



## Case Study: Simpson Strong-Tie United States

### Picking Perfection:

#### How Simpson Strong-Tie found the perfect picking companion in the KDC350L

A streamlined picking process is a key principle to warehouse success. A company's picking system must be able to endure and successfully navigate the challenges that come with the breakneck speed of evolving tech. When technology does not keep pace, what do you do? Simpson Strong-Tie is an ideal example of how to successfully upgrade your equipment for your current and future business needs, while empowering your picking employees and improving the picking process.

Simpson Strong-Tie is the world leader in structural product solutions, with an emphasis on making safer and stronger structures. Simpson Strong-Tie is renowned as the genuine connector brand in the residential construction industry, and also for its ever-expanding offering of shearwalls, moment frames, and fasteners. In the past 20 years, Simpson Strong-Tie has expanded further by offering products for infrastructure, commercial, and industrial construction. These include mechanical anchors, adhesives, and products that repair, protect, and strengthen concrete and masonry. With so many unique and different product offerings, a fast, accurate, and efficient picking system is integral to success.

### HIGHLIGHTS

#### Customer

- ▶ Simpson Strong-Tie

#### Industry

- ▶ Structural Product Solutions

#### Operational Focus

- ▶ Picking Operations, Warehousing

#### Pain Points

- ▶ Previous scanner not compatible with new system.
- ▶ Previous scanner not iOS & Bluetooth® HID compatible.
- ▶ Need more durable barcode scanners.

#### Solution

- ▶ KDC350Li-MO-R2 with Protective Rubber Boot and Charging Cradle

#### Results & Benefits

- ▶ Easy to use, durable, HID scanning solution capable of transmitting data to iPad.
- ▶ Picking team gets added flexibility to make quantity adjustments on-the-fly with KDC350 keypad.





## The Challenge

Simpson Strong-Tie desired to upgrade their inventory software to a Citrix environment. At that time, the Symbol MC3190 was the designated barcode scanner for picking operations. It became apparent that the MC3190 was not the correct tool for the job due to it running a Windows-embedded platform and the lack of compatibility with the new inventory environment. Furthermore, Simpson Strong-Tie wanted to explore utilizing vehicle-mounted systems for pallet jacks and forklifts paired with Apple iPads and a handheld barcode scanner.

Simpson Strong-Tie began the search for a worthy barcode scanner replacement. After some research, it became apparent that the new barcode scanning solution would need to satisfy the following:

1. The new barcode scanner must be compatible with iOS and the new inventory system.
2. The new barcode scanner must support Bluetooth HID for application compatibility.
3. The new barcode scanner must be durable enough to withstand everyday use in a busy warehouse environment with heavy materials and equipment.

While many barcode scanning options were considered, most fell flat. Some solutions proved to be cost effective; however, their build quality reflected this sentiment through incredible fragility, easily breaking during typical picking tasks. As a result, many scanners would suffer drops or be easily damaged. Lastly, if a solution was suitable, it was cost prohibitive; thus, the search continued.

Simpson Strong-Tie began to investigate using Apple iPads in conjunction with companion barcode scanners. At the time, many barcode scanning solutions could not smoothly integrate with iPads in the desired manner.

Many iPad solutions required a direct connection of the scanner via the Lightning port. In addition to requiring a physical connection, these solutions would need either a proprietary or a custom-built application installed on the iPad. The desire to mount the iPads on pallet jacks meant a solution bound by a physical connection was less than ideal.

It became clear that a Bluetooth HID device was the answer for a truly wireless experience. The two most significant benefits of using an HID device via Bluetooth were the elimination of both the need for a physical connection and application to function. HID devices are relatively simple with low latency link and power requirements. Popular examples of HID devices are computer mice and keyboards. Combined, these challenges would prove to be too much for most barcode scanners — but not the KOAMTAC KDC350.

## The Solution

After several trials of various solutions, Simpson Strong-Tie came to the KOAMTAC KDC350Li-MO-R2 1D Laser Bluetooth Barcode Scanner and Data Collector. The KDC350 could answer for every sought after need. The KDC350 is compatible with iOS and can function as a keyboard wedge, perfect for the newly implemented Citrix system. When operating as a keyboard wedge, the KDC350 becomes an input device, and input delivered to the iPad is handled akin to a traditional keyboard. The KDC350 is IP65-rated and has a 5' drop spec — perfect for a warehouse environment. For enhanced durability, Simpson Strong-Tie would outfit the KDC350 with a protective rubber boot. Lastly, the competitive pricing offered by KOAMTAC made it more cost-effective to migrate to a scanning solution combining the power of the iPad and KDC350 than the previously implemented barcode solution.



## The Results

The KDC350Li-MO-R2 performed beautifully, proving to be a dependable, easy-to-use scanner with plenty of durability. The picking team enjoyed the added benefit of a full 19-key alphanumeric keypad, a feature that quickly became one of the essential differentiating factors between the KDC350 and competing solutions initially tested. Users fell in love with the keypad, used to enter quantities in the warehouse.

“ [The KDC350 keypad] was something that was surprising to find... After purchasing it, I knew that it was going to be a good benefit. ”



Mark Goff  
IT Support Services Supervisor  
Simpson Strong-Tie

KDC350 users at Simpson Strong-Tie were comfortable with the device. It was very easy to use, thus, it was easy to train new employees with it.

As the internal processes evolved at Simpson Strong-Tie, the KDC350 was able to keep pace. When Simpson Strong-Tie migrated to SAP from Citrix, the KDC350 was still viable and no other solutions needed to be considered.

The KDC350 solution was able to grow in tandem with the picking operations at Simpson Strong-Tie. Later, Wearable solutions were implemented to increase picking speed. KOAMTAC offers a Finger Trigger Glove for the KDC350. An answer to the bulky ring scanners already on the market, the Finger Trigger Glove is made of durable, yet lightweight, material and provides the extra security of sitting on the entire hand. Further, there are no restricting wires on the Finger Trigger Glove.

Simpson Strong-Tie also purchased KDC350R2 1-Slot Charging Cradles. These charging cradles offer quick and secure charging for KDC350 devices via pogo pins. Additionally, these cradles help minimize wire clutter and decrease the risk of damaging the micro-USB port on the

KDC350.

Because the KDC350 was compatible with iOS, offered Bluetooth HID connectivity, and was backed with IP-65 rated durability, Simpson Strong-Tie has continued to purchase KDC350 devices and associated products since early Q1 2017.

## ABOUT THE KDC350

The KDC350 wireless scanner provides Bluetooth connectivity to a smartphone, tablet, or PC, and optional Wi-Fi connectivity to a server. The KDC350 also optionally supports Near Field Communication (NFC). With an IP65-rating, OLED display, and a 19-key alphanumeric keypad, it is one of the unique and rugged products KOAMTAC has to offer. The KDC350 can be equipped with either a 1D Laser, 1D CCD, or 2D Imager scan engine and is able to read virtually all current barcode symbologies.

## SPECS

### Physical Characteristics

Size: 1.69" x 3.7" x 0.94" (43 mm x 94 mm x 24 mm)

Weight: 3.0 oz (85 g)

### Interfaces

Bluetooth® V2.1+EDR, Class 2, HID/SPP/MFi

USB to Serial (Ultra mini USB port)

USB HID/Flash Memory

### Scan Range (10mil Code39)

Laser (350L): 1.97" to 7.48" (50 mm to 190 mm)

Laser (350L-R2 / 20mil Code39): 1.40" to 52.0" (36 mm to 1321 mm)

CCD (350L-D-R2): 2.17" to 11.81" (55 mm to 300 mm)

Imager (350C): 3.2" to 9.2" (81 mm to 234 mm)

Imager (350C-R2): 1.1" to 13.3" (28 mm to 338 mm)

### Functionality

Memory Flash ROM: 256 KB Program, 8MB User

Memory RAM: 64KB

### User Environment

Ingress Protection Rating: IP65

Drop Spec: 5 feet (1.5m)

Operating: -4°F to 122°F (-20°C to 50°C)

Storage: -4°F to 140°F (-20°C to 60°C)

Humidity: 5% to 95% (non-condensing)

