

## **Honda K20/24 Integrated Dry Sump System Installation Guide**

**Read thoroughly before installing any AT Power products.**

*Designed and manufactured in-house in the UK.*

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## Safety Information

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### **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)**

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|   |
|---|
| <br>_____<br>_____ |
|---|

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

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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.

## Contents

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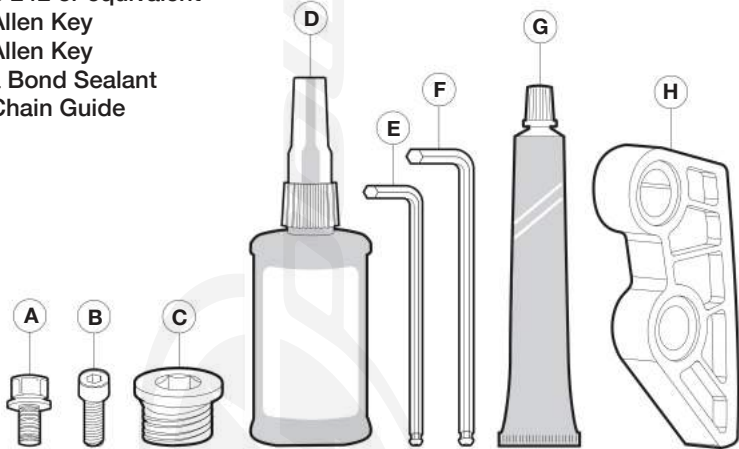
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## Tools & Parts Required

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These are the tools and parts required for installing the Honda K20/24 Integrated Dry Sump Pan kit:

- A. Honda Part 90166-SSB-003
- B. x16 - M6 Screws
- C. M8 Plug
- D. Loctite 242 or equivalent
- E. 4mm Allen Key
- F. 5mm Allen Key
- G. Honda Bond Sealant
- H. OEM Chain Guide



## AT Power Dry Sump Preparation

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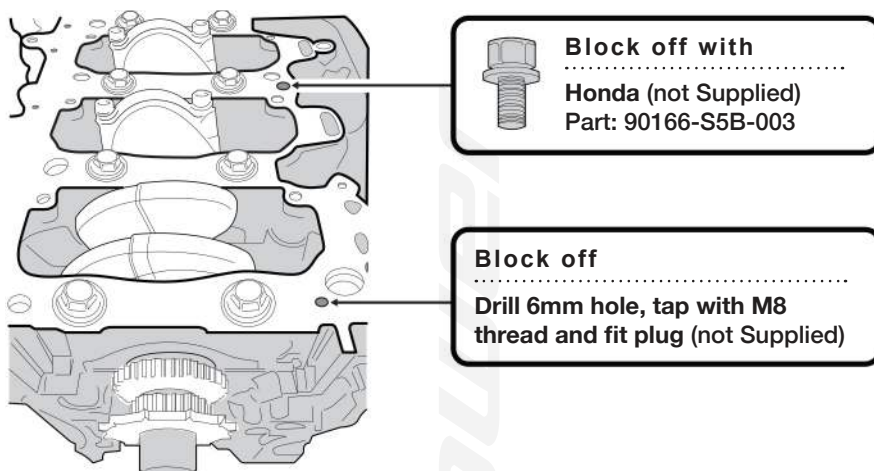
AT Power integrated dry sump systems are assembled in a clean environment. However, upon removing the parts from their shipping packaging, ensure they are free from any packaging material and confirm all surfaces, including mating surfaces, are clean.

Remove the existing wet sump and OEM oil pump, clean the mating surface of any RTV sealant and degrease.

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

# Honda K20/24 Integrated Dry Sump Installation

Before fitting AT Power's integrated dry sump kit for Honda K20/24, the following 2 drain holes in the block should be blocked.

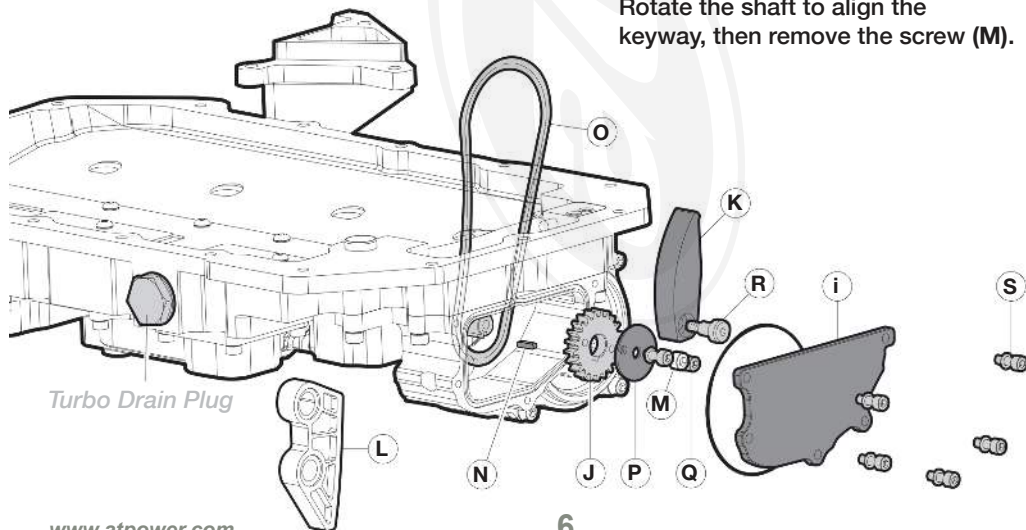


Before fitment of the kit, remove the front cover (i), sprocket (J) and chain tensioner guide (K). Secure the pan with M6 Screws (not supplied). The pan should be fitted to the engine using Honda Bond Sealant. Reuse the OEM fixed chain guide (L).

Temporarily screw the M6 screw (M) into the end of the sump drive shaft. This will allow the drive shaft to be rotated and the key to be aligned (N).

Install the OEM pump chain (O) onto the crank sprocket, ensuring it hangs down. Position the sprocket (J) into the OEM chain and slide it onto the shaft.

Rotate the shaft to align the keyway, then remove the screw (M).



Fit the sprocket washer (P) and screws to secure the sprocket onto the shaft. Tighten the (Q) M5 screws to 6 Nm and the (M) M6 screw to 8 Nm.

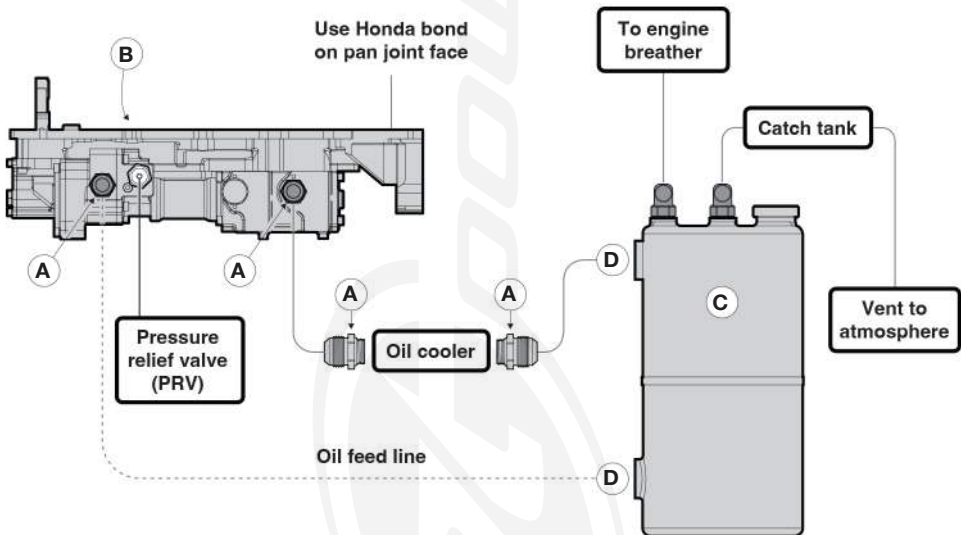
Install the chain tensioner guide (K) and check its operation. Torque the guide bolt (R) to 8 Nm. Finally, fit the front cover (i) and torque the M5 screws (S) to 6 Nm. Ensure Loctite is used on all screws prior to fitment.

## Honda K20/24 Integrated Dry Sump Schematic

**!** This product has been tested up to a maximum of 9,500 RPM. Do not exceed this limit, as doing so will void your warranty.

Example system configuration

Date: 10/2025



| Items  | Total | SKU             |
|--|-------|-----------------|
| A. Fitting JIC-12 (x2 Supplied)                                  | 2/4   | 101-117-00001   |
| B. Removable turbo drain plug ( <i>Other side of outline</i> )   | 1/1   | <i>Supplied</i> |
| C. 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   |
| D. Oil tank fittings for:  | 2     |                 |
| - 5L Tanks: M22 x 1.5 female threads                             |       |                 |
| - 7L & 10L Tanks: 1-5/16" x 12 TPI female threads                |       |                 |

## Oil Pump Pressure Relief Valve (PRV) Adjustment

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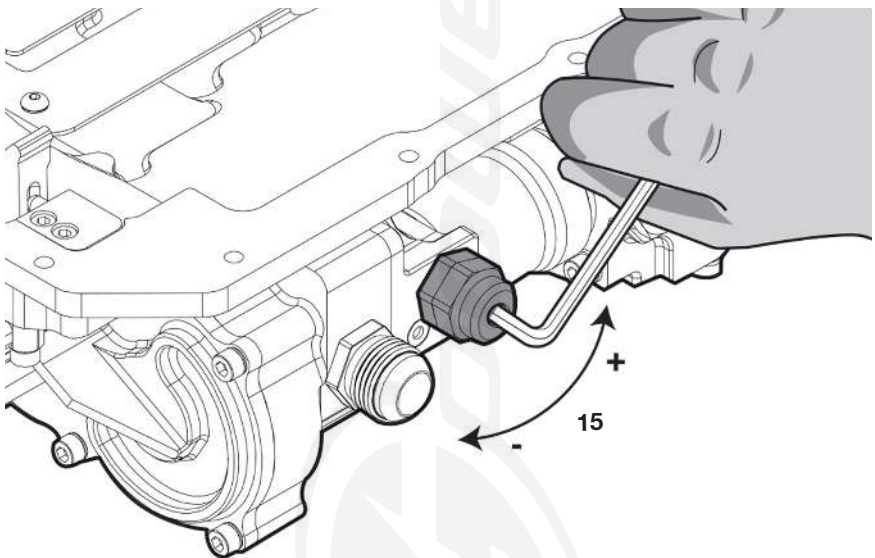
### Parts Required

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4mm Allen Key

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).



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

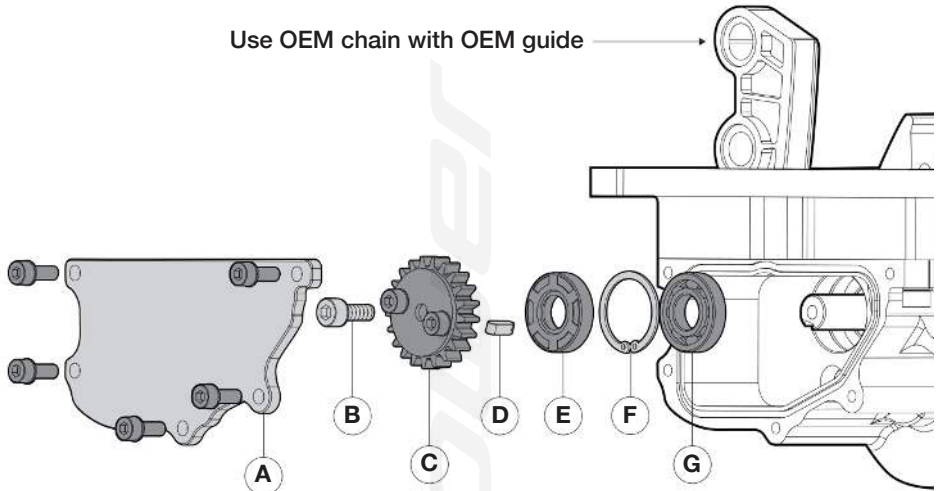
Turning counterclockwise will increase pressure. At maximum pressure, the PRV will continue to rotate, but the pressure will not increase further.

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.

## Service Requirement

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It is recommended to periodically replace the front bearing supporting the drive shaft. Approximately 40 hours of track or off-road runtime is suggested for replacement.



To replace the front bearing, remove the front cover (A). Unscrew the bolt securing the sprocket (B), then remove the sprocket (C) and key (D) from the shaft.

Remove the seal (E) using a shaft seal puller.

Remove the internal circlip (F), then use an appropriate bearing puller to remove the bearing (G). For replacement parts, please see details below.



### Replacement Seal

By: Supaseal UK Ltd.  
Part: 112 050 25 R23



### Replacement Bearing

By: NSK  
Part: R8 x 1-1/8" x 1/8"

Apply grease to both the inner and outer surfaces of the new replacement seal and install it carefully, avoiding any damage to the seal.

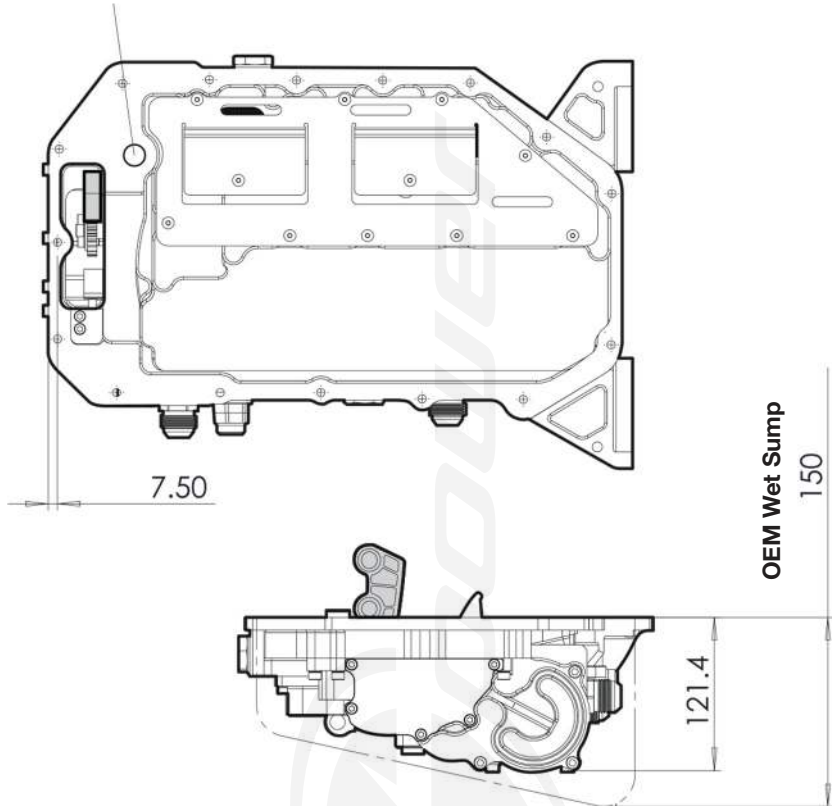
Reinstall the key and sprocket as described above.

**Important:** Incorrect completion of this step will void the warranty. Please ensure it is done carefully and exactly as instructed. If needed, AT Power also offers refurbishment services.

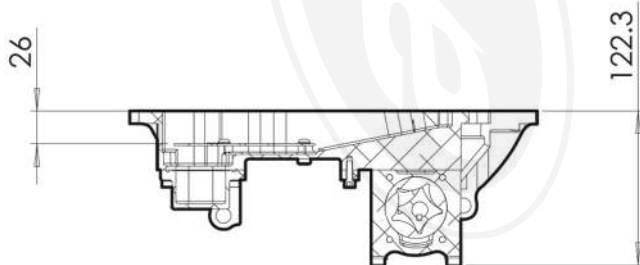
# Honda K20/24 Integrated Dry Sump Technical Drawings

SKU: 105-102-00044

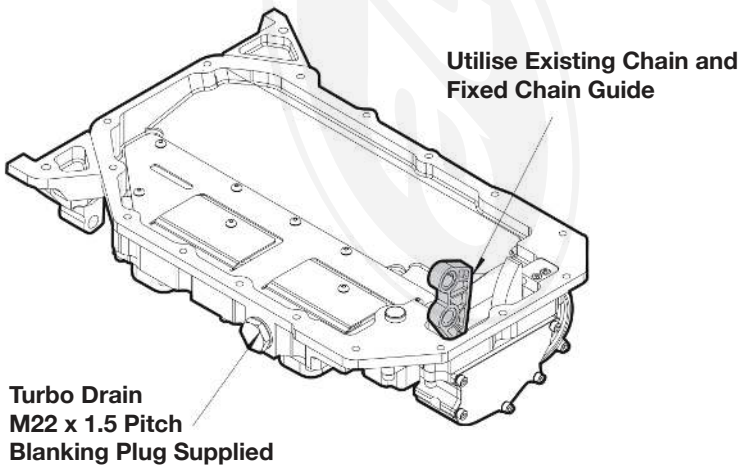
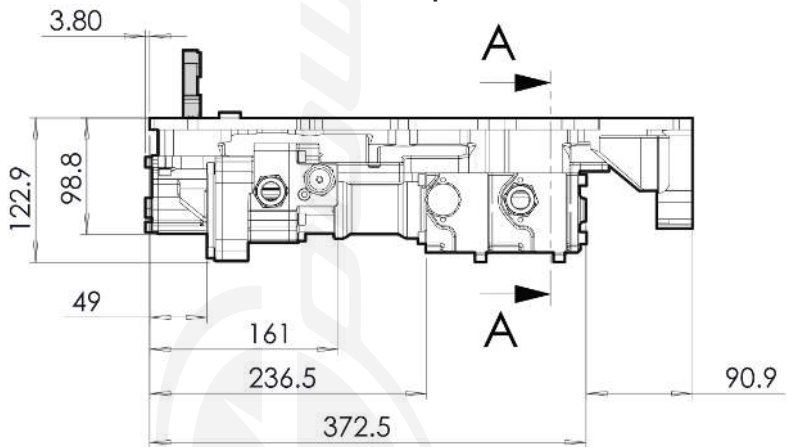
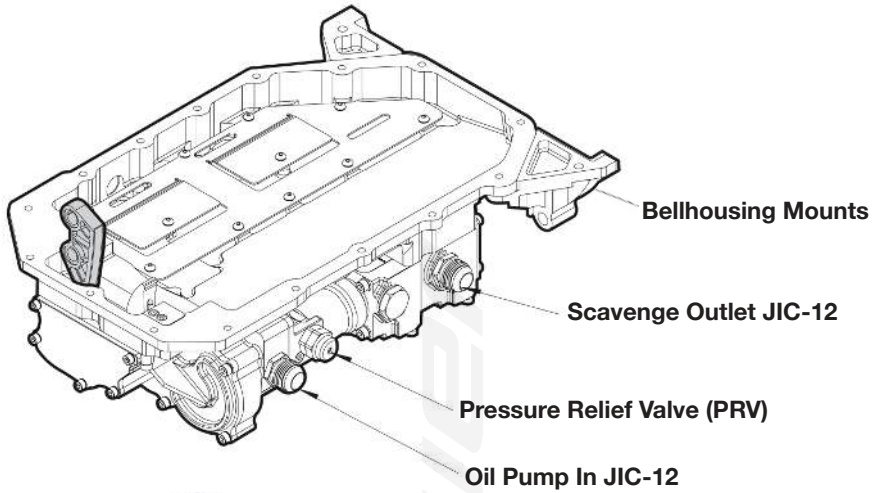
Oil Feed to Main Gallery as per OEM



OEM Wet Sump Profile



SECTION A-A





**Tag us in your engine build!**



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