



# Instruction Sheet

## HOTBOX™ PVC BENDER

RPS-0008

04/01

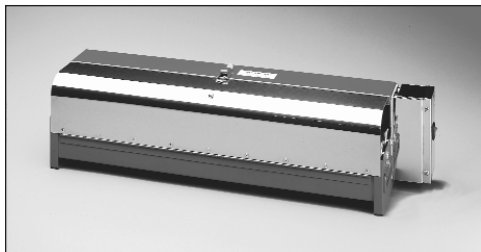
### IMPORTANT RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. If shipping damage is found, notify carrier at once. Shipping damage is NOT covered by warranty. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

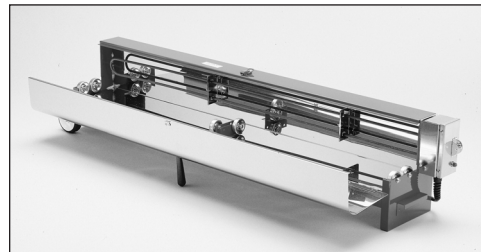
### SAFETY ISSUES

**IMPORTANT – USER SAFETY AND PROTECTION:** In setting up systems to fit your operations, care must be taken to select the proper components and design to insure appropriate that all safety measures have been taken to avoid the risk of personal injury and property damage from your application or system.

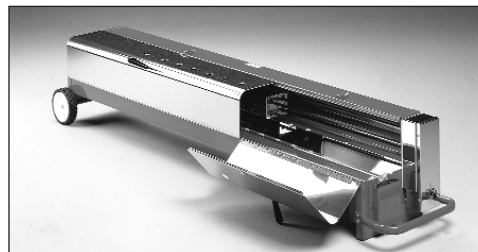
GB TOOLS & SUPPLIES INC. IS NOT RESPONSIBLE FOR DAMAGE OR INJURY CAUSED BY UNSAFE USE, MAINTENANCE OR THE APPLICATION OF ITS PRODUCTS. Please contact GB TOOLS & SUPPLIES INC. for guidance when you are in doubt as to the proper safety precautions to be taken in designing and setting up your particular application.



**BHB-520D**  
For conduit ½" to 2" dia.  
Includes BEND-GUIDE® and 5ft. cord



**BHB-540A**  
For conduit ½" to 4" dia.



**BHB-560P PowerDrive**  
For conduit ½" to 6" dia.

HOTBOX™ PVC BENDER						
Catalog Number	Description	Power Requirements			Dimensions (L x W x H)	
		Watts	Volts	Amps		
BHB-520D	½" - 2" HotBox™ PVC Bender with BG-520 Bend-Guide™ Bend Gauge	1450	115 /120	12	29½" x 7" x 7½"	
BHE-50K	Replacement Heating Element ½" - 2" HotBox™	1450	115 / 120	12		
BHB-540A	½" - 4" HotBox™ PVC Bender	2400	115 / 120	20	54½" x 8½" x 11½"	
BHE-540	Replacement Heating Element ½" - 4" HotBox™	2400	115 / 120	2		
BHB-560	½" - 6" HotBox™ PVC Bender	5500	230 VAC	24	74" x 11½"	
BHB-560P	½" - 6" HotBox™ PVC Bender	5500	230 VAC	24	74" x 11½"	
BHE-560	Replacement Heating Element ½" - 6" HotBox™	5500	230 VAC	24		

## 1.0 GENERAL INSTRUCTIONS

1. Place unit on secure dry surface. Keep flammable materials away from unit while in use.
2. Connect to adequate power supply. Allow approximately 90 seconds for full heat development.
3. Place conduit on supporting roller and rotate slowly until softened. Conduit may be reheated and rebent if necessary without damage to the material.

When adequately heated the conduit should be easy to bend. Be sure to rotate conduit during heating. Correct bending temperature can be determined by lifting one end of the conduit. When it deflects readily it is ready to bend, conduit will have a glossy appearance when adequately heated.

### 1.1 SPECIAL INSTRUCTIONS – BHB-520D & BHB-540A

**Assembly Instruction:** Open cover and remove cover handle. Re-install on outside of cover See Figures 1 & 2. Remove Bend-Guide™ from stored position before operating hot boxes.

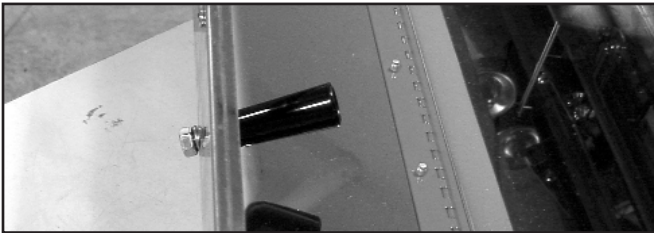


Figure 1. Remove Handle

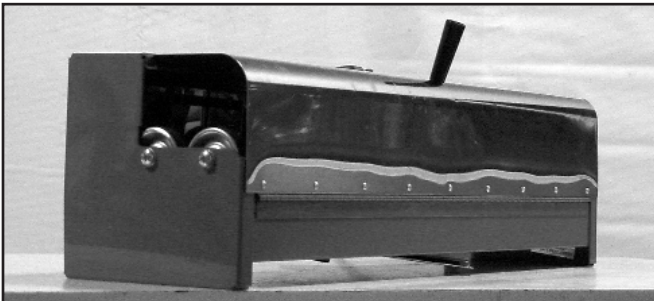


Figure 2. Handle Correctly Placed

1. Model BHB-520D is designed for heating conduit 1/2" to 2" diameter. A sufficient heated length is obtained to form the conduit into a 90° bend complying with NEC. (See Chart on Page 4 for stock lengths and radii)
2. Close cover to speed heating process in windy locations. In open position, cover can be used as a pre-heater tray for several conduit sections.
3. It is not necessary to fill or plug conduits 1 1/2" diameter or smaller before bending.

### 1.2 SPECIAL INSTRUCTIONS – BHB-560 & BHB-560P

**Assembly:** Install wheel assembly at end opposite switch. Install "U" shaped foot bracket at switch end on "inside" of flanges provided.

**Wiring:** Purchase a 220/240 plug. Connect plug to cord according to instructions provided by plug manufacturer.

1. Model BHB-560 is designed for heating all conduit sizes to 6" diameter. It has a special heat flow system which assures uniform heating along the entire heated length.

2. Close only the cover section which encloses the part of the conduit which will form the bend. That portion will reach bending temperature rapidly, while the remaining length remains relatively rigid and easier to control. This permits formation of a bend without the undue deflection of the straight portion of the conduit.

## 2.0 FOLLOW THESE EASY INSTRUCTIONS FOR MAKING STANDARD AND SPECIAL BENDS

### 2.1 For conduit and ducts 2" through 6" diameter:

**Important:** Conduit and ducts 2" diameter and larger may crimp or deform during bending unless the inside is supported. HotBox™ Expanding Bending Plugs are designed for this purpose. See Figure 3.

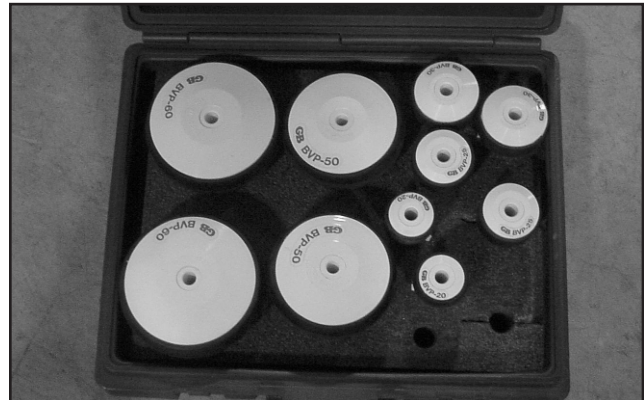


Figure 3. PVC Plug Set

1. Insert a bending plug in each end of the conduit before heating as described below. See Figure 4. The retained air will expand during the heating cycle and the internal pressure will adequately support the conduit and prevent collapsed material.

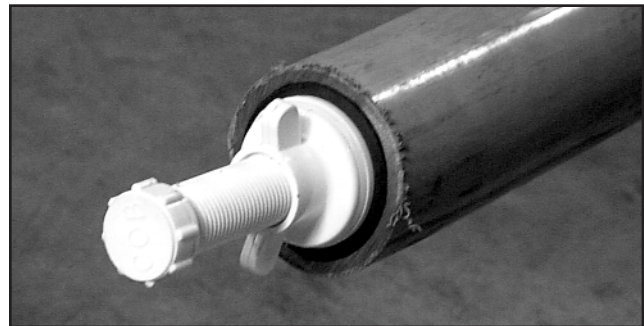


Figure 4. Inserting Plug

2. Heat conduit evenly until conduit is flexible. Take out of bender and bend to desired configuration. See Figure 5.

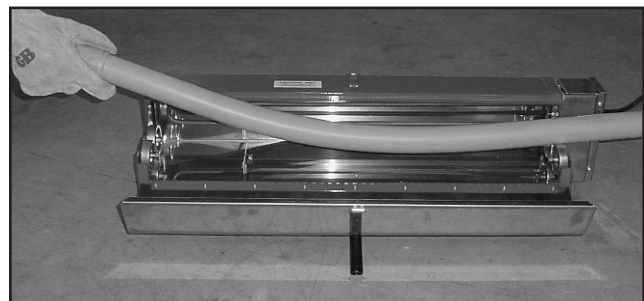


Figure 5. Heating Conduit



WARNING: WEAR HEAVY LEATHER GLOVES TO AVOID BURNS WHEN HANDLING HEATED CONDUIT.

- Cool conduit by sponging with water. Do NOT remove plugs until conduit has cooled. Store plugs in relaxed position.

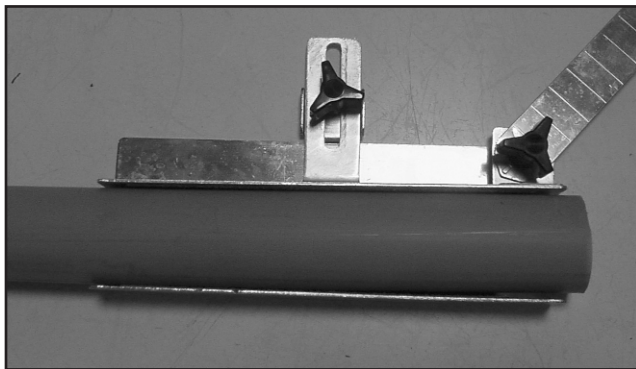
## 2.2 For conduit ½" to 1½" diameter:

For bending conduit ½" through 1½" diameter, it is not necessary to use plugs or other filling methods.

- Rotate the conduit in the HotBox™ Bender until softened. See Figure 5.
- Bend to desired configuration. Bend-Guide™ simplifies the forming of the bend. It adjusts to any radius 6" to 12", any segment to 90°, any diameter conduit from ½" to 2". See Figure 6 through Figure 8.
- Cool by sponging with cold water.

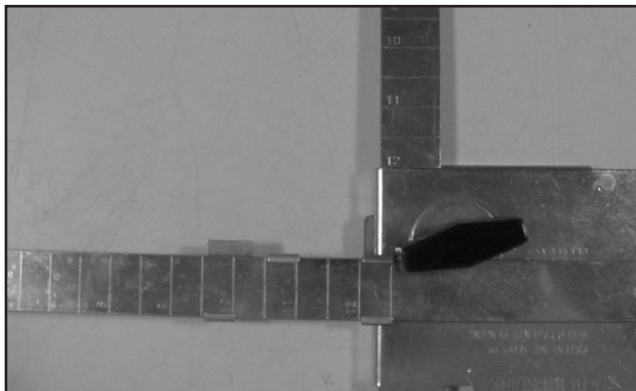
## 2.3 Using Bend-Guide™

- Loosen the wing nuts. Adjust the clamp by sliding the outer section until the opening will accommodate the PVC conduit. See Figure 4.



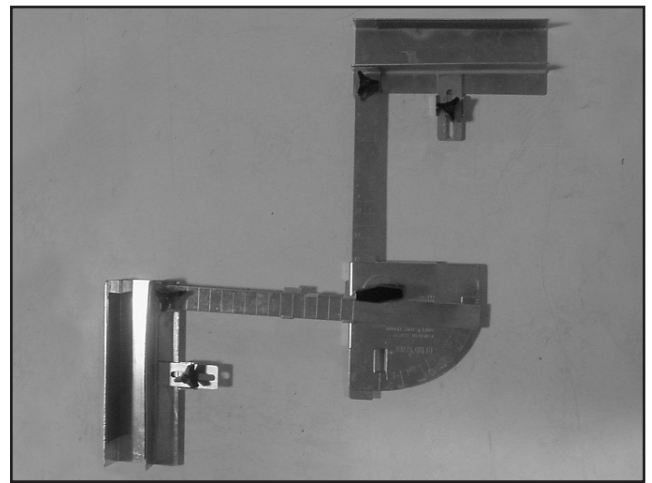
**Figure 6. Set Clamps**

- The conduit should be held in position, then tighten the wing nut. Both clamps adjust the same way.
- Set arm bracket for segment required.
- Loosen the single knob in the center of the Bend-Guide™. Slide the straight arms until the desired bend length appears at the arm clamp. See Figure 7.



**Figure 7. Set Arm Bracket**

- Adjust both arms, then tighten the release knob.
- Slide arms to required radius and tighten all adjusting knobs. See Figure 8.

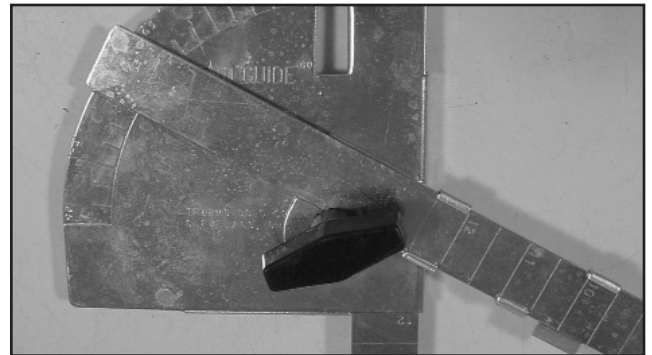


**Figure 8. Set Arms for Correct Radius**

- Place the heated conduit in the clamp sections and sponge with cold water. The bend is now ready to be installed.

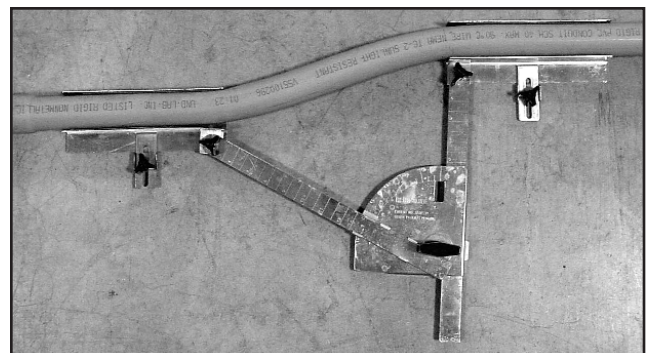
## 2.4 For Offsets:

- Adjust LEFT arm bracket to 30° or 60° position. See Figure 9.



**Figure 9. Set Left arm Bracket**

- Set arm bracket at 30° or 60° to make clamp sections parallel. Slide arms to required inches of offset. See Figure 10.



**Figure 10. Set Right Arm Bracket and Clamp**

NOTE: 60° setting extends offset.  
30° setting contracts offset.

## 3.0 MEASURING BENDS

Bend-Guide™ also measures bends.

- Set clamp sections on straight stubs or line of conduit and lock in position.
- Heat conduit and place in pre-set Bend-Guide™.

These accessories are designed to make field bending of plastic conduits and ducts fast and easy.

## PVC CUTTERS



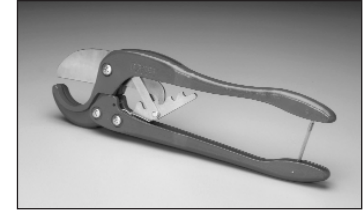
**Kwikcut™ PVC Conduit Cutter  
GKC-100**

- Cuts flexible, watertight flexible and schedule 40 PVC conduit ½" to 1".
- Patented design makes fast clean cuts.
- Tough, lightweight nylon handles.
- Compact 8" tool fits neatly and safely into pocket or tool pouch.



**Cut-A-Way™ PVC Conduit Cutter, 1¼"  
GPC-125**

- Cuts flexible, watertight flexible and schedule 40 PVC conduit ⅝" to 1¼".
- High leverage ratcheting action.
- Patented design makes fast, square, and smooth-filed cuts.
- Compact, rugged tool fits pocket or pouch.



**Cut-A-Way™ PVC Conduit Cutter, 2"  
GPC-200**

- Cuts flexible, watertight flexible and schedule 40 PVC conduit ½" to 2".
- High leverage ratcheting action.
- Patented design makes fast, square, burr-free cuts on schedule 40 and schedule 80 PVC conduit to 2" diameter, without shavings or deformation. Makes hacksaw and pipe vises obsolete.

### MINIMUM Stock lengths for 90° Elbows

Nominal Dia.	Radius* in inches	Length of Curved section inches	Straight ends inches**	Total Stock length inches
½"	4	7	2	11
¾"	5	9	2½	14¼
1"	6	10½	2¾	16
1¼"	8	14	2¾	19½
1½"	10	17½	3⅙	23⅝
2"	12	21	4	29
2½"	15	26	4¾	35½
3"	18	31	7½	46
3½"	21	36	8⅙	52⅝
4"	24	41	9	59½
5"	30	52	11⅙	74¼
6"	36	62	12⅙	87⅝

\* Source: Table 346-10 National Electric Code 1984  
For Conductors without lead Sheath – Minimum radius of conduit bends.  
\*\* Recommended minimum straight section each end.

**REPAIR AND SERVICE INSTRUCTIONS:** For repair service and parts contact your nearest Gardner Bender Service Center. The Gardner Bender Service Center will provide complete and prompt service on all Gardner Bender products.

**PARTS AND SERVICE:** For quality workmanship and genuine GB Tools & Supplies Inc. parts, select an Authorized GB Service Center for your repair needs. Only repairs performed by an Authorized Service Center displaying the official GB Authorized sign are backed with full factory warranty. Contact Gardner Bender (414)352-4160 for the name of the nearest GB Authorized Service Center.

**WARRANTY:** GB Tools & Supplies Inc. warrants its product against defects in workmanship and materials for 1 year from date of delivery to user. Chain is not warrantied. Warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.

**WARRANTY RETURN PROCEDURE:** When question of warranty claim arises the user should send his unit to the nearest GB Authorized Service Center for inspection, transportation to be prepaid and evidence of purchase date furnished. If the claim comes under the terms of our warranty the Authorized Service Center will REPAIR OR REPLACE PARTS AFFECTED and return prepaid.



PO Box 3241 • Milwaukee, WI 53201-3241 • 414-352-4160 • Fax 414-352-2377  
6615 Ordan Drive • Mississauga, Ontario L5T 1X2 • 905-564-5749 • Fax 905-564-0305