

## FITTING INSTRUCTIONS

**VEHICLE** Holden Colorado 2012-2016,  
Colorado 7 2012-2016 / Isuzu Dmax, MUX 2012-on

**PRODUCT** Upper Control Arms

**PN#** UCA4727C

### UPPER CONTROL ARMS TO SUIT HOLDEN COLORADO & ISUZU DMAX

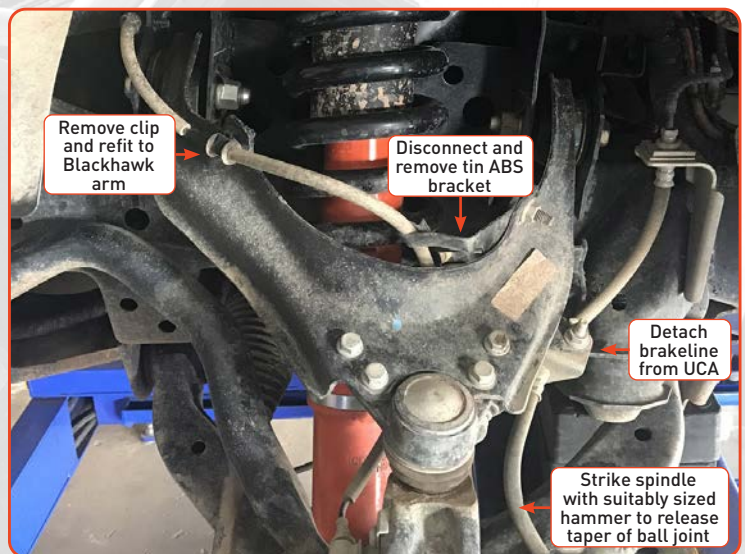
#### IMPORTANT NOTE BEFORE INSTALLATION

Please ensure that prior to fitting, rotate the ball stud at the same time grease is pumped through the grease nipple. This is imperative to circulate the grease around the ball joint.

#### TOOLS REQUIRED

- 21mm Spanners
- 19mm Spanner
- 12mm spanner
- Hammer
- Pliers

1. Raise the vehicle allowing the front suspension to fully droop and secure the vehicle safely
2. Remove the front wheels
3. ABS lines are secured to the OE arm by a pressed tin bracket, remove and discard.
4. Remove Brake line from the OE arm (12mm)
5. Remove split pin from the ball joint
6. Loosen ball joint nut, but do not remove (21mm)
7. Loosen bush pivot bolts at chassis (19mm)
8. Shock the area with a suitable hammer around the ball joint ta-per, this will release the taper
9. Remove the ball joint nut completely and remove pivot bolts.
10. Remove OE UCA from the vehicle.
11. Using the appropriate sided arm L is for passenger and R is for driver side, first secure the arm using the factory pivot bolts but do not tighten at this stage. (Only tighten when the weight of the vehicle is on the suspension and the suspension settled).
12. Connect the upper arm to the outer knuckle and use the supplied nut on to the ball joint and tighten to manufacturers specifications. Once you have tightened the nut, secure with split pin. (On some lifts it may be required to lift the lower arm using a jack to meet the ball joint).
13. Refit brake line clip to the arm using OE nut.



Only suitably qualified and accredited mechanics, with specialist 4WD Suspension knowledge should attempt fitment of these upper control arms. Alignment will be required by a reputable wheel aligner.

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14. Remove tin brackets from ABS wire and resecure the ABS line using the factory clip near the bush aperture and zip ties in the supplied mounting tabs, keeping in mind to make sure that the ABS line is secured away from the coil spring & moving objects.
15. Replace the wheel and cycle the suspension and steering checking for clearance. (This is done to ensure correct fitment and clearance allowances for varying wheel and lift packages).
16. Once both sides are done place the vehicle back on the ground and drive the vehicle back and forth steering left to right to settle the suspension. When satisfied suspension has settled tighten the pivot bolts to manufacturers specifications on both upper control arms.
17. Install supplied windscreen sticker to the inside of the windscreen to ensure greasable ball joint is greased each service.
18. Lastly check and tension wheel nuts. Recheck all tensions after 1000kms of driving.
19. Vehicle will need to be wheel aligned by a reputable wheel aligner noting that this arm is de-signed to help with camber and castor issues related to suspensions lifts and Holden/ Isuzu wheel alignment specification is no longer the goal.

### POINTS OF INTEREST TO ASSIST WITH FITTING AND ALIGNING

- Blackhawk UCA's are designed to fit vehicles with 30 - 70mm of lift with an increase in caster above OE to improve handling with an acceptable camber result in consideration of the lift
- Clearance is very minimal with Colorado UCA's. Make certain the ABS line is secured to the top or bottom of the arm - secured away from the coil spring and the wheel potentially turning in



Ball Joint to Control Arm Nuts - Upper 4WD and 2WD Z71	47Nm	35lb ft
Upper Control Arm to Frame Nuts - Upper 4WD and 2WD Z71	155Nm	114lb ft
Upper Control Arm Ball Joint Stud Nut	100Nm	74lb ft

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### POINTS OF INTEREST TO ASSIST WITH FITTING AND ALIGNING CONT.

- Clearance from Blackhawk UCA to the coil may be minimal at initial install, this is because the lower control arm is adjusted forward to maximise caster. Now the Blackhawk UCA is installed with a revised upper ball joint location, increasing caster, you will want to move the LCA rearward minimising the now large caster amount & correcting camber - providing clearance to the coil.
- Camber is a variable based on the final lift and caster set - when fitting the Blackhawk UCA's it is a given you will achieve an increase in positive caster. Camber is sensitive and should be the focus at wheel alignment. Between 30 & 70mm of suspension lift -0.25 & 0.35+ degrees is achievable.
- Caster value is expected to be between 4.00 - 5.45 degrees with caster split considered dependant on camber adjustment with desired lift.
- If Aftermarket rims are fitted, backspace must not be greater than the OE rim. It is the fitters responsibility to check for clearances.
- Blackhawk UCA's clear factory wheels and tyres which is a requirement for ADR compliance.
- Blackhawk UCA's include 2 droop stops as some vehicles in the application range utilise 2 droop stops compared to just one. The Blackhawk UCA is designed to limit the droop to the OE strut length (which is the same as majority of the "off the shelf" shocks for 50mm lift at 495mm). The factory droop stops can easily be modified to gain increased droop if running a longer shock. Maintaining this OE droop stop length complies with ADR regulations. Checking the amount of droop achievable with your strut is required to tune the droop stop to the correct length if desired.



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