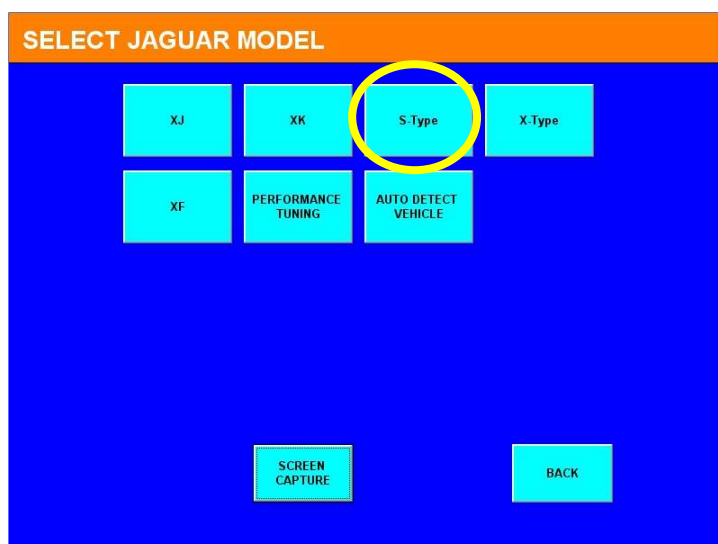


SAMPLE JAGUAR PROCEDURE for Transmission Adaptation Drive Cycle

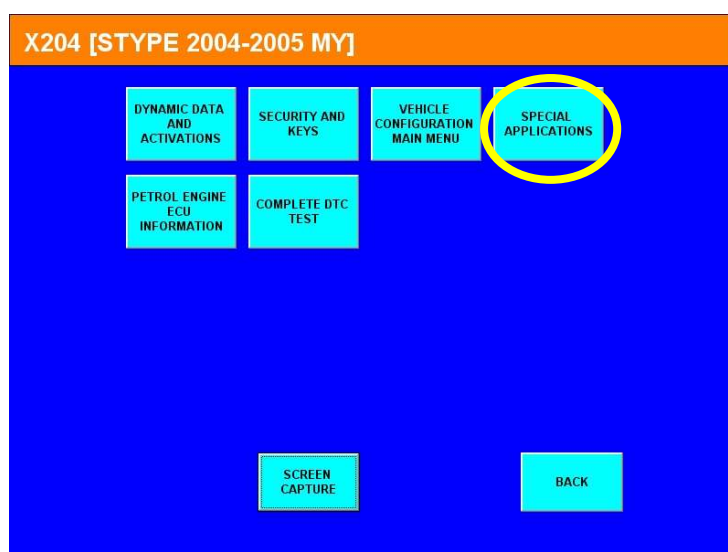
There are many drivability issues with the ZF gearboxes fitted to Jaguar S-type, XK & XJ vehicles. The recommended remedial action to resolve these generally involves a FLASH programming update, then a specific drive cycle to set the base adaptations in the transmission control module.

This drive cycle varies depending on the vehicle & relies on a number of gear changes occurring within specified tolerances.

Autologic for Jaguar software assists the user to carry out this process by showing the user which gear changes are still required, together with the requirements for it. The following screen shots show how simple it is to achieve this process using *Autologic*.



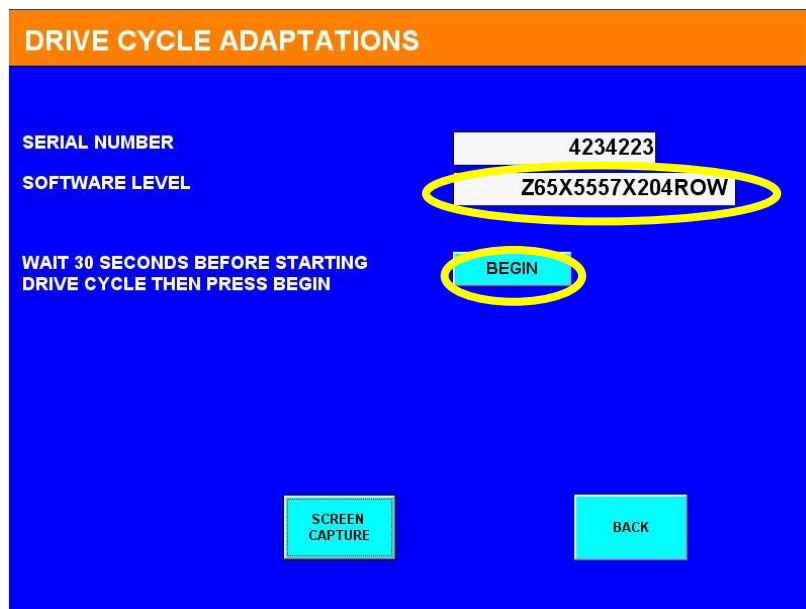
First the user must select the vehicle, in this case, an *S-type*, X204 chassis.



Then select the *Special Applications* option



From this page, a number of special applications are available on *Autologic* for this vehicle. For this example, *TCM DRIVE CYCLE ADAPTATIONS* is selected.



The next screen displayed indicates the current software specification. Pressing *BEGIN* moves to the following screen.

DRIVE CYCLE ADAPTATIONS

TRANSMISSION OIL TEMPERATURE (°C)	27.06
PEDAL POSITION (%)	9.96
GEAR SELECTED	NEUTRAL
CLUTCH C (1 -> 2)	0
CLUTCH B (2 -> 3)	0
CLUTCH E (3 -> 4)	0
CLUTCH A (5 -> COAST)	0
CLUTCH D (5 -> BRAKE)	0
TORQUE (35-55 IS WITHIN RANGE)	0 -- OUT OF RANGE

HELP
SCREEN CAPTURE
BACK

The drive cycle can now commence.

Autologic has comprehensive help built-in to the software. By pressing the *HELP* button, the user is presented with a set of comprehensive instructions to help carry out the process.

DRIVE CYCLE ADAPTATIONS INSTRUCTIONS

Vehicle	VIN Range
S-Type	M45225 - N91220
XJ	G00001 - onwards
XK	A30645 - A48684

Applicable Vehicles

Notes

The drive cycle must be performed on a flat and level road. The vehicle may be driven normally to a suitable road. If the road becomes unsuitable during the drive cycle, drive normally to another suitable road. Perform the drive cycle in normal mode - not sports mode. The transmission oil temperature must be within the range 50°C (122°F) – 100°C (212°F). Should the transmission oil temperature exceed 100°C (212°F), drive the vehicle at a constant speed to cool the transmission. Do not move the accelerator pedal during gear shifts. The drive cycle adaptations will be completed once each clutch has been adapted three times. Pressing the HELP button during the procedure then pressing on various text will bring up further help.

Apply throttle such that the torque produced is within the correct range (35-55%).
Once all the conditions are correct and a gear change occurs, the number of adaptations for that clutch will increase. Three adaptations are required for each clutch to complete the procedure.

Petrol Engine

Clutch	Description
C Clutch (1 to 2)	

PAGE UP
PAGE DOWN
SCROLL UP
SCROLL DOWN
TOP
QUIT

Example of help screen

The intention is to drive the car smoothly up and down through every gear, keeping the torque reading in the 35-55% range.

DRIVE CYCLE ADAPTATIONS

TRANSMISSION OIL TEMPERATURE (°C)	27.06
PEDAL POSITION (%)	23.91
GEAR SELECTED	2
CLUTCH C (1 → 2)	1
CLUTCH B (2 → 3)	0
CLUTCH E (3 → 4)	0
CLUTCH A (5 → COAST)	0
CLUTCH D (5 → BRAKE)	0
TORQUE (35-55 IS WITHIN RANGE)	52.5 – WITHIN RANGE

HELP SCREEN CAPTURE BACK

DRIVE CYCLE ADAPTATIONS

TRANSMISSION OIL TEMPERATURE (°C)	27.06
PEDAL POSITION (%)	24.40
GEAR SELECTED	4
CLUTCH C (1 → 2)	3
CLUTCH B (2 → 3)	3
CLUTCH E (3 → 4)	2
CLUTCH A (5 → COAST)	1
CLUTCH D (5 → BRAKE)	0
TORQUE (35-55 IS WITHIN RANGE)	40.5 – WITHIN RANGE

HELP SCREEN CAPTURE BACK

As the drive cycle continues & each gear change takes place, the number of clutch engagements will increase as shown in the screen shots above.

DRIVE CYCLE ADAPTATIONS

TRANSMISSION OIL TEMPERATURE (°C)	27.06
PEDAL POSITION (%)	23.41
GEAR SELECTED	5
CLUTCH C (1 → 2)	3
CLUTCH B (2 → 3)	3
CLUTCH E (3 → 4)	3
CLUTCH A (5 → COAST)	3
CLUTCH D (5 → BRAKE)	3
TORQUE (35-55 IS WITHIN RANGE)	40.5 – WITHIN RANGE

ADAPTION DRIVE CYCLE COMPLETE

OK

HELP SCREEN CAPTURE BACK

Once all Clutches reach 3 changes, *Autologic* will notify the user that the drive cycle is now complete.