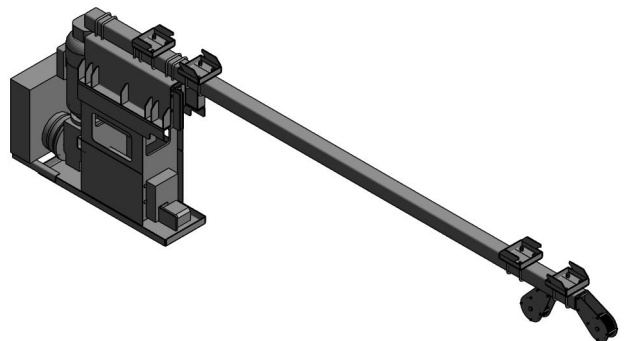


## WNG\_SUMMITTHEATRON\_LINESET

A theatrical rigging lineset featuring the Summit Theatron Hoist and its associated components. This technical information sheet applies to each of the 4 available Summit Theatron lineset families.

### FAMILY INFORMATION

Manufacturer	Wenger / JR Clancy
Revit Category	Specialty Equipment
LOD	350
Host	Unhosted / Workplane
Masterformat	11 61 00
Uniformat	E1070.10
Omniclass	23.40.50.14.14
PB Version	23.1.1.0
PB ID Number	RFA-007-01020201-0001



### PRODUCT INFORMATION

Manufacturer	Wenger / JR Clancy
Series	Summit Theatron
Product Models	018-S0322-2 018-S0322-4 018-S2115-4
Assembly Code	N/A

### FAMILY TYPES (Type Catalog)

4-Line High Speed (480V)	4-Line Utility (208V)	4-Line Utility (480V)
5-Line High Speed (480V)	5-Line Utility (208V)	5-Line Utility (480V)
6-Line High Speed (480V)	6-Line Utility (208V)	6-Line Utility (480V)
7-Line High Speed (480V)	7-Line Utility (208V)	7-Line Utility (480V)
8-Line High Speed (480V)	8-Line Utility (208V)	8-Line Utility (480V)

## PARAMETER INFORMATION

### Parameter Flexing

The family may be flexed through type parameters and instance parameters. Please **note that parameter names in uppercase are schedulable Shared Parameters**. Parameters included in the following groups are intended to be user editable:

- Constraints
- Graphics
- Materials and Finishes
- Dimensions

Changing parameters in any other group risks “breaking” the family, and is not supported.

### User Editable Parameter Descriptions

#### Type Parameters

Insert at Stage Level	Toggles the position of the family in relation to insertion. The default insertion reference is intended to be bottom of support structure. Toggling this parameter allows for insertion at stage level. It is anticipated that this parameter would be set to a specific default value in the family for the individual's desired workflow.
Component Clearance Visible	Toggles the visibility of individual clearance zones for the hoist, loftblocks, and compression tube (Compression Tube family only).
Lineset Clearance Visible	Toggles the visibility of lineset clearance zones associated with cable runs, batten travel, and technical space.
Pantograph Visible	Toggles the visibility of the pantograph cable management.
Clearance Material	Adjusts the material used for clearance zones. Default is a lightly tinted, transparent, glass material.
Metal Material	Adjusts the material used for metal components. Default is Metal, Black.
Sheave Material	Adjusts the material used for sheaves. Default is Plastic, Black.
Batten Length Override	Provides a direct input override to adjust the length of the batten. When this parameter's value is zero, batten length is automatically determined by the number of lift lines and loft block spacing. Inputting a value greater than zero directly effects the batten length.
LB1 Distance From Center (LB1 - LB8 Distance From Center)	Provides a direct input override to adjust the placement of each loft block in relation to batten center. When this parameter's value is zero, loft block placement is automatically determined by the number of lift lines and loft block spacing. Inputting a value other than zero directly effects the loft block's position. Values greater than zero shift the loft block toward the hoist, while negative values shift the loft block away from the hoist.
Hoist Beam Clamp Spread	Adjusts the spread of the hoist's beam clamps to fit support structure.
Loft Block Clip Spread	Adjusts the horizontal position of the loft block's front beam clip in relation to the loft block center.

## User Editable Parameter Descriptions

### Instance Parameters

LINESET CAPACITY	Displays the maximum capacity of the lineset, factoring in the hoist capacity and batten weight. This parameter is a reporting parameter only.
LINESET ID	Allows a name or ID to be applied to the lineset for scheduling.
LINESET DESCRIPTION	Allows a text description to be applied to the lineset for scheduling
LINESET DISTANCE	Refers to the distance of a rigging lineset or batten from a reference. Also used in the PBIM Rigging Tools to synchronize multiple lineset distances with a schedule.
BATTEN ELEVATION	Adjusts the elevation of the batten measured from the floor reference.
USE DYNAMIC SCHEDULING	Enables the dynamic scheduling function for the PBIM Rigging Tools, allowing a lineset to move relative to a selected reference plane. The add-in available at <a href="https://www.performancebim.com/p-rigging">https://www.performancebim.com/p-rigging</a> .
Height To Support Structure	Sets the height to the support structure measured from the floor reference. This value is used in positioning the hoist and loftblocks at the proper elevation, as well as informing the calculations of other parameters such as BATTEN ELEVATION, BATTEN HIGH TRIM, and BATTEN LOW TRIM. It is important to set this parameter's value after insertion in order to correctly use the family.
Loft Block Spacing	Sets consistent spacing between loft blocks, oriented based on batten center. Types with an odd number support lines place a support line on center. Types with an even number of support lines split center, placing a support line on either side.
Stagger Hoist	Toggle to automatically shift the hoist position along its backbone the minimum distance required for using consecutive hoists in 12" lineset spacing.
BATTEN HIGH TRIM	Sets the lineset's high trim limit, preventing the batten elevation from rising above this parameter's value.
BATTEN LOW TRIM	Sets the lineset's low trim, preventing the batten elevation from lowering below this parameter's value.
Hoist Distance Between Beams Override	Provides a direct input to set the backbone length and structural support clamp locations of the hoist. When this parameter's value is zero, the hoist's distance between beams will be automatically set by the Loft Block Spacing parameter value. Values greater than zero directly set the hoist's backbone length and beam clamp placement within manufacturer limits.
Hoist Beam Distance From Center Override	Provides a direct input to set the position of the hoist in relation to batten center based on the hoist's onstage structural support. When this parameter's value is zero, the hoist's position will be automatically set by the Loft Block Spacing parameter. By default, hoists are placed at the same location as loft block #1, utilizing the hoist's integrated loft block rather than an separately supported loft block.
CTube Extension Past Loft Block (Compression Tube Lineset Only)	Sets the distance beyond the furthest loft block that the compression tube should extend to allow connection to the structure. The default value is 2'-0" beyond the last loft block.

## Informational Parameter Descriptions

As indicated on Page 2, while there are other parameters that are open to adjustment, **Performance BIM only supports user-editing parameters in the Constraints, Graphics, Materials and Finishes, and Dimensions groups. Any changes to other groups is done at the user's risk, and will not be supported by Performance BIM.**

The following parameters are not intended to be user-editable and are included for informational purposes.

### Type Parameters

Voltage	Displays the hoist's voltage requirement.
Current Draw	Displays the amount of electrical current the hoist is expected to pull.
Power Factor	Displays the ratio of power used to power supplied.
Phase	Displays the number of line conductors.
Apparent Load	Displays the combined real and reactive power consumption of the hoist.
Hoist Gross Capacity	Displays the total amount of weight the hoist can carry using the project's unit measurement for Weight.
HOIST WEIGHT	Displays how much the hoist weighs using the project's unit measurement for Weight.
LINESET SPEED	Displays the maximum speed at which the hoist operates using the project's unit measurement for Speed.
Batten Weight	An allowance for the batten's weight using the project's unit measurement for Linear Force.
NUMBER OF LIFT LINES	Displays the number of support lines used in the lineset.
Maximum Travel	The maximum available travel for this lineset configuration.
Minimum Distance From Structure	The minimum distance from structure that the batten must be for this lineset configuration.
Minimum Distance From Structure At Hoist	The minimum distance from structure that the batten must be when using a loft block on the hoist support.
Minimum LB Spacing	The minimum allowable loftblock spacing for this lineset configuration.
Maximum LB Spacing	The maximum allowable loftblock spacing for this lineset configuration.
Batten Connection Offset	System family calculation parameter.
Maximum Pantograph Extension	Maximum distance that the pantograph can extend. This will limit the travel from the Height to Structure.
Pantograph Offset	System family calculation parameter.
Pantograph Weight	The estimated weight of the pantograph to calculate into the Lineset Capacity.

### Informational Parameter Descriptions

As indicated on Page 2, while there are other parameters that are open to adjustment, **Performance BIM only supports user-editing parameters in the Constraints, Graphics, Materials and Finishes, and Dimensions groups. Any changes to other groups is done at the user's risk, and will not be supported by Performance BIM.**

The following parameters are not intended to be user-editable and are included for informational purposes.

#### Instance Parameters

BATTEN LENGTH	Displays the length of the batten.
Batten Weight	Displays the batten's weight using the project's unit measurement for Linear Force.

#### Instance Parameters—Error Feedback

By default, the family attempts to resolve all parameter values, even those that would not provide a realistic solution, without “breaking” the family. When this happens, the input parameters and that parameters that can be scheduled will get out of synch.

The **Set** group contains a small number of parameters that inform the user if a schedulable parameter has been set outside of its possible range.

ERRORS	Indicates an error value if any of the error checking parameters are true.
Batten Elevation Error	Displays an error if the BATTEN ELEVATION parameter is set outside of the acceptable high and low trim.
High Trim Error	Notes an error if the BATTEN HIGH TRIM is set outside of what is acceptable for a specific lineset hoist. This could be due to setting the value above the Height To Support Structure, or a value too close to the support structure based on the hoist and pantograph configuration.
Low Trim Error	Similar to High Trim Error, but for BATTEN LOW TRIM.
Loft Block Spacing Error	Different hoist configurations have different rules related to maximum and minimum loft block spacing. You can find these values in Type Properties -> Data Group.
Hoist Stagger Error	Indicates if there is inadequate space from the blocks for a hoist to be able to stagger its location along the support beam.

## USE INSTRUCTIONS

### Insertion & Placement

The family may be inserted either through Insert -> Load Family, dragging into a project window, or via a content management system (as applicable). The plan view insertion point of the family is located at the center of the batten, length and width. While the family may be hosted to a face, hosting to a level or custom workplane is recommended.

By default, the insertion point of the family in an elevation view occurs at the family's support structure reference. Alternatively, the type parameter **Insert at Stage Level** may be toggled on, making the elevation view insertion point of the family occur at the family's floor reference. This allows the family to be inserted onto a custom workplane at the elevation of the model's support structure or at stage level, depending on the preferred workflow.

Once inserted, it is necessary to update the **Height to Support Structure** parameter. This value is used to inform other parameters such as **BATTEN ELEVATION**, **BATTEN HIGH TRIM**, and **BATTEN LOW TRIM** in order for those parameter values to reflect accurate dimensions within the model.

### Detail Levels and Subcategories

#### Detail Levels

When Revit's detail level is set to Fine or Medium, all components in the family can be seen at LOD 350. When the detail level is set to Coarse, each component can be seen as a one-extrusion generic shape that captures the geometric footprint of the component, but without a high level of detail.

#### Subcategories

This family contains 4 subcategories: Batten Plan, High Trim, Low Trim, and Support Line Cable. Batten Plan controls the graphics of detail line outlines of a batten showing in plan view to allow drawings to indicate battens without adjusting the viewing cut plane above them. High Trim and Low Trim are represented in the family using Symbolic Lines, which are assigned to High Trim and Low Trim subcategories, respectively. Support line cable is represented in the family using Model Lines, is assigned to the Support Line Cable subcategory. These subcategories can be adjusted in a model in Object Styles or by using the Visibility Graphics Override.