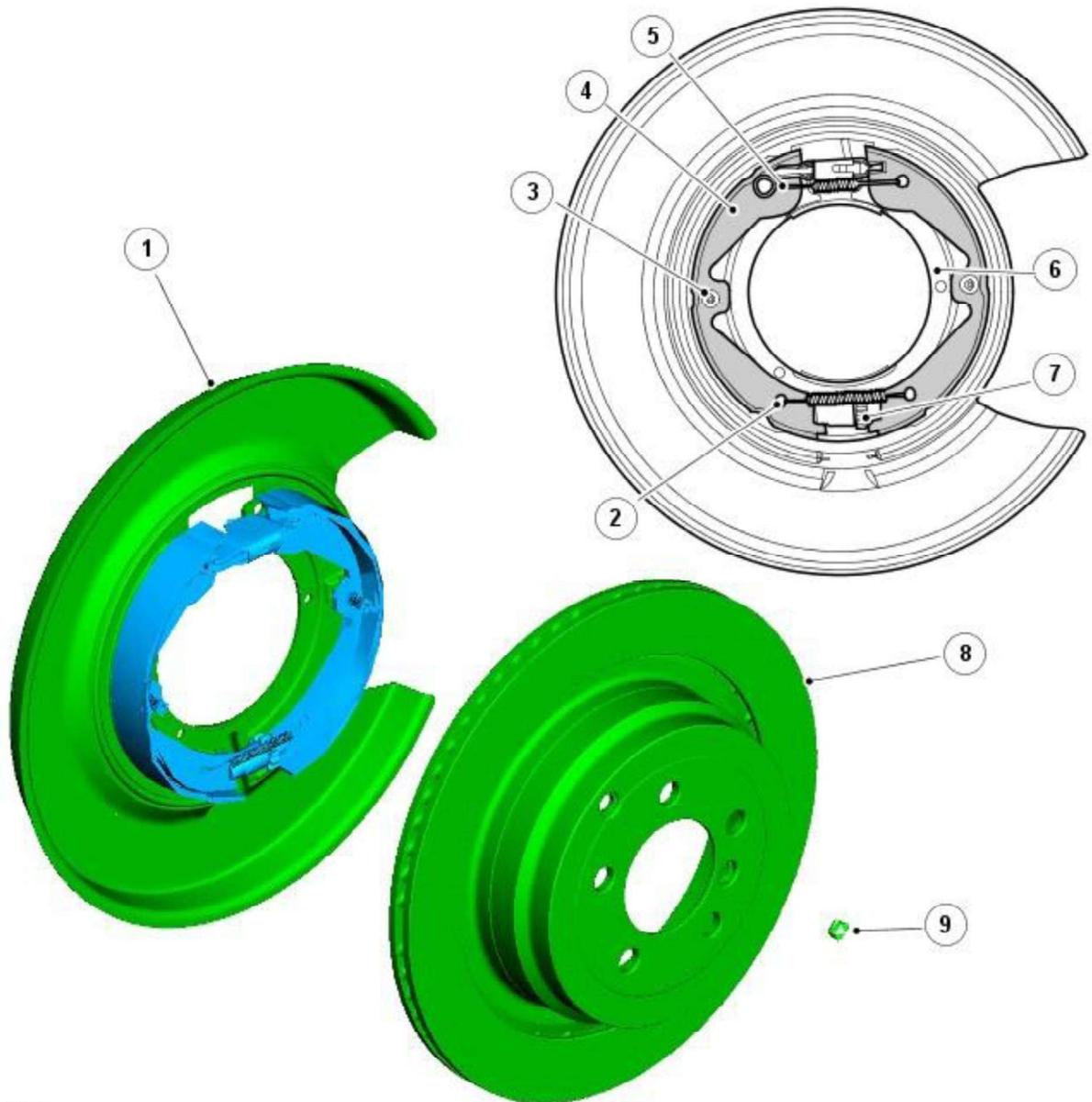


## DRUM BRAKES

- NOTE: right-hand (RH) brake shown, left-hand (LH) brake similar



E81491

Item	Part Number	Description
1	-	Dust shield
2	-	Adjuster spring
3	-	Shoe locating pin and clip
4	-	Brake shoe
5	-	Return spring
6	-	Backplate
7	-	Toothed wheel adjuster
8	-	Rear brake disc
9	-	Adjuster access plug



**WARNING:** The parking brake may not switch off until 20 minutes after the ignition is switched off. Automatic re-apply of the parking brake is possible and is not eliminated until this period has expired.



**CAUTION:** The parking brake module must be isolated from electrical power before attempting to remove a brake disc from the vehicle. Operation of the parking brake switch while a brake disc is removed may cause the actuating mechanism in the parking brake module to seize.

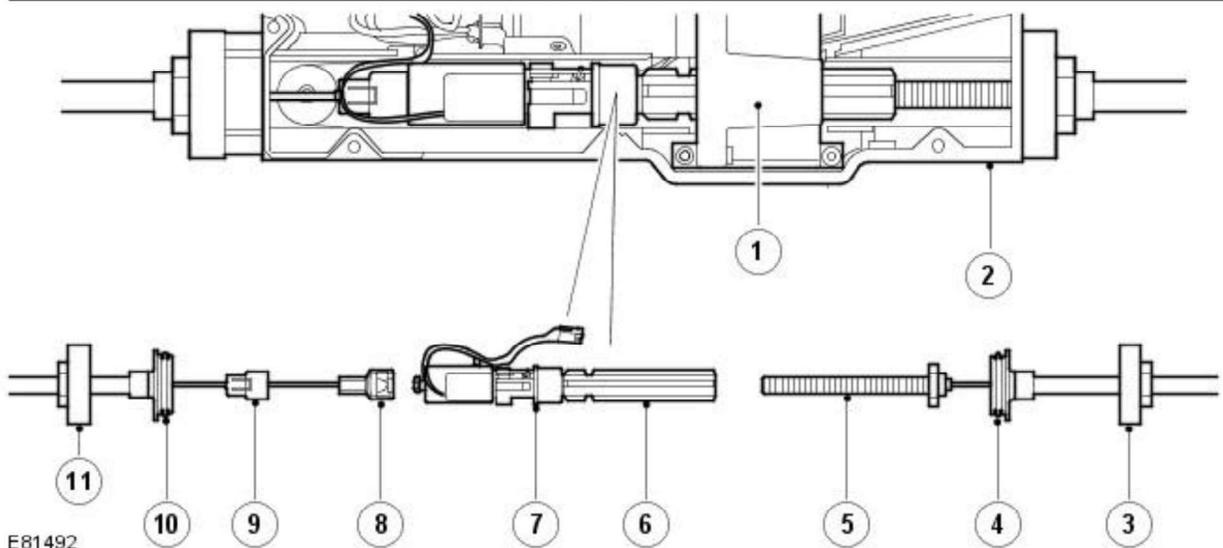
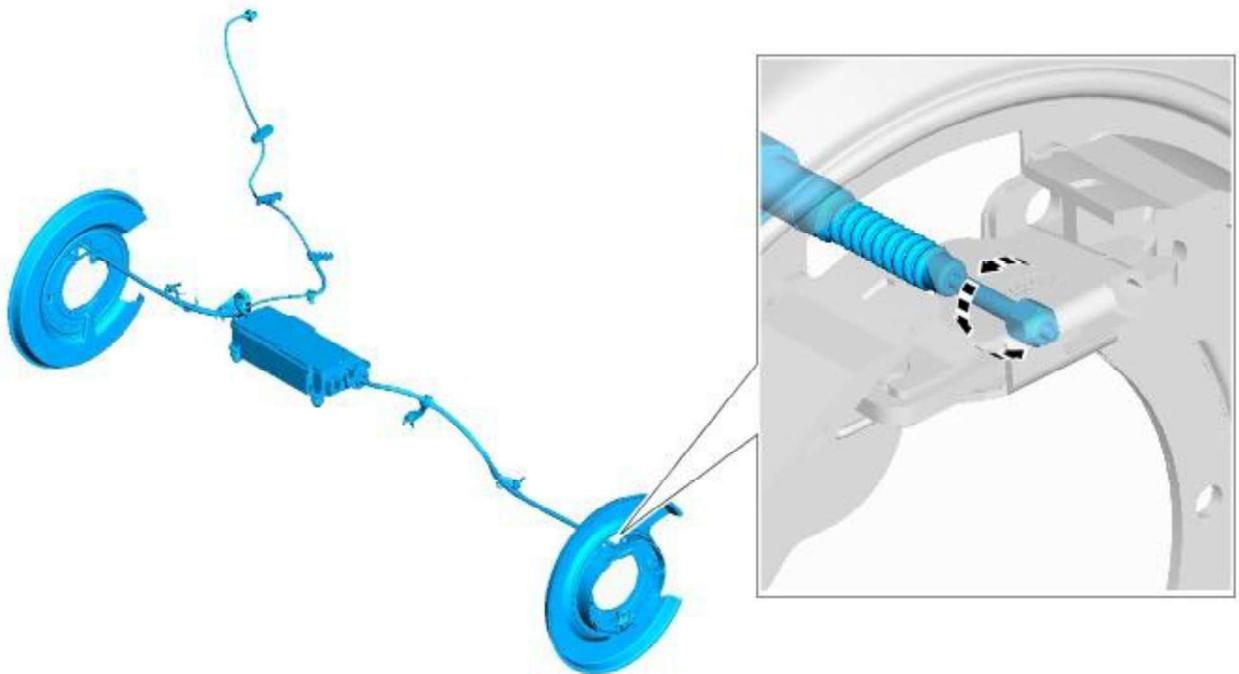
Each drum brake consists of a pair of brake shoes installed on a backplate attached to the rear hub carrier.

When the parking brake module tensions the brake cables, the movement is transmitted to an expander, which acts on both brake shoes. Brake shoe to drum clearance is set with a manual adjuster, which is accessed through a hole in the brake disc. The adjuster is a conventional toothed wheel adjuster.

After replacement of the brake shoes or brake discs, a bedding in procedure must be performed to ensure the drum brakes operate satisfactorily.

For additional information, refer to: [Parking Brake Shoes Bedding-In](#) (206-05 Parking Brake and Actuation, General Procedures).

## BRAKE CABLES



E81492

Item	Part Number	Description
1	-	Gearbox
2	-	Parking brake module housing
3	-	Cable nut
4	-	Sealing collar
5	-	Threaded connector
6	-	Spline shaft
7	-	Force sensor
8	-	Shoe
9	-	Locking cover
10	-	Sealing collar
11	-	Cable nut



**WARNING:** The parking brake may not switch off until 20 minutes after the ignition is switched off. Automatic re-apply of the parking brake is possible and is not eliminated until this period has expired.



**CAUTION:** The parking brake module must be isolated from electrical power before attempting to remove a brake disc from the vehicle. Operation of the parking brake switch while a brake disc is removed may cause the actuating mechanism in the parking brake module to seize.

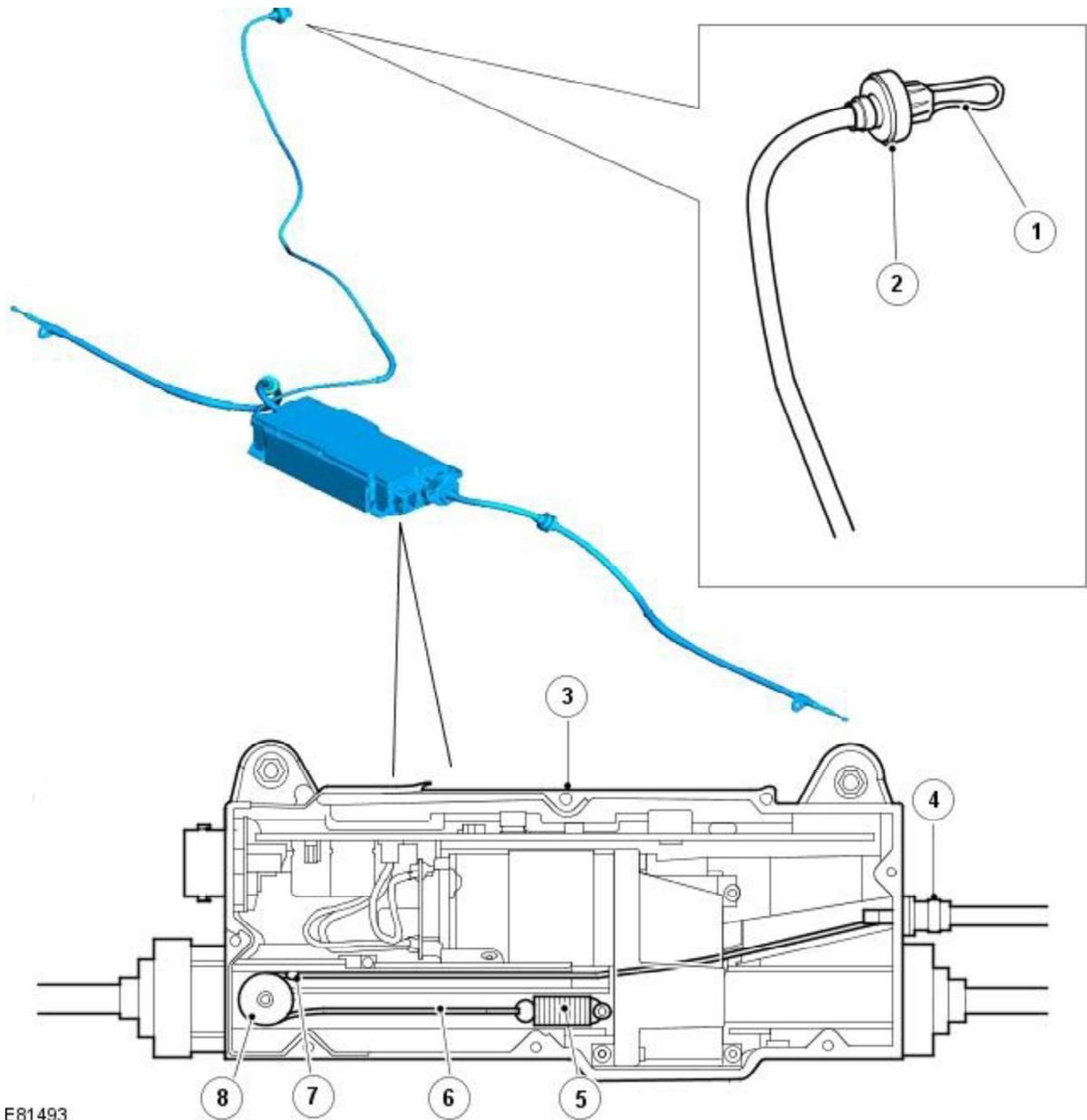
The brake cables consist of Bowden cables installed between the parking brake module and the drum brakes. The outer cable is attached to the respective wheel knuckle with a screw. The inner cable attaches to the expander and is secured in position with a nipple. In the parking brake module, the two inner cables are joined together via the force sensor and the spline shaft.

The inner cable of the RH brake cable is connected to a nipple on the force sensor by a 'shoe' on the end of the cable; a locking cover keeps the shoe engaged with the nipple.

The inner cable of the LH brake cable is connected to the spline shaft by a threaded connector (LH thread); a squared flange at the end of the threaded connector locates in the housing of the parking brake module, to prevent the threaded connector from turning with the spline shaft.

When the spline shaft turns, the threaded connector of the LH brake cable is screwed into or out of the spline shaft, which changes the effective length of the inner cables and operates the drum brakes. The ability of the spline shaft to move axially in the gearbox equalizes the load applied by the inner cables to the two drum brakes.

## EMERGENCY RELEASE CABLE



E81493

Item	Part Number	Description
1	-	Pull ring
2	-	Quick release fitting
3	-	Parking brake module
4	-	Sealing collar
5	-	Spring
6	-	Inner cable
7	-	Nipple
8	-	Pulley wheel

The emergency release cable allows the parking brake to be mechanically released in the event that:

- The parking brake is not able to be electrically released due to a system fault.
- The battery is disconnected or battery voltage decreases below 7.5 volts while the parking brake is applied, preventing electrical release of the parking brake.

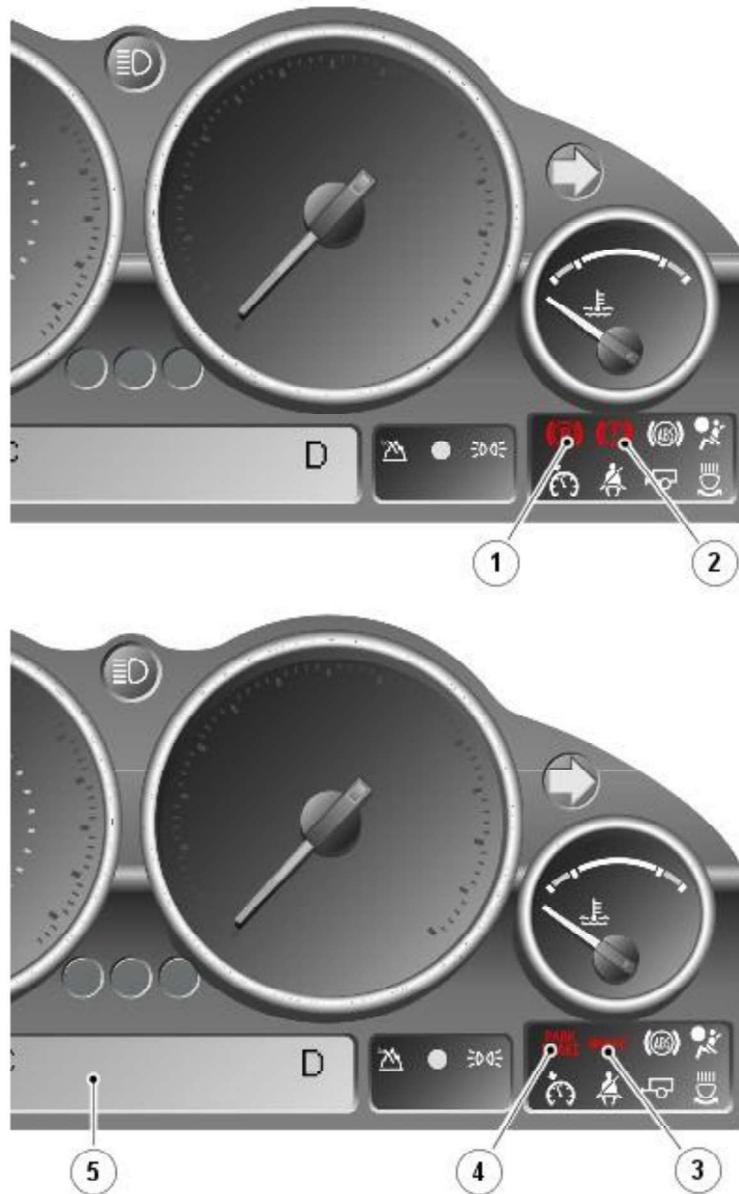
The parking brake is mechanically released by disconnecting the force sensor from the spline shaft in the parking brake module. During normal operation, the force sensor and the spline shaft are locked together by a lever operated pawl on the end of the spline shaft, which engages with a spigot on the force sensor.

The emergency release cable is a Bowden cable installed between the parking brake module and the luggage compartment. In the luggage compartment, a pull ring is installed on the end of the inner cable. The pull ring is designed to fit the hook on the end of the jack handle, and when used in combination with a screwdriver shaft, can be used to pull on the cable.

The pull required to release the latch is approximately 200 N (45 lbf). When the pull ring of the emergency release cable is released, the spring in the parking brake module retracts the inner cable and the nipple moves away from the pawl operating lever.

After the emergency release cable has been used to release the parking brake, the next time an apply selection is made with the parking brake switch, the parking brake module automatically runs through a latching procedure to reconnect the spline shaft with the force sensor. The parking brake module turns the spline shaft so that it moves towards the force sensor. The pawl of the spline shaft then re-engages with the spigot of the force sensor. A second apply selection with the parking brake switch is required to apply the parking brake.

## PARKING BRAKE INDICATORS



E89531

Item	Part Number	Description
1	-	Red warning indicator (all except NAS)
2	-	Amber warning indicator (all except NAS)
3	-	Red warning indicator (NAS only)
4	-	Amber warning indicator (NAS only)
5	-	Message center display

The parking brake has 2 warning indicator lamps and displayed messages in the instrument cluster message center to alert the driver to the operational condition of the parking brake. For additional information, refer to:

[Instrument Cluster](#) (413-01 Instrument Cluster, Description and Operation),  
[Information and Message Center](#) (413-08 Information and Message Center, Description and Operation).