

# 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"

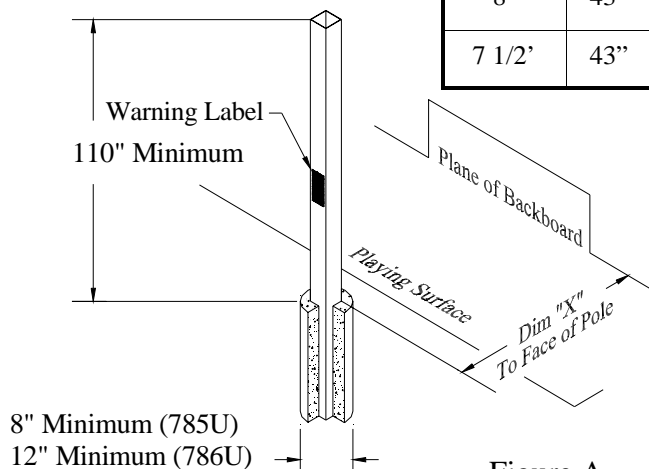


Figure A

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**

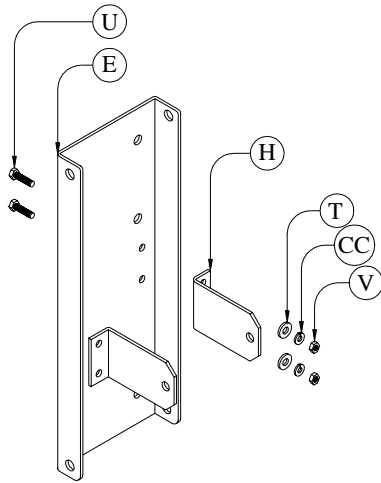


Figure B

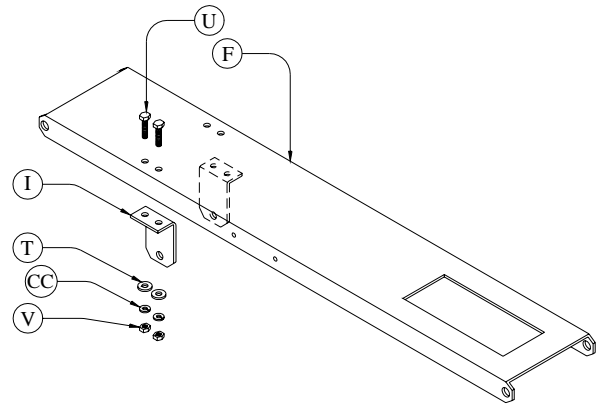


Figure C

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.

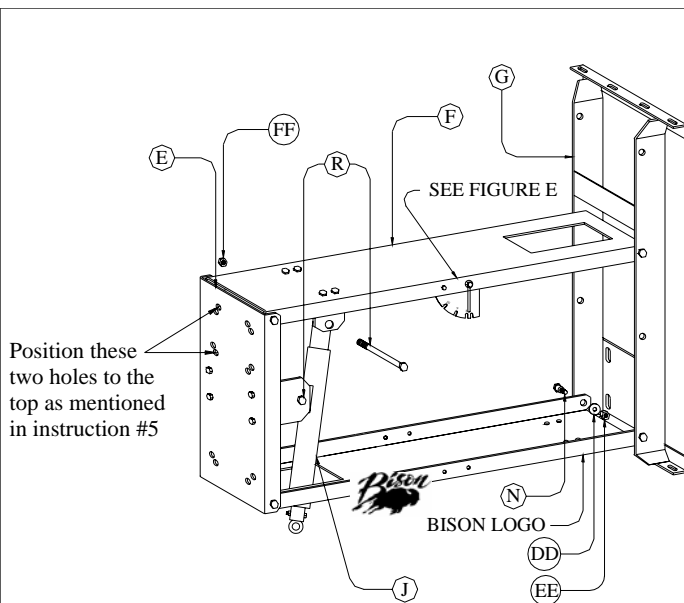


Figure D

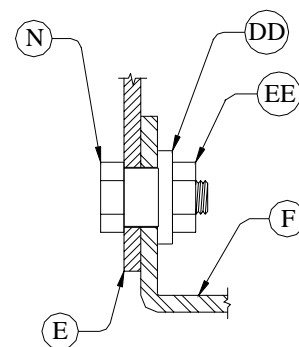
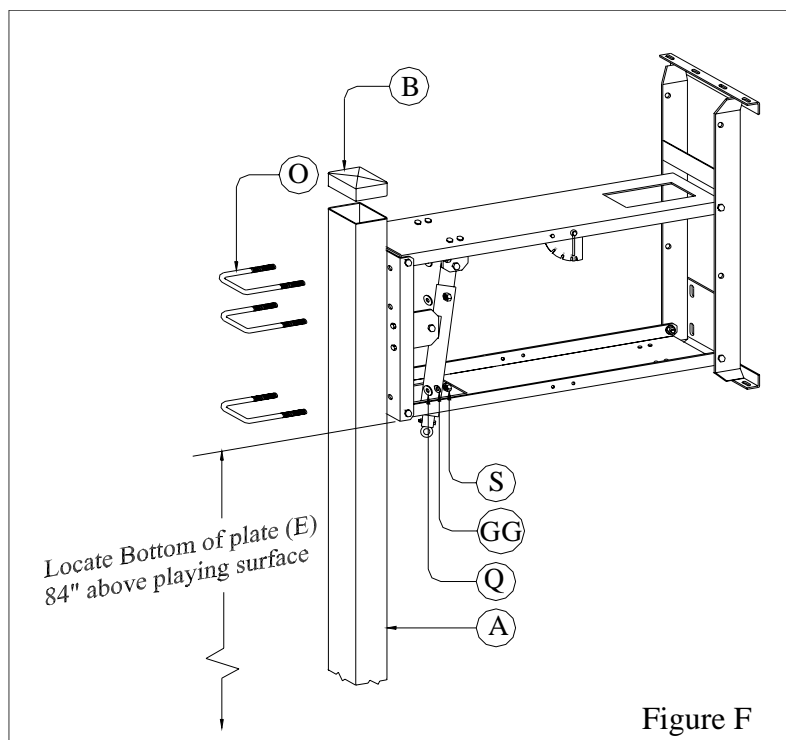
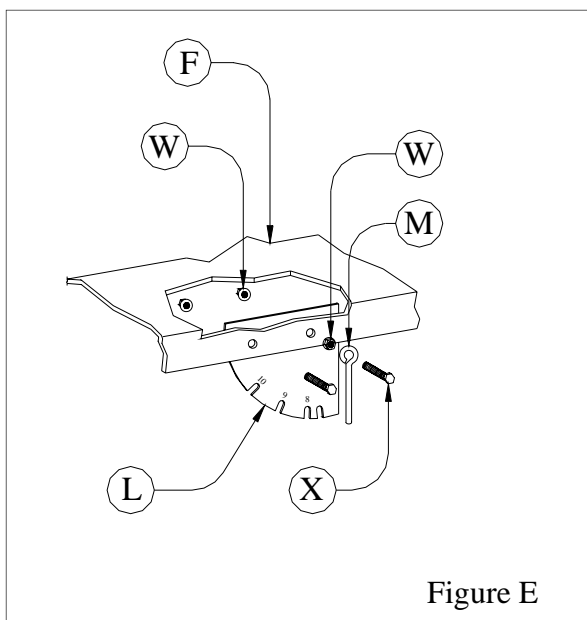
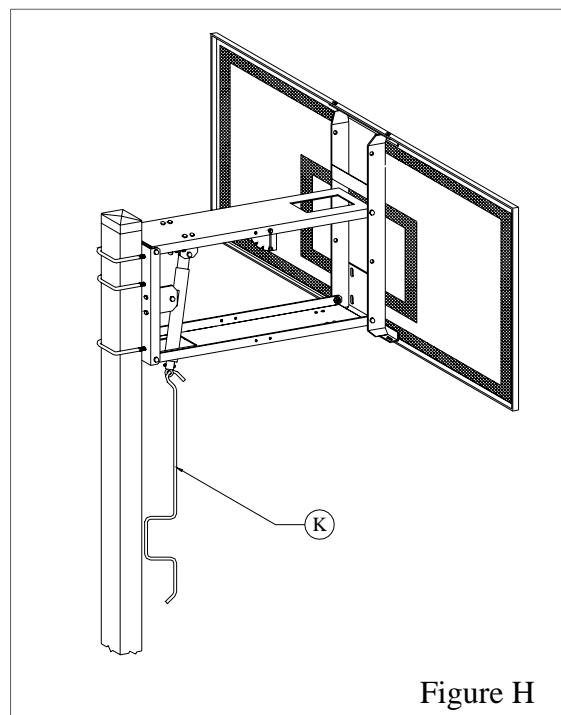
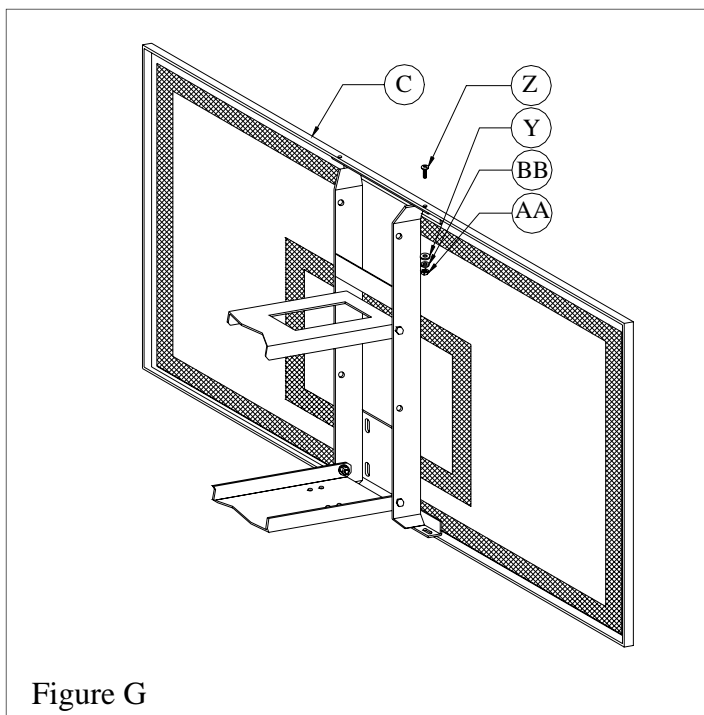


Figure D1

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.

# BA735WB

Used with BA735QC and BA785U Systems



Customer Service  
(800) 247-7668

## PARTS LIST

Item	Qty	Description	Item	Qty	Description
A	3	Wall Struts	D	6	3/8" Lock Washer
B	6	3/8" -16 X 2 1/2" Elevator Bolt	E	6	3/8"-16 Hex Nut
C	6	3/8" Flat Washer			

### CAUTION!!!

Wall mount systems require a minimum ceiling and wall height as well as an acceptable wall mounting surface. Brick, block or poured concrete walls are superior. It is inadvisable to mount systems to walls with wood or steel studs unless additional work approved by an engineer is done to provide additional support.

Bison does not provide wall anchors with any wall mount structure or system. The purchaser assumes liability for the installation of any wall mounting structure. Consult a professional architect, engineer or contractor to determine safe methods of installation to your facility's wall construction

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

### ATTENTION!

BA735QC "Qwik Change" systems only use 2 of the wall struts (A) and associated hardware. Please recycle and/or discard the 1 extra wall strut and miscellaneous hardware. The instructions below will cover both 2 and 3 strut (BA785U "Zip Crank") installation. Figure 2 will show strut height and placement for the two strut application, Figure 3 will show the same for 3 strut usage.

1. Centered on each *wall strut* (A) you will find two holes approximately 4 1/2" apart with machined relief on the back. Drive two *elevator bolts* (B) into each strut until firmly seated and the head flush to the back of the strut. See Figure 1.
2. Mount the first *wall strut* (A) according to the "to playing surface" dimensions in Figure 2 for two strut installation and Figure 3 for three strut installation.
3. Once you have the lowest *wall strut* (A) secured to the wall, use the pole mounting plate in your system as a template to position the remaining *wall struts* (A). Double check the dimensions prior to drilling for anchors. The BA785U system requires the machined clearance in the *wall struts* (A) to be down at installation, please confirm before attachment. See Figure 2 or 3.

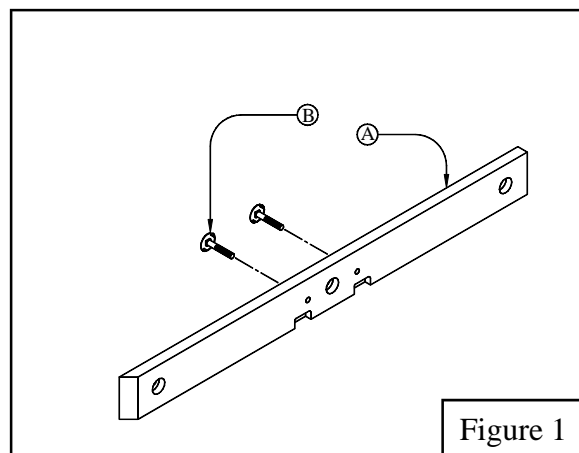


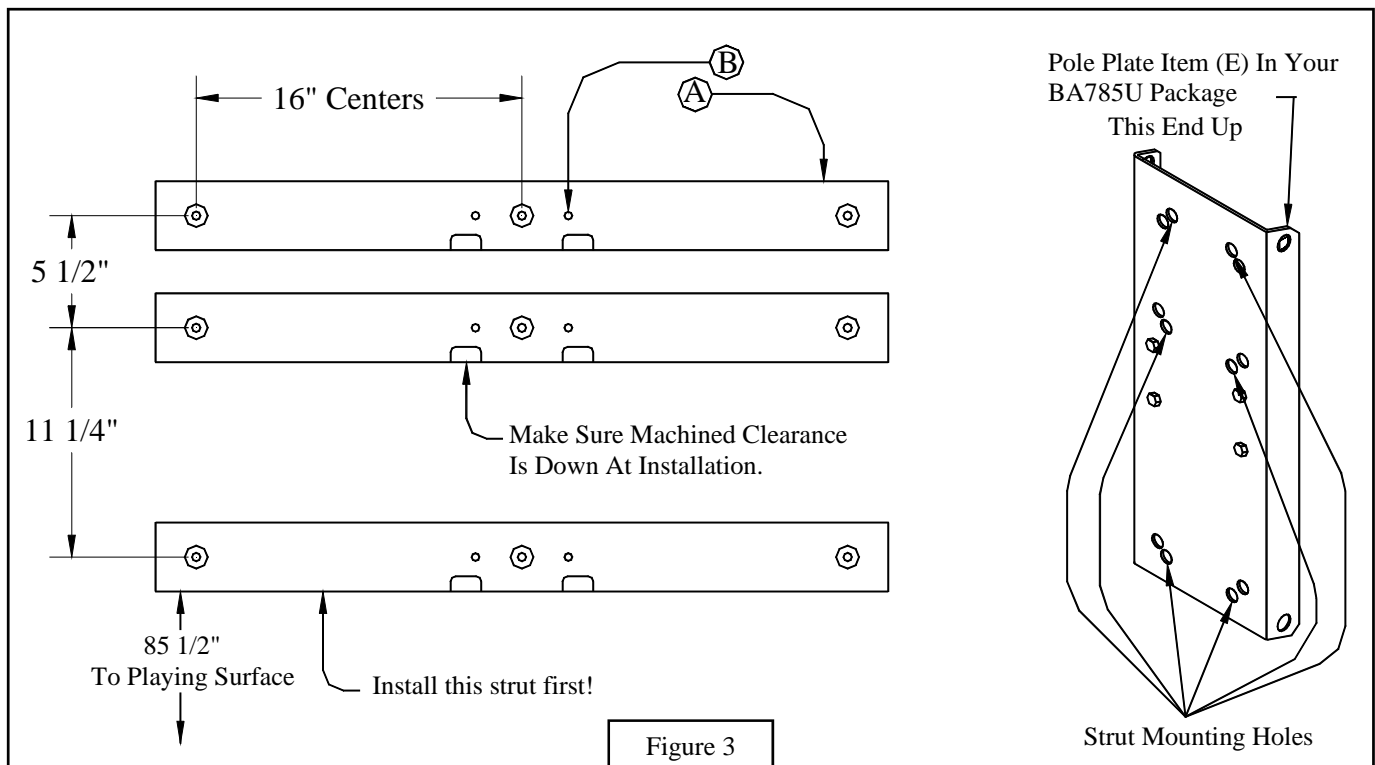
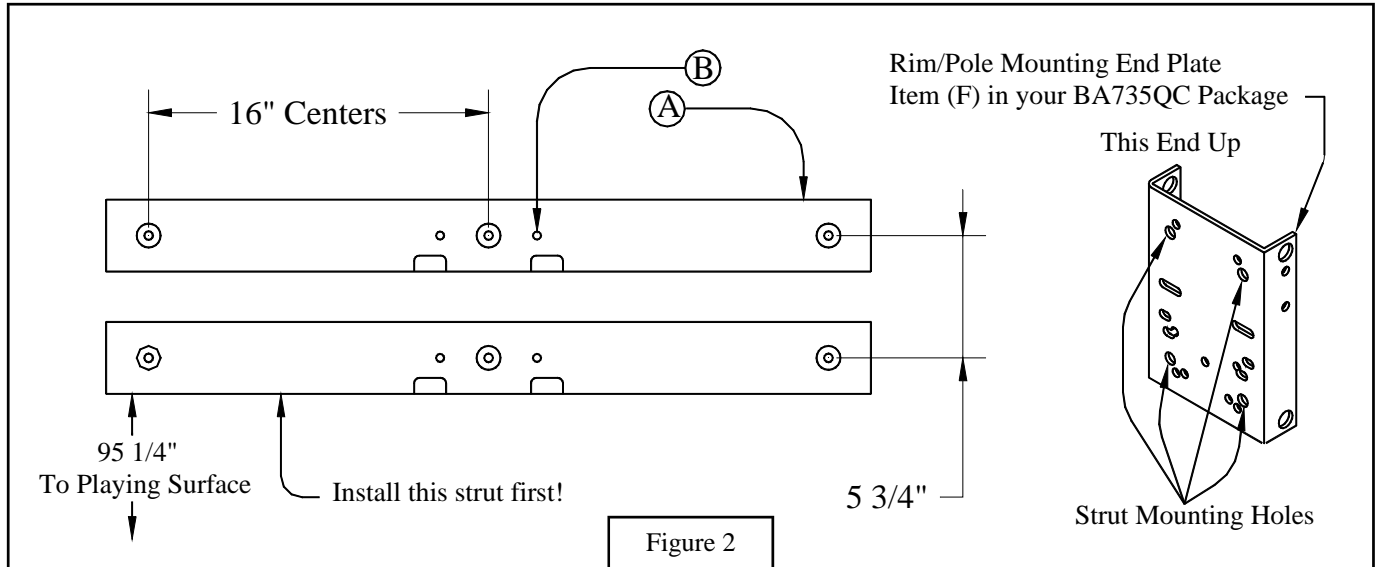
Figure 1

### CAUTION!

Make sure wall struts are mounted level at installation as it will affect the basketball systems integrity.

### NOTICE!

Each wall strut (A) has 3 mounting holes pre-drilled on 16" centers, make sure to use at least 3 anchors per strut. If the hole positions interfere somehow the struts can easily be drilled for custom mounting. REMEMBER you must have struts securely fastened to the wall, please use adequate fasteners.



4. Assemble your extension arm according to the instructions provided.
5. Install extension arm assembly to *wall struts (A)* using 3/8" flat washers (C), 3/8" lock washers (D) and 3/8" hex nuts (E).
6. Mount backboard and goal according to the instructions provided (goal may require pre-assembly).