Special tools
## Content

### LuK special tools

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### FAG special tools

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### Ruville special tools

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</table>
1 LuK special tools
1.1 SAC mounting tool

Part no. 400 0237 10

Content:
- 6 different tapered bushings to spread both white tensioning/centring elements (15-28 mm) to support the clutch disc
- Universal centring pin with guide and tensioning element
- 3 screw-on centring pins of varying diameter (12 mm, 14 mm, and 15 mm) for pilot bearing
- Pressure piece and spindle carrier with 3- and 4-hole pitch
- Centring sleeve (BMW)
- 4 studs M6, M7 and M8
- 4 knurled nuts
- Thread closing cover to protect the inner thread
- 2 tensioning/centring elements (12-28 mm) to fit pilot bearing and crankshaft bore
- 4 special centring pins (BMW) of varying diameter and corresponding screw
- Face spanner/releasing tool for pre-tensioned clutches (Audi, Seat, Skoda and VW)

Application:
Using a special tool is an absolute must to ensure correct installation of the Self-Adjusting Clutch. No counteracting forces must be applied during installation to prevent early rotation of the adjusting ring in the clutch pressure plate.

Supplementary information:

Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490

Service Info:
Product replacement SAC tool kit 400 0072 10 to 400 0237 10 with additional content, LuK 0016

Video:
LuK self-adjusting clutch (SAC) installation video
1.1.1 Clutch centring pin 23mm

Part no. 400 0046 10

Content:
Clutch centring pin

Application:
Clutch centring pin Ø 23mm for BMW models equipped with pretensioned SAC clutch pressure plate.

Supplementary information:
Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490

1.1.2 Clutch centring pin 26.5mm

Part no. 400 0110 10

Content:
Clutch centring pin

Application:
Clutch centring pin Ø 26.5mm for BMW/Audi models equipped with pretensioned SAC clutch pressure plate.

Supplementary information:
Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490

1.1.3 Clutch centring pin 28mm

Part no. 400 0045 10

Content:
Clutch centring pin

Application:
Clutch centring pin Ø 28mm for BMW models equipped with pretensioned SAC clutch pressure plate.

Supplementary information:
Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490
1.1.4 Clutch centring pin 32.5mm

**Part no. 400 0078 10**

**Content:**
Clutch centring pin

**Application:**
Clutch centring pin Ø 32.5mm for BMW models equipped with pretensioned SAC clutch pressure plate.

**Supplementary information:**

Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490

1.1.5 Clutch centring sleeve

**Part no. 400 0076 10**

**Content:**
Centring sleeve with screw

**Application:**
For centring the clutch disc on BMW applications where the pilot bearing is mounted in the primary shaft, e.g. on models equipped with N54 or N55 engines.

**Supplementary information:**

Brochure:
Self-adjusting clutch (SAC)
Order no.: 999 6002 490
1.2 DMF special tool

Part no. 400 0080 10

Content:
- DTI stand
- Slotted bar
- 4 ring gear locking dog spacers
- 6 adapters
- Degree gauge locking bar
- DTI gauge
- Degree gauge
- 2 ring gear locking dogs
- Instruction DVD

Application:
The LuK DMF special tool allows you to perform the most important measurements – freeplay and rock – in a garage environment.

Supplementary information:

Brochure:
Dual mass flywheel technical brochure
Order no.: 999 6002 310
1.3 Dry double clutch special tool

Part no. 400 0240 10

Content:
- Setting gauge for micrometer
- 3 hooks
- 3 thrust pieces
- Circlip pliers, angled
- 5 plugs
- DTI gauge with stand
- Magnet
- 2 pulling hooks
- DVD with removal/assembly instructions and training video
- Cross beam with spindle and thrust piece
- 3 knurled-head screws
- 3 threaded bolts M10, 101mm long
- 3 threaded bolts M10, 161mm long
- Support bushing for removal
- Pressure sleeve for assembly
- Micrometer 32.92mm
- Micrometer 48.63mm
- Weight 3.5kg

Application:
Special tool for professional removal and installation of the dry double clutch on the first-generation 7-speed 0AM transmission installed in Audi, Skoda, Seat and VW models (manufactured until 05.2011).

Note:
This special tool has been superseded by modular tool kits 400 0418 10 (basic) and 400 0419 10 (VW). The supplementary tool kit 400 0420 10 makes it compatible with the new modular tool kit system.

Supplementary information:

Brochure:
LuK repair solution for dry double clutches, 7-speed 0AM transmission on Audi, Seat, Skoda and Volkswagen models*
Order no.: 999 6002 690

Video:
Removal/assembly of the double clutch in a 7-speed 0AM transmission on Audi, Seat, Skoda and Volkswagen models*

DVD:
LuK RepSet 2CT, 7-Speed Transmission 0AM in Audi, Seat, Skoda and Volkswagen*
Order no.: 999 6003 500 Brochure, video, 7 languages

* Note: The brochure, film and DVD have been updated to reflect the new modular tool kit system.
1.4 2CT Supplementary tool kit

Part no. 400 0420 10

Content:
- Transmission support with height adjustment
- 2 plugs for differential openings
- Special open-end wrench
- Setting dimension 32.12 mm (2nd generation, K2)
- Setting dimension 48.42 mm (2nd generation, K1)
- DMF reset tool
- Unlocking key
- DVD with assembly/disassembly instructions and training video

Application:
The previous LuK double clutch special tool (part no. 400 0240 10) can be adapted to the new, modular tool system range with the supplementary tool kit (part no. 400 0420 10). The combined content of both tool kits is identical to the contents of the basic and Volkswagen tool kits.

Supplementary information:

Brochures:
- LuK repair solution for dry double clutches, Audi, Seat, Skoda, Volkswagen, 7-speed 0AM transmission
  Order no.: 999 6002 690
- LuK repair solution for dry double clutches, Renault 6-speed DC4 transmission
  Order no.: 999 6006 310

Video:
- Double clutch removal/assembly on Audi, Seat, Skoda, Volkswagen 2nd generation 7-speed 0AM transmission
- Double clutch removal/assembly on Renault 6-speed DC4 transmission

DVD:
- LuK RepSet 2CT
  Order no.: 999 6006 090
  Brochures, videos, 2 languages
1.5 2CT Basic tool kit

Part no. 400 0418 10

Content:
- Puller with spindle and pressure piece
- 3 thumb screws
- 3 M10 threaded bolts, 100 mm long
- 3 M10 threaded bolts, 160 mm long
- Circlip pliers, angled
- Magnet
- Transmission support with height adjustment
- 2 plugs for driveshaft holes
- DMF reset tool
- Unlocking key
- Special open-end wrench
- DVD with assembly/disassembly instructions and training video

Application:
The basic tool kit forms the basis of the modular tool system. It contains those tools that are generally required for all repairs to double clutches. Together with a vehicle-specific tool kit, they form a complete kit for professional repairs.

This is based on all dry double clutch systems currently available from LuK.

Supplementary information:

<table>
<thead>
<tr>
<th>Brochure:</th>
</tr>
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<tbody>
<tr>
<td>LuK repair solution for dry double clutches, Renault 6-speed DC4 transmission</td>
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<tr>
<td>Order no.: 999 6006 310</td>
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</table>

<table>
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<tr>
<th>Video:</th>
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<tbody>
<tr>
<td>Double clutch removal/assembly on Renault 6-speed DC4 transmission</td>
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<tr>
<th>DVD:</th>
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<tbody>
<tr>
<td>LuK RepSet 2CT, Order no.: 999 6006 090</td>
</tr>
<tr>
<td>Brochures, videos, 2 languages</td>
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</tbody>
</table>
1.6 2CT Volkswagen tool kit

Part no. 400 0419 10

Content:
- Dial gauge with tripod
- Reference gauge 32.92 mm (1st generation, K2)
- Reference gauge 48.63 mm (1st generation, K1)
- Reference gauge 32.12 mm (2nd generation, K2)
- Reference gauge 48.42 mm (2nd generation, K1)
- 3 thrust pieces
- Support sleeve for disassembly
- Pressure sleeve for assembly
- 6 plugs
- 3 hooks
- Setting gauge for reference gauge
- 2 pulling hooks
- Weight, 3.5 kg
- DVD with assembly/disassembly instructions and training video

Application:
This vehicle-specific tool kit must be combined with the basic tool kit. It can be used to disassemble, assemble and adjust both first generation dry double clutches (up to May 2011) and second generation dry double clutches (from June 2011) in vehicles manufactured by Audi, Seat, Škoda and Volkswagen with a 0AM transmission.

Supplementary information:

Brochures:
LuK repair solution for dry double clutches, Audi, Seat, Skoda, Volkswagen, 7-speed 0AM transmission
Order no.: 999 6002 690

Videos:
Double clutch removal/assembly on Audi, Seat, Skoda, Volkswagen 1st generation 7-speed 0AM transmission
Double clutch removal/assembly on Audi, Seat, Skoda, Volkswagen 2nd generation 7-speed 0AM transmission

DVD:
LuK RepSet 2CT,
Order no.: 999 6006 090
Brochures, videos, 2 languages
1.7 2CT Renault tool kit

Content:
- 3 hooks
- Pressure sleeve for assembly
- Support sleeve for disassembly
- Locking piece
- DVD with assembly/disassembly instructions and training video

Application:
This tool kit contains all tools that are required to carry out professional repairs on a dry double clutch on a Renault vehicle (DC4 6-speed transmission). It must be used together with the basic tool kit.

Supplementary information:

Brochures:
The dry double clutch, technology/special tools
Order no.: 999 6006 360

LuK repair solution for dry double clutches, Renault 6-speed DC4 transmission
Order no.: 999 6006 310

Video:
Double clutch removal/assembly on Renault 6-speed DC4 transmission

DVD:
LuK RepSet 2CT
Order no.: 999 6006 090
Brochures, videos, 2 languages
1.8 2CT Reset tool kit

Part no. 400 425 10

Content:
- Base plate with spindle
- Pressure nut
- Adapter
- 2 fixing pins
- 2 knurled nuts
- K2 pressure piece, Ø 115 mm
- K2 pressure piece, Ø 131 mm
- K1 pressure ring, Ø 85 mm
- K1 pressure ring, Ø 105 mm
- K1 return ring
- K2 return ring
- 3 K1 fixing pieces
- DVD with assembly/disassembly instructions and training video

Application:
New double clutches for Renault vehicles with a DC4 transmission and for Ford vehicles with a DPS6 transmission are in principle fitted with a transport fastener. This means that no additional work is necessary prior to assembly. The transport fastener must be put back in place if the double clutch is used again after disassembly, e.g. because work has been carried out on the transmission seals. The reset tool kit (part no. 400 425 10) must be used for this type of work.

Supplementary information:

Brochures:
The dry double clutch, technology/special tools
Order no.: 999 6006 360
LuK repair solution for dry double clutches, Renault 6-speed DC4 transmission
Order no.: 999 6006 310

Video:
Resetting the transport lock, Renault 6-speed DC4 transmission

DVD:
LuK RepSet 2CT
Order no.: 999 6006 090
Brochures, videos, 2 languages
## 1.9 Overview of 2CT tool kit applications

The table below shows which tool kits need to be combined if no LuK special tool is available yet.

<table>
<thead>
<tr>
<th>Tool kit</th>
<th>Application</th>
<th>Audi, SEAT, Škoda, VW 1st generation</th>
<th>Audi, SEAT, Škoda, VW 2nd generation</th>
<th>Renault</th>
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<tr>
<td>Basic tool kit</td>
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<td>Volkswagen tool kit</td>
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<td>Part no. 400 0419 10</td>
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<tr>
<td>Renault tool kit</td>
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<td>Part no. 400 0423 10</td>
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This table illustrates how the tool systems are combined if the LuK double clutch special tool part no. 400 0240 10 is already available.

<table>
<thead>
<tr>
<th>Tool kit</th>
<th>Application</th>
<th>Audi, SEAT, Škoda, VW 1st generation</th>
<th>Audi, SEAT, Škoda, VW 2nd generation</th>
<th>Renault</th>
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<td>Supplementary tool kit</td>
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If a Ford or Renault double clutch already in use is reassembled, the transport fasteners must be reset using the specified tool.

<table>
<thead>
<tr>
<th>Tool kit</th>
<th>Application</th>
<th>Audi, SEAT, Škoda, VW 1st generation</th>
<th>Audi, SEAT, Škoda, VW 2nd generation</th>
<th>Renault</th>
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<td>Reset tool kit</td>
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2 INA special tools
2.1 OAP/OAD tool kit

Part no. 400 0338 10

Content:
- 17x20 Multipoint adapter with 33 teeth, A/F 21mm
- Hexagonal adapter, A/F 21/28mm
- Torx bit with hexagonal socket TX50, A/F 12mm, 53mm long
- Hexagonal bit with internal hexagonal socket A/F 10mm, 40mm long
- Multipoint bit with hexagonal socket XZN M10, A/F 12mm, 53mm long
- Adapter with 3 bolts, A/F 21mm
- Hexagonal adapter, A/F 17/21mm
- Multipoint bit with 1/2-inch socket, XZN M10, 73mm long
- Multipoint bit with multipoint adapter, 12x14 (31 teeth, A/F 21mm) and 1/2-inch socket, XZN M10, 75mm long
- Multipoint bit with 1/2-inch socket, XZN M10, 103mm long
- Torx bit with multipoint adapter, 12x14, (31 teeth, A/F 21mm) and 1/2-inch socket, TX50, 75mm long
- Torx bit with 1/2-inch socket, TX50 M10, 73mm long
- 8mm hexagonal bit with hexagonal socket, A/F 13mm, 64mm long
- 10mm hexagonal bit with hexagonal socket, A/F 13mm, 64mm long

Application:
For removal and installation of overrunning alternator pulleys.

Supplementary information:

Brochure:
Belt drive components
Oder no.: 944 1000 240

Service Info:
OAP/OAD tool kit, INA 0111
2.1.1 Socket wrench set for alternators*

Part no. 400 0200 10

Content:
Multipoint bit with adapter, (33 teeth, A/F 21mm) and 1/2-inch socket, XZN M10, 125mm long

Application:
For removal and installation of overrunning alternator pulleys.

* also included in OAD tool kit 400 0338 10

Supplementary information:
Brochure:
Belt drive components,
Order no.: 944 1000 240

2.1.2 Socket wrench set for alternators*

Part no. 400 0231 10

Content:
Hexagonal adapter, A/F 21/28mm, multipoint bit with hexagonal socket, XZN M10, A/F 12mm, 64mm long

Application:
For removal and installation of overrunning alternator pulleys.

* also included in OAD tool kit 400 0338 10

Supplementary information:
Brochure:
Belt drive components,
Order no.: 944 1000 240

2.1.3 Socket wrench set for alternators*

Part no. 400 0233 10

Content:
Hexagonal bit with internal hexagonal socket, A/F 10mm, 40mm long, multipoint adapter 17x20 with 33 teeth, A/F 21mm

Application:
For removal and installation of overrunning alternator pulleys.

* also included in OAD tool kit 400 0338 10

Supplementary information:
Brochure:
Belt drive components,
Order no.: 944 1000 240
2.1.4 Socket wrench set for alternators*

Part no. 400 0234 10

Content:
Multipoint bit with hexagonal socket, XZN M10, A/F 12mm, 53mm long, multipoint adapter 17x20 with 33 teeth, A/F 21mm

Application:
For removal and installation of overrunning alternator pulleys.

* also included in OAP/OAD tool kit 400 0338 10

2.1.5 Socket wrench set for alternators*

Part no. 400 0235 10

Content:
Torx bit with hexagonal socket, TX50, A/F 12mm, 53mm long, multipoint adapter 17x20 with 33 teeth, A/F 21mm

Application:
For removal and installation of overrunning alternator pulleys.

* also included in OAP/OAD tool kit 400 0338 10

Supplementary information:

Brochure:
Belt drive components, Oder no.: 944 1000 240
3 FAG special tools
3.1 FAG special tool for Light Commercial Vehicles

Part no. 400 6199 10

Content:
- Base plate
- Pull / pressure plate with bridge (ø 96 mm bearing – Mercedes-Benz Sprinter and VW Crafter)
- Closing plate (ø 96 mm bearing)
- Pull / pressure plate (ø 92 mm bearing) without closing plate
- Closing plate (ø 92 mm bearing)
- 3 knurled screws M14 x 1.5
- 2 retaining pins with O-ring
- Hydraulic cylinder 17t
- Adapter 2 1/4 -14 UNS to M42 x 2
- Pull / pressure spindle M20 x 600 mm
- Pressure nut with pilot pin (w/o O-ring)
- 2 supporting rods 275 mm
- Supporting rod transverse bore
- Screw with cone M16 x 1.5 x 80
- 4 washers ø 19 mm
- 3 shoulder nuts M18
- 2 hexagon socket screws M14 x 70
- Reinforcing rail 196 mm
- Reinforcing rail 140 mm
- Steering knuckle mounting bracket
- DVD with removal / installation instructions

Application:
Front wheel bearing removal/assembly on Mercedes-Benz Sprinter, Vito, Viano and VW Crafter, with RWD.

Supplementary information:

Brochure:
FAG wheel bearing repair solution for light commercial vehicles
Order no.: 955 1000 590

Service Info:
Wheel bearing repair solution for vans, FAG0021

Video:
FAG wheel bearing repair solution for light commercial vehicles

DVD:
Wheel bearing repair solution for light commercial vehicles
Order no.: 955 1000 600
Brochure, video, 6 languages
Part no. 1002226

Content:
- 2 long threaded spindles (part no. 1002221), M20x1.5x800mm
- Coupling sleeve (part no. 1002224) M20x1.5x100mm
- Short threaded spindle (part no. 1002222) M20x1.5x400mm
- Thrust tube (part no. 1002216) 57x65x240mm
- 2 thrust pieces (part no. 1002217 & 1002227) 21x33/50x20mm and 21x27/50x20mm
- End piece (part no. 1002219) 21x65.5/65x20mm
- Protective tube (part no. 1002223) 25x2x150mm
- 2 axial bearings (part no. 51204)
- 2 tool nuts (part no. 31305)
- Lubricant (part no. 71343) Molykote GN+

Application:
Tool kit for the removal and installation of rear axle journals on different PSA models equipped with torsion bar rear axles.

Supplementary information:

Brochures:
- Fitting instructions Citroën Berlingo and Peugeot Partner
  Order no.: 999 0194 310
- Tool user manual 1002226
  Order no.: 999 0193 870

Service Info:
- Technical Info no. 1106

Video:
- Axle journal repair on Citroën Berlingo & Peugeot Partner rear axles, short version
- Axle journal repair on Citroën Berlingo & Peugeot Partner rear axles, long version
4.2 Torsion bar tool kit

Part no. 1002240

Content:
- Impact weight (part no. 1002228)
- Guide bar (part no. 1002229)
- 2 locking bars (part no. 1002230 & 1002231)
- 2 thrust pins (part no. 1002233 & 1002234)
- Connector (part no. 1002232)
- Thrust washers incl. screws (part no. 1002237 & 1002238 & 41127)
- 2 threaded spindles (part no. 1002236)
- 2 angle pieces (part no. 1002235)
- Locking wedge (part no. 1002239)
- 2 threaded spindles (part no. 1002242)

Application:
Tool kit for torsion bar removal on Renault and PSA rear axles.

Supplementary information:

Service Info:
Technical Info Nr.1136

Film:
Axle journal repair on Citroën Berlingo & Peugeot Partner rear axles, short version
Axle journal repair on Citroën Berlingo & Peugeot Partner rear axles, long version