

Lee Precision LOAD-ALL II Tool Shotshell



Lee Precision LOAD-ALL II Tool Shotshell User Manual

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LEE
LEE PRECISION, INC.

Lee Precision LOAD-ALL II Tool Shot shell User Manual



Guarantee

Lee reloading products are guaranteed not to wear out or break from normal use for two full years or they will be repaired or replaced at no charge if returned to the factory. Any Lee product of current manufacture, regardless of age or condition, will be reconditioned to new, including a new guarantee, if returned to the factory with payment equal to half the current retail price.

CAUTION

Ammunition reloading can be dangerous if done improperly and should not be attempted by persons not willing and able to read and follow instructions exactly. Children should not be permitted to reload ammunition without strict parental supervision. Always wear safety glasses when reloading and shooting. Ammunition loaded with these tools and data should only be used in modern guns in good condition. We do not accept responsibility for ammunition loaded with these tools or data as we have no control over the manufacture and storage of components or the loading procedure and techniques. Primers and gun powders, like gasoline and matches, can be dangerous if improperly handled or misused.

PRIMERS

Any brand of primer may be used. When using fine grained ball powder, it's best to use a primer with a covered flash hole to prevent the powder from entering the primer. This is not dangerous, but may upon firing, leak gas around the primer. It could drive the case into the chamber and disable the gun until the shell is removed with a cleaning rod.

CAUTION

To reduce the chance of mass detonation of primers in the primer feed, use only primers that have a covered flash hole.

POWDER

After determining the amount of shot you desire to use, select the powder type and proper powder and shot bushing from the charge table. Loads listed on the charge table have been compiled from load data supplied by the powder manufacturers. It has been condensed to a simplified form for use with your LoadAll II. Only loads that produce uniform results with a variety of components are listed.

CASES

Your Lee Load-All II will load all types of cases with ease. However, cases made for trap and skeet shooting are designed for reloading and will reload more times before wearing out. Cases with split ends, cracked or damaged brass and holes burned in the side should be discarded. High brass case or low brass case refers only to the brass length on the outside of the case. This does not have any bearing on the strength of the case or the load it will accept. The brass length is only a selling feature designed to impress the purchaser with the implied extra powder. The important consideration in case selection is the type of base wad. Cases with a paper base wad require slightly more powder for the same velocity. Less powder must be used in cases with plastic base wad or no base wad, such as

Remington RXP, Winchester AA, Winchester Compression Formed or Federal Champion Be sure you can select your load data from the proper column on the charge table.

SHOT

All of the current manufacturers of shot supply good quality shot. Selection by lowest price is suggested.

WADS

Your Lee Load-All II is designed to load plastic wads only, preferably the one piece variety. When using these, no wad pressure is required and if applied, will quickly neutralize itself. Crimping the shell in reality applies the wad pressure. The important and basic difference in the one piece wad is the length of the wad and the amount of space it occupies within the shell. It is important that the shell be completely filled to make a good crimp. Once the weight of shot is selected, the only variable volume component is the wad. This information is supplied by the wad manufacturer, usually printed on the bag or carton they are packaged in. The correct wads for trap and skeet loads are readily available because they are the cases most often loaded.

Wad types are usually listed on load data supplied by powder manufacturers. See your local sporting goods dealer or write directly to the powder manufacturer for a copy of the latest load data. Generally, wads will come in two basic lengths, long and short. A supply of each size will take care of 90% of your loading. Sometimes it may be necessary to slip a cardboard wad of a smaller gauge to take up excess space. Flake type powder will compress more than the ball or granular powder. Changing powder type may make a difference in the final crimp.

CONVERTING TO ANOTHER GAUGE

The Lee Load-All II is easily and economically converted to another gauge.

- 12 GAUGE Order 90070
- 16 GAUGE Order 90071
- 20 GAUGE Order 90072

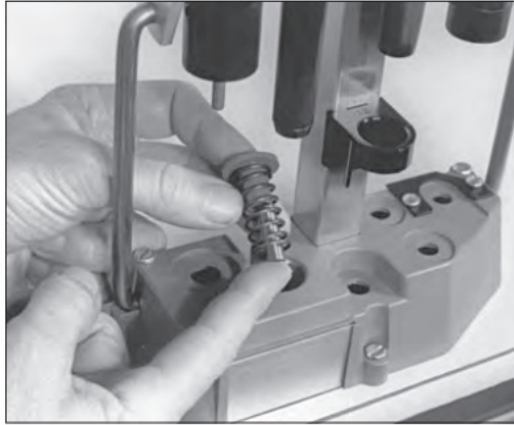
DISASSEMBLY AND CONVERSION

1. Spring the aluminum handle free of the pivot pins and slide the hopper assembly off the square column. Hold your hand over the powder hopper while emptying the shot. Pour the powder back into its original container.
2. Remove the nameplate and hopper and install onto the new carrier.
3. Replace the wad guide. 16 and 20 gauge use the same wad guide.

4. Replace the shell holder.
5. Reassemble to the column and handle
6. Be sure to install the correct shot and powder bushings.

BEFORE YOU START RELOADING

1. Mount your Lee Load All II to a sturdy bench or table with the three screws supplied. See HELPFUL HINTS for portable mounting. Mount press no more than 1/2" from edge of bench for handle clearance.



2. Install the primer punch, spring and primer guide into STATION 2.



3. Remove two screws holding the nameplate. Remove charge bar and install correct shot bushing and powder bushing as shown on the charge table. Reassemble, being careful to not overtighten the screws

CAUTION

Recheck the bushing against the load data. Too much shot or powder will cause dangerous pressures.

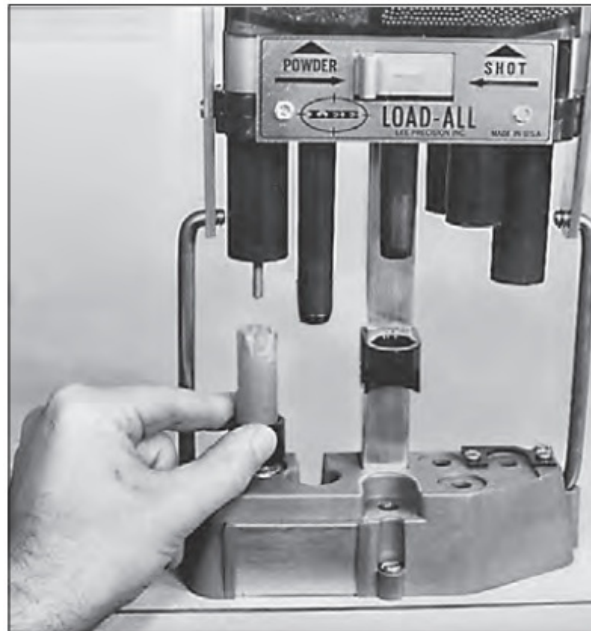
4. Slide the charge bar to the left and fill the shot and powder hoppers. Note the powder hopper is the smaller one on the left, above the word POWDER on the nameplate.
5. Sort cases as to brand and type and discard the defective ones. Because interior length differs between brands and types, they require different length wads. It's best to load one type at a time.

NOW YOU CAN BEGIN RELOADING

Your Lee Load-All II is factory set and requires no adjustment.

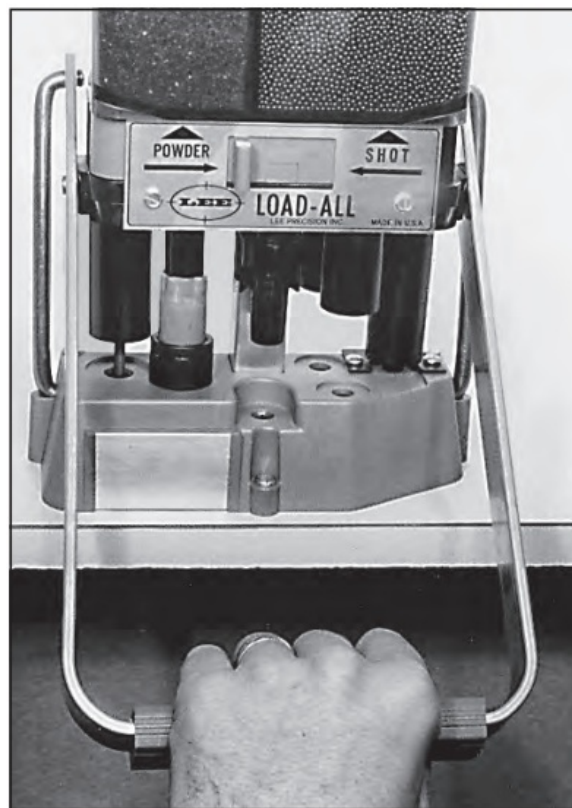
STATION 1

Slip the sizing die, grooved end up, over the shell. Place the shell in STATION 1 and pull down the handle. This will full length size and deprime the shell.



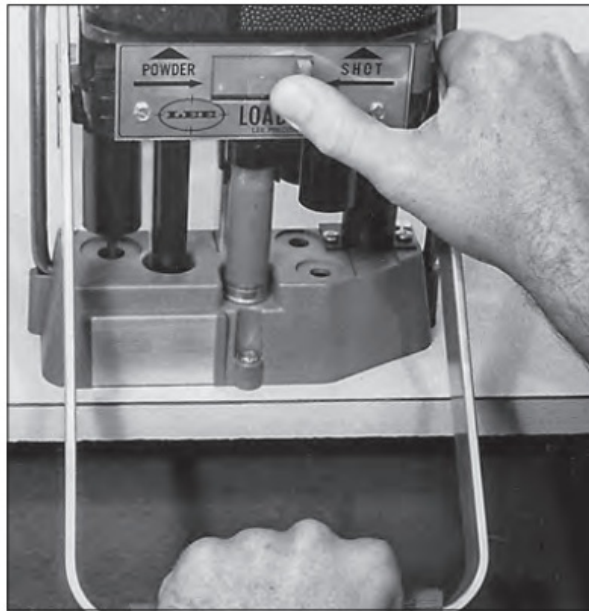
STATION 2

Place a primer in the priming pocket at STATION 2. Move the shell onto STATION 2; pull down the handle. The sizing die will automatically be pushed off at this station. Remove it completely from the shell.



STATION 3

Slip the shell into the wad guide at STATION 3.



STATION 3a

Lower the handle and slide charge bar to the right. This adds the powder.



Raise handle, insert proper wad and lower the handle until it stops.



STATION 3c

Slide the charge bar to the left to add the shot. Raise the handle.



STATION 4

Place the shell under the proper crimp starter. Keep an inward fold of the shell mouth toward the front for proper alignment with the segmented starter. Depress the handle to a full stop. Some shells may require a two-second pause to set the plastic. Note The 8-segment crimp starter is in the front on the 12 GAUGE only. The other gauges have the 6-segment starter in the front. Be sure you select the correct one.



STATION 5

Immediately move the shell into the shell holder at STATION 5 and complete the crimp. You should have a perfectly crimped shell with a nice, tapered end.

IMPORTANT

A good crimp can only be obtained if the wad is the correct length. After the shot is added, there should be about 1/2 inch of shell above the shot on a 12 gauge; about 7/16 inch for the 20 gauge; and just slightly more for the 16 gauge. If the crimp is too deep with a hole in the center, use a longer wad. Mashed in crimps or crushed cases indicate the wad should be shorter.

HELPFUL HINTS

- Some brands of primers are slightly larger than others. If you plan on reloading your cases many times, you can use the smaller diameter primers first. After the primer hole has been enlarged, the large primers will still hold snugly.
- Certain combinations of components will give higher velocities than others. The amount of difference is generally not important. However, if you are a purist and desire the exact amount, consult the current load data supplied from the powder manufacturers.
- There is no better source than the literature supplied free or at nominal cost
- For a portable set-up, mount your Lee Load-All II to a piece of plywood or board. This can be C-clamped to any table, desk or countertop. Felt glued to the bottom of the board will keep it from damaging the surface on which it's clamped.
- If reloading shells for the same gun from which they're fired, you can eliminate the use of the full length sizer. This speeds loading and extends the life of the shell.
- To insure uniform charges, do not let the hopper empty more than 1/4" below the top of the built-in baffle.

SLUGS

Lee offers a slug mold that will produce slugs that are easily loaded on your Load-All II. Best of all, accuracy is better than factory loaded rifled slugs and you can use standard trap wads and shells. Slug molds are complete with handles and load data.

12 gauge 1 oz. 90281 7/8 oz. 90282



SPECIAL INSTRUCTIONS

FOR 3" SHELLS ONLY

1. Remove screw that holds wad guide to column. Re-install 1/4" higher.
2. Do not pull down on handle to complete stop on STATION 4 & 5. Pull down until you feel some resistance. If in doubt, use too little pressure and raise handle to see if the crimp has formed properly. If not, apply a little more pressure. You will very quickly learn to feel the correct pressure.

LOADING STEEL SHOT

Steel shot is easily loaded with the Lee Load All II. Follow the instructions from the supplier of steel shot. Lee Precision, Inc. has no load information. Move the wad guide up ." Place three or four steel washers under the case while seating the wad. This is essential to fully seat the wad. Follow instructions below for large size shot.

LARGE SIZE SHOT

Shot sizes as large as #2s and BBs (#4 and #2 in 16 and 20 gauge) can be fed through the hopper, but will stick in the drop tube unless it is raised to the mouth of the shell. It's a good idea when using large size shot to bump the handle two or three times downward with the heel of your hand before and after dumping the shot. This will insure

the charge bar fills and the shot does not stick in the drop tube.

BUCKSHOT

Do not attempt to feed buckshot through the hopper. Buckshot should be counted and placed in the shell by hand in layers.

GAUGE BUCKSHOT LOADS POWDER GRAINS ACTUAL COUNT OF SHOT CHARGE



- Hodgdon HS-6 32.5 #4 Buck 27
- Hodgdon HS-6 32.5 #3 Buck 20
- Hodgdon HS-6 32.5 #0 Buck 12
- Hodgdon HS-6 32.5 #00 Buck 9

LEE 18 CAVITY BUCKSHOT BULLET MOLD

Eighteen cavity precision-machined mold produces 18 linked pellets per cast. No need to individually count pellets — simply snip three strands into your 12 gauge shell. Each cast produces enough pellets to load two 12 GA. shotshells.

- 240 ball diameter #4 Buckshot No. 90028
- 330 ball diameter 00 Buckshot No. 90486
- 360 ball diameter 000 Buckshot No. 90192
- Handles sold separately. Order No. 90005

CRIMP PROBLEMS

Bad crimps are almost always due to using the wrong starter or not having the correct wad. This is frequently due to incorrect or outdated information found in reloading handbooks or literature supplied by component manufacturers. If you don't get a good crimp, check your components and bushings. If they are correct, change to a suitable length wad. See the important message below STATION 5 instructions.

LOADS, SHELLS AND PRIMERS

The loads listed on your Lee Charge Table are the result of many hours of sifting through the abundance of data. Loads that exhibited uniform results with a variety of components were selected. The only factor that must be considered for any Lee loads is the type of shell. Loads for all plastic cases, such as Federal, Champion II, Remington RXP or Winchester Compression Formed cases, use less powder for the same velocity and pressure. Shells made with a paper base wad, including plastic or paper case, require slightly more powder— about 5% more—to give the same velocity. So it is important to know which type of shell you're loading and select the load data from the correct charge chart. Primer brand will make a slight difference; not enough though to concern the average shooter. Federal primers are the most powerful and Remington are the lightest. All others are in between

these extremes. All are satisfactory for use with your Load-All II.

WEIGHING CHARGES

It's not necessary to check charges with a scale. However, should you desire to do so, be certain to take a shell out of the normal loading sequence to insure the powder is properly agitated between charges and the press is subject to the stresses of loading. Otherwise, your charge will scale on the light side. This might tempt you to use a larger bushing and could result in an overcharge. The largest errors will be caused by powder density variation and operator technique. As much as 15% total difference from listed charges may be encountered. This should be on the light side for safety reasons.

The load data supplied with your tool is only a partial listing of all that is available. Each powder manufacturer supplies, at little or no cost, extensive data for almost any possible combination of components. You'll find the Lee Charge Table adequate for 99% of all your loading needs. The shot bushings are designed to dispense the correct weight of #6 shot. Smaller size shot will give heavier charges and large size shot will be slightly on the light side. Exception is made with 1½ oz. bushing. This is made to give very close charges for 7½ and 8 size shot. This was done for the trapshooter.

TO SUM UP

- Use only plastic wads
- Primer type is unimportant for most loads
- Shells made of one-piece plastic construction, including the base wad, require less powder.
- Paper shells or plastic shells with a paper basewad usually require slightly more powder to give the same velocity.

PARTS LIST FOR THE LEE LOAD-ALL II

- Full length steel sizer12 gauge LA1046
- 16 gauge LA1047 20 gauge LA1048
- Dies and carrier assembly, complete*Shot and powder hopper
.LA1054
- Cover for hopperLA1055
- Spring GuideLA1915
- BaseLA1063
- Shell holder*Square tube upright
.LA1066
- Main springLA1074
- Handle or lever with grip LA1068 · LA1069
- Links from handle to base, pairLA1067
- Retainers for linksLA1076
- Primer guideLA3268
- Primer doorLA1081
- Primer pinLA1044
- Primer guide springLA1075
- Nameplate and two screwsLA1073
- Wad guide 12 gaugeLA1061
- 16 & 20 gaugeLA1062

- Charge table 12 gaugeLA1070
- 16 & 20 gaugeLA1071
- Charge bar andLA1057
- 24 shot & powder bushings
- Work Bench Mounting ScrewsFL1157 (1)
- FL2380 (2)
- Work Bench Mounting T Nuts . . FL2379 (2)

IMPORTANT: When ordering these parts, specify for 12, 16 or 20 gauge

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