



## INSTALLATION INSTRUCTIONS

Part No: 203-4201

Application: Toyota 22R Head Stud Kit

### NOTES

Inspect all hardware prior to installation. Look for obvious defects or shipping damages. Please call 800-826-3045 with any questions or issues

The engine block and cylinder head decks must be flat and have the proper surface finish for the head gasket used or gasket failure may result

To ensure proper thread engagement and accurate torque readings, clean all threads in the block to remove remnant sealer, lubricant and debris. Chase if necessary with ARP Thread Chaser, part number 912-0006 (M12 x 1.25)

Before final assembly, a mockup of the engine and or components is recommended to check the fit and clearance near and around the fasteners.

**\*\*Check valve cover clearance! It may be necessary to clearance the valve cover above the front 2 studs/nuts.**

**\*\*\*Exceeding factory clamp load will distort the cylinder bore. Torque plate honing will counteract this distortion and ensure proper bore geometry for optimum performance/longevity. Torque plate honing should be performed using the same hardware, lubricant and torque as at final assembly.**

### TOOLS NEEDED

5/8 12pt, 5mm Allen

### FINAL ASSEMBLY

- 1. Place the gasket and cylinder head in position on the engine block**
- 2. Screw the studs into the engine block**

The hex broach in the end of the stud is designed to assist with installing/removing the studs from the block, not for applying torque.

- 3. Apply ARP Ultra-Torque**

Lubricate the stud threads and bottom of each nut with ARP Ultra-Torque Fastener Assembly Lubricant. Install the nuts and tighten hand tight.

### TORQUE PROCEDURE

- 4. Following the manufacturers recommended torque sequence, select FACTORY OR ARP clamp load and torque nuts per steps below:**

#### FACTORY CLAMP LOAD

Recommended for head replacement / stock rebuild  
when machining will not be performed.

- |    |                               |           |
|----|-------------------------------|-----------|
| 1- | Tighten nuts 1 through 10 to  | 25 ft-lbs |
| 2- | Tighten nuts 1 through 10 to  | 50 ft-lbs |
| 3- | Tighten nuts 1 through 10 to  | 70 ft-lbs |
| 4- | Loosen nut 1                  |           |
| 5- | Tighten nut 1 to              | 70 ft-lbs |
| 6- | Loosen nut 2                  |           |
| 7- | Tighten nut 2 to              | 70 ft-lbs |
| 8- | Repeat steps 6-7 on nuts 3-10 |           |

#### ARP CLAMP LOAD

See \*\*\* note above. Recommended for high  
performance engines with full rebuild / machining.

- |    |                               |           |
|----|-------------------------------|-----------|
| 1- | Tighten nuts 1 through 10 to  | 25 ft-lbs |
| 2- | Tighten nuts 1 through 10 to  | 50 ft-lbs |
| 3- | Tighten nuts 1 through 10 to  | 90 ft-lbs |
| 4- | Loosen nut 1                  |           |
| 5- | Tighten nut 1 to              | 90 ft-lbs |
| 6- | Loosen nut 2                  |           |
| 7- | Tighten nut 2 to              | 90 ft-lbs |
| 8- | Repeat steps 6-7 on nuts 3-10 |           |