Two unusual features are immediately evident the very first time you try one of the Series B turntables, whether the B50, the B60 or B61. One is the automatic cueing device. A convenient lever on the turntable deck automatically lowers or raises the tone arm at any point-of-play on the record, assuring the gentlest possible contact between the cartridge stylus and the grooves.

The other feature—and equally exciting—is the speed control. By simply sliding the control lever you smoothly, continuously vary the speed of the record—from 29 to 86 rpm. You can adjust the pitch of the recorded music to match the pitch of a musical instrument in your home. You can accelerate or retard the tempo—for dancing, swimming, calisthenics—for language study, speech therapy—there are thousands and one uses. Or, you can set the control at any one of the click-stop positions which identify the four popular record speeds: 16, 33⅓, 45 and 78 rpm.

The technique for achieving continuous speed variation is as ingenious as it is reliable. The idler wheel is powered by a heavy-duty 4-pole motor to assure constant shaft speed under varying load conditions. This motor is mounted horizontally. Affixed directly to the motor shaft is a conical or tapered pulley.

A single idler wheel is vertically mounted, so that in the 'on' position, this idler makes simultaneous contact with the conical pulley and the underside of the turntable platter. As the pulley revolves with the motor shaft, the idler wheel likewise turns, and causes the turntable to rotate.

Shifting the speed control changes the point of contact between the idler wheel, the conical pulley and the underside of the turntable platter. At 86 rpm, for example, the idler engages the pulley at the base of the cone—where the diameter is largest. At the same time, the idler is in contact with the turntable at a point closest to the center. This relationship or ratio of circumferences causes the turntable to rotate at its fastest speed, even though the rpm of the motor has remained constant.

On the other hand, at 33⅓ rpm, the idler engages the cone toward its apex—where the diameter or circumference is smaller. Contact with the turntable is toward the outside—away from the center—where circumference is greater. The result is that the turntable now rotates at a slower speed.

Inasmuch as the taper of the conical pulley is continuous, the idler can make contact at an infinite number of points along its surface and thus produce an infinite range of turntable speeds between 29 and 86 rpm. Beyond the 29 rpm position, the taper ends, and a cylindrical step position is provided for 16 rpm. When the motor is 'off', the idler wheel automatically disengages and is kept clear from contacting either the pulley or the underside of the turntable.

The tone arm with which the B60 and B61 turntables is equipped deserves special attention. The lateral and vertical suspensions are each independently ball-bearing mounted to insure maximum compliance in both planes. Because cartridges vary somewhat in physical dimensions, there is provision for raising or lowering the tone-arm post in order to establish a perfectly perpendicular angle of contact between the stylus and the record. There is also provision for precisely adjusting stylus force for optimum performance. And the tone arms are equipped with lock-type plug-in heads for ease in interchange cartridges, without sacrificing overall arm rigidity.

Quite apart from these exclusive features, the most compelling reason for considering a Series B turntable for your stereo or monophonic system is the quality of its performance—its quiet operation. There is an amazing absence of audible rumble, and you find that it is impossible to detect flutter or wow. And when you examine the under-side, you are especially impressed by the mechanical simplicity, the orderly arrangement and the evident precision of every finely finished part. Above all, the Series B turntables demonstrate that specialized engineering and production experience—skillfully applied—can achieve realistic economy without compromising quality.

All three Series B models are identical in design and craftsmanship. They differ only in the type of turntable platter and tone arm with which each is equipped, as more fully described in the specifications below.

**SPECIFICATIONS:**
- **B61**—SPEED: continuously variable, 29 to 86 rpm. *W.O.W. and FLUTTER:* less than 0.25%. RUMBLE: 51 db below average recording level. **TURNTABLE:** 12"—74 lbs., machined zinc alloy casting, with heavy rubber mat. **MOTOR:** heavy duty, 4-pole, shielded. **POWER:** 15 watts at 115v, 60 cycles AC. **TONE ARM:** aluminum, professional type. **CARTRIDGE HEAD:** aluminum, plug-in, 4-pin, for stereo and mono cartridges. **CHASSIS DECK:** same as B50. **DIM.:** 15" x 13/4" (253/4" above, 257/8" below deck). **NET WEIGHT:** 13 lbs. **$49.95**

- **B60**—SPEED: continuously variable, 29 to 86 rpm. *W.O.W. and FLUTTER:* less than 0.25%. RUMBLE: 49 db below average recording level. **TURNTABLE:** 12"—3 lbs., formed steel with heavy rubber mat. **CARTRIDGE HEAD:** phonolic. **ACCESSORIES:** Bases: Sturdily constructed, attractively finished wood bases, pre-cut to accommodate models indicated. **PB5** for B50 (mahogany finish) 16" x 13" x 2"..............$ 4.80
- **PB6** for B60 and B61 (walnut finish) 16¾" x 14¼" x 3½".......5.25

**INTERCHANGEABLE PLUG-IN CARTRIDGE HEADS—**
- **H4** (aluminum) for B60 and B61 arms (less cartridge)...........$ 4.00
- **H2** (phonolic) for B50 tone arms (less cartridge).............2.75

*W.O.W. and FLUTTER measured at the most used speed—33⅓ rpm.*
MODELS B60-61 HIGH FIDELITY MANUAL

RECORD PLAYERS

DESCRIPTION

Models B60 and B61 are precision-made manual record players that will satisfy your most exacting demands for a high fidelity sound system.

Completely wired for either stereophonic or monophonic sound, both players can be operated at the four popular fixed speeds of 16-2/3, 33-1/3, 45 and 78 rpm. In addition, speed can be controlled at any velocity from 29 to 86 rpm. Both models have a four-pole, heavy-duty, constant velocity motor and balanced 11-3/4" rubber-padded turntables. Each player has a professional-type tone arm which will accept a plug-in head. The tone arm is raised or lowered by a linkage (power switch) to minimize record or stylus wear and to allow cueing of records. A micrometer-type gauge on the arm permits adjustment of the arm for stylus pressure. The B60/61 will track perfectly with all the newly introduced stereo cartridges having a manufacturer’s recommended tracking weight of as low as 1 gram.

The Model B60 Series player has a precision steel 3.2-lb. turntable. Wow and flutter are less than .20% at 33-1/3 rpm and even better at faster speeds. The B61 Series differs from the B60 in that a nonferrous massive 7-3/4 lb. turntable is supplied. Wow, hum and flutter are practically nonmeasurable.

ACCESSORIES

MODEL PB6 BASE
Sturdily constructed, attached walnut finish wood base - pre-cut to accommodate record player.

MODEL H4 HEAD
Interchangeable plug-in cartridge head (less cartridge) for use when using more than 1 phono cartridge.

Both players will handle discs up to 16 inches in diameter. Each is supplied with vibration isolators (shockmounts), a 45-rpm adapter, a strobe disc, and a mounting template.

INSTALLATION

UNPACKING

Inspect the shipping container and the unit for any indications of improper handling. The unit was carefully checked for condition before leaving this factory. If the unit has been damaged, make an immediate claim to the dealer or distributor from whom it was purchased. If the unit was shipped to you, notify the transportation company without delay and place your claim. Look for the envelope containing the shock-mount parts and the circular strobe disc before discarding the carton.

INSTALLATION

The Bogen Models B60 and B61 Record Players may be mounted in a cabinet shelf or any suitable base with minimum dimensions of 16-1/4" x 14". An attractive mahogany finished base, Bogen Model PB6, is available to those who wish a precut and drilled base ready for mounting. A template and instructions are supplied for laying out your own mounting. The mounting shelf should be at least 1/4" thick (not over 5/8" thick). If thinner, additional washers may be used to make up the difference.

PROCEDURE

1. Unpack the carton carefully. Look under the phono chassis for a box containing the phenolic head and a 45-rpm adapter.

2. Open the envelope containing the shock-mount parts. Check to see that you have four studs, twelve nuts, four spring plates, and eight wood screws. Look also for an envelope containing cartridge mounting hardware.

3. Place a nut on each stud. Screw each of the four studs into the tapped hole on each pad. These
pads are welded to the bottom of the mounting plate. Run each nut up against the mounting plate to hold the studs in position.

4. Place a second nut on each stud at a distance of approximately 1 inch from the underside of the plate surface. (For Model B61, the separation distance should be 1-1/4 inches.)

5. Insert the spring plate over each of the 1-inch holes on the mounting base so that the spring part is nested in the hole. Fasten each spring plate to the base with two of the supplied wood screws.

6. Place the phone chassis on the base so that all studs protrude through the springs. Check to see whether the chassis is suspended above the base and is level on all four sides. (There should be approximately 1/4-inch clearance between the phono chassis and the base.)

7. If the phono chassis is not parallel to the base, adjust the lower nuts on each stud to level the chassis. It may be necessary to repeat this step several times until the proper balance is obtained. Remember to maintain the approximate 1/4-inch clearance between the phono chassis and the mounting base.

8. After the phono chassis is level with respect to the base, add a third nut on each stud and tighten it against the spring shockmount.

9. Remove the two screws, on the phono chassis which are painted red. (The screws were used to protect the player in transit.)

10. Since finger marks will affect the performance of this instrument, carefully clean all metal surfaces (particularly the drive cone) with carbon tetrachloride. Clean the idler wheel with denatured alcohol.

11. Carefully remove the turntable from its package and place the turntable on the shaft. Place the rubber mat on the turntable.

12. Connect the line cord of the phonograph to a wall outlet supplying 117-volt, 60-cycle AC power.

OUTPUT

STEREO SYSTEM: Two output cables have been supplied with this player for connection to your amplifier(s). Connect these two cables to the phonograph input receptacles on your amplifier. It is not necessary to disconnect either cable for monophonic operation in the stereo system, since the record player will play

MONOPHONIC SYSTEM: If two output cables are supplied with the record player, connect only one cable to the phono input receptacle of the amplifier. No connection is required for the other cable.

ADJUSTMENTS

SETTING AND REPLACING CARTRIDGES

Included with your record player, you will find an envelope containing the following hardware: two screw extensions (Bogen Part No. 70-8019-01), two 3/48 x 3/8" round head slotted machine screws, two 3-48 x 5/16" round head slotted machine screws and two 3-48 x 1/8" round head slotted machine screws. This hardware is for use in mounting the phonograph cartridge to the head. Not all of it will be required in every instance. Mounting instructions follow for some of the more commonly used cartridges. Check manufacturer's instructions for any cartridge not listed below.

NOTE: Always remove the head from the tone arm before attempting to insert or replace any phonograph cartridge. If the cartridge has a protective shield, it may be necessary to remove it before mounting.

PICKERING STEREOPHONIC CARTRIDGE (Stanton Stereo-Fluxvalve models 380A and 380C)

Install the cartridge into the phono player head using the pair of 3/16" standoffs included with the cartridge and the 5/16" screws included with the phono player.

The B60-61 cartridge head leads have push-on connectors that can be slid on to the cartridge output terminals. Connect a colored lead and its associated black (ground) lead to "L" and "LG" terminals, respectively. Connect the other colored lead and its associated black lead to the "R" and "RG" terminals, respectively.

The tone arm weight adjustment should be set to provide 2 to 5 grams of tracking force for the model 380A cartridge and 4 to 7 grams for the model 380C.
AUDIO EMPIRE (Empire model 108)

Install the cartridge into the phono player head using the 3/8" screws included with the player.

The B60-61 cartridge head leads have push-on connectors that can be slid on to the cartridge output terminals. Connect a colored lead and its associated black (ground) lead to "L" and associated "G" terminals, respectively. Connect the other colored lead and its associated black lead to the "R" and associated "G" terminals, respectively.

The tone arm weight adjustment should be set to provide 1.5 to 5 grams of tracking force.

AUDIO DYNAMICS (models ADC-1 and ADC-2)

Install the cartridge into the phono player head using the mounting screws supplied with the cartridge. The B60-61 cartridge leads have push-on connectors that can be slid on to the cartridge output terminals. Connect a colored lead and its associated black (ground) lead to left channel "hot" and "ground" terminals respectively. Connect the other colored lead and its associated black lead to the right channel "hot" and "ground" terminals, respectively.

The tone arm weight adjustment should be set to provide 1 to 2 grams of tracking force for the model ADC-1 and 2 to 4 grams for the model ADC-2.

SHURE STEREOPHONIC CARTRIDGE (Shure M7D)

Turn the phono head over. You will note that there are four wires leading from the head plug. If there are wire lugs soldered to the ends of these four wires, check to see if they are the same as the wire lugs supplied with the Shure cartridge. If they are not identical, remove them and solder the wire lugs supplied with the cartridge to each of these four wires.

Note the two holes on either side of the brass plug button. Insert a screw extension into each of these holes. Tighten these extensions securely. Mount the cartridge to the phono head by placing one 3-48 x 3/8" round head screw into the slot on each side of the cartridge. Fasten each screw into each screw extension.

Insert the wire lugs of the black leads onto the two cartridge pins marked G; insert the wire lugs of the colored leads onto the other two pins.

TONE ARM HEIGHT

The height of the tone arm may be adjusted if necessary. Loosen the small set screw in the tone arm base and manually set the arm at the desired height. Tighten the set screw.

ADJUSTING TONE ARM WEIGHT

Turn the Tone Arm Weight Adjustment (refer to figure 1) until cartridge manufacturer's recommended tracking weight is reached (measure carefully using a good quality stylus pressure gauge). Once correct setting is obtained, read micrometer logging scale (on tone arm) and note setting. If cartridge is removed at a subsequent time, it can be easily reinstalled using the same micrometer logging scale setting. IMPORTANT: the scale is for logging purposes only, the numbers on the scale do not indicate the actual tracking pressure, since this will vary with the weight of the cartridge.

(NOTE: With some cartridges, the magnetic attraction of the cartridge to the turntable must be included in the measurement.)

FIGURE 1 – B60-61 CONTROLS AND COMPONENTS
REMINDERS: Did you remove the transit screws (painted red) under the turntable? Did you clean all surfaces carefully? If not, please read the Installation Instructions before operating the player.

1. Make certain that the cartridge is connected properly. Check to see that it is properly set for long-play or for 78 rpm records. **CAUTION:** Do not play a stereophonic record with a monophonic cartridge. The record will be ruined after a few plays.

2. Set the speed selector for the appropriate speed. For maximum speed accuracy, the desired speed position, of the SPEED SELECTOR, should be approached from the low speed side of the SPEED SELECTOR.

3. Set the pickup arm so that the stylus is directly over the entering groove of the record.

4. Turn the power switch until a click is felt and allow a few seconds for the turntable to reach full speed.

5. Continue turning the power switch clockwise until the stylus is gently lowered onto the record (see Figure 2).

6. When the record has finished playing, turn the

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**SERVICE**

**SPEED TESTING AND ADJUSTING**

All units are tested and adjusted at the factory. No further adjustment should be required. However, if adjustment is required for any reason, proceed as follows:

1. Set speed selector lever at appropriate position.

2. Place record on the turntable.

3. Set the strobe disc on the record (the circular disc with the radial black lines).

4. Plug the power cord into any 110-120 volt, 60-cycle AC power source.

5. Turn the power switch on.

6. Set the needle on the first grooves of the record.

7. Test speed accuracy by checking the strobe pattern which corresponds to the speed selected. Use fluorescent light if possible: the pattern will be much clearer. If the pattern appears to be moving,

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adjacent speed in the following manner:

a. Loosen the speed step-grove screw one or two turns.

b. With the speed selector lever in the step groove, move the step groove carefully until the appropriate strobe disc pattern seems to be stationary.

c. Carefully lift the speed selector lever out of the step groove without moving the step, and tighten the screw.

d. Repeat this procedure for each speed setting which needs adjustment.

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**LUBRICATION**

The bearing on the rotor side of the motor can be lubricated by removing the rectangular cover held down by two screws, pouring three drops maximum of fine oil onto the felt and replacing the cover. Under conditions of normal use, it should not be necessary to lubricate the motor more than once every five years.
A - Tone Arm Weight Adjustment
B - Arm Hold - Down Spring
C - Tone Arm Rest
D - Tone Arm
E - Power Switch Lever

F - Phenolic Head
G - Idler Assembly Retaining Spring
H - Speed Control Lever
I - Transit Screws
J - Idler Arm Spring

K - Output Plugs
L - Power Cord
M - Idler Wheel
N - Motor Drive Cone
O - Motor Assembly

P - Spade Lug (Ground)
Q - Capacitor
R - Turntable Well
S - Toggle Switch
T - Lift Bar Cam
All other points have been lubricated at the factory for the life of the unit.

CARE OF EQUIPMENT

1. Clean the stylus periodically to keep it free from dust and grit.

2. Clean the drive wheel periodically with denatured alcohol.

3. Periodically check the tracking weight to the tone arm. It is suggested that you obtain a stylus gauge for this purpose.

4. Avoid oil on the idler wheel rim and the motor conical drive shaft.

SERVICING

1. If the turntable doesn’t rotate, but the motor operates, it is likely that either the idler wheel rim or the idler arm spring is damaged.

2. If the motor doesn’t operate, check all connections. Check the toggle switch under the mounting plate which activates the idler assembly. Check the power cable. If none of these is the cause, it is possible that the motor may have to be replaced.

3. If the motor will not turn off, the capacitor across the switch terminals is shorted.

4. If speed is erratic, clean the rubber rim of the idler wheel with denatured alcohol. Look for oil or grease under the turntable or on the motor drive cone. Clean thoroughly with alcohol or carbon tetrachloride.

5. If sound is distorted, check the stylus and replace it if worn. If the stylus is good, it is likely that the tracking pressure is too low. Readjust the pressure.

IF TROUBLE OCCURS

If trouble ever develops with your unit, please do not hesitate to ask our advice or assistance. We are interested in your Bogen-Presto unit for as long as you have it. Information can be obtained by writing to: Service Department, Bogen-Presto, P.O. Box 500, Paramus, New Jersey.

When communicating with us give the model number and serial number of your unit. Completely describe the difficulty encountered. Describe the effect each operating control has upon the symptoms of trouble. Include details on electrical connections to associated equipment and list such equipment.

When we receive this information we will send you service information if the trouble appears to be simple (e.g. bad vacuum tube, incorrect connections). If trouble requires servicing we shall send you the name and address of the nearest Bogen authorized service agency to which you can send your unit for repair.

When shipping your unit, pack instrument well using the original shipping carton and filler material to prevent damage in transit. Send unit, fully insured and prepaid, via railway express. Do not ship via parcel post unless so instructed. The unit will be promptly repaired and returned to you via express collect.
Owner’s Warranty

The Bogen electronic equipment which you have just purchased was carefully tested and inspected before leaving our factory. If properly installed and operated in accordance with instructions furnished, it should give excellent performance and reliable operation.

Bogen equipment is guaranteed against all defects in material and workmanship for one year from date of sale to the original purchaser. Any part of the equipment which, with normal installation and use, becomes defective will be repaired or replaced by us provided it is returned for our examination, transportation prepaid, to our factory (or authorized service station). This warranty does not apply to equipment which has been subjected to abuse or accident or which has been altered in any way; nor does this warranty extend to tubes, vibrators, or accessories, etc. not of our own manufacture which are separately covered by the producing manufacturer’s warranty.

This registration card must be filled out and mailed to us within 5 days of purchase to place the warranty in effect.

BOGEN—PRESTO __________________________ Date____________________

A DIVISION OF THE SIEGLER CORP.

PARAMUS, N. J.

Please register in my name the following equipment:

Model No. __________________________ | Series | __________________________

Purchaser ___________________________________________________________

Address __________________________ __________________________

Purchased from ____________________________________________________

Address __________________________ __________________________

________________________ __________________________

Why did you choose Bogen equipment? (If our advertising prompted your purchase, where did you see the ads?)

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ATTENTION

Examine all carton packaging for component parts before discarding carton.