

WARN

"All Range" OVERDRIVE



CATALOG
4551

MODELS

3314 3326
33V6 3329

For 4-WD **Jeep** vehicles



PARTS CATALOG with INSTALLATION OPERATION & SERVICE INSTRUCTIONS

OVERDRIVE UNIT	Page		Page
Installation	2	Parts Catalog	4
Operation	3	POWER TAKE OFF	
Lube "Run-In" (Step 8)	3	INSTALLATION	5

*Registered trademark of Kaiser-Jeep Corp., Toledo, Ohio.

Litho in U.S.A. Form 2-OC-269 (5M)



WARN INDUSTRIES

9050 Empire Way S. / Seattle, Wash. 98118 / (206) 725-0789

OVERDRIVE INSTALLATION INSTRUCTION

CAUTION:

Drain and flush transfer case before starting with installation. Replace with a good grade of gear oil as recommended by vehicle manufacturer. **DO NOT USE ADDITIVES IN GEAR OIL. FAILURE TO COMPLY WITH ALL INSTALLATION INSTRUCTIONS WILL VOID YOUR OVERDRIVE WARRANTY.**

STEP I

Put transmission into reverse gear and set hand brake. Remove shift knob, floor mat, and transmission floor plate.

Using retainer plate in kit for pattern, mark and cut the new lever opening in the transmission floor plate. Fig. 1.

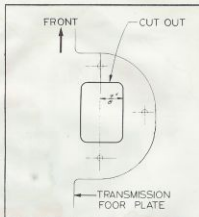


Fig. 1 — MARK AND CUT

STEP II

Clean transfer case and P.T.O. unit if installed. Remove cover plate or P.T.O. unit and clean all surfaces of gasket material and burrs. Remove main drive gear Fig. 2, and make sure the planetary unit to be installed has the same number of teeth. Check transmission main shaft for end play, and intermediate gear and bearings for wear. Replace them if necessary. Clean any foreign material from face of main bearing.



Fig. 2 — REMOVE DRIVE GEAR

STEP III

Install planetary unit onto transmission main shaft. Fig. 3. Tighten DRIVE NUT to 100-120 FT./LB. torque. **DO NOT USE IMPACT WRENCH.** Install special lockwasher (see envelope containing lockwasher for instruction). Fig. 4. Install special snap ring (see envelope containing snap ring for instruction) Fig. 4.



Fig. 3 — PLANETARY UNIT

NOTE:

If the snap ring is not properly seated in its groove (Fig. 4) the planetary unit will eventually work loose on main shaft and cause severe damage to the overdrive unit.

STEP IV

Elevate both rear wheels off floor. Put transmission into neutral, transfer case in gear, and release hand brake. Turn driveline by hand to check for free rotation and run out. If rotation is not free, recheck step III. If trouble still exists, relief grinding is sometimes necessary for proper clearance, Fig. 3. Run out can be eliminated by removing any foreign material between the transmission bearing and the planetary spider assembly.

STEP V

Align gasket, and guide oil tube, shift link, and overdrive case into position. A slight rotation of unit may be necessary to mesh gears. Install bolts with lockwashers and tighten to 30 FT./LB. torque. Make certain the seal washer is installed as shown in Fig. 5. Turn driveline by hand to check for free rotation.

NOTE — If a P.T.O. unit is to be installed behind the overdrive, see page 5.

STEP VI

Remove two transmission cover bolts, Fig. 6. Connect shift lever to shift link with clevis and cotter pins provided. Install shift lever bracket using the bolts furnished. Provide clearance between overdrive case and vehicle body to assure quiet operation.

STEP VII

Replace transmission floor plate, and install shift lever gasket and retainer plate.

STEP VIII

Put transfer case in neutral, transmission in high gear, and overdrive in gear. Run engine at fast idle for 5 to 10 minutes so oil will circulate through overdrive. Stop engine and recheck "oil level" in transfer case, refill if necessary.

STEP IX

About 100 miles after installation of the overdrive, check and retighten the five bolts, that hold the overdrive unit to the transfer case, to 30 FT./LB. torque. Recheck oil level.

OPERATION AND USE:

Leave shift handle in forward position for overdrive. Shifting the overdrive is done in the same manner as with a standard transmission, that is, release throttle, depress clutch pedal and shift. The **WARN ALL**

RANGE overdrive may be used at any time, in any gear, high or low range, two or four wheel drive, forward or reverse. The synchromesh action permits shifting up or down at any speed.

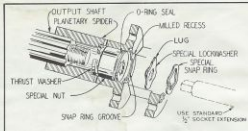


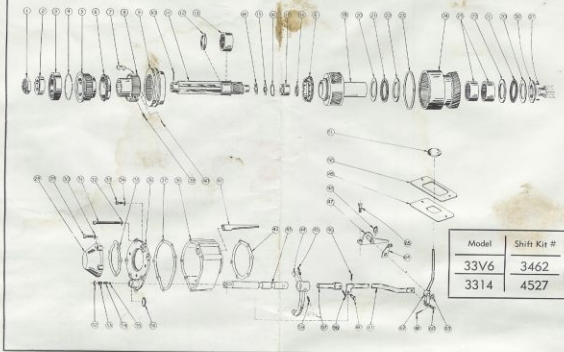
Fig. 4 — PLANETARY LOCKING



Fig. 5



Fig. 6 — INSTALL SHIFT LEVER



Model	Shift Kit #
33V6	3462
3314	4527

Ref. Part No.	Kaiser Jeep Part No.	Qty.	Warr Part No.	Description	Ref. Part No.	Kaiser Jeep Part No.	Qty.	Warr Part No.	Description	Ref. Part No.	Kaiser Jeep Part No.	Qty.	Warr Part No.	Description
1	SE2 066 005	1045	1	Hex Nut	22	N.S.S.	N.S.S.	2	Thrust Race	41	SE2 066 028	1133	1	Oil Scoop
2	SE2 066 054	1334	1	Spacer Washer					Sold as SE2 066 077*	42	N.S.S.	N.S.S.	1	Gasket
3	SE2 066 050	1313	1	Ball Bearing					Sold as 2821*					Sold as SE2 066 059*
4	SE2 066 071	1830	1	Retainer Ring	23	SE2 066 029	1136	1	Retaining Ring	43	SE2 066 096	3296	1	Shifter Shaft*
5	SE2 066 056	1337	1	Stationary Member	24	N.S.S.	N.S.S.	1	Planetary Housing					Sold as 1349*
6	SE2 066 087	1067	2	Synchro Ring*					Sold as SE2 066 047*	44	SE2 066 016	1103	1	Shifter Fork
7	SE2 066 088	1069	3	Sliding Dog					Sold as 1234*	45	SE2 066 073	2388	1	Roll Pin
8	SE2 066 089	1346	1	Drive Member*	25	SE2 066 009	1091	2	Needle Bearing	46	SE2 066 025	1127	2	Cotter Pin
9	SE2 066 090	1078	1	Shift Ring*	26	SE2 066 092	1109	1	Spacer Washer	47	SE2 066 061	3386	1	Bracket Weldment
10	SE2 066 007	1005	1	Cotter Pin	27	SE2 066 093	4231	2	Screw	48	SE2 066 097	4442	1	(For Model 3314 only)
11	N.S.S.	N.S.S.	1	Spline Shaft	28	SE2 066 093	1336	1	Bearing Cap	49	SE2 066 041	1159	1	Retainer Ring
				Sold as SE2 066 060*	29	SE2 066 032	1142	4	Cap screw	48	SE2 066 062	3392	1	Gasket
				Sold as 1362*	30	N.S.S.	N.S.S.	5	Seal Washer	50	SE2 066 093	3393	1	Retainer Plate
12	SE2 066 037	1147	1	Retaining Ring					Sold as SE2 066 059*	51	SE2 066 040	1156	1	Knob
13	SE2 066 033	1143	1	Needle Bearing	31	SE2 066 034	1144	5	Cap screw	52	SE2 066 008	1085	1	Hex Jam Nut
14	SE2 066 049	1236	1	Special Snap Ring	32	SE2 066 036	1146	4	Lockwasher	53	SE2 066 012	1098	1	Screw
15	SE2 066 066	1806	1	Lockwasher	33	SE2 066 031	1141	2	Cap screw	54	SE2 066 017	1105	1	Spring
16	N.S.S.	N.S.S.	1	Sold as SE2 066 059*	34	SE2 066 036	1159	2	Lockwasher	55	SE2 066 018	1106	1	Ball
				Sold as 1349*	35	N.S.S.	N.S.S.	1	Gasket	56	N.S.S.	N.S.S.	1	O Ring
17	SE2 066 064	1731	1	Drive Nut					Sold as SE2 066 059*					Sold as SE2 066 059*
18	SE2 066 011	1095	1	Thrust Washer	36	SE2 066 094	1339	1	Case Cover	57	SE2 066 079	3297	1	Guide Pin
19	SE2 066 070	1837	1	Planetary Spider Assy.	37	N.S.S.	N.S.S.	1	Gasket	58	SE2 066 002	1002	1	Roll Pin
19	SE2 066 091	4650	1	(For Model 3314 Only)					Sold as SE2 066 059*	59	SE2 066 084	3454	1	Roll Pin
20	N.S.S.	N.S.S.	2	Thrust Washer					Sold as 1349*	60	SE2 066 023	1125	2	Clevis Pin
				Sold as SE2 066 077*	38	SE2 066 093	1038	1	Case	61	SE2 066 080	3398	1	Shift Link
				Sold as 2821*	39	SE2 066 095	1071	3	Spring*	62	SE2 066 021	1120	1	Shift Lever
21	N.S.S.	N.S.S.	2	Thrust Washer	40	N.S.S.	N.S.S.	2	Synchro Pin	63	SE2 066 035	1145	1	Flat Washer
				Sold as SE2 066 077*					Sold as SE2 066 051*	64	SE2 066 020	1119	1	Spring
				Sold as 2821*					Sold as SE2 066 052*	65	SE2 066 098	3871	2	Screw
									Sold as 1317* or 1318*					

N.S.S. Denotes - NOT SOLD SEPARATELY

*REPLACEMENT SERVICE KITS

28T HSG ASSY.

SE2 066 047

1224 Includes: 1-Ref. No. 23
1-Ref. No. 24 28T
2-Ref. No. 25

28T HSG ASSY.

SE2 066 048

1223 Includes: 1-Ref. No. 23
1-Ref. No. 24 28T
2-Ref. No. 25

SYNCHRO KIT

SE2 066 051

1317 Includes: 2-Ref. No. 6
3-Ref. No. 7
1-Ref. No. 35
3-Ref. No. 39
2-Ref. No. 40

SYNCHRO BLOCK ASSY.

SE2 066 052

1318 Includes: 2-Ref. No. 6
3-Ref. No. 7
1-Ref. No. 8
1-Ref. No. 9
3-Ref. No. 39
2-Ref. No. 40

SEAL SET

SE2 066 059

1348 Includes: 1-Ref. No. 16
5-Ref. No. 30
1-Ref. No. 30
1-Ref. No. 35
1-Ref. No. 37
2-Ref. No. 42
1-Ref. No. 36

SPLINE SHAFT

SE2 066 060

1362 Includes: 1-Ref. No. 1
1-Ref. No. 10
1-Ref. No. 11
1-Ref. No. 12
1-Ref. No. 13

THRUST BEARING

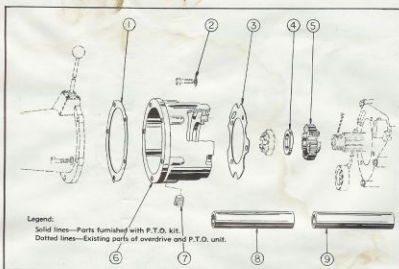
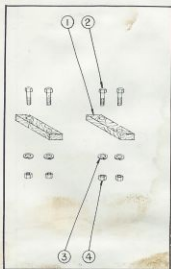
SE2 066 077

2821 Includes: 1-Ref. No. 20
1-Ref. No. 21
1-Ref. No. 22

SHIFT SHAFT FORK ASSY.

SE2 066 085

3460 Includes: 1-Ref. No. 43
1-Ref. No. 44
1-Ref. No. 45
1-Ref. No. 59



Legend:

Solid lines—Parts furnished with P.T.O. kit.
Dotted lines—Existing parts of overdrive and P.T.O. unit.

Kaiser Jeep Ref. No.	Warn Part No.	Qty. Req.	Description	Kaiser Jeep Ref. No.	Warn Part No.	Qty. Req.	Description	Kaiser Jeep Ref. No.	Warn Part No.	Qty. Req.	Description			
SE2 066 078	2809	1	Frame Spacer Kit (Includes 2 No. 1, 4 No. 2, 4 No. 3 and 4 No. 4.)	SE2 066 045	1233	1	*Kit, P.T.O. Adapter, Koenig (Includes parts 1, 2, 3, 4, 5, 6, 7 and 8)	1	SE2 066 027	1131	1	Gasket		
2	SE2 066 075	2712	4	Capcrew	3	SE2 066 036	1146	4	Lockwasher	2	SE2 066 036	1146	4	Lockwasher
3	SE2 066 067	1809	4	Lockwasher	4	SE2 066 035	1330	1	Gasket	3	SE2 066 035	1330	1	Gasket
4	SE2 066 074	2584	4	Hex Nut	5	SE2 066 036	1049	1	Washer, Splined shaft	4	SE2 066 036	1049	1	Washer, Splined shaft
				6	SE2 066 057	1344	1	Drive Flange	5	SE2 066 057	1344	1	Drive Flange	
				7	SE2 066 045	1207	1	Adapter Housing, with plug	6	SE2 066 045	1207	1	Adapter Housing, with plug	
				8	SE2 066 042	1161	1	Drain Plug 1/4", N.P.T.	7	SE2 066 042	1161	1	Drain Plug 1/4", N.P.T.	
				9	SE2 066 043	1162	1	Koenig Shaft Extension	8	SE2 066 043	1162	1	Koenig Shaft Extension	

*Note: Specify Model or P.O. Model Number for P.T.O. Adapter.

*Note—Specify Warn O.D. Model Number and Serial Number (if any). For further information on other P.T.O. Adapters, send request to factory.

GENERAL INSTRUCTIONS FOR INSTALLING A PTO UNIT ON A WARN OVERDRIVE

- Put vehicle in overdrive gear. (This will permit easy removal of overdrive parts.)
- Remove bearing cap, cotter pin, nut, and spacer from the back of the overdrive unit.
- Replace spacer with P.T.O. drive flange, and install washer, install nut (tighten to 100-120 Ft./Lbs. torque) and install cotter pin.
- Install P.T.O. adapter gasket, and adapter housing, tightening bolts to 35 Ft./Lbs. torque.
- Locate, mark, and cut, a 2" square opening in the floorboard for the P.T.O. shift level to stick up through. (In some installations it may be necessary to bend the lever so that it clears the seat cushion.)

NOTE — If the P.T.O. unit interferes with floorboards it may be necessary to install a frame spacer kit which will lower the crossmember, down, 1/2". Instructions for the frame spacer kits are packaged with the kits.

- Koenig P.T.O. units only — Install the 2 lower pipe plugs in the P.T.O. unit and fill P.T.O. unit with oil, until oil runs out of the center (right side) pipe plug hole. (This is correct oil level check.) Install the other 3 (2-top, 1-center) pipe plugs.
- Install P.T.O. driveshaft.

NOTE — A shaft extension is furnished. If additional length is required in the drive shaft, the shaft extension can either be welded, or drilled and pinned, in place.

- Put transfer case in neutral, transmission in high gear, and overdrive in gear. Run engine at fast idle for 5 to 10 minutes so oil will circulate through the overdrive. Stop engine and recheck oil level in transfer case, refill if necessary. Recheck oil level at 100 miles.

Refer back to steps 7, 8, and 9, Page 3, if installing Warn overdrive unit at this time.

The Warn Overdrive unit must be in the rear (conventional drive) position to use the P.T.O. unit.