

# ADVANCE ADAPTERS INC.

P.O. Box 247, 4320 Aerotech Center Way  
Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201

## P/N: SUZUKI

New Item: (09/09)

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## SUZUKI GEARS KIT NUMBERS 48-4160 / 48-4900 /48-6400

### KIT CONSISTS OF:

No.	Qty.	Part
1.	1	GEAR SET ( 3 GEARS) AND SHAFT WITH GEAR
2.	1	CLUSTER SHAFT
3.	2	CLUSTER THRUST WASHERS
4.	2	CAGED NEEDLE BEARINGS
5.	1	GASKET SET



### Suggested tools:

Ratchet, 12mm, 14mm & 28mm sockets

Air impact gun

Hammer

Grinder on some gear sets

Needle nose pliers

3/16" punch

Snap ring pliers

Gasket scraper

6mm Allen wrench

Straight screwdriver

Crescent wrench

RTV silicon

Bearing grease



1. Drain oil from transfer case and remove the transfer case from the vehicle.
2. Remove the 4WD indicator switch.
3. Turn the transfer case over and collect the 4WD indicator ball as it falls out of the indicator hole. This is a larger ball than the balls removed later.
4. Use the 28mm socket and remove all three flange yokes, label them for correct re-installation.



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5. On the bottom of the transfer case, remove the 6mm detent plug.



6. Remove the detent spring and ball by flipping the T/C over.

7. Remove the speedometer bolt and speedometer housing.

8. Remove the 7 bolts holding the front housing to the case. Please note bolt locations.

9. Remove the front housing.



10. Remove the cluster shaft locking tab.

11. Remove the 11 bolts on the main case assembly.

12. Using a small hammer, tab the two case halves apart.



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13. As the case halves come apart, be sure to catch the small steel ball that will need to be reinstalled later.

14. Remove the cluster gear and thrust washers from the rear housing.



15. Remove the input gear/shaft and bearings.

16. Remove the cluster pin and needle bearings.



17. Remove the shift fork assembly.



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18. Remove the output shaft and gear assembly from the rear housing.
19. Remove the snap ring from the end of the output shaft.
20. Remove the gear.



21. Using a press, press the output shaft through the bearing.
22. Remove the bearing, gear spacer & high speed gear.



23. Under the gear is a caged needle bearing and a shifter hub that must also be removed.
24. Turn the shaft assembly over and press the low speed gear off the shaft. The bearing keeper bearing speedometer gear and gear spacer will be removed first. Stack these components as they come off to aid in re-assembly.



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25. Clean the caged needle bearing that was under this gear and re-install on to the shaft with some bearing grease. Now install the new low speed gear on to the shaft. Install the gear spacer, the speedometer gear, bearing and bearing collar. The speedometer gear and bearing are a press fit.



26. Flip the shaft back over and re-install the shifter slider and the high speed needle bearing onto the shaft. Use bearing grease on the needle bearing and then install the new high speed gear.  
27. Re-install the gear spacer and press the bearing back in place. The spur gear and snap ring can then be re-installed.



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28. The input shaft/gear will now need the bearings removed and installed on the new shaft/gear. A press is usually needed to remove and install the bearings.



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29. Temporarily install the cluster gear into the case halves to check for gear and case clearance. Use a marking pen to make the case for clearances. With a grinder modify the case as necessary to fit the gear.



30. Inspect the front shifter housing seal and o-ring for wear.
31. Remove the yoke seals from the housings and replace them with the new seals included in the kit.
32. Install the steel ball in the center housing as shown and adjust the shift rail until the ball drops into the slot.



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33. Slide the high/low shift rail onto the output gear assembly.

34. Slide the gear assembly into the center housing.



35. Install the front shift collar onto the shift fork.

36. Tap the output assembly into place using a rubber hammer

37. Apply grease to the face of the thrust washer and place the thrust washer to the center housing making sure the washer tab fits to the notch in the housing.



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38. Install the O-ring on the cluster pin and slide the bearings and spacer on the cluster pin.
39. Apply grease to the cluster bearings and slide the cluster gear onto the shaft assembly. Take the cluster assembly having the pin flush with the large end of the gear and slide it into position in the case. Then push the pin from the small end of the cluster to capture the thrust washer and to index into the case.



40. Slide the input gear assembly into place.

41. Apply grease into the rear housing and to the other thrust washer assembly, holding the washer in place.



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42. Apply silicone to the case halves and install the gasket. Slide the case two halves together making sure the thrust washer stays in place. Once the cases are aligned and slide together, install the 11 bolts back to there original location.



42A. You may have to twist the cluster pin in the case to install the locking tab.

43. Apply silicone to the front housing and apply the gasket. Bolt the housing to the case making sure the correct bolt placement.



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44. Install the yokes on to the transfer case and stake them to the shafts. The rear yoke is the taller yoke and is different than the other two.



43. Reinstall the steel ball in the bottom of the case followed by the spring and the detent plug.



44. Install the speedometer drive unit and the retaining bolt.

45. Install the 4WD indicator ball and the switch.



46. Install the transfer case back into the vehicle, install the shifter handle and fill with the 80/90W GL5 gear oil.

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