

## Enhanced Door Lock Retention

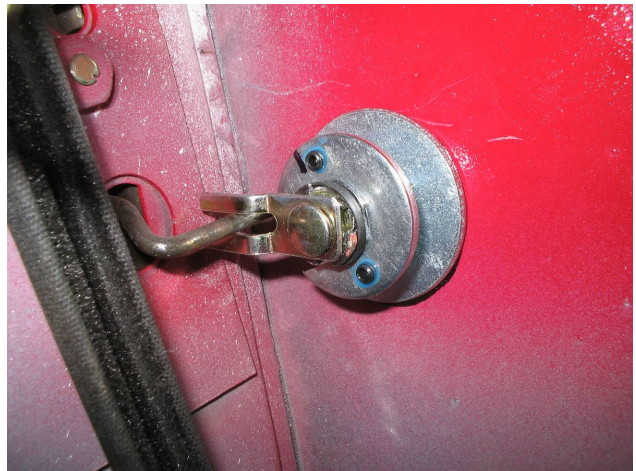
Ron Weber 2/4/07

I recently was faced with the task of installing a new set of replacement door locks into my newly painted TR6 since the DPO had no keys for the factory locks that came with the car. This turned into quite a project because I surmise:

- a) The paint on my car is thicker than stock
- b) The replacement lockset has longer spring clips than stock
- c) I lack a special British Leyland lock installation tool that is no longer available
- d) It's all part of an evil plot to frustrate my TR6 reassembly efforts.
- e) All of the above.

After struggling for quite a while and never getting the spring retention clips to fully snap into place, I decided to look for an alternate solution. While looking through one of the Big 3 catalogs, I came across a "Door Lock Fitting Set" that looked like it would make life quite a bit easier. On the negative side of things, spending \$30 + shipping for something that simply consists of a couple of washers and some set screws didn't make much sense to me. Of course, this offered the opportunity for some prime napkin engineering!

After removing the retention clips from the locksets, I took some quick dimensions and discovered that I only needed to make some relatively minor modifications to a couple of 1/2" and 5/8" HD flat washers to come up with a "fitting kit". I sketched up the required modifications for each washer and proceeded to cut and file. Having a lathe made opening up the hole diameter a little easier but it could likewise be filed by hand to fit. The slot in the 1/2" washer was cut with a hacksaw and then slightly tapered with a file. This taper, while not necessary, provides a very slight snap fit and helps keep things in place during installation. Holes were drilled and tapped last. It only took about 1/2 hour to make the modifications to the washers. A stop at Fastenal on Eisenhower after work for some set screws and I was in business. The image shown doesn't have the lock nuts attached to the set screws since I drilled the holes too close to center to allow nut clearance so I used Loctite. In the end, the new door lock fitting set needed less than \$2 in materials and a little of my time with the net result being some very securely retained door locks.



Since doing all of the above, I had a few hours on a plane flight to kill so I generated a cleaner drawing of the modifications. The drawing is attached and illustrates the dimensions I used that worked well with my lockset. The centerlines for the setscrews are correctly set to allow clearance for SAE lock nuts. You may need to tweak the center hole diameter dimensions a bit since I noticed some minor dimensional differences between the stock lock set and the aftermarket set.

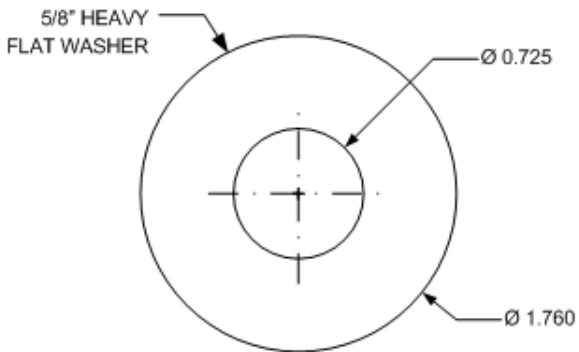
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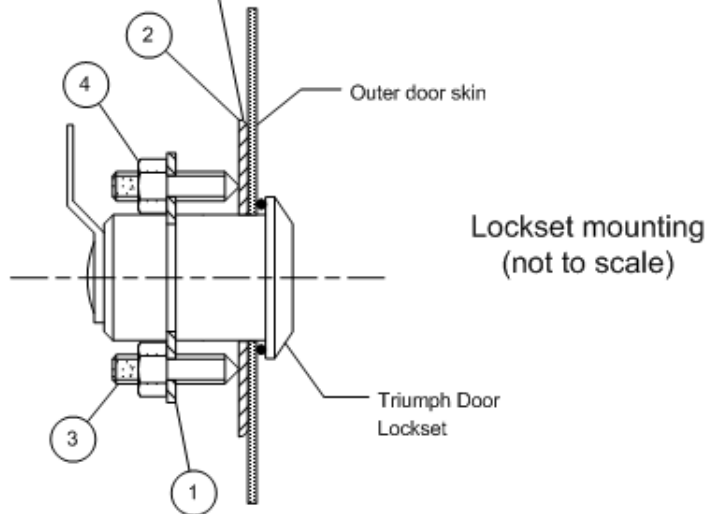
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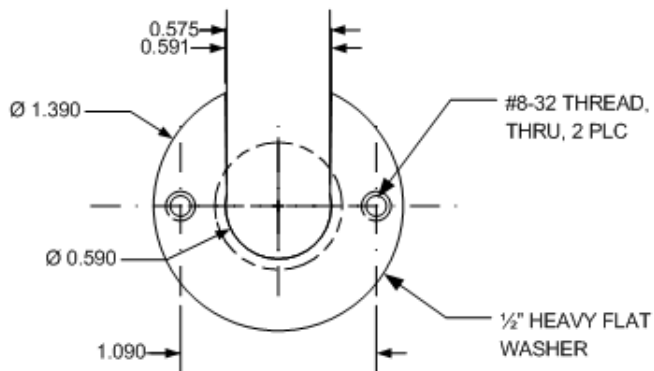
### 5/8" Washer Modification



Note: face rounded edge of washer towards door skin to prevent stamping burr from telegraphing through door skin



### 1/2" Washer Modification



| 4    | 2    | hdw store      | #8-32 Nut, Jam                          |
|------|------|----------------|---|
| 3    | 2    | Fastenal       | #8-32 Set Screw, 5/8"LG, Cup Point      |
| 2    | 1    | Tractor Supply | 5/8" Flat Washer, HD, modified as shown |
| 1    | 1    | Tractor Supply | 1/2" Flat Washer, HD, modified as shown |
| ITEM | QTY. | SOURCE         | DESCRIPTION                             |

#### NOTES:

- Using this washer system requires removal of spring retention clips found on Triumph door lock sets.
- One acceptable modification is the use of 6-32 set screw instead which would allow the threaded holes to be moved in away from washer edge. Just be sure to allow clearance to turn the #6 lock nut.

Author accepts no responsibility from the use or mis-use of this information. All I can say is what I've illustrated worked well for the Moss replacement lockset I purchased. Some dimensions may need to be modified to accommodate different lockset manufacturing tolerances between suppliers.  
RW

## Triumph Door Lock Retention Washer Set

|       |                  |        |        |
|-------|------------------|--------|--------|
| SIZE  | Dr. By.          | DWG NO | REV    |
| A     | R. Weber 1/29/07 |        |        |
| SCALE | 1 : 1            | SHEET  | 1 OF 1 |

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