

# UNIVERSAL POWER TRIMMER

## Introduction

Because a metallic cartridge case stretches after a number of firings, it becomes necessary to trim it to proper length so it will chamber properly. Your Lyman Universal Power Trimmer is designed to do that chore with ease and precision. Its patented Universal chuckhead accepts all U.S. metallic cartridge cases except .50/70 Government and cartridges of similar rim diameter.

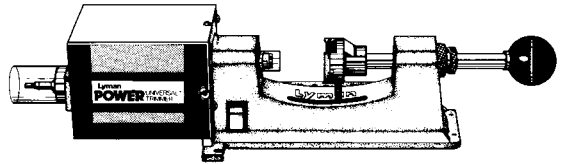
Conversion to another caliber is quick and easy, since you need change only the pilot. Be sure to use the correct pilot for your particular caliber.

Additionally, your new Lyman Power Trimmer is capable of quickly and easily cleaning primer pockets.

Included with your Trimmer are two cutter heads, two wire end brushes (large and small) for cleaning primer pockets and a hex wrench (5/64") which fits all the lock screws on the machine.

## Caution

The Power Trimmer is not a toy and is intended for use by or under the supervision of adults. The guards for both the cutter head and primer pocket cleaning brushes must be in place whenever you run the Trimmer.



## Operation Notes

The 110 volt Trimmer is fitted with a 3-prong cord plug which must be used in a grounded, 3-prong wall socket like most common electrical tools. Purchasers of the 220 volt Trimmer must purchase and attach their own cord plug to insure said plug will fit into the given 220 volt wall outlet.

Once your Trimmer has been connected to an appropriate electrical supply, the motor's off/on operation is controlled by the rocker switch found on the frame under, and slightly below, the cutter assembly.

For your safety, use the rocker switch to turn off the Trimmer and unplug it before changing pilots, cutters or steel brushes.

If your Trimmer hums, but will not run when plugged in and switched "On", the motor cover may have shifted in shipment and bound up the motor drive. Loosen the three cover screws, realign the motor cover and tighten the three screws. Plug in and turn "On" to test.

Before trimming cartridge cases for the first time run the motor, with cutterhead in place, for about one half hour. This allows the motor bearing to "break-in" and the cutterhead will then deliver full torque for case trimming.

Your Power Trimmer is an end-cutting tool which, when in operation, may seem to have an off-center condition in the cutterhead and pilot. This has no detrimental effect on the precision trimming of cartridge case mouths.

## Mounting

Your Power Trimmer is supplied already mounted on a composite board. Using the board as a base, your Trimmer may be fastened directly to the top of your reloading bench. Some

## Power Trimmer (continued)

reloaders prefer to clamp their Trimmers in a vise and this composite board can be held firmly in the vise jaws without damaging the Trimmer's casting. You may, of course, discard this board, since *it is part of the product packaging for safe shipment.*

### Installing the Pilot

With the unit unplugged, loosen the lock screw on the Case Trimmer's cutter head. Select the appropriate caliber of pilot and insert it all the way into the cutter head (see **Figure A**). Now tighten the lock screw.

### Preparing the Cases

Before trimming, cases must be full-length or neck sized and deprimed. Pilots are designed to be used only with sized necks.

### Measuring the Cases

You will need an accurate means of measuring case length. We recommend an accurate vernier, or dial, caliper be used. When your cases have lengthened to the point where they exceed the maximum case length allowable for your cartridge, they must be trimmed. For a list of "Maximum Case Lengths" and suggested "Trim-to Lengths", see your Lyman handbook or a similar reference.

### Locking the Case In Place

Place the chuckhead in the "Open" position by turning the ball handle counter-clockwise until it stops

Slip the head of your deprimed cartridge case into the chuckhead cams and press the rim of the case against the side of the steel alignment ball as shown in **Figure B**. The case will snap into position with the cams engaged in the cartridge case's extractor groove. Be certain the case is straight and that both cams are engaging evenly.

***With the chuckhead lock still open, feed in the chuckhead shaft, with cartridge, so that the pilot enters the cartridge case neck and the cutter face is touching the case mouth. Tighten the chuckhead on the cartridge case by turning the knob handle clockwise.***

**DO NOT USE EXCESSIVE FORCE WHEN LOCKING THE CHUCKHEAD.**

Leave the pilot and cutter in this position as you adjust the Trimmer. Please note that at this time the Trimmer has not been turned on.

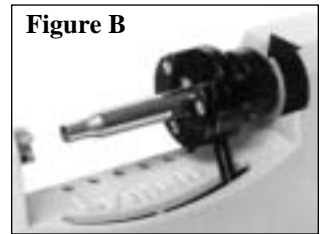
### Adjusting the Cut

Two knurled adjustment collars located on the head shaft assembly (see **Figure C**) provide for both fine and coarse adjustments. Before making any adjustments, hold the large ring with your finger and turn the small ring counter-clockwise four full turns. This will leave about 3/32 of an inch space between the rings and allow room for fine adjustment. Make

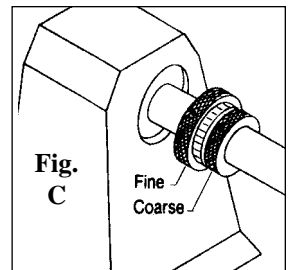


**Figure A**

**Insert pilot into cutter head and lock in place with allen wrench.**



**Figure B**



**Both fine and coarse length adjustments are provided.**

## ***Power Trimmer (continued)***

certain the cutter face is positioned against the mouth of the cartridge case and slide the adjustment collars in tight against the side of the Trimmer's base casting. Tighten the lock screw in the small ring.

Beyond this point, fine adjustment is all that is necessary.

Fine adjustment is accomplished by turning the large collar counter-clockwise. One complete revolution of the large ring equals approximately .020" change in cutting depth.

Latter models have a series of indicators each representing .001 inch of travel on the shaft. Used as reference marks, they enable the user to return to an approximate setting for various cases without time consuming trial and error testing.

Slide the transparent cutter guard into position and turn on the Trimmer using the Off/On rocker switch. Loosen the chuckhead slightly and run the cartridge case mouth over the pilot. Now tighten the chuckhead.

Adjust the cut a little at a time, checking your case length with your caliper after each cut. Do not exceed the .010" feed capability per cut which equals a half-turn of the large collar.

When the correct "trim-to" length has been reached, tighten the lock screw in the large ring.

## **Processing your Cases**

Once your Trimmer is in adjustment, your entire lot of cartridge cases may be processed to bring them all to the correct length. Do not apply too much pressure on the knob handle. Use only light pressure and let the cutter do the trimming. It is important that each cartridge case be inserted onto the turning pilot while the chuckhead is slightly loose. This is to ensure optimum case and pilot alignment. After alignment is achieved, tighten the chuckhead, apply light pressure against the knob and trim your case.

After trimming, small burrs will be present on the case mouth. These can easily be removed from both inside and outside the cartridge case mouth with a tool like the Lyman Deburring Tool.

Case lengths should be verified frequently to be certain no further adjustments are necessary.

Variations in finished case length would likely be caused by inconsistent pressure applied against the cutter head during the trimming process. If the case mouth sticks against the cutter head after trimming either too much pressure is being used or the pilot is not installed firmly against the cutter head.

## **Keep a Master Case**

When a reloader is working with several different chamberings, it is wise to retain a master case of the correct length for each cartridge. This reduces trimmer adjustment time since the master case can be snapped into the chuck and the cutter quickly brought into adjustment against its mouth.

## **Primer Pocket Cleaning**

Cleaning of your primer pockets can be done quickly and easily using the small or large steel cleaning brushes provided with your Power Trimmer. Before installing the appropriate size brush, first turn off the Trimmer using the rocker switch and unplug it from the wall socket. Next, remove the transparent brush shield and screw the appropriate diameter steel brush into the high speed brush adapter at the rear of the trimmer. Tighten the set screw to secure the brush. Slide the brush shield over the brush, plug the electrical cord into the wall socket and operate your Trimmer with the Off/On rocker switch.

## Power Trimmer (continued)

### Caution

This high speed device cleans primer pockets quickly, with a light touch. It is easy to enlarge primer pockets so don't overdo it!

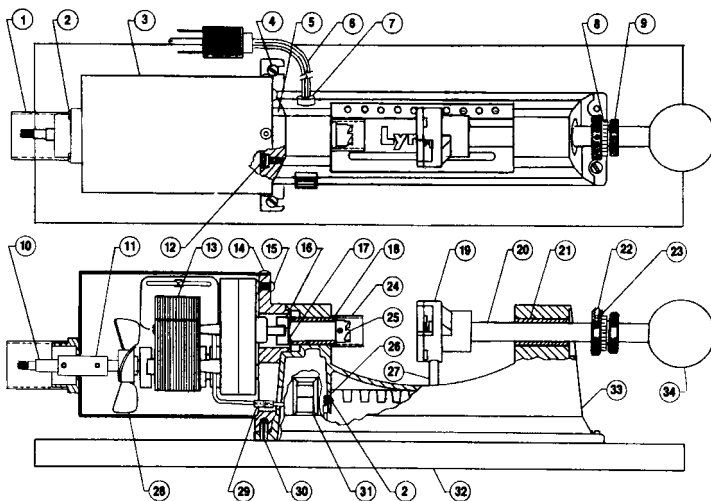
### Maintaining Your Trimmer

Powdered graphite or light oil on the stop collar shaft assembly will provide proper lubrication for smooth operation and protection against rust. Keep the unit dust-free by covering it when not in use. *The electric motor requires no lubrication.*

### Changing the Cutter Heads

If it becomes necessary to change the cutter head, this can be done by simply unscrewing the cutter head from the Power Trimmer in a counter-clockwise direction. Hold onto the primer pocket cleaning brush on the high speed motor shaft while unscrewing the cutter head in order to keep the motor from rotating. The hex wrench supplied for the cutter can be used as a lever to break the cutter head loose by inserting it into the pilot set screw.

### Power Trimmer



#### Key Part Description

Key	Part Description	Part #
1	Brush Shield Tube	7994393
2	Sheet Metal Screw	7994389
3	Motor Cover	7994348
4	Wood Screw	7994361
5	Adapter Plate*	7994369
6	Electric Cord Set*	7994352
7	Cord Strain Relief*	7994381
8	Stop Collar Fine*	7994416
9	Stop Collar Coarse*	7994417
10	Steel Brush Small	7994360
10	Steel Brush Large	7994359
11	Brush Adapter Assembly	7994365
12	Socket Head Cap Screw*	7994386
13	Motor 110V*	7994378
13	Motor 220V*	7994379
14	Button Screw	7994387
15	Button Screw	7994385
16	Cutter Spindle*	7994373
17	Belleville Washer*	7994375
18	Oilite Bearing*	7994383

#### Key Part Description

Key	Part Description	Part #
19	Chuck Head Assembly*	7994366
20	Stop Collar Shaft*	7994380
21	Bearing Assembly*	7994447
22	Set Screw 8-32 x 1/8	7994418
23	Nylon Ball	7990076
24	Cutter Shield	7994391
25	Cutter Assembly**	7822011
26	Ring Connector*	7994388
27	Chuck Head Knob	7994370
28	Fan	7994357
29	Solderless Terminal*	7994382
30	Roll Pin*	7994358
31	Rocker Switch*	7994392
32	Mounting Board	7994368
33	Trimmer Body*	7994371
34	Ball Knob*	7994390

**Not Shown:** Hex Wrench 2992876

\* Factory Serviced Only

\*\* Replacements available as a two-pack - 7822203