

Transmission Identification

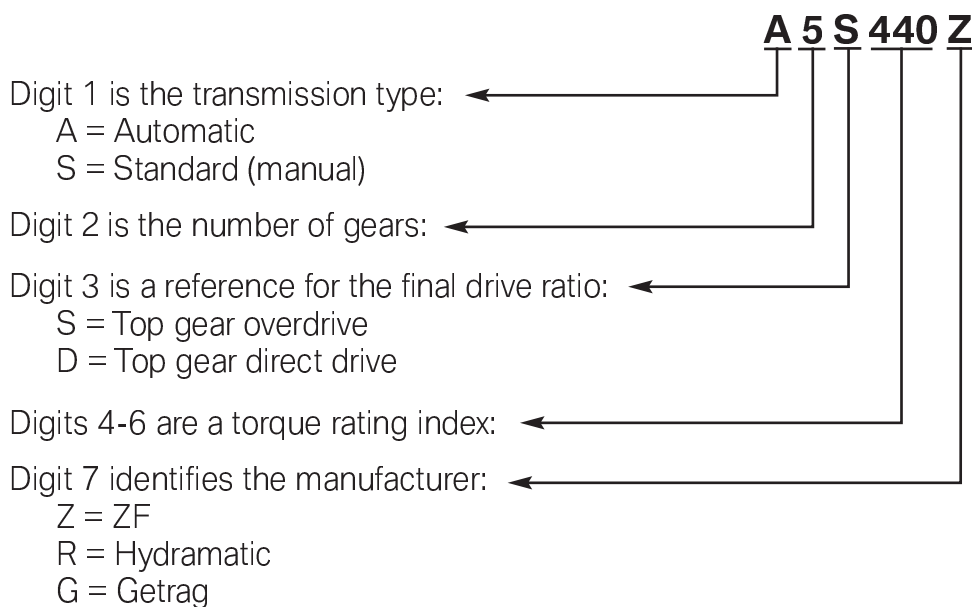
BMW uses three different transmission suppliers.

1. Zahnradfabrik Friedrichshafen: A German supplier of BMW transmissions. Commonly referred to as ZF. ZF manufactures both manual and automatic transmissions.
2. Getrag: A German supplier of BMW manual transmissions.
3. Hydramatic: A French supplier of BMW automatic transmissions. Hydramatic is a manufacturing division of General Motors Powertrain.

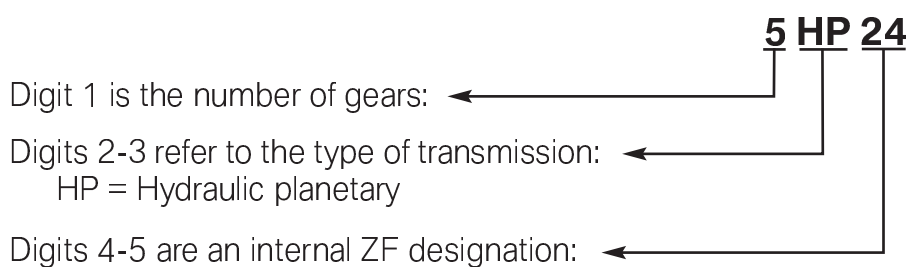
BMW has developed an internal numbering system for their transmissions for parts ordering, information research, and identification. Each manufacturer uses their own internal identification system.

The breakdown of the BMW transmission identification code is as follows:

BMW Identification Code Breakdown



ZF Identification Code Breakdown



Automatic Transmissions

In technical documentation, the transmission designation is used to ensure the unambiguous identification of the transmission. Frequently, however, only an abbreviation is used. This short form is used to assign a transmission to a transmission family. For example, we often talk about the GA8HP transmission family, which consists of several transmissions such as the GA8HP45Z, the GA8HP70Z and the GA8HP90Z.

Position	Meaning	Index	Explanation
1	Description	G	Transmission
2	Transmission type	A	Automatic Transmission
3	Number of gears	6 8	Six forward gears Eight forward gears
4	Transmission type	HP L R	Hydraulic planetary gear train Designation by GMPT Designation by BGMPT
5 + 6	Transferable torque	19 26 32 45 (ZF) 45 (GMPT) 70 90 390	300 Nm gasoline engine 600 Nm gasoline engine 720 Nm gasoline engine 450 Nm gasoline engine, 500 diesel engine 350 Nm gasoline engine 700 Nm gasoline engine and diesel engine 900 Nm gasoline engine 390 Nm 4th gear 410 Nm gasoline engine
7	Manufacturer	G J R Z H	Getrag Jatco GMPT ZF In-house part

The tables on following three pages contain a list of automatic transmissions and the models they are used in.

Zahnradfabrik Friedrichshafen (ZF)			
Transmission BMW ID #	Manufacturer ID	Model/Year	Engine
4HP22 (EH)	4HP22 (EH)	86 535i 86 635i 86 735i	M30 M30 M30
4HP24 (EH)	4HP24 (EH)	88-9/91 750iL (E32) 92-94 750iL (E32) 90-94 850i/Ci (E31)	M70 M70 M70
A5S310Z	5HP18	93 530i/iT (E34) 94 530i/iT (E34) 95 M3 (E36) 96-99 M3 (E36)	M60 M60 S50 (US) S52
A5S325Z	5HP19	00 323i/Ci/CiC (3/00-8/00) 01 323iT (from 4/01) 01-04 325i/Ci/CiC to end of 04 02-05 325i SULEV (E46) 02-06 325Ci SULEV (E46) 00-04 330i/Ci/CiC to end of 04 01-03 525i/xi/xiT 3/01 to 9/03 01-03 530i/xi/xiT 3/01 to 3/03 03-05 Z4 (E85) 2.5i and 3.0i	M52 TU M52 TU M54 M56 M56 M54 M54-N52 M54-N52 M54
A5S440Z	5HP24	97 840Ci (E31) from 9/96 97 540i (E39) 1/97-8/97 97 740i/iL (1/97 - 4/97) 97 740i/iL (5/97-8/97) 98-03 540i 98-01 740i/iL 00- X5 4.4i (E53)	M62 M62 M62 M62 M62, M62 TU 99-02 M62, M62 TU 99-01 M62TU
A5S560Z	5HP30	93-94 740i/iL (E32) 93 540i (E34) 94-95 540i (E34) 94-95 840Ci (E31) 95 740i/iL (E38) 95-01 750iL (E38) 96-97 740i/iL (-1/97) 96 840Ci (E31) 95-97 850Ci	M60 M60 M60 M60 M60 M73/M73TU M62 M62 M73

Zahnradfabrik Friedrichshafen (ZF)

Transmission BMW ID #	Manufacturer ID	Model/Year	Engine
GA6HP26Z	6HP26	02-04 745i/Li (E65/E66) 05-08 750i/Li (E65/E66) 03- 760Li (E65/E66) 03-3/07 545i/550i (E60) 03-9/06 X5 4.4/4.8iS (E53)	N62 N62/N62TU N73 N62/N62TU N62/N62S
GA6HP28Z	6HP26TU	3/07 545i/550i (E60) 9/07 645Ci/CiC (E63/E64) 9/07 650Ci/CiC (E63/E64) 10/06 X5 4.8i (E70) 9/08 X5 xDrive35d (E70) 1/08 X6 XDrive50i 4.4 (E71)	N62/N62/TU N62/N62/TU N62/N62/TU N62TU N57 N63
GA6HP19Z	6HP19	05-9/06 325i/xi (E90/E91) 05-9/06 330i/xi (E90) 06 Z4 3.0i/si (E85) 06 Z4 3.0i/si Coupe (E86)	N52 N52 N52 N52
GA6HP21Z	6HP19TU	4/06 335i/xi (E90) 9/06 328i/xi-335i/xi (E92) 12/06 335i (E93) 3/07 528i/xi-535i/xi (E60/E61) 1/08 135is Coupe (E82) 1/08 135is Convertible (E88) 10/06 X5 3.0si (E70) 1/08 X6 XDrive35i 3.0 (E71)	N54 N52K/N54 N54 N52K/N54 N54 N54 N54 N52K N54
GA8HP45Z	8HP45	3/10 535i/xi (F07) 3/10 528i (F10) 3/10 535i/xi (F10) 5/10 X5 xDrive35i (E70) 5/10 X5 xDrive50i (E70) 5/10 X5 xDrive35d (E70)	N55 N52 N55 N55 N63 M57
GA8HP70Z	8HP70	9/09 550i/x (F07) 9/09 760Li (F02) 3/10 550i/xi (F10)	N63 N74 N63

GM Hydrumatic

Transmission BMW ID #	Manufacturer ID	Model/Year	Engine
A4S310R (THM-R1)	4L30- E(A4S310R)	90-92 525i (E34) 93-95 525i (E34) 92 325i, is, ic (E36) 93-95 325i, is, ic (E36) 92-95 318ti (E36)	M50 M50 TU M50 M50 TU M42
A4S270R	4L30- E(A4S270R)	96-98 328i (is, ic -97) 96-98 318i (is, ic -97) 96-98 318ti (E36/5) 96-98 Z3 1.9 (E36/7) 96-98 Z3 2.8 97-98 528i (E39)	M52 M44 M44 M44 M52 M52
A5S360R (GM5)	5L40-E (A5S360R)	99-00 323i/Ci (7/98-3/00) 99-00 328i/Ci (6/98-5/00) 99-00 528i (E39) 9/99-8/00 99-00 Z3 (E36/7) 2.3/2.8	M52 TU M52 TU M52 TU M52 TU
A5S390R (GM5)	5L40-E (A5S390R)	00-8/06 X5 3.0i (4/00) 01 325iT (8/00-3/01) 01-3/05 325xi/xiT & 330Xi (-8/00) 01-6/06 325Ci/Ci/330Ci/Ci 01 525i/iT (9/00-3/01) 01 530i (9/00-3/01) 01-02 Z3 2.5/3.0 (6/00) 03-8/06 X3 2.5/3.0 (E83)	M54 M54 M54 M54 M54 M54 M54 M54
6L46R (GM6)	6 Speed Hydra-Matic	9/06 328i/xi/C/Cxi (E90/91/92) 12/06 328Cic (E93) 1/08 128is Coupe (E82) 1/08 128is Convertible (E88) 9/06 X3 3.0si (E83)	N52K/N51 N52K/N51 N52K/N51 N52K/N51 N52K

Manual Transmissions

In the technical documentation, the transmission designation is used to ensure the unambiguous identification of the transmission. Frequently, however, only an abbreviation is used. Thus we frequently speak of the I transmission, K transmission or G transmission. For the correct designation, refer to the following table.

Position	Meaning	Index	Explanation
1	Description	G	Transmission
2	Transmission type	S	Manual Transmission
3	Number of gears	1-9	Number of forward gears
4	Transmission type	- X S W D Y	Manual transmission Four-wheel drive with manual transmission Sequential manual transmission Four-wheel drive with sequential manual transmission Twin-clutch gearbox Four-wheel drive with twin-clutch gearbox
5 & 6	Transmission type	17 26 37 45 53	I transmission D transmission H transmission K transmission G transmission
7	Gear set	B D S P	Petrol engine ratio Diesel engine ratio Sport gear ratio Petrol engine gear ratio overhauled
8	Manufacturer	G J R Z H	Getrag Jatco GMPT ZF In-house part

The following table lists the manual transmissions and the vehicles they are used in.

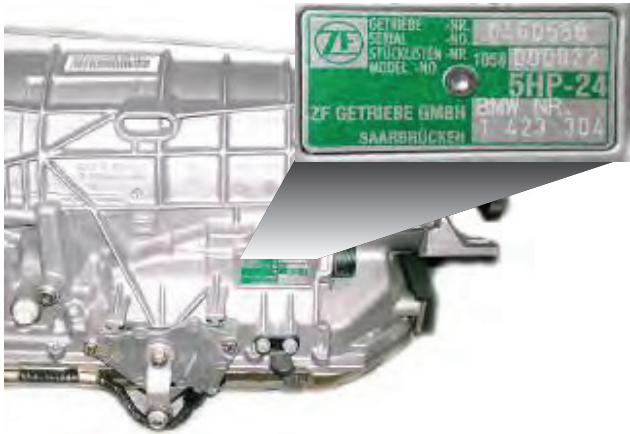
Transmission Model	Vehicles	Engine	Model Year
S5D 200G	318i/iC (E36)	M42	1992 - 1995
S5D 250G	318ti (E36/5) 318i/iC (E36) 325i/iC (E36) 323i (E46)	M42, M44 M44 M50TU M52TU	1995 - 1999 1996 1992 - 1995 1999 -
S5D 280Z	X5 3.0i (E53) 325xi (E46/16) 330xi (E46/16)	M54 M54 M54	2001 - 2001 - 2001 -
S5D 310Z	M3 (E36) 525i (E34) 530i (E34)	S50 M50TU M60	1995 1991 - 1995 1994 - 1995
S5D 320Z	323i/iC, 328i/iC (E36) M3 (E36) Z3 roadster/Coupe M roadster/Coupe 528i (E39) 328i (E46)	M52 S52 M52TU S52 M52TU M52TU	1996 - 1999 1996 - 1999 1997 - 1998 - 1997 - 1999 -
S6S 420G	M3 (E46) 540i (E34) 540i (E39) M5 (E39) Z8 (E52)	S54 M60 M62TU S62 S62	2001 - 1994 - 1995 1997 - 2000 - 2001 -
S6S 560G	850i/Ci 850Csi	M70, M73 S70	1991 - 1997 1994 - 1995
GS6-17PG	528i (F10)	N52	2011
GS6-45BZ	535i (F10)	N55	2011
GS6-53BZ	550i (F10)	N63	2011

Transmission Data Plate

In order to identify BMW transmissions there are identification tags located externally on the transmission case. The tag contains information such as Manufacturer, Serial number, transmission type etc. This information is needed when ordering parts, referencing bulletins, or submitting a PuMA case.

ZF Tag Location

- Right hand side (passenger side) of transmission case. (5HP30 and 5HP18)
- Left hand side (drivers side) of transmission case. (6HP26Z, 5HP24, and all 4HP)
- Rear under output shaft. (5HP19)



ID Tag Location 5HP24



ID Tag Location 5HP19

GM Tag Location

- Left hand side (drivers side) of transmission case.



GM ID Tag (GM 5)