

Animation Worksheet: Electronic Clutch Control

Name: _____ **Date:** _____

1. Electronic clutch control in automatic transmissions uses duty cycle _____ to manage the application of clutches.
2. The transmission clutches use friction or _____ designs to engage and disengage gears or torque paths.
3. Electronic clutch control replaces or builds upon traditional systems by regulating hydraulic _____ to apply or release the clutches.
4. A solenoid is an _____ valve that controls the flow of hydraulic fluid to the clutch pack.
5. By opening or closing, the solenoid changes the pressure applied to the clutch, which decides how firmly or _____ the clutch engages.
6. Duty cycle solenoids operate using pulse width _____, which means the solenoid is rapidly turned on and off in a cycle.
7. The proportion of time that a solenoid is turned on versus turned off is expressed as a _____.
8. A higher duty cycle means more "on" time, which increases pressure and leads to _____ clutch engagement.
9. The Transmission Control _____ is a microprocessor that adjusts the duty cycle based on inputs like engine speed, vehicle speed, throttle angle, and driver demand.
10. At a 50% duty cycle, the clutch receives moderate pressure and allows a controlled _____ for a smooth transition between gears without abrupt jolts.