

## **INSTALLATION GUIDE**

# TOYOTA HIACE 05-19 ON

## **PN: BT188SY**



**BULLBAR WITH BUMPER LIGHTS** VEHICLE FRONTAL PROTECTION SYSTEM (VFPS) FOR AIR BAG & ADR COMPLIANT VEHICLES

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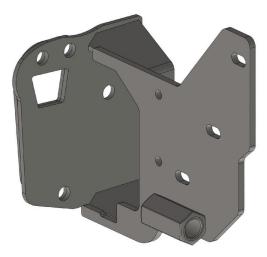
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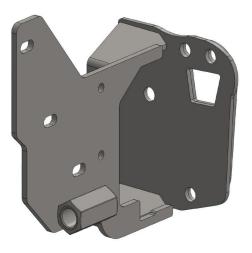
Final Checks

## **INSTALLATION KIT**

1 - Pair ECB Steel Mounting Brackets	16 - M6 Flat Washers
2 - Alloy Sensor Brackets	2 - M6 Spring Washers
2 - ECB Tow Hooks	6 - M6 Nuts
6 - M12 x 1.75 x 40mm Bolts	4 - M6 Nyloc Nuts
12 - M12 Flat Washers	1 - Perspex Sonar Cover
6 - M12 Spring Washers	1 - Indicator/Park/DRL Kit
6 - M12 X 1.75 Nuts	1 - Quick Click Kit (IC15TOHLOIPDH)
2 - M10 X 1.5 X 85mm Bolts	1 - Bumper Light Kit
12 - M10 X 1.25 X 40mm Bolts	1 - Quick Click Kit (IC10D40S1004ECBH)
18 - M10 Flat Washers	2 - Fog Light Surrounds
14 - M10 Spring Washers	1 - 2500mm Length 6mm Clip Lock
4 - M10 X 1.5 Nut Plate On 200mm Wire	2 - 1200mm Lengths 3mm Clip Lock
4 - M10 X 1.25 Nuts	4 - 200mm Lengths Single Core Wire
2 - M6 X 30mm Bolts	8 - Solder Joiners
4 - M6 X 20mm Bolts	2 - 200mm Lengths 10mm Convoluted Tubing

## **INSTALLATION KIT**





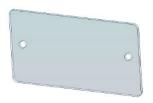
Pair ECB Steel Mounting Brackets (YBT188) - Fitted to Bar



Steel Support Bracket (YBT188\_M6M - Left And Right)



2 x ECB Tow Hooks (BT186\_H10M Welded to M24 x 260mm bolt) WITH INSTRUCTION TAG ATTACHED



Perspex Sonar cover (BT186\_A2PL) IN BOLT KIT



2 x Alloy sensor brackets (BT186\_S3A) IN BOLT KIT



M10 x 1.5 nut plate on 200mm wire (BT188\_NP6M with M10 x 1.5 nut on wire)

#### **STAGE 1 - VEHICLE PREPARATION**

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.



#### **STAGE 2 - TOP RADIATOR COVER**

Remove top cover from grille, nine (9) x push pull plugs.



#### **STAGE 3 -TOP BUMPER FIXINGS**

Remove three (3) x 10mm head bolts beside headlight and centre of grille and four (4) x 10mm head bolts top of grille.

Pull up on clips beside headlight and pull bumper forward slightly.



### **STAGE 4 - ELECTRICS DISCONNECTION**

Disconnect parking sensors and sonar next to bonnet latch. Three (3) x connectors, two (2) x near upright and one (1) x rear of sonar unit.



#### **STAGE 5 - BUMPER COVER REMOVAL**

Underside of vehicle remove fourteen (14) x push pull plugs, two (2) x 10mm head screws and four (4) x 10mm head bolts.

Remove under belly guard.



#### **STAGE 6 - BUMPER COVER REMOVAL**

From inside wheel arch remove one (1) x push pull plug.

Gently pull side guard away from vehicle.

**CAUTION:** Catch area at side of bumper can be easily ripped away from the bumper skin. **Care is required**.

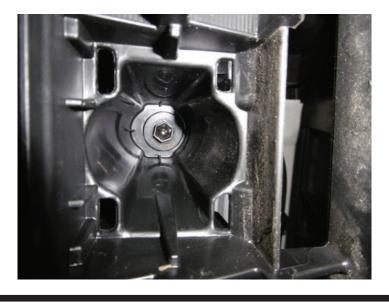


#### **STAGE 7 - BUMPER COVER REMOVAL**

Lower grille remove tow point covers, unclip lower section by pushing down on clips and remove cover.

Remove two (2) x 10mm head bolts.

Carefully remove plastic bumper.



#### **STAGE 8 - AIR DAMS**

Remove foam from bumper support.

Remove upper and lower air dams two (2) x push pull clips either side of centre air dam, side air dams gently pull away from vehicle.



### **STAGE 9 - MOUNTING BRACKET INSTALLATION**

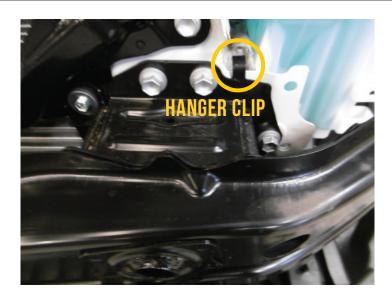
Remove cross-member from vehicle.

Fold hanger clips away from vehicle and as flat as possible to mounting area.

Slide ECB steel mounting bracket (supplied) to bumper support.

Install inner mounting brackets to steel mounts using M10 x 1.25 x 40 bolts, flat washers, spring washers and nuts. Finger tighten only.

Fit to tow pin hole in vehicle cross member using M10 x 1.5 x 85mm bolt, flat washer, spring washer and plate with nut on wire inside crush can from rear. Cut wire or wind into rear of crush can.



#### **STAGE 10 - MOUNTING BRACKET INSTALLATION**

Refit and secure to vehicle using four (4) x M10 x 1.25 x 40mm bolts, flat washers and spring washers. **Finger tighten only.** 

Measure inner mounting brackets of Protection Bar and outer of ECB steel mounting brackets.

Align mounts and tighten all bolts.



#### **STAGE 11 - BUMPER TRIM**

Find template (supplied) with this instruction, check measure to ensure correct sizing.

Using a sharp pair of scissors, cut template (supplied) and join where required.

Mask up area to be cut to avoid any damage. Mark cut lines using template and ensure lines are straight and correct.

Trim bumper using a jigsaw or similar.



#### **STAGE 12 - SENSOR WIRING**

Remove parking sensors from bumper.

Extend wiring using solder joiners and single core wire 200mm (supplied). Place wiring through bumper as extending.

Place exposed wiring into convoluted tubing (supplied).



#### **STAGE 13 - REMOVE SONAR UNIT**

To remove sonar from bumper, unclip grille from bumper, remove three (3) x Phillips head screws, one (1) x each side of sonar and one (1) x centre of grille.

Remove two (2) x 10mm head bolts and one (1) x screw from back of sonar.



#### STAGE 14 - REMOVE PARK/DRL LIGHT

Remove Park light/DRL's from bumper, five (5) x Phillips head screws.

Should bumper Park light/DRL's not be present in the bumper, drill hole mid way down the blanking area large enough to fit wiring harness.

This is to allow access for fog light and indicator DRL harness.



### **STAGE 15 - SONAR WIRING**

Unclip junction box just under bonnet release and redirect sonar wiring out of opposite site of box, re-clip box once done.

Remove tape to allow full harness length.

Feed harness through vents in bumper when refitted.



#### **STAGE 16 - AIR DAMS**

Refit air dams. Trim lower section of air dam as per picture.

In reverse of steps 2 to 8, reassemble grille and bumper. **Do not** refit under belly guard at this stage.



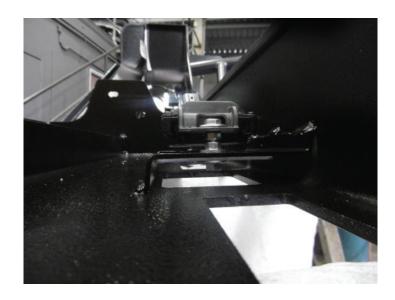
#### **STAGE 17 - SONAR INSTALLATION**

Fit sonar unit and plastic cover, place two (2) x M6 x 30mm bolts, flat washers through sonar unit from rear, flat washer and nuts (supplied).

#### Tighten all bolts.

Place nut and washer (supplied) on each bolt.

Fit to Protection Bar as per picture. Place plastic cover on front and secure using flat washers and Nyloc nuts (supplied).



#### **STAGE 18 - PARK SENSOR INSTALLATION**

Fit parking sensors to Protection Bar using brackets supplied, M6 x 20mm bolts, flat washers and Nyloc nuts (supplied).

**CAUTION:** light pressure only is required. **Excessive pressure will cause false readings from sensor**.



#### **STAGE 19 - LIGHT WIRING**

Disconnect indicator and parking lights on vehicle. Install ECB quick click wiring harnesses (supplied) between disconnected harness and indicator/park lights on vehicle. Run wiring out from under lights ensuring clearance from sharp edges and moving parts.

Disconnect fog lights. Connect ECB Quick Click fog light wiring harness (supplied) into original wiring harness. Feed wiring through bumper to front.

#### **STAGE 20 - INDICATOR FITMENT**

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

**NOTE**: Ensure park light is to top.



#### **STAGE 21 - BUMPER LIGHT FITMENT**

Attach ECB bumper lights to protection bar.

Place M6 x 20mm bolts, spring washers (supplied) through light mount from inside and attach nut to top. Slide assembly into light mount in Protection Bar and centralize light to hole.

#### TIGHTEN FIRM ONLY.

Install bumper light surrounds (supplied) to bumper light openings lights.



#### **STAGE 22 - CLIP LOCK TRIM**

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.

Install 3mm clip lock to lower vents . Place join at top in centre.



### **STAGE 23 - PROTECTION BAR FITMENT**

Fit protection bar to vehicle using six (6 x) M12 x 1.75 x 40mm bolts, flat washers, spring washers and nuts (supplied).

Align Protection Bar with vehicle. TIGHTEN ALL BOLTS.

Connect parking sensors and sonar.

Check fit of tow hooks to ensure fitment to skirt.

Refit under belly guard.



### **STAGE 24 - CONNECTIONS, CHECKS AND TESTING**

Test Indicators/park/DRL lights, bumper lights, parking sensors and sonar for correct operation.

Test drive vehicle to ensure all driver assists perform as per before installation.

Place tow hooks into tool kit of vehicle. **Customer must be informed of tow hook placement in vehicle.** 

## **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

#### **IMPORTANT INFORMATION**

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



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