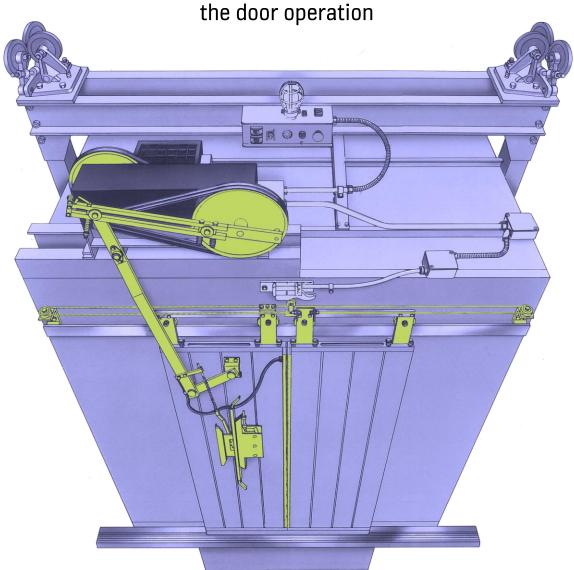
## **KONE Spares**

## MAC DOOR EQUIPMENT

Over 70% of all elevator trouble calls are related to the door operation



The average elevator door opens and closes more than 200,000 times a year.

People judge the quality of an elevator largely by how its doors open and close. Noisy, erratic doors make passengers and tenants feel uneasy.

That's why improving door operation is an important part of modernization. Smooth, silent door operators create an impression of quality and help prevent "out-of-service" headaches.

That's why we build **MAC Door Operators** simple and *tough*. They provide effortless operation and feature components which require little maintenance. They're designed to be trouble-free and to handle the job for the long haul.

## Whatever Happened to MAC Door Equipment?

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Many of you are familiar with MAC door equipment, especially the MAC Closed Loop and MAC PM/SSC door operators. After all, they've been around for approximately 20 years. But, did you know the MAC door manufacturer is still around? It's KONE Spares.

How did it become KONE Spares? Well, it begins with MAC, which stands for Moline Accessories Co. MAC was

started in the mid 1950s by Montgomery Elevator in Moline, Illinois. You see, in the 1940s and 1950s, Montgomery sold to many independent elevator companies, and, in order for them to supply full packages of door equipment, it used three different companies as suppliers: Richard Wilcox, Elevator Supplies and GAL Manufacturing Corporation. Montgomery purchased the door operations of both Richard Wilcox of Aurora, Illinois, and Elevator Supplies of Rahway, New Jersey.



Combining product lines, Montgomery developed the original MAC door equipment. The original was the "M" operator, which featured a 220-V motor with resistor control. Over the years, that evolved into the Permanent Magnet/Solid State Control (PM/SSC) model, which, for the time, was a very innovative, high-tech design.

Solid state was the big thing back then. That was when semi-automatic xerographic printers, punch tape computers, stereo record players and AA-sized batteries were cutting edge and high tech. For years, the PM/SSC model used four separate electronic circuit boards, but, in 1993, MAC developed a new technology that consolidated all four into one board, which became known as its 104 board.

Little-known fact: The "104" name was actually a mistake. MAC started out referring to it as the "one board not four" project, which, of course, was a bit long and tedious. References to it were shortened to "1Ø4," which was more compact, but, for some, confusing. The "not" symbol was so often misrepresented as a zero that it eventually came to be known as the 104 board, and that name stuck.

Later in the 1990s, MAC developed the first truly closed-loop door operator (which included an encoder), and the board needed a name. It was generally assumed to be an upgrade from the 104 board, so people just started calling it the 105 board.



Meanwhile, big changes were happening at Montgomery. MAC production was split from the MAC sales department, and MAC sales began selling elevator spare parts in general, not just door operators. This eventually led to MAC being redubbed "MAC Spares." (You can probably see where this is heading now.) Then, a really big change happened in 1994: KONE purchased Montgomery. For a period of time it became known as Montgomery KONE, but the "Montgomery" part was eventually phased out, leaving KONE, as it is today. And here's where MAC Spares became, of course, KONE Spares.

The name itself changed, but a lot of the original Moline Accessories Co. employees are still with KONE. So, MAC door equipment is still a big part of KONE Spares, and the MAC PM/SSC and MAC Closed Loop door operators, as well as numerous modern accessories, are still being made and supported from Moline. Many people are surprised by this fact. From what I'm told, the door operators are common workhorses that technicians find installed in elevators everywhere.



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