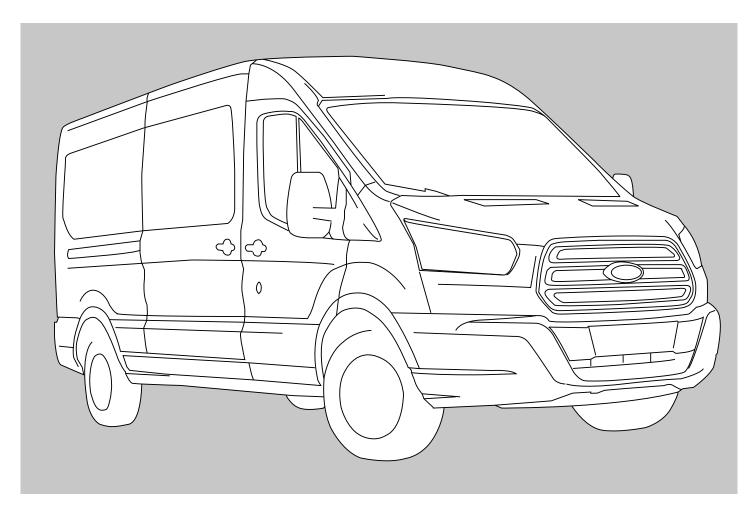
# 0500.7452

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## **VEHICLE DETAILS**

Manufactur	rer Ford
Make /	All-New Transit / Custom FWD 2.2 Euro 5
Model	250, 270, 290, 310, 330, 350
Engine CC	2198cc
Engine Deta	ails 100, 125, 155 PS
Year	09.2013 >
Chassis No	s. N/A
LHD	YES
RHD	YES
PAS	YES
A/C	NO
Stop Start	NO
Voltage	12v

### **ADAPTER KIT DETAILS**

0500.7452
Standard Kit
4705 @ Max engine
power output
90 Minutes
90°
90°
6PK 1725
0820.0611

### **COMPATIBLE COMPRESSORS**

SELTEC	TM-13 HS	TM15-HS	TM16-HS
Comp No	0381.0152	0381.0802	-
Seltec No.	488.44320	488.44320	-
Mounting	Ear	Ear	-
Rotor	8PV	8PV	-
Armature	SL	SL	-
Diameter	123	123	-
Voltage	12	12	-
Orientation	V	V	-
Fitting	3/4 x 7/8	3/4 x 7/8	-
Manifold	Bolt	Bolt	-

QUE	QUE QP13-HD QP15-HD		QP16-HD	
Comp No	0391.0152	0391.0802	-	
Que No.	QP13-1150	QP15-1512	-	
Mounting	Ear	Ear	-	
Rotor	8PV	8PV	-	
Armature	SL	SL	_	
Diameter	123	123	-	
Voltage	12	12	-	
Orientation	V	V	-	
Fitting	3/4 x 7/8	3/4 x 7/8	-	
Manifold	Bolt	Bolt	-	

SANDEN	SD5H09	SD5H14	SD7H15
Comp No	-	-	0370.0080
Sanden No.	-	-	S8256HT
Mounting	-	-	Ear
Rotor	-	-	8PV
Armature	-	-	SL
Diameter	-	-	123
Voltage	-	-	12
Orientation	-	-	Н
Fitting	-	-	3/4 x 7/8
Manifold	-	-	Bolt

Notes	

COMPRESSOR KIT CONFIGURATIONS						
	CO		SSOR NOS	KIT		
PART NUMBER	0513.7452	0515.7452	0593.7452	0595.7452	DESCRIPTION	QTY.
0381.0152	-				TM13 Ear Mount 8PV SL 123 12V V 3/4 x 7/8 Bolt	1
0381.0802		•			TM15 Ear Mount 8PV SL 123 12V V 3/4 x 7/8 Bolt	1
0391.0152					QP13 Ear Mount 8PV SL 123 12V V 3/4 x 7/8 Bolt	1
0391.0802					QP15 Ear Mount 8PV SL 123 12V V 3/4 x 7/8 Bolt	1

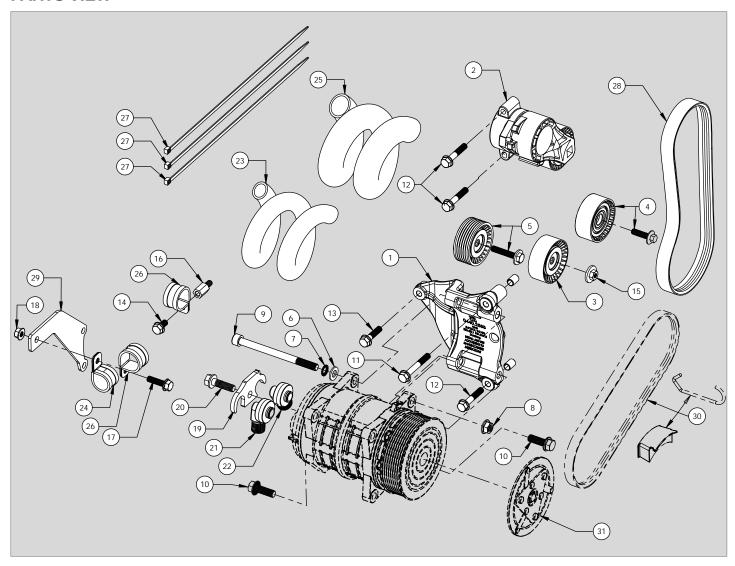
<sup>=</sup> Additional parts to standard kits.



### **PARTS VIEW LIST**

ITEM	PART NO.	DESCRIPTION	QTY.	COMMENTS
1	0441.2552	Compressor Mount Bracket Assembly	1	-
2	1705.0831	Automatic Belt Tensioner	1	-
3	1700.0491	Back Idle Pulley 65 X 25.5	1	-
4	1700.5291	Idle Pulley 65 x 26 (Inc Bolt)	1	-
5	1700.0501	Idle Pulley 68 x 26 - 6PK	1	-
6	2809.0011	Washer M10 Flat DIN 125 - A 10.5	1	-
7	2809.0101	M10 Schnorr safety washer type 'S'	1	-
8	2735.0071	Durlok Hexagon Flange Nut - M10 : 1.50	1	-
9	2705.0301	Hex socket head cap screw M10 x 130 : 1.50 -12.9	1	-
10	2705.0491	Hex flange bolt Durlok - M10 x 30 : 1.50 - 12.9	2	-
11	2704.1011	Hex flange bolt - M8 x 60 : 1.25 - 10.9	1	-
12	2704.1031	Hex flange bolt - M8 x 45 : 1.25 - 10.9	3	-
13	2704.1021	Hex flange bolt - M8 x 35 : 1.25 - 10.9	1	-
14	2704.1521	Hex flange bolt Durlok - M8 x 16 : 1.25 - 12.9	1	-
15	2734.0041	Hexagon Carp Nut - M8 : 1.25	1	-
16	2803.5051	Threaded Pillar M8 x 20 Male female	1	-
17	2704.0091	Hex flange bolt Durlok - M8 x 30 : 1.25 - 12.9	1	-
18	2734.0021	Durlok Hexagon Flange Nut - M8 : 1.25		-
19	3020.6201	Manifold pipe clamp Transit / Custom FWD	1	-
20	2705.5301	Hex Flange Bolt -M10 x 35 : 1.50 -8.8	1	-
21	0426.5062	Compressor Fitting Discharge-3/4-16 -Type C	1	-
22	0426.5052	Compressor Fitting Suction 7/8 -14 - Type C	1	-
23	1430.0182	Heat Shield Sleeve ID20, L0.6	1	-
24	2771.1081	P Clip 25mm M8 Fixing	1	-
25	1430.0172	Heat Shield Sleeve ID30, L 0.6	1	-
26	2771.1101	P Clip 30mm M8 Fixing	2	-
27	2763.0051	Cable Tie 4.8 x 370 - Black	3	-
28	0820.0611	Belt - Poly Groove 6PK	1	-
29	3020.6211	Gearbox Hose support	1	-
30	0820.5841	Stretch belt and installation tools	1	Not included
31	0421.0011	Spring Leaf Armature (Que / Seltec)	1	Not included

### **PARTS VIEW**



NOTES	

#### **FOREWORD**

1. The purpose of this manual is to facilitate the installation of a direct drive compressor. The information given is merely instructive, should any complications arise contact the Technical department. The manufacturer's warranty does not cover any problems caused by defective installation or alterations made unless authorised. The manufacturer shall not be responsible for any injury, damage or loss caused directly or indirectly as a result of using this manual or the information contained within it.

#### **1 SAFETY MEASURES:**

### **Before fitting the Compressor adapter** drive kit, ensure the following for damage:

- a Inner and outer trim and body work
- **b** Engine idle pace
- c Check all the vehicle functions

#### **Check list:**

- a Ensure that the right kit has been selected
- **b** Before installing, check that all the correct pieces are present; also ensure that there are no missing or broken pieces
- c When fitting, make sure the vehicle is properly protected against damage.

#### **Installation apparatus**

- a Calibrated torque wrench
- **b** Hand service tools
- c Protective covers and shields

#### **2 PRECAUTIONS**

- a Detach the battery negative lead.
- **b** Torque all bolts where stated using a calibrated torque wrench.
- **c** Take extreme care with moving parts.
- d Remove the vehicles ignition key and keep it with you.
- e Wear safeguards to make sure that liquid refrigerant never touches your skin

Caution: Measures must be followed accurately to steer clear of the possibility of damage to individuals **Warning:** This calls awareness to actions which must be pursued to avoid damage to the components. **NB:** This calls awareness to make the job easier or gives useful information.

#### STANDARD FASTENER TORQUE VALUES

1. In the absence of specific torque values detailed in this fitting instruction manual, the following chart can be used as a guide to the maximum safe torque for specific size and grade of fastener.

STRENGTH	4.8		8	.8	10	0.9	12	2.9
	Max T	orque	Max Torque		Max Torque		Max Torque	
Dia / Pitch	lb.ft	Nm	lb.ft	Nm	lb.ft	Nm	lb.ft	Nm
M5 x 0.80	2	3	4.5	6	6.5	9	7.5	10
M6 x 1.00	4	5.5	7.5	10	11	15	13	18
M8 x 1.25	10	13	18	25	26	35	33	45
M10 x 1.25	20	27	39	53	57	78	66	90
M10 x 1.50	18	25	37	50	55	73	63	86
M12 x 1.75	33	45	63	85	97	130	111	150
M14 x 2.00	55	75	103	140	151	205	177	240
M16 x 2.00	85	115	159	215	232	315	273	370

#### PRE INSTALLATION

**NB** Prior to commencing work, please examine the instructions with care. The alphabetical symbols on the diagram relate to written instructions, numerical symbols relate to the parts listing.

#### Dismantle the following:

- 1. Remove and retain the original power steering stretch self tensioning drive belt (A) Fig 1
- **2.** Remove and discard the original alternator stretch self tensioning drive belt (B) Fig 1.

#### **INSTALLATION**

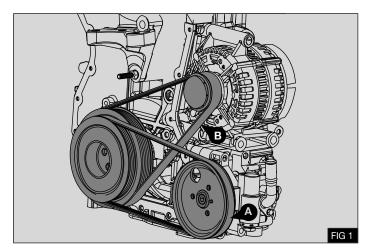
- 1. Fit the supplied back idle pulley 3 onto the original stud © located on the engine mount and secure using supplied nut 15 Fig 2
- 2. Torque nut 15 to 17 Nm / 13.0 Lb ft using a calibrated torque wrench
- **3.** Fit the supplied idle pulley 5 onto the mounting at point D Fig 2

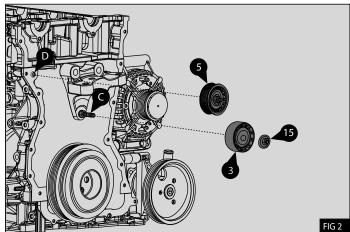
**NB**: It may be necessary to remove excess gasket covering the mounting hole  $\widehat{\mathbb{D}}$  - Fig 2

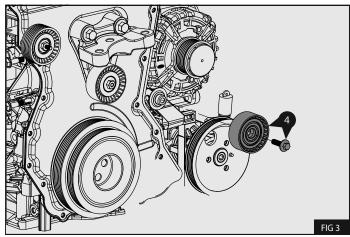
- **4.** Torque the idle pulley bolt 5 to 17 Nm / 13 Lb ft using a calibrated torque wrench
- 5. Install the back idle pulley (including M8 x 30 fastener) 4 on to the existing mount on the upper PAS support .Fig 3 Torque bolt 4 to 17Nm / 13Lb ft.
- **6.** Remove the original manufacturers wiring loom fitted to the automatic belt tensioner 2 mounting holes Fig 4
- 7. Secure the automatic belt tensioner 2 using the two supplied M8 x 45 bolts 12 Fig 4.

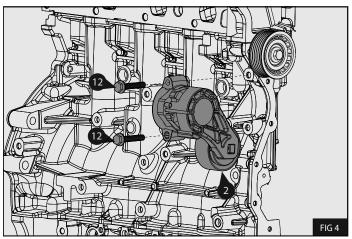
**Note:** Fit drive belt 28 to the automatic belt tensioner pulley before fitting the tensioner 2

**8.** Torque the bolts 12 to 25 Nm / 18 Lb ft using a calibrated torque wrench









#### **COMPRESSOR BRACKET INSTALLATION**

**NB:** Ensure the correct length bolt is installed in the correct location shown in Fig 5.

- 1. Install the supplied compressor mount bracket assembly (1) in the position shown and secure using bolts M8 x 60 (11), M8 x 45 (12). M8 x 35 (13) - Fig 5
- **2.** Torque bolts 11 12 13 to 25Nm / 18lb.ft. using a calibrated torque wrench.

#### **COMPRESSOR MODIFICATION**

- 1. Remove the compressor ear (E) detailed in the drawing RHD Only - Fig 6.
- 2. Fit the supplied compressor manifold fittings (21) and (22) and clamp in place using manifold clamp (19) with M10 x 35 bolt (20) - Fia 6

**NB:** Ensure the clamp is installed in the correct orientation above the suction port (see detail A) Fig 6

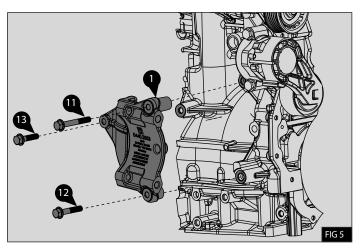
3. Torque bolt (20) to 45Nm / 33Lbft

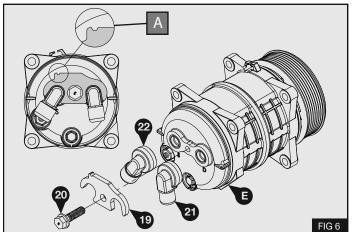
### COMPRESSOR INSTALLATION

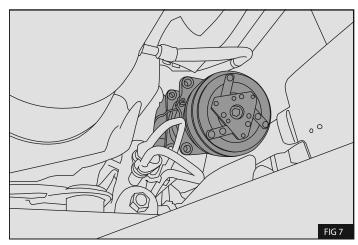
1. Fit the compressor to the mount bracket assembly 1 fixing it with the two supplied bolts M10 x 30 (10) and cap screw M10 x 130 (9) with Schnorr safety washer (7) flat washer (6) and nut 8 - Fig 8

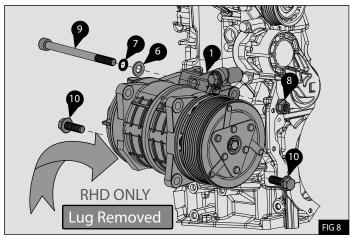
**NB:** Ensure sufficient clearance between the hose and the exhaust. -Fig 19

- **2.** Torque the two M10 x 30 bolts 10 to 50 Nm / 37 Lb ft using a calibrated torque wrench
- 3. Torque the M10 x 130 cap screw 9 to 50 Nm / 37Lb ft using a calibrated torque wrench
- 4. Fix the original manufacturers wiring loom previously removed into an appropriate location.



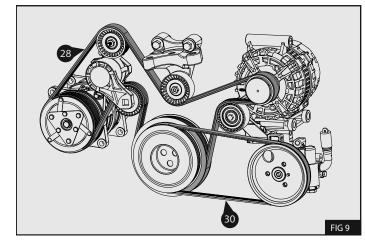




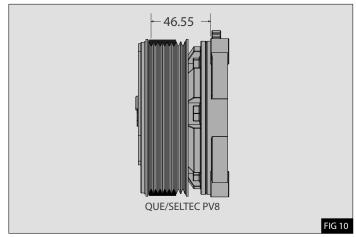


### **DRIVE BELT**

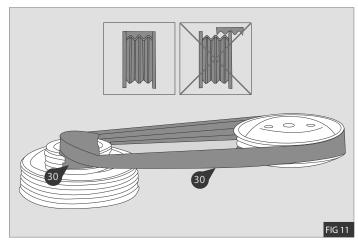
1. Fit the supplied replacement poly groove engine drive belt 28 to the engine in the same configuration in accordance with the original manufacturers design - Fig.9



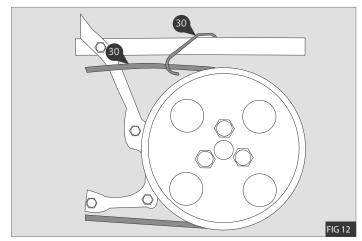
**NB:** Where applicable and dependent on the compressor model, align the supplied drive belt by installing in the correct clutch groove - Fig.10



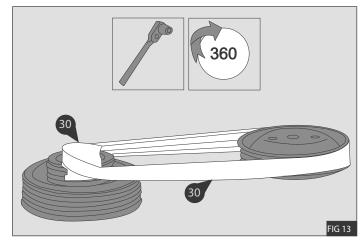
2. Refit the supplied power steering stretch self tensioning drive belt 30 using the installation tool 30 as shown - Fig 11



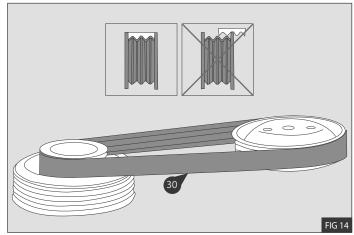
3. Locate the belt tool 30 onto the belts 28 and 30 as shown in Fig 12



4. Rotate the crankshaft pulley through 360°

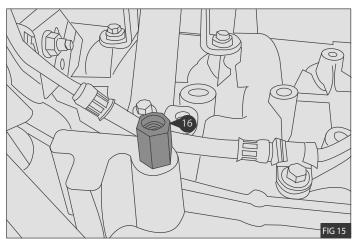


**5.** Remove the installation tools (30) and check the belt for alignment and position -Fig 14

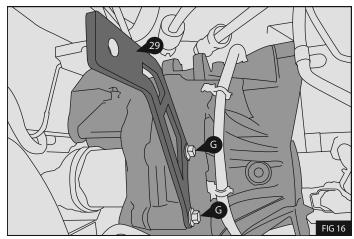


### **COMPRESSOR HOSES**

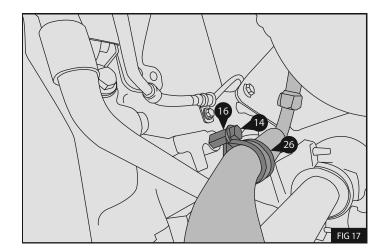
1. Fit the supplied threaded pillar 16 to the position shown - Fig 15



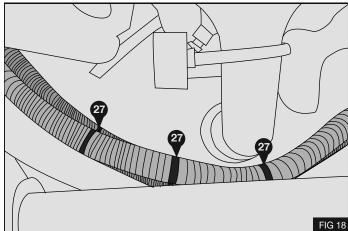
- 2. Install the hose support bracket on the gearbox in the position shown using the original fasteners **G** - Fig 16
- 3. Fit the supplied heat sleeving 23 and 25 to the suction and discharge hoses (not shown).



**4.** Install the suction hose to the compressor and secure to the pillar 16 using P clip 26 and M8 x 16 bolt 14 - Fig 17

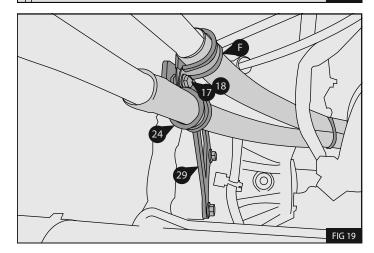


5. Fit the discharge hose to the compressor-Position as shown and secure with cable ties27 - Fig 18



6. Secure hoses to gearbox bracket 31 using p-clips 24, 25 with M8x30 bolt 8 and nut 18 - Fig 19

**NB:** Ensure sufficient clearance between the hose and the exhaust - Fig 19



### **POST INSTALLATION**

- Before starting the engine check all the installed parts and ensure that the belt is installed correctly.
- 2. Run the unit for at least ten minutes, then check the whole mounting assembly and previously removed parts. Attach the supplied warning label onto a suitable location.