

# TECH TIP ACCESSORY BELT DRIVE SYSTEM

### **BULLETIN TT001-16**

MAKE:

All makes with a serpentine belt

, MODEL:

All models with a serpentine belt

, YEAR:

All years with a serpentine belt

› ENGINE:

All engines with a serpentine belt

## How to Read a PK Number On A Serpentine Belt

Most v-ribbed belts, commonly referred to as serpentine belts, contain two different part numbers. The first one, and the more recognizable one, is the manufacturer's part number, which is referenced when ordering the part. The second, and lesser known one, is a global industry standard number that indicates the size of the belt. This industry standard number, frequently denoted as the "PK" number, is printed next to the manufacturer's part number on almost every serpentine belt produced, and can be seen in the examples below.

WHAT IS A "PK" NUMBER?



A "PK" number is a worldwide standard metric belt measurement printed on most serpentine belts.

WHY IS THE "PK" NUMBER IMPORTANT?

When needing a replacement belt, performing an application lookup or cross-reference should always be done first, but when this returns no results, the PK number is all you need to determine a replacement size.

HOW DO I READ A "PK" NUMBER?

The PK number is broken down into three pieces of information:

- » Number of ribs on the belt
- » Belt application information
- » Effective length of the belt expressed in millimeters

EXAMPLE: 6PK1003

- » 6 This indicates the number of ribs on the belt; therefore, this is a 6-rib belt.
- » PK The "P" indicates a metric designation, and the "K" indicates the belt is automotive per SAE J1459.
- » 1003 This is the effective length of the belt expressed in millimeters.

#### WHAT IS THE EFFECTIVE LENGTH?

As dictated by SAE J1459, the effective length is the industry standard measurement for serpentine belts. However, determining the effective length requires specialized equipment, which is why the more commonly referenced measurement is outside circumference. The outside circumference can easily be measured with a tape measure.

#### HOW DO I DETERMINE THE OUTSIDE CIRCUMFERENCE WITH JUST THE "PK" NUMBER?

Although a scientific calculation is the only way to determine the actual outside circumference, on average, adding 14 mm to the effective length results in an outside circumference.

#### HOW DO I DETERMINE THE REPLACEMENT BELT I NEED?

Using the 6PK1003 example above, we know this is a 6-rib belt with an effective length of 1,003 mm, and an outside circumference of 1,017 mm. This, coupled with Gates recommended tolerance range of  $\pm$  3 mm, allows us to use a catalog or size listing to determine the appropriate replacement, which in this case would be a Gates K060394 – a 6-rib belt with an outside circumference of 1,016 mm.

#### BE SYSTEM SMART

The Car Care Council recommends starting inspecting the serpentine system at 60,000 miles and replacing worn components by 90,000 miles, or as recommended by the manufacturer.

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