

OPERATIONAL INSTRUCTION OVERVIEW

Operation – Both manual and electrically powered winches develop tremendous forces; therefore, all backstops must be operated by qualified personnel only to avoid structural damage or possible personal injury. Authorized personnel is defined as an individual (or individuals) who is at least 21 years of age, has been trained for the proper operation of the unit, and is sanctioned by the facility as being responsible for the operation of the equipment.

Should your backstop be a stationary model (non-folding), supervision of its' use is still required. Wall mounted units must have all components attached securely. This includes all chain supports, cross flats, extension pipes, etc. Should your backstop be altered in any way from the "as-built" drawing(s), contact Porter immediately, and **DO NOT USE** the equipment. **Improperly installed or altered wall mounted backstops have the potential to cause serious personal injury, or even death.**

Electrically Operated Equipment – The wall mounted key switch must be flush-mounted on the wall and located in full view of the gymnasium equipment so that the operator may stop the operation of the equipment should there be any malfunction during the raising and lowering cycles. At no time should the key switch or reversing switch on the portable electric operator be reversed quickly, as this may cause damage to gears and may cause the electrical circuitry to override the up-and-down limits. On the up cycle, the backstop operation must halt before any portion of it strikes the building structure.

Manually Operated Equipment – Limit switches or mechanical stops may not be used. Therefore, it is the responsibility of the operator to stop the hoisting operation before the backstop strikes an obstruction. As a visual aid, a piece of tape may be placed on the hoist cable to align with the top of winch when the backstop is in the up position.

Important Note – These units can be dangerous if operated carelessly by inexperienced personnel; therefore, the keys or handles of the manual winches must be in the possession of responsible, trained personnel only. Proper operation and maintenance will promote longevity to the equipment and avoid the possibility of accidents.

MAINTENANCE CHECKLIST

This inspection checklist is to assist you with your maintenance program. As you are making the inspection, enter an "S" for satisfactory, or an "R" for repair or replacement.

Porter recommends a maintenance inspection take place at least once a year by a Porter Certified Inspector, using the attached check list. Porter recommends the same check list be used as a guide for additional inspections by facility personnel or operators every 6 months. Any abnormal movement or sound during operation is cause for an immediate and thorough inspection. The annual inspection by a Porter Certified Inspector is required to maintain the extended limited warranty.

1. **Wall Anchors** – Inspect all anchors to ensure they are tight. Check all wood pads for splits; replace as necessary. Be certain all wood pads tight to the wall; sight from each edge of the pad to ensure there is no gap between the wall and wood pad. Inspect wall for cracks, which may indicate a support problem.
2. **Chain Supports** – Carefully examine the entire chain support. Make certain no turned eyes, "S" hooks, etc. were substituted (refer to "General Hardware Guidelines"). Replace with appropriate hardware, as indicated. The chain support at the wall (or overhead support) must be securely anchored as noted in this manual. Chain to be secured to upper structure by a repair link, threaded "Quick" link, or minimum Grade 5 bolt only. The clamp securing the chain at the extension pipe must be either backed by a second clamp, or secured with a rivet through the wall of the pipe. Inspect the chain for any fatigues links. Replace entire chain if any link is suspect.

3. **Inspect Backstop Fittings** – Visually inspect backstop clamps and support fittings for hairline cracks, loose bolts and corrosion, replacing defective parts as required. All backstop fittings should be tightened occasionally to keep backstop rigid. Vibration may cause fittings to loosen causing undue “rattling” of backstops. To stiffen backstops with cross tension type flats, drive the bottom clamps downward on pipe to put flats in tension. Check all hinge fittings, tightening and lubricating hinge bolt as required. Replace worn bolts as required, utilizing the proper grade bolt and nut type as listed in the Fittings Parts List in this manual. Be certain the backstop has not been altered from the “as-built) drawings, and that all chain supports, cross flats, extension pipes, etc., are still securely in place.
4. **Check Backstop Accessories** – Such as the height adjuster unit (see height adjuster section in this manual for general maintenance).
5. **Inspect Telescoping Diagonal Braces** – (Model 220 side fold unit only) Clean inside telescoping brace and lubricate periodically to prevent binding on the side-fold cycle. Binding of the telescoping brace could cause damage to backstop if not properly lubricated. A dry silicon lubricant is recommended on the telescoping brace so as not to collect dirt and dust which cause binding of the operation.

Note: No.'s 6 through 9 pertain to the 219 Fold-Up unit.

6. **Inspect All Winches** – The winch, either manual or electric, is the most important part to maintain on a folding-type- basketball backstop.
 - A. For the manual winches, periodically check the winch every three to four months, lubricating as required. Use Pyroshield No. 5182 Grease (or equal).

Check gears for excessive wear, replacing them if signs of wear are apparent. To properly check manual winches, the metal cover may be removed. If the teeth of either the bronze or steel gear show signs of becoming pointed or tapering to a point, they should be replaced. Steel or bronze shavings (a sign of improper lubrication) will usually be present if the teeth have worn this severely. Normally the teeth will appear to be blunt and show signs of slight wear only on the sides. If this is the case, lubricate the gears with the recommended open gear lubricant.

B. Electric winches should also be periodically inspected for proper operation of the limit switch assembly and key switch. Faulty electrical components could create serious hazards.

The winches should also be inspected for possible hairline cracks in the cable drum. If cracks are visible, do not use until unit is replaced or repaired. If winch is belt driven, inspect the small and large belt drive pulleys, making certain they are properly secured to each shaft, and rotate concentrically. Also, check anchorage of winch to either the support pipe or wall; and loose anchorage should be repaired immediately. If the winch is gear driven, make sure the gear is not showing excessive signs of wear. Note any excessive noise as well as checking the limits are properly set to ensure complete stop before backstop comes within a safe distance of any obstructions. Make sure cable is properly spooling to ensure the limits will properly engage. The cable should evenly wrap the cable drum until the entire cable drum is wrapped or the limits are reached before the cable wraps on top of itself.

- 7. Inspect Hoisting Cable** – Check cable for kinking and fraying. The best method is to take an oily or grease-filled rag and rub along the cable. The rag may hit broken strands of cable and snag. If the snags appear approximately ten times in a ten (10) foot length of cable, the cable should be replaced. This procedure not only checks the cable, but lubricates it for longer wear. Also, make certain the cable wraps evenly on the drum. Refer to the instructions in this manual for correcting an uneven cable wrap.

Note – The grinding noise of the hoist cable against the strands already wrapped on the winch-hoisting drum is normal with this hoist system.

- 8. Inspect All Pulleys** – It is advisable to check all pulleys, checking the sheave bearing and shaft for excessive wear, replacing if necessary. Lubricate bearing at assembly.
- 9. Safety Straps** – Check Saf-Strap to make sure it retracts properly into the housing unit. Also inspect strap tie-off on the equipment, ensuring it is securely attached, and all bolts. It is recommended that a safety lock be used on any backstop which folds over a spectator bleacher. Consult factory for details if this unit was not included on the original installation.
- 10. Structure Tubes and braces** - Ensure all support tubes are free of bends, dents, or other damage. Inspect structure welds for any sign of abnormal wear.

WALLMOUNT BACKSTOP INSPECTION REPORT

The following page should be copied and returned to Porter Athletic by a Porter Certified Inspector after each inspection.

Porter Order Number _____
Project Name _____
Name of Selling Dealer _____
Date of Scheduled Shipment _____
Date of Substantial Completion _____

(Information should be found on the first page of Installation manual)

Inspecting Company Name _____
Porter Certified Inspector Name _____
Inspection Date _____

Summary of Inspected Equipment, Include any replaced, repaired, damaged, or worn parts. _____

Please attach the checklist of each equipment inspected

WALL MOUNTED BASKETBALL BACKSTOP INSPECTION CHECKLIST

Please refer to previous pages for details on inspections.
 This checklist is to assist you in your inspection program.
 As you are making the inspection, enter "S" for satisfactory, or "R" for repair and replace.

INSPECT ALL ITEMS FOR EACH BACKSTOP											
WALL ANCHORS											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
CHAIN SUPPORTS											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
BACKSTOP FITTINGS											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
HEIGHT ADJUSTER (IF APPLICABLE)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
TELESCOPING/SLIDING BRACES (IF APPLICABLE)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
WINCH (IF APPLICABLE)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
CABLE (219 ONLY)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
PULLEYS (219 ONLY)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
SAFTEY STRAPS (219 ONLY)											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
STRUCTURE TUBES AND BRACES											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12