

Mitsubishi Evolution 4 - 9 Semi-Integrated Dry Sump and Oil Pump Installation Guide

Read thoroughly before installing any AT Power products.

Designed and manufactured in-house in the UK.

Safety Information



WARNING!

Please read this guide carefully before installation.

Motorsport or driving activities can be dangerous and can result in serious personal injury or death. Please read all fitting instructions thoroughly before proceeding with installation.


AT Power (part of S-CAN 3D Ltd.) automotive products are designed for motorsport use only. We accept no responsibility for improper use of our products, and we make no warranty regarding their ability to prevent injury or death. The performance, durability, and safety of this equipment are directly dependent on correct installation, usage, and maintenance. By using this product, the user voluntarily assumes all risks associated with its use.

Installing AT Power products on vehicles subject to manufacturer's warranty may void the manufacturer's warranty and the vehicle's compliance to meet emissions and other transport regulations.

Working on a vehicle involves inherent risks. If you are unsure of what you're doing, please entrust all mechanical and safety-critical tasks to a qualified professional. S-CAN 3D Ltd, accepts no liability for any incorrect installation or misuse of its products.

Please do not dispose of AT Power products in household waste. To help protect the environment and human health from the impact of improper disposal, recycle it responsibly to support the sustainable reuse of materials.

Serial Number(s)



For future access to our product services, please record your serial number(s) here. You can find them on the product label. Distributors, kindly share this information with your customers. Please retain this manual.

Warranty Disclaimer

S-CAN 3D Ltd.
Unit 10b Bunns Bank Ind Est
Attleborough
Norfolk
NR17 1QD
United Kingdom

Dear Customer,

Thank you for choosing an AT Power product. We hope your order has arrived in the same pristine condition it left our facility. If you notice any transport damage or manufacturing faults, please notify S-CAN 3D Ltd within three business days of delivery.

All AT Power products come with a 12-month manufacturer's warranty from the date of delivery, subject to the parts being installed correctly and run within their specification. Please save this installation manual.

Additionally, we also offer refurbishment services to extend the life of your AT Power products. For more information and to get a quote, please contact us via email.

Please note that S-CAN 3D Ltd is not liable for defects caused by normal wear and tear, intentional damage, negligence, improper conditions, misuse, unauthorised alterations, or any actions or omissions by the Customer, their employees, agents, or any third party. Failure to follow AT Power Throttles' instructions (whether written or oral) will result in the warranty being voided, without exception.

For full terms and conditions, please visit AT Power's website or contact us directly for assistance.

Sincerely,

James Senior
Managing Director
S-CAN 3D Ltd.

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Tools & Parts Required

The tools required for installing the Belt Driven Dry Sump System:

- 1. OEM Crank Seal
- 2. OEM Front Cover Gasket
- 3. OEM Hollow Dowel
- 4. 5mm Allen Key
- 5. 6mm Allen Key
- 6. 8mm Allen Key
- 7. 17mm Spanner
- 8. RTV Silicone Sealant

Parts Supplied

SKU: 105-102-00029

- [] Oil Pan Assembly
- [] Crank Shaft Spacer
- [] Front Cover and Oil Pump Assembly
- [] Dipstick Block Off with O-Ring
- [] x8 - M6 Locking Washer
- [] x2 - M6 x 100 Socket Head Cap Screws
- [] x3 - M6 x 50 Socket Head Cap Screws
- [] x1 - M6 x 25 Socket Head Cap Screws
- [] x15 - M6 x 16 Socket Head Cap Screws
- [] x1 - M8 x 55 Socket Head Cap Screws
- [] x1 - M8 x 20 Socket Head Cap Screws
- [] x1 - M8 x 35 Socket Head Cap Screws
- [] x1 - M8 x 70 Long Socket Head Cap Screws
- [] x1 - M10 x 70 Long FLG Hex Head Screw

Important



This product has been tested up to a maximum of 8,000 RPM. Do not exceed this limit, as doing so will void your warranty.

AT Power Dry Sump Preparation

AT Power dry sump systems and oil pumps are assembled in a clean environment. However, upon removing the parts from their shipping packaging, ensure they are clean and free from any packaging material.

Installation

Remove the existing wet sump pan and clean surface of any RTV sealant. Then remove the baffle plate, the F.E.A.D. (front end accessory drive) belt, tensioner, and crank pulley.

Warning: Any old gasket sealant left inside the crank case can cause catastrophic engine failure.

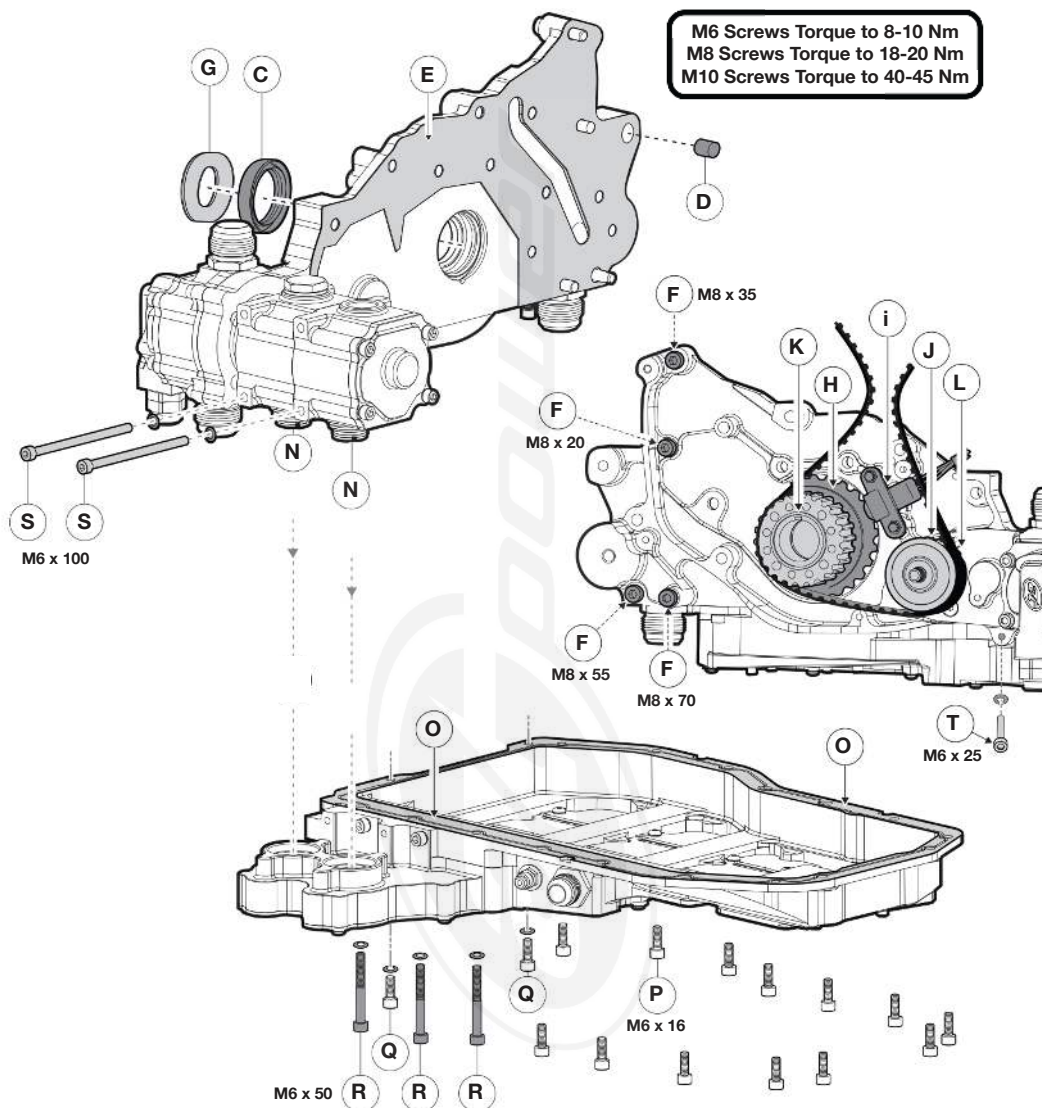
Then remove the plastic timing belt cover, the timing belt, pulley, trigger wheel, and sensor. Finally remove the pump drive pulley.



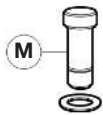
Rotate all balance shaft bearings to block off the oil feed passage (A).

Remove the hollow dowel (B) on the right-hand side of the block and replace the one on the left (D) if necessary. Remove any gasket material and ensure the block surface is clean.

Fit the crank seal into the front cover (C), next press fit the hollow dowl (D) and then install a new gasket onto the AT Power front cover (E) and pump assembly. Then, attach the whole AT Power front cover assembly to the engine block (4 x F).



Install the crank spacer (G), insert the trigger wheel onto the end of the crank spacer (H), and then install the sensor (i). Mount the cam belt pulleys (J) onto the crank and pump drive (K), and then fit the cam drive belt (L).

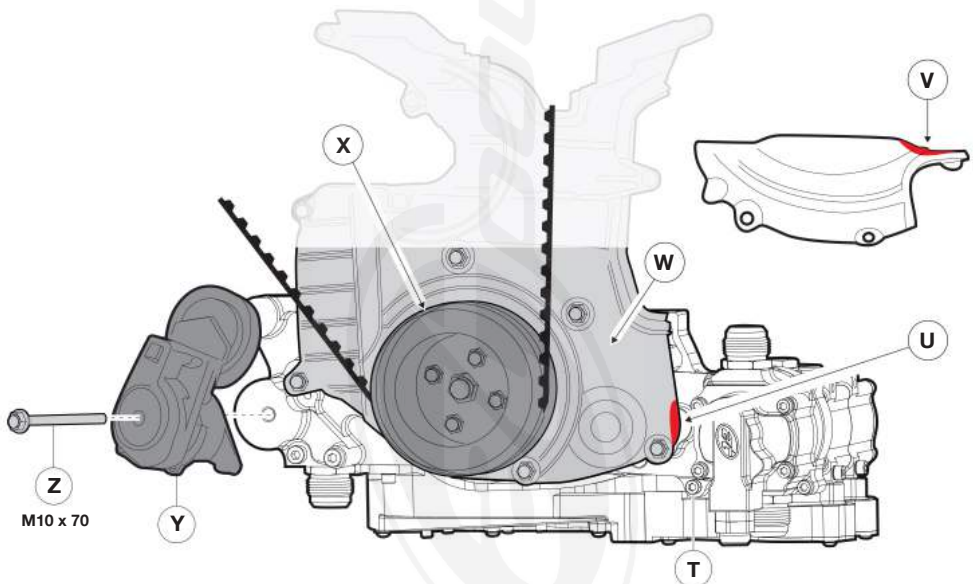


Remove the dipstick from the sump pan and fit the supplied dipstick plug (M).

Apply a small amount of grease to the O-rings on the two scavenge inlet adapters (N). Apply RTV to the AT Power oil pan flange face (O) and install the pan, ensuring a generous amount of RTV is applied to the joint between the front cover and the block.

Secure the pan to the engine block using 13 x M6 x 16 screws (P) and 2 x M6 x 16 screws with washers (Q), tightening them evenly around the periphery. Next, use the M6 x 50 screws with washers (R) to fasten the remaining section of the pan to the block. Use the M6 x 100 screws (S) to secure the pump to the pan. Wipe off any RTV around the joint.

Finally, use one M6 x 25 screw to secure the front cover to the pan (T).



The cam drive and gearbox covers require trimming in the red areas (U,V) to match the profile of the sump for proper fitment. Once modified, the cam drive cover (W) can be installed. Next, install the F.E.A.D. pulley (X) and tensioner (Y). Add in the tensioner bolt (Z). Finally add the F.E.A.D. belt.

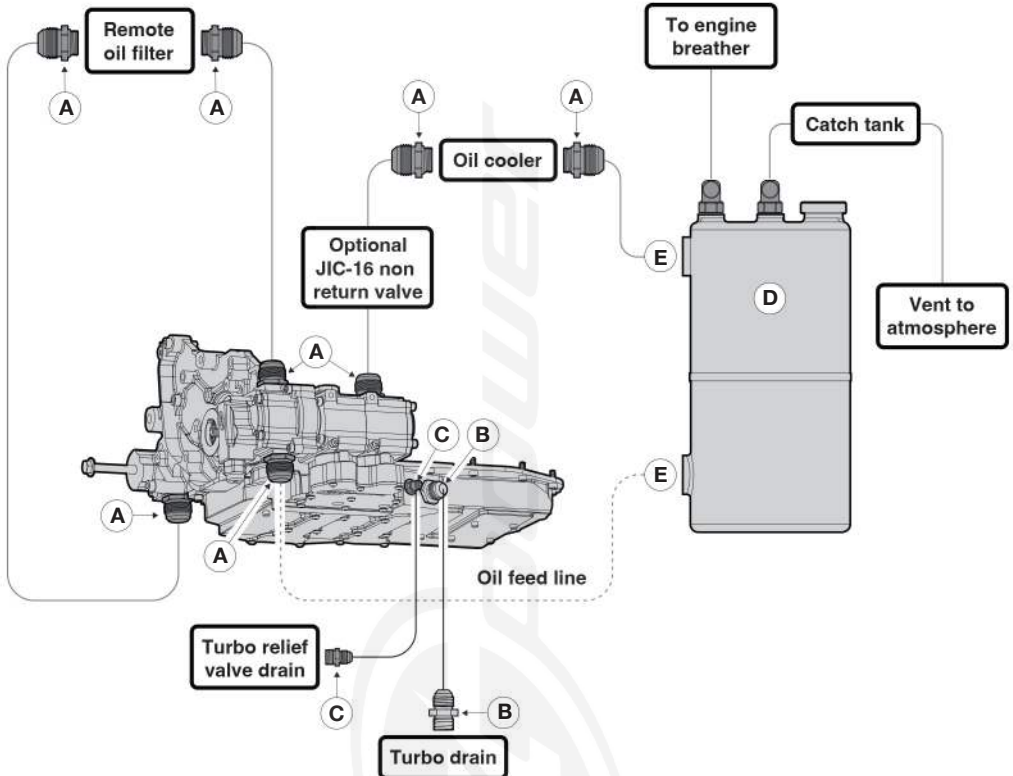
The remote oil filter, oil cooler, and oil lines can now be installed.

Mitsubishi Evolution 4 - 9 Dry Sump System Schematic

Example of a system configuration

Date: 10/2025

AT Power has provided a JIC-12 fitting next to the oil pump for a turbo drain, as well as a JIC-4 fitting for the turbo pressure relief valve, if required.



Items	Total	SKU
A. Fitting - JIC-16 (x3 Supplied)	3/8	101-117-00018
B. Fitting - JIC-10 (x1 Supplied)	1/2	101-117-00020
C. Fitting - JIC-4 (x1 Supplied)	1/2	509-102-00025
D. Dry sump easy clean oil tank:	1	
- 5L - (6.5" x 14-0")		101-134-00002
- 7L - (8.25" x 14-0") <i>Typically for inside engine bay</i>		101-134-00003
- 10.0L - (9.5" x 16-0") <i>Typically for outside engine bay</i>		101-134-00004
E. Oil tank fittings for:	2	
- 5L Tanks: M22 x 1.5 female threads		
- 7L & 10L Tanks: 1-5/16" x 12 TPI female threads		

Once the oil circuit has been installed, the trimmed gearbox cover can be fitted.

After installing the dry sump system, prime all feed lines, the engine, and the pump with oil before starting. Remove the spark plugs and turn the engine over with the starter motor to do this.

Oil Pump Pressure Relief Valve (PRV) Adjustment

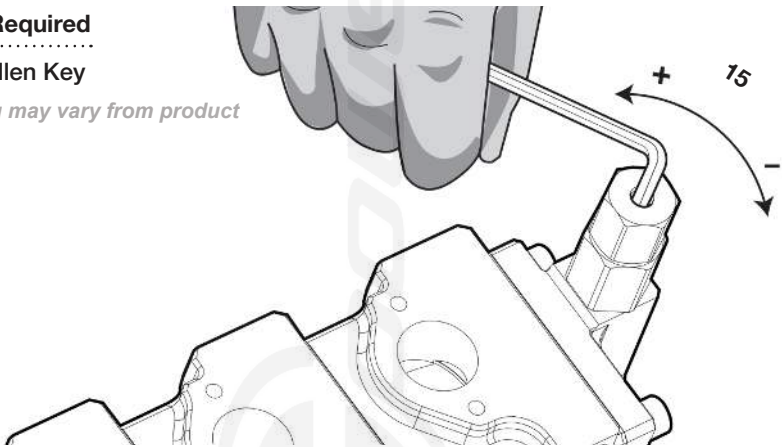
The Pressure Relief Valve (PRV) is a self-contained system and does not require any parts to be removed or loosened for adjustment. You will need a 4mm Allen key to adjust it.

There is a maximum of 15 turns between the minimum and maximum pressure settings. AT Power has preset the pump to 7 turns in (the midpoint).

Parts Required

4mm Allen Key

Drawing may vary from product



Turning clockwise will reduce pressure. At minimum pressure, the PRV will lock and no longer rotate.

Turning counterclockwise will increase pressure. At maximum pressure, the PRV will continue to rotate, but the pressure will not increase further.

For optimal results, it is recommended to make the final adjustment when the engine has reached operating temperature and the oil has reached its lowest viscosity.

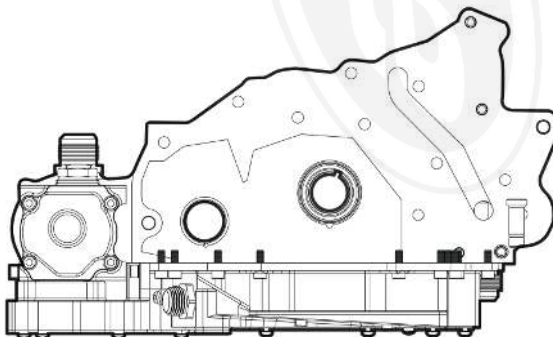
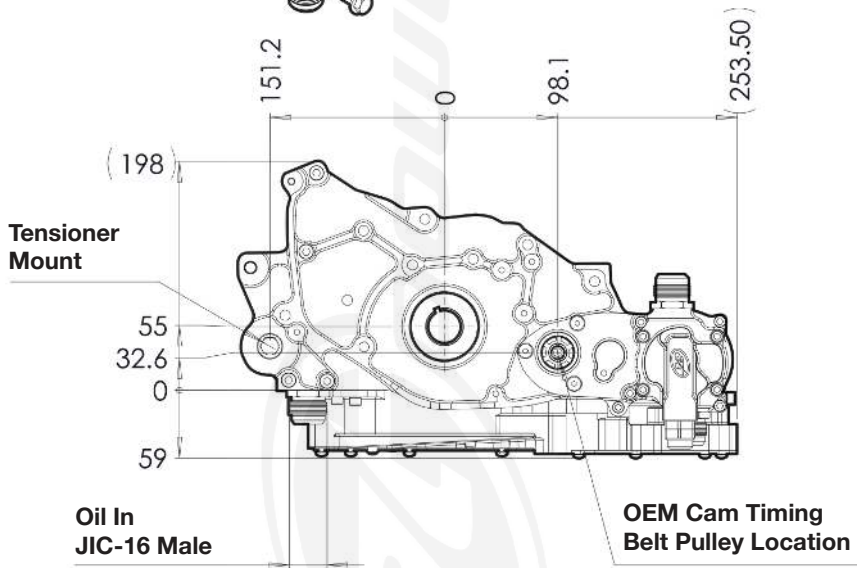
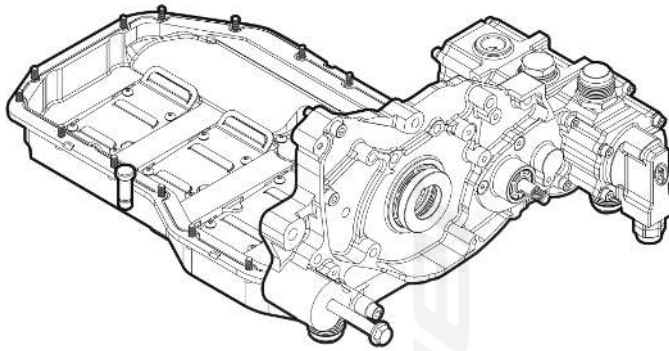
Important

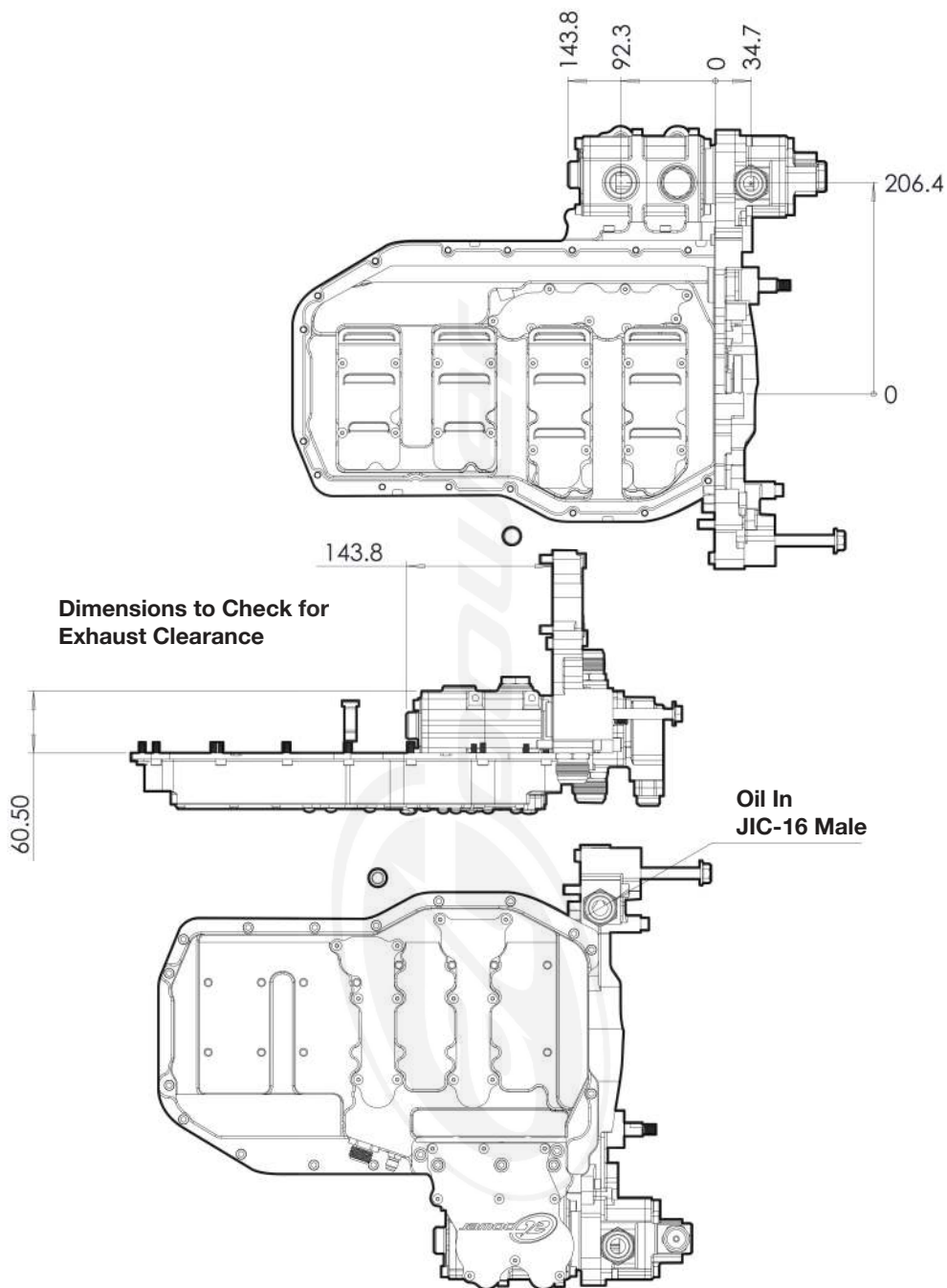
After approximately 8 hours of operation, recheck both the timing belt tension and sprocket alignment to ensure the drive has not shifted.

This product has been tested up to a maximum of 8,000 RPM. Do not exceed this limit, as doing so will void your warranty.

Mitsubishi Evolution 4 - 9 Technical Drawing

SKU: 105-102-00029





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Tag us in your engine build!



Connect via WhatsApp

www.atpower.com

Tel: +44 1953 875800

info@atpowerthrottles.com

**S-CAN 3D Ltd, Unit 10b Bunns Bank Ind Est,
Attleborough, Norfolk, NR17 1QD, United Kingdom**

