

## FITTING INSTRUCTIONS FORD BA FALCON

#### **Transmission Oil Cooler Kit**

WARNING: Hot Transmission Fluid may cause serious injury. It is therefore recommended that the Transmission Fluid be left to cool prior to the fitment of this Transmission Cooler Kit

Disclaimer: These Fitting Instructions have been constructed with all due care and act only as a guide for fitment. It is the responsibility of the fitter to ensure correct fitment and vehicle safety.

#### **Removing the Front Fascia**

Remove Front Fascia by removing all necessary fasteners. The vehicle used in this work instruction required the removal of:

- 4 Scrivets on Upper Shroud (Fig. 1)
- 2 Bolts located under Shroud (Fig. 2)
- 4 Scrivets and 2 Screws located in the Wheel Well
- 5 Bolts on the Undertray of the Fascia

Note: Variations in retainers may be found between models



Fig 1: Remove 4 Scrivets from Shroud



Fig 2: Lift Shroud to Access 2 Bolts



#### **Fitting the PWR Transmission Cooler**

#### 1. Remove the Power Steering Pipe Brackets (Fig. 3)

The PWR Kit utilises the existing P/S Pipe Mounting points to locate the Transmission Cooler brackets. The complete driver-side bracket, and the retaining rubber on the passenger side, should be removed to provide sufficient clearance for the supplied brackets.





#### 2. Remove Airbag Sensor Clip (Fig. 4)

The upper stud on the bracket locates in the holes located in the body fixture forward of the bonnet latch. There is a hole punched in the supplied bracket to provide an optional locating point for the clip after installation.

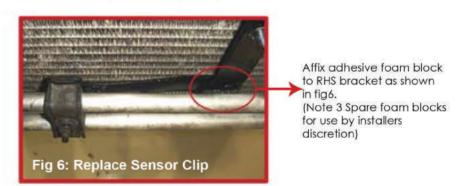
#### 3. Fit Transmission Cooler Brackets

A detailed drawing is included on the following page for the following steps

The procedure follows:

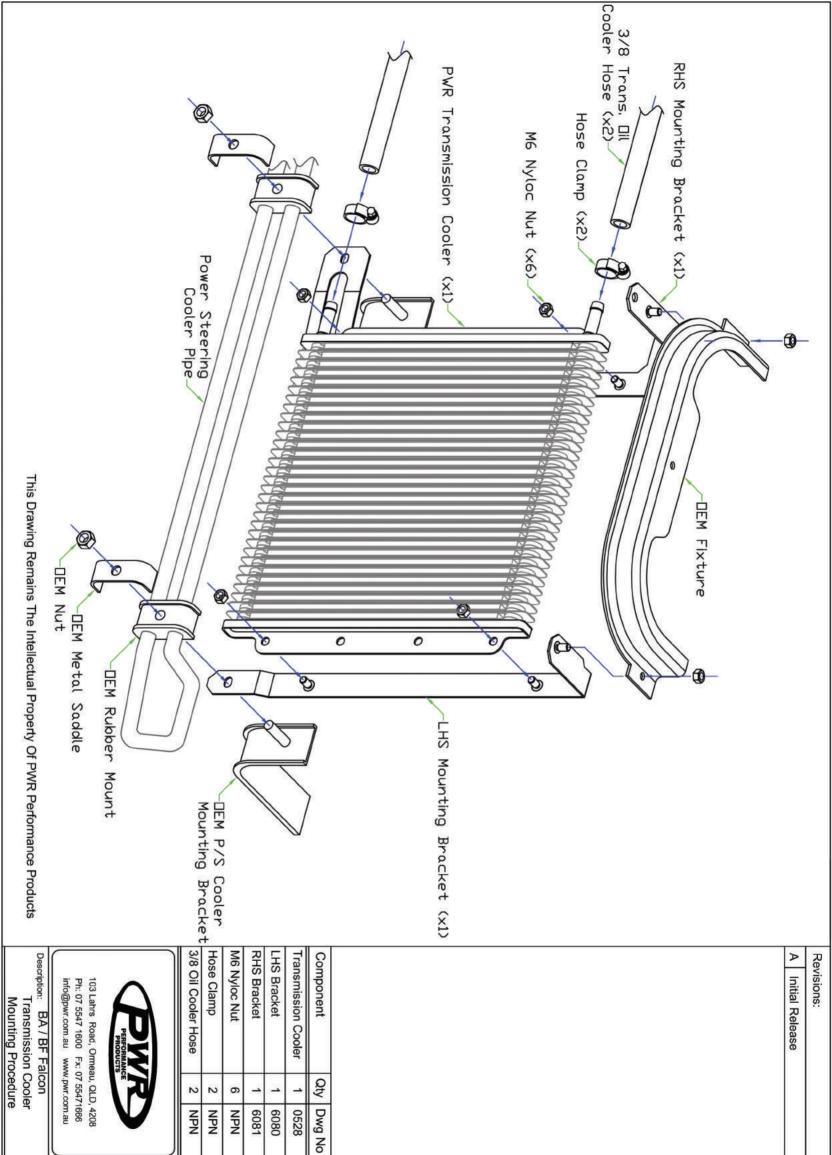
- Locate the RHS Bracket between the RHS P/S Mounting Bracket and P/S Pipe. (Fig. 6)
- Position the M6 Stud at the top of the bracket, into the body fixture forward of the bonnet latch (Fig. 5)
- Start the M6 Nut on the thread
  - (Do not tighten so the Bracket position can be refined to accept Cooler)
- Repeat these steps for LHS Bracket
- Replace Rubber P/S Pipe Spacers onto studs
- Replace metal saddle and start the nut on the thread. (Do not tighten)





#### **Fit Transmission Cooler**

- Locate the Transmission Cooler on the studs on the brackets using the two outermost holes on each side mount the cooler with the barbed fitting on the driver's side.
- Secure cooler with 4 x M6 Nyloc Nuts supplied in the kit.
- Tighten all nuts and bolts in Transmission Cooler Brackets and Power Steering Mounting Points.
- Reposition the Sensor in the front hole of the driver-side bracket. (Fig. 5)
- Tighten all remaining nuts on to Brackets





#### **Bypassing the OEM In-Tank Cooler**

A detailed drawing is included on the following page for the following steps:

- Remove Transmission pipes from factory In-Tank Transmission Cooler. (Fig. 7)
- Bung In-Tank Ports using supplied bung.
- Screw Female Hose Adaptor to Transmission Pipe, spacing the fittings with the Transmission Pipe locating bracket supplied.
- Position hard line locating brackets on exposed M8 thread of Bung. (Fig. 8)
- Fit and tighten M8 Nyloc nut supplied to the In-tank bungs to fix hard line position.
- Position hard line locating brackets so that the lines are clear of radiator hoses, pulleys and belts. (you may be required to bend the lines slightly to provide clearance for the fittings, do so carefully avoiding excessive force and sharp anales)



Fig 7: The Transmission Pipes



Fig 8: The Fitted Lower Connection

#### **Connecting the PWR Transmission Cooler**

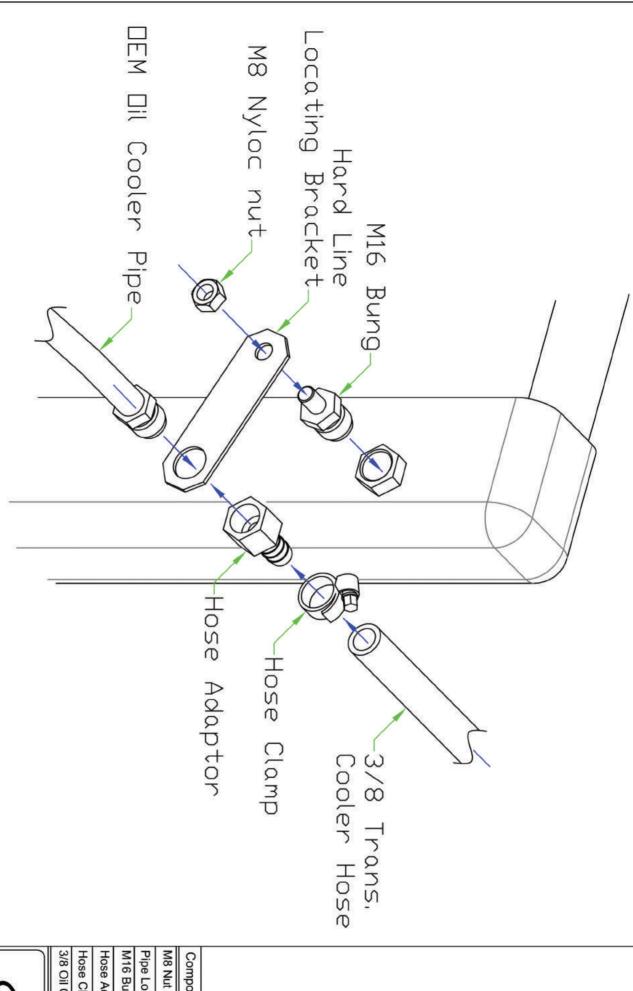
- Place Hose Clamps on end of Hose and push onto the Hose Adaptors connected to the Transmission Pipe. (Top and Bottom)
- Position Hose Clamps approx. 6mm from end of Hose and tighten.
- Feed Upper Hose through to the Transmission Cooler, beneath the RHS Headlight (Fig. 9)
- A Cable-Tie is provided to secure the Hose to the Harness to prevent excessive vibration.
- Place a Hose Clamp on the end of the Hose and push Hose onto Upper barb of Trans Cooler
- Locate Hose Clamp 6mm from hose end and tighten
- Feed the Lower Hose through the opening on the Bottom Right Side of the Radiator (Fig. 10)
- Place a Hose Clamp on the end of the Hose and push Hose onto the Lower barb of Transmission Cooler.
- Locate Hose Clamp 6mm from Hose end and tighten



Fig 9: The Upper Transmission Cooler Hose



Fig 10: The Lower Transmission Cooler Hose



Repeat Procedure for Transmission Fluid Return Line

This Drawing Remains The Intellectual Property Of PWR Performance Products

Revisions:

A Initial Release

1
DWD

3/8 Oil Cooler Hose

Hose Adaptor M16 Bung

Hose Clamp

NPN 4281

NPN

Pipe Locating Bracket

6079 6082 NPN Component

Qty Dwg No

Ph: 07 5547 1600 Fx: 07 55471666 103 Lahrs Road, Ormeau, QLD, 4208 info@pwr.com.au www.pwr.com.au

Transmission Cooler BA Falcon

Intank Bypass Mounting



#### **Securing the Transmission Fluid Hose**

There are 2 Cable Clamps supplied with the kit to prevent the rubber hose from significant vibration during travel.

- The UPPER rubber hose is secured with a Cable Clamp to a vacant hole as illustrated in Fig. 11 using an M6 Bolt and Nyloc Nut provided.
- To secure the LOWER hose, remove the lower mounting bolt from the condenser.
- Place Cable Clamp over hose and replace condenser bolt, through Cable Clamp.

#### **Transmission Fluid Level Check**

As a result of the capacity of the PWR Transmission Cooler and extra length in Transmission Hose, it is likely that the Transmission System requires a Transmission Fluid top-up. Please refer to your Vehicle Owner's Manual for filling procedure and fluid levels.

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Fig 11: Secure Hose with Cable Clamps

#### **Important Notes**

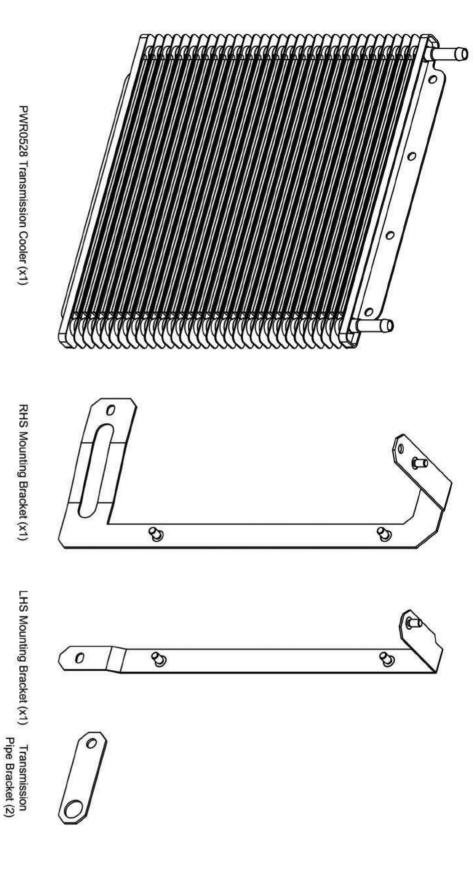
- When fitted, Hoses should be free from moving objects, hot areas, sharp edges and kinks.
- Rubber Hose should have a minimum bend radius of 75mm.
- Do not over-tighten Hose Clamps as doing so may cause premature failure.
- All connections should be tightened after settling and should be checked periodically for leakage.

#### **Check Installation**

 Upon Completion of this installation, all connections, clamps and bracket fasteners must be re-checked prior to vehicle use.

#### **After Checking Fittings:**

- Operate engine at fast idle for 2 minutes checking hoses and fittings for leaks. If leaks are detected stop engine and tighten hose clamps.
- The Rubber Hose to the PWR Transmission Cooler should be warm to touch. If there is no heat in the hose, fluid is not flowing through the cooler. Check for kinks in the rubber hose.
- Check the Transmission Fluid as per Vehicle Owner's Manual
- Replace Front Fascia



## IMPORTANT KIT NOTES

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- periodically for leakage. after settling and should be checked
- Foam Block 3/8 Trans. Oil Hose **RHS Mounting Bracket** M6 Bolt Cable Clamp Cable Tie M8 Nyloc Nuts **LHS Mounting Bracket** Transmission Oil Cooler Component M6 Nyloc Nuts Hose Clamps Hose Adaptor In-Tank Bung Trans. Pipe Bracket Qty Dwg No 0528 NPN NPN NPN 6080 NPN NPN NPN NPN NPN 4281 6079 6082 6081



info@pwr.com.au www.pwr.com.au Ph: 07 5547 1600 Fx: 07 55471666 103 Lahrs Road, Ormeau, QLD, 4208

In-Tank Bung (x2)

Hose Adaptor (x2)

Hose Clamps (x4) Cable Clamp (x2)

M8 Nyloc Nut (x2)

M6 Nyloc Nut (x7)

M6 Bolt (x1)

% Transmission Fluid Hose (x2)

Cable Tie (x1)

Foam Block (x1)

**BA Transmission Cooler Kit** Kit Contents



### PWO6115 BA/BF XR6 Turbo transmission oil cooler kit.

Whilst PWR recommend that the transmission cooler be fitted with brackets, there are times when this is not possible. The provided zip ties are supplied as an alternative fitment for fixing the transmission cooler directly to the front of the air conditioning condenser or for applications where the brackets can not be fitted. For example: Clearance for the intercooler and related piping.

#### Contents:

- 4 x Zip ties
- 4 x Locking discs
- 1 x foam pad