ORIGINAL INSTRUCTIONS

GB105-50
GB105-60
GB105-80
GB105-100
GB105-120

GB105-50-120
Digital Tool Manual

BLIND BOLT REMOVAL KIT

GAGE BILT TOOLS ARE AVAILABLE WORLDWIDE
E-MAIL US FOR A DISTRIBUTOR NEAR YOU.

GAGE BILT
MADE in USA

44766 Centre Court Clinton Twp. MI 48038 USA
Ph: +1 (586) 226-1500 Fax: +1 (586) 226-1505
solutions1@gagebilt.com / www.gagebilt.com

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WARRANTY

Seller warrants that all goods covered by this catalog will conform to applicable specifications and will replace or repair, EXW our plant, any goods providing defective from faulty workmanship, or material, for 1 year from date of shipment.

Said warranty to remain in effect if, and only if, such goods are used in accordance with all instructions as to maintenance, operation and use, set forth in manuals and instruction sheets furnished by seller.

Sellers obligation under this warranty shall be limited to the repair or rework of the goods supplied or replacement thereof, at Seller's option, and in no case is to exceed the invoice value of said goods. Under no circumstances will the seller be liable for incidental or consequential damages or for damages incurred by the buyer or subsequent user in repairing or replacing defective goods or if the goods covered by this warranty are reworked or subjected to any type of additional processing.

This warranty is void if Seller is not notified in writing of any rejections or defects within 1 year after the receipt of the material by the customer.

THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY.

SAFETY WARNINGS

TERMS AND SYMBOLS

- Product complies with requirements

- Hearing protection and eye protection

- Read manual prior to using equipment

- Wear safety boots

WARNINGS - Must be understood to avoid severe personal injury.

CAUTIONS - show conditions that will damage equipment and/or structure.

Notes - are reminders of required procedures.

GENERAL SAFETY RULES:

1. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the assembly power tool for non-threaded mechanical fasteners.
2. Only qualified and trained operators should install, adjust or use the assembly power tool for non threaded mechanical fasteners.
3. Do not modify this assembly power tool for non-threaded mechanical fasteners. Modifications can reduce effectiveness of safety measures and increase the risks to the operator.
4. Do not discard safety instructions; give them to the operator.
5. Do not use assembly power tool for non-threaded mechanical fasteners if it has been damaged.
6. Tools shall be inspected periodically to verify all ratings and markings required are legible. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.
7. Air under pressure can cause severe injury.
8. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.
9. Never direct air at yourself or anyone else.
10. Whipping hoses can cause severe injury. Always check for damage or loose hoses and fittings.
11. Cold air shall be directed away from hands.
12. Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whipcheck safety cables shall be used to safeguard against possible hose-to-tool or hose-to-hose connection failure.
13. Do not exceed the maximum air pressure stated on the tool or manual.
14. Never carry an air tool by the hose.

ADDITIONAL SAFETY RULES FOR PNEUDRAULIC POWER TOOLS:

1. Air under pressure can cause severe injury.
2. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.
3. Never direct air at yourself or anyone else.
4. Whipping hoses can cause severe injury. Always check for damage or loose hoses and fittings.
5. Cold air shall be directed away from hands.
6. Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whipcheck safety cables shall be used to safeguard against possible hose-to-tool or hose-to-hose connection failure.
7. Do not exceed the maximum air pressure stated on the tool or manual.
8. Never carry an air tool by the hose.

PROJECTILE HAZARDS:

1. Disconnect the tool from the energy source when changing inserted tools/nose assemblies or accessories.
2. Be aware that failure of the workpiece or accessories, or even the inserted tool/nose assembly itself can generate high-velocity projectiles.
3. Always wear impact resistant eye protection during operation of the tool. The grade of protection required should be assessed for each use.
4. The risk to others should also be assessed at this time.
5. Ensure that the workpiece is securely fixed.
6. Check that the means of protection from ejection of fastener and/or stem is in place and operative (such as the deflector).
7. Forcible ejection of the mandrel from the front of the nose assembly is possible.

OPERATING HAZARDS:

1. Use of tool can expose the operator's hands to hazards, including crushing, impacts, cuts, abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
4. Maintain a balanced body position and secure footing.
5. Release the start-and-stop device in the case of interruption of energy supply.
6. Use only lubricants recommended by the manufacturer.
7. Avoid unsuitable postures as it is likely for these positions not to allow counteracting of normal or unexpected movement of the tool.
8. If the tool is fixed to a suspension device, make sure that fixation is secure.
9. Beware of the risk of crushing or pinching if nose equipment is not fitted.
10. Due to the tool weight, it is recommended safety shoes be worn during operation.
11. It is recommended tool be operated not more than 50 out of every 60 minutes, where prolonged use is expected.

REPETITIVE MOTIONS HAZARDS:

1. When using the tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. While using the tool, the operator should adopt a comfortable posture while maintaining a secure footing and avoiding awkward or off balanced postures. The operator should change posture during extended tasks; this can help avoid discomfort and fatigue.
3. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warning signs should not be ignored. The operator should tell the employer and consult a qualified health professional.

ACCESSORY HAZARDS:

1. Disconnect tool from energy supply before changing the nose assembly or accessory.
2. Use only sizes and types of accessories recommended by the manufacturer. Do not use other types or sizes of accessories.

WORKPLACE HAZARDS:

1. Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by use of tool and also of trip hazards caused by the air line or hydraulic hose.
2. Proceed with care in unfamiliar surroundings. There could be hidden hazards, such as electricity or other utility lines.
3. The tool is not intended for use in potentially explosive atmospheres and is not insulated against contact with electrical power.
4. Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by the tool.

NOISE HAZARDS:

1. Exposure to high noise levels can cause permanent, disabling hearing loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears). Therefore, risk assessment and the implementation of appropriate controls for these hazards are essential.
2. Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from “ringing”.
3. Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
4. Operate and maintain the assembly power tool for non-threaded mechanical fasteners as recommended in the instruction handbook, to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise.
6. If the power tool has a silencer, always ensure that it is in place and in good working order when the power tool is being operated.

VIBRATION HAZARDS:

1. Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
2. Wear warm clothing when working in cold conditions and keep your hands warm and dry.
3. If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the assembly power tool for non-threaded mechanical fasteners, tell your employer and consult a physician.
4. Support the weight of the tool in a stand, tensioner or balancer, because a lighter grip can then be used to support the tool.

HOW TO USE BLIND BOLT REMOVAL TOOLS

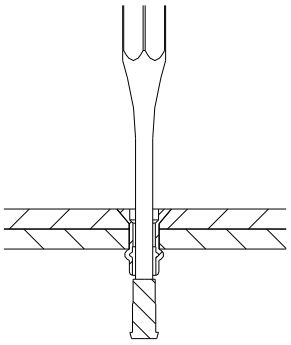
Use the GB105 blind bolt removal kit is for easy removal of BP-T and B100-T blind bolts. When drilling out pins, use a high speed drill motor. When removing lock collars, use a drill motor with maximum speed of 1250 rpm with micro-limit tool.

1. Place drill and bushing squarely on lock collar and drill depths as follows:

Blind Bolt Size	Drill Diameter	Minimum Depth
5/32”	.0980 (402999)	.050-.070
3/16”	.1200 (403000)	.070-.090
1/4”	.1562 (403001)	.090-.110
5/16”	.1875 (403003)	.105-.125
3/8”	.2280 (403005)	.130-.150

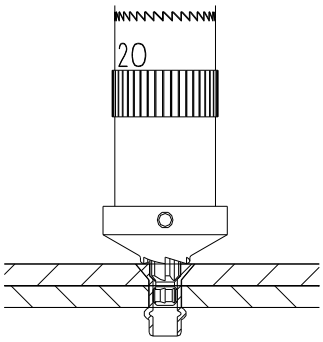
2. Using pin punch size as indicated below, knock out fastener. Remove lock collar and fastener with a pointed instrument.

Blind Bolt Size	Punch Size
5/32”	3/32” (403010)
3/16”	3/32” (403010)
1/4”	5/32” (403012)
5/16”	3/16” (403013)
3/8”	7/32” (403014)



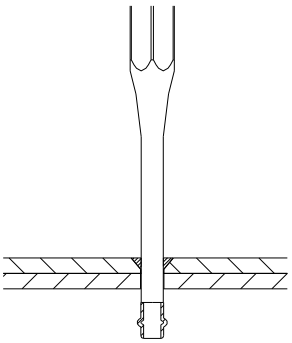
3. Counterbore sleeve by placing anti-rotation cap on head of fastener. Set micro-limit tool to within .005 to .015 less than the head height of bolt. Proceed with counterbore operation.

	Head Height	
Blind Bolt Size	Protruding Head	Countersunk Head
5/32”	.070	.070
3/16”	.135	.080
1/4”	.140	.105
5/16”	.140	.135
3/8”	.205	.165



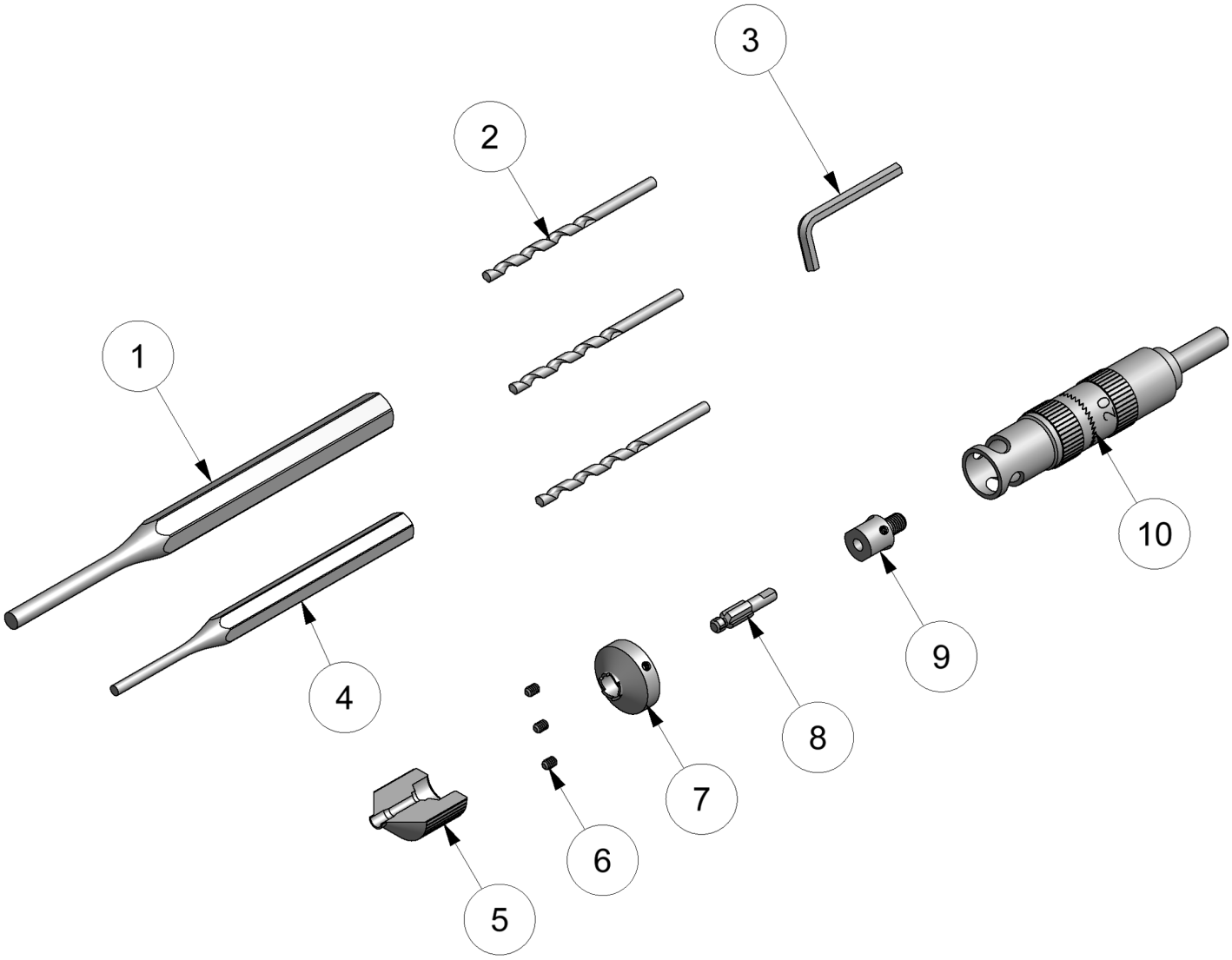
4. Using sleeve punch size as indicated below, knock out fastener.

Blind Bolt Size	Punch Size
5/32”	5/32” (403012)
3/16”	3/16” (403013)
1/4”	1/4” (403015)
5/16”	5/16” (403016)
3/8”	3/8” (403017)



Nominal reamer size is the same diameter as bolt size. Punches are 4 inches long.

PARTS LIST



Ref. No.	Qty.	Description	GB105-50 (5/32")	GB105-60 (3/16")	GB105-80 (1/4")	GB105-100 (5/16")	GB105-120 (3/8")
1	1	Pin Punch	403010	403010	403012	403013	403014
2	3	Drill	402999	403000	403001	403003	403005
3	1	Hex Key	402443	402443	402443	402443	402443
4	1	Sleeve Punch	403012	403013	403015	403016	403017
5	1	Drill Bushing	105525	105526	105528	105529	105530
6	3	Set Screw	401775	401775	401775	401775	401775
7	1	Anti-Rotation Cap	105535	105535	105538	105538	105539
8	1	Cutter	105505	105506	105508	105510	105512
9	1	Cutter Holder	105515	105516	105516	105519	105519
10	1	Micro Limit Tool	105000	105000	105000	105000	105000
11	-	Micro Limit Tool Assembly (Includes Numbers 6-10)	105050	105060	105080	105100	105120
12	1	Case	105001	105001	105001	105001	105001

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Blind Rivet and Blind Bolt Removal Kits Available
(Sold Separately)

Gage Bilt offers a wide selection of standard and custom kits tailored to your needs.
Contact us for more information.

Image may not reflect actual kit.

GB105-456CMK
Blind Rivet Removal Kit Includes:

GB105-24 (1/8”)
GB105-25 (5/32”)
GB105-26 (3/16”)

GB105BRBB
Blind Rivet & Blind Bolt Removal Kit Includes:

Blind Rivet Removal Kits
GB105-24 (1/8”)
GB105-25 (5/32”)

Blind Bolt Removal Kits
GB105-50 (5/32”)
GB105-60 (3/16”)
GB105-80 (1/4”)

Blind Rivet Removal Kits Available
(Sold Separately)

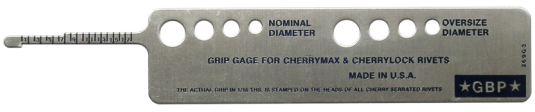
GB105-24 1/8 Blind Rivet NAS-	**GB105-25** 5/32 Blind Rivet NAS-	**GB105-26** 3/16 Blind Rivet NAS-	**GB105-28** 1/4 Blind Rivet NAS-

Blind Bolt Removal Kits Available
(Sold Separately)

GB105-50 5/32 Blind Bolt MS-	**GB105-60** 3/16 Blind Bolt MS-	**GB105-80** 1/4 Blind Bolt MS-	**GB105-100** 5/16 Blind Bolt MS-	**GB105-120** 3/8 Blind Bolt MS-

ACCESSORIES
(Sold Separately)

Grip Gage #269G3
For CHERRYMAX® and CHERRYLOCK® rivets
(Sold Separately)



Grip Gage #GB105093
For NAS LOCKBOLTS and blind fasteners
(Sold Separately)