



Lelespeed

**ALFA
159**



This Supplement describes all the main features and instructions for using the Selespeed gearbox installed on your car.

For all other information not contained herein, refer to the Owner's Manual this Supplement is attached to.

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USING THE SELESPEED GEARBOX

The car is fitted with a mechanical gearbox with electronic control, called Selespeed that works in two operating modes: **MANUAL** and **DRIVE (AUTOMATIC)**.

This gearbox consists of a conventional mechanical transmission with gearshift lever **A**-**fig. 1**, to which an electronically-operated electrohydraulic device has been added which controls automatically the clutch and gear engagement.

IMPORTANT To be able to use the Selespeed correctly, it is absolutely necessary to thoroughly read the description in this supplement to learn the correct operations that can be carried out right from the start.

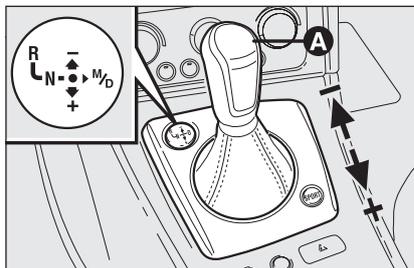


fig. 1

A0E0417m

GEAR LEVER

The gear lever **A**-**fig. 1**, is located on the central console and it is of the floating "multi-stable position" type, i.e.: it features three stable positions and three unstable ones.

The three stable positions correspond to neutral **N**-**fig. 2**, reverse **R**-**fig. 2** and central position set between the unstable positions **+** and **-** (**fig. 1**).

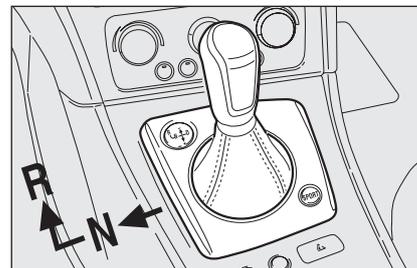


fig. 2

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Unstable positions (i.e.: positions abandoned as soon as the gear lever is released) are the upshifting position **+**, the downshifting position **-** and the automatic mode position **M/D** (**fig. 3**).

To return to manual mode, set the gear lever back to **M/D**.

With the car stationary and the electronic key not fitted into the ignition device, it is possible to shift the lever with/without the brake pedal pressed till reaching the neutral position (**N**). Once in neutral (**N**), the gear lever is locked in this position, but the system will perform no actuation when shifting the lever and the gear engaged will be the one engaged before removing the electronic key from the ignition device.

IMPORTANT With the engine running, any error between lever position and gear engaged is indicated by a buzzer sounding until restoring proper condition.

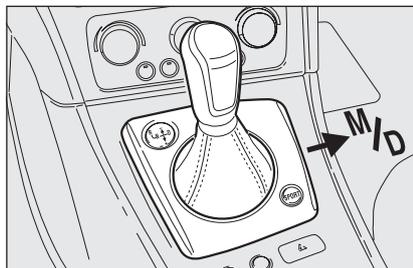


fig. 3

A0E0419m

Shift-lock

With the car stationary and electronic key fitted into the ignition device, engaging a gear from neutral position (**N**) is only allowed with the brake pedal pressed.

It is not possible to move the gear lever from neutral position (**N**) without pressing the brake pedal (shift-lock device).

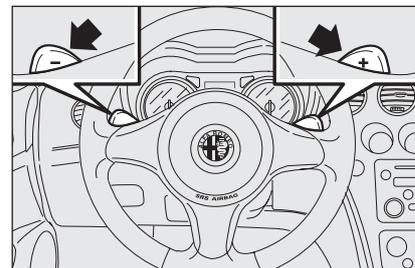


fig. 4

A0E0392m

STEERING WHEEL LEVERS

Two stalks set on steering wheel spokes (**fig. 4**) have also been provided to increase/decrease the gear engaged (also with the car stationary, electronic key fitted into ignition device and engine off).

INFO ON DISPLAY

One second after fitting the electronic key into the ignition device, the display will show the gear engaged and the last operating mode adopted: **DRIVE** (letter **D** on the display) or **MANUAL** (no display screen).

N = neutral;

1 = first gear;

2 = second gear;

3 = third gear;

4 = fourth gear;

5 = fifth gear;

6 = sixth gear;

R = reverse.



fig. 5

A0E0416m

If the **SPORT** function is on, the display will show letter **S** (Sport) next to the gear engaged **fig. 5**.

IMPORTANT If after 10 seconds (with electronic key fitted into the ignition device), the display does not show the gear engaged, remove the key from the ignition device and wait for the display to turn off, then repeat system switch on. If the fault persists, contact Alfa Romeo Authorised Services.

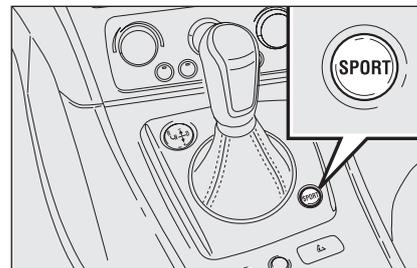


fig. 6

A0E0420m

OPERATION

The gearbox can work in two operating modes:

- the first mode is manual (**MANUAL**): the driver directly requests gearshifting;
- the second mode is fully automatic (**DRIVE**): the system directly decides when shifting gears.

SPORT/NORMAL (S) operating mode can be engaged regardless of the gear lever position: to engage it, press button **SPORT** (**fig. 6**) located on the gearbox plate.

Manual operation (Manual)

IMPORTANT To use the system properly, you are recommended to press pedals with the right foot only.

In this operating mode, the decision to change gear is left to the driver who decides the most appropriate moment.

Proceed as follows:

- press the brake pedal;
- set the gear lever to **N**;
- start the engine;
- move the gear lever to central position (between **+** and **-**) to engage the 1st gear, or to **R** to engage reverse keeping the brake pedal pressed;
- with gear lever to central position and brake pedal pressed it is also possible to engage 1st or 2nd gear by the levers on the steering wheel;
- release the brake pedal and press the accelerator pedal;
- with the car on the move, move the gear lever to **+** to upshift or to **-** to downshift.

When shifting gears it is not necessary to release the accelerator pedal.

The system will cut in preventing gear shifting if the request to change gear could impair regular operation of engine and transmission.

The system will shift gears automatically when the engine reaches idle rpm (e.g.: at slowing down).



Do not rest your hand on the gear lever when you are not shifting gears or if you are in Drive/Manual mode.

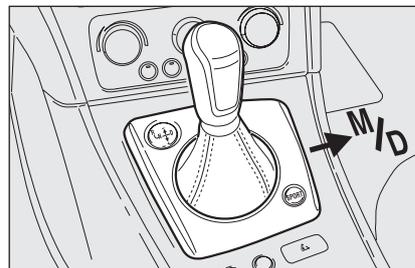


fig. 7

A0E0419m

Automatic operation (Drive)

IMPORTANT To use the system properly, you are recommended to press pedals with the right foot only.

Proceed as follows:

- press the brake pedal;
- set the gear lever to **N**;
- start the engine;
- move the gear lever to central position (between **+** and **-**) to engage the 1st gear, or to **R** to engage reverse keeping the brake pedal pressed. If in manual operating mode, move the gear lever to **M/D** (fig. 7) to engage the automatic operating mode;
- release the brake pedal and press the accelerator pedal.

When the Automatic operation is engaged, the display will show letter **D** and the gear engaged.

With Automatic mode active, the system decides to change gear depending on car speed, engine rpm and how the accelerator pedal is pressed. It is however possible to change gears with the gear lever or the levers on the steering wheel without deactivating the automatic mode: this function called “gear advice” suspends the automatic mode for the time required to change gear.



Do not rest your hand on the gear lever when your are not shifting gears or if you are in Drive/Manual mode.

Sport/Normal operating mode

To engage the **Sport/Normal (S)** operating mode, press button **SPORT** (fig. 6) regardless of the operating mode selected.

When this operating mode is on, the display will show letter **S**.

To disengage the **Sport/Normal** operating mode, press again button **SPORT** (letter **S** will disappear from the display). Moving the gear lever or shifting gear will not deactivate the operating mode.

If the gear lever is in Automatic **Sport** operating mode, moving the gear lever to **M/D** will engage the Manual Sport operating mode (and vice versa).

The **Sport** operating mode activates special engine/gearbox strategies that favour speedy gear shifting.

STARTING THE ENGINE

The car is fitted with an electronic engine immobilising device: if the engine fails to start, see paragraph “Alfa Romeo CODE system” in section “Dashboard and controls” in the Owner’s Manual.

IMPORTANT Tampering with the ignition device can cause accidental steering lock.

IMPORTANT Always fit the electronic key fully into the ignition device till it locks into place.

IMPORTANT Never take the electronic key out of the ignition device while the car is running unless you have to carry out an emergency removal (see paragraph “Removing the electronic key from the ignition device in an emergency”), this ensures that the steering lock is disengaged when the car is on the move (e.g.: towing the car).



We recommend that during the initial period you do not drive to full car performance (e.g.: excessive acceleration, long journeys at top speed, sharp braking, etc.).



When the engine is switched off never leave the electronic key into the ignition device to prevent pointless current absorption from draining the battery.



WARNING

Running the engine in confined areas is extremely dangerous. The engine consumes oxygen and produces carbon monoxide which is a highly toxic and lethal gas.

To start the engine proceed as follows:

- press the brake pedal and set the gear lever to **N**;
- fit the electronic key fully into the ignition device till it stops; press button **START/STOP**.

IMPORTANT If the start button is pressed with gear lever in position different from **N** and the brake pedal pressed, the display shows a message (see paragraphs “Warning lights and messages”). In that event, to complete ignition, it is necessary to position the lever in **N** within 3 seconds from pressing the **START/STOP** button, keeping the brake pedal pressed. After 3 seconds, to complete ignition, it is necessary to press again the **START/STOP** button after moving the lever to **N**.

After starting:

- the gearbox sets to neutral (**N**) automatically;
- display shows **N**;
- gears that can be engaged are 1st, la 2nd or reverse gear (**R**), with brake pedal pressed.

IMPORTANT Engine can only be started with gear lever at neutral (**N**) and brake pedal pressed.

IMPORTANT Should the starting-up procedure be executed with the gearbox not in working order, carry out the “Delayed start-up” procedure (see also the relative messages): keeping the **START/STOP** button pressed for at least 7 seconds, with the brake held down, the engine will start. The system will remain in the recovery mode (maximum gear allowed: 3rd, Automatic mode is not available). Should the engine not start, seek assistance from the Alfa Romeo Authorized Services.

IMPORTANT Opening the driver's door will make the system activate the hydraulic section in order to prepare it for next engine starting.

Important notes

If at start-up the engine turns off, restart it by pressing the brake pedal and then press button **START/STOP**.

If after a few attempts the engine does not start, do not insist but contact Alfa Romeo Authorized Services.

With car started the electronic key is locked into the ignition device and it can be removed only after switching the engine off. With car running and key locked into the ignition device, forced key removal could damage the ignition device.

Start-up failures, if any, are indicated by a message on the display. In this case contact Alfa Romeo Authorized Services.

Start-up failures

The system can recognise start-up failures.

In the event of a failure, the electronic key can be removed from the ignition device to enable the driver to carry out the following operations:

- ❑ turn the instrument panel off by pressing button **START/STOP** or removing the electronic key from the ignition device;
- ❑ start the engine again by pressing the brake pedal and button **START/STOP** with gear lever in neutral (**N**).

IMPORTANT In the event of engine stalling/racing while the car is running, due to safety reasons it will not be possible to take the electronic key out of the ignition device. To remove it, press button **START/STOP** with brake pedal released and car stopped.

HOW TO WARM UP THE ENGINE AFTER IT HAS JUST STARTED

Proceed as follows:

- ❑ drive off slowly, letting the engine turn at medium revs. Do not accelerate abruptly;
- ❑ do not drive at full performance for the initial kilometres. Wait until the coolant temperature gauge starts moving.

STARTING OFF

The engine can be started either with 1st, 2nd (recommended on poor grip roads) or reverse (**R**) gear.

Starting in 1st gear

- press the brake pedal;
- with gear lever in **N** or **R** move it to central position (between + and -);
- release the brake pedal and press the accelerator (pressing the accelerator pedal quickly flat out and deactivating the ASR, if any, will obtain a “brilliant” start).

Starting in 2nd gear

- press the brake pedal;
- with gear lever in **N** or **R** move it to central position and then to + ;
- with gear lever in central position yet, move it to +;
- release the brake pedal and press the accelerator pedal.

Starting in reverse

- press the brake pedal;
- move the Igear ever to **R**;
- release the brake pedal and press the accelerator pedal.

With speed below 5 km/h it is possible to shift from 1st gear to reverse (**R**) and vice versa without pressing the brake pedal and moving fastly the gear lever to prevent lever locking in neutral (**N**).

IMPORTANT If the request is not effected, the system will keep the gear engaged or will set the gearbox to neutral (**N**), and therefore the manoeuvre shall be repeated with speed below 5 km/h.



WARNING

**Never leave children unattended in the car.
Always remove the electronic key when leaving the car and take it out with you.**

BUZZER INDICATIONS

Due to safety reasons, the buzzer is activated when the car is parked with the gearbox in neutral (**N**) (signal that can be noted when removing the electronic key from the ignition device).

With the car stationary, the engine running and gear (1st, 2nd or **R**) engaged, the system activates the buzzer and automatically shifts to neutral (**N**) when:

- no action is made on the accelerator and/or brake pedals for at least 3 minutes;
- the brake is pressed for over 10 minutes;
- the driver's door is opened and the accelerator and brake are not touched for at least 1.5 seconds;
- a gearbox failure has been detected.

PARKING

To park the car safely it is absolutely necessary to press the brake pedal and to engage the first gear or reverse (**R**) and also to engage the hand brake.

Block the wheels with a wedge or a stone if the car is parked on a steep slope.

After having removed the electronic key from the ignition device, it is also absolutely necessary to wait for the display showing the gear engaged to go off before releasing the brake pedal.

Do not leave the electronic key in the ignition switch to prevent draining the battery. Always remove the electronic key when leaving the car and take it out with you.

IMPORTANT NEVER leave the car with gearbox in neutral (**N**).

IMPORTANT NOTES

- ❑ With the car stopped and a gear engaged always keep the brake pedal pressed until deciding to move off, then release the brake pedal and accelerate gradually;
- ❑ during prolonged halts with the engine running it is advisable to keep the gearbox in neutral (**N**);
- ❑ to safeguard clutch efficiency do not use the accelerator to keep the car still (e.g.: when the car is parked facing uphill) since clutch overheating could damage it. Use the brake pedal and press the accelerator pedal only when deciding to move off;
- ❑ use second gear only when more control is needed for moving off manoeuvres with poor grip;
- ❑ the gear shown on the display and the gear engaged may not correspond;
- ❑ though highly inadvisable, if when travelling downhill for some unexpected reason the car is set to neutral (**N**), when the engagement of a gear is requested, the system automatically engages the best gear in relation to the speed of the car to allow the correct transmission of torque to the wheels;
- ❑ if required, it is possible to shift gears with engine off, electronic key fitted into the ignition device and brake pedal pressed. In this event you are recommended to wait at least for 5 seconds between one gear shift and the other to safeguard the hydraulic system, specially the pump;

- ❑ deactivating the ASR, if any, using the relevant dashboard button and pressing the accelerator pedal quickly flat out, will obtain a “brilliant” start;
- ❑ when starting uphill, accelerating gradually and fully immediately after releasing the hand brake or the brake pedal will obtain higher engine rpm pick-up.

SWITCHING THE ENGINE OFF

With car stopped press button **START/STOP**. When the engine is off it will be possible to remove the electronic key from the ignition device.



WARNING

*In an emergency and also for safety reasons the engine can be switched off while the car is moving by pressing repeatedly (three times in 2 seconds) or by pressing and keeping pressed the **START/ STOP** button. In this event the power steering is no longer available.*

IMPORTANT After a taxing drive, you should allow the engine to idle to allow the temperature in the engine compartment to fall.

IMPORTANT Switching the engine off will obtain electronic safety systems and external lights switching off.

IMPORTANT In the event of engine switching off while the car is running, due to safety reasons it will not be possible to take the electronic key out of the ignition device. To remove it, turn the instrument panel on and off by pressing button **START/STOP** with brake pedal released and car stopped.



A quick burst on the accelerator before turning off the engine serves absolutely no practical purpose, it wastes fuel and is damaging especially to turbocharged engines.

REMOVING THE ELECTRONIC KEY FROM THE IGNITION DEVICE IN AN EMERGENCY

In the event of a failure at the engine switching off system or at the electronic key unlocking system proceed as follows:

- press the unlocking button to remove the metal insert (see paragraph “Electronic key” in section “Dashboard and controls” in the Owner’s Manual);
- fit the metal insert **B-fig. 8** of the electronic key into the slot **A**;
- remove the electronic key from the ignition device.

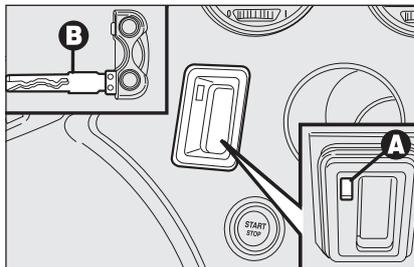


fig. 8

IMPORTANT Do not fit into the slot **A-fig. 8** objects other than the metal insert **B** of the electronic key.

IMPORTANT Stop the car before performing the emergency removal since if emergency removal is carried out with the engine running, the engine and the instrument panel will be turned off and the steering lock will not be engaged.

TOWING THE CAR

IMPORTANT When towing the car you must comply with local traffic regulations.

When towing the car you must observe the following recommendations:

- if possible, transport the car on the flatbed of a wrecker;
- should this be not possible, tow the car with the driving wheels (front) raised from ground.

Before starting to tow the car make sure the gearbox is set at neutral (**N**).



Do not start the engine while towing the car.



Failure to observe the above recommendations could cause serious damages to the gearbox.

WARNING LIGHTS AND MESSAGES



HAVE GEARBOX CHECKED

The symbol on the display turns on flashing (together with a message on the display and the buzzer) to indicate a gearbox failure.



In the event of a gearbox fault, contact Alfa Romeo Authorized Services as soon as possible to have the system checked.

MANUAL METHOD NOT AVAILABLE

The message is displayed when, with engine on, the **MANUAL** operating mode cannot be selected.



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.

AUTOMATIC METHOD NOT AVAILABLE

The message is displayed when, with engine on, the **DRIVE** operating mode cannot be selected.



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.

EXCESSIVE CLUTCH TEMPERATURE

The message on the display comes on together with the buzzer to indicate clutch overheating.

In this event, reduce gears and stop the car (turning the engine off) if required, until regular operating conditions are restored.



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.



To safeguard clutch efficiency do not use the accelerator to keep the car still (e.g.: when the car is parked facing uphill) since clutch overheating could damage it. Use the brake pedal and press the accelerator pedal only when deciding to move off.

DELAYED IGNITION

The message on the display comes on together with the buzzer to indicate brake pedal failure when trying to start the engine.

In this condition, keep the **START/STOP** button pressed down for at least 7 seconds, with the brake held down: the engine will start. The system is now in the recovery mode (maximum gear allowed: 3rd).



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.

OPERATION NOT ADMISSIBLE

The message on the display comes on together with the buzzer when the system refuses gear shifting requested by gear lever or steering wheel levers since certain indispensable conditions are lacking.



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.

SET GEARBOX LEVER TO NEUTRAL

The message on the display comes on together with the buzzer to warn the driver that neutral shall be engaged.

Engaging neutral (**N**), displayed message shall turn off.



If the message continues to stay on the display, contact Alfa Romeo Authorized Services.

IF A FUSE BLOWS

Specific Selespeed version fuses are located in the fusebox near the battery (see section “In an emergency” in the Owner’s Manual).

IMPORTANT Before replacing fuses read the warnings and precautions specified in section “In an emergency”.

COMPONENT	FUSE	AMPERE
+ Motor pump battery	F08	30
+ Battery	F18	15
+ Key	F24	15

CAR MAINTENANCE

SERVICE SCHEDULE

The Service Schedule, in addition to all the operations and checks described yet (see section “Car maintenance” in the Owner’s Manual), has also programmed the checks/replacements described in the following table:

	Thousands of km	35	70	105	140	175
Check the transmission control oil level		●	●	●	●	●
Check level for the clutch actuation hydraulic system		●		●		●
Replace oil for the clutch actuation hydraulic system (or every 24 months)			●		●	

CHECKING OIL LEVEL

Selespeed gearbox hydraulic system oil

For the transmission control oil level check and for clutch actuation system oil check/replacement get in touch only with the Alfa Romeo Authorized Services.



WARNING

Waste gearbox oil contains dangerous substances for the environment. For changing the oil we advise contacting Alfa Romeo Authorized Services who are equipped for disposing of used oil respecting nature and the law.

TECHNICAL SPECIFICATIONS

ENGINE CODES - BODYWORK VERSIONS

Version	Engine code	Body version
2.2 JTS	939A5000	939AXB11 30C (*) 939BXB11 31C (**)

(*) Saloon version/(**) Sportwagon version

TRANSMISSION

	2.2 JTS
Gearbox	6-gear robotized gearbox
Drive	Front

PERFORMANCE

	Maximum speed km/h	Acceleration from 0-100 km/h sec.	Kilometer with standing start sec.
2.2 JTS	224 (*)/222 (**)	8.7 (*)/8.9 (**)	29.4 (*)/29.8 (**)

(*) Saloon version

(**) Sportwagon version

WEIGHTS

Weights (kg)	Saloon version	Sportwagon version
Weight empty (including fluids, 90% fuel in the tank and no optional)	1445	1495
Max permissible weights (*)		
– front axle	1100	1100
– rear axle	1050	1050
– total	1995	2045
Payload including the driver (**)	550	550
Towable weights	1500	1500
Maximum load on ball	75	75
Maximum load on roof	50	80

(*) Loads not to be exceeded. It is the driver's responsibility to place goods in the boot and/or on the loading surface in accordance with the maximum permissible loads.

(**) If special equipment is fitted (sunroof, tow hitch, etc.) the unladen car weight increases thus reducing the specified payload.

CAPACITIES

		2.2 JTS	Recommended products and genuine lubricants
Fuel tank:	litres	70	Unleaded petrol with no less than 95 R.O.N. (EN228 Specification)
— including a reserve of	litres	10	
Engine cooling system	litres	8.15	Mixture of 50% water and PARAFLU^{UP} fluid
Engine lubrication system	litres	5.4	SELENIA S_tAR
Windscreen washer fluid reservoir with headlight washer	litres	6.0	Mixture of water and TUTELA PROFESSIONAL SC 35
Selespeed automatic gearbox	litres	0.7	TUTELA CAR CS SPEED
Clutch hydraulic system	litres	0.038	TUTELA TOP 4

FLUIDS AND LUBRICANTS

RECOMMENDED PRODUCTS AND THEIR SPECIFICATIONS

Use	Fluid and lubricant specifications for correct car operation	Genuine fluids and lubricants	Applications
Lubricants and greases for transmission	Specific fluid for gear selector electrohydraulic actuators. Qualification FIAT 9.55550-SA1	TUTELA CAR CS SPEED Contractual Technical Reference N° F005.F98	Selespeed electrohydraulic actuator with electric command
Brake fluid	Synthetic fluid for brakes and clutches Exceed specifications: FMVSS n° 116 DOT4, ISO 4925, SAE J 1704 Qualification FIAT 9.55597	TUTELA TOP 4 Contractual Technical Reference N° F001.A93	Hydraulic brakes and clutches controls

FUEL CONSUMPTION

Fuel consumption according to 2004/3/EC Directive (litres x 100 km)	Urban	Extra-urban	Combined
2.2 JTS	12.6 (*)/12.8 (**)	7.1 (*)/7.1 (**)	9.1 (*)/9.2 (**)

(*) Saloon versions

(**) Sportwagon versions

CO₂ EMISSIONS

CO₂ emission levels refer to combined consumption.

CO₂ EMISSIONS ACCORDING TO 2004/3/EC DIRECTIVE (g/km)

2.2 JTS: 214 (*)/216 (**)

(*) Saloon versions

(**) Sportwagon versions





SERVICE

CUSTOMER SERVICES

TECHNICAL SERVICES - SERVICE ENGINEERING

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ENGLISH

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SERVICE