

Front End Service Tool Kit User Manual



Read Carefully Before Use
Keep for Future Reference

Safety Information

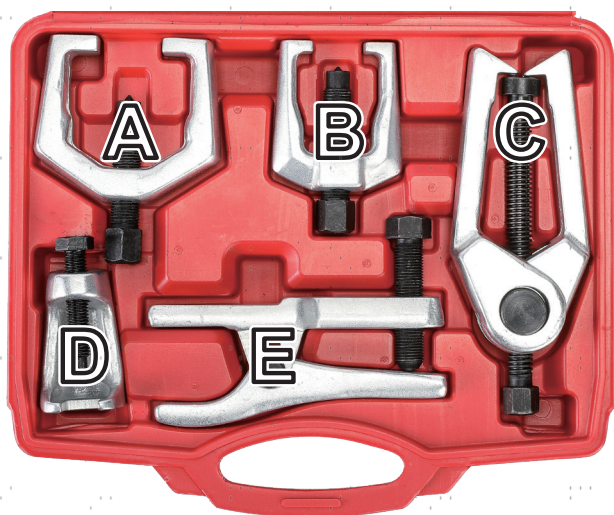
Warning!

- The instructions provided herein are only for general information. **ALWAYS** perform all repairs in full compliance with your vehicle's service manual. After any repair, test your vehicle in your workshop and at low speed before returning to normal use. Failure to do so may result in brake failure, serious property damage, and severe personal injury.
- **DO NOT** allow children or those unfamiliar with this product to use it. Do not use while under the influence of alcohol, drugs, or any medication that negatively affects your judgment or reflexes. Keep children and bystanders away during use.
- Keep your work site clean and well lit. Cluttered and dark work areas invite accidents.
- **ALWAYS** use personal protective equipment (PPE) suitable to your task. Always wear ANSI-approved eye and hand protection while using this product. Nonslip footwear is also highly recommended. Other equipment such as ear, head, and body protection may also be necessary depending on your work and other equipment.
- Dress properly for automotive servicing. Do not wear loose clothing or jewelry and keep hair, clothing, gloves, hoses, and tools away from any moving parts during use.
- **ALWAYS** know and understand the specific safety warnings and instructions for your vehicle before using this kit. Use the correct fluids, pressures, adapters, etc. for your vehicle. Make sure the parking brake is activated before beginning any work. Use with jack and jack stands able to fully support the necessary weight. Never touch any heated surface with exposed skin.
- Do not overreach. Keep proper footing and balance at all times.
- **DO NOT** use excessive pressure with this product and do not force it or its attachments.
- **DO NOT** allow your vehicle's brake fluid reservoir to run dry during use.
- Maintain this product. Check for misalignment, binding, wear, or other damage before use. If any damage is detected, repair or replace the problematic components before further use. In a large shop, mark such tools **DO NOT USE** until they have been repaired. Only replace components with identical parts.

Specifications

Material		AISI 1045 Steel	
Jaw Spread	A	1-1/8 in.	28.6 mm
	B	1-11/32 in.	34.1 mm
	C	3/4 in.	19.1 mm
	D	7/8 in.	22.2 mm
	E	2-1/2 in.	63.5 mm
Throat Depth	A	2-1/8 in.	54 mm
	B	2-1/2 in.	63.5 mm
	C	1-3/4 in.	44.5 mm
	D	2-1/4 in.	57.2 mm
	E	3-1/4 in.	82.6 mm
Forcing Bolt Hex	A	External	M19
		Internal	M10
	B	External	M19
		Internal	M10
	C		M17
	D		M18
	E		M22
Case Dimensions		12.4×10.2×2.8 in.	31.6×26×7 cm
Net Weight		10.5 lb.	4.8 kg

Package List




No.	Name	Qty.
A	Pitman Arm/Tie Rod End Puller	1
B	Pitman Arm Puller	1
C	Conical Pitman Arm Puller	1
D	Ball Joint Separator	1
E	Tie Rod And Ball Joint Remover	1

Operation


Tie Rod Removal

1. Park your vehicle on level ground, activate its parking brake, and turn off the engine. Allow your vehicle to cool if it has become hot through recent use.
2. Chock your wheels or jack up the vehicle. For best results, secure a raised vehicle with one or more jack stands or other appropriate supporting equipment. Make sure the part you are working on is adequately supported and will not fall when it is removed.
3. Remove the cotter pin and tie rod retaining nut. Select the appropriate removal tool and insert the tool jaws between the spindle arm and the tie rod or the drag link and steering arm so that the screw will force itself against the stud.
4. Tighten the screw with a suitable wrench or socket (not included) until the tie rod is pressed free and remove the tie rod.

Ball Joint Separation

1. Park your vehicle on level ground, activate its parking brake, and turn off the engine. Allow your vehicle to cool if it has become hot through recent use.
2. Chock your wheels or jack up the vehicle. For best results, secure a raised vehicle with one or more jack stands or other appropriate supporting equipment. Make sure the part you are working on is adequately supported and will not fall when it is removed.
3. With wheels removed, place a jack under the lower control arm and raise it just enough to support the control arm.
 **DO NOT** lift the control arm so much that the vehicle weight comes off the jack stands.
4. Use a wire brush (not included) to clean the area around the ball joint.
5. Remove the cotter pin and slightly loosen the ball joint retaining nut.
6. Insert the ball joint separator tool in between the steering knuckle and the control arm.
7. Tighten the forcing screw while maintaining keep the press arm aligned with the ball joint stud.
8. Continue to tighten the forcing screw with a suitable wrench or socket until the ball joint stud is pressed free of the steering knuckle.

Pitman Arm Removal

1. Park your vehicle on level ground, activate its parking brake, and turn off the engine. Allow your vehicle to cool if it has become hot through recent use.
2. Chock your wheels or jack up the vehicle. For best results, secure a raised vehicle with one or more jack stands or other appropriate supporting equipment. Make sure the part you are working on is adequately supported and will not fall when it is removed.
3. Remove the cotter pin and nut retaining the pitman arm. If the pitman arm to shaft position is not already marked, mark the positioning with a center punch or suitable paint for proper re-assembly position.
4. Select the appropriate size pitman arm puller and slide the jaws behind the pitman arm.
 When using the conical pitman arm puller, **DO NOT** remove the sleeve from the bottom of the forcing bolt.
5. Tighten the center screw while aligning the screw tip with the center of the shaft.
6. Continue to tighten the center screw with a suitable wrench or socket until the pitman arm is free of the shaft.

Maintenance

- Clean the surface of the used tools with a dry brush or cloth after use. Do not rinse it or use abrasive cleaners or caustic chemicals.
- For best results, lubricate the tools with high-quality anti-corrosive oil between uses.
- Check the parts of the tools periodically for any wear or damage. Repair or replace any problematic parts before further use.
- If these tools will not be used for an extended period of time, lubricate them, and store them in a cool dry place inaccessible to children and away from direct sunlight.

Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us at **help@cs-supportpro.com** and we'll resolve your issue ASAP!

For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR code to the right.



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