

# 600 SERIES STANDARD DUTY STRAIGHT TRACK INSTALLATION INSTRUCTIONS

**PLEASE READ INSTRUCTIONS THOROUGHLY  
BEFORE BEGINNING.**

## **A. BI-PARTING TRAVEL**

1. Before raising track into position, determine location of spindles, idlers, and other accessories and drill appropriate holes. If conditions allow, all spindles, idlers, and end pulleys may be installed. See "special instructions" for information on placement and number of spindles suggested. Do not place end stops in the center of the track at this time.
2. Place track either on the floor or on sawhorses in the configuration of the finished track. When laying out the track, make sure that the track which has the double end pulley (603) is outside the curve of the single end pulley (604) track. Make sure the tracks are overlapped the proper amount, 2'-0" is considered standard. If track needs to be spliced, please refer to the section on splices in "Special Instructions."
3. Attach track at overlap with 1 set (two 605) overlap clamps approximately 6" from each end. Install hangers (606) evenly along the entire run of the track starting adjacent to end pulleys. Refer to recommended spacing provided. Additional hangers should be installed on curves and others may be required due to site conditions.
4. If a batten is used to stiffen the track, place the pipe clamp (435) loosely on the batten. Raise the track and attach to the pipe clamps. The 600 Series may also be suspended with wire rope or welded link chain. Use attachment method appropriate to application. The track has been punched at the factory for splices, however, make sure that the track is free from burrs or proper alignment of the track sections may not be possible.
5. Attach the double end and single end pulleys to their respective tracks if not previously done. **CAUTION! Make sure that end pulleys are solidly anchored to the track.**
6. From the center of the track, install single carriers (601, 616, or 628) into each side (1 single carrier per foot of track). Next, install one master carrier (642, 647, or 649) into each track. Finally, install one end stop & cord support (609) on each end of the track.
7. **IMPORTANT!** Make sure track is parallel to floor before final attachment. **WARNING! After attaching track to a counterweighted batten, make sure to balance the line set and leave at a comfortable working level.**
8. Start to reeve the operating line from the upper sheave of the double end pulley. The rope goes over the sheave and through the top sheave of the double spindles (618) toward the center overlap and through the end stop & cord support. Next, the line passes through the master carrier on the single end pulley side track and around the single spindles (619). **Do not tighten master carrier cord clamps at this time.**
9. Reeve the operating line through the single end pulley and around the outside idlers (620). Next, the operating line passes through the end stop & cord support on the double end pulley track and terminates at the rope clamp of the master carrier on the double end pulley track. The other end of the line runs through the tension floor block (608) and back toward the double end pulley. **NOTE:** The spring in the tension floor block should be extended when the operating line is first reeved.
10. Reeve the operating line over the bottom sheave of the double end pulley, around bottom roller of double spindle (618), and terminate at the master carrier. **NOTE:** Both free ends are now located at this master carrier. Make sure that there is sufficient operating line remaining to reach the intended finished height. At this time, make sure that all end stops are secured in place. Release spring in tension floor block to place operating line under tension. **CAUTION! Exercise care when releasing tension in spring to avoid injury.** For counterweight batten mounted tracks a 643 Sand Bag Tension Pulley should be used.
11. Slide each to the master carriers to the center stops and tighten all of the rope clamps. Move the operating line to make sure that the track operates smoothly and track does not flex at any time. If problems exist, correct now prior to hanging curtain.
12. The curtain may now be attached to the carriers. **WARNING! After attaching the curtain to tracks mounted on a counterweighted batten, the line set must be balanced. Always use caution when working with an out-of-balance line set.**

## **B. ONE-WAY TRAVEL**

1. Before raising the track, all spindles and other accessories should be placed and all necessary holes drilled. If conditions allow, spindles can be installed. See "Special Instructions" for information on placement and number of spindles required.
2. Lay the track sections on the floor or on sawhorses in the configuration of the finished track.
3. Install hangers (606) evenly along the entire run of the track starting adjacent to end pulleys. Refer to recommended spacing provided. Additional hangers should be installed on curves and others may be required due to site conditions.
4. If a batten is used to stiffen the track, place the pipe clamp (435) loosely on the batten. Raise the track and attach to the pipe clamps. The 600 Series may also be suspended with wire rope or welded link chain. Use attachment method appropriate to application. The track has been punched at the factory for splices, however, make sure that the track is free from burrs or

proper alignment of the track sections may not be possible.

5. Attach the double end pulley (603) to one end of the track. From the other end insert single carriers (601, 616, or 628) and the insert the master carrier (642, 647, or 649) into the track. Finish by attaching the single end pulley (604A). **NOTE:** For one-way operation a 604A single end pulley should always be used.

6. If the track is being suspended from a counterweight system, balance the system now. **WARNING! After attaching track to a counterweighted batten, make sure to balance the line set and leave at a comfortable working level.**

7. Start to reeve the hand line from the upper sheave of the double end pulley. The rope goes over the sheave and through the top sheave of the double spindles (618). In one-way track installations, the double spindle is the only spindle used.

8. Reeve the hand line around the sheave of the single end pulley and back to the master carrier. Terminate the hand line into the rope clamp of the master carrier..

9. Reeve the other end of the hand line through the tension spring floor block and up to the double end pulley. The spring in the tension block should be extended when operating line is first reeved. Reeve the handline over the sheave and terminate at the master carrier. Remove slack in line and tighten cord clamps. Release spring in floor block to place line under tension. **CAUTION! Exercise care when releasing tension in spring to avoid injury.** For counterweight batten mounted tracks a 643 Sand Bag Tension Pulley should be used.

**C. CEILING MOUNT INSTALLATION**

Ceiling mounting the 600 Series is similar to the batten mounting procedures. The following considerations should be followed when ceiling mounting.

1. After laying out the track, use a plumb line or laser to locate positions of the ceiling hangers relative to the track. Use appropriate attachment methods for the individual job conditions. Before installing ceiling hangers (611) make sure that the ceiling is parallel to the floor. Shims may need to be installed to compensate for irregularities.
2. After the hangers are installed, raise the track in sections and attach to the ceiling hangers. In many cases, ceiling hangers can be installed onto the track, then raised to the ceiling for mounting of the hanger.
3. Rig track for either bi-parting or one-way travel.

**D. SPECIAL INSTRUCTIONS**

**Spindles**

1. For 600 Series tracks a radius of 4'-0" is recommended for ease of operation. Tighter curves are possible and will result in a system that requires additional effort to operate. For these applications, consult the factory.

RECOMMENDED SPINDLE & IDLER SPACING FOR CURVED 600 SERIES TRACKS (based upon 90 degree curve)*		
Radius	Spindle/Idler Spacing	Suggested Quantity
2'-0"	consult factory	consult factory
3'-0"	consult factory	consult factory
4'-0"	15"	6
5'-0"	16"	7
6'-0"	20"	7
7'-0"	22"	7
8'-0"	25"	7
10'-0"	32"	7
12'-0"	38"	7
14'-0"	38"	8
16'-0"	42"	8
18'-0"	48"	8
20'-0"	52"	8
22'-0"	60"	8
24'-0"	57"	9
26'-0"	61"	9
28'-0"	66"	9
30'-0"	71"	9
32'-0"	75"	9
36'-0"	75"	10
40'-0"	75"	11
44'-0"	75"	12
48'-0"	75"	12
52'-0"	75"	14
56'-0"	75"	15
60'-0"	76"	16
64'-0"	76"	17
68'-0"	76"	18

\*For manual cord-operated tracks with a radius of 8'-0" or less, the addition of one spindle and idler will help ease of operation

2. In locating spindles, place so that the cord is adequately supported as it turns the corner. Use the following chart for reference only. Due to site conditions, the numbers of spindles required for ease of operation may vary.

3. Double spindles (618) are mounted on the inside of the curve on the double end pulley track only.
4. Single spindles (619) are mounted on the inside of the curve on the single end pulley track only.
5. Outside idlers (620) are mounted on the outside of the curve on the single end pulley track only.
6. Spindles and idlers are also suggested on straight track sections of 6'-0" and longer.
7. Since idler number, spacing and placement are unique for each job, please consult the factory for further information.

### Splices

1. In order to have a smooth operating track it is important that the track splices are installed properly and carefully. Make sure that the ends of the track are smooth and no ragged edges are protruding.
2. Whenever possible, splices should be located on straight sections of track. If track must be spliced on a curve it might be necessary to bend the splice to match the radius of the bend.
3. A drill fixture (607FX) is available from the factory to facilitate field drilling of splices for the 600 Series track.

### Pivot Devices

1. Pivot devices allow for curtains to be positioned at different angles relative to the track. Both the 60 and 60X are free-wheeling devices. The 60BK brake kit is available as an optional accessory for holding the device in a fixed position.

The "X" suffix stands for a special indexing device that allows the curtain to be placed in preset positions at 22½° increments.

2. The pivot device is designed for either 1-3/8" O.D. tubing or 1" Sch. 40 pipe. Maximum recommended batten length is 6'-0". Make sure that the batten is the proper length for the application.
3. Place the "C" clamps in each end of the curtain batten. They are provided so that a cord may be tied between the two to aid in turning the device. The cord should be long enough so that adjustment may be done with the curtain at its proper trim.
4. **CAUTION! Do not attempt to adjust the curtain by means of pulling on the fabric. Damage to the curtain and associated hardware may result.**
5. The recommended total load on the device must not exceed 75 pounds.

### Miscellaneous

1. Rubber bumpers are supplied (2 for each carrier) and should be placed on the "ears" on the side of the carrier that face the end pulleys.
2. A 4'-0" minimum is suggested for ease of operation and for optimum life. Consult the factory for a radius less than 4'-0".

3. When using the curved 600 Series track with light-weight fabrics, the carriers may bind as they go around the curve. Adding weight to the bottom of the curtain and connecting the carriers together with chain will help alleviate the problem.

4. **NOTE:** Rigged 600 Series tracks (manual and machine operated) are not designed for reverse or "S" curve operation. The design and operation of the spindle and idler assemblies does not allow this feature. If design of track layout requires a reverse bend, the 500 Series heavy duty curved track is a suitable choice. **600 Series tracks may be reverse curved for walk-along applications only.**

RECOMMENDED TRACK SUPPORT SPACING Using 606 Clamp Hanger or 611 Ceiling Hanger (in feet)	
Curtain Weight Per Carrier (pounds)	610A
2	5
3	5
4	5
5	4.5
6	4
7	4

For additional information, please refer to *Catalog Fourteen*, pages 62-63. For tracks 10 feet or less in length it is recommended that the track be supported at a minimum of three locations.

All recommendations stated are presented in good faith and based upon generally accepted engineering principles. The user, however, is cautioned that H & H Specialties Inc. cannot guarantee the accuracy of the data presented in this table for every situation. It is the customer's responsibility to determine the suitability of H & H Specialties' products for any given application, taking into account the specific requirements, the environment of use, and any possible peculiarities of the application. for this application.

Direct ceiling attachment of tracks has not been evaluated as the support structure, method of attachment, and attachment requirements may vary widely from project to project. A qualified person should be consulted

## DISCLAIMER

This product is designed for moving curtains or, in some cases, scenery.

**NONE OF THE ITEMS DESCRIBED HEREIN ARE DESIGNED, INTENDED OR WARRANTED FOR THE USE OF LIFTING OR TRANSPORTING PEOPLE OR OTHER LIVING OBJECTS.**

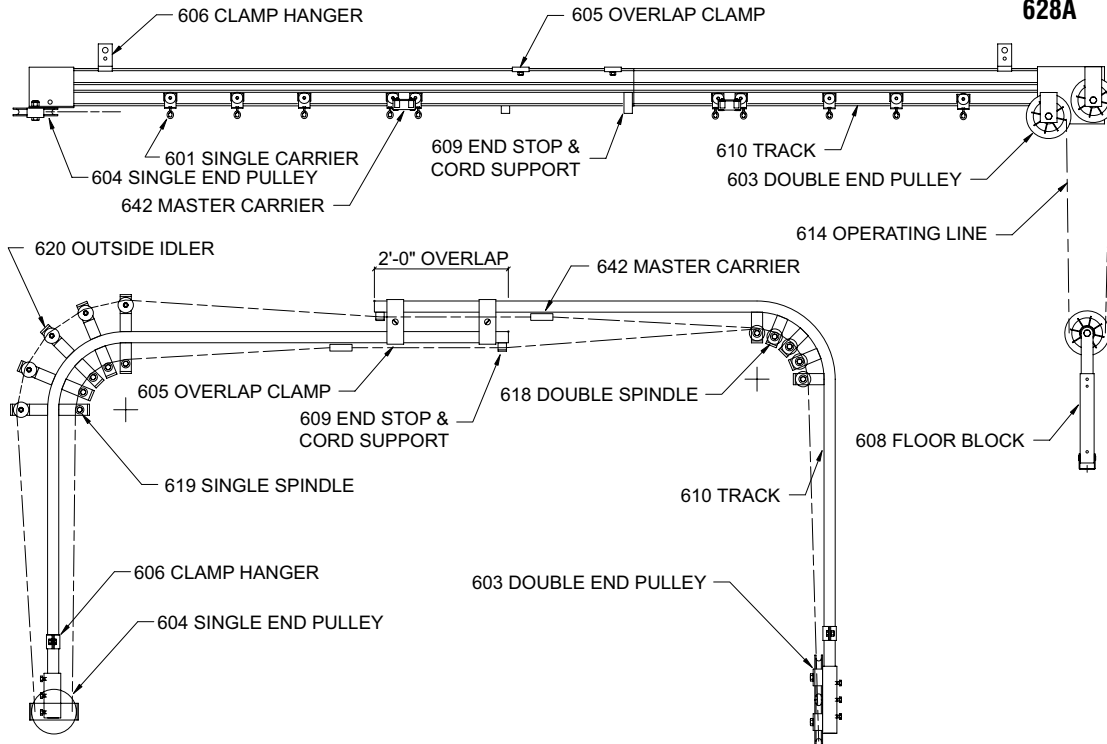
H & H Specialties Inc. makes no representation of the suitability of any product for any application unless specific design drawings are made by the factory and the products are installed in precisely the manner detailed by our design staff.



# 600 SERIES MEDIUM-DUTY CURVED TRACK

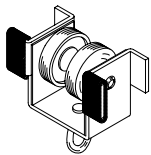
## COMPLETE TRACK MODEL NUMBERS

601A 601W  
616A 616W  
628A 628W



The 600 Series is a versatile track that can be used for straight or curved applications in TV studios, theatres, and many other types of facilities. Curves are typically formed at the factory to suit your project requirements. Walk-along tracks can be curved to virtually any shape and length. However, cord operated tracks cannot be rigged with reverse curves and are recommended for lengths up to 60'. Serpentine layouts and long lengths require the use of the 500 Series track for cord operation (see page 26).

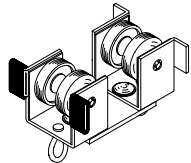
The ease of operation of a 600 Series track is dependent on several factors, including the radii of the curves. In general, the track operates best around gentle curves. Whenever possible, it is recommended that layouts be designed with radius of 4 feet or larger. Tighter curves will result in a system that requires additional effort to operate.



### SINGLE CARRIER

2 Delrin wheels riveted to plated steel body with swivel hook. Nylatron glide strips reduce friction and noise. Supplied with 2 rubber bumpers.

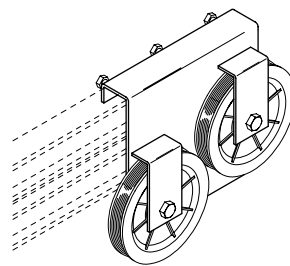
No. 601 - Zinc plated.  
No. 601B - Black finish.



### WALK-ALONG MASTER CARRIER

2 Delrin wheel assemblies with swivel hook pivot on steel connecting plate. Supplied with 2 rubber bumpers. 1 pair recommended for each walk-along curtain.

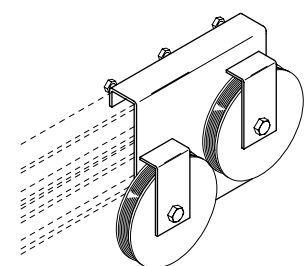
No. 602 - Zinc plated.  
No. 602B - Black finish.



### DOUBLE END PULLEY

4" diameter Nylatron GS sheaves with shielded ball bearings. Steel housing clamps to track.

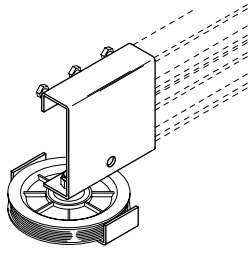
No. 603 - Zinc plated.  
No. 603B - Black finish.



### No. 603M BLACK

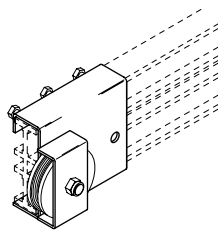
### DOUBLE END PULLEY

4" diameter Nylatron GSM sheaves with sealed precision ball bearings. Steel housing clamps to track. For use with motorized tracks.



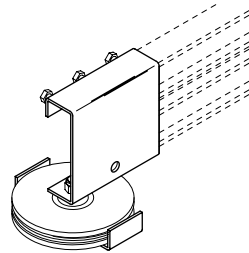
**SINGLE END PULLEY**

4" diameter Nylatron GS sheave with shielded ball bearings. Steel housing clamps to track.  
**No. 604** - Zinc plated.  
**No. 604B** - Black finish.



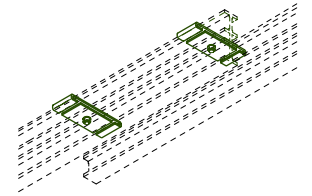
**No. 604A BLACK  
 SINGLE END PULLEY**

2-1/2" diameter steel sheave with precision ball bearings. Steel housing clamps to track. For one-way draw operation.



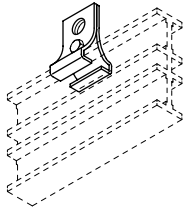
**No. 604M BLACK  
 SINGLE END PULLEY**

4" diameter Nylatron GSM sheave with sealed precision ball bearings. Steel housing clamps to track. For use with motorized tracks.



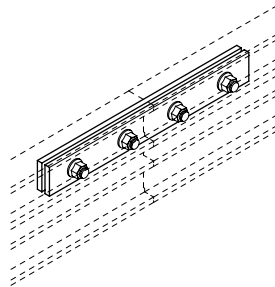
**OVERLAP CLAMP**

Formed steel clamps to align track at overlap. 1 pair pictured.  
**No. 605** - Zinc plated.  
**No. 605B** - Black finish.



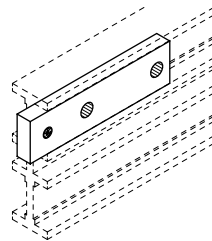
**CLAMP HANGER**

Formed steel brackets clamp to track. Adjusts to any position. Suspend track with welded chain or wire rope. 1 pair pictured.  
**No. 606** - Zinc plated.  
**No. 606B** - Black finish.



**SPLICE**

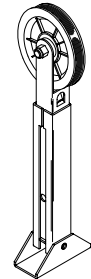
Steel plates align and lock track sections together. Track must be straight at joint. 1 pair pictured.  
**No. 607** - Zinc plated.  
**No. 607B** - Black finish.



**No. 607FX SPLICE**

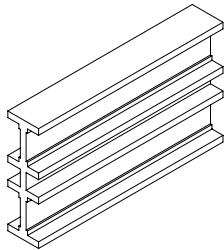
**DRILL FIXTURE**

Hardened tool steel drill fixture for field drilling of track for 607 splices.



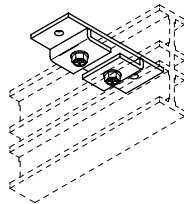
**TENSION FLOOR BLOCK**

4" diameter Nylatron GS sheave with shielded ball bearings. Spring in steel housing maintains line tension.  
**No. 608** - Zinc plated.  
**No. 608B** - Black finish.



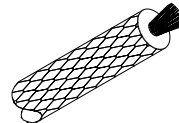
**TRACK**

6063-T5 extruded aluminum. 1" wide x 3-3/8" high, .187" thick. 20' stock lengths.  
**No. 610** - Mill finish.  
**No. 610B** - Class 1 black anodized.



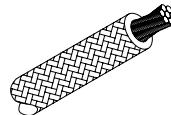
**CEILING HANGER**

Steel plate mounts flush to ceiling. Track clamps to bracket with offset clips.  
**No. 611** - Zinc plated.  
**No. 611B** - Black finish.



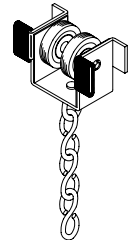
**No. 614 OPERATING LINE**

1/4" diameter black polyester braided over solid aramid core for manual operation.



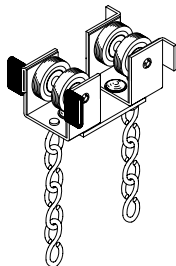
**OPERATING CABLE**

Black polyester jacket braided over 3/32" galvanized aircraft cable. For use with motorized tracks.  
**No. 615** - 3/16" diameter  
**No. 625** - 1/4" diameter



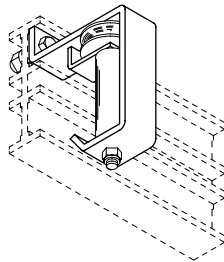
**SINGLE CARRIER**

Nylon-tired shielded ball bearing wheels riveted to steel body with swivel hook and trim chain. Nylatron glide strips reduce friction and noise. Supplied with 2 rubber bumpers.  
**No. 616** - Zinc plated.  
**No. 616B** - Black finish.



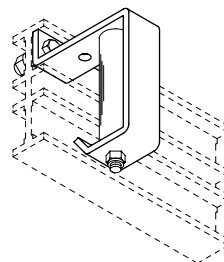
**WALK-ALONG MASTER CARRIER**

2 nylon-tired shielded ball bearing wheel assemblies with swivel hook and trim chain pivot on steel connecting plate. Supplied with 2 rubber bumpers. 1 pair recommended for each walk-along curtain.  
**No. 617** - Zinc plated.  
**No. 617B** - Black finish.



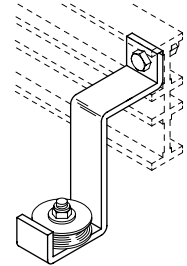
**DOUBLE SPINDLE**

Formed steel housing contains two ball bearing guides for operating line to follow curve. Mount to inside of curve on double end pulley section of track.  
**No. 618** - Zinc plated.  
**No. 618B** - Black finish.



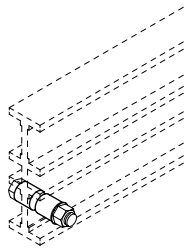
**SINGLE SPINDLE**

Formed steel housing contains one ball bearing guide for operating line to follow track curve. Mount to inside of curve on single end pulley section of track.  
**No. 619** - Zinc plated.  
**No. 619B** - Black finish.



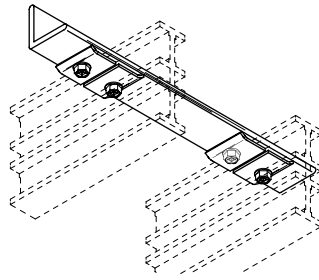
**OUTSIDE IDLER**

Formed steel housing contains one ball bearing guide for operating line to follow track curve. Mount to outside of curve on single end pulley section of track.  
**No. 620** - Zinc plated.  
**No. 620B** - Black finish.



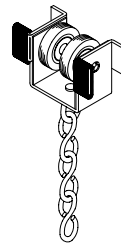
**END STOP**

Bolt with steel spacers to prevent carriers from traveling beyond desired location.  
**No. 621** - Zinc plated.  
**No. 621B** - Black finish.



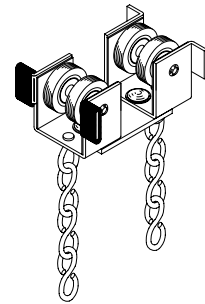
**BLACK DOUBLE TRACK HANGER**

Angle bracket with mounting clips to secure double tracks together in studios and small theatres.  
**No. 626** - 6" track spacing.  
**No. 627** - 8" track spacing.



**SINGLE CARRIER**

Neoprene-tired shielded ball bearing wheels riveted to plated steel body with swivel hook and trim chain. Nylatron glide strips reduce friction and noise. Supplied with 2 rubber bumpers.  
**No. 628** - Zinc plated.  
**No. 628B** - Black finish.



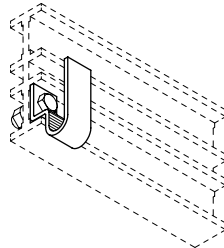
**WALK-ALONG MASTER CARRIER**

2 neoprene-tired shielded ball bearing wheel assemblies with swivel and trim chain pivot on steel connecting plate. Supplied with 2 rubber bumpers. 1 pair recommended for each walk-along curtain.  
**No. 629** - Zinc plated.  
**No. 629B** - Black finish.



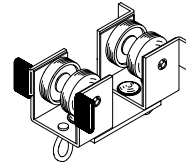
**TRIM CHAIN**

3 links No. 10 jack chain added to carriers to provide 3" of curtain height adjustment.  
**No. 635** - Zinc plated.  
**No. 635B** - Black finish.



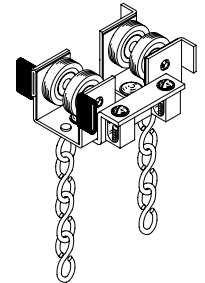
**END STOP & CORD SUPPORT**

Formed steel bracket bolts to track to support operating line and prevent carriers from traveling beyond desired location. 1 pair required for overlapping tracks.  
**No. 639** - Zinc plated.  
**No. 639B** - Black finish.



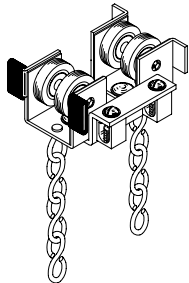
**MASTER CARRIER**

2 Delrin wheel assemblies with swivel hook and trim chain pivot on formed steel body. 2 clamps for anchoring line or cable. Supplied with and 2 rubber bumpers. 1 pair required for overlapping tracks.  
**No. 642** - Zinc plated.  
**No. 642B** - Black finish.



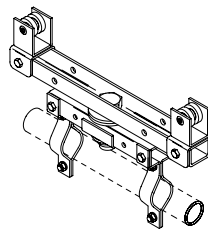
**MASTER CARRIER**

2 nylon-tired shielded ball bearing wheel assemblies with swivel and trim chain pivot on formed steel body. 2 clamps for anchoring line or cable. Supplied with 2 rubber bumpers. 1 pair required for overlapping tracks.  
**No. 647** - Zinc plated.  
**No. 647B** - Black finish.



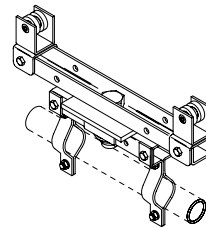
**MASTER CARRIER**

2 neoprene-tired shielded ball bearing wheel assemblies with swivel and trim chain pivot on formed steel body. 2 clamps for anchoring line or cable. Supplied with 2 rubber bumpers. 1 pair required for overlapping tracks.  
**No. 649** - Zinc plated.  
**No. 649B** - Black finish.



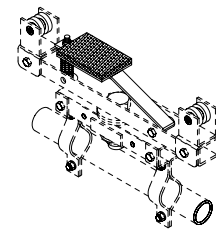
**PIVOT DEVICE**

Heavy steel construction with nylon-tired ball bearing wheels. Supplied with brackets for 1-3/8" O.D. pipe or tubing (6" max. recommended length). Allows masking draperies to be rotated to any angle.  
 Working Load Limit: 75 pounds.  
**No. 60** - Zinc plated.  
**No. 60B** - Black finish.



**INDEXING PIVOT DEVICE**

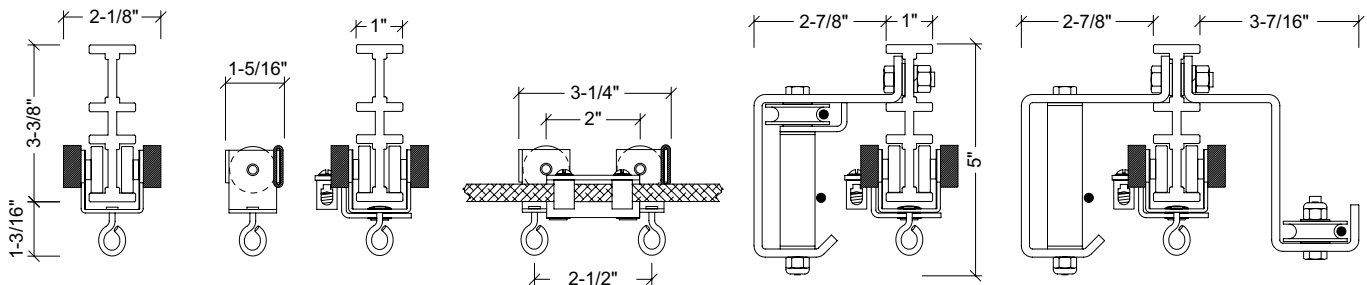
Pivot device with special plate to index rotation at 22-1/2 degree increments. Supplied with brackets for 1-3/8" O.D. pipe or tubing (6" max. recommended length).  
 Working Load Limit: 75 pounds.  
**No. 60X** - Zinc plated.  
**No. 60XB** - Black finish.



**BRAKE KIT**

Spring equipped arm with neoprene pad. Add to pivot device to prevent undesired movement along track.  
**No. 60BK** - Zinc plated.  
**No. 60BKB** - Black finish.

**600 SERIES TRACK**



**601 SINGLE CARRIER AND 602 MASTER CARRIER**

**618 DOUBLE SPINDLE, 619 SINGLE SPINDLE AND 620 OUTSIDE IDLER**

## 600 SERIES COMPLETE TRACK COMPONENT GUIDE

PART No.	DESCRIPTION	601A	601W	616A	616W	628A	628W
601	Single Carrier	•	•				
602	Master Carrier		•				
603	Double End Pulley	•		•		•	
604	Single End Pulley	•		•		•	
605	Overlap Clamp	•		•		•	
606	Clamp Hanger	•	•	•	•	•	•
607**	Splice	•	•	•	•	•	•
608	Tension Floor Block	•		•		•	
610	Track	•	•	•	•	•	•
611**	Ceiling Hanger	*	*	*	*	*	*
614	1/4" Operating Line	•		•		•	
616	Nylon B.B. Single Carrier			•	•		
617	Nylon B.B. Master Carrier				•		
618	Double Spindle	***		***		***	
619	Single Spindle	***		***		***	
620	Outside Idler	***		***		***	
621	End Stop		•		•		•
628	Neoprene B.B. Single Carrier					•	•
629	Neoprene B.B. Master Carrier						•
639	End Stop & Cord Support	•		•		•	
642	Master Carrier	•					
647	Nylon B.B. Master Carrier			•	•		
649	Neoprene B.B. Master Carrier					•	

\* For ceiling mounted applications, No. 611 provided in lieu of No. 606 Clamp Hanger. When ordering, please specify whether track is ceiling mounted or suspended.

\*\* Track lengths and splices supplied as required from stock sizes.

\*\*\* No, 618, 619, and 620 must be ordered as additional accessories. Quantity is determined by length of track and configuration of bend.

**For COMPLETE tracks with black finish, add suffix "B" to part number.**

**Examples: 601W changes to 601WB and 628A changes to 628B.**

### GENERAL SPECIFICATIONS: MEDIUM-DUTY CURVED TRACK - RIGGED

Provide **Model 601A** as manufactured by H & H Specialties Inc., South El Monte, CA.

Track shall be 3-3/8" I-beam, with 1" top, intermediate, and bottom flanges, extruded from mill finish 6063-T5 aluminum. Provide unspliced in lengths up to 20'.

Suspend track with two-piece clamp hanger formed from 11 gauge steel. Provide 2' overlap at center, rigidly separated by two overlap clamps. Install end stop with cord support at each track end. Where lengths exceed 20', connect tracks with 8" long, two-piece splicing clamp of 8 gauge steel.

Provide single carriers, spaced on 12" centers, constructed of two Delrin wheels fastened parallel to formed steel carrier body with swivel hook for attachment of curtain. Attach Nylatron wear strips at contact points between carriers and track to minimize friction and noise. Install two neoprene bumpers between carriers to further reduce noise.

Master carriers shall be two connected assemblies pivoting on a steel body with two cord clamps for anchoring operating line.

Single and double end pulleys shall clamp securely to the track and shall contain 4" diameter sheaves enclosed in steel housings to prevent operating line from escaping the grooves. Sheaves shall be Nylatron GS molded around shielded and greased ball bearings.

Provide spring tension floor block in 3-piece, 14 gauge steel housing containing 4" Nylatron GS shielded ball bearing sheave.

Black operating line shall be 1/4" diameter, stretch-resistant rope with spun polyester outer jacket double braided over solid aramid core. Install ball bearing idlers and spindles where necessary to guide operating line around inside and outside of track curves.

All steel components shall be zinc plated to resist corrosion.