

Application tools

Recommended tools

- 01 WT112M
- 02 ERG4001
- 03 12050



The Shure-Stake mechanism on mechanical ratchet tools and power tools prevents the dies from releasing the terminal until the proper compression has been completed. With this method, an operator achieves a reliable crimp every time. ABB tooling techniques correctly match tools, wire size and terminal to produce optimum mechanical and electrical performance.

Plier-type if installations are fewer than 20 per day



01

Ratchet-type if installations are more than 20 per day



02

Power-type if installations are more than 200 per day



03

Plier-type tools

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT110M	A, B, C non-insulated terminals and splices and A, B non-insulated terminals with insulation grip	1
WT111M	A, B, C, PT non-insulated terminals and splices; includes cutters	1
WT112M	A, B, C non-insulated and RA, RB, RC insulated nylon and vinyl terminals and splices; includes cutters	1
WT161M	A, B, C, PT non-insulated terminals and splices; includes plier grip and cutters	1
WT2000	A, B, C, AB, PT, RA, RB, RC insulated and non-insulated terminals and splices; includes wire cutters, bolt cutters and wire stripper	1

- 04 WT110M
- 05 WT111M
- 06 WT112M
- 07 WT161M
- 08 WT2000



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07



08

## Application tools

The proper installation procedure for the quality-assured connection.

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01 ERG4001  
Shure-Stake tools are  
matched to terminals

The proper installation of terminals, splices and connectors is very important to the efficient performance of an electrical system. The properly installed connector will enable good conductivity through the termination. Certain basic requirements must be met to make a good termination.

- Strip the insulation carefully to avoid nicking or cutting conductor strands
- Strip the insulation to the proper length so the conductors can be inserted fully into the connector barrel; the wire/cable should be visible in the inspection hole of the lug

A poor termination results in a high-resistance connection. A poor connector installation may cause damage or failure of an entire system.

Safety warning: Keep fingers and hands away from mechanism during crimp function.

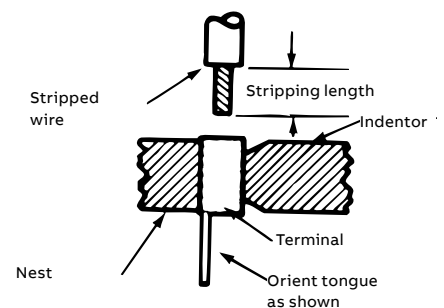
### Installation procedure

- Strip the insulation carefully to avoid nicking or cutting conductor strands.
- Strip the insulation to the proper length so the conductors can be inserted fully into the connector barrel; the wire/cable should be visible in the inspection hole of the lug.
- Train the wires to eliminate fanning of strands.
- Open handles fully.
- Insert terminal in proper die nest and locate it as shown below. When crimping a butt splice, position in proper die nest with window facing indenter.
- Close handles slightly to secure terminal. Do not deform terminal.
- Insert properly stripped wire into terminal.
- Complete crimp by closing handles.

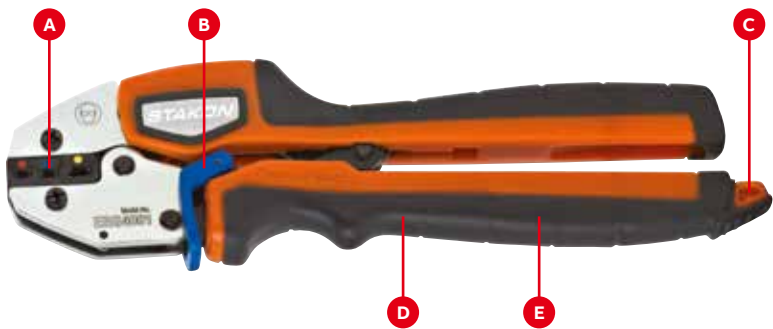


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Diagram



Application tools



- A Colour-coded die nests (left and right side) provided for proper crimping of insulated terminals
- B Shure-Stake mechanism ensures a proper crimp every time
- C Crimp-Assist foot provides stability when work surface leverage is needed to crimp larger connectors
- D Ergonomically advanced, soft, over-molded handle grips reduce strain and enhance user comfort
- E Requires one of the lowest handle forces of any tooling in its class – 25% less than the previous generation of Comfort Crimp tools

Redesigned family of termination tools sets a new standard for manual crimping tools. The most comfortable crimp available from a manual compression tool.






Sta-Kon Comfort Crimp compression tools previously set the standard for manual crimp tools. Now, ABB engineers have made a great line of tools even better with the newly redesigned Sta-Kon Comfort Crimp compression tools. We kept all the performance features that made the tools industry leaders, such as the Shure-Stake mechanism and interchangeable dies with colour-coded die nests, and focused on creating the best possible user experience in terms of comfort and reduction of strain.

Ergonomic handles position the user’s hands correctly to minimize the risk of strain, and soft, over-molded grips cushion fingers and palm for user comfort. A new Crimp-Assist™ foot stabilizes the tool when the user needs to place it on a work surface for leverage to crimp larger connectors. Best of all, the redesigned Comfort Crimp tools require 25% less handle force to complete the crimp cycle than the previous generation — and up to 75% less handle force than competing tools.

Requiring one of the lowest handle forces of any tool in its class, the Comfort Crimp tool family provides maximum comfort to installers, without sacrificing the durability or performance associated with ABB tools.

- Perfect for OEM, MRO and field use
- UL Listed for use with Sta-Kon connectors
- Shure-Stake mechanism ensures a complete crimp cycle before release for a proper crimp every time
- Colour-coded die nests for easy matching with Sta-Kon insulated terminals
- Creates integrity dots for quick verification of proper crimp
- Advanced manufacturing methods for improved durability and tool life
- Lanyard hole in handle for easy tethering to workstation
- Calibration service available through ABB Tool Services

Comfort Crimp compression tools

		Cat. no.	For use with Sta-Kon series	Pkg. qty.
 01 ERG4002	 04 ERG4007	ERG4001	RA, RB, RC nylon & vinyl terminals, splices & disconnects	1
		ERG4002	A, B, C non-insulated terminals, splices, disconnects	1
 02 ERG4004	 05 ERG4008	ERG4004	A, B and C flag terminals	1
		ERG4005	B, C, D, E non-insulated terminals, splices (D & E tubular only)	1
 03 ERG4005		ERG4006	RA, RB disconnects and RZ terminals	1
		ERG4007	RD & RE insulated terminals (tubular only)	1
		ERG4008	Non-insulated terminals #8–1/0 AWG (tubular only)	1

Note: Contact tool services for gauging

## Application tools

Correct compression every time — the Shure-Stake mechanism principle prevents opening of the handles until full staking action is completed. Installs self-insulated and non-insulated Sta-Kon terminal series in the #26–#10 AWG wire range.



**WT1377 ratchet hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT1377	NW ring terminals	1



**WT2130A ratchet hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT2130A	RC, RBC and RD insulated terminals, RC6, RP7 wire joints	1



**ERG4006 hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
ERG4006	RZ terminals/splices RA, RB insulated disconnects	1



**WT3185 ratchet hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT3185	For #8 AWG to 250 kcmil non-insulated Sta-Kon terminals	1

Note: For gauging information, contact Tool Services



**ERG4255 ratchet hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
ERG4255	RA, RB, RC heat-shrinkable nylon-insulated terminals, butt splices and disconnects	1



**WT129 flag terminal type hand tool**

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT129	D, E, F & G non-insulated flag terminals	1

Application tools

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01 ERG1-WS

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02 "V" Blade cassette



**Integral wire cutter lets user cut and strip with the same tool.**

- Interchangeable cassettes enable the user to strip a wide range of insulations without having to change tools
- Tool automatically strips wire to preset length

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Sta-Kon ERG1-WS Wire stripping/cutting tool

Cat. no.	Description	Pkg. qty.
ERG1-WS	Ergonomic wire stripping tool	1
VBC-1	Replacement "V" blade cassette	1

ERG1-WS Wire stripping/cutting tool is shipped with one straight blade cassette (SBC-1).  
"V" Blade cassettes sold separately.



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WT115A Toggle-type hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT115A	D, E, F & G non-insulated terminals	1



03 TBM6

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TBM6 and TBM6S Toggle-type hand tools

Cat. no.	For use with Sta-Kon series	Pkg. qty.
TBM6	D through M, RD through RM	1
TBM6S	D through M, RD through RM with Shure-Stake	1

Dies not included.  
Note: These tools can also be used to crimp Blackburn® lugs and splices.

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Installing dies for non-insulated code and aircraft Sta-Kon terminals

Cat. no.	Term. Size
Nest stationary die	Indentor movable die
11803	– D, E (tubular)
11805	– E (brazed), F (tubular)
11806	11802-TB F (brazed), G
11807-TB	– H
11808	– J
11809	– K
11810-TB	– L
11811	– M

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Installing dies for nylon-insulated Sta-Kon terminals

Die set cat. no.	Term. size
11821	RD (tubular)
11822	RD (brazed seam) RE (tubular)
11823	RF
11824	RG
11825	RH
11826	RJ
11827	RK
11828	RL
11829	RM



# Application tools

## Shure-Stake auto-feed tool



- Safe, fast, high-volume crimping machine.**
- Shure-Stake mechanism
  - Fully guarded foot pedal
  - Clear plastic safety guard over die area
  - Dies colour-coded to terminals
  - #26–#10 AWG wire range
  - Installs insulated and non-insulated terminals and disconnects



### Installing dies for 12050

Cat. no.	Description	Pkg. qty.
12050	Compact, pneumatically operated unit for crimping tape-mounted Sta-Kon terminals; equipped with a Shure-Stake mechanism, which ensures a full compression each time	1

Space requirement: 30 in. W x 20 in. H x 20 in. D  
Weight: 55 lb  
Air pressure: 90–125 psi input air supply

Die cat. no.	Sta-Kon terminal type	Wire size (AWG)	Pkg. qty.
12051	RA — Nylon	22–18	1
12054*	RA — Vinyl	22–18	1
12061	RA — Disconnect	22–18	1
12052	RB — Nylon	16–14	1
12055*	RB — Vinyl	16–14	1
12062	RB — Disconnect	16–14	1
12056	RC — Nylon and vinyl insulated	12–10	1
12057	A — Non-insulated	22–18	1
12058	B — Non-insulated	16–14	1
12059	C — Non-insulated	12–10	1
12060	C — Disconnect, non-insulated	12–10	1

\* Can also be used on nylon

Application tools

BAT22-6NV2 Battery-powered crimping tool



The Sta-Kon BAT22-6NV2 is motorized and automatic for effortless, single-lever crimping.

This is an excellent tool for various markets including panel builders, system integrators, data centers, utilities and various other OEM and MRO applications.

The lightweight, ergonomic design minimizes the risk of repetitive motion injuries that can occur with traditional hand crimping tools.

- 150,000 cycle lifespan
- Extremely light and efficient
- Crimps both Sta-Kon and Dragon Tooth terminals

- Comes complete with extra battery, charger and carrying case
- Powerful lithium-ion battery with charge-level indicator
- Single-lever motorized operation for easy manual preclamping, automatic crimping and auto-retract functions
- Motor-stall protection in case of faulty operation
- LED work light illuminates work areas

Included accessories

- Sturdy, plastic carrying case for portability
- Two 10.8 V lithium-ion batteries and charger
- Sturdy tray for convenient storage of crimp dies



Installing dies for BAT22-6NV2



Cat. no.	Description	Pkg. qty.
BAT22-6NV2	Battery-powered crimping tool with two 10.8 V lithium-ion batteries	1
Die sets*		
DIE2001	Sta-Kon insulated 22–10 AWG terminals	1
DIE2002	Sta-Kon non-insulated 22–10 AWG terminals	1
DIE2005	Sta-Kon non-insulated 16–14, 12–10, 8–6 AWG tubular terminals	1
DIE2007	Sta-Kon insulated 8–6 AWG tubular terminals	1
DIE2009	Sta-Kon wire joints RB, RC, RP series 22–10	1
DIE2500	Spec-Kon™ insulated 22–10 AWG terminals	1
DIE1806**	Dragon Tooth terminals 22F, L, R–6 series	1

\*Dies sold separately.  
\*\* DIE1806 is not CSA certified or UL Listed.

# Application tools

## PAIR22-6 Air crimp tool



- Heavy-duty portable tool.**
- 1.25 tons output force at 100 psi
  - Crimps #22–#6 AWG terminals
  - Installs Sta-Kon terminals as well as ferrules and Dragon Tooth™ connectors
  - Interchangeable dies
  - Open yoke enables easy access to insert and remove terminals for crimping

**Installing dies for PAIR22-6**

Cat. no.	Description	Pkg. qty.
PAIR22-6	Open yoke, hand-actuated air crimp tool	1
<b>Crimp dies*</b>		
DIE2001	Insulated #22–#10 AWG Sta-Kon terminals	1
DIE2002	Non-Insulated #22–#10 AWG Sta-Kon terminals	1
DIE2005	Non-insulated #16–#10/#8–#6 Sta-Kon terminals (tubular only)	1
DIE2007	Insulated #8–#6 AWG Sta-Kon terminals (tubular only)	1

\* Dies sold separately.  
Note: The dies for the BAIR22-6, PAIR22-6 and BAT22-6 are interchangeable.  
Note: Battery-powered tools BPI42300CR, BPLT6BSCR and BPLT62BSCR can also be used to crimp non-insulated Sta-Kon terminals.

## Application tools

### Bench-mounted air tools



**BAIR22-6 Bench-mounted air tool**

#### Crimps #22–#6 AWG terminals.

- 1.8 tons output force at 100 psi
- Bench-mounted heavy-duty air tool
- Short cycle time
- Shure-Stake mechanism
- Foot actuated
- Accepts ABB standard hand tool dies
- Installs Sta-Kon and Spec-Kon terminals, as well as ferrules and Dragon Tooth connectors

Cat. no.	Description	Pkg. qty.
BAIR22-6	Heavy-duty, high-speed production tool installs a wide range of Sta-Kon terminals, from #26–#6 AWG; uses the DIE2000 series dies for both non-insulated and insulated terminals; supplied complete with foot pedal, air hose/air lubricator	1
<b>Crimp dies*</b>		
DIE2001	Insulated #22–#10 AWG Sta-Kon terminals	1
DIE2002	Non-Insulated #22–#10 AWG Sta-Kon terminals	1
DIE2005	Non-Insulated #16–#10/#8–#6 Sta-Kon terminals (tubular only)	1
DIE2007	Insulated #8–#6 AWG Sta-Kon terminals (tubular only)	1

\* Dies sold separately.

Note: The dies for the BAIR22-6, PAIR22-6 and BAT22-6 are interchangeable.

Note: Battery-powered tools BPI42300CR, BPLT6BSCR and BPLT62BSCR can also be used to crimp non-insulated Sta-Kon terminals.



#### Crimps #8 AWG–250 kcmil.

##### Convenience and economy

The tool accepts a full range of interchangeable dies, the same as used in the TBM6 or TBM6S tools. To install the dies, simply pull the spring-loaded pin and remove the indenter die. Then, flex the retaining spring and remove the die nest.

##### Shure-Stake mechanism means quality connections

The Shure-Stake mechanism senses inlet air pressure, and if insufficient, is designed to prevent the tool from cycling. Thus you avoid “under-crimping.” An 85–90-psi air pressure source is required.

#### Safety features increase productivity, reduce downtime

Safety features include a guard over the die area, an air shutdown switch activated by a slight push with the finger and a foot pedal that’s enclosed to prevent accidental tool operation. In addition, the tool may be bench-mounted for stability and control. For convenience when crimping large size terminals on heavy wire, the head assembly may overhang the workbench.

**Air-operated bench-mounted tool**

Cat. no.	Description	Pkg. qty.
25000	This compact heavy-duty air tool installs nylon insulated Sta-Kon terminals on wire sizes from #8 AWG to 250 kcmil; non-insulated styles are also installed just as quickly and dependably; heavy-duty air tool installs non-insulated and insulated Sta-Kon terminals from #8 AWG to 250 kcmil	1

Note: This tool uses the same dies as the TBM6 and TBM6S hand tools on page B60.

## Application Tools

### Hydraulic heads



Installs insulated and non-insulated Sta-Kon terminals!

#### 12-Ton hydraulic head

Cat. no.	Description	Pkg. qty.
13400	12-ton crimping tool supplied with adapter TBM12D-AR; used for installing both insulated and non-insulated Sta-Kon terminals #8 AWG to 250 kcmil (dies ordered separately)	1

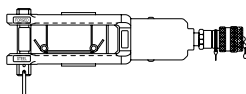


Military listed and 12 tons of crimping power.

#### 12-Ton crimping tool (military spec. MS25441-1)

Cat. no.	Description	Pkg. qty.
13642M	Hydraulic-operated 12-ton tool; installs #8 AWG to 250 kcmil Sta-Kon terminals (dies ordered separately)	1

#### Diagram



#### Hex dies for non-insulated Sta-Kon terminals to fit 13642M and 13400

Cat. no.	For tubular term	For brazed seam	Sta-Kon size	Wire size (AWG)	Hex die code
11732	—	—	D	8	21
—	—	11733	D	8	24
11733	—	—	E	6	24
—	—	11734	E	6	29
11734	—	—	F	4	29
—	—	11735	F	4	33
11736	—	—	G	2-1	37
11737	—	—	H	1/0	42
11738	—	—	J	2/0	45
11739	—	—	K	3/0	50
11740	—	—	L	4/0	54
11771	—	—	M	250 kcmil	62

#### Hex dies for non-insulated Sta-Kon terminals to fit 13642M (military listed)

Die cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
11781M	D	8	1
11782M	E	6AN	1
11783M	F	4AN	1
11784M	G	2AN	1
11785M	H	1AN	1
11786M	J	1/0AN	1
11787M	K	2/0AN	1
11788M	L	3/0AN	1
11789M	M	4/0AN	1

#### Installing dies for insulated Sta-Kon terminals to fit 13642M (military listed)

Die cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
21707M	RD	8	1
21708M	RE	6	1
21709M	RF	4	1
21710M	RG	2-1	1
21711M	RH	1/0	1
21712M	RJ	2/0	1
21713M	RK	3/0	1
21714M	RL	4/0	1
21715M	RM	250 kcmil	1

#### Indent-style dies for Sta-Kon brazed seam non-insulated terminals to fit 13642M and 13400

Nest cat. no.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
13643	13650	D	8	1
13644	13650	E	6	1
13645	13650	F	4	1

#### Indent-style dies for Sta-Kon tubular non-insulated terminals to fit 13642M and 13400

Nest Cat. No.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
13654	13650	G	2-1	1
13655	13650	H	1/0	1
13656	13650	J	2/0	1
13657	13650	K	3/0	1
13658	13650	L	4/0	1
13659	13650	M	250 kcmil	1

#### Indent-style dies for flag type Sta-Kon terminals — use with 13642M and 13400

Nest cat. no.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
21733	21731	D	8	1
21734	21731	E	6	1
21735	21731	F	4	1
21736	21732	G	2	1
21737	21732	H	1	1
21738	21732	J	1/0	1
21739**	21732	K	2/0	1
21740**	21732	L	3/0	1
21741**	21732	M	4/0	1

\*\* Cat. nos. 21739, 21740 and 21741 dies must be left in 13642M head with 21732 indentor when gauging

Application tools

Hydraulic pumps



- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case
- 13620 hand switch and 13619 hydraulic hose, both sold separately, required for operation

Specifications

- Motor: ½ hp, 115 V 50–60 Hz, 10 amps
- Pumping Capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 6 in. x 8 in. x 16 in.
- Weight: 25 lb

13600 Electric hydraulic pump

Cat. no.	Description	Pkg. qty.
13600	Electric hydraulic pump – hand or foot switch and non-metallic hose (sold separately) required for operation	1



- Shure-Stake control mechanism requires 9,800-psi pump pressure before recycling to prevent under-crimping
- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case

Specifications

- Motor rating: ½ hp, 115 V, 50–60 Hz, 12.5 amps
- Pumping capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 8½ in. x 10½ in. x 16 in.
- Weight: 35 lb

13610A Electric hydraulic pump with Shure-Stake control

Cat. no.	Description	Pkg. qty.
13610A	Electric hydraulic pump with Shure-Stake control – hand or foot switch and non-metallic hose (sold separately) required for operation	1

## Application tools

### Hydraulic pumps



- Designed for perfect crimps every time in heavy-duty OEM applications
- Heavy-duty OEM two-stage pump with high flow rate
- Shure-Stake control mechanism requires 9,800-psi pump pressure before recycling to prevent under-crimping
- Requires hand or foot control (sold separately)

#### Specifications

- Motor rating: 1½ hp, 115 V, 60 Hz, 23 amps
- Pumping capacity:  
235 cu.in./min. at 200 psi  
6 cu.in./min. at 8,000 psi
- Reservoir volume: 462 cu.in./2 gal.
- Dimensions (L x W x H): 10¾ in. x 15 in. x 20¾ in.
- Weight: 60 lb

#### 13810 Heavy-duty electric hydraulic pump with Shure-Stake control

Cat. no.	Description	Pkg. qty.
13810	Heavy-duty electric hydraulic pump with Shure-Stake control – hand or foot switch and non-metallic hose (sold separately) required for operation	1

#### Accessories for electric hydraulic pumps

Cat. no.	Description	Pkg. qty.
<b>For 13600</b>		
13620	Hand switch	1
13589A	Foot switch	1
13619	10-ft. Non-metallic hose	1
13618	20-ft. Non-metallic hose	1
13600S	“Sled” type stand for 13600 pump	1
<b>For 13610A and 13810</b>		
13611	Hand switch	1
13612	Foot switch	1
13619	10-ft. Non-metallic hose	1

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