

# **INSTALLATION GUIDE**

# FORD F150 2023 ON

**PN: P2F200SY** 



## **TWO POST WINCH BAR**

VEHICLE FRONTAL PROTECTION SYSTEM (VFPS)
FOR AIR BAG & ADR COMPLIANT VEHICLES

# **INDEX**

#### **PAGE 3 - 4**

Installation Kit

#### PAGE 5

Stage 1 - Vehicle Testing And Preparation

Stage 2 - Radiator Cover

Stage 3 - Painted Bumper Infill

#### PAGE 6

Stage 4 - Shutter

Stage 5 - Remove Bumper

Stage 6 - Recovery Hooks

#### PAGE 7

Stage 7 - Camera Removal

Stage 8 - Extend Camera Harness

Stage 9 - Remove Sensors

#### PAGE 8

Stage 10 - Harness Removal

Stage 11 - Extend Harness

Stage 12 - Remove Intrusion Bars

#### PAGE 9

Stage 13 - Mount Fitment

Stage 14 - Recovery Hooks

Stage 15 - Recovery Hooks

#### PAGE 10

Stage 16 - Fit Sensors

Stage 17 - Connect Harness

Stage 18 - Parking Sensors

#### PAGE 11

Stage 19 - Camera Fitment

Stage 20 - Indicators

Stage 21 - Clip Lock

## **PAGE 12**

Stage 22 - Wiring Harness

Stage 23 - Refit Bumper

Stage 24 - Fit Protection Bar

#### PAGES 13

Stage 25 - Connect Electrics

Stage 26 - Underbelly Guards

#### PAGES 14

Stage 27 - Bumper Lights

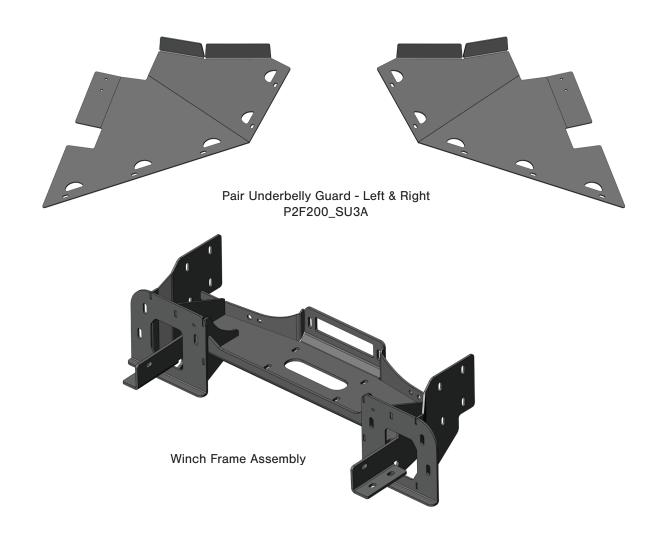
Stage 28 - Safety Checks

#### PAGES 15

Final Checks

# **INSTALLATION KIT**

1 - Winch Frame Assembly	2 - M6 x 25 Mm Cup Head Bolts Black
1 - Pair Underbelly Guards Left And Right	2 - M6 x 20 Mm Bolts
1 - Pair Tow Hook Assembly	34 - M6 Flat Washers
1 - Plastic Sonar Cover	2 - M6 Spring Washers
4 - Plastic Parking Senors Spacers	2 - M6 Nuts
1 - Radar Mount Assembly	18 - M6 Nyloc Nuts
1 - Radar Support Mount	2 - 8g 18 x 12 Self Drilling Screws
1 - Rear Camera Mount	1 - ECB Indi/ Park Light Kit
1 - Pair Z Brackets Left And Right	1 - ECB Bumper Light Kit
1 - Pair M12 x 1.75 Nut Plates	2 - Fog Light Surrounds
4 - 40 x 40 x 4mm Flat Steel Washer	1 - ECB Light Harness Kit (ICFOF150KIT)
2 - M12 x 1.75 x 140mm Bolts	12 - Solder Joiners
20 - M12 x 1.75 x 40mm Bolts	2 - 150mm Lengths 3 Core Wire
40 - M12 Flat Washers	3 - 200mm Lengths 10mm Convoluted Tubing
22 - M12 Spring Washers	1 - 2700mm Length 6mm Clip Lock Trim
18 - M12 x 1.75 Nuts	16 - 150mm Zip Ties
16 - M6 x 25mm Bolts	1 - Number Plate Hinge Bracket



# **INSTALLATION KIT**



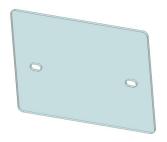
Radar Mount Assembly



P2F200\_S3M Radar Support Mount



Rear Camera Bracket P2F200\_VR2A



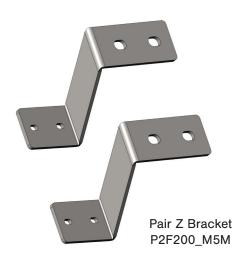
Plastic Sonar Cover P2F200\_A3PC



Plastic Spacers P2F200\_S3PL



Sonar Inserts



#### **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.

#### **DISCONNECT BATTERY**

Unwrap ECB Protection Bar and disconnect mounts. Discard bolts.



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

Remove radiator cover - 13 Christmas tree clips.

Remove five (5) x Christmas tree clips and five (5) x 10mm head bolts from top of grille.

Disconnect the camera and shutter - top centre of radiator cover.

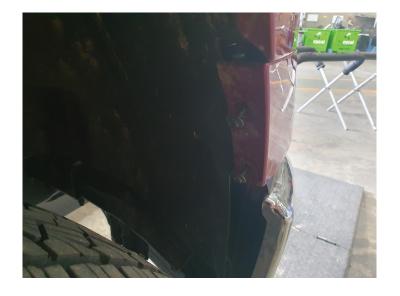
Remove grille, pull forward to release from retaining clips.



#### **STAGE 3 - PAINTED BUMPER INFILL**

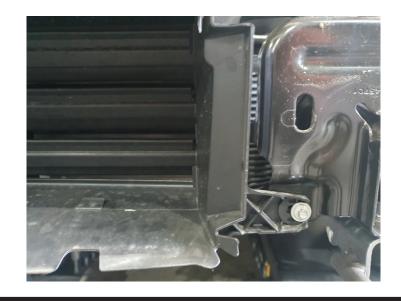
Inner wheel arch - remove two (2) x 7mm head screws per side.

Gently pull bumper infill away from vehicle, releasing clips as working toward center. Remove from vehicle.



#### **STAGE 4 - SHUTTER**

Remove shutter and grille - one (1) x 10mm head bolt per side from lower grille between head lights.



#### **STAGE 5 - REMOVE BUMPER**

Remove bumper, disconnect main wiring for harness shutter and inter-cooler sensor. Connection on driver's side.

Remove three (3) x 21mm head bolts (per side) at rear of bumper.

Remove bumper from vehicle.



## **STAGE 6 - RECOVERY HOOKS**

Remove recovery hooks - two (2) x 15mm head bolts, per side.

Retain bolts and nut plates for re-fitment.



#### STAGE 7 - CAMERA REMOVAL

Remove four (4) x 10mm bolts, one on each corner and one (1) x 8mm head screw in center from shutter.

Separate shutter and grille.

Remove three (3) x T20 Torx screws and harness from camera. Remove camera.

Reassemble grille and shutter in reverse of removal.



#### **STAGE 8 - EXTEND CAMERA HARNESS**

To extend camera harness, open genuine harness and separate coax cable from harness until it extends 200mm past the center of lower grille.

Re-tape harness.

Zip tie coax cable to secure avoiding sharp edges.

Place 200mm of 10mm convoluted tubing over coax cable from camera connection back to first connection. Tape in place.



### **STAGE 9 - REMOVE SENSORS**

Remove rear cover plates from back of bumper, sixteen (16) x 13mm head bolts, two (2) x T20 torx screws inner side of light and loosen outer screws. Lift light to remove one (1) x 13mm head bolt (per side) from underneath.

Remove cover plates.

Remove sonar from left side, disconnect harness and remove three (3) x T27 Torx screws. **DO NOT REMOVE SONAR FROM MOUNTING BRACKET.** 

Remove parking sensors.



## **STAGE 10 - HARNESS REMOVAL**

Remove wiring harness from bumper.



#### **STAGE 11 - EXTEND HARNESS**

Extend centre parking sensor harness using 150mm length three core wire and solder joiners.

Place exposed wiring in 200mm lengths of 10mm convoluted tubing.



#### **STAGE 12 - REMOVE INTRUSION BARS**

Remove side intrusion bar in front of wheel.

From top, undo 15mm head bolt.

From under rail, screw in M12 x 1.75 x 40mm bolt so head of 15mm head bolt is hard against rail.

Using grinder or saw, cut bolt low as possible to rail. Remove bolt from top.

Remove lower M12 bolts and remove rail.

Blow filings clear and treat all exposed metal with a rust inhibitor.



#### **STAGE 13 - MOUNT FITMENT**

Fit steel mount to front of chassis rail using M12  $\times$  1.75  $\times$  40mm bolts, flat washers, spring washers and M12  $\times$  1.75 nuts. **Finger tighten bolts**.

Side rails M12 x 1.75 x 140 bolts, 40 x 40 washer plates, spring washers and M12x1.75 nuts.



#### STAGE 14 - RECOVERY HOOKS

Place previously removed OEM nut plate inside of chassis rail on top of Steel mount.

Place nut plate (supplied) inside tow point spacer.

Install tow point spacer to underside of chassis rail with upwards fold to rear using 15mm head bolts previously removed from tow point.

**Loctite** should be used as per OEM installation.

Align and tighten.





### **STAGE 15 - RECOVERY HOOKS**

Align nut plate previously placed in tow point spacer.

Install OEM tow hook and secure with M12 x 1.75 x 40mm bolts, flat washer and spring washer. **Align and tighten.** 

Tighten all bolts on steel mount.

**Loctite** should be used on these bolts as per OEM installation.



## **STAGE 16 - FIT SENSORS**

Fit plastic cover and spacers to sonar using two (2) x M6 x 25 button head bolts, M6 flat washers and M6 Nyloc nuts.

Using original fasteners and torx screws, fit sonar to mounting bracket.

Fit sonar to steel mount using M6 x 25mm bolts, flat washers and Nyloc nuts.

Fit extension to sonar mount M6 x 25mm bolt, M6 flat washers and M6 nyloc nut.

Using sonar mount as a guide, drill 6.5mm hole into front left chassis plate.

Blow filings clear and treat all exposed metal with a rust inhibitor.

Attach using M6 x 25 bolt, flat washers and Nyloc nuts.





#### **STAGE 17 - CONNECT HARNESS**

Connect harness to vehicle.

Run harness along rear of mount.

Zip tie harness to vehicle, avoid any sharp edges.



#### **STAGE 18 - PARKING SENSORS**

Remove silicon ring from sensors and replace with flexible plastic sensor spacer. Fit parking sensors into housing.

To ensure security of sensor over corrugations, zip tie rear of sensor mount. Do not over tighten as this may cause intermittent sensor failure.



#### **STAGE 19 - CAMERA FITMENT**

Place camera into mounting bracket in rear of Protection Bar.

Install rear locking bracket on camera using self drilling screws - secure camera in mount.



#### **STAGE 20 - INDICATORS**

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

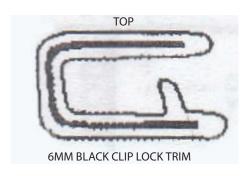
**NOTE:** Ensure park light is to top.



## STAGE 21 - CLIP LOCK

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 22 - WIRING HARNESS**

Disconnect headlight.

Connect wiring harness extension between the headlight and the OEM harness.

Run extension under the vehicle taking care to avoid sharp edges.

## **STAGE 23 - REFIT BUMPER**

Replace bumper trim and grille in reverse of steps 2 to 4.



### **STAGE 24 - FIT PROTECTION BAR**

Fit Protection Bar using M12 x 1.75 x 40mm bolts, M12 flat washers, M12 spring washers and M12 x 1.75 nuts.

Align Protection Bar and tighten all bolts.



## **STAGE 25 - CONNECT ELECTRICS**

Connect sensors, camera and indicators.

## **STAGE 26 - UNDERBELLY GUARDS**

Fit underbelly guards using M6 x 25 bolts, flat washers and Nyloc nuts to attach to underbelly guard.

Install "Z" bracket to rear using M12 x 1.25 x 40mm bolts, flat washers and spring washers to lower rail and M6 x 25 bolts, flat washers and Nyloc nuts.



Trim inner guard and tuck behind underbelly guard.



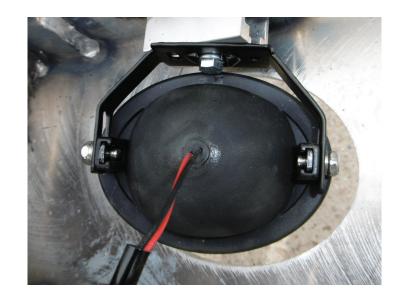
## **STAGE 27 - BUMPER LIGHTS**

Attach ECB fog 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 centralize light to hole. **TIGHTEN FIRM ONLY**.

Install fog light surrounds (supplied) to fog light openings.



#### **STAGE 28 - SAFETY CHECKS**

Fit number plate bracket.

Check all safety features 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

#### IMPORTANT INFORMATION

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



1800 069 145 WWW.ECB.COM.AU 29 SNOOK ST CLONTARF, QLD 4019

> REPLACES: N/A REVISED: 27.06.24