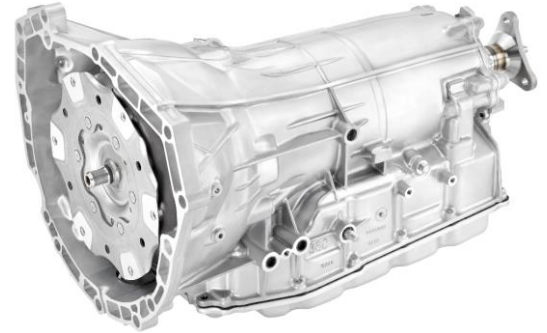




8L45 HYDRA-MATIC 8-SPEED AUTOMATIC TRANSMISSION

REFINED TRANSFER OF POWER

Designed and built by GM, the 8L45 automatic transmission offers increased efficiency and lighter weight compared to the previous 6L45 Hydra-Matic six speed transmissions. With a wide 7.0 overall gear ratio, smaller steps between gears, and numerically higher 4.615 first gear, the 8L45 keeps the engine within the sweet spot of the rpm band for a greater feeling of immediate performance while making the most of its horsepower and torque to optimize performance and efficiency. Advanced features like Automatic Start/Stop, Grade Braking and Driver Shift Control (TAP Shift) are available based on application needs.



8L45 Hydra-Matic (M5N) ATSS
Eight Speed RWD Automatic Transmission shown

STATE-OF-ART TECHNOLOGIES

Efficient Design

- Up to 5% more efficient than the previous 6L45 Hydra-Matic transmission.
- Features four gear sets and five clutches which allows the 8L45 to fit the same space as the previous 6L45/6L50 family of six-speed automatics.
- Incorporates components necessary for engines with start/stop technology.

Adaptive Controls

- Performance Algorithm Shifting (PAS) monitors how assertively the driver is using engine output to determine at what engine speed to upshift or downshift.
- Available Driver Shift Control allows the driver to shift the transmission like a clutch-less manual gearbox.
- Available Automatic Grade Braking assists with braking on long downhill grades by initiating transmission downshifts.
- Available Automatic Start/Stop technology with integrated surge accumulator.

Control System

- 32-bit transmission control module (TCM) monitors transmission performance and compensates for normal wear in components such as clutch plates, so performance is consistent for the life of the transmission.
- Variable Force Solenoid (VFS) control components monitor clutch pressures with optimum accuracy for quicker and more precise shifts.
- Electronic controlled capacity clutch (ECCC) technology employs a small, regulated amount of slip to dampen out engine pulses for a smoother running drivetrain, especially during shifting.

Low Maintenance

- The 8L45 uses DEXRON™ High Performance Automatic Transmission fluid, which was developed to have a more consistent viscosity profile, a more consistent shift performance in extreme conditions and less degradation over time vs DEXRON III transmission fluid.

OPTIONAL FEATURES

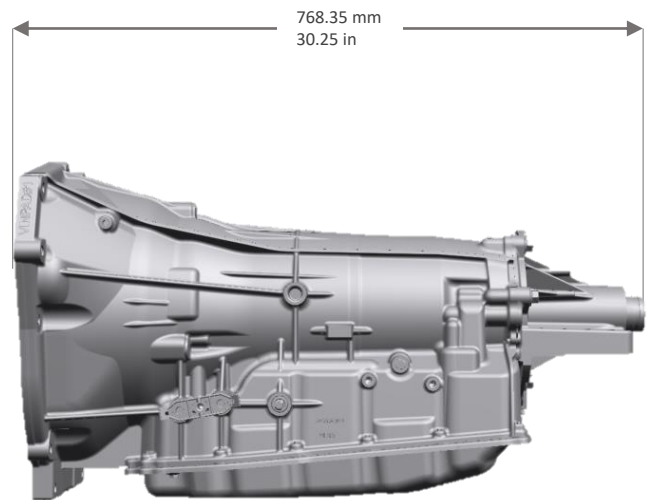
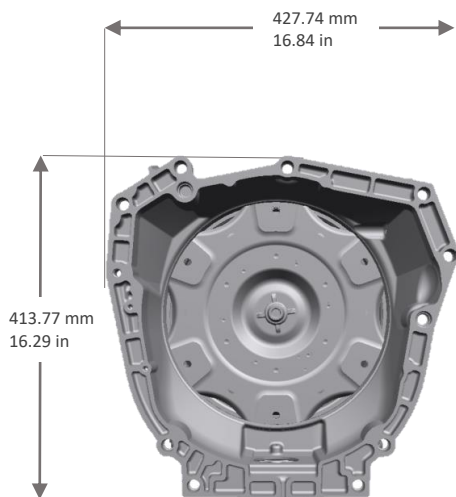
- Multiple Shift Patterns (Selectable)
- Enhanced Performance Algorithm Shifting (PAS)
- Driver Shift Control (TAP Shift)
- Engine Rev Matching on Tap Downshifts
- Selectable Tow / Haul Mode
- Engine Torque Management On All Shifts
- Altitude and Temperature Compensation
- Adaptive Shift Time
- Reverse Lockout
- Automatic Grade Braking

8L45 (M5N)*

SPECIFICATIONS

MAXIMUM ENGINE POWER:	308 Hp (230kw)*	RANGE SELECTOR QUADRANTS:	5 position (P,R,N,D,M) Protected for 6 position (P,R,N,D,M,L)
MAXIMUM ENGINE TORQUE:	275 lb-ft (373 Nm)*	CASE DESCRIPTION:	2-piece Main, bell integrated with main case
MAXIMUM GEARBOX TORQUE:	406 lb-ft (550 Nm)	CASE MATERIAL:	Die cast aluminum
GEAR RATIOS:	M5N	SHIFT PATTERN:	2 on-off solenoids
FIRST:	4.615	SHIFT QUALITY:	6 variable force solenoids. One for each clutch and one for TCC
SECOND:	3.038	TORQUE CONVERTER CLUTCH:	Variable Force Solenoid ECCC, 2 path, turbine damper
THIRD:	2.065	CONVERTER SIZE:	238mm
FOURTH:	1.658	FLUID TYPE:	DEXRON™ High Performance ATF
FIFTH:	1.259	FLUID CAPACITY:	10.8 L*
SIXTH:	1.000	TRANSMISSION WEIGHT:	80 kg (176 lb)*
SEVENTH:	0.849	PRESSURE TAPS AVAILABLE:	C12345R Clutch
EIGHTH:	0.658	ASSEMBLY SITE:	Toledo, OH and Silao, Mexico
REVERSE:	3.928		
MAXIMUM SHIFT SPEED	7500 rpm		
MAXIMUM VEHICLE WEIGHTS:	Up to GCVV 12,000 lbs. (5,443 kg)*		

* Based on 2020 Chevrolet Colorado Z71 2WD Crew Cab, Short Box



Hydra-Matic 8L45 (M5T) shown

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