

Basic Practicum Skills: Single purchase Counterweight system

Commonly called the Flyrail, Flysystem or Pinrail

What it is used for:

- Moving scenery
- Masking
- Hinging Lights
- Easiest means of overhead attachment in the theatre

Components

- Batten
- Lift lines
- Loft Blocks
- Head Block
- Upper Stop Rail
- Loading Rail
- Purchase Line
- Arbor
 - Spacer Plate
 - Locking Collar
 - Thumb Screws
 - Arbor Rods
 - Weights
- Tension Pulley/Idler Wheel
- Lower Stop Rail
- Rope Lock

Basic Safety

Dealing with out of weight situations

- Rope lock if the system is out of balance 50lbs or less
- Stopper hitch if the system is more than 50lbs out of balance
- Bull winch for severely out of balance or awkward loads

In the event of a runaway

- Yell "HEADS!"
- RUN AWAY
- Do not attempt to slowdown or stop a runaway lineset
- Get as far away from the flyrail and the batten as physically possible

Basic Operation

Check the stage underneath the lineset you will be bringing in to make sure it is clear of all obstructions to the batten and/or goods.

Unlock the Rope Lock

In a loud clear voice warn the stage "Heads up, lineset number (#) coming in

The expected reply is a courteous "Thank you!"
Pull down on the Front rope to bring the batten in.
Pull down on the back rope to take the batten out.
Watch the batten and flyspace as the lineset comes in, not the ropes and the wall!
If you cannot see the batten, or if it is in danger of fouling on anything, use onstage spotters to keep you informed of the situation.

The loading/unloading process from the pinrail:

Always try to minimize the effects of a potential runaway
If stage heavy, have the arbor against the upper stop rail.
If arbor heavy, have the arbor against the lower stop rail.

Attaching goods

Fly in the batten

Attach goods

Weight of the load is still on the deck

If the loaders will be adding more than 50lbs of weight, tie a snub on the front line

Have the loaders place the weight on the arbor

Test the system for proper weight, adjust as necessary

Fly the goods out

Detaching goods

Fly in batten

As the batten comes in the weight of the load transfers to the deck

If the system is more than 50lbs out of weight tie a snub on the front line

Have the loaders remove counterweight, BUT NOT PIPE

WEIGHT!

Remove goods

Fly the batten out

Loading Rail information and safety procedures:

Never do anything unless instructed by the flyperson

Never stack weights higher than the kick rails

Always grasp the bricks with two hands unless it is sitting SECURELY on something

Never lift, hold move or load weights with only one hand

The loading/unloading process from the weight rail (loading bridge)

Loading and unloading is easiest to do with two people

A loader who puts bricks on/off the arbor

A person who hands bricks to or takes bricks from the loader

The flyperson will inform you as to which lineset number and the proper # of bricks (or a weight in pounds) to change on the arbor.

Loosen the thumbscrews on the locking collars
Slide the spacer plate(s) up the arbor rods
Use the clips tethered to the handrail to keep the spacer plates and locking collars out of your way while loading
Call out in a loud clear voice that can be heard on deck:
“HEADS UP ONSTAGE, LOADING LINESET NUMBER (#)”
The expected reply is a courteous “THANK YOU!”
Wait until everyone is clear of the pinrail area to begin the loading process

Loading

With both hands, take the brick from the other loader
Place the brick on the arbor vertically (on end)
Hold the brick securely with one hand and move your other hand around the arbor rod
With both hands lean the brick backwards seating the arbor rod in the groove in the back of the brick
Seat the front arbor rod in the front groove and carefully lower the brick down onto the stack
Take care not to let your hands or fingers get pinched as you lower the brick onto the stack
Repeat the process until the required number of bricks have been added to the arbor
When completed, remove the clip, lower the spacer plate and locking collars, tighten the thumb screws.

Call out in a loud clear voice that can be heard on deck
“HEADS UP ONSTAGE, LINESET NUMBER (#) LOADED AND CLEAR”
The expected reply is a courteous “THANK YOU!”

Remain at the loading rail until all linesets have been loaded, tested and you are instructed to come down by the flyperson.

Unloading

The same process in reverse
Loosen the locking collar thumbscrews
Secure the spacer plate and locking collars with the spring clips
Call out in a loud, clear voice
“HEADS UP ONSTAGE, UNLOADING LINESETNUMBER (#)”
The expected reply is a courteous “THANK YOU!”
Wait until the pinrail area is cleared of all people before unloading the arbor
With both hands, set the brick on end
Holding the brick securely with one hand, move your other hand around the arbor rod.
With both hands, lift the brick from the arbor and hand it to the other loader

Repeat until the arbor is down to pipe weight (yellow bricks)
Remove the spring clip, lower the spacer plate, tighten the thumbscrews

Call out in a loud clear voice

“HEADS UP ONSTAGE, LINESET NUMBER (#) IS CLEAR”

The expected reply is a courteous “THANK YOU!”

What Things Weigh:

Brick=Grey=25lbs

½ Brick=Green=13lbs

¼ Brick=White =7lbs

Blue = 18 lbs

Yellow bricks are pipe weight, not to be taken off the arbor unless specifically instructed to.

Other things to know:

When referring to flying a lineset in/out/up/down we're talking about the direction of the batten moving

In = Down

Up = Out

During a show is the only time a lineset will be moved without calling out a warning to the stage.

If people are working on the grid make sure they hear all warnings

Spike marks are made with spike tap around the purchase line immediately above the rope lock.

All linesets will be labeled on the pinrail

Any linesets that are attached together or have cable crossing the flyspace of other battens will be labeled with a CAUTION tag.