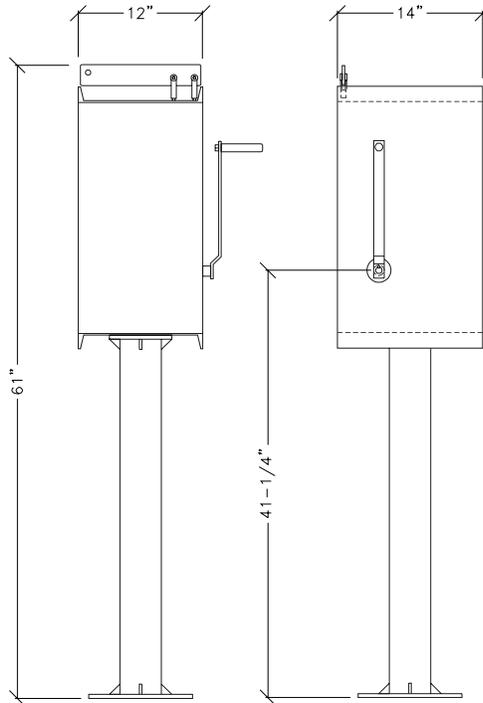


# BRAIL WINCH



## Model #670 Brail Winch

Length:	14 inches
Width:	12 inches
Height:	61 inches
Shipping Weight:	310 pounds
Lift Capacity:	700 pounds

### Accessories included:

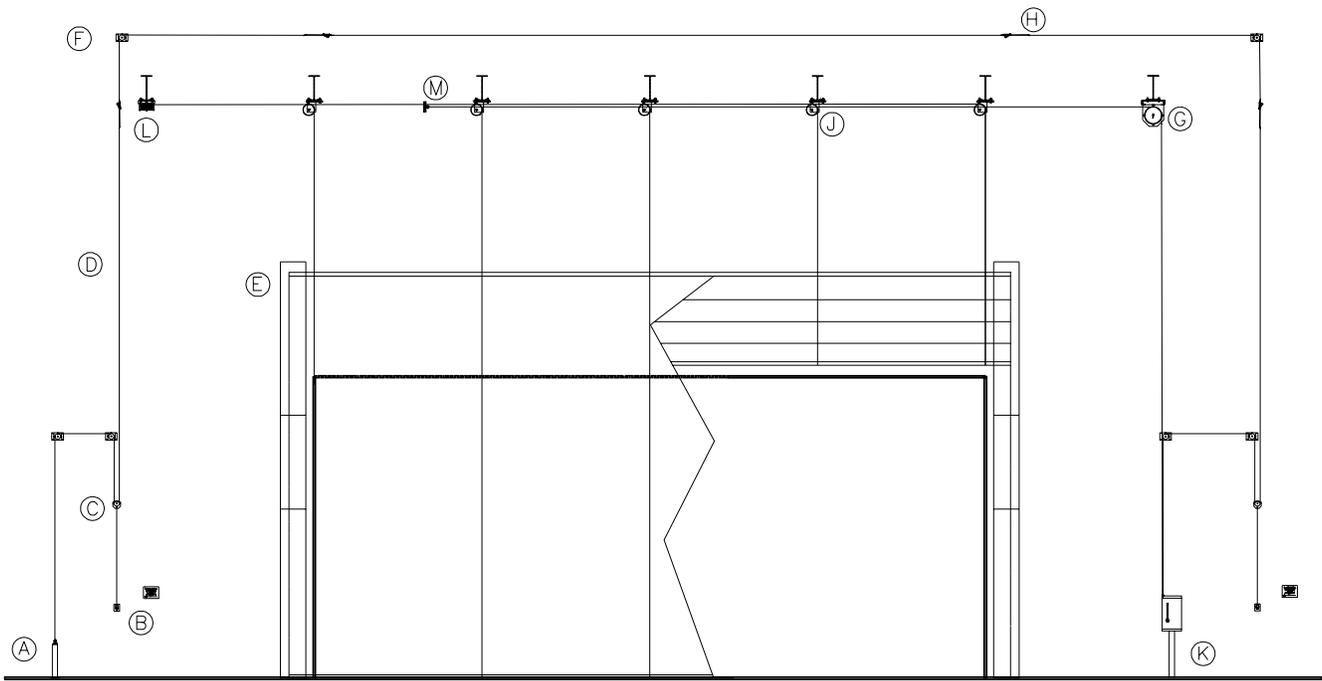
1 each	Pipe Stand
2 each	Wall Mounting Brackets
1 each	Speed Governor Adjustment Tool
1 each	Breather for Gear Reducer
1 each	Breather for Speed Governor
75 feet	1/4" Aircraft Cable w/ Swaged Stop Sleeve
1 each	Set of Instructions and Manuals

Theatres with low overhead roof structures and a traditional proscenium arch may have difficulties meeting local fire codes. Many state, local, or provincial fire marshals require a fabric fire curtain to separate the audience from the stage in case of fire. Traditionally, these fire curtains are lifted straight into a fly loft. Straight lift curtains, however, cannot be used in theatres with low roof structures. One solution is the use of a brail type fire curtain.

A brail fire curtain is a fold-up style curtain. The top of the curtain is fixed above the proscenium. As the bottom of the curtain is lifted, it folds up onto itself, very similar to a Roman shade. The curtain is stored above the proscenium until needed. When released, the curtain free falls by gravity to cover the proscenium opening.

The most common method of lifting and releasing the curtain is a *BRAIL WINCH*. A brail winch is hand operated with an integral holding brake, which is connected to the fire curtain release line. When the system is activated, the brake releases the winch and the curtain falls. The descent of the curtain is controlled with an adjustable speed governor located inside the winch.

## Brail Curtain Schematic



A – 675 ROUND WEIGHT & GUARD  
 B – 676 RING & PIN STATION – WITH SIGN  
 C – 674 4" FLOATING PULLEY  
 D – FIRE RELEASE LINE  
 E – SMOKE POCKET  
 F – 677 MULE BLOCK

G – 1230C25 LOFT BLOCK  
 H – 679 FUSIBLE LINK RELEASE  
 J – 832C25 LOFT BLOCK  
 K – 670 BRAIL WINCH  
 L – 8881C25 MULE BLOCK  
 M – 673 WIRE GUIDE CLEW

### Specifications:

Hand operated brail winch shall be capable of lifting and holding 700 pounds. When released, winch shall allow gravity to close fire curtain within 30 seconds, but govern the rate of descent such that the last 8 feet of travel shall not require less than 5 seconds.

Sufficient mechanical advantage shall be accomplished through a combination of detachable handle, parallel helical gear reducer, and roller chain drive. Final drive ratio shall allow winch to backspin freely. Wire rope drum shall be 8" diameter, welded steel construction, supported by 1-3/8" shaft and two ball bearing pillow blocks. Provide one key slot in drum for attachment of 1/4" galvanized aircraft cable with swaged stop sleeve. Fire curtain shall be held stationary by a non-asbestos caliper and disc brake attached to the input side of the reducer. Caliper shall be attached to the fire curtain release line through solid linkage and a lever arm. A twelve pound pull on the lever arm shall engage the brake and hold the fire curtain stationary.

Provide an adjustable speed governor to control the descent of the curtain. Governor shall be driven from the input side of the gear reducer, recirculating hydraulic fluid through a flow control valve in a closed system. While raising the curtain, the governor shall impart no dampening effect to the winch.

All rotating components shall be enclosed by sheet metal and steel channel frame to prevent injury. Winch shall be mounted on stand or directly to the wall using structural angle brackets. Stand shall be of sufficient height to place handle at comfortable working height.

Model 670 Brail Winch as manufactured by H & H Specialties Inc., South El Monte, CA.

***H & H Specialties Inc.***

P.O. Box 9327, South El Monte, California 91733  
BR-1 Rev. 11/2004

Fax (626) 575-3004

(626) 575-0776  
(800) 221-9995

# Modet 670 Brail Winch Components

