



**WORLD'S BEST
ALLOY BULLBARS**

**Lighter
Stronger
Better!**

**Strongest Built
Australian Made
Lifetime Warranty**

PN: BDO102SY



Fitting Guide & Owners Manual

DODGE RAM 3500

2020 ON

WINCH COMPATIBLE BIG TUBE BAR
VEHICLE FRONTAL PROTECTION SYSTEM (VFPS)
FOR AIR BAG & ADR COMPLIANT VEHICLES

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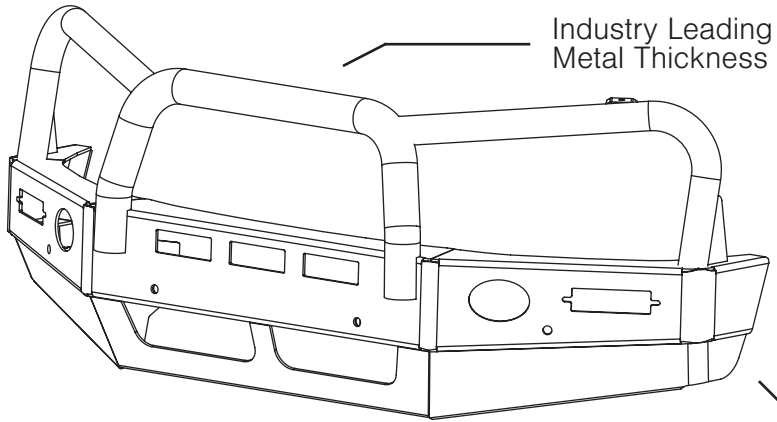
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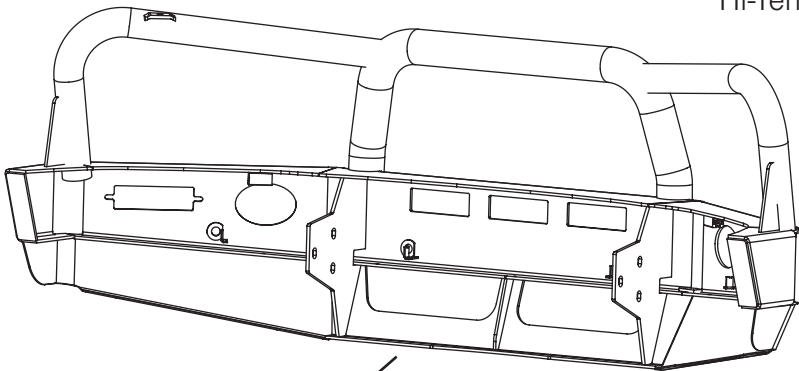
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Finished Product
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The Features of ECB



Industry Leading
Metal Thickness



6mm Thick
Hi-Tensile Alloy

Unmatched
Strength

Fully Welded
Construction

ECB's Benefits

Built to Perform - Not to a Price

ECB are proud to claim that their channels are not jigsaw puzzles that are bolted together, or even multiple sections welded together. Where any welding is required, it is done to the highest standards by qualified welders, not machines.

Anti-Corrosive Nature of Alloy

The composition of ECB's alloy has a very high resistance to corrosion. Rust not only looks unappealing but greatly reduces the strength of the metal. Rust can and will weaken the structural integrity of a steel bullbar effectively rendering it useless over time.

Australian Made

Established in 1971, we utilise over 46 years of experience designing, engineering and building products in Australia to suit Australian conditions. We can ensure the best quality controls and help support the local economy and employ over 90 proud Australians.

Weight Saving Benefits

An ECB alloy bullbar is typically half the weight of a steel bullbar. Unnecessary suspension upgrades are not required. The reduced weight also contributes to increased fuel economy and less wear and tear on tyres, suspension and braking components.

Welds That Work

ECB uses only the strongest welds and welding techniques to ensure every product is as structurally sound as possible. MIG (Metal Inert Gas) welding techniques are employed ensuring the welds are as thick as the thickest section of alloy's being joined together.

Lifetime Warranty

ECB provide a lifetime warranty and consumer guarantee on all of our manufactured products. This guarantee highlights the confidence in our ability and provides complete peace of mind for your purchase for the lifetime you own your vehicle.

Product Care

Polished Products

Being a premium mirror polished finish, regular maintenance will be required to keep that iconic ECB shine. We recommend using our own brand of Aluminium Polish. This formula has been tried and tested and in our opinion is the world's best standard.

Directions: Apply a small quantity of Aluminium Polish to a clean soft cloth and rub the metal surface. The longer the rubbing the brighter the surface becomes. Wipe off Aluminium Polish with clean soft cloth. Also suitable for motorised buffing machines.

Note: There are more specific details on the polish bottle. Please read before use.

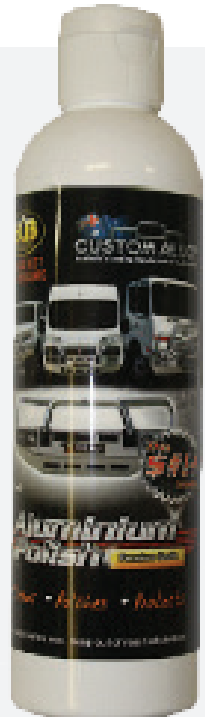
Powdercoated Products

Our powdercoated finishes are very low maintenance. Infact there is actually very little you will ever need to do for this product. Just clean it as you would your car and it will stay looking good as new.

ECB Aluminium Polish

When you're looking for that showroom finish look for your polished automotive products, you can depend on the no compromise quality of East Coast Bullbars Aluminium Polish. This specifically designed product is the best polish available and we guarantee that this \$#!+ works. With over 40 years of manufacturing polished alloy products we have trialed a large range of different polishes on the market and believe without a doubt that nothing beats the finish quality of East Coast Bullbars Aluminium Polish.

East Coast Bullbars Aluminium Polish is excellent for use by hand and is ideal for polished bullbars, nudge bar and stainless steel products. This polish will clean, polish and protect your product from the elements whilst bringing your products back to that showroom finish look.



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Stage 1

- Test drive vehicle to ensure all driver assists are correctly working and to gauge effectiveness. Park on a flat level surface.
- Apply parking brake and lift bonnet.
- Unwrap ECB Protection bar and disconnect mounts. Discard bolts.
- Ensure these instructions are left with the vehicle owner and/or operator.

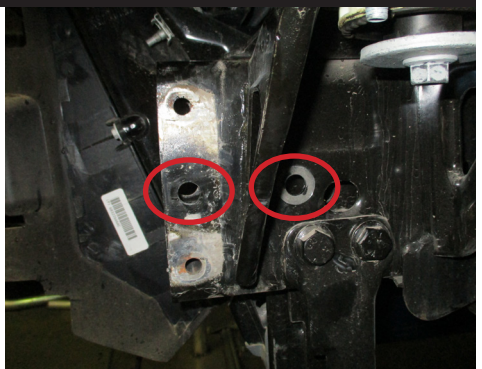


Stage 2

- From under front of vehicle, remove two (2) 24mm bolts and nuts from tow hooks. (Per side)

Retain bolts for refitment.

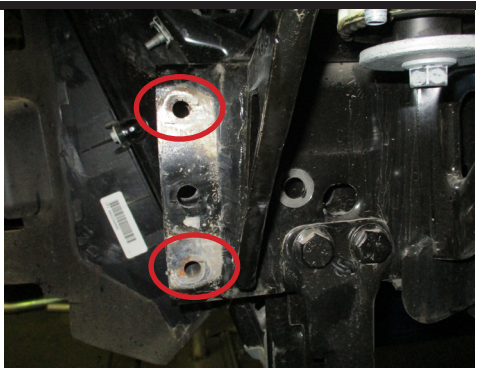
NOTE: Bumper removed for photo.



Stage 3

- Disconnect wiring harness on left hand side of vehicle.
- At front of chassis rail, remove two (2) 19mm head bolts from bumper to chassis mount.
- Remove bumper
- Retain bolts for refitment.

NOTE: Bumper removed for photo.



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Stage 4

- From underrun protection bracket, remove two (2) 24mm head bolts.
- Remove underrun protection bracket

NOTE: Bumper removed for photo.



Stage 5

- Remove shroud from intercooler, four (4) 10mm bolts.



Stage 6

- Remove top radiator cover 14 push pull clips.
- Remove top chrome cover strip, sixteen (16) 10mm head bolts across top of grille.



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Stage 7

- On infills under headlights gently release clips working from centre to outside and remove infills.
- Bottom centre lower grille remove 10mm head bolt below headlight (per side). Remove lower chrome section from grille.
- Underside of grille loosen only six(6) 10mm nuts.



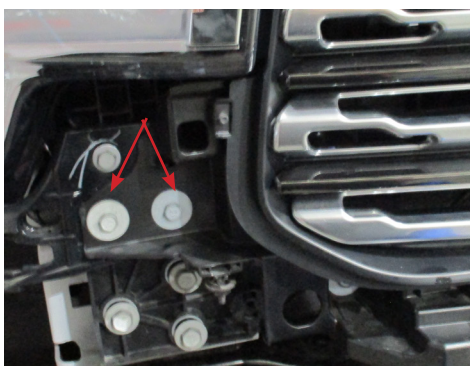
Stage 8

- Disconnect camera.



Stage 9

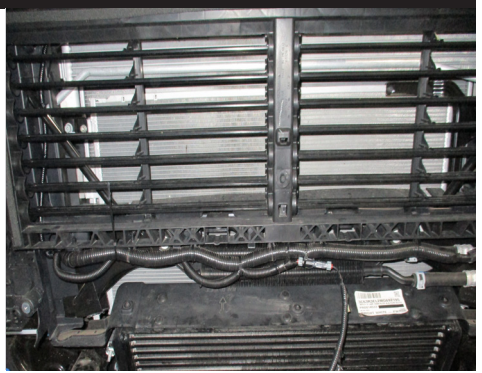
- To remove main grille, remove two (2) 10mm head bolts per side of grille.



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Stage 10

- To remove radiator shutter four (4) T30 torx screws and unclip wiring harness from bottom.
- Pull shutter forward to gain access to camera harness.



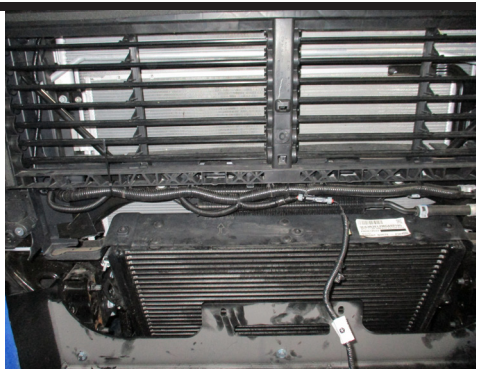
Stage 11

- Release camera connection from top of radiator support rail.



Stage 12

- Pull coax cable for camera from convoluted tube back to join of main wiring harness, at bottom.
- Feed coax cable into 10mm convoluted tubing (supplied).
- Refit shutter.
- Zip tie coax cable to harness on underside of shutter until half way along, so wiring can be joined to camera in protection bar.



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Stage 13

- Refit grille in reverse of steps 6 and 7.



Stage 14

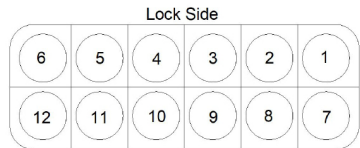
- Remove camera harness from grille.
- Remove camera from grille two (2) T10 Torx screws.



Stage 15

- Splice ECB wiring harness into wiring harness behind headlight using cable locks (supplied). Ensure harness is clear of sharp edges and moving parts.

12 PIN CONNECTOR



Vehicle Connector

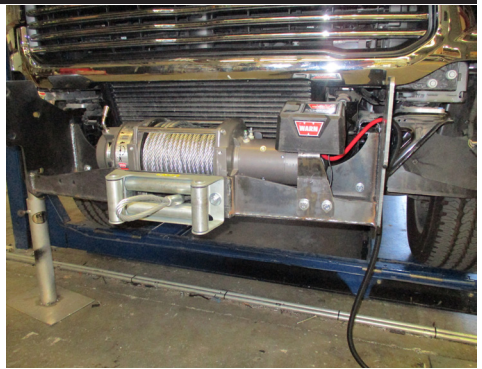
Wiring Pin Outs		
Pin Number	Colour	Use
1	White/ Purple	Indicator
3	Black	Earth
7	Tan/ Blue	DRL
10	White/ Orange	Park light

NOTE: Information correct on development vehicle. Manufacturers will change wire colors between sides of the vehicle and can change the coloring without notice. It is recommended to check wiring with a LED test light and the ECB led light before fully installing bulbbar.

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Stage 16

- Install winch into steel winch mount as per winch manufacturers instructions.
- A control box mount has been included in this kit to allow fitment of some warn control boxes. Secure to front of winch mount using two (2) M10 x 1.5 x 30mm bolts, flat washers, spring washers and nuts (supplied).



Stage 17

- Install steel winch mount onto front of chassis rail plates. **CAUTION:** 2 person lift. Use original bolts to secure frame to chassis, four (4) bolts (per side).
- Align mount central to body of vehicle and **tighten all bolts.**



Stage 18

- Place centre under body guard on rear of winch mount, secure with M8 x 30mm bolts, flat washers and M8 nyloc nuts (supplied), three (3) at rear and one (1) (per side) on sides of mount.

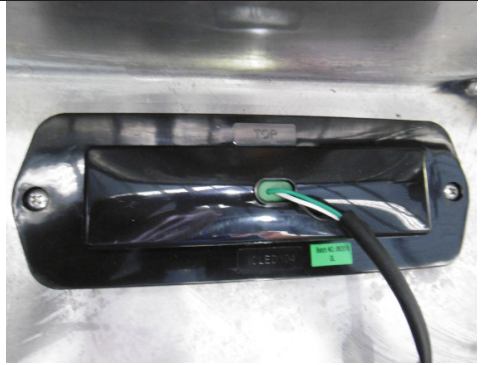


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Stage 19

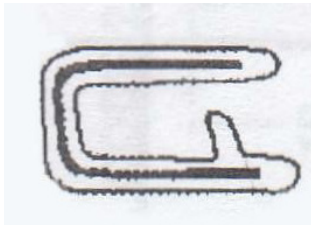
- Fit ECB LED indicator / park lights / DRL into protection bar as per instructions supplied with the LED indicator kit.

NOTE: Ensure park light is to top.



Stage 20

- Attach 6mm clip lock trim (supplied) to top of ECB protection bar. NOTE: Trim off lower edge on an angle so trim will sit flush with end of protection bar.



Stage 21

- Remove parking sensor/fog light harness and sensors from bumper.



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Stage 22

- Extend two outer sensors by 200mm using three core wire and solder joiners supplied.
- Secure harness into protection bar using zip ties.



Stage 23

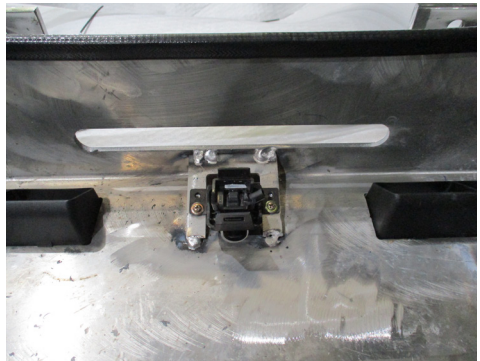
- Rotate parking sensor mount to suit direction parking sensor was removed from vehicle. Ensure silicon ring is attached to front of sensor. With parking sensor in correct direction, gently place into parking sensor mount with locating pins ratcheting into holding lugs. Push only until front of sensor is aligned with front of parking sensor mount. Silicon seat on parking sensor should seat loosely into front opening.



NOTE: A zip tie (Supplied) can be used to secure the rear of the sensor bracket for extreme use. This zip tie gives the sensor absolute security and is a recommendation only. Do Not overtighten.

Stage 24

- Fit camera to mounting bracket inside protection bar.
- Align camera to hole , bottom of camera to sit flush with front face of protection bar.
- Secure with two 8 - 18 x 12mm self drilling screws(supplied).



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Stage 25

- Pull parking sensor /fog light harness from chassis rail to top of underlight guard.
- Fit underlight guard, secure with two (2) 8-18 x 25 self drilling screws (supplied).
- Secure harness in slot on underside of headlight guard.



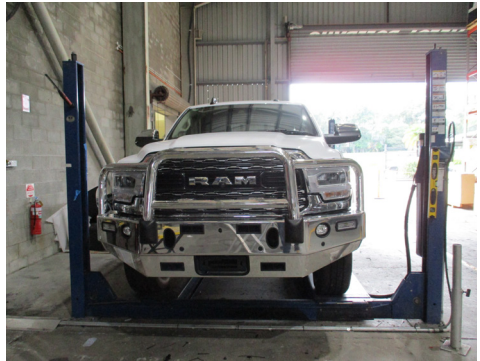
Stage 26

- Trim inner guard



Stage 27

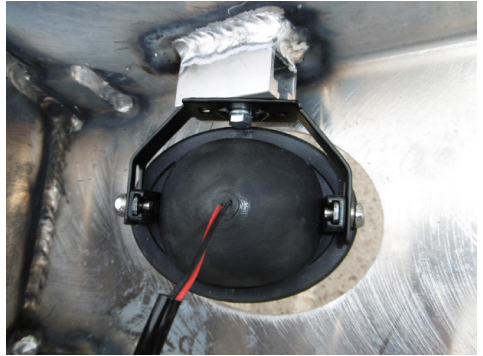
- Fit protection bar to steel mounting bracket with M12 x 1.75 x 40mm bolts, flat washers, spring washers and nuts (supplied).
- Finger tighten only.
- Align protection bar with vehicle, tighten all bolts.



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Stage 28

- Attach ECB bumper lights to protection bar. Place M6 x 20 bolts, spring washers (supplied) through light mount from inside and attach nut to top. Slide assembly into light mount in Protection bar and centralise light to hole. TIGHTEN FIRM ONLY.
- Install round surrounds (supplied) to bumper light openings and winch openings. Large side of surround to inside of opening on lights and to rounded side of winch openings.
- Connect Indicators/fog lights/sensor harness.



Stage 29

- Check correct operation of lights and parking sensors. Connect indicator and fog lights, and parking sensors. Check for correct operation.
- Test drive vehicle to ensure parking sensors and driver aids are working correctly.

Final Checks

Ensure Number Plate is Clearly Visible

Note: When fitting/refitting the licence plate to the vehicle, ensure there is no obstruction to licence plate vision in accordance with local authorities. If required relocate licence plate to an alternate location.

Further VFPS Notes

1. Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
2. Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
3. Do not remove the plaque or label from the VFPS.
4. Do not modify the structure of the VFPS in any way.
5. No accessory or fitment should project forward of the VFPS forward profile.
6. **Ensure these instructions are left with the vehicle owner and/or operator.**

Important Information

Periodically check bolts and nuts for correct tightness, especially if traveling on rough roads.

Installation Kit

1 - Steel winch cradle mount	2 - M6 Spring washers
1 - Control box mount	2 - M6 Nuts
1 - Pair underlight guards	8 - Cable locks
1 - 6mm Alloy underbelly guard	1 - ECB Indicator / DRL / Park Light kit
8 - M12 x 1.75 x 40mm bolts	1 - ECB bumper light kit
16 - M12 Flat washers	1 - Bumper light quick click harness (IC10D40S1004ECBH)
8 - M12 Spring washers	4 - Bumper light surrounds
8 - M12 x 1.75 Nuts	4 - 8g 18 - 25 Self drilling screws
2 - M10 x 1.5 x 30mm Bolts	2 - 8G 10mm Self drilling screws
4 - M10 Flat washers	2 - 200mm Lengths 3-core wire
2 - M10 spring washers	12 - Solder joiners
2 - M10 x 1.5 nuts	2 - 250mm Lengths 10mm conduit
5 - M8 x 30 bolts	1 - 600mm Length 10mm conduit
10 - M8 Flat washers	25 - 150mm Zip ties
5 - M8 Nyloc nuts	1 - 2800mm Length 6mm clip lock
2 - M6 x 20mm Bolts	1 - 700mm Length 6mm clip lock

Finished Product



Warranty Registration

Contact Details

Name: _____

Address: _____

Product: **BDO102SY**

Email: _____

Phone: _____

Work Order Number: _____

You can find this on the silver label
of your ECB product.

By submitting this registration you automatically subscribe to ECB's mail outs. You
can unsubscribe at any time.

Register Online

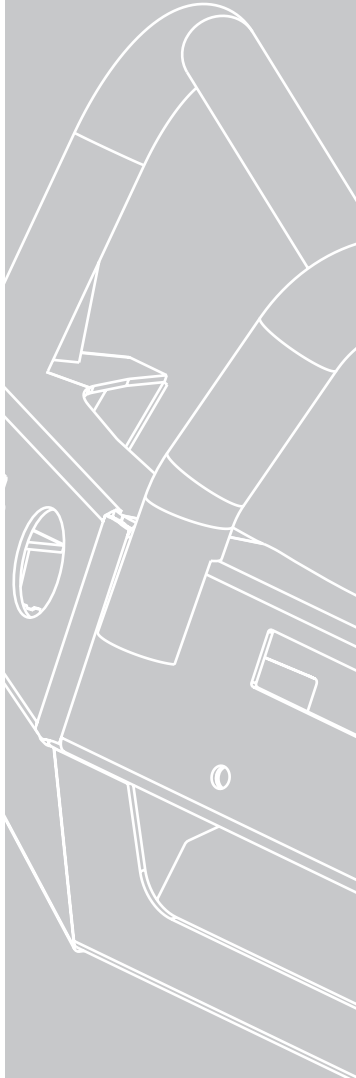
For online registration please go online to www.ecb.com.au/warranty-registration.
If you have any questions please contact our national office on 1800 069 145 or
www.ecb.com.au.

Or Post To

PO Box 122 Margate QLD 4019



REPLACES: N/A
REVISED: 16.12.22



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Strongest Built Australian Made Lifetime Warranty

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