ATTACH TO ARBOR PRESS
(BY CUSTOMER)

ZPT 81 A
3/8-16 THREAD

MOUNT TO ARBOR PRESS BASE
ALIGN WITH TAB PINS
(BY CUSTOMER)

ANVIL # 90-102-0300
30"

ANVIL # 90-101-0300
60°

ZPT 81 A ARBOR PRESS MOUNTING

ANVIL HOLDER # 90-112-1375

Zierick Printed Circuit Board Terminal
Insertion Hand Tools

Zierick's printed circuit board terminal insertion hand tools offer a simple, reliable and repeatable method for performing press fit and splay mounted terminal assemblies. It is especially economical for low volume, short run and prototype applications. Zierick's insertion hand tools incorporate interchangeable components. A single hand tool can be used for several terminal insertion applications. Hand tools are available for all standard PCB mountable quick disconnect male and female terminals. Special tools can be provided for special applications.

Where increased application flexibility is required, hand tools may be incorporated with manually or automatically operated presses. The Insertion Tool allows for terminal application by press fit, and also the much preferred splay mounting.
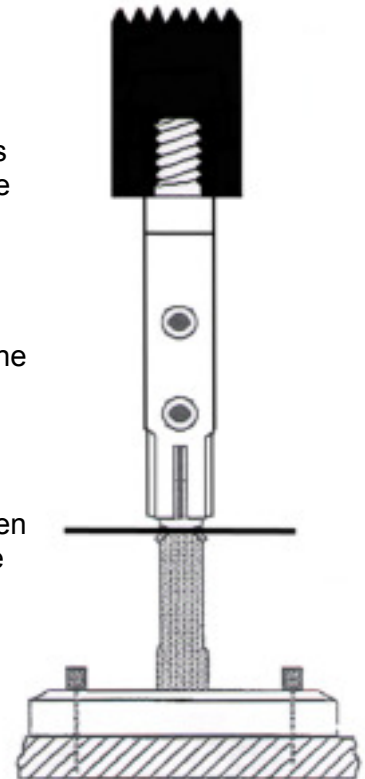
Zierick hand tools are available for printed circuit board mounted .110", .187", .205" and .250" horizontal and vertical Quick Disconnect terminals, for .110", .187", .250" vertical Quick Disconnect receptacles, for Test Point Terminals and for .205" x. .025" vertical automotive Blade Fuse receptacles. Lower board support application tool dies are available for single or dual leg splay mounting requirements.
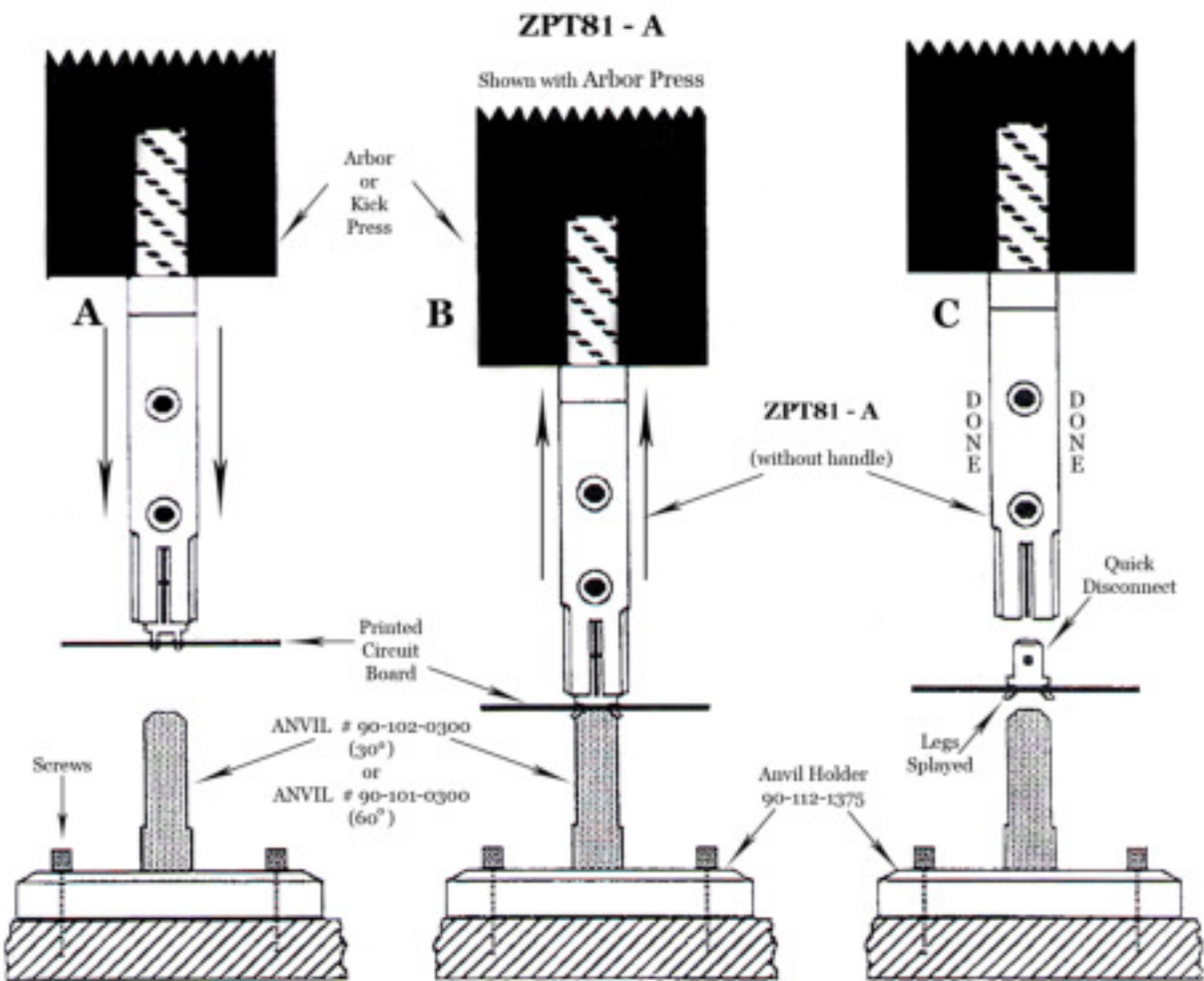
<u>Insertion Tool with Splaying Anvil</u>

The Insertion tool can easily be installed on almost any type of press machine. Zierick manufacturing suggests that this is done to provide for splaying of the terminal. When terminals are splayed, they are locked into place, improving reliability, preventing part removal and rotation, even with mounting hole tolerances as large as $\pm$ .004".
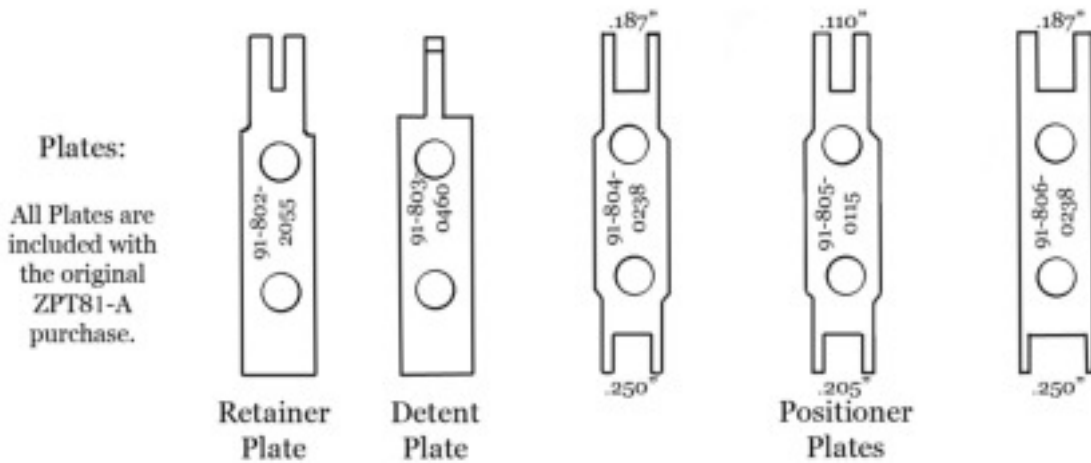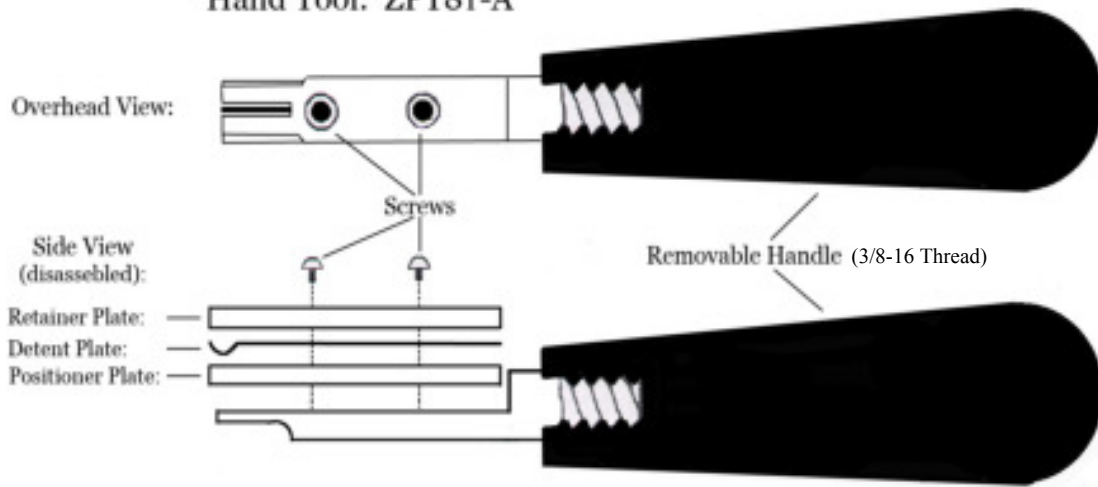
The insertion Tool body is removed, and installed onto the press. The Anvil is mounted and aligned, so the terminal may be splayed. The Quick Disconnect is then placed in the "nest" of the Insertion Tool, and the P.C. Board is aligned with the terminal. The downward motion of the press inserts the terminal through the P.C. Board, causing the legs to spread or splay (shown at right). The Press is then pulled up, and the Quick Disconnect is permanently inserted into the P.C. Board. This type of insertion is ideal for those who wish high quality splayed insertions, but due to low volume an automated insertion machine would be impractical.

At higher volumes, we recommend Zierick model 9700, and 9700 XY automated terminal insertion machines.

ZPT81 - A

Shown with Arbor Press

A

Arbor
or
Kick
Press

B

ZPT81 - A

(without handle)

C

DONE   DONE

Quick
Disconnect

Printed
Circuit
Board

Legs
Splayed

Screws

ANVIL # 90-102-0300
(30°)
or
ANVIL # 90-101-0300
(60°)

Anvil Holder
90-112-1375

Zierick Printed Circuit Board
Terminal Insertion
Hand Tool: ZPT81-A

Overhead View:

Screws

Side View
(disassebled):

Retainer Plate:
Detent Plate:
Positioner Plate:

Removable Handle (3/8-16 Thread)

Plates:

All Plates are
included with
the original
ZPT81-A
purchase.

.187"   .110"   .187"

91-802-2055   91-803-0460   91-804-0238   91-805-0115   91-806-0238

.250"   .205"   .250"

Retainer   Detent   Positioner
Plate   Plate   Plates

ITEM	PART NUMBER
Hand Tool (all vertical terminals)	ZPT81-A
Splay Anvil (30° - standard)*	90-102-0300
Splay Anvil (60°)*	90-101-0300
Anvil Holder (Base)*	90-112-1375

## Instructions for Insertion Tools ZPT81-A & ZPT92

ZPT81-A:

This Insertion Tool is Factory Assembled to accommodate Tab Part Number 836 (.250"
x .032" Tab). For other Tab or Quick Disconnect sizes, refer to the 'POSITIONER
PLATE SELECTION TABLE'.

ZPT92:

This Insertion Tool is Factory Assembled to accommodate Tab Part Number 901 (.250-
90 Degrees x .032"). For other Tab or Quick Connect sizes, refer to the 'Positioner Plate
Selection Table'.
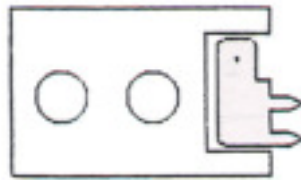
To Change The Positioner Plate:

1. Remove the two Security Screws, the Retainer Plate and the Detent Plate.
2. Place the desired Positioner Plate onto the Tool Holder, with the Correct
   Terminal sized opening toward the front of the Tool Holder.
3. Replace the Detent Plate and the Retainer Plate.
4. Replace the two security screws, but do not tighten them.
5. Hold the Tool Assembly vertically downward against a flat surface, to align the
   inserted parts.
6. While in this position, tighten the two security Screws.
7. The Insertion Tool is now ready for use.

Positioner Plate Selector Table

Tool Type	PC Terminal Part Number	Tab Size and Type	Positioner Plate Number
ZPT81-A	836 906 1021	.250 Male	91-804-0190
ZPT81-A	894 895 1024 1027	.187 Male	91-804-0190
ZPT81-A	892 893	.205 Male	91-805-0115
ZPT81-A	834 835 1032 1033	.110 Male	91-805-0115
ZPT81-A	1022 1037 1040	.250 Female	91-806-0238
ZPT81-A	1025 1026	.187 Female	91-806-0238
ZPT92	901	.250 x 90Deg Male	91-853-0800
ZPT92	956 957	.187 x 90 Deg Male	91-853-0570
ZPT92	986	.187 x 90 Deg Male	91-853-0800
ZPT92	948	.110 x 90 Deg Male	91-853-0535

Zierick Part Numbers

Application Size	Tab		Receptacle		Insertion Tool
	Standard	Stable-Lok	Standard	Stable-Lok	
.110" x .020"	834	1063	-	-	ZPT81-A
.110" x .032"	835	1064	-	-	ZPT81-A
.187" x .020"	895	1027	-	1026 :	ZPT81-A
.187" x .032"	894	1024 : 1042	-	1025 :	ZPT81-A
.205" x .020"	893	-	-	-	ZPT81-A
.205" x .025"	-	-	-	1040	ZPT81-A
.205" x .032"	892	1065	-	-	ZPT81-A
.250" x .032"	836 : 906 972 : 953 953-MOD	1021 : 1041 1045 : 1057 1060 : 1061	-	1022 : 1037	ZPT81-A
.110" x .020"	949	-	-	-	ZPT92-110
.110" x .032"	948	-	-	-	ZPT92-110
.187" x .020	956	-	-	-	ZPT92-187
.187" x .032"	957	-	-	-	ZPT92-187
.250" x .032"	901	-	-	-	ZPT92-250
.120" x .020"	1032	1058	-	-	ZPT81-A
.120" x .032"	1033	1059	-	-	ZPT81-A