

HILTI
INSTRUCTION MANUAL



HILTI RAPID FASTENING SYSTEMS, INC.
73 SOUTHFIELD AVE., STAMFORD, CONN. • DAvis 5-2244

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DX-100 POWER-ASSISTED
DRIVE TOOL

THE HILTI DX-100 DRIVE TOOL



This is the DX-100—A new concept Hammer Drive Tool for easy fastening into extra dense materials...from heavy pipe straps to the lightest wire clips the DX-100 can fasten them all, with only **one** stroke of a hammer. Overhead work becomes easy, too.

For heavier fastenings, a tremendous power assist is possible using the power drive ram and a Booster Cap which multiplies the transmitted force of the hammer. The force of the stroke moves a drive insert which pushes the fastener into the concrete (or steel). For light fastenings no additional power is required. This is the safest, surest system of fastening ever developed with unmatched flexibility of use.

HILTI "CONIC"® FASTENERS

The "conic" shape makes HILTI fasteners penetrate easier and hold better. They are available in a complete assortment of threaded studs and pins. With your DX-100 tool and "conic" fasteners you will save time and money on **every** job.



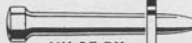



DX-100 Tool Kit

Custom-fitted, heavy gauge steel, spill proof.

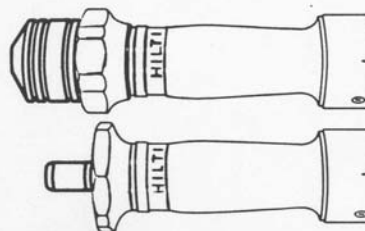
Complete Kit Contains:

- 1 Dx-100 Drive Tool
- 1 Power Ram G-27—for Booster-Cap-Assisted Fastening
- 1 Drive Insert G-NK—for all "Conic" Drive Pins, NK-DX Series
- 1 Drive Insert G-E4—for all 8-32 Threaded Studs, 3/8" thread length, 400-DX Series
- 1 Drive Insert G-E6 1/4—for all 1/4"-20 Threaded Studs, 1/4" thread length, 600-DX Series
- 1 Drive Insert G-E7 1/4—for all 1/4"-20 Threaded Studs, 1/2" thread length, 700-DX Series
- 1 Drive Insert G-E8 1/4—for all 1/4"-20 Threaded Studs, 3/4" thread length, 800-DX Series
- 1 Ram G-26—for Hammer Driven Fastening
- 1 Special Allen Wrench with Booster Cap Remover at one end G-35
- 1 Cleaning Brush G-34
- 1 Spare Parts Container: 1 Spring G-10, 1 Counter Pin G-11, 5 Safety Stop-Washers G-20
- 1 HILTI Hammer 2 1/2 lbs.
- 1 Container Special HILTI Lubricant

 435 DX	8-32 NC threaded studs 400-DX series: thread length 3/8", total length from 3/4" to 4"
 735 DX	1/4"-20 NC threaded studs 600-DX series: thread length 1/4", total length from 3/4" to 4" 700-DX series: thread length 1/2", total length from 1" to 2 3/4" 800-DX series: thread length 3/4", total length from 1 1/2" to 2 3/4"
 NK 35 DX	NK-DX series, drive pins: total length from 3/4" to 4"
 DR 20	DR-DX series, drive ring fasteners: shaft length 3/4", total length 1 1/2" to 2"

NOTE: All fasteners are furnished with pre-mounted anchor discs.

Your DX-100 is 2 Tools in 1



1. For heavier fastening in dense concrete, steel...booster-cap-assisted fastening with power ram G-27.
2. For fastening in light concrete, hammer driven only, with ram G-26.

A Note on Maintenance:

Your DX-100 tool is precision made of the finest tool steel. With a minimum of maintenance it will give you long service. After each day's use just pass cleaning brush through tool and lubricate. After extensive use (1200-1500 fastenings), disassemble tool as per instructions p.8 ... and clean all parts thoroughly of accumulated particles, dust and carbon.

BE SURE TO READ THESE INSTRUCTIONS CAREFULLY 3

INSTRUCTIONS FOR HILTI DX-100 DRIVE TOOL WHEN USED WITH POWER RAM G-27 FOR BOOSTER-CAP-ASSISTED FASTENING

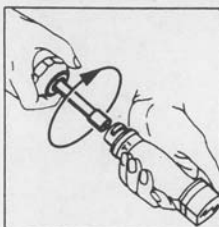


fig. 1

1. Unlock hex collar G-5 as shown and pull out power ram assembly.

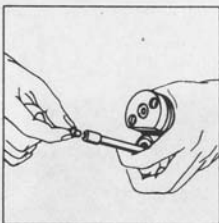


fig. 2

2. Insert proper booster cap, flat surface out, press in finger tight.
Note: for medium heavy fastening use gray booster cap
for heavy fastening use brown booster cap

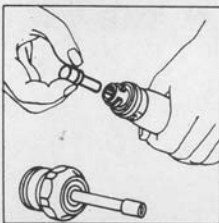


fig. 3

3. Enter proper drive insert into tool.
For all drive pins NK-DX use drive insert G-NK
For all 8-32 threaded studs (3/8" thread length) use drive insert G-E4 (L)*
For all 1/4"-20 threaded studs (1/4" thread length) use drive insert G-E6 1/4 (L)*
For all 1/4"-20 threaded studs (1/2" thread length) use drive insert G-E7 1/4 (L)*
For all 1/4"-20 threaded studs (3/4" thread length) use drive insert G-E8 1/4 (L)*

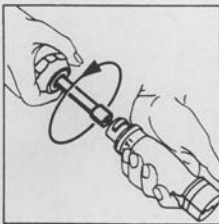


fig. 4

4. Replace power ram assembly G-27 and lock hex handle G-5 as shown.

*Drive inserts G-E4L, G-6 1/4L, G-E7 1/4L, G-E8 1/4L are for the DX-100L Drive Tool fitting 3/4" channels up to 1 1/2" deep.

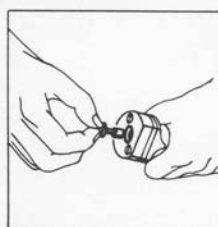


fig. 5

5. Withdraw ram approximate length of fastener. Enter fastener, point out, so washer seats itself finger tight in tool base.

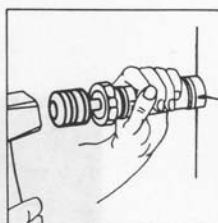


fig. 6

6. Place point of fastener on surface where fastening is desired (for precision, pin-pointing notches in base of tool can be used to match marked cross hairs) and press tool firmly so base rests on surface solidly. One solid stroke of the hammer completes the fastening.

Special note: We recommend the HILTI hammer or equivalent (2 1/2 lbs.), to insure maximum ease of operating in both booster-cap-assisted and hand driven fastenings.

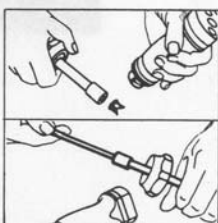


fig. 7, fig. 7a

7. Unlock hex collar G-5 (see fig. 1). Pull out power ram assembly and remove used cap. Occasionally cap may wedge in ram. To remove, use cap ejector end of Allen wrench G-33 (fig. 7).

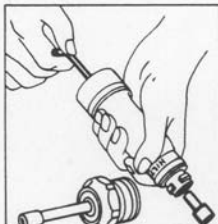


fig. 8

8. To exchange drive inserts, push out unwanted insert with Allen wrench from base end. Push proper drive insert into tool with opening to receive fastener towards base (see fig. 3).

FOR INSTRUCTION USING HILTI DX-100 DRIVE TOOL MANUALLY WITH DRIVE RAM G-26 SEE FOLLOWING PAGES.

INSTRUCTIONS FOR HILTI DX-100 DRIVE TOOL

WHEN USED MANUALLY WITH RAM G-26

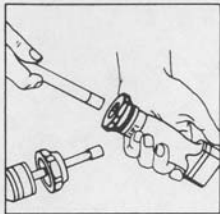


fig. 9

9. Remove power ram assembly G-27.

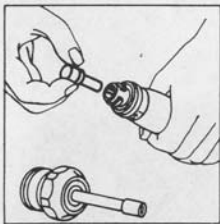


fig. 10

10. Enter proper drive insert into tool.

For all drive pins NK-DX use drive insert G-NK

For all 8-32 threaded studs (3/8" thread length) use drive insert G-E4 (L)*

For all 1/4"-20 threaded studs (1/4" thread length) use drive insert G-E6 1/4 (L)*

For all 1/4"-20 threaded studs (1/2" thread length) use drive insert G-E7 1/4 (L)*

For all 1/4"-20 threaded studs (3/4" thread length) use drive insert G-E8 1/4 (L)*

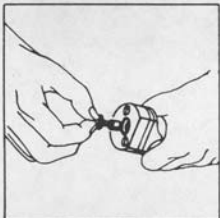


fig. 11

11. Withdraw ram approximate length of fastener. Enter fastener, point out, so washer seats itself finger tight in tool base.

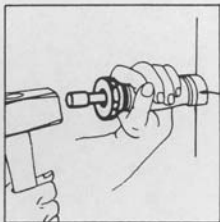


fig. 12

12. Place point of fastener on surface where fastening is desired (pin-pointing notches in base of tool can be used to match marked cross hairs) and press tool firmly so base rests on surface solidly. Tap to set, whack to drive. Tap before each blow.

Special note: We recommend the HILTI hammer or equivalent (2 1/2 lbs.). It insures maximum ease of operation in both booster-cap-assisted and hand driven fastenings.

*Drive inserts G-E4L, G-E6 1/4 L, G-E7 1/4 L, G-E8 1/4 L, are for the DX-100L Drive Tool fitting 3/4" channels up to 1 1/2" deep.

SPECIAL INSTRUCTIONS FOR CHANGING SAFETY STOP-WASHER

To prevent damage to tool, a Safety Stop-Washer G-20 is assembled into the base of the HILTI DX-100. The washer becomes deformed if the tool is used in error against too thin a surface (sheet rock, hollow tile, thin plywood, etc.) and must be replaced.

TO CHANGE STOP-WASHER:

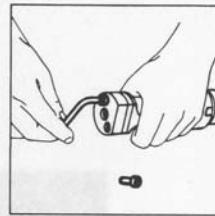


fig. 13

13. Remove two screws from face of base plate G-2 with Allen wrench G-33. Push insert back into tool with Allen wrench. Pivot base plate.

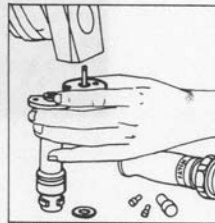


fig. 14

14. Enter any fastener into small hole provided in base, tap slightly with hammer and the deformed safety stop-washer falls out.

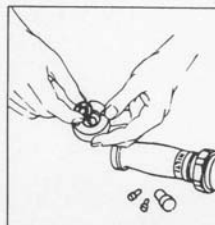


fig. 15

15. Replace with new safety stop-washer and re-assemble.

NOTE: Be sure your tool is always assembled with a safety stop-washer to prevent damage.

INSTRUCTIONS FOR SERVICING YOUR HILTI DX-100 DRIVE TOOL

The simple, sturdy construction of your DX-100 tool requires only a minimum of servicing. The few minutes it requires to take the tool apart, clean and oil the few parts (replace any that are worn) and re-assemble for use will pay off handsomely in long service.

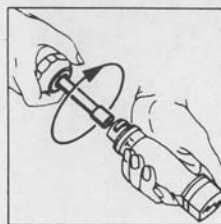


fig. 16

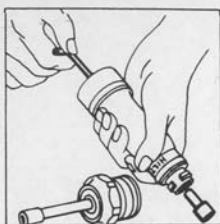


fig. 17



fig. 18

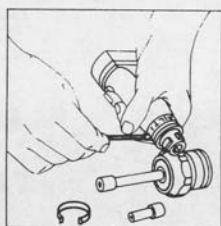


fig. 19

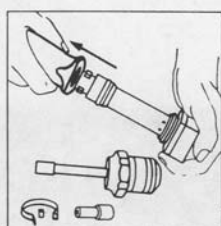


fig. 20

TO DISASSEMBLE:

16. Remove ram assembly G-27 or ram G-26.
17. Push drive insert out of tool body using Allen wrench.
18. Loosen screws on base plate with Allen wrench. Pivot base plate. Safety stop-washer can now be taken out and all parts are available for inspection and cleaning.
19. Remove retaining spring G-10. Remove counter pin.
20. Pull off handle from tool body.

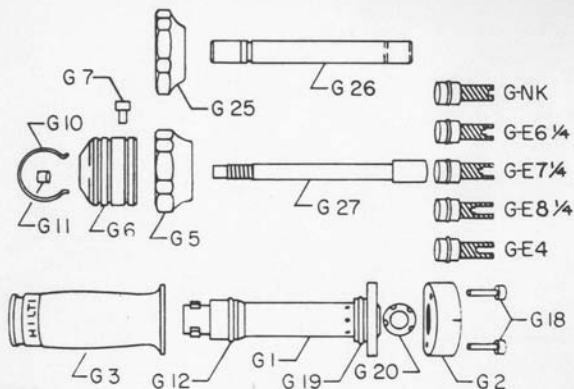
NOTE: All parts have part numbers stamped on—when ordering any spare or replacement parts please refer to tool model and correct part number.

TO ASSEMBLE:

1. Replace handle on tool, insert counter pin and clip retaining spring back on.
2. Replace safety stop-washer in base plate.
3. Pivot base plate onto tool body. Insert 2 screws and tighten with Allen wrench.
4. Select desired drive insert and ram (see instructions) for next fastening job, and your DX-100 tool is ready to go.

PARTS LIST FOR DX-100 TOOL

Special note: Each part has part number stamped on.



Part No. Description

G-1	Tool-body
G-2	Base-plate
G-3	Handle
G-5	Hex-collar
G-6	Power ram head
G-7	Allen screw for ram head
G-10	Retaining spring-ring
G-11	Counter pin
G-12	Rubber gasket
G-18	Allen screws for base plate
G-19	Rubber gasket
G-20	Safety stop-washer

Part No. Description

G-25	Rubber hand protector
G-26	Hammer ram
G-27	Power ram
G-NK	Drive insert for NK "conic" pins
G-E6 1/4	Drive insert for 1/4"-20 threaded fasteners (1/4" thread length)
G-E7 1/4	Drive insert for 1/4"-20 threaded fasteners (1/2" thread length)
G-E8 1/4	Drive insert for 1/4"-20 threaded fasteners (3/4" thread length) and for DR-DX Series, drive ring fasteners
G-E4	Drive insert for 8-32 threaded fasteners (3/8" thread length)

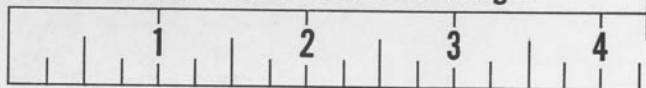


RECOMMENDED:

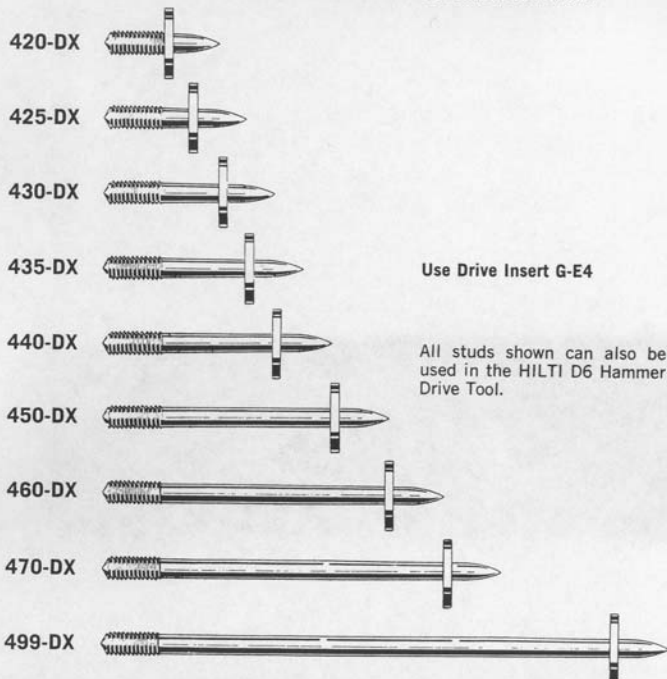
For ease of operation and best results, the 2 1/2 lbs. balanced HILTI Hammer especially designed for hand driven fastening.

For complete selection of "conic" fasteners that only HILTI makes available to you, see following pages.

8-32NC "CONIC" STUDS — 3/8" thread length



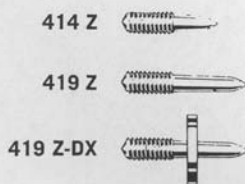
all studs are shown in actual size



Use Drive Insert G-E4

All studs shown can also be used in the HILTI D6 Hammer Drive Tool.

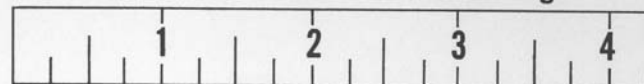
SPECIAL STUDS 8-32NC FOR SOLID STEEL AND EXTREMELY HARD CONCRETE — 3/8" thread length



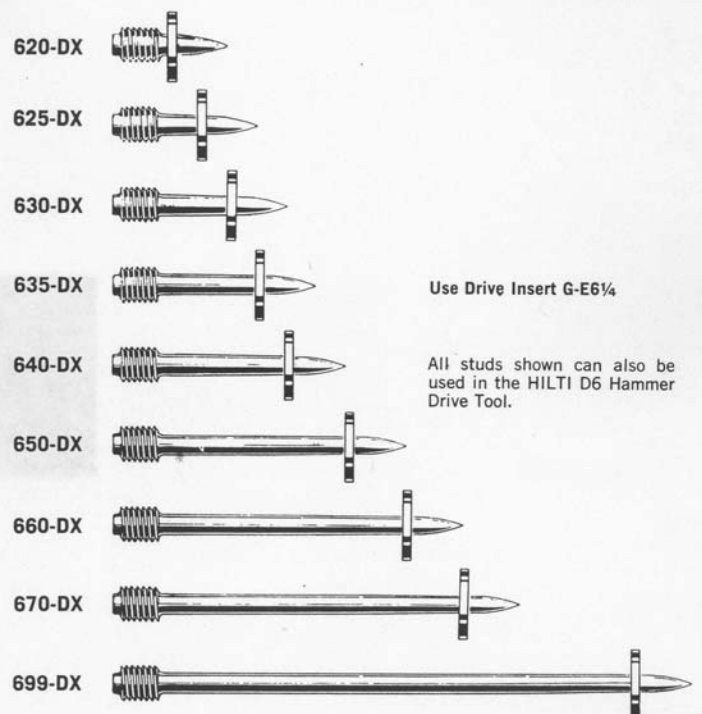
Use Drive Insert G-E4

All studs shown can also be used in the HILTI D6 Hammer Drive Tool.

1/4" - 20NC "CONIC" STUDS — 1/4" thread length



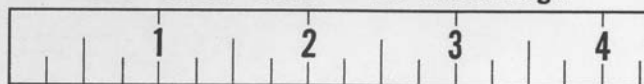
all studs are shown in actual size



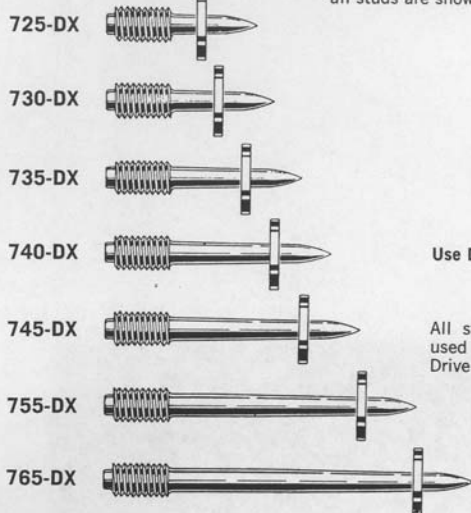
Use Drive Insert G-E6 1/4

All studs shown can also be used in the HILTI D6 Hammer Drive Tool.

1/4" - 20NC "CONIC" STUDS — 1/2" thread length



all studs are shown in actual size

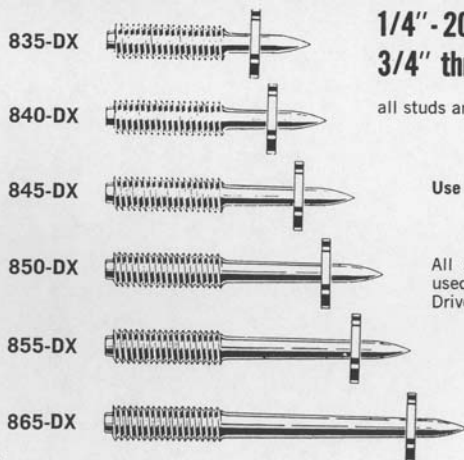


Use Drive Insert G-E7 1/4

All studs shown can also be used in the HILTI D6 Hammer Drive Tool.

1/4" - 20NC "CONIC" STUDS 3/4" thread length

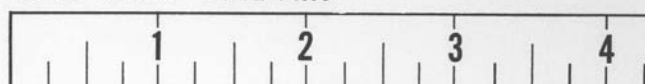
all studs are shown in actual size



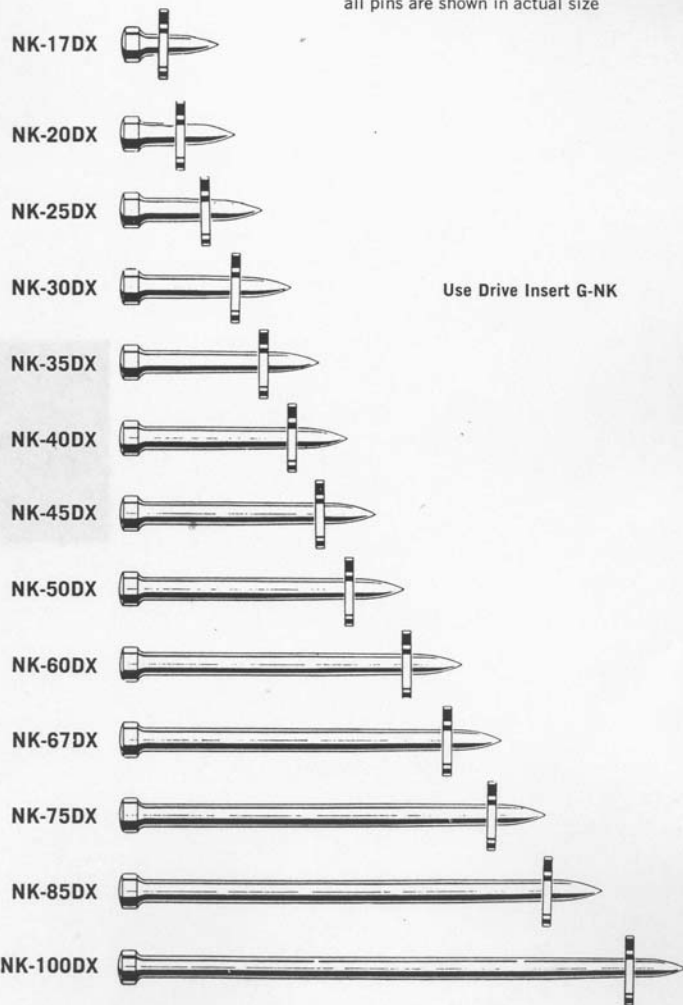
Use Drive Insert G-E8 1/4

All studs shown can also be used in the HILTI D6 Hammer Drive Tool.

NK-DX "CONIC" DRIVE PINS

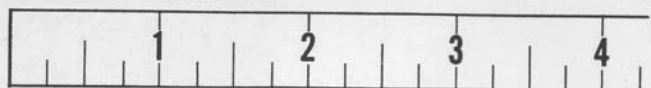


all pins are shown in actual size

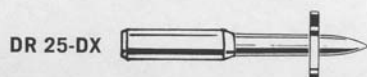


Use Drive Insert G-NK

DRIVE RING FASTENERS



all fasteners are shown in actual size



Use Drive Insert G-E8¼



SPECIAL BOOSTER CAP HILTI MODEL DX-100



Caliber 25

Color	Charge
gray	regular
brown	strong

IMPORTANT: Use HILTI Booster Caps ONLY. Ordinary cartridges will cause damage and make the HILTI guarantee void.

PART NO. G-64 - CARTRIDGE EXTRACTOR

This Cartridge Extractor is to be used only when booster has failed to explode or is jammed in the power ram after explosion.

Drop Cartridge Extractor, base down, into tool barrel so that threaded point faces up towards booster. Replace and lock power ram assembly. Set tool on hard working surface. Whack power ram head to explode booster.

If booster is jammed after firing, thread Cartridge Extractor into exploded booster like corkscrew and pull booster out.

GUARANTEE

We guarantee the DX-100 Drive Tool against defects in workmanship and material for a period of 90 days from date of purchase. Enclosed registration card must be filled in and returned to us within 10 days of purchase.

Specifications subject to change.