEIDER® 2100 will help you to achieve the results you want.

**For your benefit, read this manual carefully before using the weight system.** If you have additional questions, please call our toll-free HELPLINE at

1-800-736-6879, Monday through Saturday, 7 a.m. until 7 p.m. Central Time (excluding holidays). To help us assist you, please note the product model number and serial number before calling. The model number is 831.159010. The serial number can be found on a decal attached to the weight system (see the front cover of this manual).

Before reading further, please review the drawing below and familiarize yourself with the parts that are labeled.



# ASSEMBLY

## Make Things Easier for Yourself



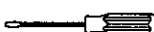

Everything in this manual is designed to ensure that the weight system can be assembled successfully by anyone. However, it is important to realize that the versatile weight system has many parts and that the assembly process will take time. Most people find that by setting aside plenty of time, assembly will go smoothly.

Before beginning assembly, carefully read the following information and instructions:

- Assembly requires two people.
- Place all parts in a cleared area and remove the packing materials. Do not dispose of the packing materials until assembly is completed.
- Tighten all parts as you assemble them, unless instructed to do otherwise.

- As you assemble the weight system, make sure all parts are oriented as shown in the drawings.
- For help identifying small parts, use the **PART IDENTIFICATION CHART**.

The following tools (not included) are required for assembly:

- two adjustable wrenches 
- one rubber mallet 
- one standard screwdriver 
- one Phillips screwdriver 
- lubricant, such as grease or petroleum jelly, and soapy water.

Assembly will be more convenient if you have a socket set, a set of open-end or closed-end wrenches, or a set of ratchet wrenches.

## FRAME ASSEMBLY

1. Before beginning assembly, be sure that you have read and understand the information in the box above.

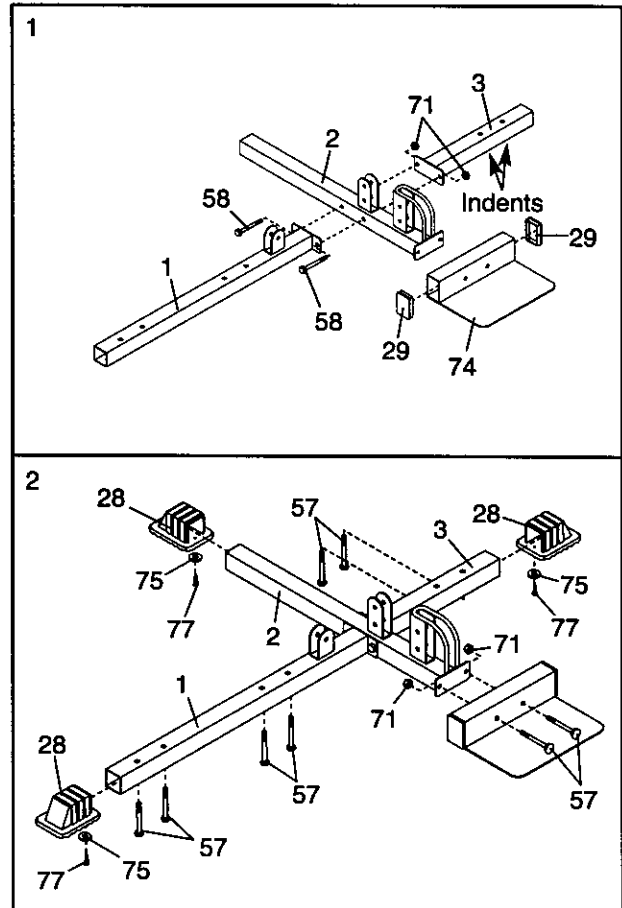
Press two 50mm x 75mm Inner Caps (29) into the sides of the Foot Plate (74).

Orient the Rear Base (3) with the indents around the holes on the bottom. Attach the Front Base (1) and the Rear Base to the Center Base (2) with two M10 x 70mm Bolts (58) and two M10 Nylon Locknuts (71).

2. Insert six M10 x 65mm Carriage Bolts (57) up through the Front and Rear Bases (1, 3).

Press the three Base Caps (28) onto the ends of the Front Base (1), the Center Base (2), and the Rear Base. Secure the Base Caps with three M4 x 20mm Screws (77) and three M5 Washers (75).

Attach the Foot Plate (74) to the Center Base (2) with two M10 x 65mm Carriage Bolts (57) and two M10 Nylon Locknuts (71).

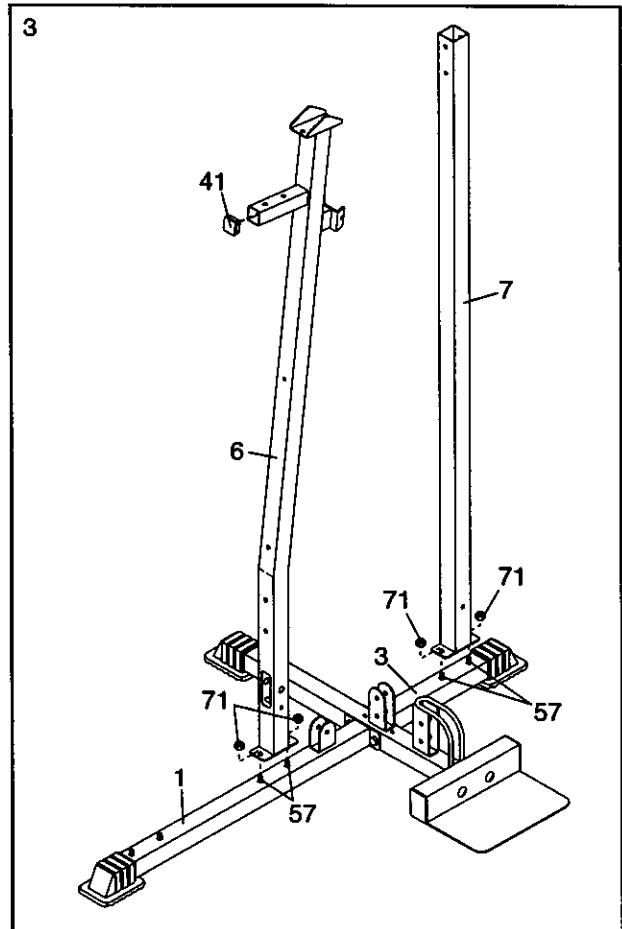


3. Attach the Rear Upright (7) to the Rear Base (3) with the two indicated M10 x 65mm Carriage Bolts (57) and two M10 Nylon Locknuts (71).

Press a 38mm Square Inner Cap (41) into the tube on the Front Upright (6).

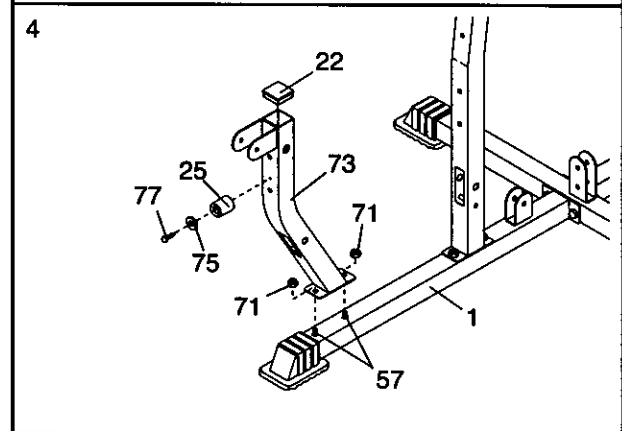
Attach the Front Upright (6) to the Front Base (1) with the two indicated M10 x 65mm Carriage Bolts (57) and two M10 Nylon Locknuts (71).

**Do not tighten the M10 Nylon Locknuts (71) yet.**



4. Press a 50mm Square Inner Cap (22) into the Seat Upright (73). Attach the Bumper (25) to the Seat Upright with an M4 x 20mm Screw (77) and an M5 Washer (75).

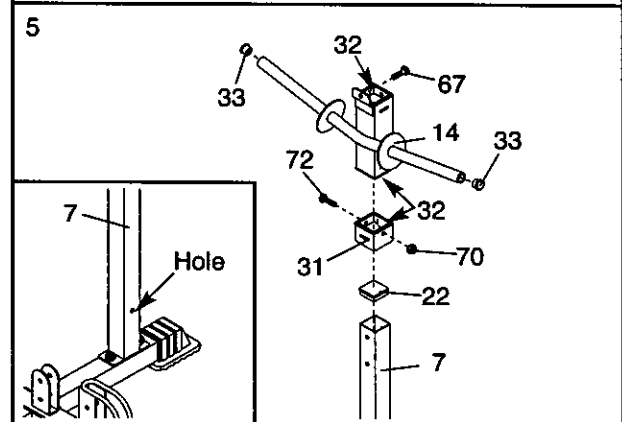
Attach the Seat Upright (73) to the Front Base (1) with the two indicated M10 x 65mm Carriage Bolts (57) and two M10 Nylon Locknuts (71). **Do not tighten the Nylon Locknuts yet.**



5. Make sure there is a Carriage Bushing (32) inside the top of the Carriage Stop (31). Slide the Carriage Stop onto the Rear Upright (7) and attach it at the indicated hole (see the inset drawing) with an M8 x 70mm Bolt (72) and an M8 Nylon Locknut (70).

Make sure there are two Carriage Bushing (32) inside the top and bottom of the Weight Carriage (14). Press two 25mm Round Inner Caps (33) into the ends of the tube on the Weight Carriage. Insert an M10 x 20mm Bolt (67) into the bracket on the Weight Carriage.

Slide the Weight Carriage (14) onto the Rear Upright (7). Press a 50mm Square Inner Cap (22) onto the top of the Rear Upright.



6. Press a 50mm Square Inner Cap (22) into the end of the Top Frame (8).

Attach the Top Frame (8) to the Front Upright (6) with two M10 x 70mm Bolts (58), the 90mm Space Support Plate (21), and two M10 Nylon Locknuts (71).

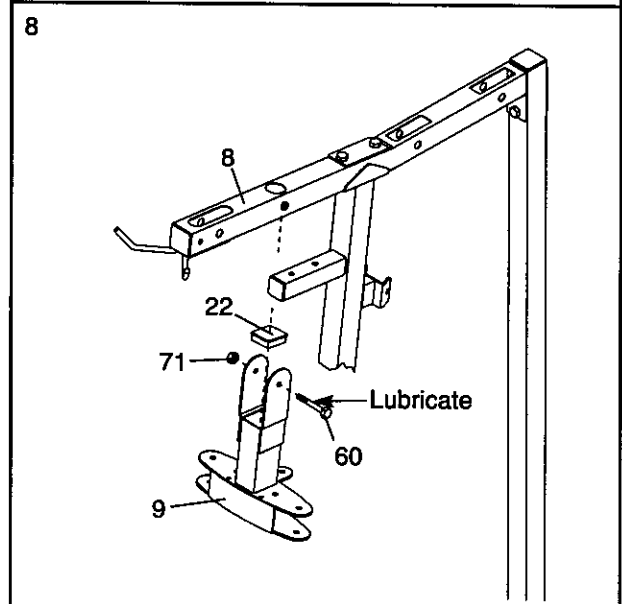
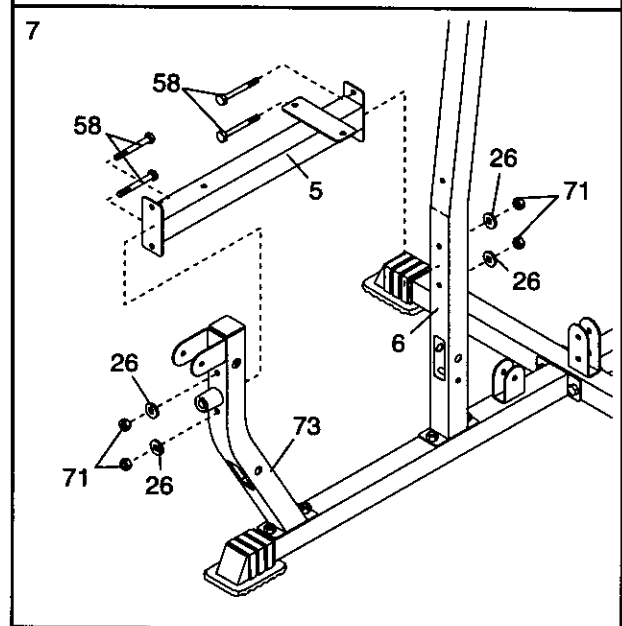
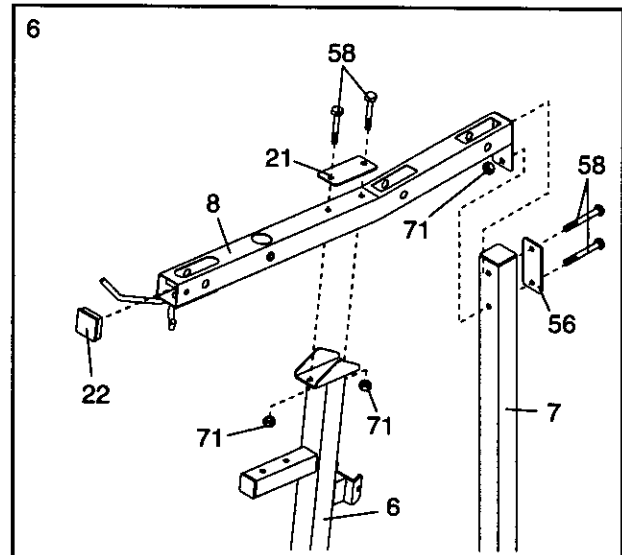
Attach the Top Frame (8) to the Rear Upright (7) with two M10 x 70mm Bolts (58), the 70mm Space Support Plate (56), and an M10 Nylon Locknut (71).

**Do not tighten the M10 Nylon Locknuts (71) yet.**

7. Attach the Seat Frame (5) to the Front Upright (6) with two M10 x 70mm Bolts (58), two M10 Washers (26), and two M10 Nylon Locknuts (71).

Attach the Seat Frame (5) to the Seat Upright (73) with two M10 x 70mm Bolts (58), two M10 Washers (26), and two M10 Nylon Locknuts (71).

**Tighten the M10 Nylon Locknuts (71) used in steps 2-7.**



## ARM ASSEMBLY

8. Press a 50mm Square Inner Cap (22) into the Butterfly Frame (9).

Lubricate the M10 x 75mm Bolt (60) with grease. Attach the Butterfly Frame (9) to the Top Frame (8) with the Bolt and an M10 Nylon Locknut (71). **Do not overtighten the Locknut; the Butterfly Frame must be able to pivot easily.**

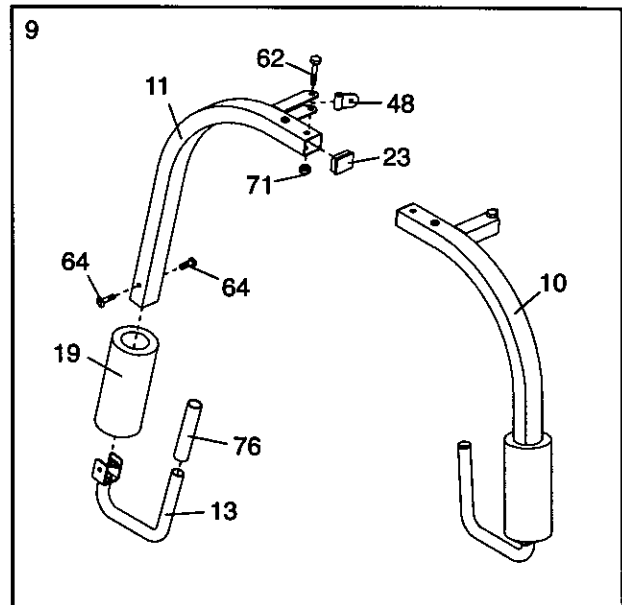
9. Press a 40mm x 50mm Inner Cap (23) into the indicated end of the Right Butterfly Arm (11). Wet the bottom end of the Arm with soapy water. Slide a Large Foam Pad (19) onto the Arm.

Attach a Pivot Bracket (48) to the Right Butterfly Arm (11) with an M10 x 50mm Bolt (62) and an M10 Nylon Locknut (71). **Do not overtighten the Locknut; the Pivot Bracket must be able to pivot easily.**

Slide a Foam Grip (76) onto the Right Handle (13). Attach the Handle to the Right Butterfly Arm (11) with two M8 x 15mm Bolts (64).

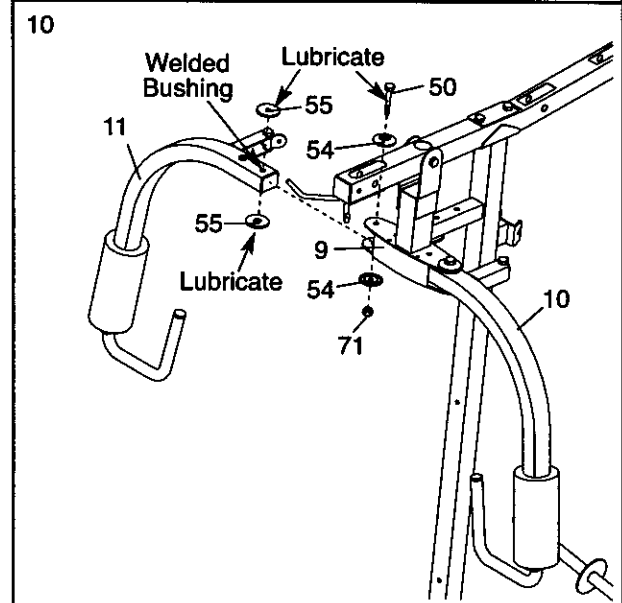
Slide the Large Foam Pad (19) down so that the bottom of the Foam Pad is even with the bottom of the Arm.

**Repeat this step with the Left Butterfly Arm (10).**



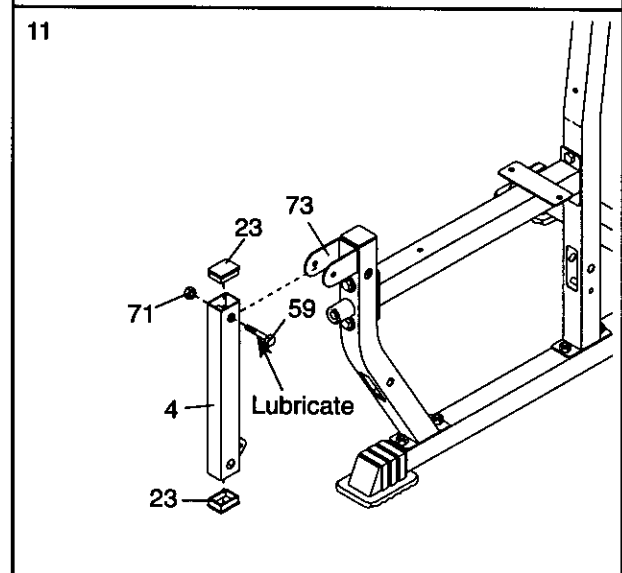
10. Lubricate an M10 x 82mm Bolt (50) and both sides of two Plastic Washers (55) with grease. Attach the Right Butterfly Arm (11) to the Butterfly Frame (9) with the Bolt, the two Plastic Washers, two Butterfly Caps (54), and an M10 Nylon Locknut (71). **Do not overtighten the Locknut; the Butterfly Arm must be able to pivot easily. Be sure the indented sides of the Plastic Washers fit over the welded bushing in the Butterfly Arm.**

**Repeat this step with the Left Butterfly Arm (10).**



11. Press two 40mm x 50mm Inner Caps (23) into the ends of the Leg Lever (4).

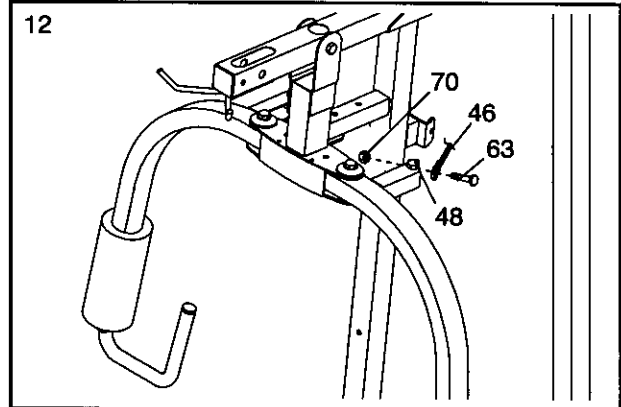
Lubricate an M10 x 65mm Bolt (59) with grease. Attach the Leg Lever (4) to the Seat Upright (73) with the Bolt and an M10 Nylon Locknut (71). **Do not overtighten the Locknut; the Leg Lever must be able to pivot easily.**



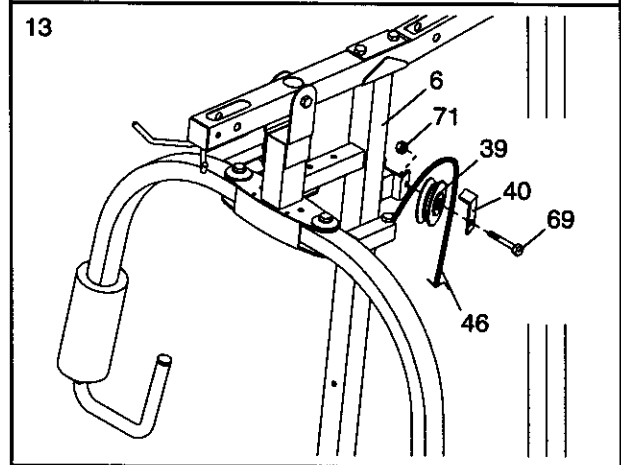


## CABLE ASSEMBLY

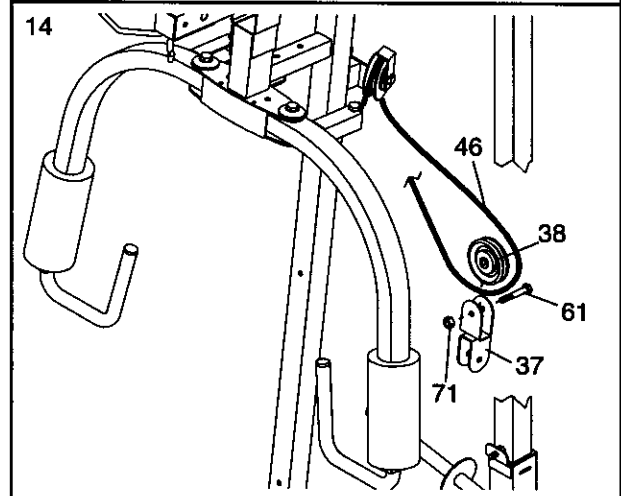
12. Locate the Butterfly Cable (46). Attach the Butterfly Cable to the indicated Pivot Bracket (48) with an M8 x 27mm Shoulder Bolt (63) and an M8 Nylon Locknut (70).



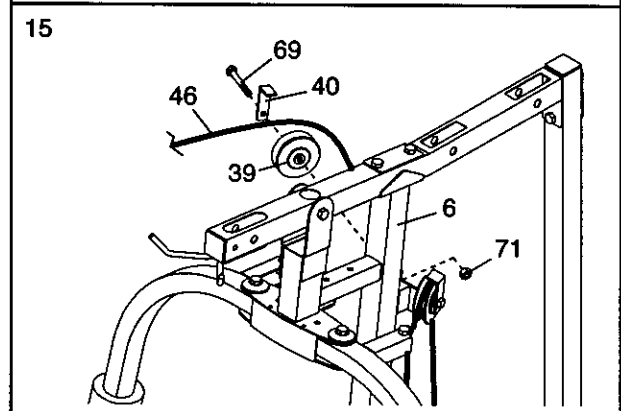
13. Wrap the Butterfly Cable (46) around a "V"-Pulley (39). Attach the Pulley and a Long Cable Trap (40) to the bracket on the Front Upright (6) with an M10 x 55mm Bolt (69) and an M10 Nylon Locknut (71). Be sure the Cable Trap is turned to hold the Cable in the Groove of the Pulley.



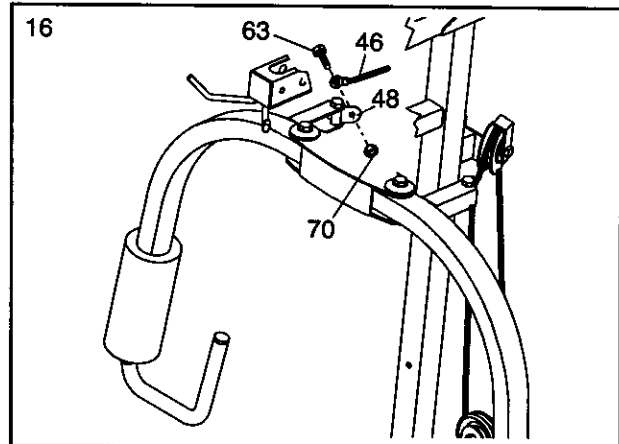
14. Wrap the Butterfly Cable (46) around a 90mm Pulley (38). Attach the Pulley to the Double "U"-Bracket (37) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71).



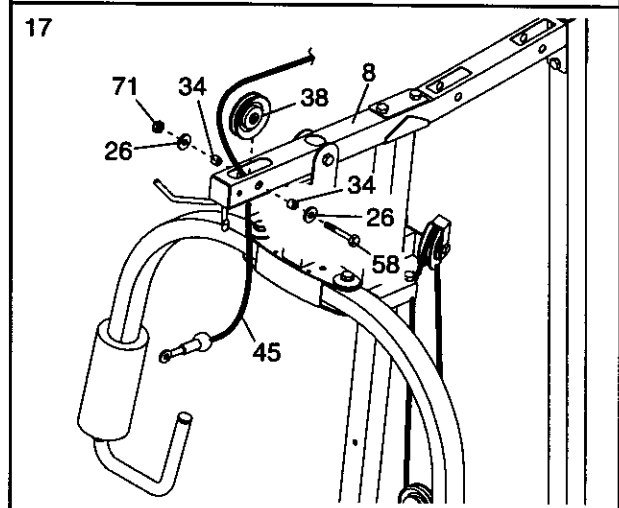
15. Wrap the Butterfly Cable (46) around a "V"-Pulley (39). Attach the Pulley and a Long Cable Trap (40) to the bracket on the Front Upright (6) with an M10 x 55mm Bolt (69) and an M10 Nylon Locknut (71). Be sure the Cable Trap is turned to hold the Cable in the Groove of the Pulley.



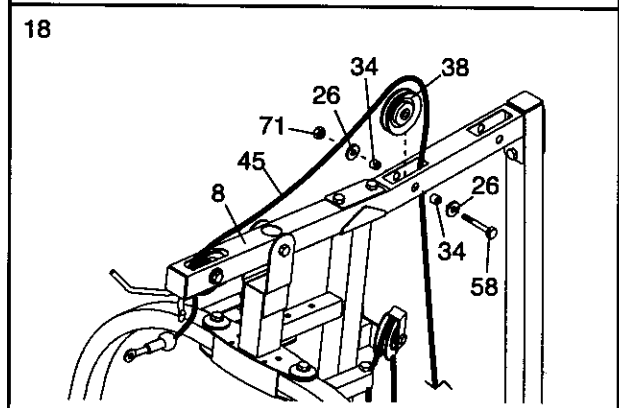
16. Attach the Butterfly Cable (46) to the indicated Pivot Bracket (48) with an M8 x 27mm Shoulder Bolt (63) and an M8 Nylon Locknut (70).



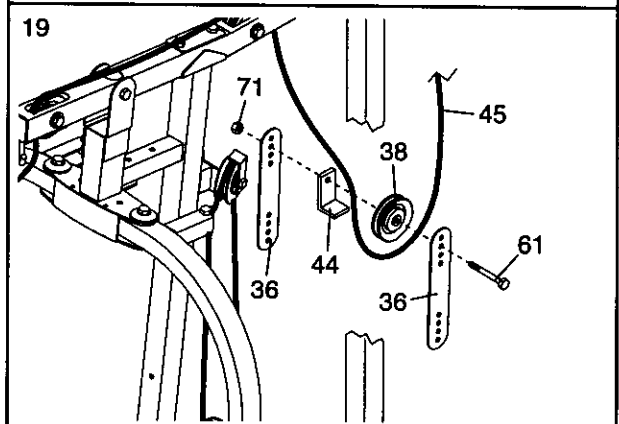
17. Locate the High Cable (45). Route the eyelet end of the Cable up through the Top Frame (8) and around a 90mm Pulley (38). Attach the Pulley inside the Top Frame with an M10 x 70mm Bolt (58), two M10 Washers (26), two 13mm Spacers (34), and an M10 Nylon Locknut (71).



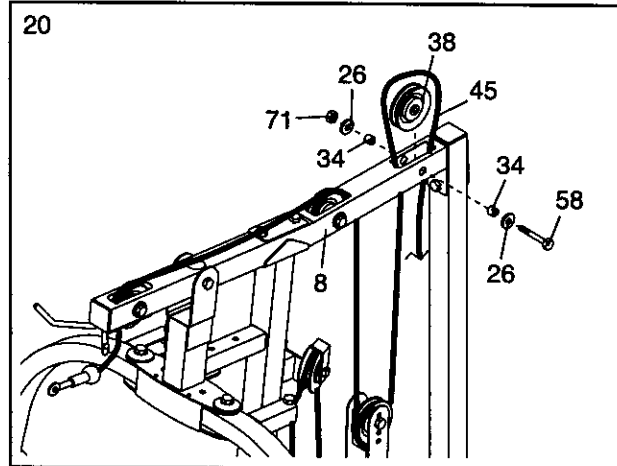
18. Wrap the High Cable (45) around a 90mm Pulley (38). Attach the Pulley inside the Top Frame (8) with an M10 x 70mm Bolt (58), two M10 Washers (26), two 13mm Spacers (34), and an M10 Nylon Locknut (71).



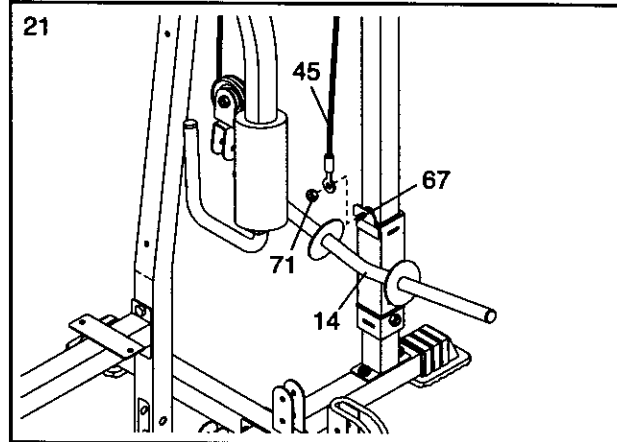
19. Wrap the High Cable (45) around a 90mm Pulley (38). Attach the Pulley and a Cable Trap (44) to the second set of holes from the top of the two Pulley Plates (36) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71). **Be sure the Cable Trap is turned to hold the Cable in the Groove of the Pulley.**



20. Wrap the High Cable (45) around a 90mm Pulley (38). Attach the Pulley inside the Top Frame (8) with an M10 x 70mm Bolt (58), two M10 Washers (26), two 13mm Spacers (34), and an M10 Nylon Locknut (71).

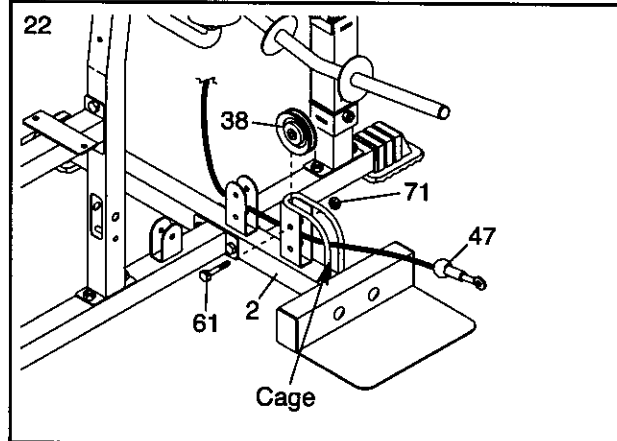


21. Attach the eyelet end of the High Cable (45) to the M10 x 20mm Bolt (67) in the bracket on the Weight Carriage (14) with an M10 Nylon Locknut (71).

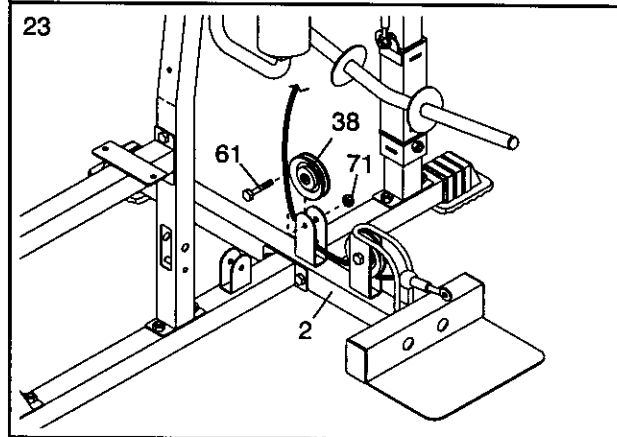


22. Locate the Low Cable (47). Route the Cable through the cage and rest it in the brackets on the Center Base (2).

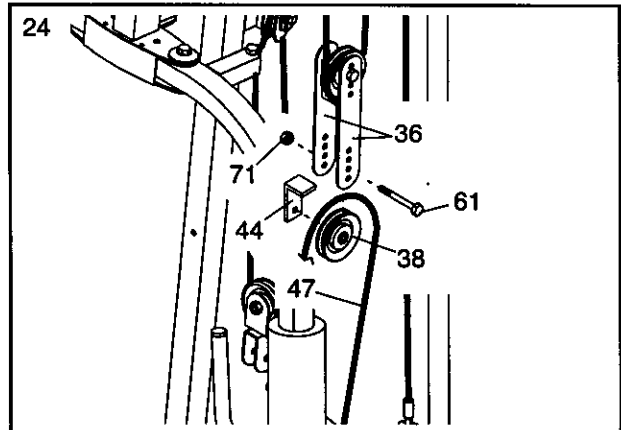
Attach a 90mm Pulley (38) inside the indicated bracket on the Center Base (2) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71).



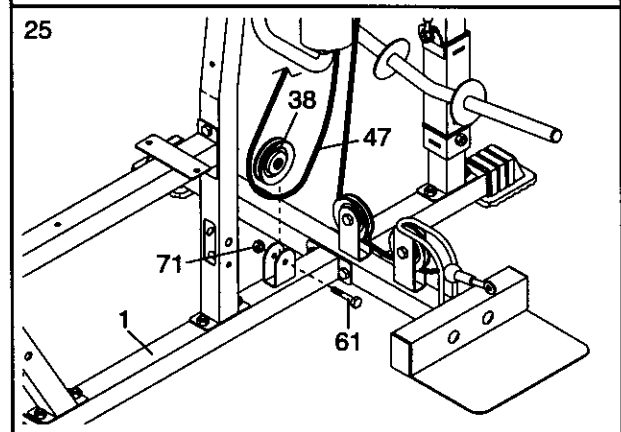
23. Attach a 90mm Pulley (38) inside the indicated bracket on the Center Base (2) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71).



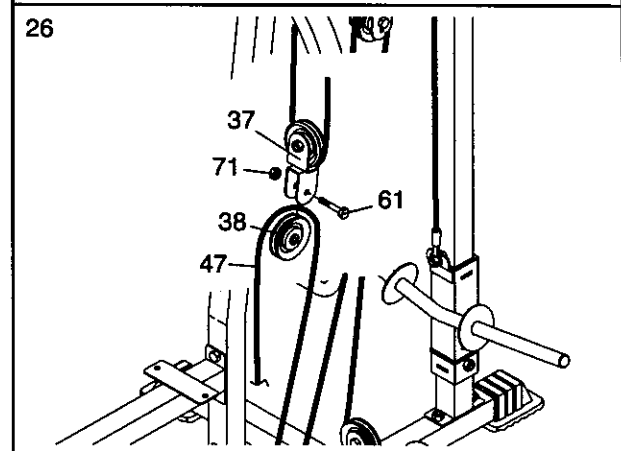
24. Wrap the Low Cable (47) around a 90mm Pulley (38). Attach the Pulley and a Cable Trap (44) to the second set of holes from the bottom of the two Pulley Plates (36) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71). **Be sure the Cable Trap is turned to hold the Cable in the Groove of the Pulley.**



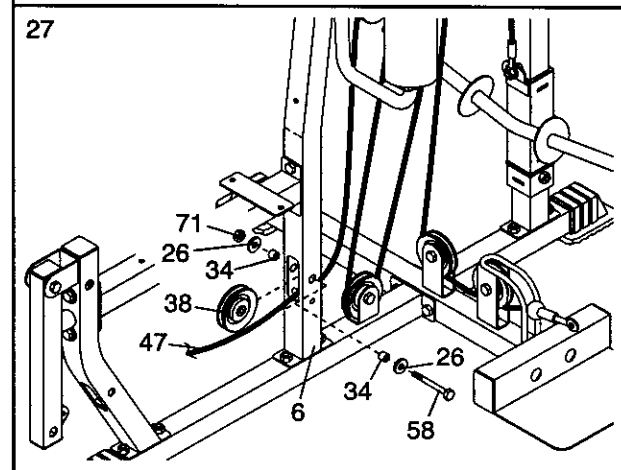
25. Wrap the Low Cable (47) around a 90mm Pulley (38). Attach the Pulley inside the indicated bracket on the Front Base (1) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71).



26. Wrap the Low Cable (47) around a 90mm Pulley (38). Attach the Pulley to the Double "U"-Bracket (37) with an M10 x 47mm Bolt (61) and an M10 Nylon Locknut (71).

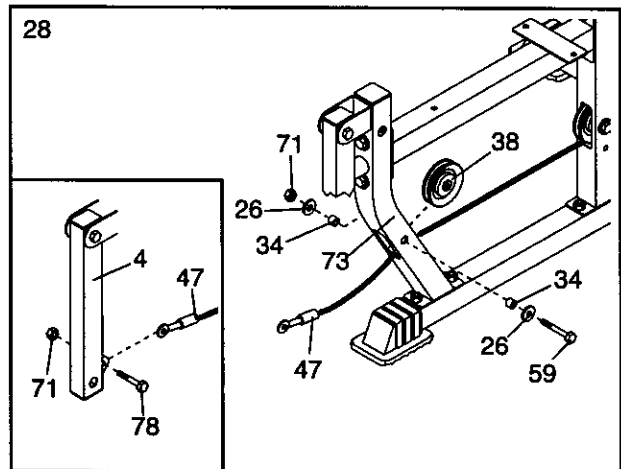


27. Wrap the Low Cable (47) around a 90mm Pulley (38). Attach the Pulley inside the Front Upright (6) with an M10 x 70mm Bolt (58), two M10 Washers (26), two 13mm Spacer (34), and an M10 Nylon Locknut (71).



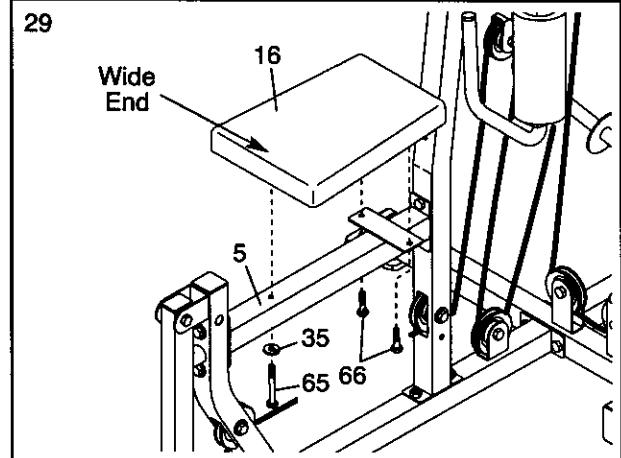
28. Route the Low Cable (47) through the Seat Upright (73) and under a 90mm Pulley (38). Attach the Pulley inside the Seat Upright with an M10 x 65mm Bolt (59), two M10 Washers (26), two 13mm Spacer (34), and an M10 Nylon Locknut (71).

See the inset drawing. Attach the end of the Low Cable (47) to the Leg Lever (4) with an M10 x 28mm Shoulder Bolt (78) and an M10 Nylon Locknut (71).

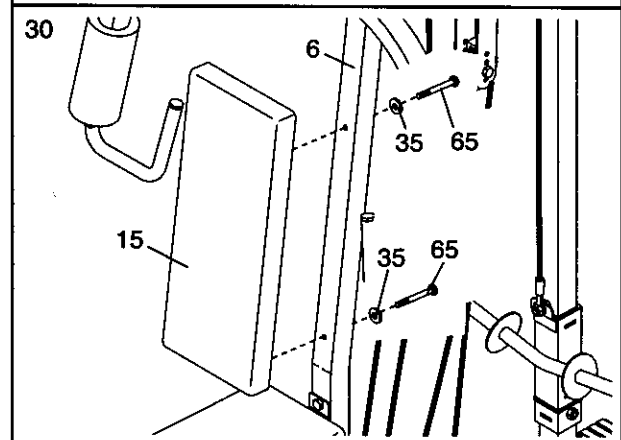


## SEAT ASSEMBLY

29. Orient the Seat (16) as shown. Attach the Seat to the Seat Frame (5) with an M6 x 65mm Bolt (65), an M6 Washer (35), and two M6 x 15mm Bolts (66).

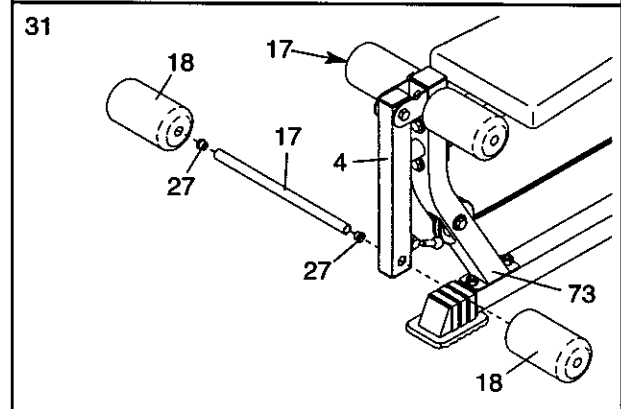


30. Attach the Backrest (15) to the Front Upright (6) with two M6 x 65mm Bolts (65), and two M6 Washers (35).

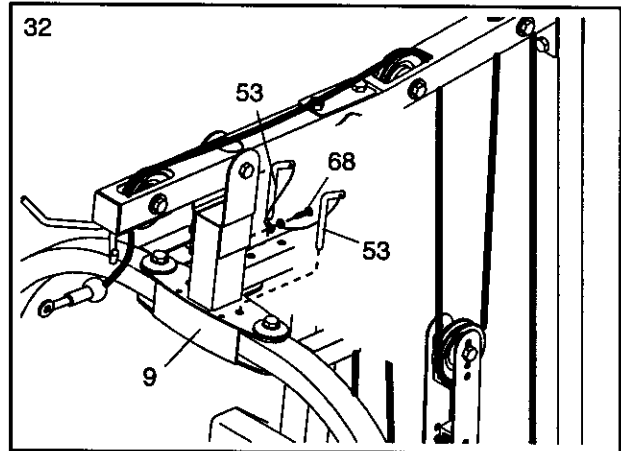


31. Press two 19mm Round Inner Caps (27) into the ends of a Pad Tube (17). Slide the Pad Tube through the hole in the Leg Lever (4). Slide two Foam Pads (18) onto the ends of the Pad Tube.

Repeat this step with the other Pad Tube (17) and the Seat Upright (73).



32. Insert the two Locking Pins (53) into the Butterfly Frame (9). Attach the tether on the Pins to the Butterfly Frame with the M4 x 10mm Screw (68).



33. Make sure that all parts have been properly tightened. The use of all remaining parts will be explained in ADJUSTMENTS, below.

Before using the weight system, pull each cable a few times to make sure that the cables move smoothly over the pulleys. If one of the cables does not move smoothly, find and correct the problem. **IMPORTANT: If the cables are not properly routed, they may be damaged when heavy weight is used. See the CABLE DIAGRAM on page 17 of this manual for proper cable routing. If there is any slack in the cables, you will need to remove it by tightening the cables; see TIGHTENING THE CABLES on page 15.**

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## ADJUSTMENTS

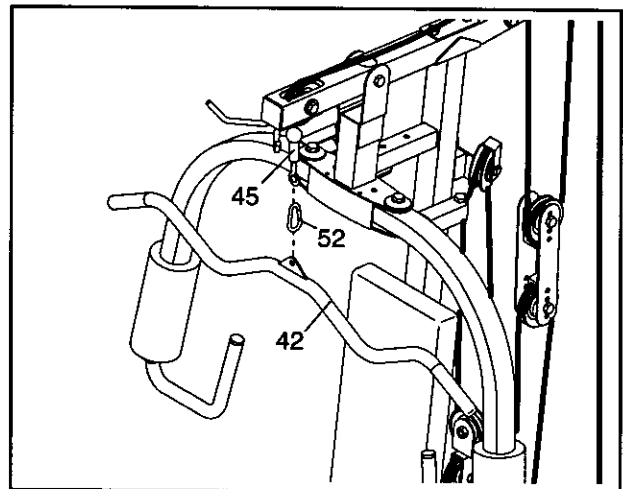
This section explains how to adjust the weight system. See the EXERCISE GUIDELINES on page 18 for important information about how to get the most benefit from your exercise program. Also, refer to the accompanying exercise guide to see the correct form for each exercise.

Make sure all parts are properly tightened each time the weight system is used. Replace any worn parts immediately. The weight system can be cleaned with a damp cloth and a mild, non-abrasive detergent. Do not use solvents.

### ATTACHING THE ACCESSORIES TO A PULLEY STATION

Attach the Lat Bar (42) to the High Cable (45) with a Cable Clip (52). For some exercises, the Chain (not shown) should be attached between the Lat Bar and the High Cable with two Cable Clips. **Adjust the length of the Chain between the Lat Bar and the Short Cable so the Lat Bar is in the correct starting position for the exercise to be performed.**

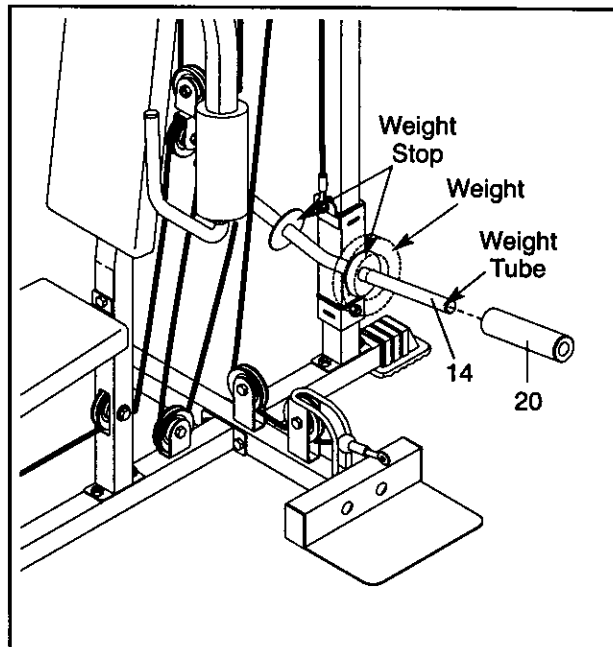
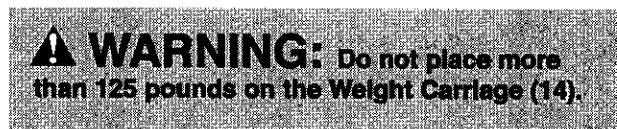
The Handle (not shown) can be attached in the same manner. The accessories can be attached to the Low Cable (not shown) in the same manner.



## ADDING WEIGHTS TO THE WEIGHT CARRIAGE

To add resistance to the weight system, slide an equal amount of weight (not included) onto each side of the weight tube on the Weight Carriage (14). Be sure that the weights are pushed against the weight stops. **Note: Due to the cables and pulleys, the actual amount of resistance at each exercise station may vary from the amount of weight used. Use the WEIGHT RESISTANCE CHART on page 16 to find the approximate amount of resistance at each station.**

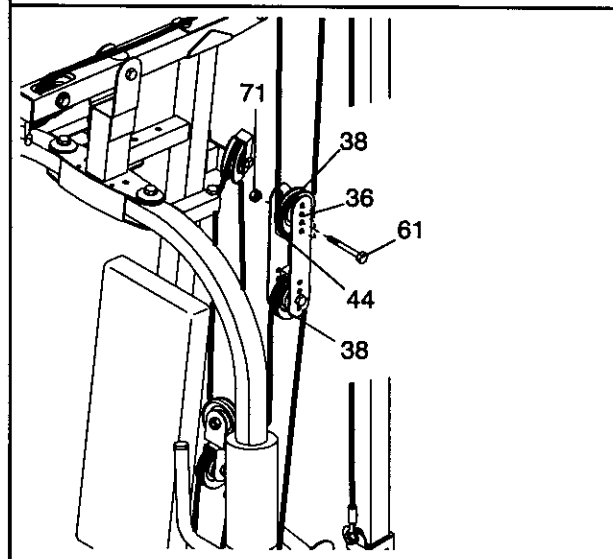
If Olympic weights are to be used, slide the two Weight Adapters (20) onto the weight tube on the Weight Carriage (14).



## TIGHTENING THE CABLES

Woven cable, the type of cable used on the weight system, can stretch slightly when it is first used. If there is slack in the cables before resistance is felt, the cables should be tightened.

Slack can be removed by moving a 90mm Pulley (38) and Cable Trap (44) to a set of holes closer to the center of the two Pulley Plates (36). Remove the M10 Nylon Locknut (71) and the M10 x 47mm Bolt (61) from the Cable Trap, the Pulley, and the Pulley Plates. Re-attach the Pulley and the Cable Trap to the new set of holes in the Pulley Plates with the Bolt and Nylon Locknut. **Make sure that the Cable Trap is in the proper position and that the Cable and Pulley move smoothly.**

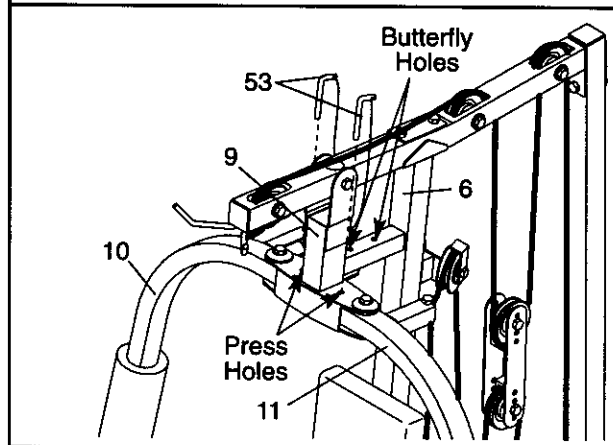


## CONVERTING THE BUTTERFLY ARMS

To use the Butterfly Arms (10, 11) as butterfly arms, insert the Locking Pins (53) into the butterfly holes in the Front Upright (6).

To use the Butterfly Arms (10, 11) as press arms, insert the Locking Pins (53) into the press holes in the Butterfly Frame (9).

**Make sure that the Locking Pins (53) are fully inserted into the same set of holes before performing any exercises.**



# WEIGHT RESISTANCE CHART

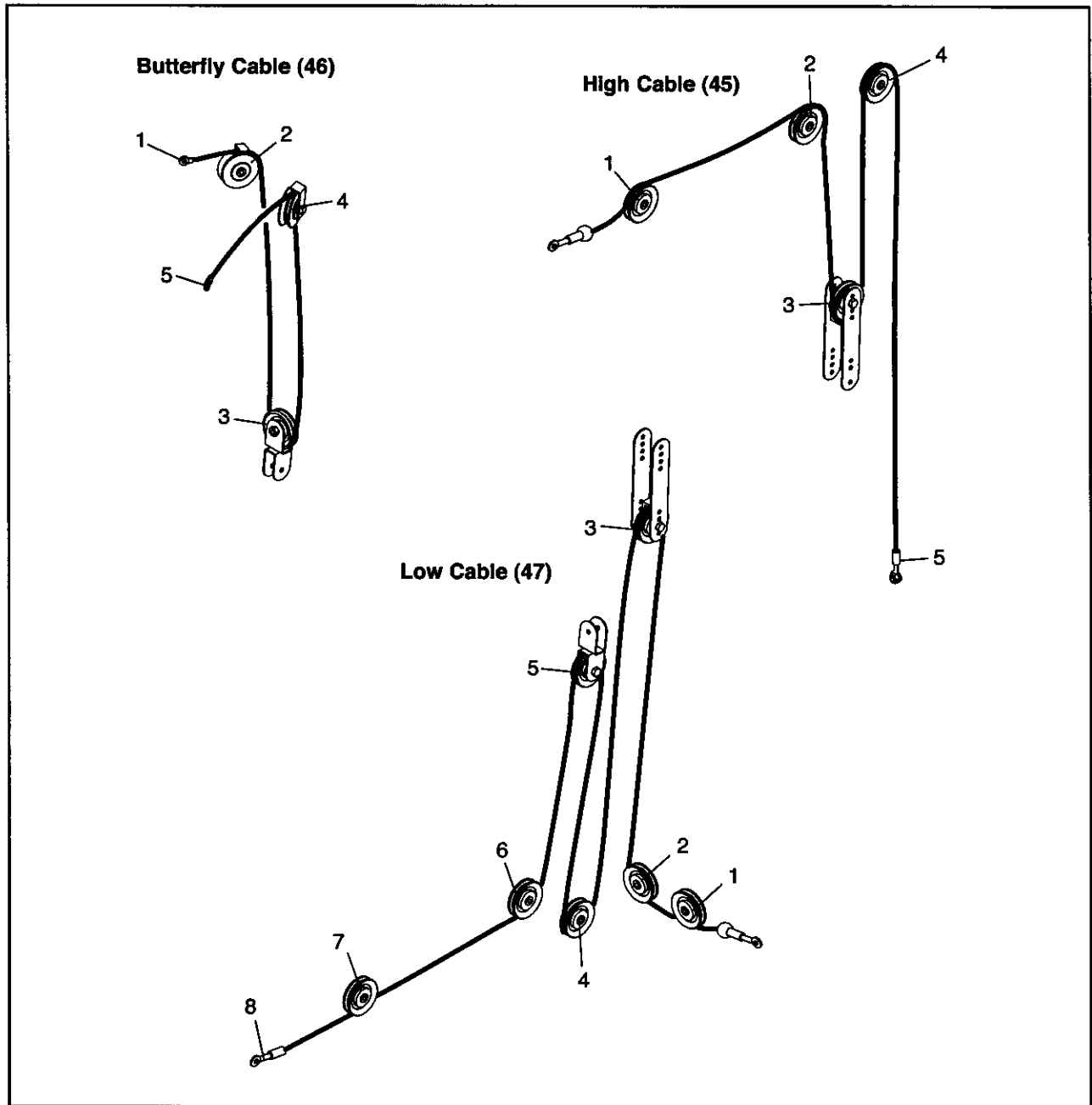
This chart shows the approximate weight resistance at each weight station. The column labeled "WEIGHT" refers to the amount of weight, in pounds, placed on the weight carriage. The weight resistance shown for the butterfly arm station is for each butterfly arm. **Note: The actual resistance at each station may vary due to friction between the cables, pulleys, and weight carriage.**

WEIGHT (lbs.)	PRESS ARM (lbs.)	BUTTERFLY ARM (lbs.)	LOW PULLEY (lbs.)	LEG LEVER (lbs.)	HIGH PULLEY (lbs.)
0	12	8	14	15	12
5	16	11	20	22	19
10	20	14	27	29	25
15	24	17	33	36	32
20	28	20	40	43	39
25	32	23	44	50	46
30	36	26	48	54	51
35	39	29	53	58	56
40	43	32	57	62	61
45	46	35	62	66	65
50	50	38	66	70	70
55	53	40	72	76	76
60	57	42	79	81	82
65	60	45	85	87	88
70	64	47	92	92	94
75	67	49	98	98	100
80	71	51	103	103	106
85	74	54	107	107	111
90	78	56	112	112	117
95	81	58	116	116	122
100	85	60	121	121	128
105	88	62	127	127	132
110	92	65	133	133	137
115	95	67	139	139	141
120	99	69	145	145	146
125	102	71	151	151	151
130	105	73	156	155	155
135	108	75	161	160	160
140	111	77	166	164	164
145	114	79	171	169	169
150	117	81	176	173	173



# CABLE DIAGRAMS

The cable diagrams below show the proper routing of the Butterfly Cable (46), the High Cable (45), and the Low Cable (47). Use the diagrams to make sure that the cables and the cable traps have been assembled correctly. If the cables have not been correctly routed, the weight system will not function properly and damage may occur. The numbers show the correct route for each cable. **Make sure that the cable traps do not touch or bind the cables.**



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# EXERCISE GUIDELINES

## THE FOUR BASIC TYPES OF WORKOUTS

### Muscle Building

To increase the size and strength of your muscles, push them close to their maximum capacity. Your muscles will continually adapt and grow as you progressively increase the intensity of your exercise. You can adjust the intensity level of an individual exercise in two ways:

- by changing the amount of weight used
- by changing the number of repetitions or sets performed. (A “repetition” is one complete cycle of an exercise, such as one sit-up. A “set” is a series of repetitions.)

The proper amount of weight for each exercise depends upon the individual user. You must gauge your limits and select the amount of weight that is right for you. Begin with 3 sets of 8 repetitions for each exercise you perform. Rest for 3 minutes after each set. When you can complete 3 sets of 12 repetitions without difficulty, increase the amount of weight.

### Toning

You can tone your muscles by pushing them to a moderate percentage of their capacity. Select a moderate amount of weight and increase the number of repetitions in each set. Complete as many sets of 15 to 20 repetitions as possible without discomfort. Rest for 1 minute after each set. Work your muscles by completing more sets rather than by using high amounts of weight.

### Weight Loss

To lose weight, use a low amount of weight and increase the number of repetitions in each set. Exercise for 20 to 30 minutes, resting for a maximum of 30 seconds between sets.

### Cross Training

Cross training is an efficient way to get a complete and well-balanced fitness program. An example of a balanced program is:

- Plan weight training workouts on Monday, Wednesday, and Friday.
- Plan 20 to 30 minutes of aerobic exercise, such as cycling or swimming, on Tuesday and Thursday.
- Rest from both weight training and aerobic exercise for at least one full day each week to give your body time to regenerate.

The combination of weight training and aerobic exercise will reshape and strengthen your body, plus develop your heart and lungs.

## PERSONALIZING YOUR EXERCISE PROGRAM

Determining the exact length of time for each workout, as well as the number of repetitions or sets completed, is an individual matter. It is important to avoid overdoing it during the first few months of your exercise program. You should progress at your own pace and be sensitive to your body's signals. If you experience pain or dizziness at any time while exercising, stop immediately and begin cooling down. Find out what is wrong before continuing. Remember that adequate rest and a proper diet are important factors in any exercise program.

### WARMING UP

Begin each workout with 5 to 10 minutes of stretching and light exercise to warm up. Warming up prepares your body for more strenuous exercise by increasing circulation, raising your body temperature and delivering more oxygen to your muscles.

### WORKING OUT

Each workout should include 6 to 10 different exercises. Select exercises for every major muscle group, emphasizing areas that you want to develop most. To give balance and variety to your workouts, vary the exercises from session to session.

Schedule your workouts for the time of day when your energy level is the highest. Each workout should be followed by at least one day of rest. Once you find the schedule that is right for you, stick with it.

### EXERCISE FORM

Maintaining proper form is an essential part of an effective exercise program. This requires moving through the full range of motion for each exercise, and moving only the appropriate parts of the body. Exercising in an uncontrolled manner will leave you feeling exhausted. On the exercise guide accompanying this manual you will find photographs showing the correct form for several exercises, and a list of the muscles affected. Refer to the muscle chart on page 19 to find the names of the muscles.

The repetitions in each set should be performed smoothly and without pausing. The exertion stage of each repetition should last about half as long as the return stage. Proper breathing is important. Exhale during the exertion stage of each repetition and inhale during the return stroke. Never hold your breath.

Rest for a short period of time after each set. The ideal resting periods are:

- Rest for three minutes after each set for a muscle building workout.
- Rest for one minute after each set for a toning workout.
- Rest for 30 seconds after each set for a weight loss workout.

Plan to spend the first couple of weeks familiarizing yourself with the equipment and learning the proper form for each exercise.

### COOLING DOWN

End each workout with 5 to 10 minutes of stretching. Include stretches for both your arms and legs. Move

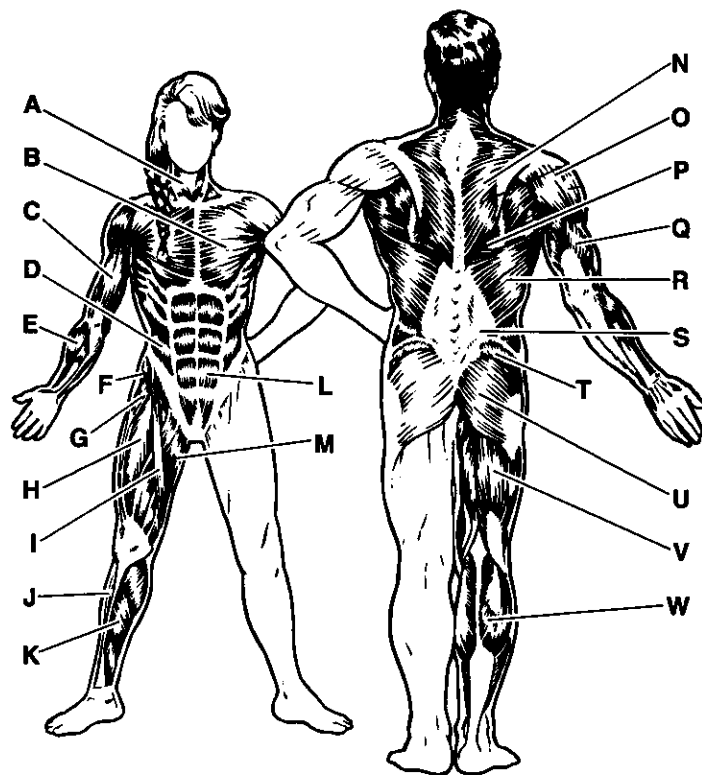
slowly as you stretch and do not bounce. Ease into each stretch gradually and go only as far as you can without strain. Stretching at the end of each workout is an effective way to increase flexibility.

### STAYING MOTIVATED

For motivation, keep a record of each workout. list the date, the exercises performed, the weight used, and the numbers of sets and repetitions completed. Record your weight and key body measurements at the end of every month. Remember, the key to achieving the greatest results is to make exercise a regular and enjoyable part of your everyday life.

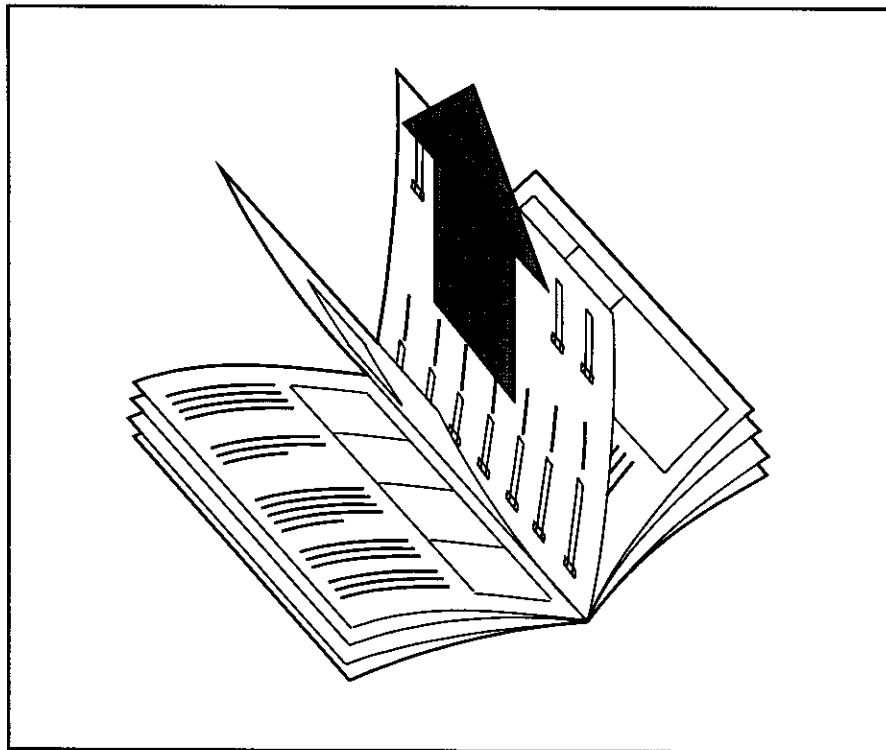
### MUSCLE CHART

- A. Sternomastoid (neck)
- B. Pectoralis Major (chest)
- C. Biceps (front of arm)
- D. Obliques (waist)
- E. Brachioradials (forearm)
- F. Hip Flexors (upper thigh)
- G. Abductor (outer thigh)
- H. Quadriceps (front of thigh)
- I. Sartorius (front of thigh)
- J. Tibialis Anterior (front of calf)
- K. Soleus (front of calf)
- L. Rectus Abdominus (stomach)
- M. Adductor (inner thigh)
- N. Trapezius (upper back)
- O. Rhomboideus (upper back)
- P. Deltoid (shoulder)
- Q. Triceps (back of arm)
- R. Latissimus Dorsi (mid back)
- S. Spinae Erectors (lower back)
- T. Gluteus Medius (hip)
- U. Gluteus Maximus (buttocks)
- V. Hamstring (back of leg)
- W. Gastrocnemius (back of calf)

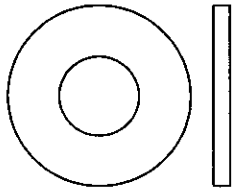


**REMOVE THIS PART IDENTIFICATION CHART FROM  
THE MANUAL. SAVE THIS PART IDENTIFICATION  
CHART FOR FUTURE REFERENCE.**

This chart is provided to help you identify the small parts used in assembly. The number in parenthesis below each part refers to the key number of the part from the PART LIST in the center of this manual. **Important:** Some parts may have been pre-assembled for shipping. If you cannot find a part in the parts bags, check to see if it has been pre-assembled.



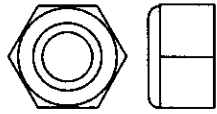
**Note: Assembly is divided into four stages: 1) frame assembly, 2) arm assembly, 3) cable assembly, and 4) seat assembly. The hardware for each stage is packaged separately. Wait until you begin each stage to open the parts bag for that stage.**



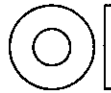
M10 Washer (26)



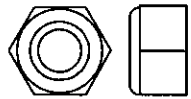
M6 Washer (35)



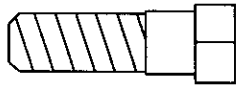
M10 Nylon Locknut (71)



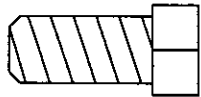
M5 Washer (75)



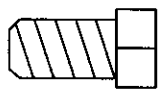
M8 Nylon Locknut (70)



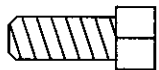
M8 x 27mm Shoulder Bolt (63)



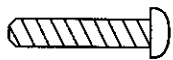
M10 x 20mm Bolt (67)



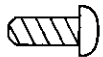
M8 x 15mm Bolt (64)



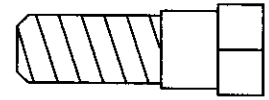
M6 x 15mm Bolt (66)



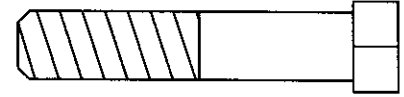
M4 x 20mm Screw (77)



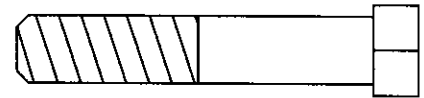
M4 x 10mm  
Screw (68)



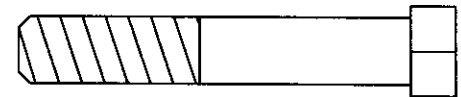
M10 x 28mm Shoulder Bolt (78)



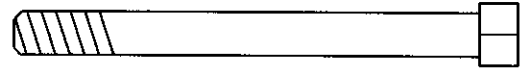
M10 x 47mm Bolt (61)



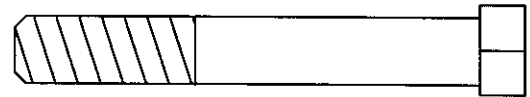
M10 x 50mm Bolt (62)



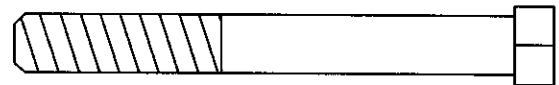
M10 x 55mm Bolt (69)



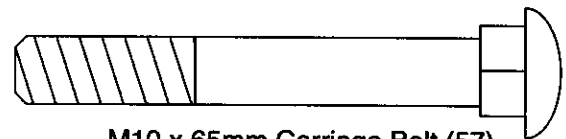
M6 x 65mm Bolt (65)



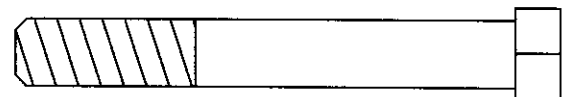
M10 x 65mm Bolt (59)



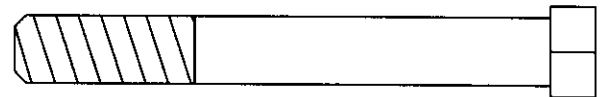
M8 x 70mm Bolt (72)



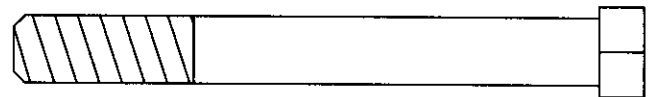
M10 x 65mm Carriage Bolt (57)



M10 x 70mm Bolt (58)



M10 x 75mm Bolt (60)



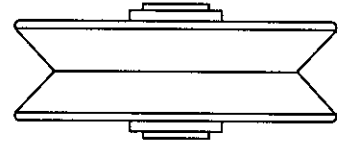
M10 x 82mm Bolt (50)

# PART IDENTIFICATION CHART—Model No. 831.159010

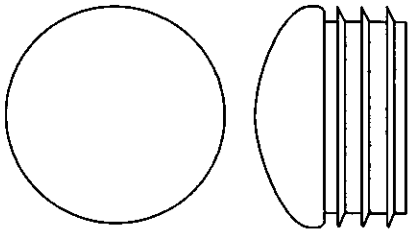
R1002A



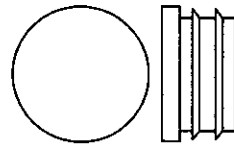
90mm Pulley (38)  
(Not shown to scale)



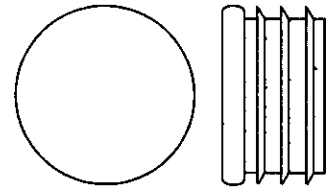
"V"-Pulley (39)  
(Not shown to scale)



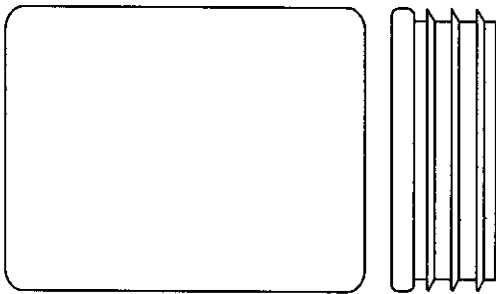
31mm Round Inner Cap (24)



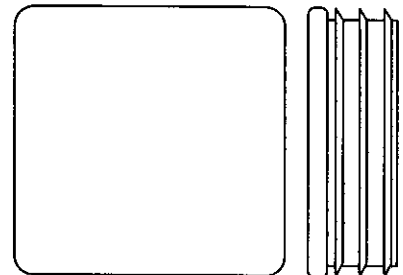
19mm Round Inner Cap (27)



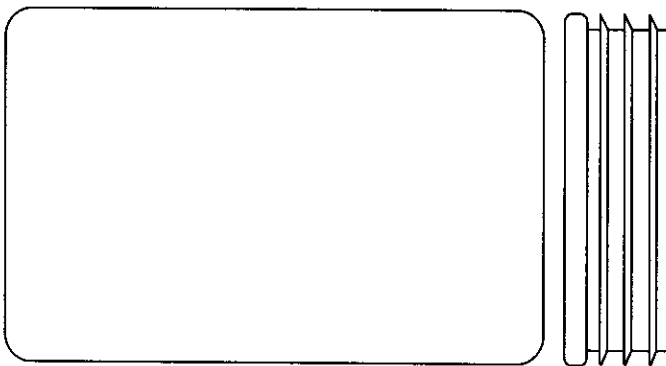
25mm Round Inner Cap (33)



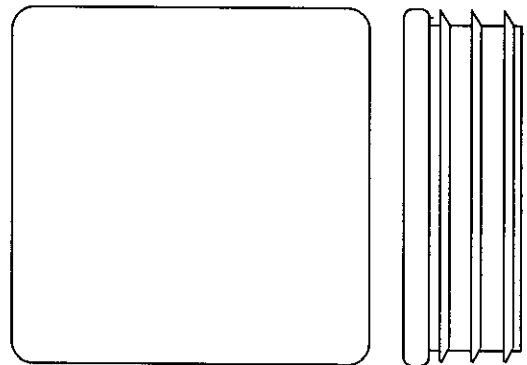
40mm x 50mm Inner Cap (23)



38mm Square Inner Cap (41)



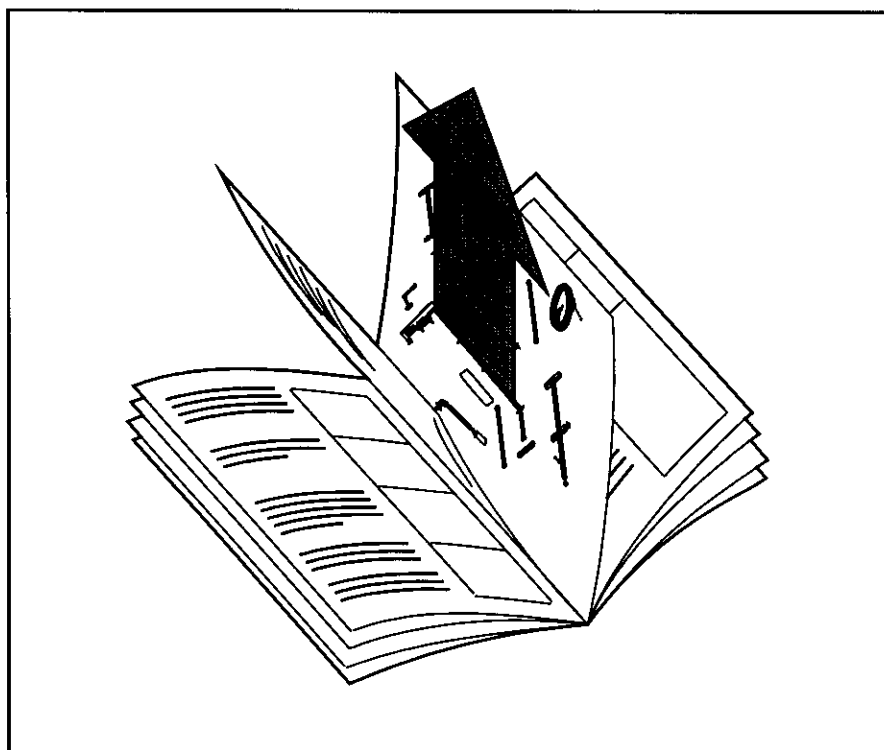
50mm x 75mm Inner Cap (29)



50mm Square Inner Cap (22)

**REMOVE THIS PART LIST/EXPLODED DRAWING  
FROM THE MANUAL.**

**SAVE THIS PART LIST/EXPLODED DRAWING FOR FUTURE REFERENCE**



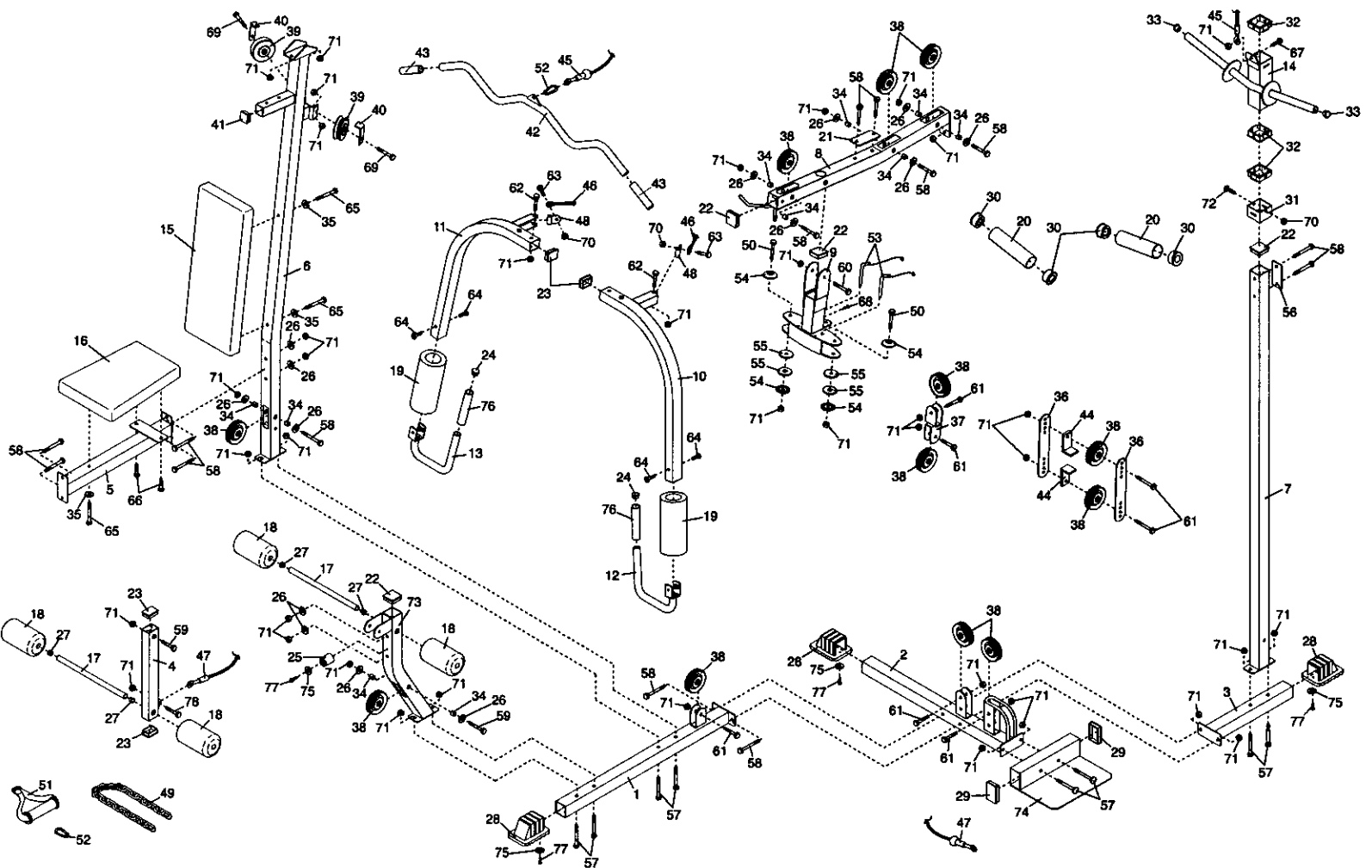
# PART LIST—Model No. 831.159010

R1002A

Key No.	Qty.	Description	Key No.	Qty.	Description
1	1	Front Base	43	2	Handgrip
2	1	Center Base	44	2	Cable Trap
3	1	Rear Base	45	1	High Cable
4	1	Leg Lever	46	1	Butterfly Cable
5	1	Seat Frame	47	1	Low Cable
6	1	Front Upright	48	2	Pivot Bracket
7	1	Rear Upright	49	1	Chain
8	1	Top Frame	50	2	M10 x 82mm Bolt
9	1	Butterfly Frame	51	1	Handle
10	1	Left Butterfly Arm	52	2	Cable Clip
11	1	Right Butterfly Arm	53	2	Locking Pin
12	1	Left Handle	54	4	Butterfly Cap
13	1	Right Handle	55	4	Plastic Washer
14	1	Weight Carriage	56	1	70mm Space Support Plate
15	1	Backrest	57	8	M10 x 65mm Carriage Bolt
16	1	Seat	58	14	M10 x 70mm Bolt
17	2	Pad Tube	59	2	M10 x 65mm Bolt
18	4	Foam Pad	60	1	M10 x 75mm Bolt
19	2	Large Foam Pad	61	7	M10 x 47mm Bolt
20	2	Olympic Weight Adapter	62	2	M10 x 50mm Bolt
21	1	90mm Space Support Plate	63	2	M8 x 27mm Shoulder Bolt
22	4	50mm Square Inner Cap	64	4	M8 x 15mm Bolt
23	4	40mm x 50mm Inner Cap	65	3	M6 x 65mm Bolt
24	2	31mm Round Inner Cap	66	2	M6 x 15mm Bolt
25	1	Bumper	67	1	M10 x 20mm Bolt
26	14	M10 Washer	68	1	M4 x 10mm Screw
27	4	19mm Round Inner Cap	69	2	M10 x 55mm Bolt
28	3	Base Cap	70	3	M8 Nylon Locknut
29	2	50mm x 75mm Inner Cap	71	39	M10 Nylon Locknut
30	4	25mm x 50mm Bushing	72	1	M8 x 70mm Bolt
31	1	Carriage Stop	73	1	Seat Upright
32	3	Carriage Bushing	74	1	Foot Plate
33	2	25mm Round Inner Cap	75	4	M5 Washer
34	10	13mm Spacer	76	2	Foam Grip
35	3	M6 Washer	77	4	M4 x 20mm Screw
36	2	Pulley Plate	78	1	M10 x 28mm Shoulder Bolt
37	1	Double "U"-Bracket	#	1	User's Manual
38	12	90mm Pulley	#	1	Exercise Guide
39	2	"V"-Pulley	#	1	Grease Packet
40	2	Long Cable Trap			
41	1	38mm Square Inner Cap			
42	1	Lat Bar			

Note: "#" indicates a non-illustrated part. Specifications are subject to change without notice.





**EXPLODED DRAWING—Model No. 831.159010**

R1002A

# SEARS

Model No. 831.159010

## QUESTIONS?

If you find that:

- you need help assembling or operating the WEIDER® 2100 weight system
- a part is missing
- or you need to schedule repair service

call our toll-free HELPLINE

**1-800-736-6879**

Monday–Saturday, 7 am–7 pm  
Central Time (excluding holidays)

## REPLACEMENT PARTS

If parts become worn and need to be replaced, call the following toll-free number

**1-800-FON-PART**  
**(1-800-366-7278)**

The model number and serial number of your WEIDER® 2100 weight system are listed on a decal attached to the frame. See the front cover of this manual to find the location of the decal.

All replacement parts are available for immediate purchase or special order when you visit your nearest SEARS Service Center. To request service or to order parts by telephone, call the toll-free numbers listed at the left.

When requesting help or service, or ordering parts, please be prepared to provide the following information:

- The MODEL NUMBER of the product (831.159010)
- The NAME of the product (WEIDER® 2100 weight system)
- The KEY NUMBER and DESCRIPTION of the PART (see the PART LIST and EXPLODED DRAWING in the center of this manual)

**SEARS, ROEBUCK AND CO., HOFFMAN ESTATES, IL 60179**

## FULL 90 DAY WARRANTY

For 90 days from the date of purchase, if failure occurs due to defect in material or workmanship in this SEARS WEIGHT SYSTEM EXERCISER, contact the nearest SEARS Service Center throughout the United States and SEARS will repair or replace the WEIGHT SYSTEM EXERCISER, free of charge.

This warranty does not apply when the WEIGHT SYSTEM EXERCISER is used commercially or for rental purposes.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**SEARS, ROEBUCK AND CO., DEPT. 817WA, HOFFMAN ESTATES, IL 60179**