## <u>Essential Specialty Screwdrivers for</u> Electrical Maintenance





Specialty Screwdriver Image

## **Specialty Screwdrivers**

As I have stated in earlier posts <a href="here">here</a> and <a href="here">here</a>, I believe in using the proper tool for a given task, and screwdrivers are the tool I often see misapplied. Using the wrong screwdriver or screwdriver bit can convert a simple adjustment or repair to a significant problem. Nearly every maintenance mechanic and technician's toolbox will include slotted, Philips, square drive, Torx, screwdrivers, and bits, and it's all the other types that they don't have and aren't aware exist is where the trouble starts.



Common Screw Head Types

Below I have grouped several examples of specialty screwdrivers and their typical applications. If you find it helpful, leave a message at the bottom of this page. Please use the contact page for corrections and additions.

You might also like to check out what's in my toolbox.

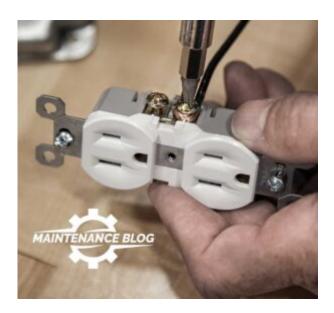
# Specialty Screwdrivers for Duplex Receptacles, Switches, and Conduit Fittings



Conduit Screw Screwdriver

Modern Conduit Fittings feature a combination screw to secure them to the conduit. Unfortunately using either a slotted or Philips that doesn't fit "just right" can lead to a damaged screw head or loose connection. That said, screwdriver manufacturers such as Klein Tools and Milwaukee tools offer screwdrivers that are a true combination slotted/Philips tip. Check out the Milwaukee ECX and Klein 32752 below.

I have read that there is also an available square drive/slotted combination screwdriver that works with the conduit screws. I have not personally tried this.



Duplex Receptacle Screwdriver

The "Combo Tip" head screws of light switches and electrical receptacle screws are annoying at best, especially on low-cost duplex receptacles and light switches. Check out the Milwaukee ECX and Klein 32752 below.

## Specialty Screwdrivers for Circuit Breakers



Circuit Breaker Screw Examples

Many modern circuit breakers used in commercial and residential applications feature the Plus/Minus type of screw. These screws are also referred to as SL/PZ or SL/PH. Attempting to use any other type of screwdriver will often lead to damaged screw heads. Check out some of our recommendations below or view more options at KC Tool Co

## Specialty Screwdrivers for Terminal Blocks



Terminal Block Screwdrivers

The most common terminal blocks require a slotted tip screwdriver whose shank is the same size as the blade. The second most popular terminal block is the Pozidriv which looks like a Philips, with a square and a cross on opposing corners. There are other terminal blocks that utilize Pozidrive, Pozisquare. There are also terminal blocks that require special tools and screwdrivers to actuate a spring-loaded mechanism. It's best to purchase the specialty screwdriver or tool recommended by the terminal block manufacturer. Some spring-loaded terminal blocks work with some of the drivers listed below (Phoenix Contact)

Note: Terminal blocks come in various sizes and multiple screwdrivers might be necessary.

- Felo 07157 63697 Ergonic 2PC Insulated Z1/Z2 Plus/Minus Z1/Z2 +/- Terminal Block Screw Driver Set
- Wiha Insulated Combination Terminal Block Xeno Screwdrivers
  - ∘ Insulated Xeno #1 SoftFinish Driver #30700
  - Insulated Xeno #2 SoftFinish Driver #30701
- Wiha Insulated Xeno Slotted/Pozidriv Screwdrivers
  - ∘ #30711 Insulated Xeno Slotted/Pozidriv #1 Screwdriver
  - ∘ #30712 Insulated Xeno Slotted/Pozidriv #2 Screwdriver
- Klein Tools 612-4 Screwdriver, Flat Head Terminal Block Screwdriver, 1/8-Inch Cabinet Tip, 4-Inch Round Shank
- Phoenix Contact Pozidriv Terminal Block Screwdriver Set #1212540 (rebadged Wera)
- Phoenix Contact SZF 1-0,6X3,5 #1204517 (rebadged Wera)
- Wera 110004 4 x 100mm Kraftform Plus Slotted Screwdriver
- Wago Insulated screwdriver for terminal blocks Screwdrivers with partially insulated shafts. Type Short angled, 3.5 x 0.5 mm blade, Type 1, 2.5 x 0.4 mm blade, Type 2, 3.5 x 0.5 mm blade, Type 3, 5.5 x 0.8 mm blade #210-722

## Wera Specialty Screwdrivers and Specialty Bits



Wera — 5347107001 347107 Kraftform Kompakt VDE 60 i/62 i/65 i/∏18 Insulated Blade Set

## Wera 347107 Kraftform Kompakt VDE 60 i/62 i/65 i/18 Insulated Blade Set

The Wera 347107 Kraftform Kompakt VDE 60 i/62 i/65 i/18 Insulated Blade Set is my favorite set of interchangeable blade specialty screwdrivers. The set includes the blades I use regularly and the specialized blades that are the subject of this post, the PoziDriv and Pozidriv/Slotted Terminal Blades. The set also includes a cabinet key which I use almost daily. The only improvement I would make to this set is to make the blades similar to the Wiha SlimLine, where the blade tip and insulation are the same nominal diameter.

Each Wera 347107 Kraftform Kompakt VDE 60 i/62 i/65 i/18 Insulated Blade Set has been put through vigorous testing in a water bath at 10,000 volts to guarantee safe working standards and meet 1,000 Volts.

Kraftform Kompakt VDE sets come with an insulated handle and interchangeable blades that can be quickly changed without special tools.

Kraftform handle, with hard and soft zones, fits the shape to the hand for the ultimate in comfort and high-speed torque transfer.

- KK VDE Handle (x2)
- Slotted Blade: 2.5 x 0.4 x 154mm
- Slotted Blade: 3.5 x 0.6 x 154mm
- Slotted Blade: 4.0 x 0.8 x 154mm
- Slotted Blade: 5.5 x 1.0 x 154mm
- Phillips Blade: #1 x 154mm
- Phillips Blade: #2 x 154mm
- Phillips/Slotted (aka Xeno or Terminal) Blade: #1 x 154mm
- Phillips/Slotted (aka Xeno or Terminal) Blade: #2 x 154mm
- Pozidriv Blade: #1 x 154mm
- Pozidriv Blade: #2 x 154mm
- Pozidriv/Slotted (aka Xeno or Terminal) Blade: #1 x 154mm
- Pozidriv/Slotted (aka Xeno or Terminal) Blade: #2 x 154mm
- 96 VK Cabinet Key Blade: 6.3 x 89mm
- 97 VK Cabinet Key Blade: 8.1 x 89mm
- 98 DK Switch Cabinet Key Blade: 89mm
- 99 FL Switch Cabinet Key Blade: 89mm
- Durable belt pouch

## Klein Specialty Screwdrivers and Specialty Bits

#### Klein 32752 Double-Sided Combo Bit



Klein 32752 Double-Sided Combo Bit

#### Klein 32752 Double-Sided Combo Bit

Finally, a perfectly shaped Combo-Tip driver. Combination-Tip Drivers are

designed for maximum contact with combination head screws most commonly found on electrical devices and fittings. Custom heat-treated to withstand the torque needed to fasten all types of combination head screws.

- #1 and #2 Combination Bits
- For use with the 11-in-1 Combo-Tip Screwdriver (Cat. No. 32505)
- Precision machined tip designed for combination head screws
- Custom heat-treated for long life
- Made in the USA
- Pack of 2

## Felo Specialty Screwdrivers and Specialty Bits



FELO 07157 63697 Ergonic Insulated Plus Minus Screwdriver Set

## Felo 07157 63697 Ergonic 2PC Insulated Z1/Z2 Plus/Minus Z1/Z2 +/Terminal Block Screwdrivers

Check out this <u>KC Tool Video</u> for a better look. I purchased my screwdrivers from the <u>KC Tool Amazon Store</u>.

- Plus-Minus (Xeno) Terminal Slotted/Pozidriv: #1 & #2
- Series 417 Ergonic E-slim VDE Insulated Screwdriver
- For terminal block screws
- Handles are 30% slimmer
- Reduced shaft diameter by up to 50%
- Ergonomic, the first handle that adapts to the user's hand
- Full length, impact-proof handle core is coated with elastic, scratch resistant elastomer containing cells of highly flexible plastic
- Smooth, seamless handle for maximum comfort
- Hand and handle interlock, causing less strain
- Anti-roll handle design
- Hanging hole for easy storage or inserting lever
- Screw tip symbol on handle cap
- Blades manufactured from chrome-molybdenum-vanadium steel
- Superior torque which exceeds DIN and ISO requirements by up to 100%
- Black tip for precision fit

## Milwaukee Specialty Screwdrivers and Specialty Bits

#### Milwaukee ECX Circuit Breaker Screwdriver & Screwdriver Bits



Milwaukee 48-22-2760 11 in 1 Screwdriver ECX

#### Milwaukee 48-22-2760 11 in 1 Screwdriver ECX

This screwdriver base comes with three nut drivers and eight bits that can be traded out in a matter of seconds for ultimate convenience. Comfort grip handles make these tools easy to grip, even during long projects.

The 11-in-1 Screwdriver includes the 8 bits and 3 nut drivers most requested by professionals. The bit prevents bit wear from hardened screws and extends bit life when fastening specialty screws found in electrical boxes, conduit couplers, outlets, and other common job site fixtures. Covered by Milwaukee Limited Lifetime Warranty.



Milwaukee ECX 11 in 1 Screwdriver

- 11-in-1 multi-bit driver with ECX
- Best in class performance

- Includes: Phillips #1, Phillips #2, slotted 3/16 in., slotted 1/4 in., square #1, Square #2, ECX #1, ECX #2, 1/4 in. nut driver, 5/16 in. nut driver, 3/8 in. nut driver, loop maker
- Visible ID markings allow for quick tool identification on Jobsite
- ECX bit fits most specialty screws, including screws found in electrical boxes, conduit couplers, and outlets

#### Milwaukee Shockwave ECX PWR Bit Combo 48-32-4443 2."



Milwaukee 48-32-4443 Shockwave ECX Bits

ipsum



Milwaukee Shockwave ECX Bit

## Wiha Specialty Screwdrivers and Specialty Bits

Wiha 28391 Insulated SlimLine Interchangeable Set Includes Handle with Pouch, 8-Piece.



Wiha 28391 Insulated SlimLine Interchangeable Set Includes Handle with Pouch

#### **Insulation**

- Meets ASTM F1505, VDE 0682/part201, DIN 7437, EN/IEC 60900, NFPA-70E & CSA specification
- 10,000 Volt Tested for a 1,000(AC) 1,500(DC) Volt Certification, VDE and GS tested

#### Handle

- Ergonomic Wiha SoftFinish multi-component handle with roll-off protection
- Cushioned grip for maximum comfort and power

#### SlimLine Blades:

- Wiha SlimLine blade's insulation diameter is 33% narrower than standard insulated tools.
- Wiha special chrome-vanadium-molybdenum tool steel
- Through hardened for best wear resistance
- Precision machined exact fit black tips

#### Blades:

• Slotted: 4.0, 6.5 • Phillips: #1 #2

• Xeno: #2

• Torx: T15, T20

Practical Roll Up Canvas Pouch to keep your workstation tidy



Wiha Insulated SlimLine Blade 8 Pc Set 28391

- Wiha 28327 Insulated SlimLine Xeno Interchangeable Blade #1
- Wiha 28329 Insulated SlimLine Xeno Interchangeable Blade #2

#### Wiha 77795 Ultra Driver Bonus Bit Pack (Wiha 26 in 1)



Wiha 77795 Ultra Driver Bonus Bit Pack (Wiha 26 in One)

#### The Wiha Ultra Driver 26 in 1

- 26 Bit Tips, Quick access, the right bit for the job.
- Comfortable Cushion Grip Ergonomic Handle
- Spring driven pop up cartridge for fast bit selection
- High-Performance Quick Release Locking Bit Holder
- Hardened and Tempered CVM Tool Steel Bits
- Precision machined for an exact fit.
- All the drivers you need when and where you need them.
- Grab and Go Convenience

#### Tradesman Tip Sizes Included

• TORX: T10, T15, T20, T25 • Phillips: #0, #1, #2, #3

• Pozidrive: #1 & #2

• Square: #0, #1, #2, #3

• Slotted: 3.0, 4.5, 5.5, 6.5

• Metric Hex: 3.0, 4.0, 5.0, 6.0mm

• Inch Hex 1/8", 9/64, 5/32, 3/16"

