

RTS

QUICKSILVER

Automatic Transmission Shifter



RTS-80683

Suit 3 & 4 Speed Transmissions

www.racetranssolutions.com.au

Table of Contents

Installation Instructions	3-4
Shifter Mounting & Cable Connections	5
Shifter Operation Instructions	6
Ford C4, C5 & C6	7
Chrysler 727 & 904	8
GM T350 & T400	9
Parts Identification	10

RTS QUICKSILVER INSTALLATION INSTRUCTIONS

IMPORTANT NOTICE

PLEASE READ THESE INSTRUCTIONS IN FULL PRIOR TO STARTING TO INSTALL SHIFTER. ONLY PERSONS WHO ARE CONFIDENT IN DISSASSEMBLING A VEHICLE AND INSTALLING THIS SHIFTER SHOULD ATTEMPT IT. A TRAINED AUTOMOTIVE TECHNICIAN IS RECOMMENDED TO INSTALL THIS SHIFTER.

For safety , be sure to read these instructions in full prior to starting to install this shifter.
Only persons who are confident in disassembling a vehicle and installing this shifter should attempt it.
A trained automotive technician is recommended to install this shifter into a vehicle.

WARNING: MAKE SURE VEHICLE IS PLACED ON JACK STANDS PRIOR TO WORKING ON INSTALLING THIS PRODUCT.
DANGER: DO NOT WORK ON OR UNDER VEHICLE IF SUPPORTED BY THE LIFTING JACK ONLY.
CAUTION: FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN DEATH OR INJURY.

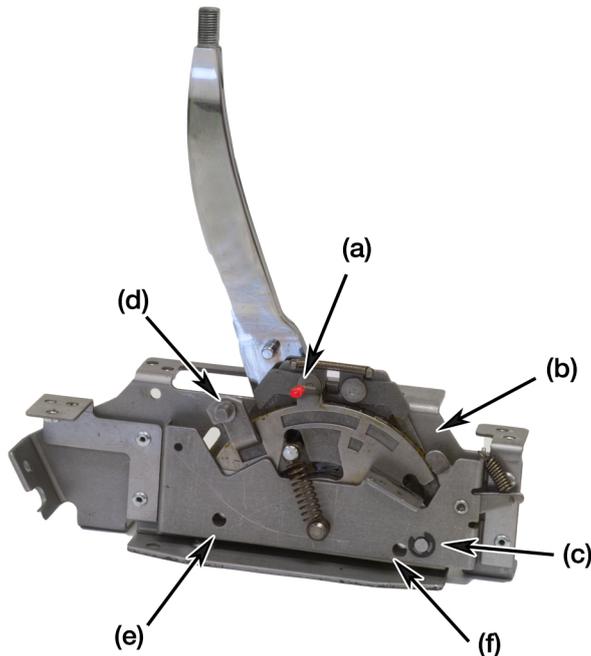
THE USE OF EYE PROTECTION IS ADVISED WHEN INSTALLING THIS PRODUCT



This kit contains the following parts

- 1x Quicksilver Shifter Mechanism**
- 1x Shifter Plastic Lower Cover**
- 1x Heavy Duty 5ft Shifter Cable**
- 1x Mounting Hardware Kit**
- 1x Chrome Top Plate**
- 1x Transmission Bracket Kit**
- 1x Billet Knob**

The RTS Quicksilver shifter is suited to most 3 & 4 speed transmissions. Some transmissions will require optional accessories to work on some vehicles. This is not for use with a 2 speed transmission. This shifter is supplied with both inhibitor and reverse light switches.



- (a) Gear Indicator
- (b) Park / Reverse Switch Bracket
- (c) 4 Speed Pin Location
- (d) Cable Connection
- (e) Park position blocker (Chrysler & Ford)
- (f) 3 Speed Pin position

Preparing Vehicle for Installation

To Install this shifter , the vehicle will be required to be off the ground and on jack stands , ramps or vehicle hoist. Do not work on or under a vehicle supported on a jack only. Make sure the vehicle is off the ground enough to work under it safely.

Step 1

Place transmission in Park position. Remove old shifter linkages from transmission and disconnect vehicle shifter. Remove console if fitted , this may require modification to fit the new shifter. Some vehicles have a gear lever locking mechanism in the steering column and this will need to be disabled.



Note : make sure the shifter has clearance to dashboard and seats when moving through all the gears. Check this prior to drilling holes or mounting shifter

Ensure the floor is strong enough to support the shifter.
A strengthening plate may be required on some vehicles.

Shifter Mounting & Cable Connections

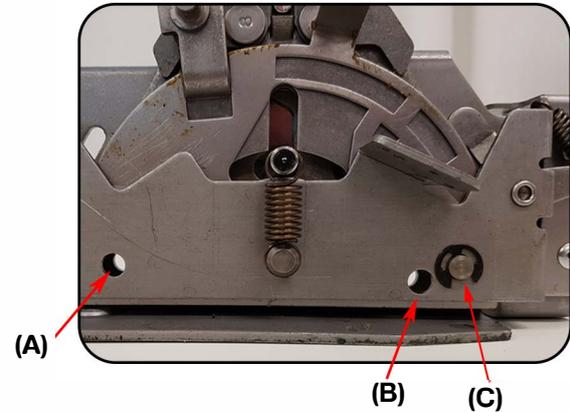
Step 1

- Set up the shifter to suit your transmission. See below the correct pin locations:

GM three speed : Pin (c) Installed
Ford AOD four speed : Pin (c) & (a) Installed
Ford & Chrysler three speed : Pin (b) & (a) Installed
GM four speed : No pins installed

Step 2

- Mount the neutral safety and reverse lamp switches (f) to the bracket and secure with the supplied screws , washers and nuts (g). (warning, do not overtighten or damage to the switch will occur) . The reverse switch is the bottom and the neutral safety switch is the top one. Slight adjustment may be necessary once the wiring is connected.



Step 3

- If this shifter is mounted into a console , then make sure the shifter will not interfere with any wiring and clear the dash when in the park position. Modification to the console may be required. Place shifter in position while in the first gear and make sure it clears any seats (bench) in the forward most position. Do this with the shifter in park position to make sure it clears the dash board.



Step 4

- Mark where the new shifter is to be mounted and drill the 4 holes using a 9/32 drill bit . Make sure there are no wiring or components under the floor where you are drilling.

Step 5

- Mark and drill a 1" hole no closer than 3" in front of the shifter mounting hole. This is for the cable to go through the body and to the transmission. Make sure there are no wiring or components under the floor where you are drilling.

Step 6

- Attach the cable tab to the outside face of the shifter and secure with the 1/4 x 1/2 hex bolt. Place cable on the pin and attach the E-clip.



Step 7

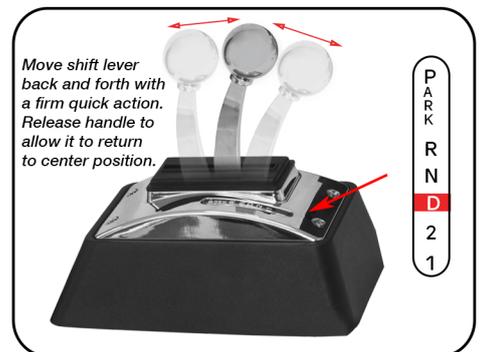
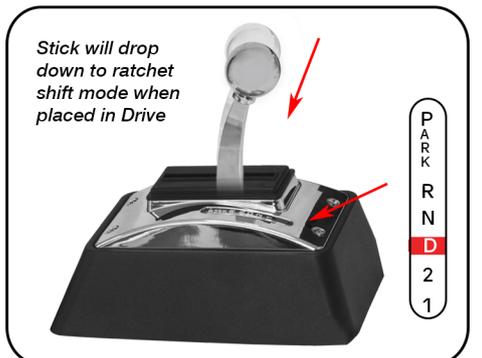
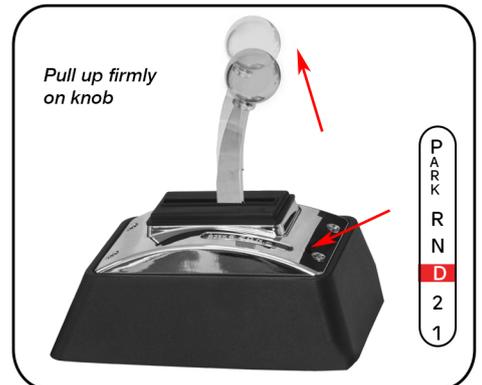
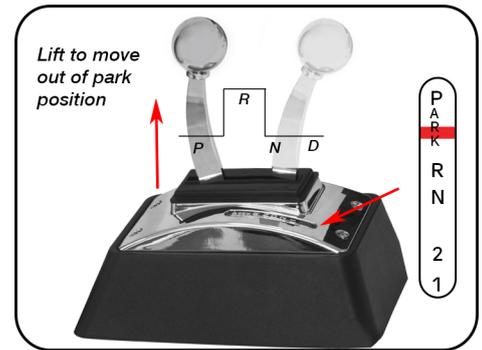
- Push cable through the hole in floor pan and mount shifter using the 4 x 1/4"-20 x 1-1/2 bolts, washers and nuts.

Shifter Operating Instructions

The Quicksilver shifter can be used as a straight gate or ratcheting gear operation used for quick precise gear changes without over shifting into another gear.

Straight Gate Operation

- The gear selection is gated like a normal shifter so that park and reverse are not easily selected by accident.
- To shift from the Park position into reverse, just lift shifter knob and pull back .
- To move from reverse to neutral just lift and pull back.
- To move from neutral to drive , pull back and shifter will drop down into the drive position .
- To move from drive back to neutral just pull up and push forward back into neutral .
- Ensure the indicator lines up with the gear selected.



Ford C4, C5 & C6

Step 1

- Remove the nut and lock washer and remove the down shift linkage from the selector shaft (a). This is the outer linkage. If equipped with the inhibitor switch then unbolt and slide off the shaft (b).

Step 2

- Install the new selector arm (c) onto the shaft. If the original shift lever faces the down position, then it will need to be cut to clear the new arm.

Step 3

- Make sure the arm faces down when the gear selector moves equally from park to 1st. tighten the new arm and check operation is smooth. Reinstall the downshift lever and re install the nut and washer, check the operation is smooth.

(C4 & C5) Remove the 2 lower bolts from the servo cover and install shift bracket (e). Do not over tighten.

(C6) Remove 2 pan bolts from left rear corner of the fluid pan. Attach bracket (f) using the 2 spacers (not required with cast pans) using the 2 x 1" bolts supplied and tighten up to 13lbs-ft. Note: do not over tighten these bolts.

Step 4

- Remove the rubber dust seals and mounting nut and washer from cable. Slide cable through bracket and replace washer and nut until cable sits 1/2 way in bracket. Place dust seals on cable and Position cable without kinks and away from exhaust with no tight bends.

Step 5

- Screw the cable adaptor on the threaded cable end and lock with cable nut. This adaptor fits in the shifter bracket hole.

Step 6

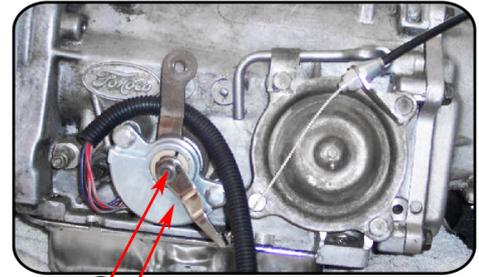
- Move the shifter into the low position and adjust the cable swivel so that they align with the hole in the selector bracket. Move the shifter to the Park position and move the selector bracket to the park position, check the alignment and adjust the cable as necessary. Install split pin once in the final position.

WARNING, DO NOT FORCE SHIFTER AS DAMAGE WILL OCCUR

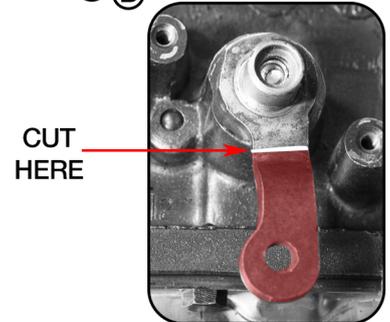
Step 7

Rewire the start/ neutral switch (If required) to the switch on the shifter using the wiring on the old switch removed from the transmission. Some Ford vehicles have the inhibitor switch on the steering column. In some cases, the use of a relay may be necessary. If a reverse switch is required, then this can be ordered.

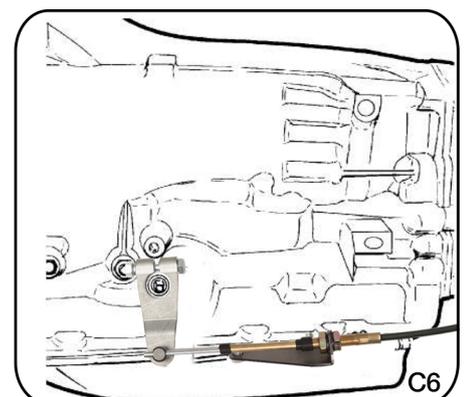
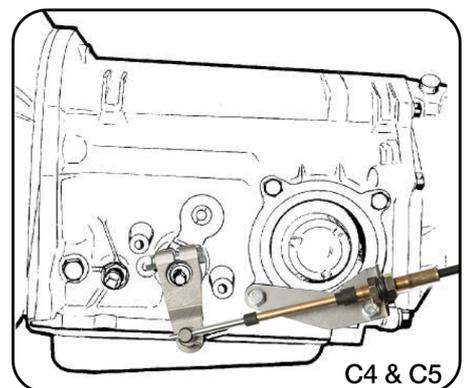
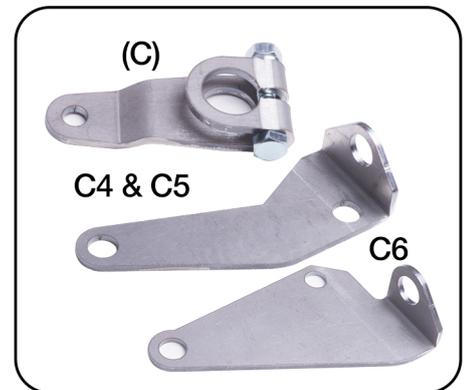
The reverse switch must sit above the start / neutral switch. When testing the operation of this switch, make sure both foot and hand brake are applied to make sure vehicle doesn't launch forward.



(A) (B)



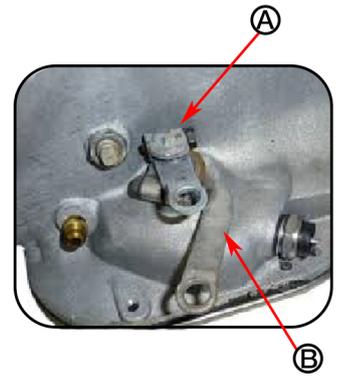
CUT
HERE



Shifter Instructions for Chrysler 727 & 904

Step 1

- Loosen and remove the kick down from the small shaft (a). Remove the shifter linkage bracket from larger part of shaft (b).



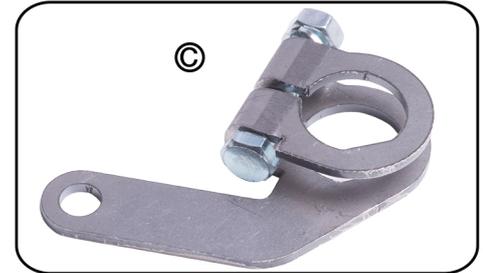
Step 2

- Place replacement lever onto shaft making sure not to bind it against transmission (c). Check for smooth operation of lever and tighten bolt.

Replace the kick down linkage to the small part of the shaft and tighten.

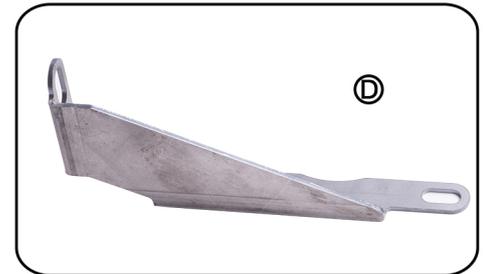
Step 3

- Remove the 2 transmission pan bolts under the selector and mount the supplied bracket with the spacers. (The spacers are only used on transmission with a stamped pan). Cast pans do not need spacers. Install with the 1" bolts supplied in the kit and tighten to 13ft-lbs (d).



Step 4

- Route the shifter cable with liner angles and no sharp bends. Ensure to keep cable away from exhaust pipes. If the pipes are close and shield or thermal cover may be required to avoid damage to cable. Remove rubber grommets and locking nut with washer and install cable into bracket. Replace washer and locking nut and adjust to half way. Replace grommets and insert the cable swivel into the selector bracket front hole.



Step 5

- Place shifter into 1st gear and move selector bracket into 1st gear. Adjust the cable nuts forward or back until the cable swivel moves freely into the selector bracket hole.

Try the shifter in all positions to ensure all gears are selected and the cable swivel is easily moved in and out of the selector bracket in each gear. When this is done place split pin in position and bend legs out.



WARNING, DO NOT FORCE SHIFTER AS DAMAGE WILL OCCUR

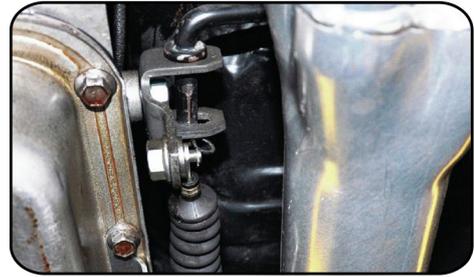
With the Chrysler transmission, the shifter will have a shorter distance to move into park compared to a GM transmission. There is no need to force the shifter into Park as damage will occur.

The shifter switches will work on early cars and will not need to be wired as the original switch on the transmission will function perfectly. Some later vehicles may need the switches wired.

Shifter Instructions for GM T350 & T400

Step 1

- Remove the stock shift lever from the transmission and replace with supplied GM selector (a). Reuse the selector nut and tighten to 23ft lbs. Move lever back and forward to ensure smooth operation.



Step 2

- Remove the 2 middle transmission pan bolts and mount the supplied bracket with the spacers. (The spacers are only used on T400 with stamped pan). Cast pans do not need spacers but may have to modify bracket slightly. Ensure the correct holes are used for the transmission you have in the vehicle.

Step 3

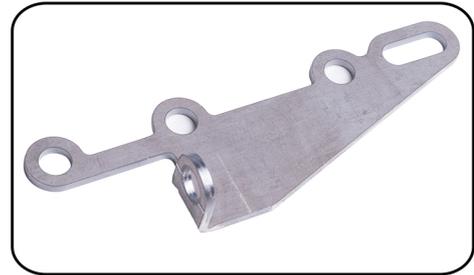
- Route the shifter cable with liner angles and no sharp bends. Ensure to keep cable away from exhaust pipes. If the pipes are close and shield or thermal cover may be required to avoid damage to cable. Remove rubber grommets and locking nut with washer and install cable into bracket. Replace washer and locking nut and adjust to half way. Replace grommets and insert the cable swivel into the selector bracket front hole.



Step 4

Place shifter into 1st gear and move selector bracket into 1st gear . Adjust the cable nuts forward or back until the cable swivel moves freely into the selector bracket hole. Try this again with the shifter in the park position and the selector in the park position . Small adjustments may be necessary and retry in 1st gear again.

- Try the shifter in all positions to ensure all gears are selected and the cable swivel is easily moved in and out of the selector bracket in each gear. When this is done place split pin in position and bend legs out .



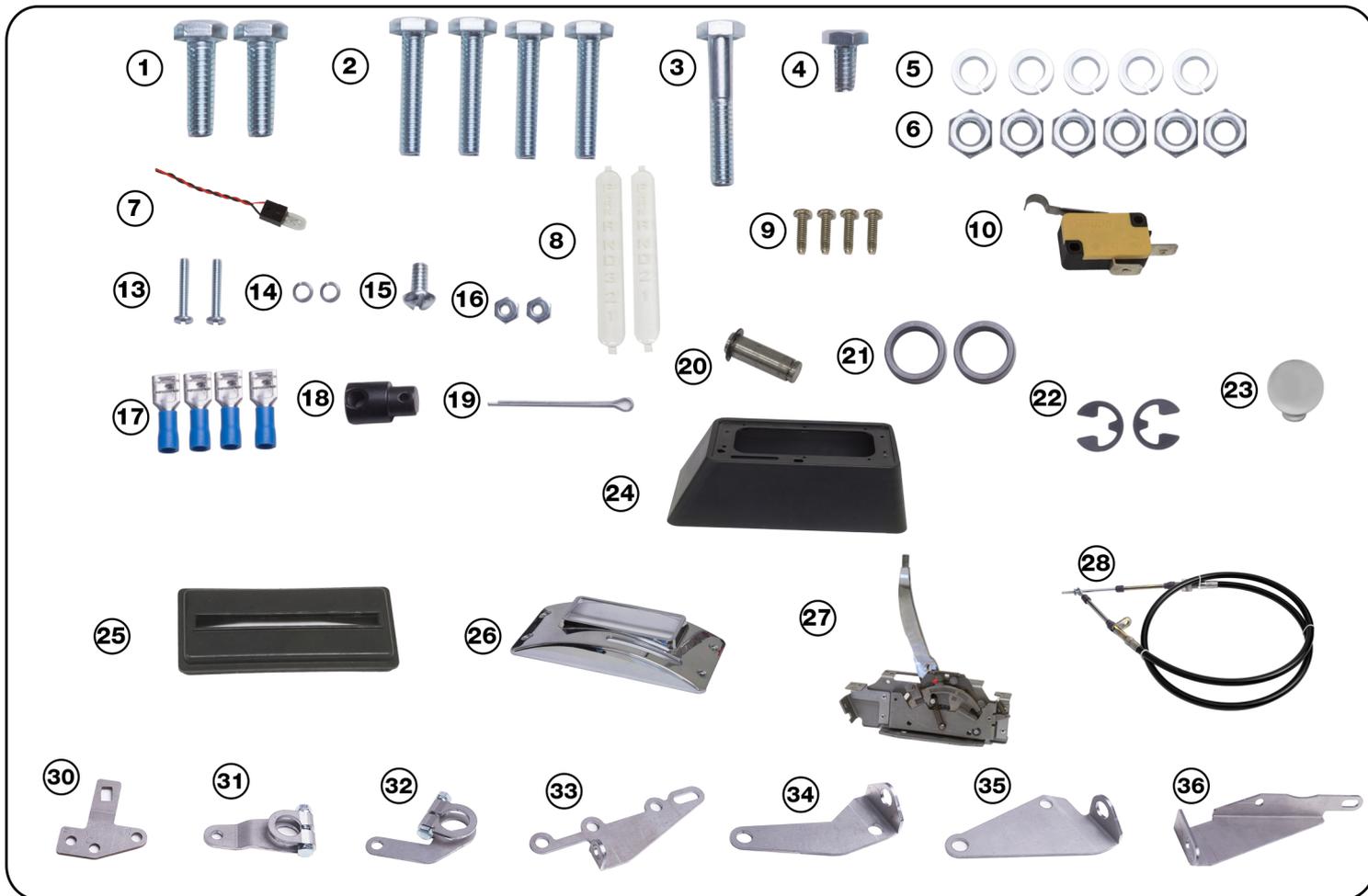
WARNING, DO NOT FORCE SHIFTER AS DAMAGE WILL OCCUR

Rewire the start/ neutral switch (usually purple wires) to the switch on the shifter. In some cases, the use of a relay may be necessary. If a reverse switch is required, then this can be ordered. The reverse switch must sit above the start / neutral switch. When testing the operation of this switch, make sure both foot and hand brake are applied to make sure vehicle doesn't launch forward.



Ensure any gear safety mechanism is disconnected inside the steering column. This may stop the vehicle selecting the crank position while the vehicle is not in the park

Parts Identification



QTY	DESCRIPTION	FIGURE
2	5/16-18 x 1" hex bolt	1
4	1/4-20 x 1 -1/4" hex bolt	2
1	1/4-20 x 1-1/2 hex bolt	3
1	1/4-20 x 1/2" hex bolt	4
5	1/4 spring washers	5
6	1/4-20 nuts	6
1	Globe Holder with LED	7
2	Gear Indicator	8
4	Chrome Cover Screws	9
2	Switches	10
2	4-40 x 5/8 screws	13
2	4-40 Spring washer	14
1	Globe Holder Screw	15
1	4-40 Nuts	16
4	Crimp terminals	17
1	Cable Swivel	18

QTY	DESCRIPTION	FIGURE
1	Split Pin	19
1	Blocker Pin	20
2	Bracket spacers	21
1	E Clips	22
1	Shifter Knob	23
1	Shifter Housing	24
1	Rubber Boot	25
1	Chrome Cover	26
1	Shifter Assembly	27
1	5ft cable	28
1	GM transmission lever	30
1	Ford transmission lever	31
1	Chrysler transmission lever	32
1	GM linkage bracket	33
1	C4/C5 linkage bracket	34
1	C6 linkage bracket	35
1	Chrysler linkage bracket	36



www.racetranssolutions.com.au