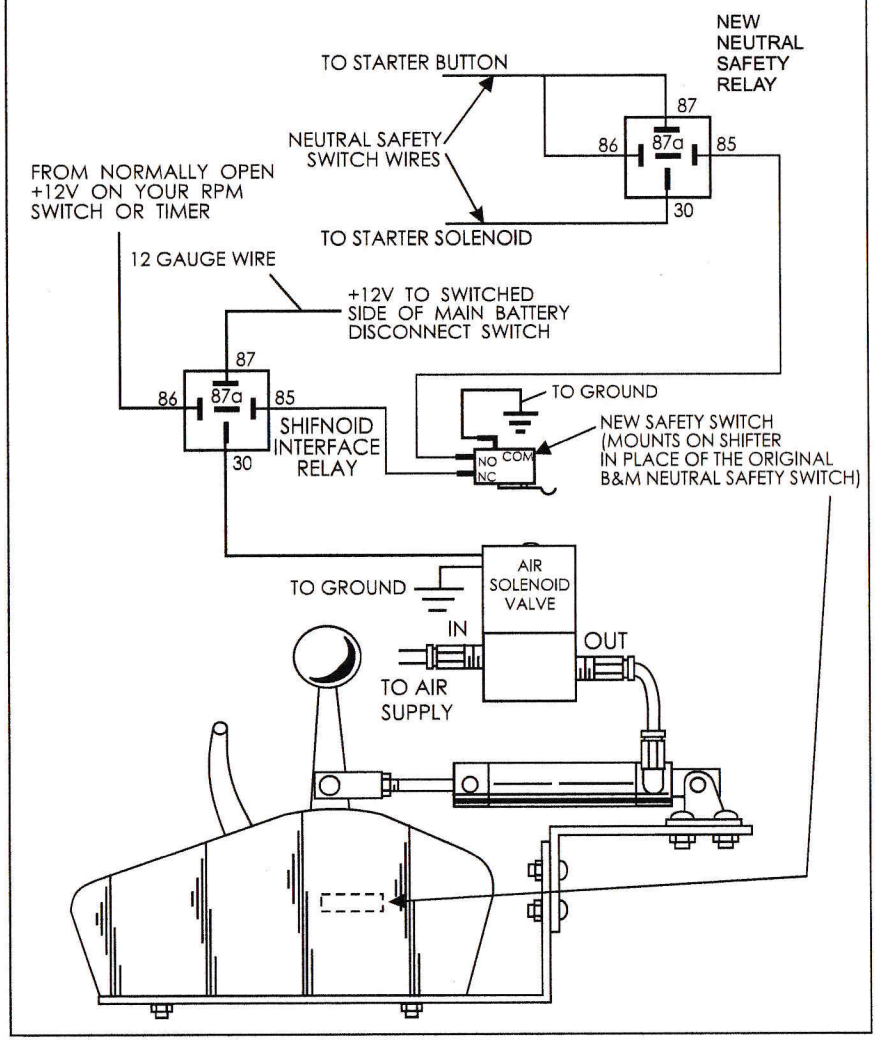
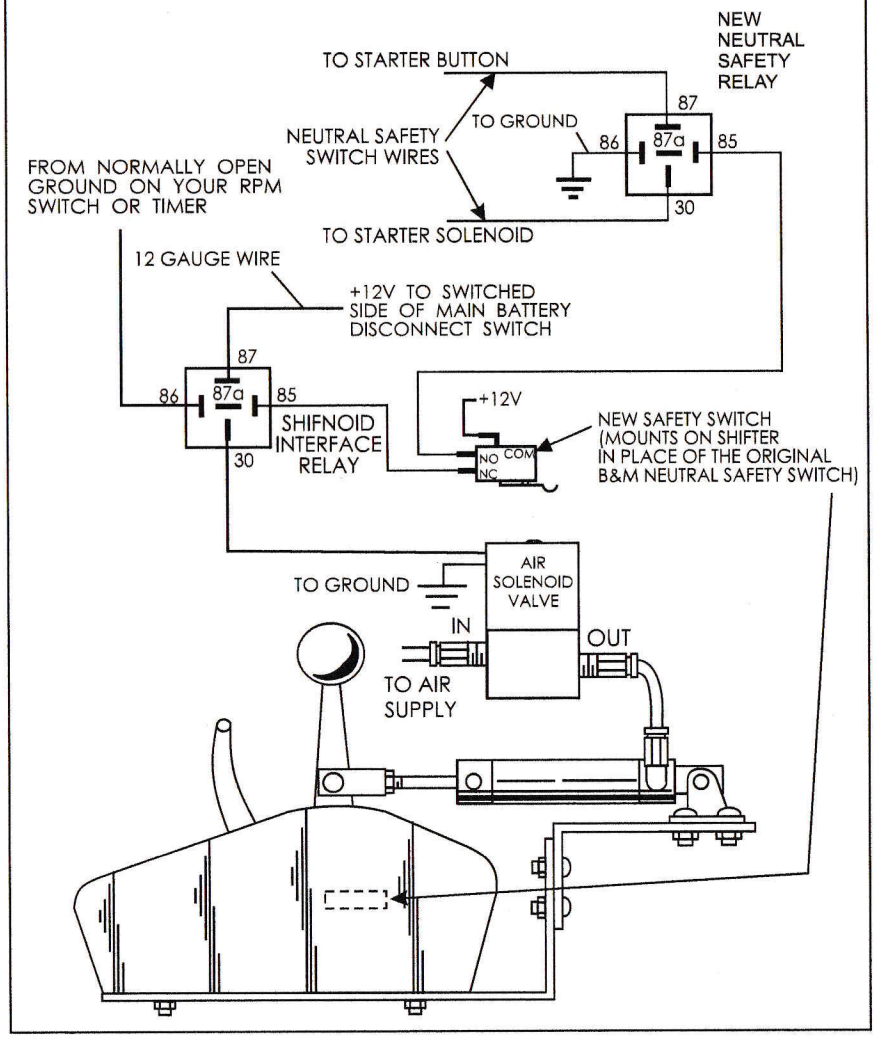
SHIFNOID WIRING DIAGRAM

FOR a B&M PRO RATCHET with SA4075 SOLENOID KIT

IF YOUR RPM SWITCH OR TIMER SUPPLIES "NORMALLY OPEN +12V HOT" (USING THE OPTIONAL D.D. 1067 RPM SWITCH) USE THIS DIAGRAM



IF YOUR RPM SWITCH OR TIMER SUPPLIES "NORMALLY OPEN GROUND" (SHIFNOID OR MSD) USE THIS DIAGRAM

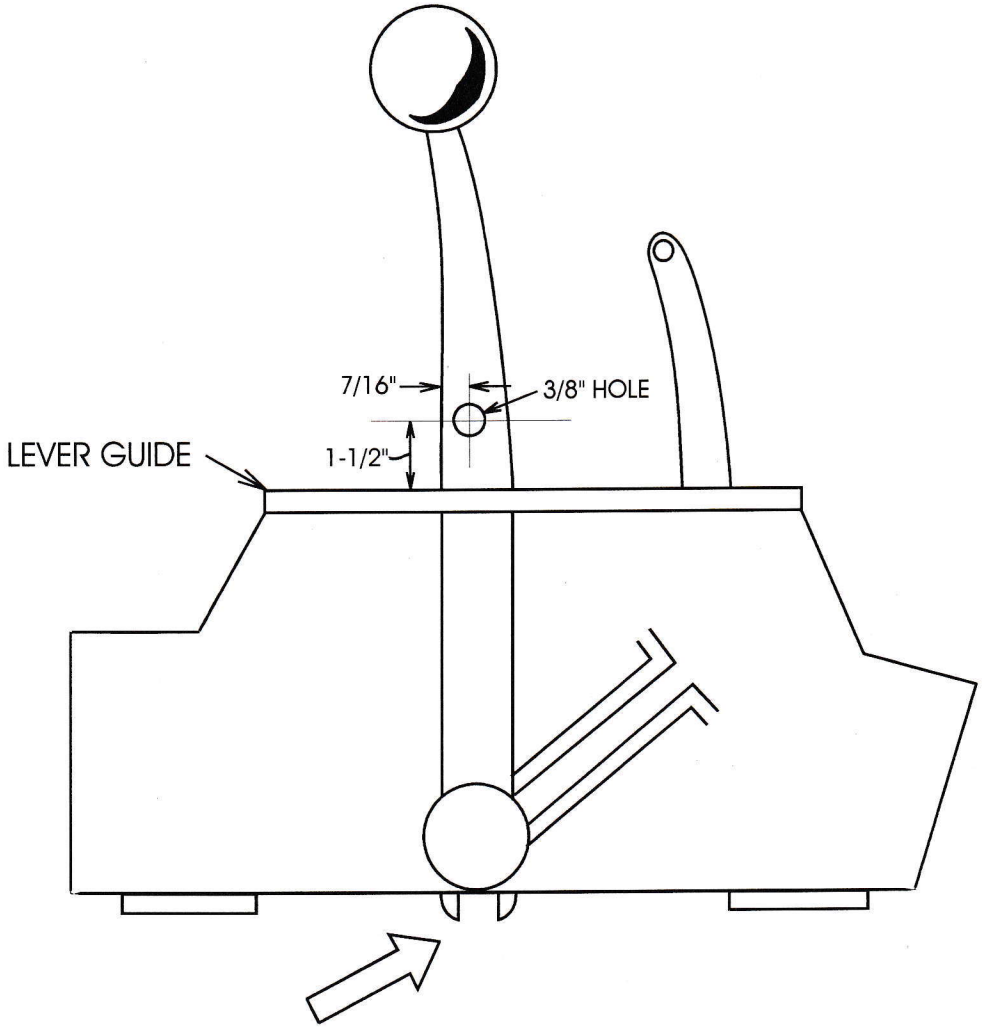


WARNING **ANY RPM SWITCH USED WITH THIS KIT MUST BE PROGRAMMED TO SHIFT FROM FIRST TO SECOND AND SECOND TO THIRD AND THEN SHUT OFF. FAILURE TO DO SO WILL CAUSE THE RPM SWITCH TO ACTIVATE THE SHIFTER EVEN WHEN ALREADY IN THIRD GEAR, CAUSING THE SHIFTER TO GO FROM THIRD TO NEUTRAL. YOU MUST USE THE INCLUDED RELAYS AND SAFETY SWITCH. FAILURE TO FOLLOW THE WIRING DIAGRAM PROPERLY CAN RESULT IN THE SHIFTER SHIFTING INTO GEAR FROM PARK OR NEUTRAL.**

MODIFYING YOUR "B&M" 80842 PRO RATCHET SHIFTER TO INSTALL SHIFNOID SA 4070 OR SA 4075 SHIFT KIT

Drill a 3/8" to 7/16" hole, 7/16" from the back edge of the shifter lever, 1 ½" above the lever guide as shown. This hole is oversize to allow for an arc accommodation. The correct placement of this hole is critical to the operation of the cylinder. Please be precise. Dimensions shown are with cover removed. It is recommended you center punch the correct spot and start with a small drill bit and work up to the final size.

The handle of the shifter extends below the base of the shifter housing. It is common to have the chrome handle rub against the SHIFNOID base plate. This is only noticeable when you shift the shifter lever toward the front or rear. Before installing the shifter, please check for this condition. If it exists, sand or grind a small amount off of the shifter lever so that it clears the SHIFNOID base plate when the shifter is in ALL positions. Depending on when you bought your shifter, this step may not be necessary.



INSTALLATION INSTRUCTIONS
"SHIFNOID" AUTO SHIFTER
PART # SA4075

FOR STANDARD, FORWARD PATTERN 3 SPEED TRANSMISSIONS
USING A "B&M" PRO RATCHET$_{tm}$ SHIFTER # 80842

MODIFYING YOUR "B&M" SHIFTER

When installing this unit on your "B&M Pro Ratchet", the shifter has to be modified according to the Modifying Diagram provided. This consists of drilling a 3/8" to 7/16" hole in the shifter lever 1 1/2" above the lever guide and 7/16" from the back edge of the lever. On older model Pro Ratchet shifters, the handle of the shifter may extend below the base of the shifter housing. If this condition exists, the chrome handle will rub against the SHIFNOID bracket. This is only noticeable when you shift the shifter lever toward the front or rear. Before installing this kit, please check for this condition. If it exists, sand or grind a small amount off of the shifter lever so that it clears the SHIFNOID bracket when the shifter lever is in ALL positions.

MOUNTING THE UNIT

The SHIFNOID mounting bracket is pre-drilled for the "B&M Pro Ratchet. The holes in the bottom of the bracket align with the holes in the shifter. Mount the bracket between the shifter and floor or mounting surface, with the bolts supplied with your shifter. Stop at this point to wire the switch that goes under the aluminum cover. Remove the original B&M neutral safety switch and replace it with the SHIFNOID safety switch supplied, per the attached diagram. The use of the safety switch and the included relays is MANDATORY. Failure to use the safety switch and relays can result in the shifter being activated, while in park or neutral, resulting the car going into gear unexpectedly. Verify that the safety switch is properly adjusted before proceeding. After wiring, you may install the shifter cover supplied with your shifter. Attach the cylinder to the hole in the shifter handle with the clevis supplied.

PLUMBING

Follow the supplied diagram for your air lines. Check all fittings for leaks before finalizing your installation. Mount the air solenoid in a location of your choice. The fittings included, are the Push To Connect type. To install the air hose, push the hose all the way into the fitting. To remove the air hose, pull the ring back toward the fitting. While holding back, pull the air hose. Connect the air line from your regulator to the "IN" or #1 port on the air solenoid valve. Connect the "OUT" or #2 port on the air solenoid valve to the rear port on the cylinder. Your incoming air / CO2 pressure should be set between 85 and 90 lbs. Do not exceed 125 lbs.

WIRING THE UNIT
WARNING

Do not connect the solenoid unit directly to an RPM switch. You must use the included components and wiring method.

This unit MUST only be activated with a manual push button or an RPM activated device that will shut the unit off after the final intended shift. If using the optional DD1067 RPM switch, it can be programmed to shut off after shifting from 1st to 2nd, and from 2nd to 3rd. Failure to do so will cause the RPM switch to activate the shifter, even when already in 3rd gear, causing the shifter to go from 3rd to Neutral. Be sure to set this or any appropriate RPM switch used to the normally open (NO) mode. This insures that the RPM switch only sends it's signal when the engine is revved up to it's shift point.

There is a new safety switch supplied with this unit. Always use the new safety switch and the relays. Install this switch in place of the original B&M neutral safety switch and wire according to the diagram. This switch must be used so the shifter cannot be activated while in Park or Neutral. If not wired correctly an unintentional shift could result causing damage or injury. The switch must be correctly adjusted before you install your aluminum cover. The switch must make and brake contact as the shifter moves between Park and Neutral and any Forward or Reverse gear. Do not over tighten the switch.

QUESTIONS ?

If you have questions or concerns on the installation or use of this product, do NOT contact the retailer you purchased the kit from. Most retailers are not equipped to help you with in-depth tech questions. SHIFNOID LTD. has arranged for all tech and warranty to be handled by it's distributor:

CONTENDER PERFORMANCE PRODUCTS INC.

Phone: 740-281-0136 www.contenderperformance.com

SUPPLEMENT FOR SHIFNOID SN5070, SN5072, SA4070 & SA4075 3 SPEED ELECTRIC AND CO2 SHIFTER ACTIVATORS

It has come to our attention that some older B&M Pro Ratchet models have different dimensions in the 4 base mounting holes on the shifter, than the current models. In this case, two of the holes in the Shifnoid base bracket needing to be redrilled.

Since proper alignment is critical, if the 4 holes in the bracket do not appear to line up, stop installation and call Shifnoid’s distributor and Tech department at:

740-281-0136

7 AM – 7 PM Eastern time.