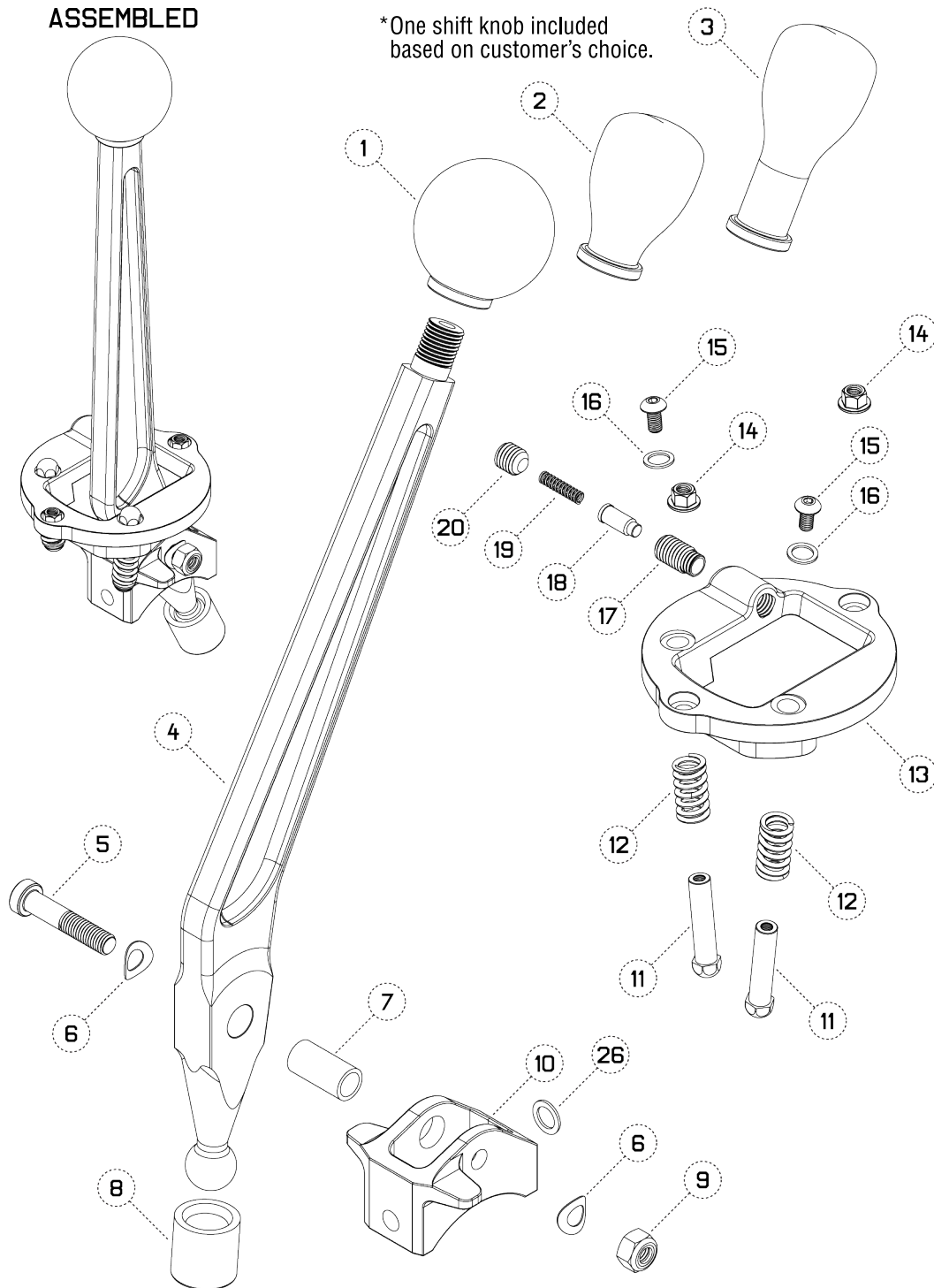




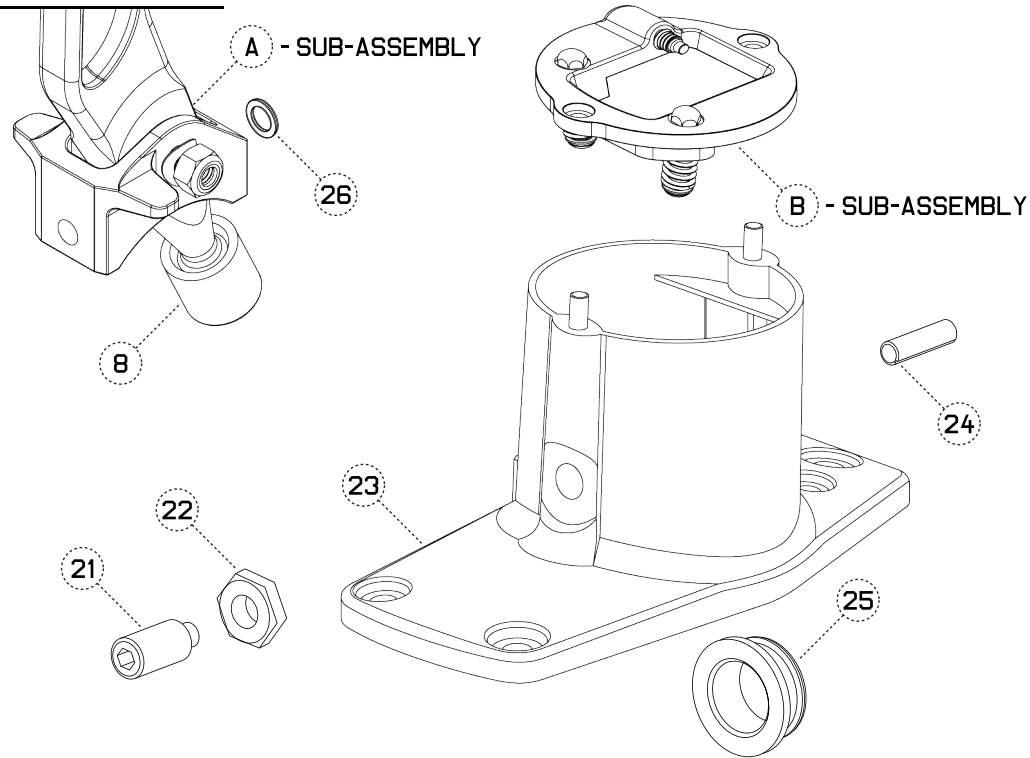
# ASSEMBLED

\*One shift knob included based on customer's choice.



# 915 SHIFTER

ITEM	PART NAME	QTY.	IN KIT
1	SHIFT KNOB - BALL	1	YES*
2	SHIFT KNOB - SHORT	1	YES*
3	SHIFT KNOB - LONG	1	YES*
4	SHIFTER	1	YES
5	M8 X 40 BOLT PLATED	1	YES
6	M8 SPRING WASHER	2	YES
7	BRONZE SLEEVE	1	YES
8	O.E. BALL SOCKET	1	YES
9	M8 NYLOC NUT	1	YES
10	PIVOT BOX	1	YES
11	DETENT PLUNGER	2	YES
12	COIL SPRING	2	YES
13	TOP PLATE	1	YES
14	M6 SELF LOCKUNG NUT	2	YES
15	M5 X 10 BUTTON HEAD SCREW	2	YES
16	M5 WASHER	2	YES
17	PLUNGER BODY	1	YES
18	PLUNGER BUTTON	1	YES
19	COIL SPRING	1	YES
20	M10 X 10 SET SCREW	1	YES



ITEM	PART NAME	QTY.	IN KIT
21	O.E. THREADED PIN	-	NO
22	O.E. NUT - M14	-	NO
23	O.E. 915 SHIFTER BASE	-	NO
24	O.E. ROLL PIN Ø8 X 28	-	NO
25	SHIFT TUBE BUSHING	1	YES
26	O.E. WASHER - M8	-	NO

# 915 SHIFTER

## INSTALLATION INSTRUCTIONS

- Your AK Shifter kit has been partially assembled. The pre-assembly of unit A, includes lubrication with synthetic grease and B. No additional preparation or removal of grease from these parts is required. You will need to retain some of your original Porsche shifter parts, numbered 21, 22, 23, and 24 above.
- The two small M6 Lock nuts (14), are attached to sub-assembly B. Be careful not to misplace these nuts, they are not interchangeable with normal M6 nuts.
- The kit will be easiest to install with the Shifter unit removed from your car. Select 3rd gear before commencing, this will assist with the installation of the completed unit. Follow normal workshop manual instructions for the removal of the shifter. This will vary with cars from 1972 through 1986 with different interior trim levels. In all cases, the tools you will require to ultimately remove the Shifter base from the floor pan are a 6mm Allen key and a 5mm Allen key. These five original fasteners are re-used.
- With the shifter on the bench, follow the logical sequence to completely dismantle the shifter. Disassemble the Gear lever first by removing the "C" clip retaining rings and extracting the pivot pin.
- Then carefully remove the Top plate. BEWARE, the Top plate is capturing 2 pre-loaded compression springs that should be released with awareness and control.
- Now remove the M14 Nut (22) and remove the Threaded pin (21).
- Using a pin punch between 7mm and 8mm diameter, you must drive the 8mm Roll pin (24) inwards to the center of the Shifter base, until the Pivot box can be completely removed from the Shifter base (23). Remove the Roll pin from the O.E. Pivot box.
- The inside of your Shifter base housing is probably covered in old and dirty grease. Clean this away to provide a dirt and grease-free environment for your new AK Shifter pivot mechanism. Also clean parts 21, 22, 26 & 24, as they will be used to assemble your AK Shifter.
- Check the top face of the Shifter base casting for irregularities left from the casting process. If you can see any burrs or ridges that cause the surface not to be flat, then these should be removed with a file. The Top Plate assembly (B) of the AK Shifter is designed to sit flat on the top of the Shifter base and imperfections in this area can adjust the tolerances of the spring Detent plungers and also allow the Top plate (13) to rock side-side after installation. Very little, if any detailing will be required.
- Also check the fit of the top plate into the major diameter of the housing, if the housing is distorted, or has irregular surfaces the top plate will not fit (new Porsche replacement O.E. parts are now sand cast, not die cast like the original units supplied from 1973 to 1986). Use a suitable tool to dress the diameter of the base casting (23) so that the top plate subassembly (B) can be installed before proceeding with further assembly of the shifter.

# 915 SHIFTER



## • ASSEMBLY •

- Refer to “EXPLODED VIEW” of all components to identify the parts discussed below.
- Drive the Roll pin (24) into the Shifter base from the outside – until the end is protruding inside just enough to mount the M8 Washer (26) with an additional 0.5mm – 1.0mm (approx.) of Roll pin protruding.
- Take the sub-assembly A and install it upwards through the Shifter base (23) – Knob first. There is a small amount of grease applied to the pivot holes and the end faces of the Pivot box (10) – do not clean this grease away. You are going to hang the rear pivot hole of the Pivot box (10) onto the exposed Roll pin protruding into this area. Be careful to keep the M8 Washer (26) located on the short piece of exposed Roll pin. Arrange the Gear lever so the ears of the Pivot box (10) are at the end opposite to the Roll pin.
- Insert the Threaded pin (21) into the original location and screw this in until you are located in the front hole of the Pivot box (10).
- The Threaded pin (21) should be screwed in until the Pivot box and Gear lever are no longer free to pivot from side to side, then back the Threaded pin out just enough to allow the Pivot box to swing freely from side to side. Install the M14 Lock Nut (22) and lock the screw and nut – checking that you have retained the desired freedom of the Gear lever assembly.
- VARIANCE If you have the earliest version of Shifter base (23) – used 1972 – 75 part # 911.424.019.05, you will not have parts (21) or (22), but two of the Roll pins (24). The standard Pivot box was shimmed to suit the inside length of the casting. You must shim the end float gap between the Shifter base (23) and the Pivot box (10) using washers or shims at both ends to achieve a tight clearance as established above with the action of the Threaded pin (21).
- Once satisfied that the Pivot box is correctly installed, drive the Roll pin (24) in until flush with the outside face of the Shifter base (23).
- You should now have the Shifter base assembled with the Gear lever and Pivot box moving freely on the pivots both sideways forward and backward.
- The Top Plate sub-assembly (B) can now be installed. Lower the complete piece with the brass Detent plungers facing downwards over the Knob and onto the two M6 studs on the top of the Shifter base.
- Use the two M6 Lock nuts (14) to fasten the Top plate assembly.
- Add a small amount of synthetic grease to the outside of the Ball socket (8), as this part is required to slide inside the receiver at the front of the main shift tube inside the tunnel.
- You are now ready to install your completed AK Shifter and perform the simple set-up procedure.

## • INSTALLATION •

- You will need to remove the “L” shaped bracket with the Shift tube bushing (8) fitted into it. Remove the set screw from the Ball socket receiver on the front end of the main shift tube, this will require a 4mm Allen key. The “L” shaped bracket will be free to slide forwards, off the main shift tube. Use a screwdriver to carefully pry the Shift tube bushing (8) out of the “L” shaped bracket. Lubricate the new part with a small amount of synthetic grease and install it per the original. The installation of the Shift tube bushing (8) can be eased by warming the bushing in a cup of boiling water for 2 minutes. The plastic will soften enough to allow you to push the bushing into the “L” shaped bracket. Clean the main shift tube of dirty grease and debris, apply a small amount of synthetic grease to the tube, add a small amount of synthetic grease to the new bearing, and re-assemble.
- The transmission should still have 3rd gear selected at this stage – as per the removal notes.
- The Gear lever is automatically positioned in the 3rd / 4th gear plane. Position the Knob forward about 2 inches from the midpoint to approximate 3rd gear. Offer the Shifter into position and slide the Ball socket into the receiver on the main shift tube inside the tunnel.
- The AK Shifter should now be sitting flat on top of the tunnel, although possibly not in a lateral position that will allow all three M8 bolts to be installed. Locate and install the two original M6 screws that attach the shift tube axial bearing – the free-floating “L” shaped bracket - under the Shifter base. This is essential before final positioning.
- Locate the Shifter base over the three M8 threaded holes in the tunnel. If this can not be achieved without moving the Gear lever against the spring force of the brass Detent plungers, it will be necessary to adjust the shift tube coupler.
- The cover between the rear footwells needs to be opened to allow adjustments to be performed on the shift coupler.
- Ensure that the 3rd gear is still selected; loosen the M8 hex bolt that fastens the pinch clamp gripping the coupler to the main shift tube. The shift tube, with the Shifter base now attached, will be able to move independently of the transmission, allowing you to position the shifter directly over the three M8 holes in the tunnel. Install and tighten these three M8 bolts to complete the radial positioning of the Shifter.
- The Gear lever will be able to move forward and back without moving the transmission – be certain to put the Gear lever in an approximate 3rd gear position before tightening the M8 hex bolt through the pinch clamp.
- With this tightness, you have completed the radial adjustment of the shaft coupling. The axial adjustment – fore/aft, needs to be completed to ensure that the Gear lever is correctly related to the Reverse lock-out plunger (18).
- Pull the Gear lever back into the neutral position, the designed position in neutral is for the spherical ball on the bottom of the Gear lever (4) to be vertically below the pivot axis in the Pivot box (10), this will be the first indication of correct adjustment. Swing the Gear lever over to attempt to select reverse. The steel button on the side of the Gear lever (4) should just hit the nose of the Reverse lock-out plunger (18). The Reverse lock-out plunger should not be aimed at the center of the button, but rather at the very back edge, so that a deliberate movement towards reverse is required to hit and depress the Reverse lock-out plunger to allow access to the reverse gear position.
- With the hex bolt in the pinch clamps all tight, check that the 5th gear can be selected and that moving the Gear lever out of the 5th gear into neutral can be achieved cleanly – without being fouled by the Reverse lock-out plunger (18). The Gear lever will try to stand vertically as soon as the 5th gear is cleared, positioning itself in neutral of the 3rd / 4th gear plane. If the Gear lever is set too far forward, you will not be able to catch and depress the Reverse lock-out plunger (18), if the Gear lever is set too far back, you will not be able to cleanly select neutral from 5th without fouling the Reverse lock-out plunger.
- Try to make all changes with the 3rd gear selected in the transmission, this way the radial adjustment set initially will be maintained while you are making small adjustments to the axial setting.
- Finally, the Reverse lock-out plunger (18) can be adjusted for protrusion from the top plate; this can be used as a fine adjustment to allow you to achieve the correct feel for selecting reverse from neutral. The kit is supplied with the Reverse lock-out plunger in the designed position and this should work well for most applications. The Reverse lock-out plunger system has a locking set screw (20) installed from the outer edge of the top plate. Loosen the lock-out plunger with a 5mm Allen key, the plunger body (17) is also threaded and can be rotated with your fingers, either inwards or out to change the setting of the plunger. In the desired position, lock the set screw (20) to complete the adjustment.
- Check that all the hardware is tight, especially the M8 hex bolt through the pinch clamp of the shift coupler.
- The stock shifter boot can be installed over the AK Shifter Gear lever by trimming the small round hole to suit the shape of the “I” beam cross-section of the Gear lever. Alternatively, after-market leather boots will also fit, or use your AK Shifter with the mechanism exposed.
- Restore the trim and interior of your car and the job is complete.
- The AK Shifter should be periodically maintained by cleaning and lubricating with synthetic grease. Grit and dust might accumulate in the mechanism, especially in race cars or club event cars that have “off-track” excursions. Be aware that the precision of your AK Shifter will slowly deteriorate if cleanliness is overlooked.