AQ.

Which Subaru transmission should I use?

The latest model, lowest mileage one you can afford, and most closely matched to your engine i.e. turbo / aspirated.

TY752.... from 1990 to 1998 can be used. If you need to shorten & seal the TY752 trans you will need a TY754 or later center differential housing. Their slightly different design makes them ideal for shortening, they bolt up to the TY752 split case housing.

Non-turbo TY752 transmissions used a push clutch which allows you to retain the VW cable clutch and pull the top of the clutch fork away from the engine. These are not suitable for turbo engines.

Turbo TY752 transmissions used a pull clutch which features a hydraulic slave cylinder to push the top of the clutch fork towards the engine.

Non-turbo TY754 transmissions produced from 1999 to 2004 generally used a push clutch with a hydraulic slave cylinder of a different design that pushes the top of the clutch fork away from the engine.

Turbo TY754 transmissions used a pull clutch with hydraulic slave cylinder like the turbo TY752.

TY755 and later from 2005 generally all used a push clutch for non-turbo and turbo applications. These featured a hydraulic slave cylinder to push the clutch fork away from the engine.

TY755 and later transmissions generally have a pop-out stub axle and cv joint as 1 piece. In order to use the Subaflange, a retrofit to the older ty752/ty754 circlipped stub axle and older seals is required. Please note this on your kit order and we can supply.

Are all the bellhousings the same?

The TY752 bellhousings are a '4 bolt' bellhousing and the TY754 and onwards are an '8 bolt' bellhousing. They simply have 4 more bolt holes fitted, the pattern is the same. They can be mixed and matched.

Will the gearshift work the correct way in my vehicle?

Yes the gearshift will work correctly in your type 1 Beetle and your Split Kombi/Bay Kombi. You simply have to join your shift rod to the Subaru shift rod via bolts or universal joints. The forwards/backwards direction and left/right direction will be correct.

In the T25/T3/Vanagon/Syncro/Bulli you will need to modify your shifter at the front to have a ball and socket like the Beetles & Kombis have. This corrects the direction of the shift.

Which axles and CV joints do I need to use?

Use the 15 5/8" (396.87mm) axles and type 2 CV joints. These axles are commonly used as "Kombi into beetle" axles and are available from all good VW stores. You can also use 930 CV joints and the same length axles, but with 28 splines.

What about the dipstick?

You cannot use disptick anymore since it interferes with the flipped crownwheel. Use a rubber cover such as a chair leg plug and a hose clamp to securely close off the dipstick tube. For a great finished look, use a -12 hex hose finisher :

You can choose to drain the entire 3.7 litres of transmission oil every time you want to check the levels, or simply drill all the way through this hole/boss already cast into the case (circled in orange). Simply fit with the correct size bolt and you can check the correct transmission oil level by undoing this bolt when in the vehicle.

My transmission has different CV's / Stub axles

Transmissions manufactured from around 2006 (TY755, TY758) use a 'push in' stub axle and CV joint that is one unit. The circlip on this unit is smaller to allow the unit to be pushed in and pulled out of the differential.

Old style separate CV joint

New style 1 piece CV joint & stub axle

In order to use the Subaflanges, these newer style differentials need to be fitted with the old style stub axles, using a larger circlip to permanently hold the stub axles in the differential. Older style oil seals must be fitted to the transmission case to match up with the size of the older style stub axles.

Good used stub axles and new older style seals are available for purchase from your friendly Subaru dealer.

What speeds will I do in each gear?

This simple application will be able to calculate the roadspeed for a particular RPM or gear.
You can use this to see the effets of changes to the gearbox or differential.
First you'll need to calculate the circumference of your wheels.

Width Aspect Diameter

245 40 17

Diamete

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627.

Next, fill in the ratios for your gearbox, and differential.
The form is pre-filled with a typical Subaru turbo ratio, but it will also calculate RPM/Speed for any vehicle you have the data on.

First	Second	Third	Fourth	Fifth	Sixth
3.168	1.882	1.296	0.972	0.738	

Diff Ratio (3.90, 4.11, 4.44 and 4.86 available)

3.90

Now that the circumferance of the wheels is known, and the ratios between the engine and road wheels, you can calculate the road speed for any RPM in a given gear

Select your gear

RPM 6500	RPM 6500
MPH 60	KPH 100

Sample Subaru Gear ratios

Model Range	Trans.Code	1st	2nd	3rd	4th	5th	6th	Rev.	T.R.	F.D.	Center Diff.Type	Front Diff.Type	Notes
JDM Impreza WRX MY93	TY752VB3AA	3.45	2.06	1.45	1.09	0.83		3.42	1	4.111	Viscous	Open	

										(4kgf)		
JDM Impreza WRX RA MY93	TY752VB3BA	3.45	2.33	1.75	1.35	0.97	3.42	1	4.111	Viscous (4kgf)	Open	
JDM Impreza WRX, WRX SA, WRX STi MY94	TY752VB3CA	3.45	2.06	1.45	1.09	0.83	3.42	1	4.111	Viscous (4kgf)	Open	Double-cone 2nd synchro added (all turbo Impreza)
JDM Impreza WRX RA MY94	TY752VB3DA	3.45	2.33	1.75	1.35	0.97	3.42	1	4.111	Viscous (4kgf)	Open	Double-cone 2nd synchro added (all turbo Impreza)
JDM Impreza WRX & WRX STi MY95	TY752VB3FA	3.45	2.06	1.45	1.09	0.83	3.42	1	4.111	Viscous (4kgf)	Open	
JDM Impreza WRX RA MY95	TY752VB3EA	3.45	2.33	1.75	1.35	0.97	3.42	1	3.9	Viscous (4kgf)	Open	
JDM Impreza WRX STi RA MY95	TY752VB3EA	3.45	2.33	1.75	1.35	0.97	3.42	1	3.9	DCCD (35:65)	Open DCCD	fitted off production line
JDM Impreza WRX & WRX STi Ver.II MY96	TY752VB4AA	3.45	2.06	1.45	1.09	0.83	3.42	1	4.111	Viscous (4kgf)	Open	
JDM Impreza WRX RA MY96	TY752VB4BA	3.45	2.33	1.75	1.35	0.97	3.42	1	3.9	Viscous (4kgf)	Open	Double-cone 3rd synchro added (RA only)
JDM Impreza WRX STi RA Ver.II MY96	TY752VB4CA	3.45	2.33	1.75	1.35	0.97	3.42	1	3.9	DCCD (35:65)	Open	Double-cone 3rd synchro added (RA only)
JDM Impreza WRX & WRX STi Ver.III/IV MY97-98	TY752VBCAA	3.17	1.88	1.3	0.97	0.74	3.42	1	4.444	Viscous (4kgf)	Open	Double-cone 3rd synchro added (all turbo Impreza)
JDM Impreza WRX RA MY97-98	TY752VB5BA	3.08	2.06	1.55	1.15	0.83	3.42	1	4.444	Viscous (4kgf)	Open	Widened 1st,2nd,3rd gears (EJ20K models only)
JDM Impreza WRX STi R & RA Ver.III/IV MY97-98	TY752VB5CA	3.08	2.06	1.55	1.15	0.83	3.42	1	4.444	DCCD (35:65)	Open	Widened 1st,2nd,3rd gears (EJ20K modelsaaa
JDM Impreza WRX 5-Door MY97-98	TY752VBCBA	3.45	2.06	1.45	1.09	0.83	3.42	1	4.111	Viscous (4kgf)	Open	Double-cone 3rd synchro added (all turbo Impreza)
JDM Impreza WRX STi RA V-Limited Ver.IV MY98	TY752VB6EA	3.08	2.06	1.55	1.15	0.83	3.42	1	4.444	DCCD (35:65)	Helical LSD	
JDM Impreza 22B	TY752VB6SZ	3.08	2.06	1.55	1.15	0.83	3.42	1	4.444	DCCD (35:65)	Open	Specially treated gear components
JDM Impreza WRX 5-Door MY99-00	TY754VB1AA	3.45	2.06	1.45	1.09	0.83	3.33	1	4.111	Viscous (4kgf)	Open	Bellhousing attachment changed from 4 to 8 points
JDM Impreza WRX RA & RA Ltd. MY99-00	TY754VB1BA	3.08	2.06	1.55	1.15	0.83	3.33	1	4.444	Viscous (4kgf)	Open	Bellhousing attachment changed from 4 to 8 points

JDM Impreza WRX & WRX STi Ver.V/VI MY99-00	TY754VBAAA	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	Bellhousing attachment changed from 4 to 8 points
JDM Impreza WRX STi R & RA Ver. V/VI MY99-00	TY754VB1CA	3.08	2.06	1.55	1.15	0.83	3.33	1	4.444	DCCD (35:65)	Open	Helical FLSD avail. 01.12.1999
JDM Impreza WRX STi RA Ltd. Ver. V/VI MY99-00	TY754VB1EA	3.08	2.06	1.55	1.15	0.83	3.33	1	4.444	DCCD (35:65)	Helical LSD	
JDM Impreza WRX NB, NBR, 20K MY01-02	TY754VBAAA	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	
JDM Impreza WRX MY03	TY754VB4AA	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	Reverse engagement & 3rd/4th synchro revised
JDM Legacy 2.0GT MY04 (also US Legacy 2.5GT)	TY757VBAAB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.111	Viscous (4kgf)	Open	
JDM Legacy 2.0GT spec B MY04	TY757VBABB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	
JDM Legacy 2.0GT MY05	TY757VBBAB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.111	Viscous (4kgf)	Open	dual cone 1st synchro
JDM Legacy 2.0GT spec B MY05	TY757VBBBB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	dual cone 1st synchro
US Impreza WRX MY02	TY754VN2AA	3.45	1.95	1.37	0.97	0.74	3.33	1.1	3.9	Viscous (4kgf)	Open	Rev. pop-out addressed 10.01.2007 (main shaft, rev. idler, rev.)
US Impreza WRX MY03	TY754VN2BA	3.45	1.95	1.37	0.97	0.74	3.33	1.1	3.9	Viscous (4kgf)	Open	1st, 2nd, 3rd gears widened to RA width
US Impreza WRX MY04	TY754VV4AA	3.45	1.95	1.37	0.97	0.74	3.33	1.1	3.9	Viscous (4kgf)	Open	3rd synchro stop changed (3/4 gear, synchro assy)
US Impreza WRX late MY04	TY754VV5AA	3.45	1.95	1.37	0.97	0.74	3.33	1.1	3.9	Viscous (4kgf)	Open	1st synchro changed to dual cone type
US Impreza WRX MY05	TY754VZ6AA	3.45	1.95	1.37	0.97	0.74	3.33	1.1	3.9	Viscous (4kgf)	Open	
US Forester XT MY04	TY755VH4AA	3.45	1.95	1.37	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	Gears as per WRX revisions
US Forester XT MY05	TY755VW5AA	3.45	1.95	1.37	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	
US Baja Turbo MY04-05	TY754VHEAA	3.45	1.95	1.37	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open	Gears as per WRX revisions
US Legacy Turbo GT MY05	TY757VBAAB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.111	Viscous (4kgf)	Open	

US Legacy Turbo Outback MY05	TY757VWAAB	3.17	1.88	1.3	0.97	0.74	3.33	1	4.444	Viscous (4kgf)	Open
UK/Europe Impreza Turbo 2000 / GT MY94-95	TY752VN3BA	3.45	1.95	1.37	0.97	0.74	3.42	1	4.111	Viscous (4kgf)	Open
UK/Europe Impreza Turbo 2000 / GT MY96	TY752VN4BA	3.45	1.95	1.37	0.97	0.74	3.42	1	4.111	Viscous (4kgf)	Open
US Impreza (AWD) MY93	TY752VX3AA	3.55	1.95	1.37	0.97	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Impreza (FWD) MY93	TM752RX3AA	3.64	1.95	1.34	0.97	0.78	3.58	1	3.9		
US Impreza (AWD) MY94	TY752VX3CA	3.55	1.95	1.37	0.97	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Impreza (FWD) MY94	TM752RX3AA	3.64	1.95	1.34	0.97	0.78	3.58	1	3.9		
US Impreza (AWD) MY95	TY752VT3AA	3.55	2.11	1.45	1.09	0.83	3.42	1	3.9	Viscous (4kgf)	Open
US Impreza EJ18E (AWD) MY96	TY752VT4AA	3.55	2.11	1.45	1.09	0.83	3.42	1	3.9	Viscous (4kgf)	Open
US Impreza EJ22E (AWD) MY96	TY752VABBA	3.55	1.95	1.37	0.97	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza EJ18E (AWD) MY97	TY752VT5AA	3.55	2.11	1.45	1.09	0.83	3.42	1	3.9	Viscous (4kgf)	Open
US Impreza EJ22 (AWD) MY97-98	TY752VA5AA	3.55	1.95	1.37	0.97	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza 2.5RS MY98	TY752V2DAA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Impreza EJ22 MY99-01	TY754VA1AA	3.55	1.95	1.37	0.97	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza 2.5RS MY99-01	TY754VCAAB	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Impreza RS MY02-03	TY754VFBBA	3.55	2.06	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Impreza TS MY02-03	TY754VC2AA	3.55	2.06	1.45	1.09	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza Outback MY02-03	TY754VC2BA	3.55	2.06	1.45	1.09	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza RS MY04	TY754VC4CA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous	Open

										(4kgf)	
US Impreza TS MY04	TY754VC4AA	3.55	2.11	1.45	1.09	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Impreza Outback MY04	TY754VC4BA	3.55	2.11	1.45	1.09	0.78	3.33	1	3.9	Viscous (4kgf)	Open
US Forester MY97-98	TY753VJ1AA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Forester MY99	TY755VC1AA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Forester MY00-01	TY755VC1BA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Forester MY02	TY755VC2AA	3.55	2.11	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Forester MY03	TY755VC3AA	3.45	2.06	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Forester (non-turbo) MY04	TY755VC4AA	3.45	2.06	1.45	1.09	0.78	3.33	1	4.111	Viscous (4kgf)	Open
US Legacy Outback MY94	TY752VAAAA	3.55	2.11	1.45	1.09	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Legacy MY94	TY752VAABA	3.55	2.11	1.45	1.09	0.78	3.42	1	3.9	Viscous (4kgf)	Open
US Legacy MY95-96	TY752VABAA	3.55	2.11	1.45	1.09	0.78	3.42	1	3.9	Viscous (4kgf)	Open
US Legacy Outback MY95-96	TY752VABBA	3.55	2.11	1.45	1.09	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Legacy GT MY97	TY752VACBA	3.55	2.11	1.45	1.09	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Legacy Outback MY97	TY752VACCA	3.55	2.11	1.45	1.09	0.87	3.42	1	4.111	Viscous (4kgf)	Open
US Legacy MY97-98	TY752VACAA	3.55	2.11	1.45	1.09	0.78	3.42	1	3.9	Viscous (4kgf)	Open
US Legacy GT MY98	TY752V2DAA	3.55	2.11	1.45	1.09	0.78	3.42	1	4.111	Viscous (4kgf)	Open
US Legacy Outback MY98	TY752V2DCA	3.55	2.11	1.45	1.09	0.87	3.42	1	4.111	Viscous (4kgf)	Open

US Legacy MY99	TY754VAAAA	3.55	2.11	1.45	1.09	0.78		3.33	1	3.9	Viscous (4kgf)	Open	
US Legacy GT MY99	TY754VCAAB	3.55	2.11	1.45	1.09	0.78		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy Outback MY99	TY754VCACB	3.55	2.11	1.45	1.09	0.87		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy L & Brighton MY00	TY754VCAAA	3.45	2.06	1.45	1.09	0.78		3.33	1	3.9	Viscous (4kgf)	Open	
US Legacy Outback MY00	TY754VCACA	3.45	2.06	1.45	1.09	0.87		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy GT MY00	TY754VCADA	3.45	2.06	1.45	1.09	0.78		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy L & Brighton MY01-02	TY754VCBAA	3.45	2.06	1.45	1.09	0.78		3.33	1	3.9	Viscous (4kgf)	Open	
US Legacy GT MY01-02	TY754VCBDA	3.45	2.06	1.45	1.09	0.78		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy Outback MY01-02	TY754VCBCA	3.45	2.06	1.45	1.09	0.87		3.33	1	3.9	Viscous (4kgf)	Open	
US Legacy L MY03-04	TY754VCDAA	3.45	2.06	1.45	1.09	0.78		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy GT MY03-04	TY754VCDDA	3.45	2.06	1.45	1.09	0.78		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy Outback & Baja MY03-04	TY754VCDCA	3.45	2.06	1.45	1.09	0.87		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy & Baja MY05	TY757VCACA	3.45	2.06	1.45	1.09	0.87		3.33	1	4.111	Viscous (4kgf)	Open	
US Legacy Outback MY05	TY757VWAAB	3.45	2.06	1.45	1.09	0.87		3.33	1	4.111	Viscous (4kgf)	Open	
Unknown	TY752VB1AA	3.55	2.11	1.45	1.09	0.83				4.111			
Unknown	TY752VB1BA	3.55	2.11	1.45	1.09	0.83				4.111	DCCD (35:65)	Helical LSD	
Unknown	TY752VB1CA	3.45	2.33	1.75	1.35	0.87				4.111	DCCD (35:65)	Helical LSD	
Impreza MY 09/10/11 Diesel		3.45	1.75	1.06	0.79	0.63	0.56	3.64					Split case 6 speed (not STi)