

F I A T P A N D A



D U A L O G I C

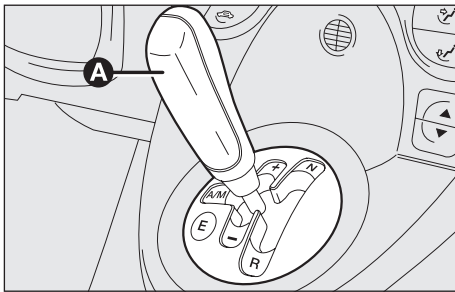
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This Supplement describes the main instructions for using the Dualogic mechanical gearbox with electronic control fitted on Fiat Panda.

Read this entire Supplement to make sure you know how to use the gearbox correctly. This will help you to perform the correct operations right from the start.

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



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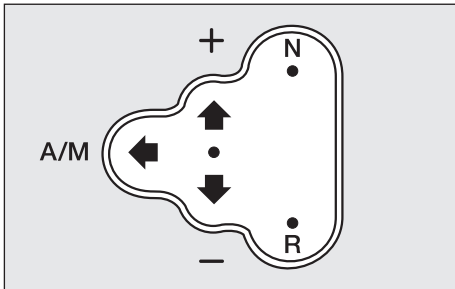
USING THE DUALOGIC GEARBOX

The car is fitted with a mechanical gearbox with electronic control called “Dualogic” that can work in two operating modes: MANUAL and AUTO. This gearbox includes a conventional mechanical transmission to which an electronically-operated electrohydraulic device has been added which controls automatically the clutch and gear engagement.

HOW TO MOVE OFF

Manual mode

- Press the brake pedal
- Start the engine
- Move the gear lever (A) to + (UP) to engage the first gear or to R to engage reverse
- Release the brake pedal and press the accelerator pedal
- When running move the gear lever (A) to + (UP) for upshifting or to – (DOWN) for downshifting.



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Automatic mode

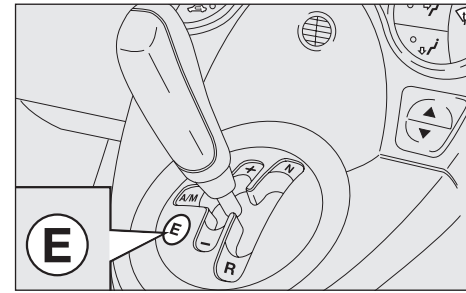
- Press the brake pedal
- Start the engine
- Move the gear lever (A) to A/M to engage the automatic mode or to R to engage reverse
- Release the brake pedal and press the accelerator pedal.

OPERATION

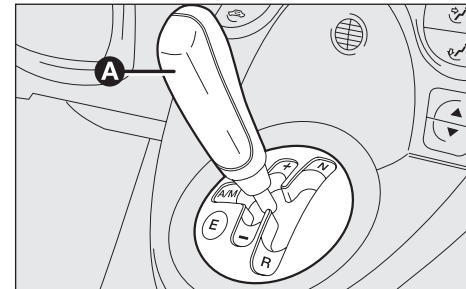
The gearbox can work in two operating modes:

- ❑ the first mode is manual (MANUAL): the driver directly requests gearshifting;
- ❑ the second mode is automatic (AUTO): the system directly decides when shifting gears. With this operating logic it is possible to activate the ECO (Economy) function to contain consumption by pressing button (E) on the gearbox mask.

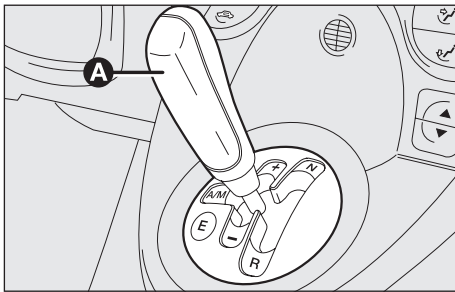
To shift gears and to select the operating mode (MANUAL or AUTO) use the gear lever (A) set on the central console (see figure).



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GEAR LEVER

The gear lever (A) is located on the dashboard and it is of the floating “multi-stable position” type, i.e.: it features three stable positions and three unstable ones.

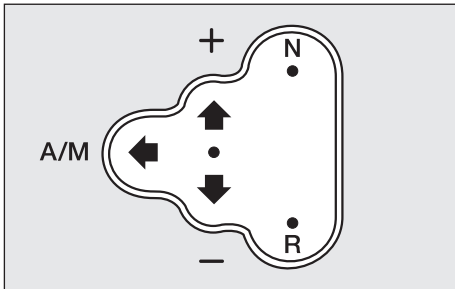
The three stable positions correspond to neutral (N), reverse (R) and central position set between the unstable positions UP (+) and DOWN (-) (see figure).

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

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

With the car stationary and the key removed, it is possible to shift the lever with/without the brake pedal pressed. The system will perform no actuation when shifting the lever and the gear engaged will be the one stored before removing the ignition key.

IMPORTANT With the engine off and the car stationary, any error between lever position and gear engaged is indicated by warning light (⚠) coming on for a few seconds on the instrument panel together with the message on the reconfigurable multifunction display.



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MANUAL OPERATION (MANUAL)

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

To change gears in MANUAL operating mode proceed as follows:

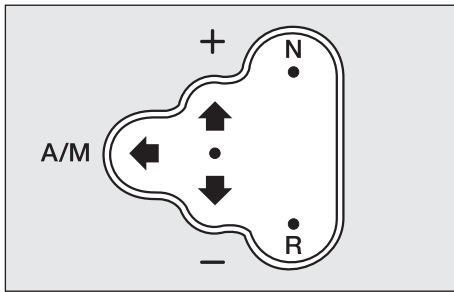
move lever to + (UP) to engage higher gear;

or

move lever to – (DOWN) to engage lower gear.

The system will cut in automatically preventing gearshifting only if the request to change gear will impair regular engine and transmission operation; the system will also shift down gears automatically when the engine (e.g.: at slowing down).

The system will warn the driver that the required gear will not be engaged through the sound of the buzzer and a dedicated message on the reconfigurable multifunction display (see paragraph “Warning lights and messages”).

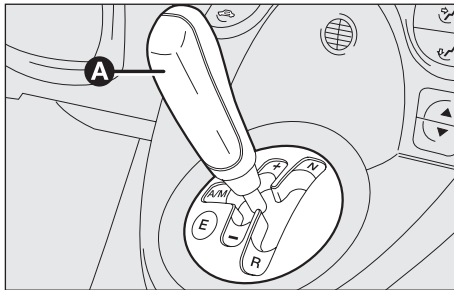


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AUTOMATIC OPERATION (AUTO)

For engaging/disengaging the automatic operating mode (AUTO), move lever (A) to A/M: automatic mode activation is indicated by message AUTO and gear engaged on the reconfigurable multifunction display (see figure).

With AUTO 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 control lever without deactivating the automatic mode: this function called “gear advice” suspends the automatic mode for the time required to change gear.



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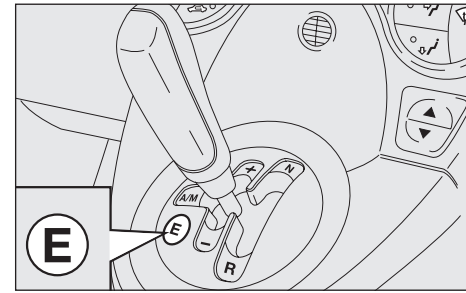
Automatic operation (AUTO - ECO)

The ECO function can be activated only with automatic mode active.

To activate the ECO function press button (E) set on the mask near the gearshift lever. After activating this function, the reconfigurable multifunction display shows the gear engaged and words AUTO and E (see figure).

With ECO function active the system will select the most suitable gear (according to car speed, engine rpm and how the accelerator pedal is pressed) to save as much fuel as possible.

If necessary (e.g.: overtaking) the system will change gears in order to provide suitable torque and power for acceleration (this will take place in automatic mode regardless of ECO function condition, ON or OFF). In this way engine rpm will suddenly increase, excluding temporarily the ECO function that will be automatically resumed when returning to the previously set conditions.



ENGAGED GEAR DISPLAYING



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F0G1184g

One second after turning the ignition key to MAR, the gear engaged and the last operating mode adopted (AUTO or MANUAL) will be displayed on the reconfigurable multifunction display:

- N = neutral;
- 1 = first gear;
- 2 = second gear
- 3 = third gear;
- 4 = fourth gear;
- 5 = fifth gear;
- R = reverse.

If the ECO function is on, the reconfigurable multifunction display will show E (Economy) next to the gear engaged.

IMPORTANT If after 10 seconds (with ignition key to MAR) the display does not show the gear engaged, turn the ignition key to STOP and wait for the display to turn off, then repeat system switch on. If the fault persists, contact Fiat Dealership.

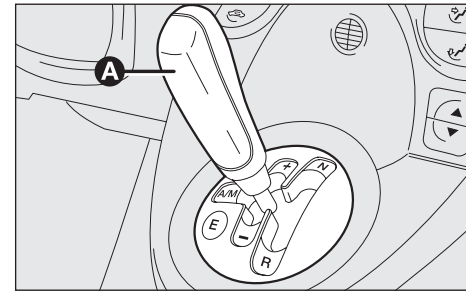
STARTING THE ENGINE

The engine can be started either with a gear engaged or in neutral (N), always press the brake pedal first.

After starting:

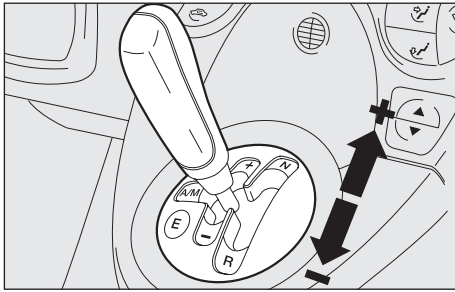
- the gearbox sets to neutral (N) automatically
- lever (A) keeps the same position it had before starting
- the reconfigurable multifunction display shows (N) and a buzzer will indicate if the lever position and the gear engaged are not matching
- gears that can be engaged are: 1st, 2nd or reverse (R) gear.

IMPORTANT When trying to start the engine with gearbox not in neutral (any gearshift lever position other than N) and without pressing the brake pedal, the reconfigurable multifunction display will show a dedicated message (see paragraph “Warning lights and messages”). In this event, to start the engine just repeat operation keeping the brake pedal pressed.



IMPORTANT

If the engine fails to start with the gear engaged, the driver is informed of the potentially dangerous situation due to the fact that the gearbox is in neutral by the buzzer.



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MOVING OFF THE CAR

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 lever in (N) or (R) move the lever to central position
- with lever in central position yet, move the lever to + (UP)
- release the brake pedal and press the accelerator (pressing the accelerator pedal quickly flat out will obtain a “brilliant” start).

Starting in 2d gear

- press the brake pedal
- with lever in (N) or (R) move the lever to central position and then to + (UP)
- with lever in central position yet, move the lever twice to + (UP)
- release the brake pedal and press the accelerator.

Starting in reverse (R)

- press the brake pedal (car stationary)
- move the lever to (R)
- release the brake pedal and press the accelerator.

PARKING THE CAR



To park the car safely it is absolutely necessary to press the brake pedal and to engage first gear or reverse (R) and also the hand brake if the car is on a slope; it is also absolutely necessary to wait for the reconfigurable multifunction display showing the gear engaged to go off before releasing the brake pedal.

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);
- ❑ when the car is parked facing uphill, to safeguard clutch efficiency do not use the accelerator to keep the car still 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;
- ❑ if, in reverse gear (R), first gear is to be engaged or vice versa, shift gear only when the car is stopped completely and with the brake pedal pressed;
- ❑ 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;
- ❑ when travelling downhill with a gear engaged and the accelerator released (if the car is moving), beyond a pre-established speed, the system engages the clutch automatically to give the car adequate engine braking.

WARNING LIGHTS AND MESSAGES

Warning light on dial	Message on reconfigurable multifunction display	
		<p>“DUALOGIC” TRANSMIS. FAIL. (red)</p> <p>Turning the ignition key to MAR the warning light on the cluster shall come on, but it should go off as soon as the engine is started.</p> <p>The warning light comes on flashing on the cluster (together with the message on the reconfigurable multifunction display and the buzzer) to indicate a gearbox failure.</p>




IMPORTANT

In the case of a gearbox fault, contact Fiat Dealership as soon as possible to have the system checked.

Message on reconfigurable multifunction display

Warning light on dial

REDUCE GEARS (amber)

Warning light  comes on (together with the message on the reconfigurable multifunction display) to warn the driver of the excessive use of the gearbox.

In this event, the system could automatically activate system protection procedure.



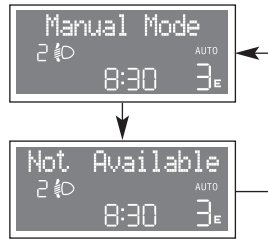
IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.


Warning light
on dial



Message on reconfigurable
multifunction display



MANUAL MODE NOT AVAILABLE (amber)


Warning light  comes on (together with the message on the reconfigurable multifunction display) when, with engine on, the MANUAL mode cannot be selected.



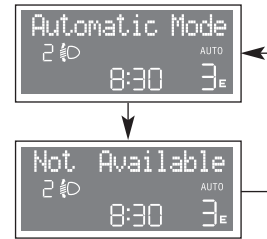
IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.

**AUTOMATIC MODE
NOT AVAILABLE (amber)**

Warning light  comes on (together with the message on the reconfigurable multifunction display) when, with engine on, the AUTO mode cannot be selected.

Message on reconfigurable
multifunction display



Warning light
on dial



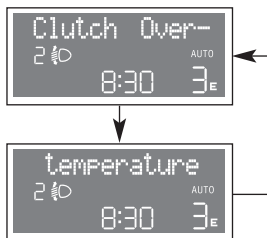
IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.


Warning light
on dial



Message on reconfigurable
multifunction display



CLUTCH OVERTEMPERATURE (amber)

Warning light  comes on (together with the message on the reconfigurable multifunction display and the buzzer) to indicate clutch overheating.




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



IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.

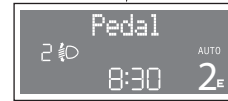
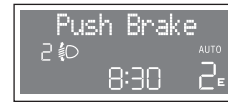
PUSH BRAKE PEDAL - DELAYED STARTUP (amber)

Warning light  comes on (together with the messages displayed in turns and in sequence on the reconfigurable multifunction display and the buzzer) to indicate brake pedal failure when trying to start the engine.

IMPORTANT Messages are displayed only if at startup a gear other than neutral (N) is engaged.

Message on reconfigurable
multifunction display

Warning light
on dial



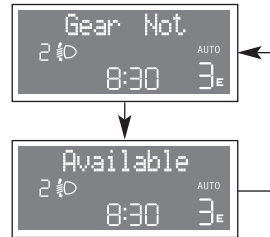
IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.


**Warning light
on dial**



**Message on reconfigurable
multifunction display**



GEAR NOT AVAILABLE (amber)

Warning light  comes on (together with the message on the reconfigurable multifunction display and the buzzer) in the following cases:

system failure inhibiting gear shifting;

or

system failure allowing to engage only first gear (1), second gear (2) or reverse (R).




IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.

Message on reconfigurable
multifunction display

Warning light
on dial

OPERATION NOT ALLOWED (amber)

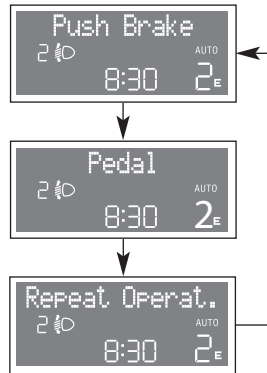
Warning light  comes on (together with the message on the reconfigurable multifunction display and the buzzer) when the system refuses the request to change gear since certain indispensable conditions are lacking.




Warning light
on dial



Message on reconfigurable
multifunction display




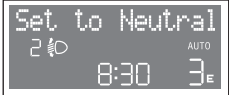

PUSH BRAKE PEDAL - REPEAT OPERATION (amber)

Warning light  comes on (together with the message on the reconfigurable multifunction display and in certain cases with the buzzer) when trying to engage first gear, second gear or reverse, with car stopped and engine on, without pressing the brake pedal.



IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.

	Message on reconfigurable multifunction display	Warning light on dial
<p>SET TO NEUTRAL (N) (amber)</p> <p>Warning light  comes on (together with the message on the reconfigurable multifunction display and the buzzer) to warn the driver that neutral shall be engaged.</p> <p>Engage neutral (N), displayed message and warning light shall go off</p>		



IMPORTANT

If the warning light continues to stay on (together with the message on the reconfigurable multifunction display), contact Fiat Dealership.

TOWING THE CAR

Make sure that the gearbox is in neutral (N) (checking that the car moves if pushed) and tow as for a car with traditional mechanical gearbox (see Owner Handbook).

Should it be impossible to set to neutral, do not tow the car and contact Fiat Dealership.

IF A FUSE BLOWS

	FUSE	AMPERE
Dualogic gearbox fuse box	F84	15
Dualogic gearbox oil pump	F83	30
Dualogic gearbox fuse box power supply (+ key)	F16	7.5

For fuse location see pictures in paragraph “If a fuse blows” in section “In an emergency” in the Owner Handbook.

SERVICE SCHEDULE

Check Dualogic gearbox oil level every 20,000 km.

CHECKING OIL LEVEL

DUALOGIC GEARBOX HYDRAULIC SYSTEM OIL

To have the oil level checked contact Fiat Dealership only.

AIR CLEANER

1.28v VERSIONS

Refer to Owner Handbook to replace the air cleaner.



Used gearbox oil contains dangerous substances for the environment. For changing the oil we advise contacting Fiat Dealerships who are equipped for disposing of used oil respecting nature and the law.

ENGINE CODES - BODYWORK VERSIONS

Versions	Engine code	Body versions	
		4 seats	5 seats
1.28v	188A4000	169AXB11 02	169AXB11 02B

PERFORMANCE

Top speed after initial car use is 155 km/h.

TRANSMISSION

1.2 8V

Gearbox

Five forward gears and reverse,
electrohydraulic system with electronic control

Clutch

Electric-hydraulic device with electronic control

Drive

Front

WEIGHTS

Weights (kg)	1.2 8V
Kerb weight (including fuel, space-saver spare wheel, tools and accessories):	865
Payload (*) including the driver:	445
Maximum admitted loads (**)	
– front axle:	730
– rear axle:	660
– total:	1310
Towable loads:	
– trailer with brakes:	800
– trailer without brakes:	400
Maximum load on roof:	50
Maximum load on tow hitch:	60

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

(**) 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.

CAPACITIES

	litres	1.28v kg	Specified fuels Recommended products
Dualogic gearbox hydraulic system	0.70	0.59	TUTELA CAR CS SPEED - Special oil with “ATF DEXRON III” additive

CO₂ EMISSIONS

CO₂ emissions according to 1999/100/EC Directive (gr x 100 km)

CO₂ emission value referred to combined consumption is 127 (gr x 100 km).

FUEL CONSUMPTION

Fuel consumption according to 1999/100/EC Directive
(litres x 100 km)

	Urban	Extra-urban	Combined
1.28v	6.8	4.6	5.4

Consumption in AUTO-ECO logic.

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