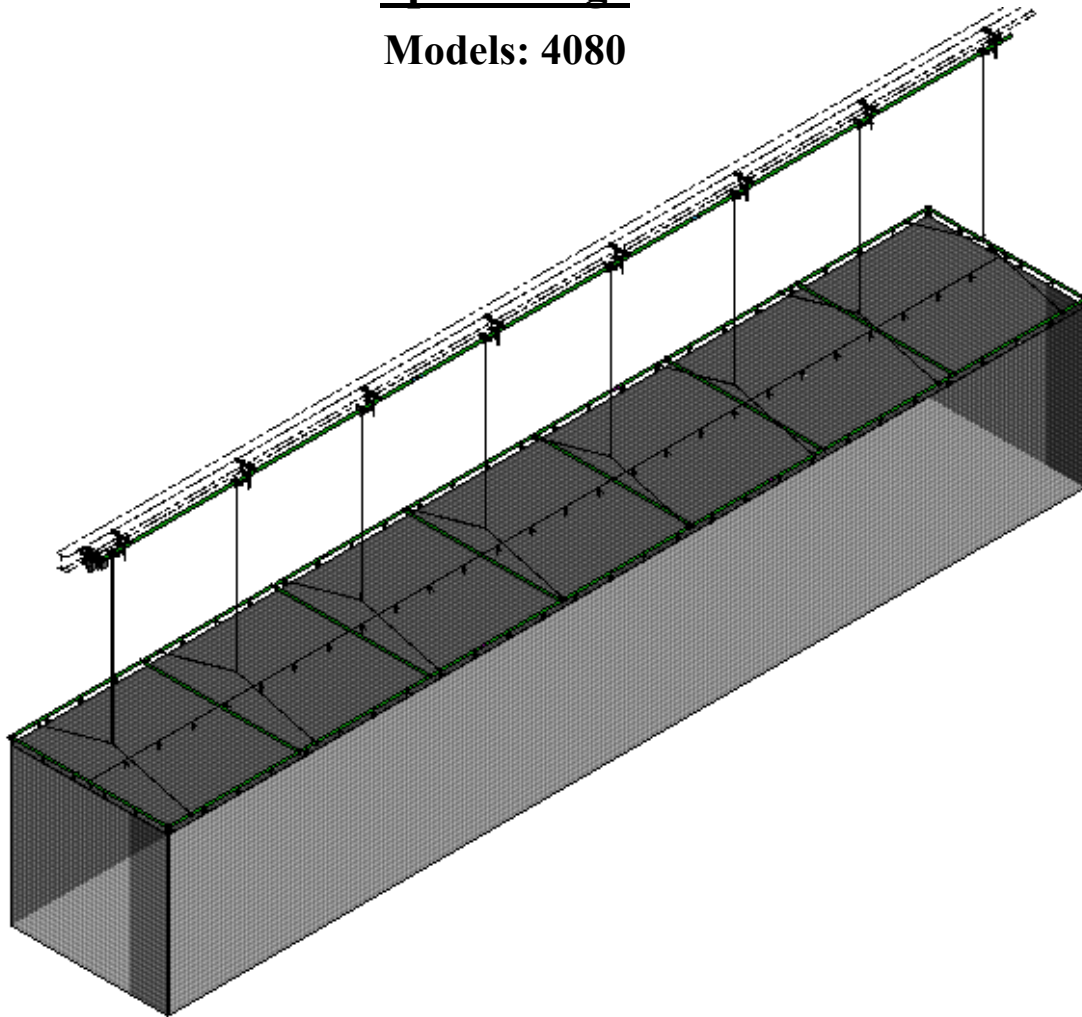




## Sports Cage

Models: 4080



### **Operation and Maintenance Instructions**

.....

**Please read all instructions before attempting operation of these units**

.....

**SAVE THESE INSTRUCTIONS FOR FUTURE USE**



## ***Table of Contents***

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### ***Introduction/Liability Disclaimers***

Thank you for your purchase of a Model 4080 series Sports Cage. To ensure that our equipment will provide years of use to you, we are including this operation, and maintenance guide. This guide will provide information on the proper operating procedures, and preventative maintenance of your gymnasium batting cage.

Please do not substitute for factory parts. If any parts are missing, do not substitute non-factory parts. Please contact your dealer and allow them to determine if substitute parts are acceptable.

It is recommended that an individual who has been properly trained perform operation of the sports cage. No one under the age of 18 should operate the cage, unless properly supervised.

To prevent normal wear and tear from shortening the life of the cage, preventative maintenance inspections and repairs should be performed at least once per year. If the cage is subject to high or unusual usage, inspections should be scheduled to occur more frequently. If items are found to be nonconforming, replacements can be ordered from an authorized dealer. When contacting your dealer, please have information regarding the name of the project, and any applicable warranty information.

Please note that manufacturer assumes no responsibility for the building structure to support its products. We believe it is the responsibility of the building designers to determine the correct structure size to support our products. We will provide your structural engineers with all required weight and loading information as required for the project in order for them to calculate the appropriate structure.

# **CAUTION**

ONLY TRAINED AND AUTHORIZED PERSONNEL SHOULD OPERATE THIS EQUIPMENT. OPERATION BY UNTRAINED OR UNAUTHORIZED PERSONNEL MAY RESULT IN DAMAGE TO THE BATTING CAGE OR CAGE STRUCTURE AND/OR INJURY TO ANYONE NEAR THE CAGE.

ALWAYS MAKE SURE AREA AROUND AND BELOW THE CAGE IS CLEAR OF PERSONNEL AND OBSTACLES BEFORE OPERATING THE DEVICE.

NEVER STAND DIRECTLY UNDER THE CAGE DURING OPERATION.

OPERATOR MUST KEEP CAGE IN VIEW AT ALL TIMES DURING OPERATION.

KEY SWITCH OR CONTROL PAD MUST BE MOUNTED IN CLEAR VIEW OF THE CAGE.

NEVER LEAVE KEY IN KEY SWITCH UNATTENDED.

NEVER SWING OR SWAY THE CAGE.

NEVER HANG FROM SIDES OR BOTTOM OF THE CAGE DURING OPERATION OR WHEN CAGE IS IN THE LOWERED POSITION.

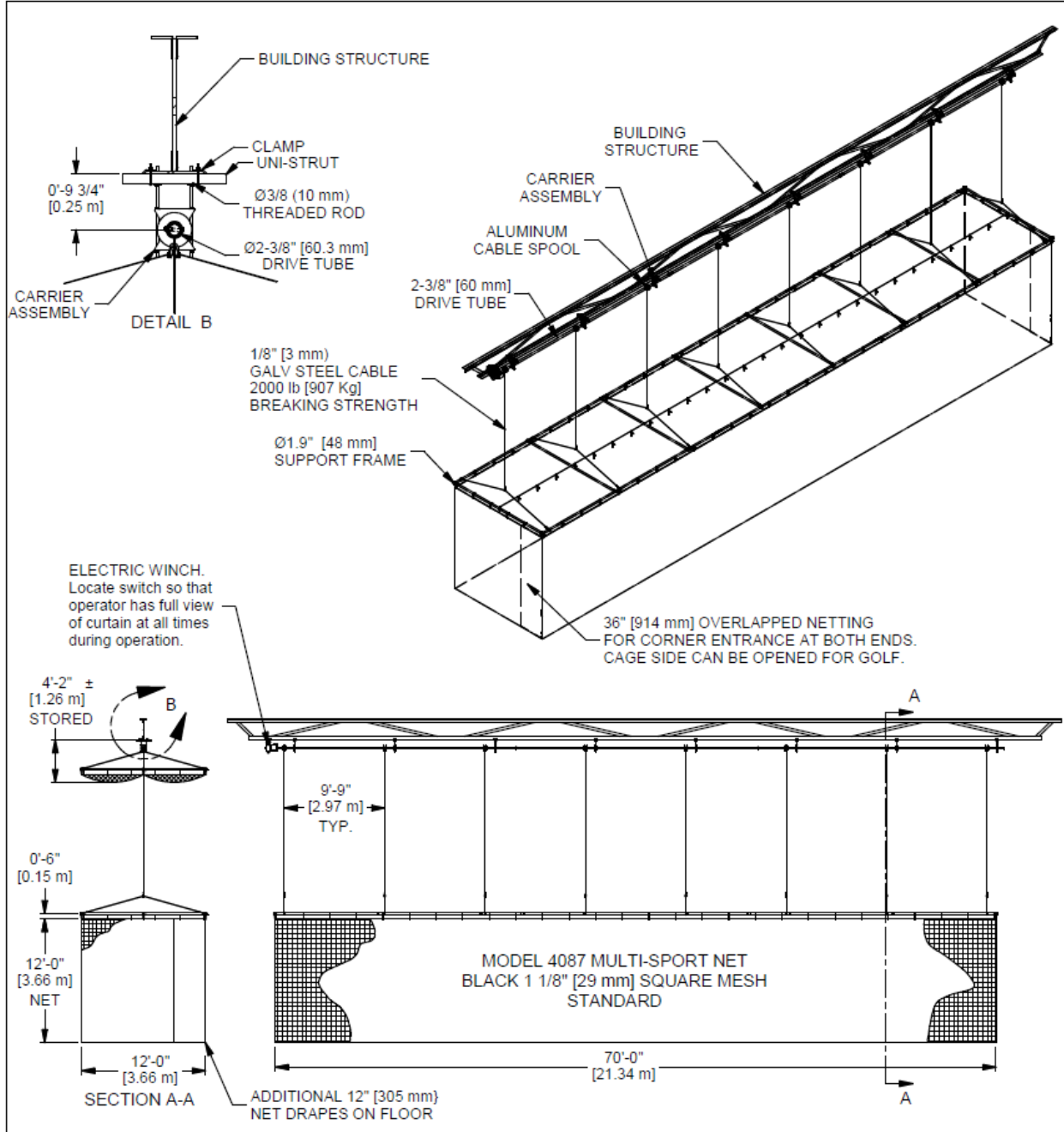
CAUTION SHOULD BE EXERCISED AT ALL TIMES WHEN OPERATING THE CAGE.

ALWAYS FOLLOW PROPER SAFETY RULES.

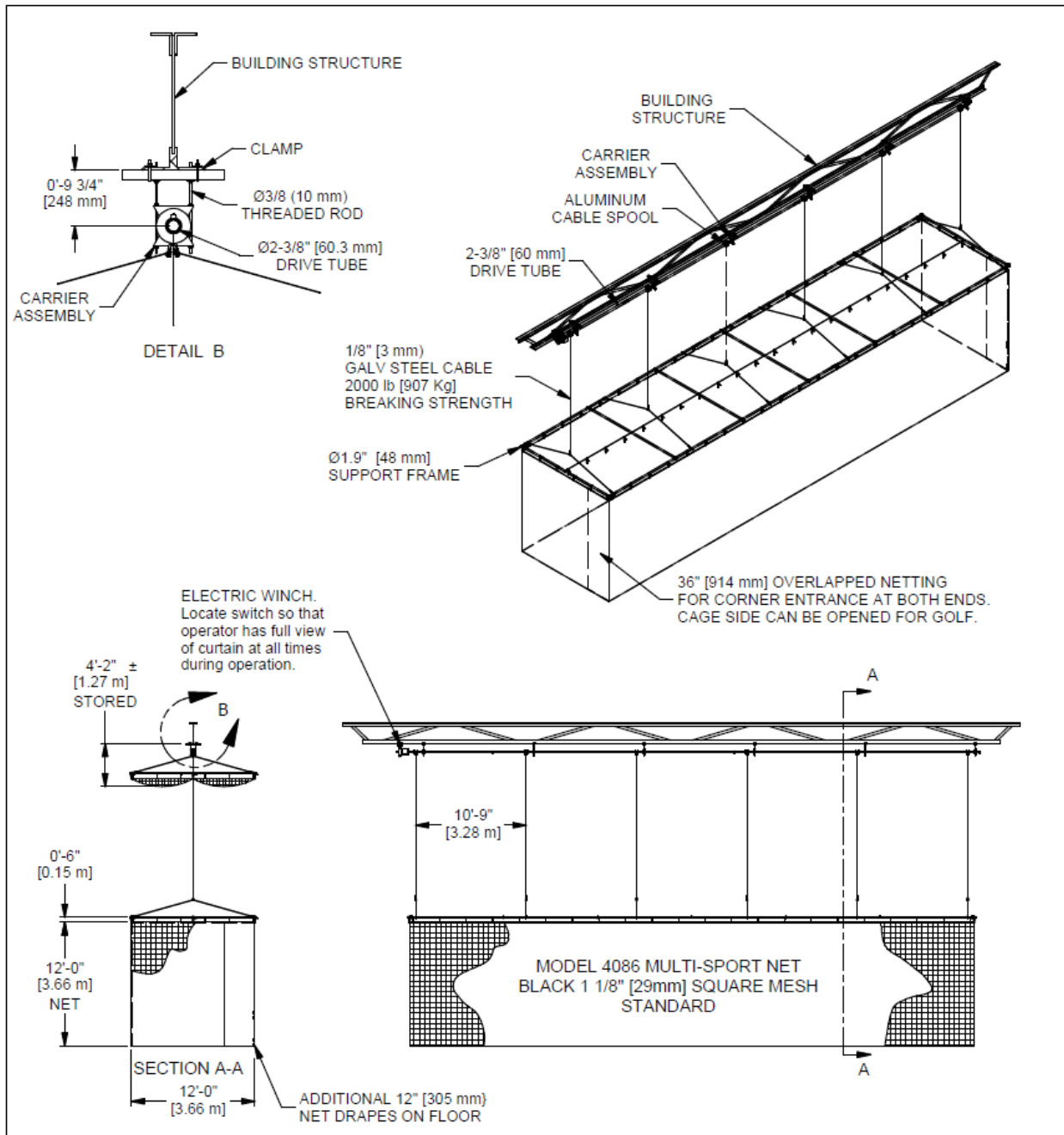
### **Important Note:**

**Locate the switch or control pad so that the operator has full view of the cage at all times during operation.**

**MODEL 4080-70 MULTISPORT CAGE, 12'x12'x70' LONG**

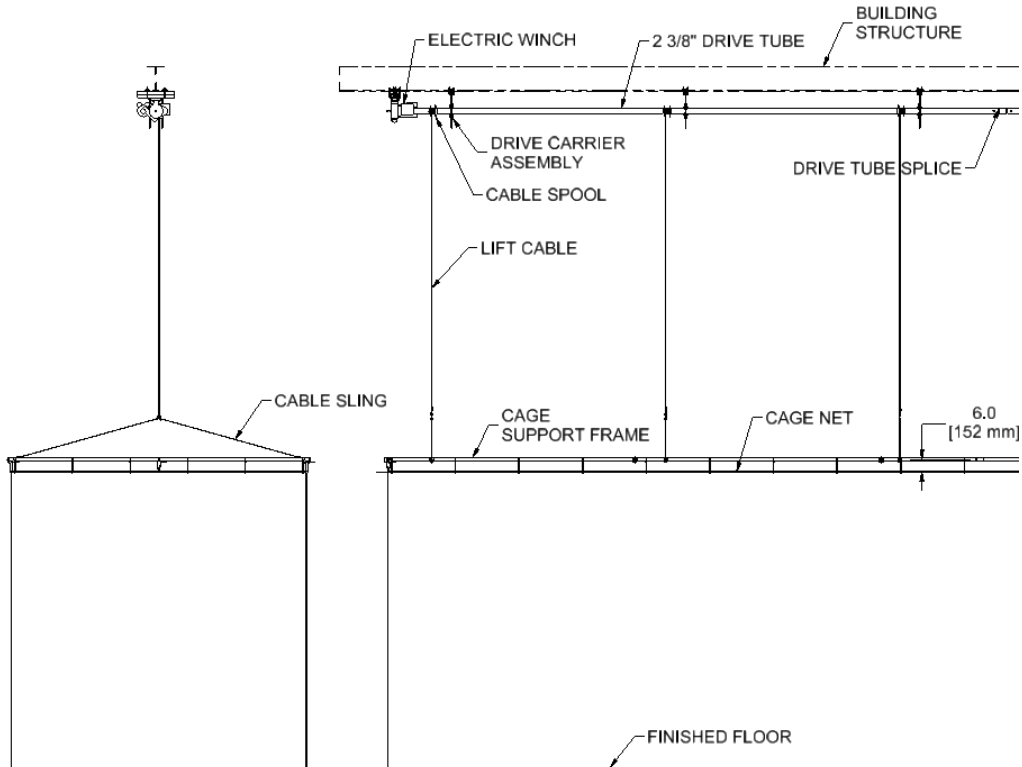


**MODEL 4080-55 MULTISPORT CAGE, 12'x12'x55' LONG**



## INSTALLATION

- 1 Installation instructions below are general in nature. Your exact installation needs to follow the parts and any specific instruction included in your specific project's production drawings.
- 2 Locate, identify and count all parts before starting the installation to ensure that all are correct and correspond to the packing list/production drawings. Also review production drawings to ensure that building conditions have not changed since the initial field check. Verify overall height and width noted on drawings.



### TOOL LIST

- Tape measure
- Level
- Socket set 3/8" to 15/16"
- Box end wrench set
- Hex key set
- Cable cutter
- 1/8" cable sleeve crimper
- Hammer
- Torque wrench

### RECOMMENDED BOLT TORQUE

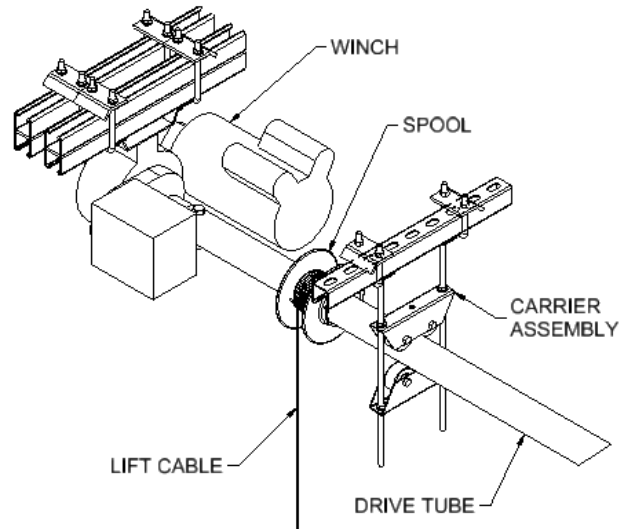
Bolt Size	Wrench Size	In-Lbs	Ft-Lbs	Nm
1/4"	7/16"	66 to 90	5.5 to 7.5	8 to 10
5/16"	1/2"	132 to 180	11 to 15	15 to 20
3/8"	9/16"	234 to 318	19.5 to 26.5	27 to 36
7/16"	11/16"		31 to 42.5	43 to 58
1/2"	3/4"		47 to 65	64 to 88
9/16"	7/8"		68 to 90	93 to 122
5/8"	15/16"		94 to 130	128 to 176
3/4"	1-1/8"		166 to 230	226 to 312
7/8"	1-5/16"		269 to 372	365 to 504
1"	1-1/2"		402 to 566	546 to 767

- Electric cutoff grinder
- Electrical tape
- Electric drill and drill bits

## DRIVE TUBE INSTALLATION

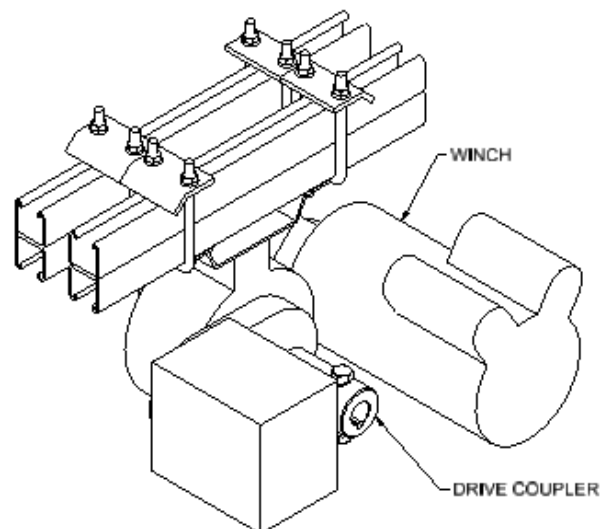
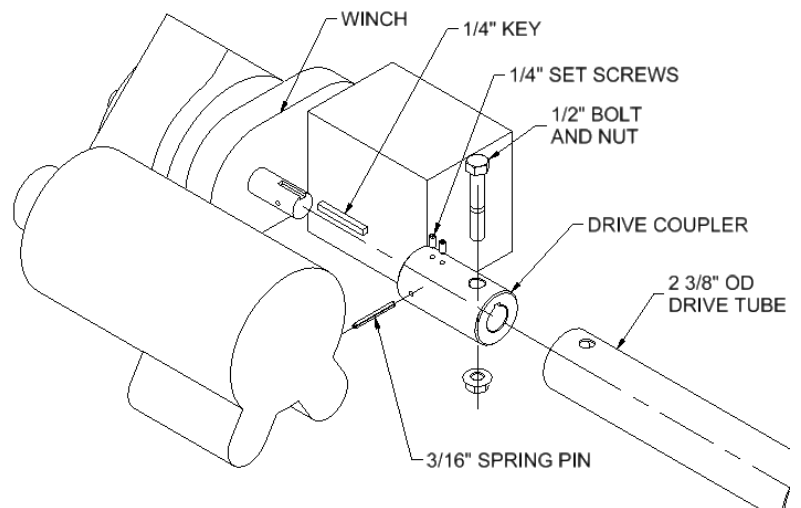
The drive shaft installation will be comprised of mounting the winch, mounting the carrier assemblies installing the spools and drive tube then connecting the cables to the spools.

The connection to the building structure may look different than the typical Unistrut connection shown in the illustration in these instructions. Refer to your install drawings for the exact connection for your project.



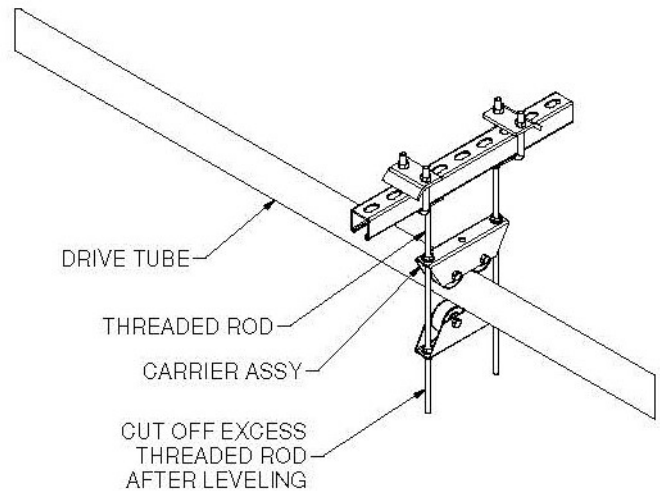
### 1 Winch installation.

- a. Unpack the winch, confirming the part number is correct for your installation.
- b. Install the drive coupler as shown in the illustration to the right. Be sure that the key, the 3/16" spring pin is installed and the setscrews are tightened to the shaft. Loosely install the 1/2" bolt and nut at this time.  
 Note: It may be necessary to rotate the winch shaft to allow for installation of the Spring Pin. When completed, rotate the shaft so that the 1/2" bolt is vertical so that drive shaft may be installed at a later time.
- c. Attach the winch and coupler to the building structure using the parts as indicated in your projects installation drawing package.



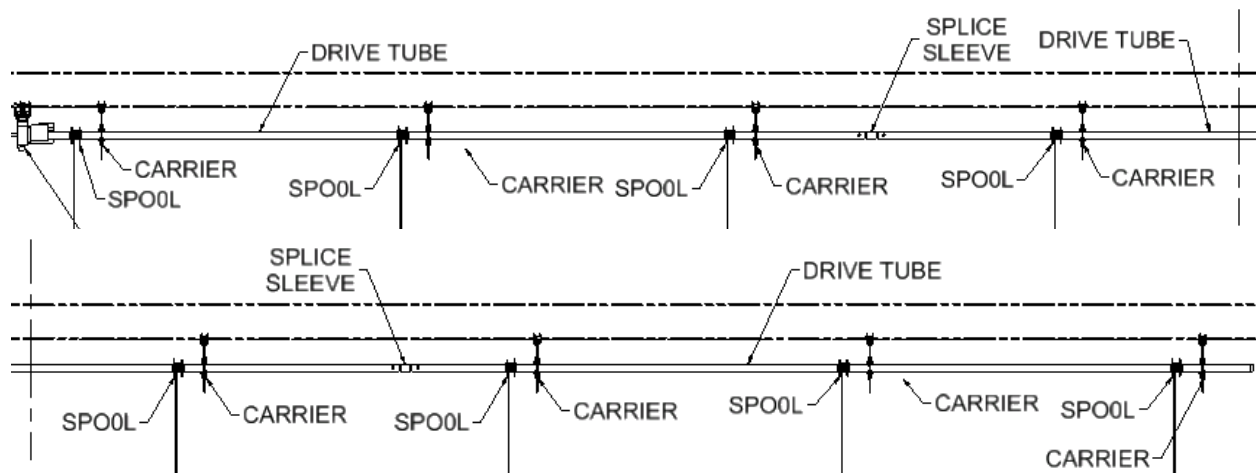
## 2 Carrier installation

- a. Refer to installation drawing package for the locations of the drive tube carriers and spools.
- b. Begin installing the carriers from the winch motor end by installing the winch end drive tube section first.
- c. Install the drive tube carrier assembly as shown in the illustration to the right using 3/8" threaded rod. There will be a top and bottom carrier assy. Install only the upper carrier rollers at this time
- d. Each carrier will be secured to the threaded rod with (4) Flanged wiz lock nuts.



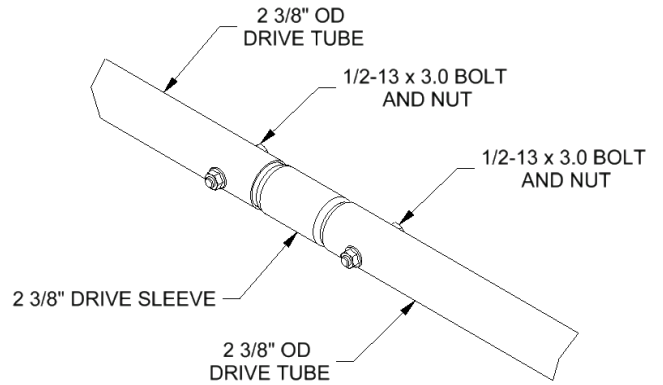
## 3 Drive tube and spool installation

- a. Starting with the drive tube nearest the winch motor, slide the cable spool onto the drive tube in its approximate location as shown on your installation drawings. Be sure that all drive spools are facing the same direction.
- b. Connect the drive tube to the winch coupler as shown in the winch installation on the previous page.
- c. Install the lower carrier rollers and then adjust the carrier threaded rod nuts to make the drive tube section level. Repeat the process with each drive tube section.
- d. When level, cut the excess threaded rod from below the carrier mount.



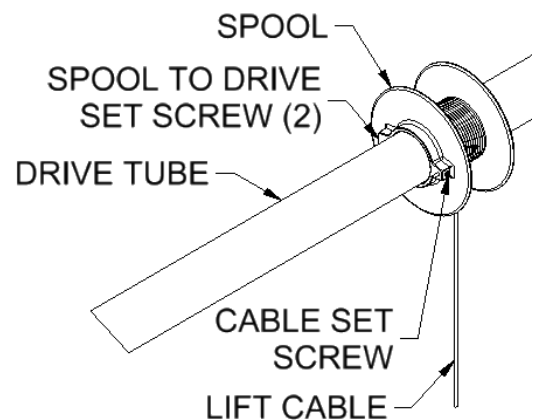
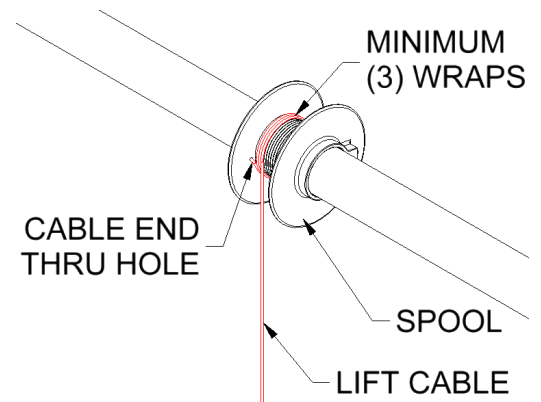


- e. Connect the sections of drive tube with the crimped drive sleeve.
- f. Secure with a 1/2-13 x 3.0 hex bolt and flange nut.



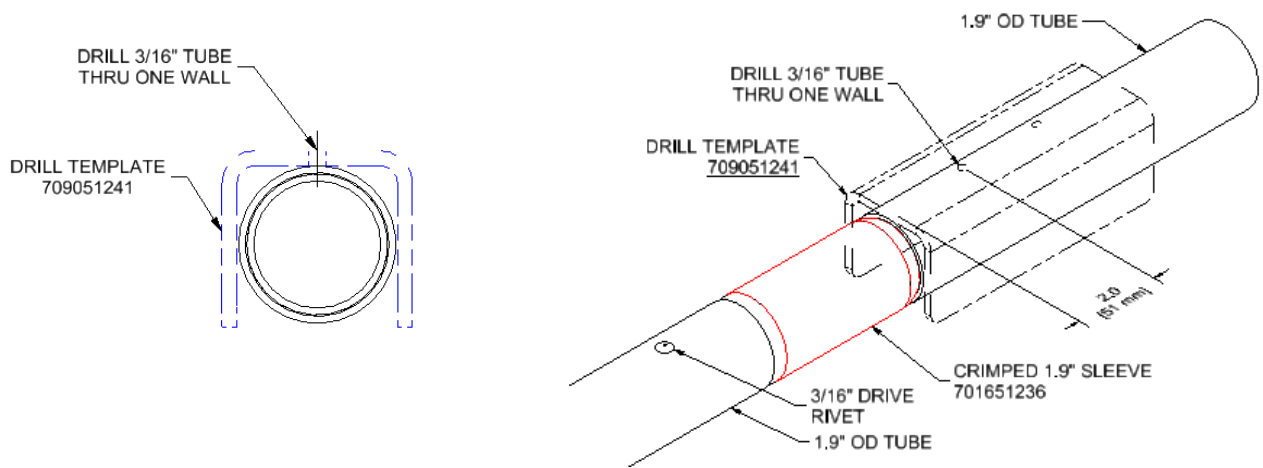
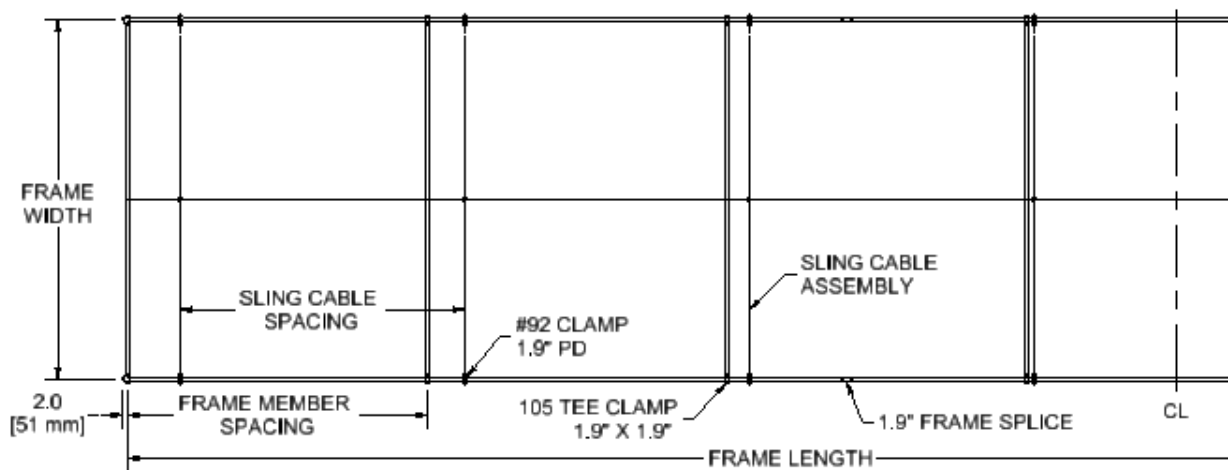
4 Spool and Cable installation

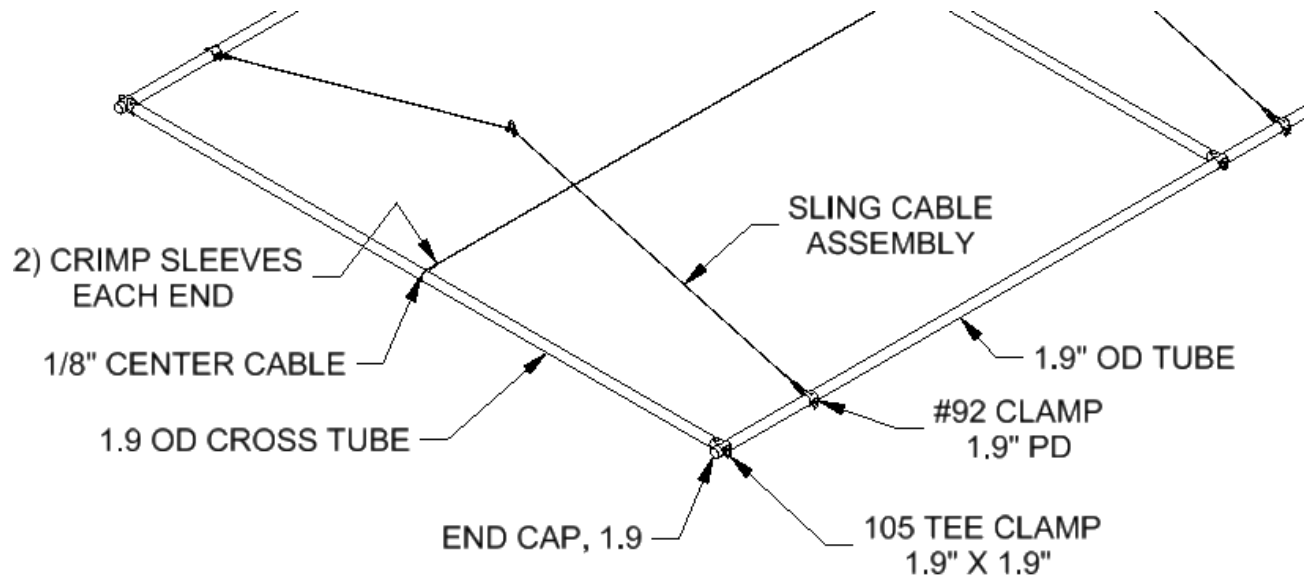
- a. Check that all spools are assemble so that the cable attaches and winds from the same side of the spool.
- b. Mark the spool spacing as shown on your project's installation prints and temporarily snug the set screw on the spool.
- c. Cut cable to approximate length.
- d. Thread top end of cable through the cable hole from the inside to the outside of the spool and tighten setscrew on the cable.
- e. Loosen spool set screw and rotate spool to give cable a minimum of (3) pre-wraps on the spool. Be sure the direction of the wraps follow the cable grooves in the spool, then tighten the setscrew on the spool.



## FRAME INSTALLATION

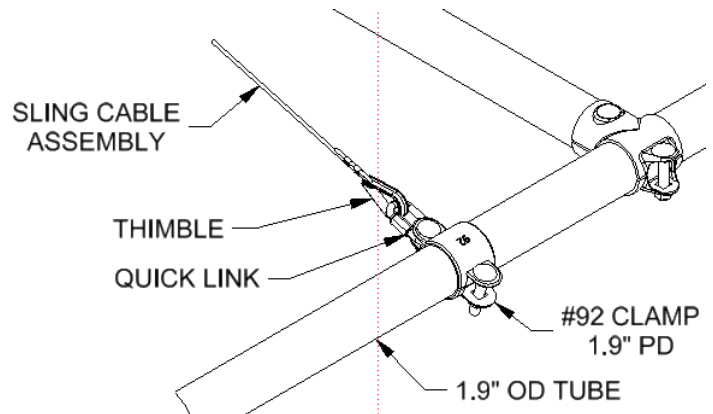
- 1 Assemble the two long side tubes of the frame using the longer sections of 1.9" OD tubing as shown in the installation drawing package furnished with the shipment and the 1.9" frame splices.
- 2 Secure the frame splices to the 1.9" OD tubing with 3/16" drive rivets as shown in the following illustrations. Using the provided drill template, drill a 3/16" dia hole through one wall of the 1.9 OD tube and the splice sleeve. Secure with 3/16" drive rivet.
- 3 Using the following illustrations as a guide and referring to the installation drawing package for proper dimensions, assemble the cage lift frame using 1.9" OD tube and #105 Tee Clamps.





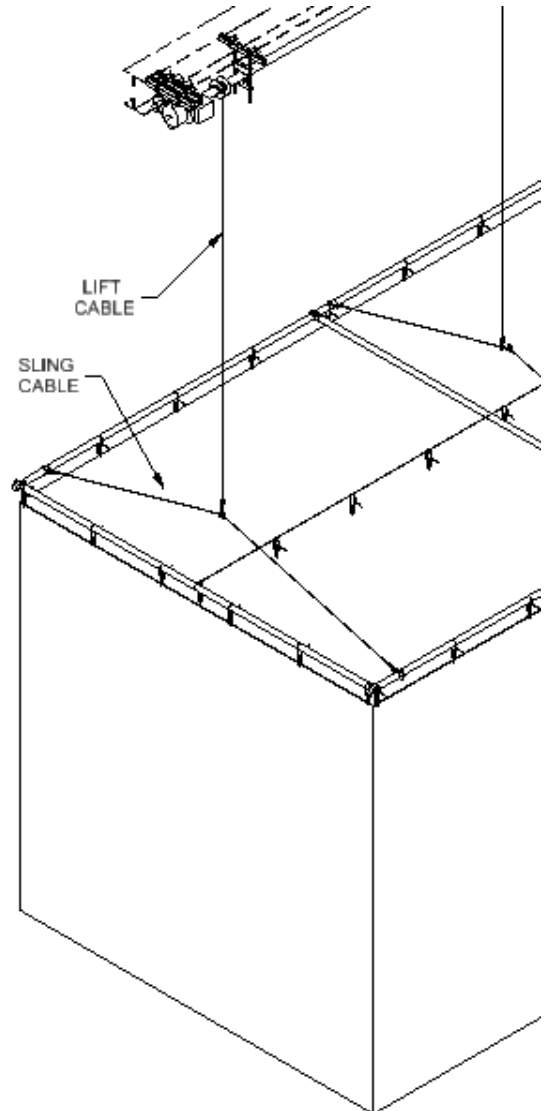
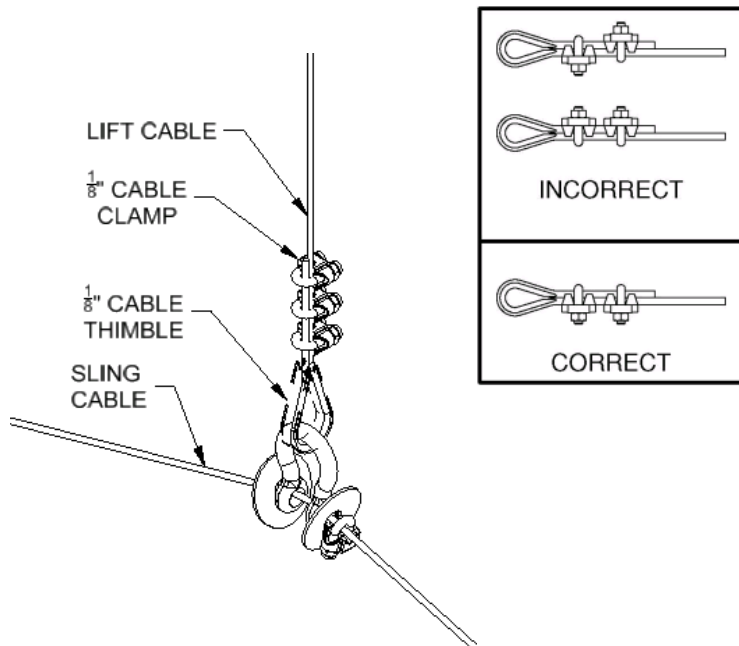
- 4 Assemble a 1/8" diameter cable down the middle of the frame. Cable should lay over the top of the 1.9" OD cross tubes and attached to the end cross tubes using (2) crimp sleeves on each end.

- 5 Assemble Sling Cable Assembly to the long side of frame using #92 Clamps and Quick Links. See your project's install prints for location and spacing of the slings. Be sure Quick Links are closed and tightened.



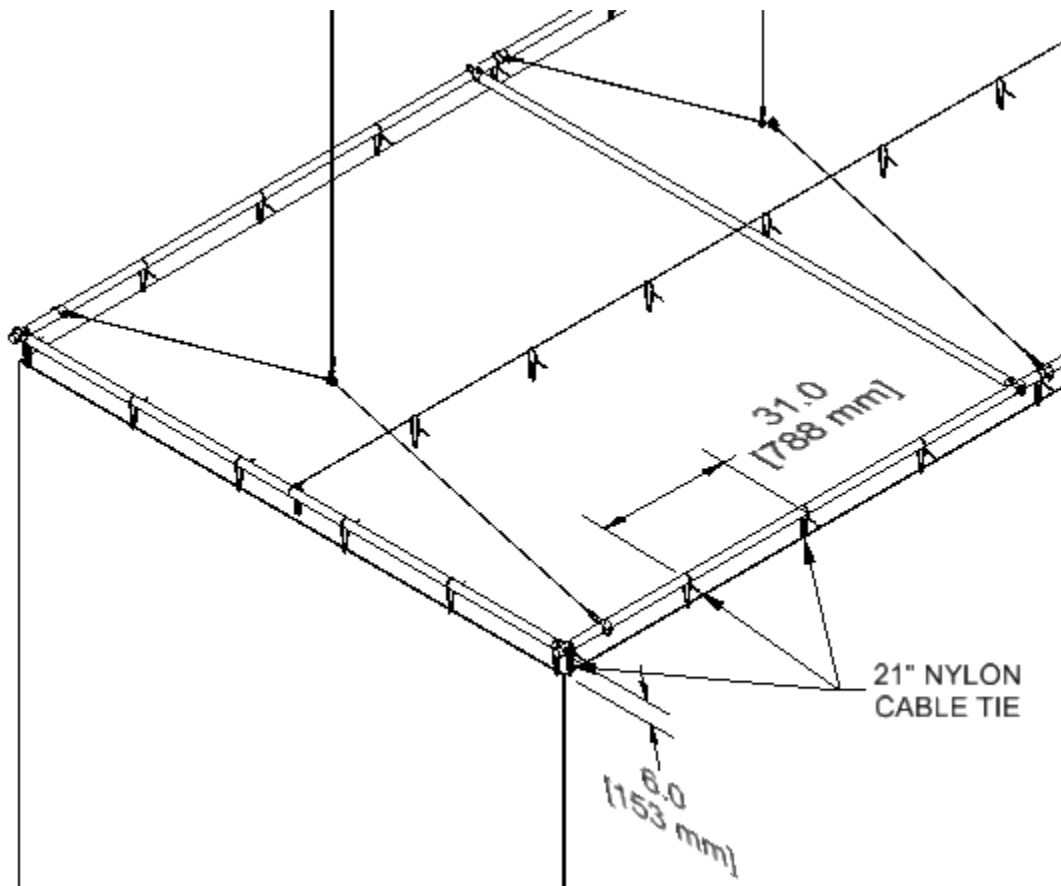
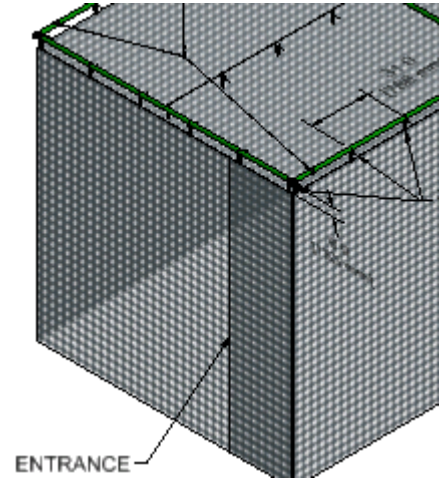
## 6 Lift Cable Attachment

- a. With cage frame level on floor and positioned below drive system, connect lift cable to sling cable clevis.
- b. Thread cable thimble around lifting clevis on sling cable.
- c. Thread lifting cable around the thimble and secure with three cable clamps, installing clamps as shown below with saddle casting on the live lifting cable.
- d. Tighten all cable clamp bolts evenly to 4.5 ftlbs (54 inlb) [6.1 Nm] torque.
- e. Set the limits on the winch motor for full up position and a down position approximately 4 ft [1.2 m] above the finished floor.



## NET INSTALLATION

- 1 Using the winch, lift the cage to a comfortable working height of 4-5' [1.2-1.5 m] above the floor.
- 2 Unpack and lay the net out under the suspended cage frame. Be sure to orient the Entrance Door to the side of the long side of frame that will be opened for golf.
- 3 Pull the netting up to the cage lift frame and attach the netting using the 21" long nylon cable ties. Adjust the length of the cable tie to allow for 6" [150 mm] between the net and the lift frame center line.
- 4 The cable ties should be no greater than 31" [.8 m] apart and should be looped under the nylon cord at the top edge of the netting around the perimeter.
- 5 On the 1/8" cable in the center of the net, attach the nylon cable ties to netting.
- 6 When cable ties are attached and adjusted, clip the excess length from the cable tie.
- 7 With frame lifted to 12'-6" [3.8 m] above the floor, there should be about 12" [300 mm] of netting drooped on the floor.





## OPERATION

### PLEASE DO NOT ATTEMPT TO OPERATE THIS EQUIPMENT BEFORE READING THE FOLLOWING INFORMATION!!!

#### Product Overview

The following information is designed to assist you with the operation and maintenance of your Model 4080 Sports Cage. We recommend that you carefully read this literature to become familiar with your new cage, and then develop an operation and maintenance program for the designated operator of the cage.

It is very important that this cage be operated by **AUTHORIZED PERSONNEL ONLY**. This sports cage has been manufactured with safety in mind, but even the safest equipment can be damaged or cause damage to a person or persons when operated by unauthorized or untrained users.

- **Tremendous force is created when this cage is in motion.**
- **Only authorized personnel may operate batting cage.**
- **Care must be taken to make sure the cage and areas above and below the cage are free and clear of any obstructions.**
- **Do not stand directly below the cage when raising or lowering.**
- **Never swing or sway cage.**
- **Structure and motor units were designed to lift the weight of the cage only.**
- **Never hang from sides or bottom of cage during operation or when cage is in the lowered position.**
- **Never attach or place foreign objects on the cage.**

**⚠ CAUTION**

ONLY TRAINED AND AUTHORIZED PERSONNEL SHOULD OPERATE THIS EQUIPMENT. OPERATION BY UNTRAINED OR UNAUTHORIZED PERSONNEL MAY RESULT IN DAMAGE TO THE BATTING CAGE OR CAGE STRUCTURE AND/OR INJURY TO ANYONE NEAR THE CAGE.

ALWAYS MAKE SURE AREA AROUND AND BELOW THE CAGE IS CLEAR OF PERSONNEL AND OBSTACLES BEFORE OPERATING THE DEVICE.

NEVER STAND DIRECTLY UNDER THE CAGE DURING OPERATION.

OPERATOR MUST KEEP CAGE IN VIEW AT ALL TIMES DURING OPERATION.

KEY SWITCH OR CONTROL PAD MUST BE MOUNTED IN CLEAR VIEW OF THE CAGE.

NEVER LEAVE KEY IN KEY SWITCH UNATTENDED.

NEVER SWING OR SWAY THE CAGE.

NEVER HANG FROM SIDES OR BOTTOM OF THE CAGE DURING OPERATION OR WHEN CAGE IS IN THE LOWERED POSITION.

CAUTION SHOULD BE EXERCISED AT ALL TIMES WHEN OPERATING THE CAGE.

ALWAYS FOLLOW PROPER SAFETY RULES.

#### OPERATION OF THE MODEL #4080 BATTING CAGE:

1. The key switch used to control the up/down motion of this curtain must be flush mounted on a wall that gives the operator a clear and full view of the cage. Never operate the cage if conditions do not allow for a clear and full view of the cage. No one, including the operator, should be under the cage when lifting or lowering.



## 4080 SPORTS CAGE



- a. The cage may be raised or lowered by turning the key to the appropriate “Up” or “Down” position, as indicated on the switch cover plate.
- b. The key that operates the cage must remain in the possession of the authorized operator.

**NEVER LEAVE THE KEY UNATTENDED IN THE KEY SWITCH.**

- c. The motors that control the movement of the cage have been programmed to stop the cage at a predetermined “up” and “down” position. Should the cage stop before it reaches these predetermined positions the motor may have over heated and need to cool off. Allow the motor to rest for approximately 20 minutes and try to run again. If the motor still does not run contact your dealer or installation company immediately.
2. Lift the cage for storage.
    - a. Lower the cage frame to a position 4-5’ [1.2-1.5 m] above the floor. Cage will automatically stop in this full down position.
    - b. Throw all four sides of the net onto the top of the frame.
    - c. Lift the cage to the full up storage position. Cage will automatically stop in the full up position.
  3. Setup the cage for play.
    - a. Lower the cage frame to a position 4-5’ [1.2-1.5 m] above the floor. Cage will automatically stop in this full down position.
    - b. Pull the cage net off the top of the frame so bottom of net rests on the floor.
    - c. Lift the cage to a height of 12’-6” [3.8 m] above the floor, there should be about 12” [300 mm] of netting resting on the floor.
    - d. Entrance into the cage can be made from either end though an overlapping net door that is held closed by a Velcro closure strip.
  4. Set the cage up for golf driving.
    - a. Lower the cage frame to a position 4-5’ [1.2-1.5 m] above the floor. Cage will automatically stop in this full down position.
    - b. Open the end entrance doors on both ends of the cage. Throw the long side of the net on top of the cage, leaving the other three sides draped on the floor.
    - c. Lift the cage to a height of 12’-6” [3.8 m] above the floor, there should be about 12” [300 mm] of netting resting on the floor. Golf balls can be driven into the open side of the net.



# 4080 SPORTS CAGE



## MAINTENANCE

This sports cage has been custom manufactured according to the Owner’s/Architect’s specifications. When operated and maintained with proper care, this cage should provide years of safe, trouble-free service.

MAINTENANCE INFORMATION – PLEASE RETAIN FOR FUTURE REFERENCE!!!

### MODEL 4080 SPORTS CAGE

### MAINTENANCE OVERVIEW

**!!!ALWAYS DISCONNECT POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE CHECK OR OPERATION ON THIS EQUIPMENT!!!**

#### STRUCTURE:

We recommend a yearly inspection (or more frequently depending on usage) of the nuts and bolts, checking for tightness.

Check cable for wear annually.

#### MOTOR:

The motor that operates your batting cage does not require any maintenance. We do recommend however, that the limit switches be checked on a regular basis to ensure the settings are accurate.

RECOMMENDED BOLT TORQUE				
Bolt Size	Wrench Size	In-Lbs	Ft-Lbs	Nm
1/4"	7/16"	66 to 90	5.5 to 7.5	8 to 10
5/16"	1/2"	132 to 180	11 to 15	15 to 20
3/8"	9/16"	234 to 318	19.5 to 26.5	27 to 36
7/16"	11/16"		31 to 42.5	43 to 58
1/2"	3/4"		47 to 65	64 to 88
9/16"	7/8"		68 to 90	93 to 122
5/8"	15/16"		94 to 130	128 to 176
3/4"	1-1/8"		166 to 230	226 to 312
7/8"	1-5/16"		269 to 372	365 to 504
1"	1-1/2"		402 to 566	546 to 767

#### CAGE NETTING:

The netting should be checked on a regular basis for tears. Should the netting become damaged, it must be repaired or replaced. Contact your dealer or installation company for information on repair or replacement of the netting.

This Model #4080 Batting Cage has been custom manufactured according to the Owner’s/Architect’s specifications. When operated and maintained with proper care, this cage should provide years of safe, trouble free service.





4080 SPORTS CAGE



**ATTENTION: MAINTENANCE DEPARTMENT**

To confirm that you have received maintenance and warranty information, and to better serve you if you contact us, please fill out the following information and fax or mail to the address below.

Please refer to the facility name and/or the installation company below when you contact Performance Sports Systems, and include it on any correspondence.

I have received the maintenance and warranty information provided by Performance Sports Systems on the 4080 Sports Cage.

Facility/School Name: \_\_\_\_\_

Installation Date: \_\_\_\_\_ Installed by: \_\_\_\_\_

Maintenance Dept. Contact: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Fax to: 1-317-774-9841

Attn: Customer Service

Or

Mail to: Performance Sports Systems

Attn: Customer Service

9200 E. 146<sup>th</sup> St., Ste. A

Noblesville, IN 46060

800-848-8034



### Maintenance Check Sheet

Date: \_\_\_\_\_

Unit: \_\_\_\_\_

#### Unit Supports / Brackets / Hinges

- Tubes; dents, stress spots, etc.       OK       Repair       Replace
- Bolts; loose, deformed, etc.       OK       Repair       Replace
- Brackets/Hinges; bent, not rotating, etc.       OK       Repair       Replace

#### Winch/Cable/Chains

- Winch; binding, loose, etc.       OK       Repair       Replace
- Cable; fraying       OK       Repair       Replace
- Chains; deforming, broken/bent links       OK       Repair       Replace
- Hardware; Quick links       OK       Repair       Replace

#### Cage Netting

- Netting; torn,       OK       Repair       Replace

Blank sheet



**Gared Holdings, LLC**

**Performance Sports Systems**  
9200 E. 146<sup>th</sup> Street  
Noblesville, IN 46060

800-848-8034  
[www.perfsports.com](http://www.perfsports.com)

**Gared Sports**  
707 North 2<sup>nd</sup> Street  
St. Louis, MO 63102

800-325-2682  
[www.garedsports.com](http://www.garedsports.com)