

MODEL BA785U/BA786U



Zip Crank Extension Arm

Customer Service
(800) 247-7668

PARTS LIST					
Item	Qty	Description	Item	Qty	Description
A	1	Square Pole (packaged separately)	R	2	1/2" X 5" Hex Bolt
B	1	Pole Cap	S	6	1/2"-13 Hex Nut
C	1	Backboard (packaged separately)	T	8	3/8" Flat Washer
D	1	Rim (packaged separately)	U	8	3/8"-16 X 1" Hex Bolt
E	1	Pole Plate	V	8	3/8"-16 Hex Nut
F	2	Extension Channel	W	3	1/4"-20 Flange Nut
G	1	Backboard "H" Frame	X	2	1/4"-20 X 1" Hex Bolt
H	2	Pole Plate Bracket	Y	4	5/16" Flat Washer
I	2	Extension Channel Bracket	Z	4	5/16"-18 X 1" Phillips Truss Head Screw
J	1	Crank	AA	4	5/16"-18 Hex Nut
K	1	Crank Handle	BB	4	5/16" Lock Washer
L	1	Height Gage	CC	8	3/8" Lock Washer
M	1	Pointer	DD	8	7/16" Flat Washer
N	8	Pivot Bolt	EE	8	7/16" Deformed Lock Nut
O	3	Square U-Bolt	FF	2	1/2" Nyloc Nut
P	1	Pole Padding (packaged separately)	GG	6	1/2" Lock Washer
Q	6	1/2" Flat Washer			

Warning!!!
Improper installation, maintenance or use may cause product failure and serious personal injury.

- ◆ Inspect all contents prior to installation. Report any missing parts to dealer immediately.
- ◆ Read all instructions before proceeding.

TOOLS/MATERIALS REQUIRED	
1 each 8" Post Hole Digger and/or Shovel	2 each 7/16" Combination or Adjustable Wrench
5-6 each 1/3 Cubic Foot Bags of Premix Concrete for 4" pole	2 each 1/2" Combination or Adjustable Wrench
10-12 each 1/3 Cubic Foot Bags of Premix Concrete for 5" pole	
Bracing Materials	2 each 9/16" Combination or Adjustable Wrench
Step Ladder	1 each 11/16" Combination or Adjustable Wrench
Level	1 each 3/4" Combination or Adjustable Wrench
Tape Measure	1 each Phillips Screw Driver

Notice!

If you have purchased the removable pole please follow the instructions included with the BA79UGP package to prepare hole and footing. Follow instructions #1 and #2 below for the permanent in ground pole option. Following instructions #3 through #15 will complete system installation.

SAFETY INSTRUCTIONS

FAILURE TO FOLLOW THESE SAFETY INSTRUCTIONS MAY RESULT IN SERIOUS INJURY, PROPERTY DAMAGE AND WILL VOID WARRANTY.
 Owner must ensure that all players know and follow the rules for safe operation of this system.

To ensure safety, do not assemble this system without following the instructions carefully. A high probability of serious injury exists if this system is not installed, maintained, and operated properly.

- If using a ladder during assembly, use extreme caution.
- 2 people are recommended for safe assembly.
- Before digging, contact utility company to locate underground power cables, gas and water lines. Ensure there are no overhead power lines within 20 ft. (7m) radius of pole location.
- Climate, corrosion or misuse could result in system failure.
- If technical assistance is required, contact the manufacturer.
- Minimum operational height is 6'6" (1.98m) to the bottom of the backboard. Do not install so that bottom of backboard is below this height.
- Assembly will require lifting and bending that may result in injury to persons not accustomed to this type of activity.

Most injuries are caused by misuse and/or not following instructions. Use caution when using and installing this system

Fill entire pole with wet pre-mixed concrete for superior

RIM HEIGHT	DIM "X"
10'	30"
9'	37"
8'	43"
7 1/2'	43"

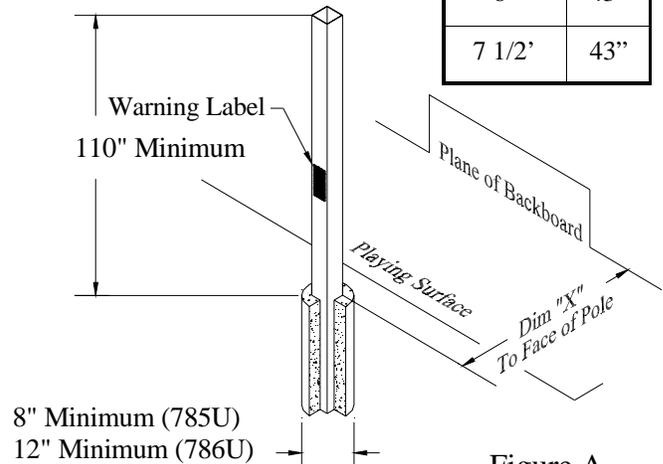


Figure A

WARNING

FAILURE TO FOLLOW THESE WARNINGS MAY RESULT IN SERIOUS INJURY AND/OR PROPERTY DAMAGE.

Owner must ensure that all players know and follow these rules for safe operation of the system.

- DO NOT remove or cover this warning label
- DO NOT HANG on the rim or any part of system including backboard, support braces or net.
- During play, especially when performing dunk type activities, keep player's face away from the backboard, rim and net. Serious injury could occur if teeth/face come in contact with backboard, rim or net.
- Do not slide, climb or play on pole.
- When adjusting height, keep hands and fingers away from moving parts.
- Do not allow young children to adjust system.
- During play, do not wear jewelry (rings, watches, necklaces, etc.). Objects may entangle in net.
- Keep organic material away from pole base. Grass, Litter, etc. could cause corrosion and/or deterioration.
- Check pole system for signs of corrosion (rust, pitting, chipping) and repaint with exterior enamel paint available from the manufacturer. If rust has penetrated through the steel anywhere, replace pole immediately.
- Check system before each use for loose hardware, excessive wear signs of corrosion and general instability and repair before play is allowed.
- Never play on damaged equipment.

BISON, INC.
1-800-247-7668
BA730

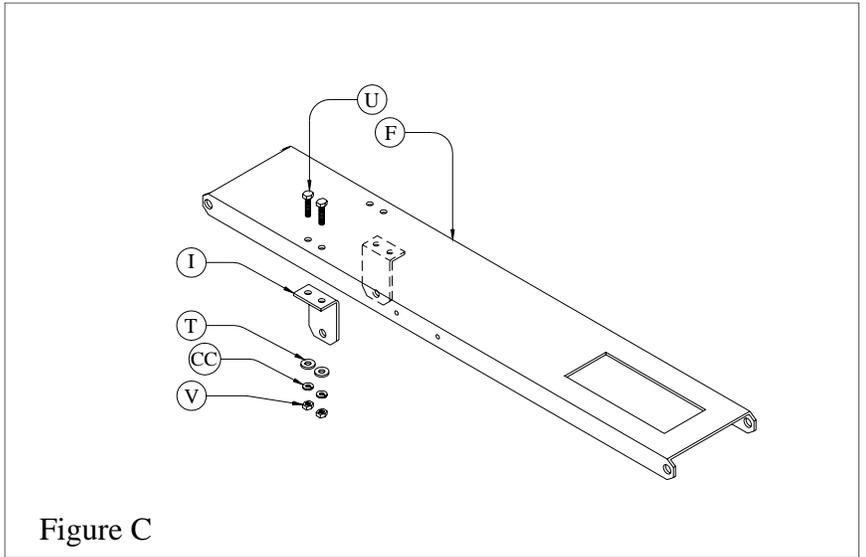
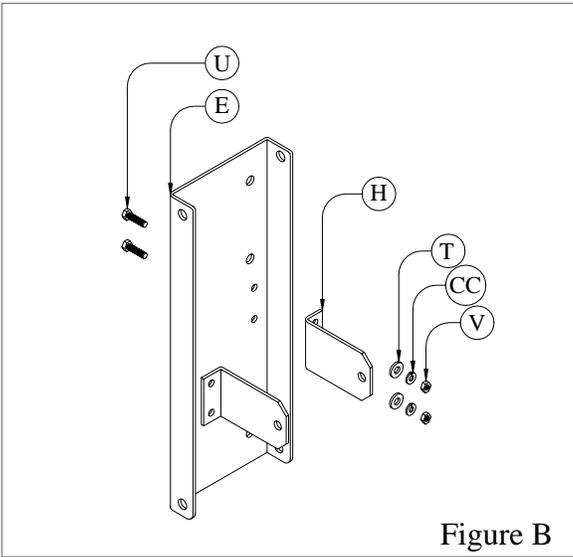
Note:
 If your warning label becomes damaged or lost, call the manufacture for a replacement

1. Determine the desired position of the pole by taking into consideration that the distance between the face of the pole and the face of the backboard changes as the height is adjusted. At the top position (official 10' height) the distance is 30", at the lowest point the distance is 43". See figure A

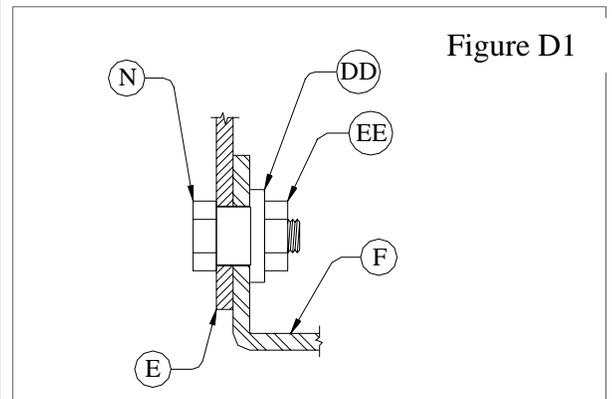
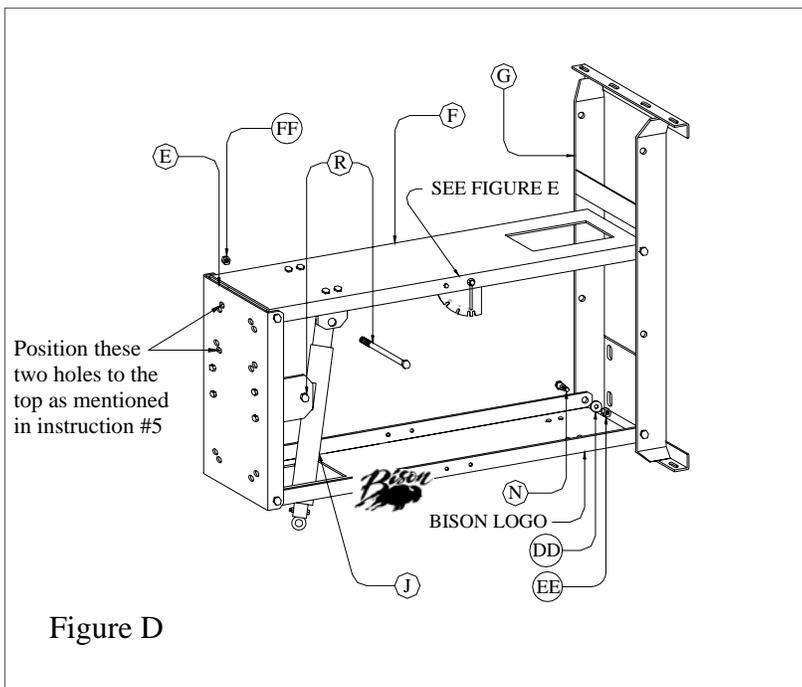
2. Dig a 8" minimum diameter hole approximately 30" deep for the 4" pole (BA785U). A 12" minimum diameter hole approximately 42" deep for the 5" pole (BA786U). This hole will need five to six 1/3 cubic foot bags of premix concrete for the 4" pole and 10-12 bags for the 5" pole. Install the pole in wet concrete making sure that at least 110" of pole extends above the playing surface. **The factory installed warning label should be oriented so it is opposite the playing surface and right side up.** Brace pole while concrete is curing to insure level installation. **YOU WILL NEED TO FILL THE INSIDE OF THE POLE WITH CONCRETE FOR MAXIMUM RIGIDITY.** See figure A.

Warning!!

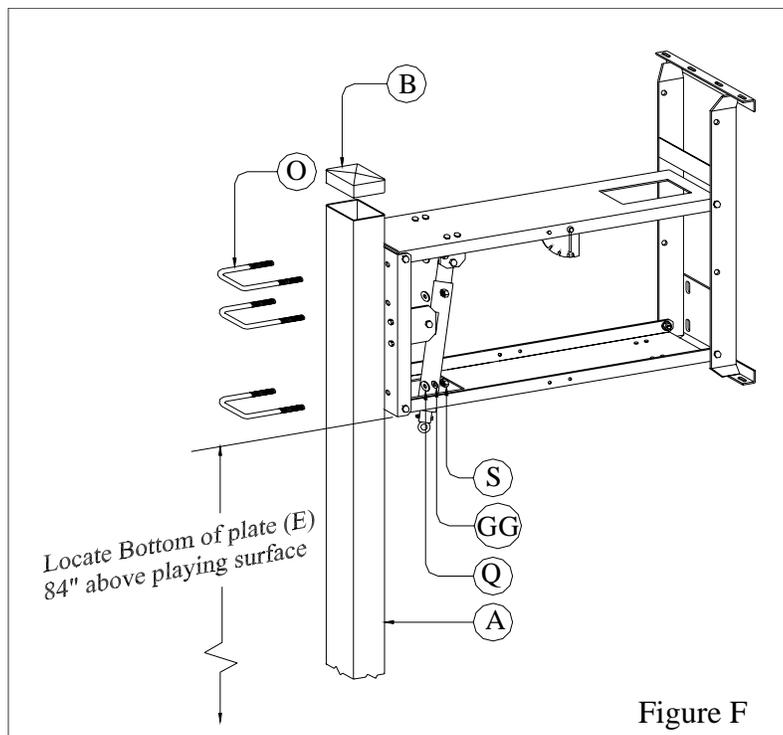
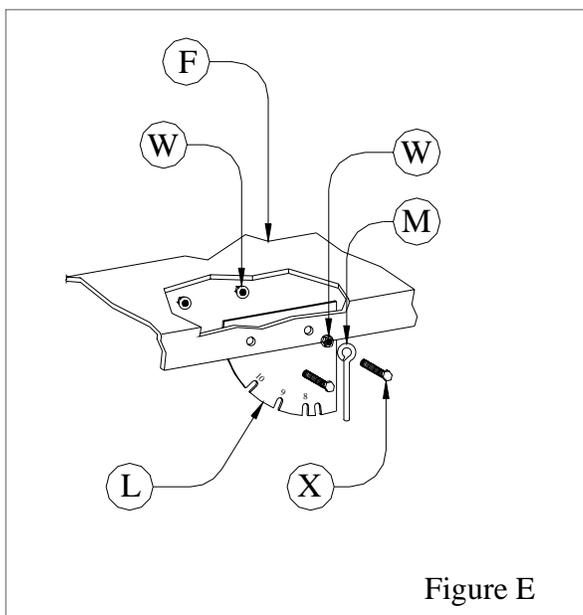
Allow the concrete to cure for 48 hours minimum before completing installation



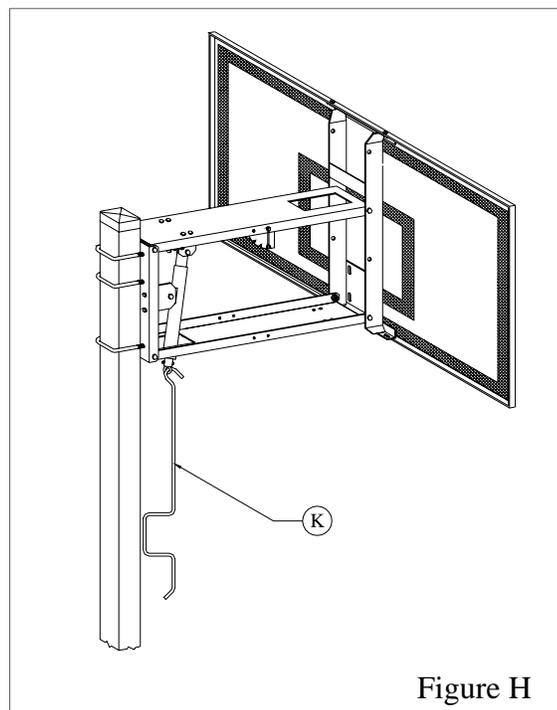
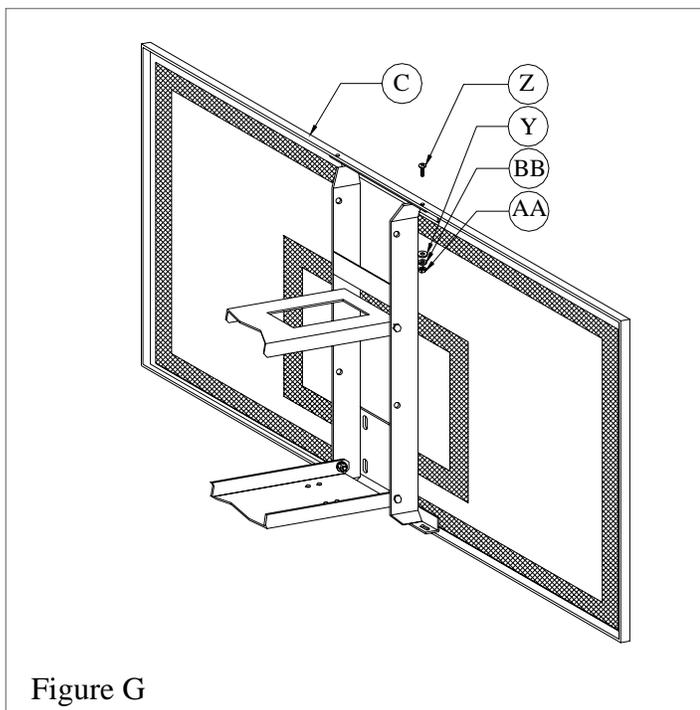
3. Assemble the two *pole plate brackets* (H) to the *pole plate* (E) with *3/8"-16 X 1" hex bolts* (U), *3/8" flat washers* (T), *3/8" lock washers* (CC) and *3/8-16 hex nuts* (V) as shown. Leave these assemblies loose at this time. See Figure B.
4. Assemble the two *extension channel brackets* (I) to the *extension channel* (F) with *3/8"-16 X 1" hex bolts* (U), *3/8" flat washers* (T), *3/8" lock washers* (CC) and *3/8"-16 hex nuts* (V) as shown. Leave these assemblies loose at this time. See Figure C.
5. Attach *extension channels* (F) to *pole plate* (E) with *pivot bolts* (N), *7/16" flat washers* (DD) and *7/16"-14 deformed lock nuts* (EE). Do not overtighten, it is intended for assembly to rotate on *pivot bolt* (N). Make sure *Bison logo* is oriented as shown. Make sure the *pole plate* (E) is positioned with two *square U-bolts* (O) above the *pole plate bracket* (H). See Figure D. The *pivot bolt* (N) must be seated against the *pole plate* (E) and completely through the *extension channel* (F) to provide proper pivoting. See Figure D1.



6. Use the remaining *pivot bolts* (N), *7/16" flat washers* (DD) and *7/16"-14 deformed lock nuts* (EE) to attach *extension channels* (F) to the *backboard "H" frame* (G). Do not overtighten, it is intended for assembly to rotate on *pivot bolt* (N). See figures D and D1.
7. Install *crank* (J) using *1/2" X 5" hex bolts* (R) and *1/2" nyloc nuts* (FF). Tighten *1/2" nyloc nuts* (FF) and back off 1/2 turn to allow *crank* (J) to pivot between the brackets. See Figure D. **Note:** Nyloc nuts are identified by the plastic ring inside of the nut and cannot be installed by hand.
8. Once the *crank* (J) is in position you now want to tighten the hardware for the *pole plate brackets* (H) and *extension channel brackets* (I).
9. Attach *height gage* (L) to the *top extension channel* (F) with one *1/4"-20 X 1" hex bolt* (X) and *1/4" flange nut* (W) in the back mounting hole. Slide the *pointer* (M) onto one *1/4"-20 X 1" hex bolt* (X) then install one *1/4" flange nut* (W) against the *pointer* (M) with just enough slack to let the *pointer* (M) rotate freely on the *1/4"-20 X 1" hex bolt* (X). Pass this assembly through the mounting holes in the *extension channel* (F) and tighten with the remaining *1/4" flange nut* (W). You must tighten the *1/4" flange nuts* (W) against each other to lock this assembly in place, if you tighten the *1/4"-20 X 1" hex bolt* (X) you will also tighten the assembly against the *pointer* (M). The *pointer* (M) must rotate freely on the *1/4"-20 X 1" hex bolt* (X) once installed to accurately indicate your systems height. Leave the height gage hardware loose until after the rim is installed. See figure E.
10. Once your "Zip Crank" is completely assembled with all the hardware tightened and you have waited a minimum of two days for your concrete to cure it is time to install your system on the pole. You will need a minimum of two people to position the assembly in the correct place. Mount the entire "Zip Crank" to the *square pole* (A) using the *square U-bolts* (O), *1/2" flat washers* (Q), *1/2" lock washers* (GG) and *1/2" hex nuts* (S). Position the bottom of the *pole plate* (E) at 84" from the playing surface for 7 1/2' thru 10' adjustment. **Placement below this point is not advisable as it seriously increases the chance of injury to young players.** See figure F.



11. Using the pre-drilled holes in the *backboard* (C) attach to the *backboard "H"-frame* (G) with the *5/16"-18 X 1" Phillips truss head screws* (Z), *5/16" flat washers* (Y), *5/16" lock washers* (BB) and *5/16"-18 hex nuts* (AA). See figure G.
12. Install *rim* (D) (not shown) with the hardware provided in the rim package. Install net.
13. Install *safety pole padding* (P) and *pole cap* (B).
14. To adjust the "Zip Crank" up or down use the *crank handle* (K). Turning the *crank handle* (K) clock wise will lower the unit, likewise turning counter clock wise will raise unit. See figure H.
15. Crank the "Zip Crank" up so the rim is at 10', use a tape measure to assure the rim is at 10'. Adjust the *height gage* (L) by rotating it so that it reads 10' then tighten the height gage hardware.



Warning!!

***Crank handle* (K) must be removed and stored before playing. The crank handle will be a safety hazard to the playing area.**

Warning!!!

Young players are at risk when they slam dunk on popular lowered height basketball systems. See your dealer for information on Safety Nets. PLEASE, take responsibility for controlling dangerous activity as no net can eliminate all risk.

BA79UGP

Cement Base Installation Instructions



Customer Service
(800) 247-7668

PARTS LIST

Item	Qty	Description	Item	Qty	Description
A	4	"J" Bolts	E	4	5/8" Lock Washer
B	4	3/6" Long Rebar	F	8	5/8" Flat Washer
C	1	Template	G	4	Safety Cap
D	12	5/8" Hex Nuts			

- ◆ Inspect all contents prior to installation. Report any missing parts to dealer immediately.
- ◆ Read all instructions before proceeding.

Note!

Care must be taken to maximize the amount of hard playing surface under and around the goal yet minimizing any interference with driveway traffic especially when the unit is adjusted to its lowest position. Please refer to Figure A and corresponding application chart on page 3 for hole location.

Warning!

On all pole systems with a crank on the backside of the pole the center of pole should be a minimum of 22" from any wall, fence or permanent structure behind the pole to avoid interference with adjusting crank.

Warning!

On Zip Crank and Ultimate Adjustable systems with the crank in the front of the pole the center of the pole should be a minimum of 10" from any wall, fence or permanent structure behind the pole.

1. Dig a hole a minimum of 20" in diameter and 48" deep. Bell out the bottom 12" of the hole to a diameter that is at least 4" larger than the diameter of the hole at the top. Digging the hole too big is better than digging it too small. See Figure A.
2. Prepare the "J" Bolt assembly by first threading a 5/8" Hex Nut (D) on to each "J" Bolt (A) so that approximately 2-1/2" of thread is protruding above the nut. Place the threaded end of the "J" Bolt (A) through the four holes in the Template (C). Thread a second 5/8" Hex Nut (D) onto each "J" Bolt (A) on the top side of the Template (C). Tighten the nuts on both sides of the Template (C), making sure that the same length of "J" Bolt (A) (2" minimum) is protruding above the Template (C) in all four corners and that the "J" Bolt (A) "legs" are pointing toward the center of the Template (C). See Figure A.
3. Before pouring the concrete, make sure you have the required tools available: a level, a broomstick or similar pole to vibrate the concrete, and a tape measure to correctly place the Template (C).

4. A 20" diameter by 48" deep hole will require approximately 1/2 cubic yard of 3000 psi concrete (22-24 60# sacks of premix concrete). Allow for more if the hole is deeper or wider. Make sure you have enough concrete before pouring, because allowing a portion to dry before the hole is completely filled will affect the strength of the footing.
5. You are now ready to complete the most critical portion of the installation. Please note (and avoid) these COMMON INSTALLATION PROBLEMS:
 - ◆ Proceeded without reading instructions fully.
 - ◆ Stopping short of the required hole size.
 - ◆ Underestimated amount of concrete required, part of base/footing dried before you could finish pouring.
 - ◆ Just "eyeballed" the squareness of the base, when assembled, the pole and board are not parallel or square to your driveway/playing surface.
 - ◆ Didn't allow enough time to correctly complete the project. Setting this base properly ensures the function and appearance of your system.
 - ◆ Being overanxious to mount the pole and board before the footing was fully cured. (A defective footing is harder to dig out than to install.)
 - ◆ Damaged threads on J-Bolts making it impossible to install nut.
6. Drive 36" Rebar (B) into the bottom of the hole. Equally space the rebar so that it forms a square.
7. Mix the concrete according to the instructions on the bag. It is a good idea to have the concrete mixture be "wet". This will increase your working time and allow batches to mix in the hole. Pour the hole full to ground level. Insert the broomstick into the wet concrete and agitate it up and down. REPEAT SEVERAL TIMES.
8. Insert the "J" bolt assembly *Template* (C) and "*J*" Bolts (A) into the wet concrete. Be sure the bolt pattern is parallel with the desired position of the backboard and the edge of the playing surface. Use the tape measure to double check. Vibrate the assembly as you insert it so the concrete fills in around the "*J*" Bolts (A). Be sure the *Template* (C) is pressed firmly against the surface of the wet concrete. The top of the concrete footing must be flush with the playing surface.
9. Clean excess concrete from edge of hole and level the concrete from the edge of the *Template* (C) to the edge of the hole. Check the level of the "*J*" Bolts (A) again.
10. ALLOW FOOTING TO DRY FOR SEVEN (7) DAYS. ONLY AFTER CONCRETE HAS CURED FOR SEVEN DAYS SHOULD YOU PROCEED.
11. Once the concrete is cured you may now remove the upper 5/8" Hex Nuts (D) from the "*J*" Bolts (A) and remove and discard the *Template* (C).
12. Place the 5/8" Hex Nuts (D) you just removed back on each "*J*" Bolt (A) and finger tighten against the nut that is embedded in the concrete footing. Install one 5/8" Flat Washer (F) on top of each 5/8" Hex Nut (D). See Figure B.
13. Install the base of pole over the "*J*" Bolts (A). Place 5/8" Flat Washers (F), 5/8" Lock Washers (E) and 5/8" Hex Nuts (D) on "*J*" Bolts (A) to tighten base down. You can level pole if needed by adjusting the 5/8" Hex Nuts (D) above and below the base plate. Make sure all hardware is tight once leveled. Press Safety Cap (G) over the exposed ends of "*J*" Bolts (A). You are now ready to finish the installation of your basketball system. See Figure B.

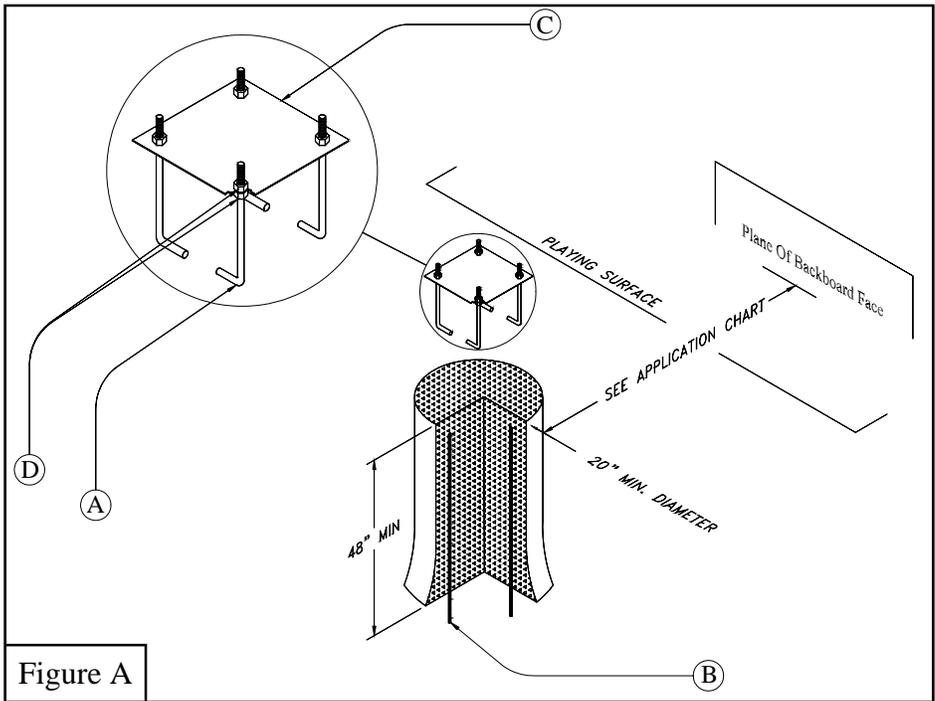


Figure A

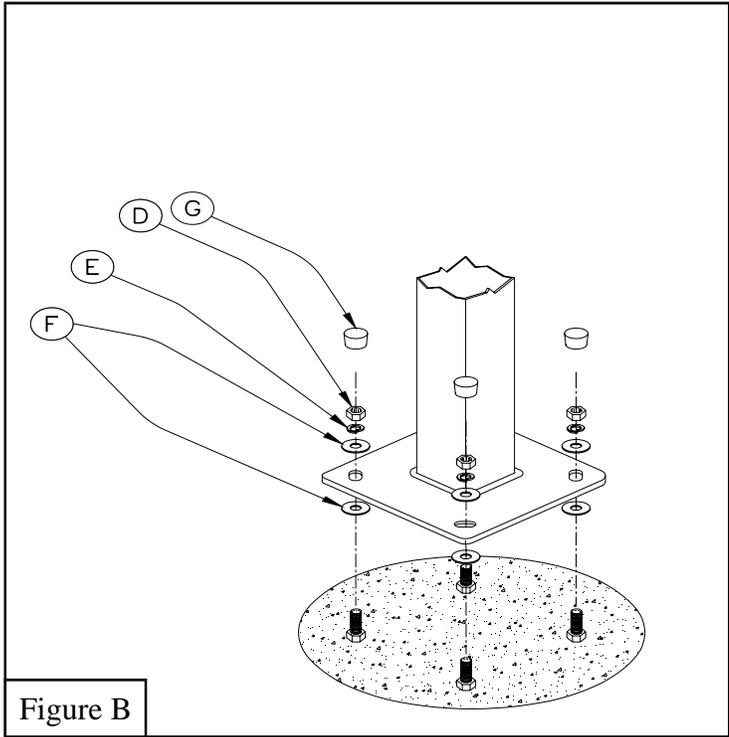


Figure B

Application Chart:

Table shows backboard location in relation to center of hole when the systems are adjusted at 10', 9' and 8' rim heights.

System	Product Code	10' Rim Height	9' Rim Height	8' Rim Height
4" & 5" Zip Crank	BA785U & BA786U	30"	37"	43"
4" Rapid Adjust	BA79U	43"	53"	57"
5" Rapid Adjust	BA79K	55 1/2"	63 1/2"	67 1/2"
6" Ultimate Adjustable	BA870AA	53"	61"	69"
6" Ultimate	BA870A	60"	60"	60"
4" & 5" Qwiklift	BA740QL & BA840QL	36"	39"	42"