REMEMBERING COLIN WILLMOTT

The man, the innovator, the legend

Colin Barns Willmott was born on August 23, 1935 in London, England. After surviving the Blitz during World War II, his family moved to Cardston, Alberta in 1947. Willmott then served in the Royal Canadian Air Force from 1954 to 1957.

A truly remarkable career

Following his military service, Colin began his professional career working on radar systems of the Distant Early Warning Line north of the Arctic Circle. In 1959, he moved to Chicago and began working as an electrical engineer at the Chamberlain Group (formerly Perma Power).

He worked in the engineering department at Chamberlain for 59 years before retiring in 2020. During his remarkable tenure, Willmott was integral to the development of several industry-changing products and earned a total of 102 patents.

We need more codes

D+AS interviewed Willmott in 2020, and we gained some incredible insight into how some of his brilliant product developments were conceived — beginning with the advancement of the garage door transmitter. Willmott said, "It was obvious that the nine-dip switch, 512-code remote control would not provide enough codes. As the industry grew, we knew we would need more codes."

In typical Willmott fashion, he went to work to try and develop a solution. In 1979, he and his team at Chamberlain introduced a trinary system that allowed remote controls to generate 19,683 codes, which advanced the product's technology and increased security.

The "learning" receiver

He then began brainstorming ways to improve the receiver. Willmott said, "We came up with the idea that no two transmitters should be alike. We determined that we needed a receiver to identify different codes." In 1985, he helped develop a prototype for a "learning" receiver and keypad.

By 1992, when the integrated circuit technology had evolved sufficiently, Willmott's "learning receiver" (featuring the billion-code technology devised by Willmott and Carl Heitschel) was put into production. Interestingly, the revolutionary new code scheme was devised on an airplane napkin while the two were flying to Dallas.

Lifesaving technology

According to the U.S. Consumer Product Safety Commission (CPSC), there were 46 deaths in the U.S. between 1982 and 1990 that involved garage door openers. All of the incidents involved children. Willmott wanted to find a solution to reduce (and ideally eliminate) future accidents, and he succeeded.

With the help of his research and development team, Willmott developed technology that automatically reversed a garage door opener when an object in the door's path blocked an infrared beam.

COLIN WILLMOTT AT A GLANCE

(August 23, 1935 to December 10, 2024)

Years worked in the door and access industry: 59

Patents earned: 102

Active industry involvement: Throughout his career, Willmott was involved in several organizations related to the development and safety of garage door openers, including the Door & Access Systems Manufacturers Association (DASMA), UL, and the International Electrotechnical Commission (IEC). For many years, he led the rulemaking committee at the IEC concerning international standards for garage door openers.

Dedicated family man: Colin is survived by his wife of 49 years, Babette Willmott, nee Larson; their children Colin, Christine, Jessica, and Philip; and their grandchildren Travis, Madison, Benjamin, Frances, and Colin Frederick. Willmott is also survived by his twin brother David, his sister Ann, and many nieces and nephews.

Hobbies: Gardening, cooking, traveling, tinkering with gadgets, and spending time with his expansive family.

Congress eventually passed federal legislation that makes IR sensors, utilizing Willmott's critical technology, a mandatory requirement for garage door applications.

The federal requirement, mandating that all residential garage door openers manufactured on and after January 1, 1993 adhere to the UL 325 safety entrapment protection rules, helps enforce it.

"To my knowledge, since the mandate went into effect, no deaths have occurred from post-1993 garage door operator applications where the photo-eyes have been installed properly," said Tom DeSilvia of Chamberlain.

The subsequent results throughout the industry speak to the effectiveness of the sensor technology (when properly installed) and to the incredible influence one man had on the door industry. Willmott's lifesaving infrared "electric eye" sensors changed the door industry forever, and statistics reveal that he helped save lives.

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Determined lobbyist

In the 1980s, Willmott was actively involved in a stand against regulations proposed by the Federal Communications Commission (FCC) that could have put Chamberlain and several other companies "out of business."

"The regulations would have blocked garage door openers from using frequencies that made our products so effective," Willmott explained. At the time, several companies banded together to petition the FCC for change. Willmott, along with John Wright (the assistant general counsel for Duchossois) spearheaded the cause. It took five years, but the FCC eventually changed the frequency and power requirements.

Lasting legacy

Willmott's innovations in garage door technology have not only revolutionized the industry but also saved countless lives. His remarkable career, marked by dedication and ingenuity as well as his 102 patents, will continue to inspire future generations of engineers and inventors. ■

REFLECTIONS FROM INDUSTRY PROFESSIONALS

Willmott not only advanced the industry with his genius innovations, but also inspired many people along the way. Here are some reflections from just a few of the industry professionals he influenced.

Colin was a true mentor and friend. I had the fortunate experience of travelling the world with Colin attending Standards meetings. Colin was well respected both domestically and internationally. Colin drove the operator industry, standards, and regulations to make the world a much safer place for everyone. He will definitely be missed.

— Tom DeSilvia, Chamberlain Group

Colin Willmott was a great mentor and friend. He taught me how to critically review information by encouraging me to pay attention and gather all the details.

— Barbara Kelkhoff, Chamberlain Group

I met Colin for the first time in 1994. He was an incredible engineer, teacher, and mentor. He was always full of energy and enthusiasm. His spirit and attitude were an example for all of us. He inspired me to be excited about the world of door operator technology and regulatory.

— Christoph Marny, Chamberlain GmbH

I never worked with Colin, but I wish I had! However, we both sat on the DASMA Operator & Electronics Committee, which he chaired more than once. You only had to listen to Colin speak for a minute or two to know you were among greatness. Garage door automation and safety were always on Colin's mind. RIP Colin, you are already dearly missed.

— Roy G. Bardowell

I had the privilege of working with Colin for 25 years. He was a good friend and a huge contributor to our success at Chamberlain, as well as the success of the door and access systems industry. While travelling together, we would often run into his friends and admirers in the most remote parts of the world. It is an understatement to say Colin meant a lot to me both personally and professionally. I'm sure a lot of people feel the same way.

— Rob Keller, VP of engineering, Chamberlain