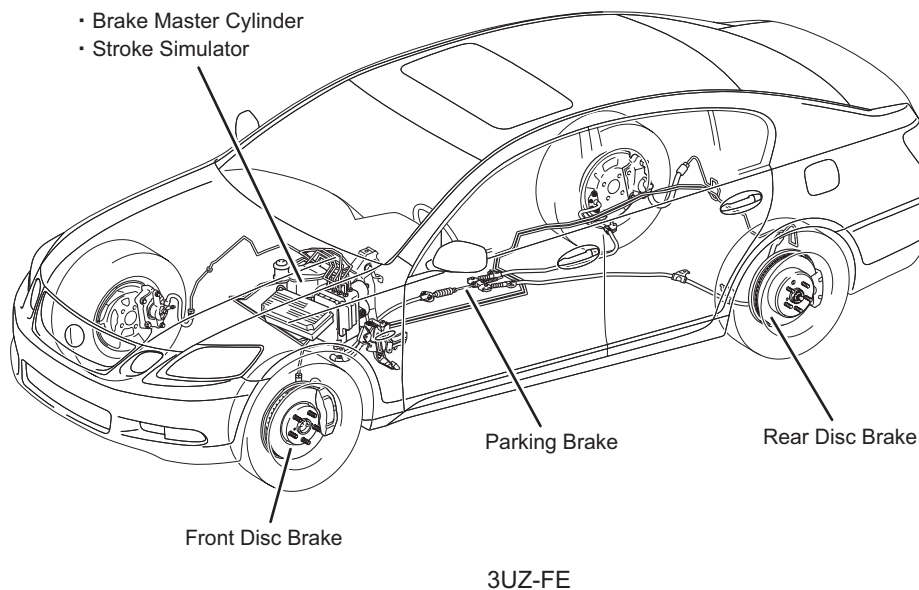
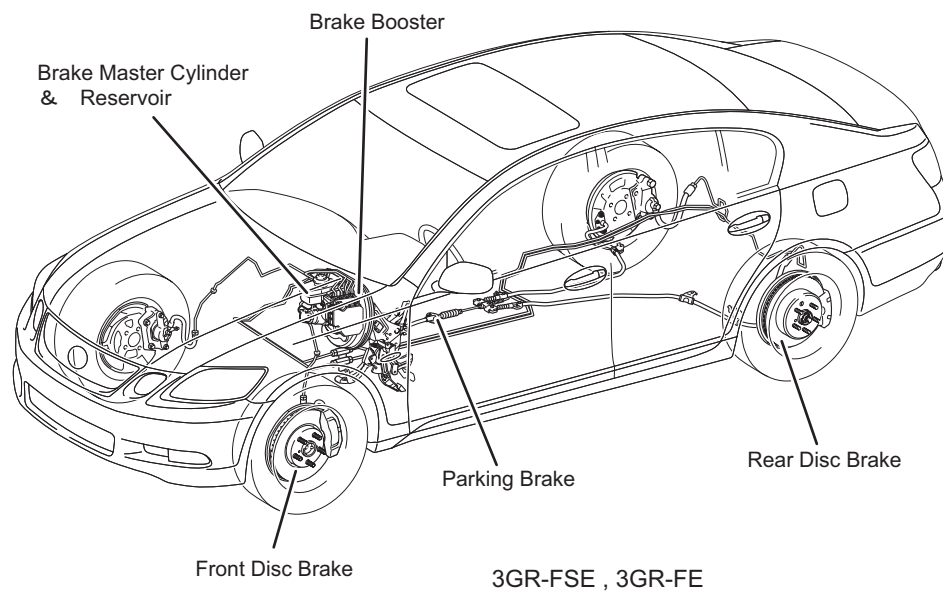


BRAKE

Brake Outline

- The 3GR-FSE and 3GR-FE engine models use a hydraulic brake system, in which the following brake controls are used: ABS with EBD (Electronic Brake-force Distribution), electronically controlled BA (Brake Assist), TRC (Traction Control), and VSC (Vehicle Stability Control).
- The 3UZ-FE engine models use ECB2 (Electronically Controlled Brake system 2). This system uses sensors to detect the driver's brake pedal effort and the conditions of the vehicle in order to effect optimal brake control. For brake control, the VDIM (Vehicle Dynamics Integrated Management) system, which integrates brake control, drive force control, and steering control, is used.
- Four-wheel ventilated disc brakes are used to ensure high brake performance and excellent brake feel.



Master Cylinder Specification

Engine	3GR-FSE,3GR-FE	3UZ-FE
Type	Tandem(Plunger)	Tandem(Portless + Portless)
Diameter [mm(in)]	22.2(0.89)	19.0(0.76)
Stroke [mm(in)]	30 + 20(1.2 + 0.8)	17.5 + 11.8(0.7 + 0.47)

Brake Booster Specification

Engine	3GR-FSE,3GR-FE	3UZ-FE
Type	Single	—
Size	10"	—

Front Brake Specification

Engine	3GR-FSE,3GR-FE	3UZ-FE
Caliper Model	OS12WC	←
Cylinder Inner Diameter [mm(in)]	42.8(1.71)	←
Pad Surface (one pad) [cm ² (in)]	44.4(1.78)	←
Pad Dimensions (length x width x thickness) [mm(in)]	116.0 × 55.0 × 12.5 (4.64×2.12×0.50)	←
Disc Rotor Type	Ventilated	←
Rotor Dimensions (outer diameter x thickness) [mm(in)]	334 × 30 (13.36 × 1.2)	←

Rear Brake Specification

Engine	3GR-FSE,3GR-FE	3UZ-FE
Caliper Model	PG45R	←
Cylinder Inner Diameter [mm(in)]	44.4(1.78)	←
Pad Surface (one pad) [cm ² (in)]	18.8(0.75)	←
Pad Dimensions (length x width x thickness) [mm(in)]	85.0 × 35.5 × 10.5 (3.40 × 1.42 × 0.42)	←
Disc Rotor Type	Ventilated	←
Rotor Dimensions (outer diameter x thickness) [mm(in)]	310 × 18 (12.4 × 0.7)	←

Parking Brake Specification

Engine	3GR-FSE,3GR-FE	3UZ-FE
Type	Duo Servo	←
Drum Inner Diameter [mm(in)]	190(7.60)	←
Lining Surface Area [cm ² (in)]	45(1.80)	←
Lining Dimensions [mm(in)]	181.0 × 25.0 × 2.4 (7.2 × 1.0 × 0.1)	←
Operation Type	Foot-operated	←