



Model: 4020 Fold Up Curtain

Performance Sports Systems

**INSTALLATION, OPERATION & MAINTENANCE
INSTRUCTION**

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

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SAVE THESE INSTRUCTIONS FOR FUTURE USE

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NOTICE TO INSTALLERS

The following instructions are meant as a guide only. This guide is intended to assist you with the installation and operation of the Model 4020 Fold Up Curtain. Jobsite conditions will be different for each project, and conditions may change during the project. Any suggestions or tips contained herein are for general information, and may not apply to your particular installation.

Please contact Performance Sports Systems for additional information if you are unsure how to proceed with the installation at any time, or if jobsite or building conditions change before or during this installation, thus affecting the correct installation of this curtain.

It is imperative to inspect all material being used in this installation BEFORE you begin. Confirm that materials and parts received correspond to those listed on the packing list and production drawings. If any materials or parts have been damaged during shipping or are missing as a result of shipping, you must file a freight claim with the delivering freight company. (Missing or damaged material must also be noted on the Bill of Lading at the time of delivery.)

If materials or parts are determined to be missing due to factory error or oversight, contact Performance Sports Systems immediately at 800-848-8034.

Follow all local safety codes and OSHA regulations. Performance Sports Systems will not be held liable, in any way, for improper installation or faulty workmanship at the jobsite.

IMPORTANT NOTES:

The correct operation of a Fold Up curtain is dependent on the quality of the installation. It is imperative that all supporting structure is installed correctly.

All supporting drop pipes MUST be in line and plum.

All carrier assemblies MUST be at the same level.

The drive pipe MUST be level.

Failure to adhere to these notes may result in the vinyl not folding correctly. Creases and stretching are potential problems that can result from an improper overhead structure alignment.

This curtain has been manufactured in accordance with the specifications provided by the Owner/Architect.



Introduction/Liability Disclaimers

Thank you for your purchase of a Performance Sports Systems Model 4020 “Fold Up” Curtain. To ensure that our equipment will provide years of use to you, we are including this installation, operation, and maintenance guide. This guide will provide information on the proper installation methods, operating procedures, and preventative maintenance of your gymnasium divider curtain.

Please note that a Bill of Materials is on the installation drawings provided with this product. Please check that all of the parts called out on the Bill of Materials are present prior to beginning assembly. Please do not substitute for factory parts. If any parts are missing, do not substitute non-factory parts. Please contact the Performance Sports Systems customer service department 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 Fold Up Curtain. No one under the age of 18 should operate the curtain, unless properly supervised.

To prevent normal wear and tear from shortening the life of the curtain, preventative maintenance inspections and repairs should be performed at least once per year. If the curtain 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 Performance Sports Systems or one of our authorized dealers. When contacting Performance Sports Systems, please have information regarding the dealer/installer who sold the unit, the name of the project, and any applicable warranty information.

Please note that Performance Sports Systems assumes no responsibility for the building structure to support our 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 CURTAIN OR CURTAIN STRUCTURE AND/OR INJURY TO ANYONE NEAR THE CURTAIN.

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

NEVER STAND DIRECTLY UNDER THE CURTAIN DURING OPERATION.

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

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

NEVER LEAVE KEY IN KEY SWITCH UNATTENDED.

NEVER SWING OR SWAY THE CURTAIN.

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

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

ALWAYS FOLLOW PROPER SAFETY RULES.



4020 Fold Up Curtain Instruction & Operation Manual

The following tools are needed to help efficiently install a model 4020 Fold Up Curtain:

Hammer

Wrenches – 1/2", 9/16", 11/16", and 3/4"

Ratchet Wrenches with 1/2", 9/16", 11/16", and 3/4" sockets

Allen Wrenches – 3/16" and 1/8"

File (half round)

4' Level

25' Tape measure

Duct Tape

Block of Wood (for tapping)

Broom

Shop-Vac

Utility Knife

Cable Cutters (P/N xxxxxxxxx available from Grainger)

Crimp Tool (P/N xxxxxxxxx available from Grainger)



Important: 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 the production drawings to verify that building conditions have not changed since the initial field check. Verify overall height and width noted on drawings.

Before you begin: Finished floor and curtain are easily damaged, therefore care should be taken to protect both. Make sure area is clean and free of debris. Sweep floor before laying protective covering. Protective covering should be at minimum the length and width of curtain. Have shop vacuum handy to sweep up any debris or metal shavings during installation.

Installing Support Structure

Because support structure is unique for each job, these guidelines are for a typical installation. Refer to your specific installation drawing for locations of the support structure pieces.

1. Using detail from production drawings, hang welded drop pipe (item 1) from trusses. Make sure drop pipe is plum.
2. Begin installing carrier mount brackets (item 2) on the welded drop pipe (item 1) using the provided $\frac{1}{2}$ "-13 x 3" hex head bolts (item 3) and $\frac{1}{2}$ "-13 whizlock nuts (item 4). Be sure to note on the production drawing which drop has the carrier mount for the hoist, as this is different from the others. Please refer to figures 1 and 2 for illustrations of each.

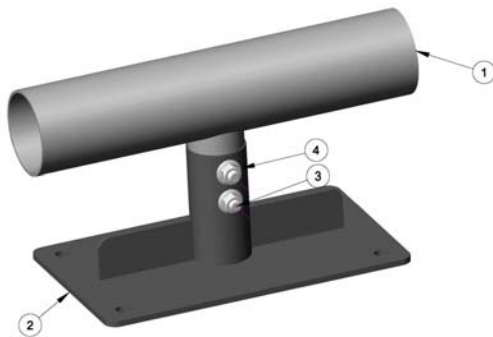


Figure 1. Hoist carrier mount installation.

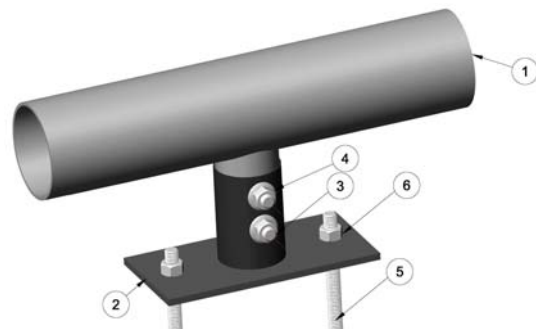


Figure 2. Carrier mount installation.

3. As shown in figure 2, slip the $\frac{1}{2}$ "-13 threaded rod (item 5) through the predrilled holes and temporarily secure with a $\frac{1}{2}$ "-13 top lock nut (item 6).
4. While attaching each carrier mount and threaded rod kit, the carriers themselves can be installed.



- Referring to figure 3, a 1/2"-13 Whiz lock nut (item 1) should be threaded onto each threaded rod and spun towards the carrier mount a sufficient distance to allow the carrier (item 2) to be installed and a second nut (item 1) threaded onto each rod to retain the carrier. If a double carrier is indicated as being used on the production drawings, then the process must be repeated to complete the installation. **Note that a single carrier will be installed the same as the lower carrier (item 2) shown in figure 3. Also, note that in either case enough space must be left above the lower carrier to allow a 2-3/8" diameter pipe to slide in.**

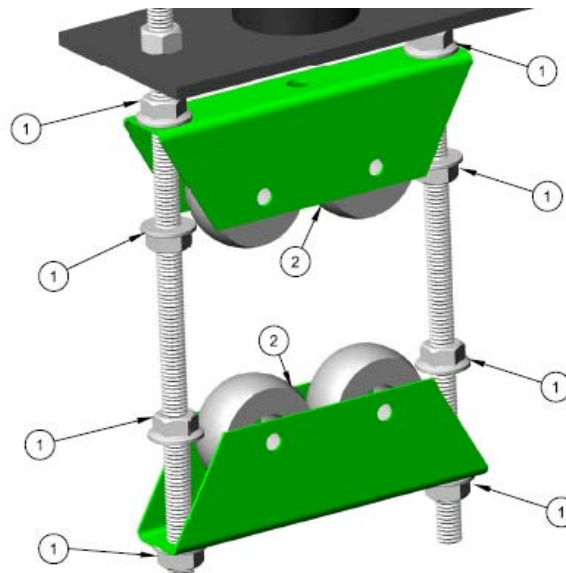


Figure 3. Carrier installation (double carrier shown).

- At the hoist mount, the hoist may be installed utilizing 1/2"-13 x 2 hex head bolts and 1/2"-13 top lock nuts. The hoist may be installed later after the drive tube has been installed in the hoist drum.

Installing Drive Pipe

The drive pipe will be inserted through the carrier assemblies installed previously. A section of the drive pipe will also be inserted into the hoist. Each section of drive pipe will also contain cable drums.

- Secure the cable drums to the drive pipe in the arrangement shown on the production drawing. Each drum uses two 3/16" Allen head set screws to secure it to the drive pipe.
- Secure the drive pipe sleeves to each piece of drive pipe as shown on the production drawing, except for the piece containing the hoist. **The hoist must be installed on the drive pipe prior to the installation of the drive pipe sleeve.**



3. Raise the drive pipe and slide it into the carriers in the arrangement shown on your production drawings.
4. Slide the section of tube shown with the hoist into the hoist drum and any other carriers it is shown going through. Before securing the hoist to the drive tube, secure the drive pipe sleeves to each piece of drive pipe as shown on the production drawings.
5. Align and level the drive tube, then secure the drive tube at the hoist with the provided 1/2"-13 x 4" bolt and 1/2"-13 nut.
6. Complete the drive tube installation by verifying the cable drums are in the correct location according to the production drawings.

Installing Top Support Pipe, Bottom Batten, and Vinyl

The top support pipe is used to hang the vinyl from the carriers. The lower carriers have a pre-drilled hole for an eyebolt that attaches to pipe hanger clamps.

1. Insert the top support pipe into the top pocket of the curtain vinyl. Secure the support pipe sleeves to the support pipe as the top support pipe is inserted into the top pocket of the curtain vinyl.
2. Insert the bottom batten pipe into the lower pocket of the curtain vinyl. Secure the pipe sleeves to the batten pipe as the batten pipe is inserted into the lower pocket of the curtain vinyl.
3. With both of the pipes inserted in the curtain, cut slots where the pipe hanger clamps will be located. Then install the clamps.
4. Raise the curtain vinyl and attach the pipe clamps to the carriers by inserting a 1/2"-13 bolt through both the eye bolt and pipe hanger clamp. Be sure that the eyebolt is between the two sides of the clamp.

Tip: To raise top support and curtain either of the following methods is acceptable. (1) Attach cables to drums and allow them to hang down. At each cable, wrap one loop around the top support pipe. Connect hoist and run up to bring curtain top support pipe to carriers. Attach top support pipe to pipe hanger clamps. Alternatively (2) if multiple lifts are available, use one lift on each end to raise top support pipe and a third to secure top support pipe to pipe hanger clamps.

5. Level the top support tube, and allow the vinyl to hang freely.



Installing Pull Up Cables

1. In most instances, the 1/8" aircraft cable is pre-cut for your curtain. Find all of your coils of cable and verify that there are enough to hang the curtain.
2. At each cable drum, thread one end of the 1/8" aircraft cable through the hole in the cable drum so there is enough to place a cable clamp on the cable outside of the drum. In addition, tighten the 1/8" set screw to hold the cable.
NOTE: The cable should be wrapped a minimum of TWO wraps around the cable drum. This can be completed now or after the cable is threaded in the next step.

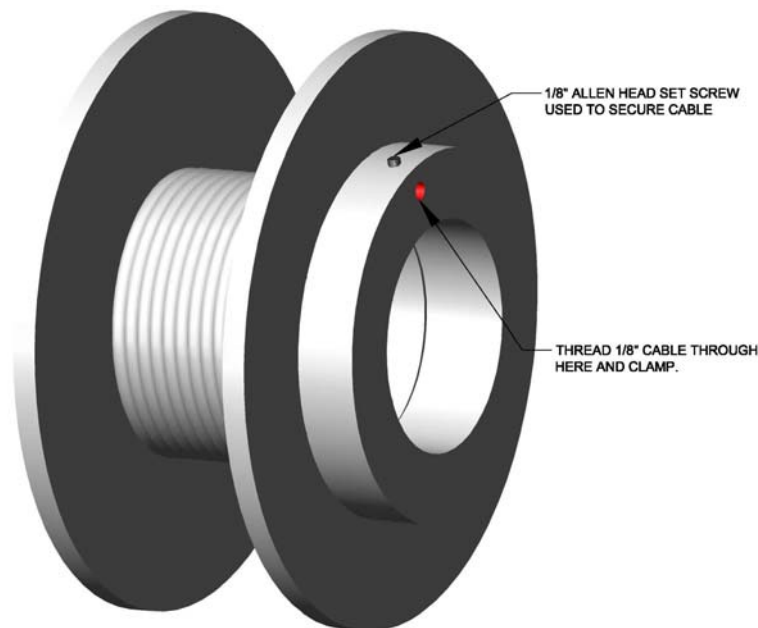


Figure 4. Illustration of cable drum attachment.

3. Thread the cable through the grommets in the curtain. The proper method is to thread the cable through each of the grommets. If space is an issue, it is acceptable to skip every other grommet to make the folds wider but collapse the vinyl into slightly less space.

4. When the cable has been threaded through the grommets, cut a slit in the bottom vinyl to allow the cable to wrap around the bottom batten. Use the cable crimps provided and your cable-crimping tool to secure the cable to itself. To make the installation as clean as possible, it is advisable to place the crimps as close to the batten tube as possible, inside the vinyl pocket. Please see figure 5 for an illustration of the correct method.

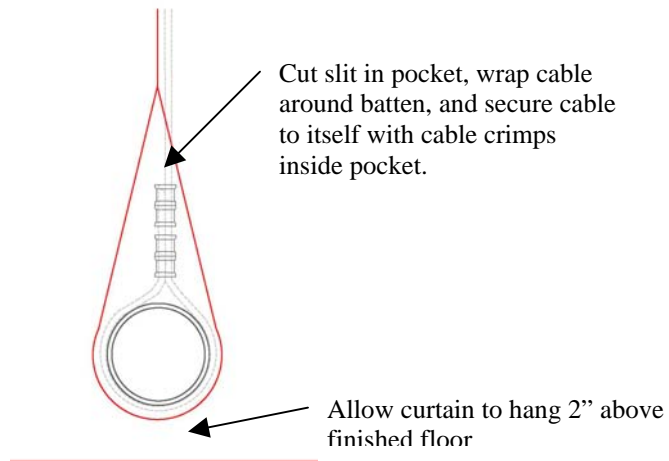


Figure 5. Illustration of the proper method for securing the cables.

5. Verify the cables have equal tension with a slight load and make any final adjustments to level the curtain or even cable tension.
6. Leave the curtain in the down position for as long as possible to allow any wrinkles to stretch out of the curtain before raising it. When raising the curtain for the first time, position a lift at each end of the curtain to ensure that the material folds correctly. This will reduce the chance of new wrinkles forming, and prolong the life of the curtain.



Test cord

Extension cord for testing must be 16-3 or heavier up to 25 feet run, 14-3 or heavier for 25 to 50 feet run, 12-3 or heavier for 50 to 90 feet run, and 10-3 or heavier for 90 to 140 feet runs. Operating hoist with insufficient voltage and/or amperage will damage electrical control box. Damage caused due to inadequate electrical supply will not be covered under warranty.

Setting Limit Switches

1. With the curtain in the down position, there should be about 2” of clearance between the bottom of the curtain and the floor. Be sure that the hoist is unplugged before proceeding.
2. Remove the electrical compartment cover (2 screws). Slacken the two thumbnuts holding the lower limit switch. Slide the lower limit switch across until the blade contacts the limit trip rod, and then slide it a little further until an audible click is heard as the switch opens. Tighten the thumbnuts. The lower limit is now set.
3. The belts should be double checked now to ensure that they are all at the same tension. If they are not, refer to the section titled, “Installing the Roll Up Belt Kit”.
4. Connect the power and raise the curtain to the up position. Check that the curtain is folding correctly and not creasing or binding the vinyl.
WARNING: the motor is now HOT. Do not handle any wires, use only the key switch to operate the curtain.
5. The curtain should be rolled no higher than necessary and the belts should roll evenly on themselves. Uneven rolling of the belts can cause excessive wear.
6. The upper limit switch can be set the same way as the down limit switch.
7. The curtain should be raised and lowered several times to make sure that the belts are tracking properly and the limit switches are set correctly. Make sure that the bottom of the curtain is parallel to the floor. Replace the cover on the control box.
8. Determine whether to leave the curtain in the up or down position. Leaving the curtain in the down position will help to remove wrinkles from the vinyl.
9. Disconnect the temporary wiring and leave these instructions with the electrician or general contractor.
10. **Make sure Facility Electrician or Facility Manager has a copy of the wiring schematic that was furnished with the installation drawings.**

Permanent Wiring Motors for Installation

A qualified electrician should complete all permanent wiring.

The permanent wiring should be installed in accordance with the electrical schematic furnished with the installation drawings at time of delivery of the product.



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Notes to Electrician

The limit switches should already be set by the installer, but if not refer to the “Setting Motor Limits” section.

Make sure cable rolls over the top of the drive tube when raising the curtain. DO NOT allow cable to roll under the tube. Refer to Figure 6 for proper direction of roll.

Wiring Diagram

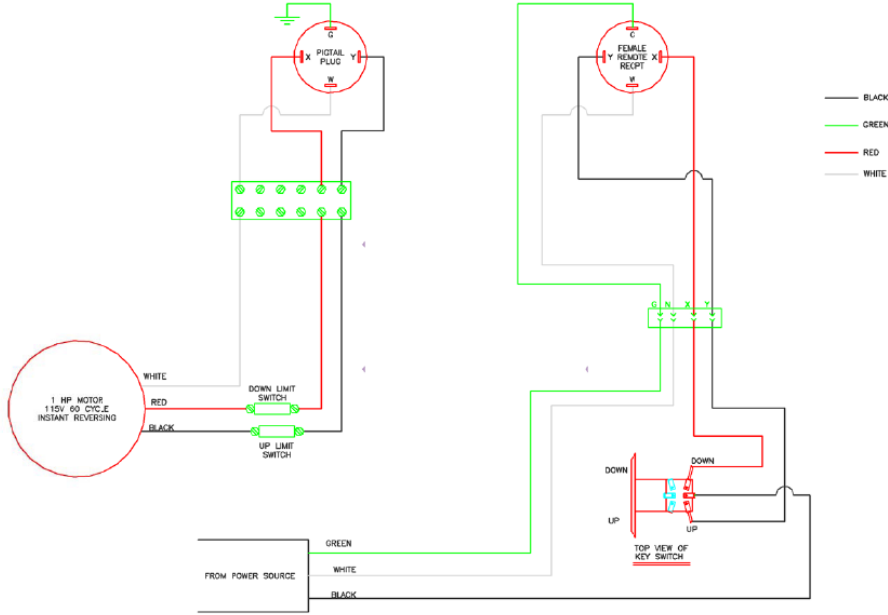


Figure 7. Key switch wiring diagram.

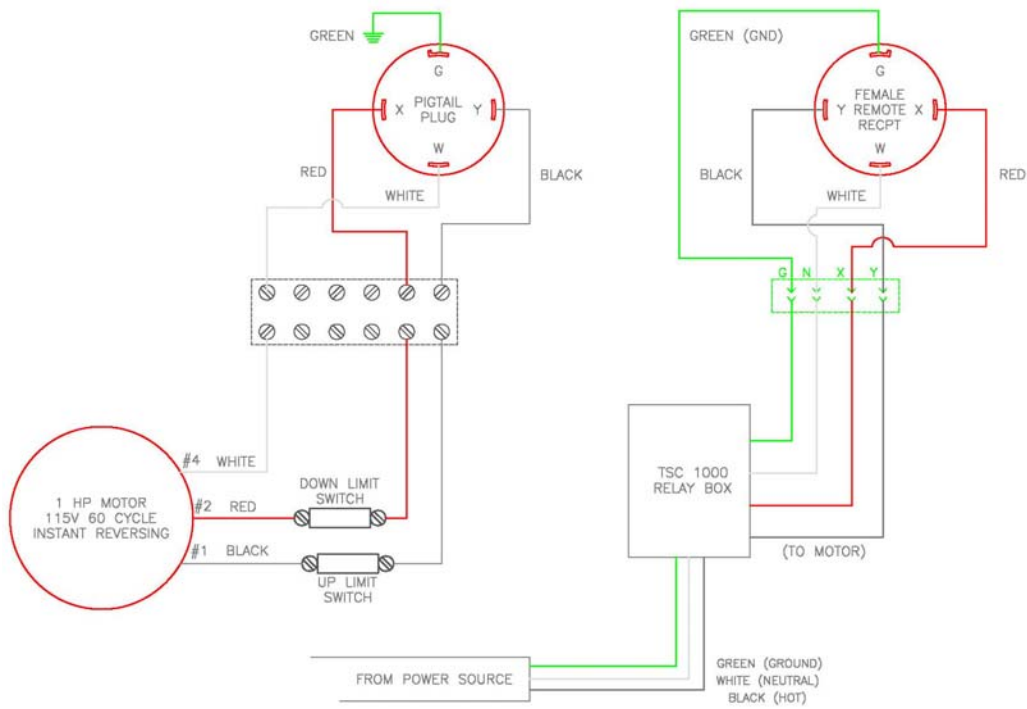


Figure 8. TSC 100 wiring diagram.



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

Model #4020 Fold-Up Divider Curtain

Product Overview

The following information is designed to assist you with the operation and maintenance of your Model #4020 Fold Up Divider Curtain. We recommend that you carefully read this literature to become familiar with your new divider curtain, then develop an operation and maintenance program for the designated operator of the curtain.

It is very important that this divider curtain be operated by **AUTHORIZED PERSONNEL ONLY**. This curtain 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 curtain is in motion.
- Only authorized personnel may operate curtain.
- Care must be taken to make sure the curtain and areas above and below the curtain are free and clear of any obstructions.
- Do not stand directly below the curtain when raising or lowering.
- Never swing or sway curtain.
- Structure and motor units were designed to lift the weight of the curtain only.
- Never hang from sides or bottom of curtain during operation or when curtain is in the lowered position.
- Never attach or place foreign objects on the curtain.

OPERATION OF THE MODEL #4020 FOLD UP DIVIDER CURTAIN:

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 curtain. Never operate the curtain if conditions do not allow for a clear and full view of the curtain.
2. The curtain may be raised or lowered by turning the key to the appropriate “Up” or “Down” position, as indicated on the switch cover plate.
3. The key that operates the curtain must remain in the possession of the authorized operator.

NEVER LEAVE THE KEY UNATTENDED IN THE KEY SWITCH.



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4. The motor that controls the movement of the curtain has been programmed to stop the curtain at a predetermined “up” and “down” position. Should the curtain stop before it reaches these predetermined positions the motor may have over heated and needs to cool off. Allow the divider to rest for approximately 20 minutes and try to run again. If the divider still does not run, contact your dealer or installation company immediately.

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



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MAINTENANCE INFORMATION – PLEASE RETAIN FOR FUTURE REFERENCE!!!

MODEL #4020 FOLD UP DIVIDER CURTAIN

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.

MOTOR:

The motor that operates your divider curtain 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.

CURTAIN VINYL:

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

DO NOT operate the curtain if the vinyl is ripped or torn, as it could snag on the carrier assemblies.

The vinyl should be cleaned with a damp cloth. A cloth dampened with water will be adequate for most conditions, however, for heavier dirt or spots, a specific vinyl cleaner can be used.

This Model #4020 Fold Up Divider Curtain has been custom manufactured according to the Owner's/Architect's specifications. When operated and maintained with proper care, this curtain should provide years of safe, trouble free service.



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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 Fold Up Curtain.

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. 146th 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

Curtain Fabric

- Vinyl; torn, missing eyelets OK Repair Replace
- Mesh; torn, missing eyelets OK Repair Replace