

**HIGH LIFT CAMSHAFT  
MITSUBISHI 4G63**

Installation work shall be performed by part specialist  
Be sure to read this manual before use

**We will not accept any claim nor return as this product is  
used predominately for racing.**

**In addition, do not use this product for cars traveling on  
public roads**

.This product can only be installed on the vehicles shown below  
If the model year of this product is different from that of the current car, contact  
.the dealer immediately

<b>Product Name</b>	High Lift Camshaft
<b>Use</b>	Engine parts for auto racing
<b>Part Number</b>	Refer to 3. Profile table
<b>Applicable Vehicle model</b>	CD9A/CE9A/E39A, CN9A/CP9A, CT9A
<b>Engine Model</b>	4G63
<b>Remarks</b>	The camshaft shape differs depending on the vehicle model. Be sure to check compatibility between the product and the current vehicle BEFORE starting

*.The items and product specifications described in this manual are subject to change without notice*

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## 3. Profile table

The profile table is available in the manual. Be sure to check BEFORE using.

Version No	Date	Revised content
First	Apr/2021	

# 1. Introduction

Read this manual carefully and understand it before requesting a specialist to install this product.

After installation, follow the instructions in this manual and use the product safely.

## 2. Part list

Please confirm the listed part below is enclosed with this book.

**In case, enclosed part is differed from the list, contact us immediately**

No	Product Name	Qty	Remarks
1	Instruction Book	1	
2	High Lift Camshaft	1	

## 3. Profile table

The part number printed on the outer box of the product you purchased indicates the cam profile shown in the table below.

The camshaft shape differs depending on the vehicle model.

Be sure to check compatibility between the product and the current vehicle BEFORE starting.

Part No.		Working angle	Valve lift	Dedicated Valve spring	Vehicle Model
Intake	Exhaust				
1004M-M001	1004M-M101	66 (264)	10.5	Required	CD9A/CE9A/E39A
1004M-M002	1004M-M102	68 (272)	10.8		
1004M-M011	1004M-M111	66 (264)	10.5	Required	CN9A/CP9A
1004M-M012	1004M-M112	68 (272)	10.8		
1004M-M011	1004M-M141	66 (264)	10.5	Required	CT9A
1004M-M012	1004M-M142	68 (272)	10.8		

## 4. For safety

Please note the following as these are important warnings and cautions for our customers.



**WARNING**

Ignoring this warning may cause death or serious injury



**CAUTION**

Ignoring this caution may cause injury or damage

Please strictly observe the following precautions in order to use this product correctly.



**WARNING**

- **Observe the following items to prevent fire and explosion**
  - Handle flammables with great care for fire
  - Work in a well-ventilated area
- **Observe the following items to prevent damage, burning or fire of electrical components during or after work**
  - Work after removing the cable terminal from the negative terminal of the battery
  - Hold the connector or coupler body firmly to attach or detach wiring.
- **Observe the following to prevent accidents that could result in vehicle damage, serious injury or death during work**
  - Use tire stoppers when jacking up the vehicle
  - Fix the vehicle with a rigid rack after jacking up to prevent accidents that could result in injury or even death due to vibration or dropping of the vehicle.



## CAUTION

- **Do not use this product for any purpose other than that described in this manual.**
  - Processing, modifying, or using the product outside of its intended range may result in fatal damage of engine or serious accidents
- **Start work after the temperature of each part in the engine room has dropped to the point where you can touch it.**
  - Working with the engine room at a high temperature may cause burns or damage of clothes
- **Observe the following items to prevent engine damage due to foreign object**
  - Take protective measures to prevent foreign matter from entering the inside of the engine or the hose
  - Clean thoroughly each part before assembling

## 5. Caution during handling

- Handle with care as strong impact such as throwing or dropping can be caused cracks, damage and bending. If the bending allowance is exceeded, the shift cannot be used.
- Check the camshaft journal, cam lobe, or cylinder head journal for burrs and foreign objects. If there are burrs or foreign objects, remove them and install after cleaning
- Wash the product thoroughly with kerosene etc. before installing
- Apply enough oil to the cam journal and cam lobe before installing
- **Perform the installation in accordance with the maintenance manual issued by the manufacturer** (Continue to page 6)

(Continued from page 5)

- The use of this product increases the amount of engine intake air and improves the output, so reset the air-fuel ratio and auxiliary equipment specifications.
- If this product is left for a long time without being assembled to the engine, apply preservatives or wrap it in preservative paper and store it in a place with low humidity. When using after long-term storage, check that this product is not corroded or bent.



## CAUTION

- Do not use this product for any purpose other than that described in this manual
- If the air-fuel ratio and auxiliary equipment specifications are not properly reset, not only will the original performance not be achieved, but the engine itself may be damaged.

## 6. Caution during installation

Assemble the camshaft in accordance with the maintenance manual issued by manufacturer

### 6-1 About the Valve train

#### ■ Replacing Valve

##### spring

Replace with Reinforced valve spring

If the dedicated valve springs are not used, the adhesion margin of the valve spring cannot be secured, which may cause rapid deterioration or damage of the springs.

#### ■ Replacing Valve retainer

In case JUN Reinforced valve spring (Part No.1009M-M002) is used as replacement of spring for CT9A, the genuine valve retainer needs to be replaced with JUN Titanium valve retainer (Part No.1005M-M001) OR dedicated retainer for CN9A/CP9A.



## CAUTION

■ **Do not assemble this product on an engine whose valve train has been changed or modified to solid type**

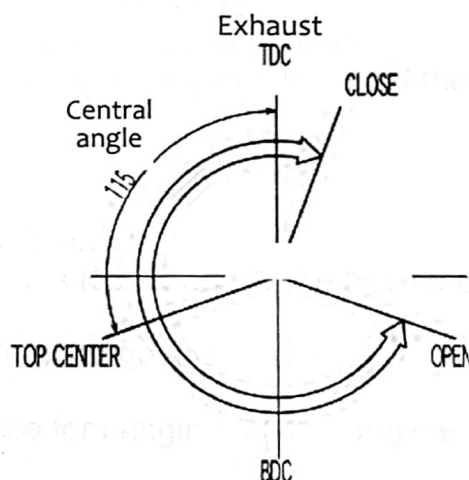
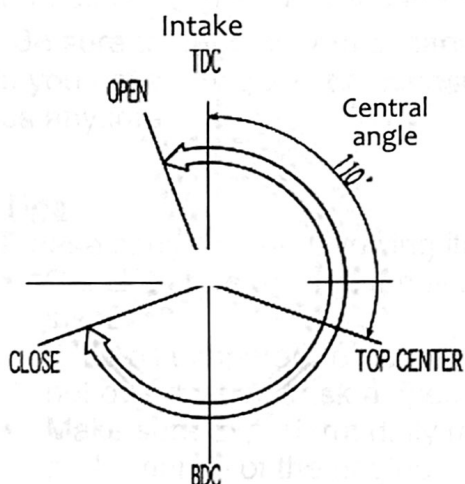
- This product is designed exclusively for HLA type.  
When used with the above engine, the engine may be damaged

## 6-2 Adjusting valve timing

The valve timing differs depending on the specifications. Therefore, make adjustment by referring to the values in Table 2. It is recommended to use JUN cam slide sprocket (Part No.1006M-M001) for the adjustment.

Table 2

	INTAKE (after TDC)	EXHAUST (before TDC)
Valve timing (deg.)	110	115



## CAUTION

■ **It is recommended to measure and adjust the valve timing several times.**

- Subduction of the HLA mechanism can affect the measured value.

■ **Significant changes in valve timing can cause engine damage.**

- Do not make the central angle too narrow. Interference between intake and exhaust valve during valve overlap or between the valve and the piston causes engine damage.

## 4. Return/Exchange

- For returns or exchanges due to an incorrect order, please contact the store where you purchased the product or our parts sales department within one week after the product was delivered to you
  - If you contact the store or us more than one week after the product was delivered to you, we will not be able to return or exchange it.
- We do not accept any returns or exchanges after processing or installing this product.
  - After the product arrives, be sure to check whether the product is compatible with the current vehicle before assembling or processing.

### For users

#### Note

Please keep this manual carefully while the product in use

Be sure to hand over this manual when transferring this product.

If you have any question, please contact to the store you purchased the product or us anytime

#### Tips

Please carry out the following items for safe driving

- Check before driving. If any abnormality is found, be sure to have a specialist inspect it.
- If the oil temperature / water temperature gauge shows abnormal values, do not overdo it and ask a specialist.
- Make sure to perform daily maintenance for bringing out the original performance of the engine



## Installation info

After installing this product, please fill in the following items and hand this instruction manual to y.

INSTALLED BY :

DAY OF INSTALLATION:

SIGNATURE:

VEHICLE MODEL:

ENGINE MODEL:

VIN NO:

LICENSE NO:

REMARKS:

**JUN** MACHINE SHOP  
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