

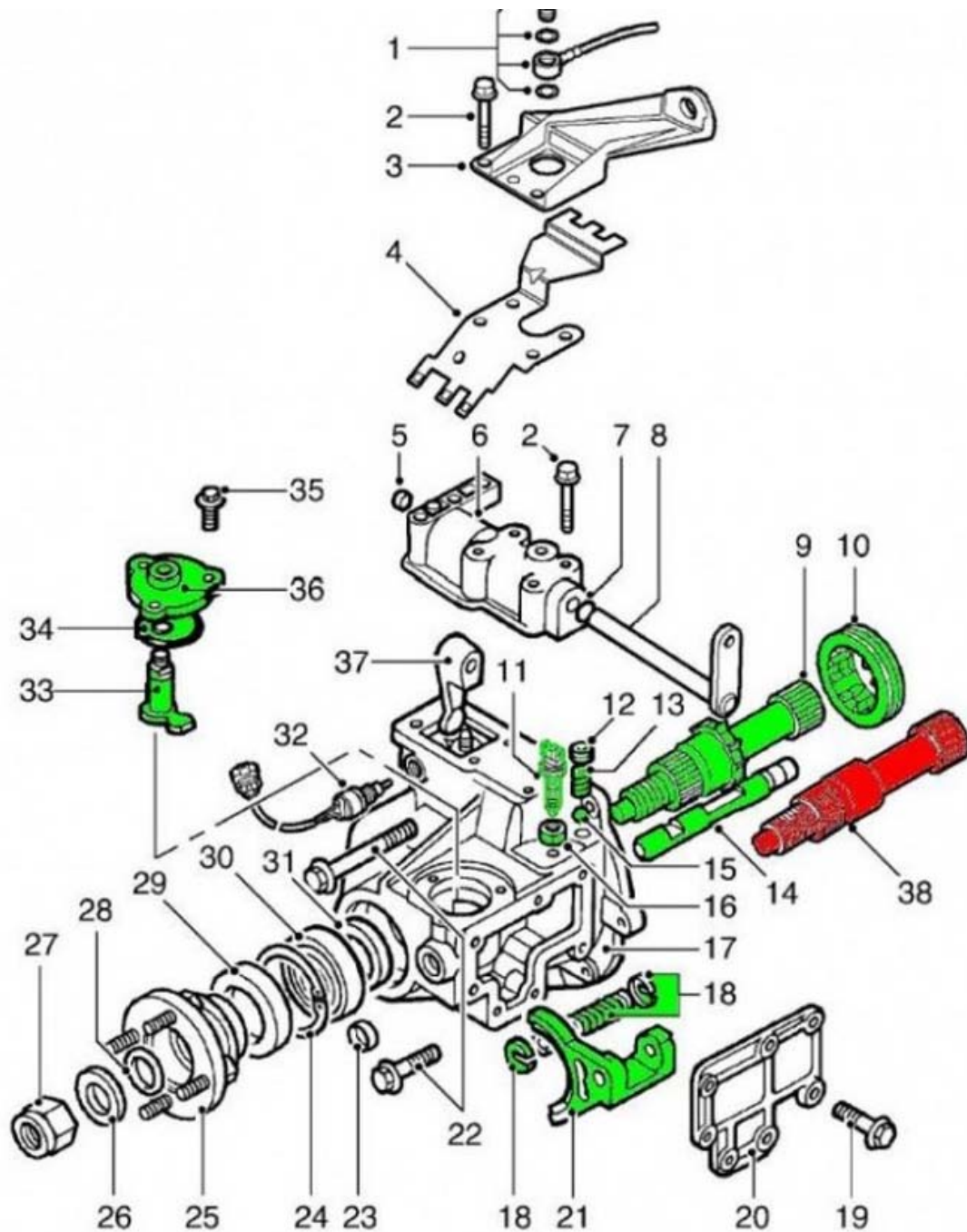


2003 CDL KIT INSTALL

[Tech Articles](#)

How CDL Works

The transfer case is made up of three sections. front housing, main case, and rear housing. For the purpose of this explanation, the internal tid-bits are the same through out all Discovery transfer cases except what is in the front out put housing for non-locking types like the 2003 Discovery. Although very similar through out the years, changes including upgrades in construction and internal modifications have improved the strength and operating noise of the LT230.



M41 7807

The green components highlighted are found in every locking t-case. If you don't have the green bits, Land Rover only gave you # 38 which is obviously different than it's # 9 counterpart. The green components enables the transfer case to lock. # 9 and #10, front output shaft and dog clutch respectively are what make it possible.

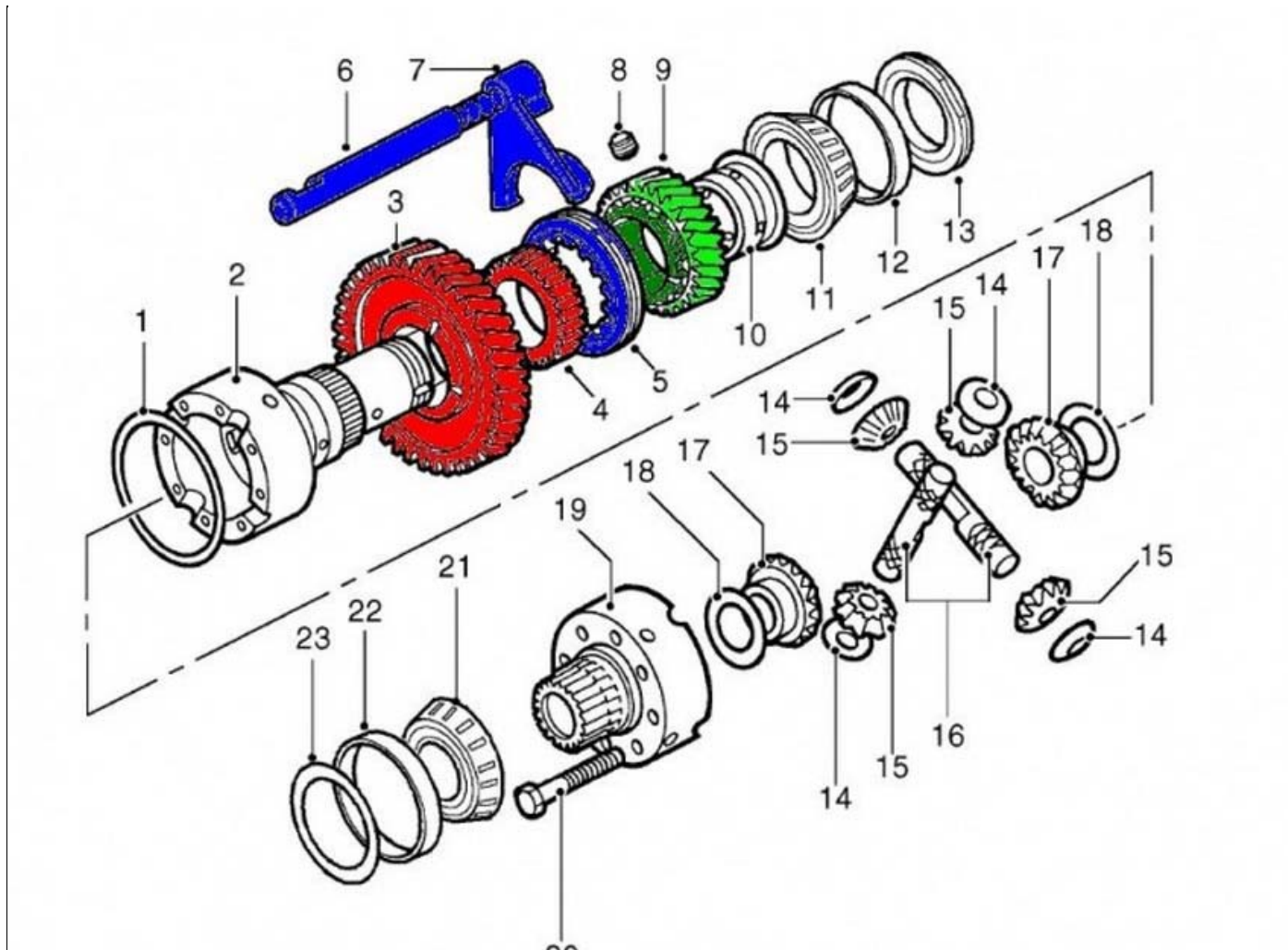
The nipple component we all know is #36, #34, and #33.

When the nipple (#33) is turned clockwise about 45 degrees, as shown below, it's base turns forward towards the front of the t-case moving #14 (which is attached to #21).



21 then slides #10 forward onto #9 and you are locked!

11 is the diff lock switch that detects #21 and makes the connection once #21 pushes the spring loaded switch. This action is the similar to what occurs when we go from low to hi range in the main casing of the transfer case. See below.



When selecting high or low range, # 6 and #7 push # 5 (hi/low selector sleeve) onto either the dark green part of high range gear #9 or low range gear # 3 via # 4 which is the low range gear hub.

Options For Adding CDL to 2003 Discovery

Now that you know how it works and are interested in getting your 2003 Discovery locked, you should know that there are several options;

1. Buy a locking transfer case from a DI, or DII up to some 2001 models and do a complete swap.
2. Buy a 2004 DII transfer case and do a complete swap.
3. Buy the front output housing from a transfer case from any of the above mentioned options.* (That's what I did**)

* That housing will include all the green "tid-bits" as adding them to a non locking front out put housing is possible but difficult and most likely costlier than the kit.

** I bought the kit from Todd at Toddcosuspensions. Great guy to deal with and very helpful!! <http://toddcosuspensions.com/diilodi.html>

For those who have done this conversion using my write-up, please email me if you have any suggestions you think should be included in this write-up, explanation, options, etc!

Instructions on adding CDL to 2003 Discovery

[2003 CDL Install PDF](#)

Options for CDL Shifters

Now that you have installed your CDL kit, how will you ENGAGE it? There are several options that include making a home-made shifter, crawling under your rig with a wrench and risk burning your self.... or some of what is below.

Stock 04 Discovery Series II Shifter



This will work great and tends to operate smoother than the DI shifter.

Stock Discovery Series I Shifter

This may be the cheapest way to go just make sure you source all the relevant parts. If never used it can be a pain to engage. There will be some cutting and bending involved, go here for more [information](#)



04 Style Shifter Lucky8llc



<http://lucky8llc.com/Products.asp?ProductID=2185>



It is made by Ashcroft-Transmissions in the UK. <http://www.ashcroft-transmissions.co.uk/>

See Justin from Lucky8 and his assistance install this shifter

AMV Center Diff lock actuator CDLA

<http://www.amv.com.au/SeriesIIDifflock.htm>

Many other DII owners and myself have this actuator. It basically is a switch controlled window motor anchored and secured to a custom base that fits over the nipple.

