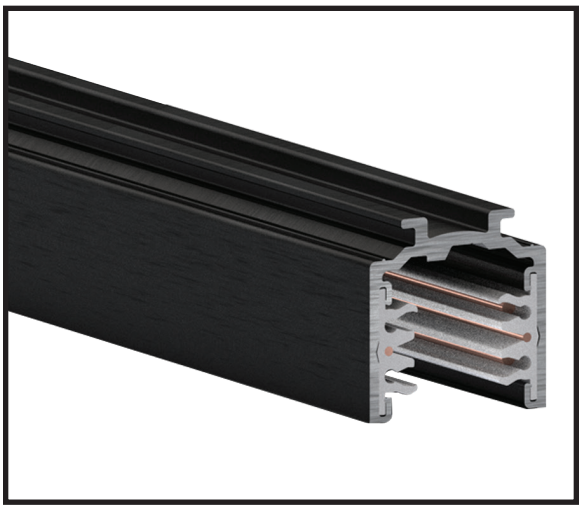
SPECTRAC SURFACE/PENDANT

120V & 277V 2-CIRCUIT TRACK WITH DATABUS - 0-10V, DMX, DALI



Times Square Lighting's **SpecTrac Surface/Pendant** features a low voltage busway for transmitting a DMX, 0-10V, or DALI control signal. This track bed will also operate phase dimming (leading and trailing edge). SpecTrac is a two circuit/two neutral lighting track that features a robust extrusion, high quality connectors and components, and multiple mounting options.

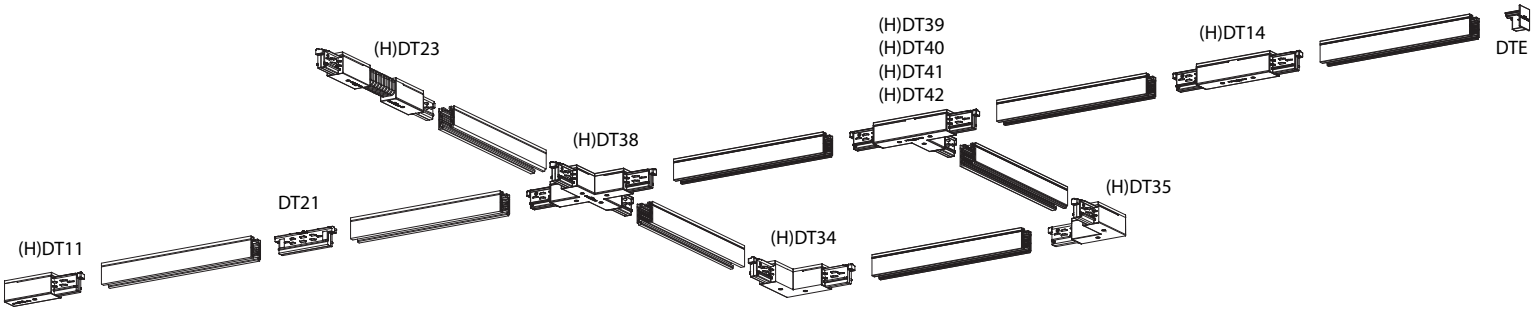
FEATURES

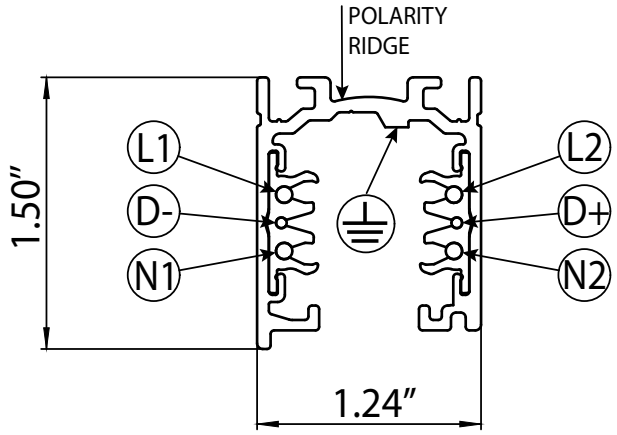
- Available in surface or pendant mounting.
- Field cuttable housing
- Extruded, recycled aluminum housing
- Milled grounding bar provides continuous ground contact
- Two independent circuits, 120V or 277V, 20 amp max each
- Black or white finish available

PART NUMBER	FINISH	DESCRIPTION
DT4	B = Black W = White	4' 120V Track
DT6	B = Black W = White	6' 120V Track
DT8	B = Black W = White	8' 120V Track
DT12	B = Black W = White	12' 120V Track
HDT4	B = Black W = White	4' 277V Track
HDT6	B = Black W = White	6' 277V Track
HDT8	B = Black W = White	8' 277V Track
HDT12	B = Black W = White	12' 277V Track

SPECTRAC SURFACE/PENDANT

120V & 277V 2-CIRCUIT TRACK WITH DATABUS - 0-10V, DMX, DALI





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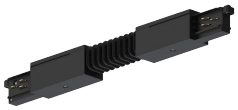
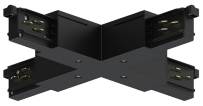
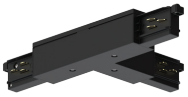
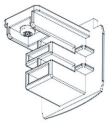
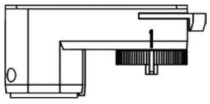
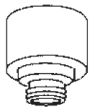
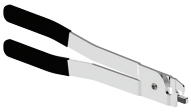
ACCESSORIES

PART NUMBER	FINISH	DESCRIPTION	
DT11 (120V) **HDT11** (277V)	B = Black W = White	L-End feed polarity right/ earthing left	
DT13 (120V) **HDT13** (277V)	B = Black W = White	Mirror End Feed	
DT14 (120V) **HDT14** (277V)	B = Black W = White	Middle Feed	
DT21	B = Black W = White	Joining corner	
DT23 (120V) **HDT23** (277V)	B = Black W = White	Flexible corner connector	
DT34 (120V) **HDT34** (277V) * See Page 6 for additional polarities.	B = Black W = White	L-feed polarity internal/ earthing external	
DT38 (120V) **HDT38** (277V)	B = Black W = White	X-Feed	
DT40 (120V) **HDT40** (277V) * See Page 6 for additional polarities.	B = Black W = White	T-feed polarity external left/earthing internal right	
DTE	B = Black W = White	End Cap	

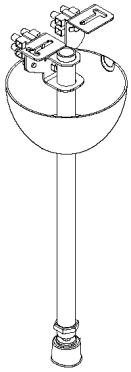
SPECTRAC SURFACE/PENDANT

120V & 277V 2-CIRCUIT TRACK WITH DATABUS - 0-10V, DMX, DALI

ACCESSORIES CONTINUED...

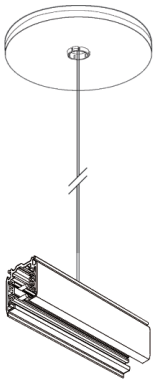
PART NUMBER	FINISH	DESCRIPTION	
DT11-TERM (120V) **HDT11-TERM** (277V)	B = Black W = White	Data Terminator - Used to terminate DMX configuration. 120 Ohm resistor installed.	
DT13-TERM (120V) **HDT13-TERM** (277V)	B = Black W = White	Data Terminator Mirror - Used to terminate DMX configuration. 120 Ohm resistor installed.	
DT2-TERM (120V) **HDT2-TERM** (277V)	B = Black W = White	Terminating Resistor Retrofit	
DT2-PC (PowerCon) **DT2-ED** (Edison)	B = Black W = White	Convenience Outlet	
DT2-XLR5 (5-Pin XLR) **DT2-XLR3** (3-Pin XLR)	B = Black W = White	Convenience Data Outlet	
XTSAJ10	B = Black W = White	Conduit adapter used to attach to any live feed.	
DTCT	B = Black W = White	Cutting tool for surface/ pendant and recessed with trim	

SUSPENSION & MOUNTING



3/8" Stem and canopy kit for mechanical and electrical suspension. Custom lengths are available.

SPUS 12	12" Inches
SPUS 18	18" Inches
SPUS 24	24" Inches
SPUS 36	36" Inches
SPUS 48	48" Inches



Cable Kit w/ Canopy
Add suffix (B) Black, (W) White
Custom lengths are available.

CG 24	24" Inches
CG 48	48" Inches
CG 72	72" Inches

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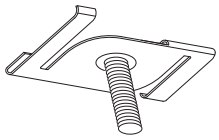
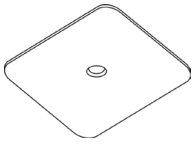
SUSPENSION & MOUNTING CONTINUED...

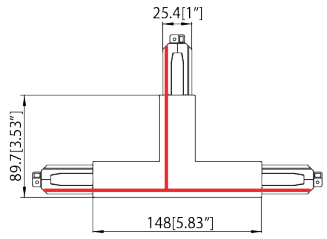
PART NUMBER	FINISH	DESCRIPTION	
SPEF-M	B = Black W = White	End feed suspension bracket for mechanical connection to the track.	
SPCF-M	B = Black W = White	Center feed suspension bracket for mechanical connection to the track.	
SPTF-M	B = Black W = White	"T" suspension bracket for mechanical connection to the track.	
SPNF	B = Black W = White	Point suspension bracket for mechanical connection only. Can be used when cutting stems to length in field. Accepts 3/8th-inch rigid stem.	
SPLF-M	B = Black W = White	"L" suspension bracket for mechanical connection to the track.	
SPXF-M	B = Black W = White	"X" suspension bracket for mechanical connection to the track.	
SKBX-12	B = Black W = White	Grid Clip	
GES 16 J-BOX COVER	B = Black W = White	Used to cover an outlet box.	
SPBRK2P	B = Black W = White	Two-piece cable and pendant clip. Accepts 1/4"- 20 threaded rod.	

SPECTRAC SURFACE/PENDANT

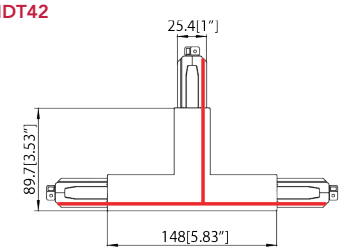
120V & 277V 2-CIRCUIT TRACK WITH DATABUS - 0-10V, DMX, DALI

POLARITY VIEW

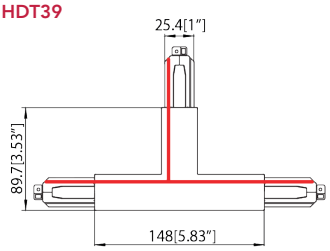
DT40
HDT40



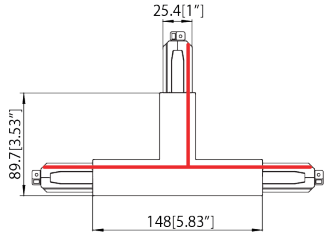
DT42
HDT42



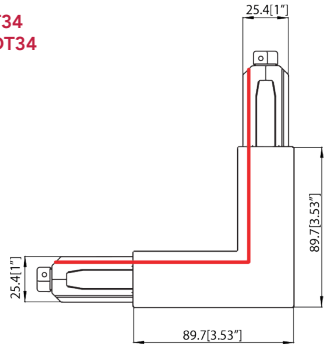
DT39
HDT39



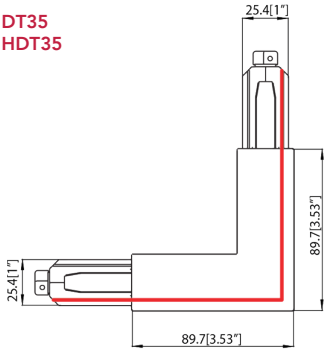
DT41
HDT41



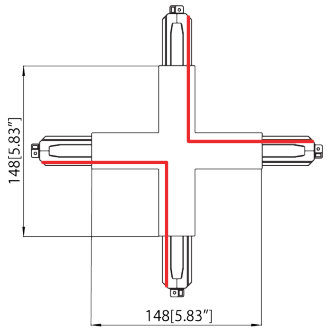
DT34
HDT34

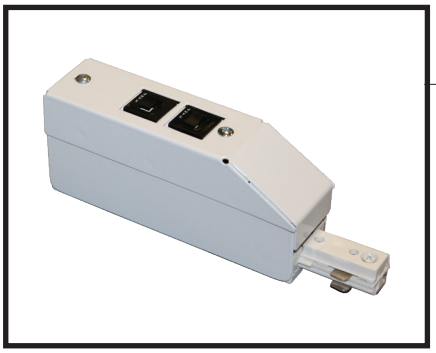


DT35
HDT35



DT38
HDT38





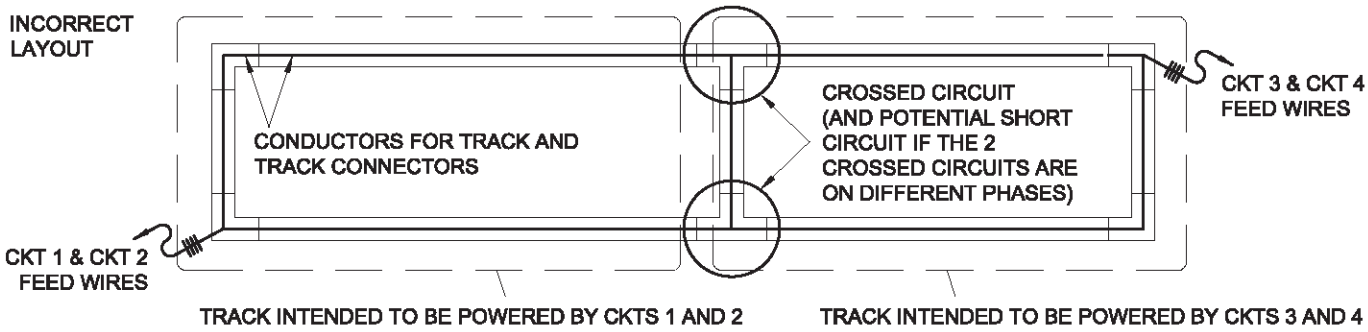
TRACK CURRENT LIMITER

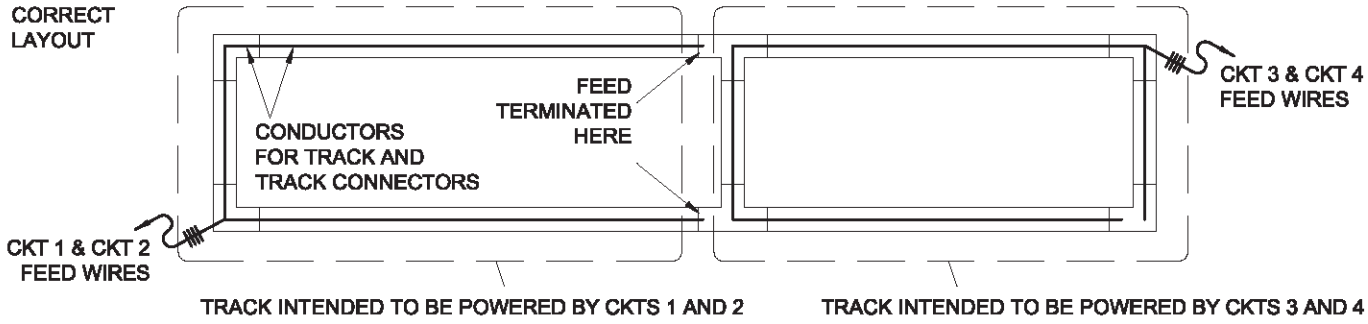
Times Square **Track Current Limiters** are designed to provide an answer to energy limitations on wattage-per-foot requirements for lighting track installations.

For more information, scan the QR Code.

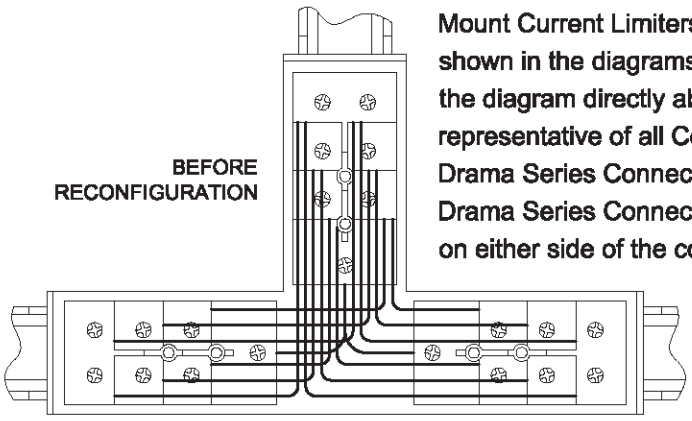
Guidelines for Track System Layouts

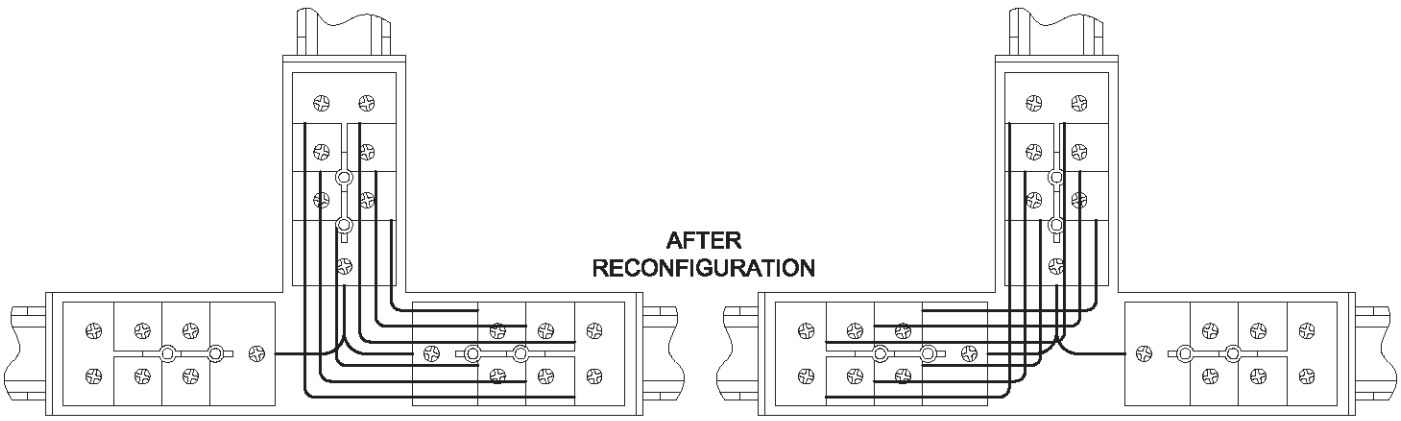
Complex layouts often have more than one feed point, and the potential exists for short or crossed circuits. The first diagram below shows how short or crossed circuits can be created. The second diagram below illustrates how short circuits can be avoided.





As the need arises, all Connector types and all Surface/Suspension Mount Current Limiters can be opened and reconfigured. The Connector shown in the diagrams below would be typical of a T Connector used in the diagram directly above, after it has been reconfigured. It is representative of all Connector types to be used in any layout. All but the Drama Series Connectors can be accessed by removing their covers. Drama Series Connectors can be accessed by removing the two screws on either side of the connector and sliding the Connector out from its housing. NOTE: Ground wires should be left undisturbed for ALL Connector types.





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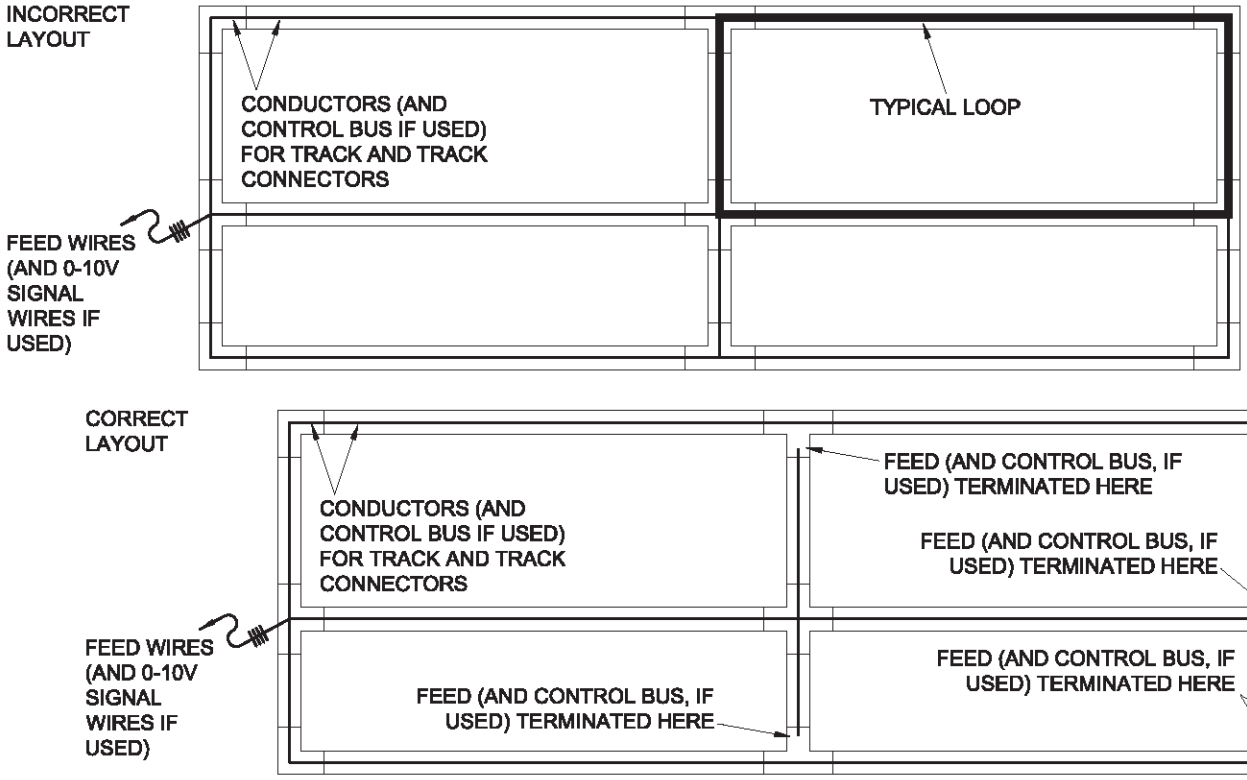
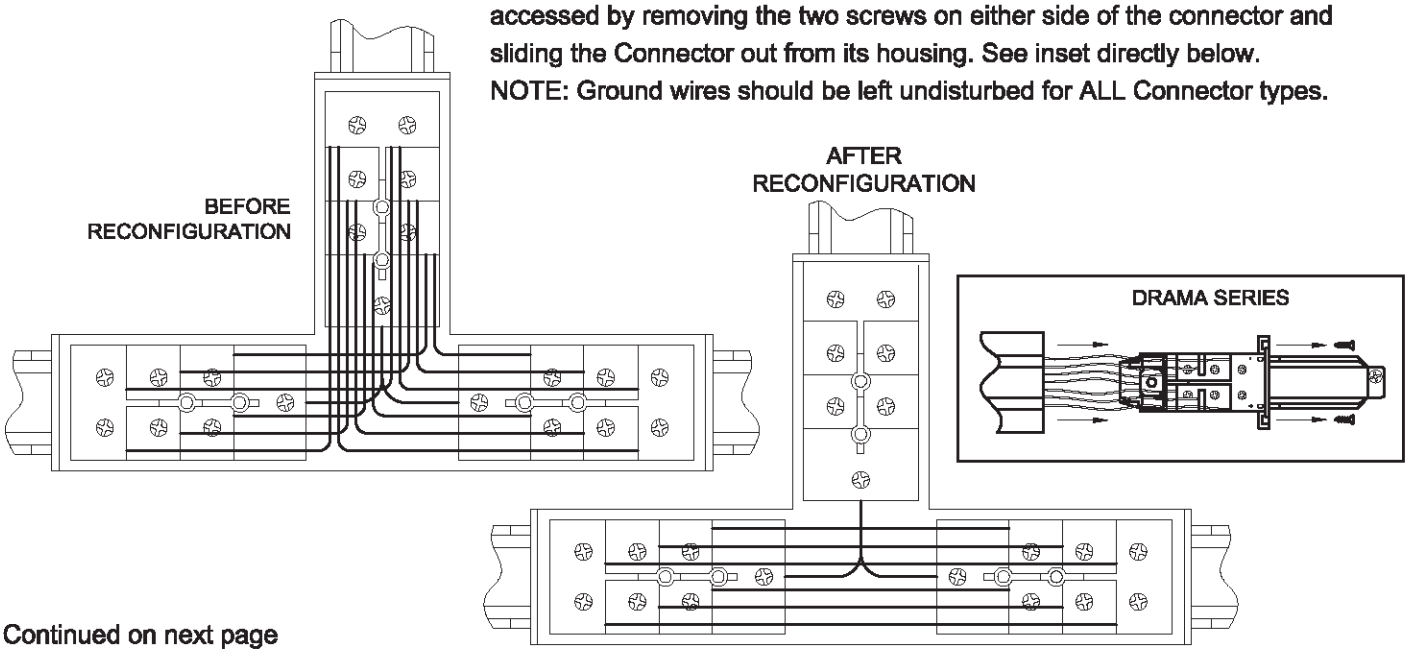
Guidelines for Track System Layouts (Continued)

It is good practice to eliminate wiring loops for power conductors and the control bus conductors on complex layouts . The first diagram below shows how loops are created, with a typical loop highlighted for clarity. The second diagram below illustrates how loops can be avoided. Complex layouts using DMX control wiring will be discussed on the next two pages. Also, see Page 17 for more requirements on Data Track using 0-10V control and DALI.



As previously stated, all Connector types and all Surface/Suspension Mount Current Limiters can be opened and reconfigured. The Connector shown in the diagrams below would be typical of a T Connector used in three places in the diagram directly above, after it has been reconfigured. It is representative of all Connector types to be used in any layout. All but the Drama Series Connectors can be accessed by removing their covers. Drama Series Connectors can be accessed by removing the two screws on either side of the connector and sliding the Connector out from its housing. See inset directly below.
NOTE: Ground wires should be left undisturbed for ALL Connector types.



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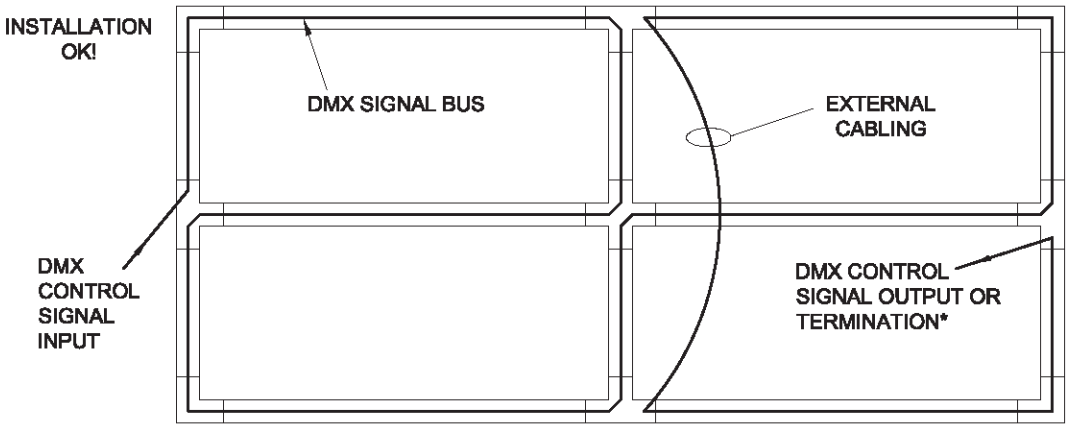
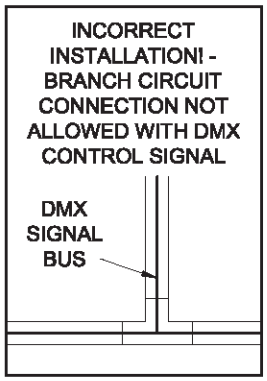
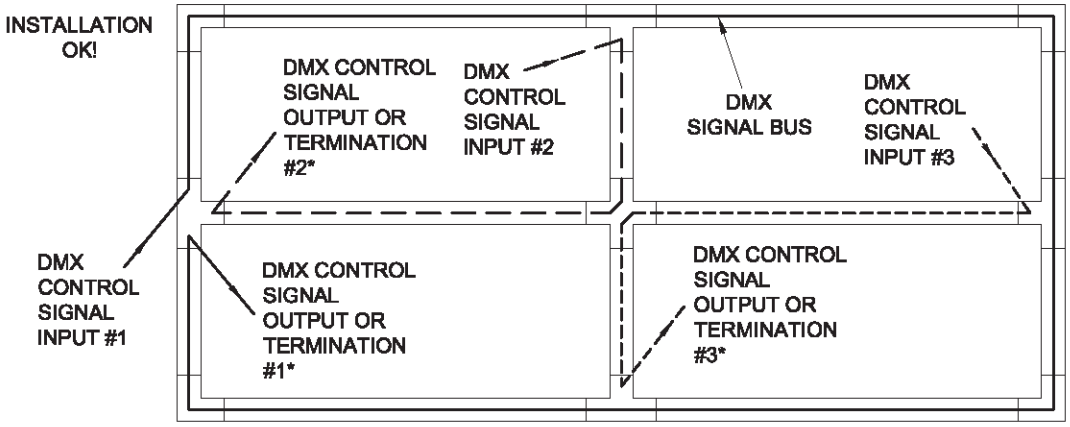
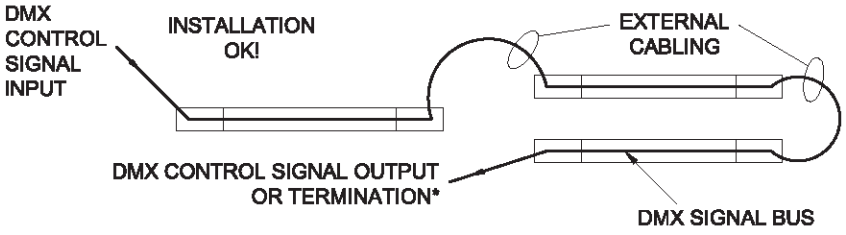
Guidelines for Track System Layouts (Continued)

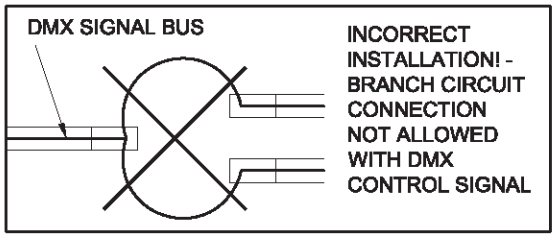
It is imperative that all DMX control wiring on any layout be run in a daisy chain fashion . No loops or branches such as T's or X's are allowed. The layout possibilities are endless, but the diagrams below show the basics of how loops and branch circuits are avoided. See the next page for more requirements on Data Track using DMX control.



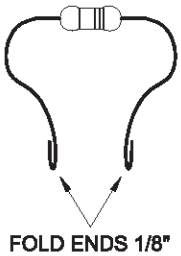


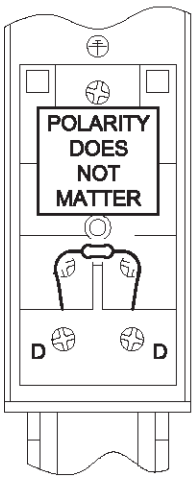






* All DMX control runs must be terminated with a 120 Ω resistor. If the end of the DMX control run is within the track layout, then this can be accomplished in two ways: 1) By adding a track adapter with a terminating resistor pre-installed at the very end of the track, closest to the last connector or the dead end in the run (All track adapter types are available with resistors installed from the factory by adding "-TERM" at the end of the part number), or, 2) By installing the resistor across the D+ and D- screw terminals on the last connector in the run (All Live Ends and Mirror Live Ends types are available with resistors installed from the factory by adding "-TERM" at the end of the part number). See diagrams to right. The polarity of the resistor does not matter.





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Guidelines for Track System Layouts (Continued)

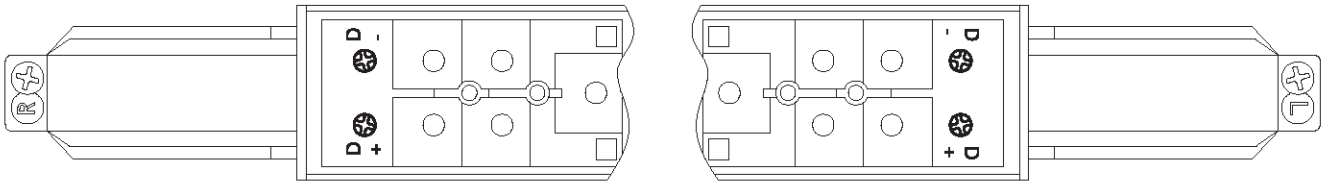
SPECIAL CONSIDERATIONS FOR DMX CONTROL

DMX control runs should be limited to 1000 feet maximum, including track and all intermediate control cabling. There should be no more than 32 fixtures and devices (including splitters) on a single DMX control run. The control bus in the track has a capacitance that can affect signal integrity compared to runs composed of cable only. Therefore, when using fixtures with DMX that have Remote Device Management (RDM) capability, there should be no more than 20 fixtures and devices (including splitters) on a single DMX/RDM control run.

The control bus in the track has only two conductors. Typical DMX systems consist of three conductors: Data +, Data - and Signal Common. If the intermediate control cabling to, from, or between the track consists of shielded twisted pairs, then the shield is Signal Common. The Signal Common when using this track is not used. Make certain that NO portion of the shield or shield wire (aka drain wire) is connected to the track, or bonded to or incidentally in contact with Ground, or anything electrically connected to Ground. If the intermediate control cabling to, from, or between the track consists of unshielded twisted pairs, such as Cat5, Cat5e, Cat6 or Cat6e, then only the Orange / White (Data +) and the Orange (Data -) wires are to be used. See chart below.

Data Track Connector	**Shielded Twisted Pair with Standard DMX Connector (XLR)**	**Unshielded Twisted Pair (Cat5, Cat5e, Cat6 or Cat6e)**
D+	Data + [Any Color], Pin 3 on XLR Conn.	Orange / White
D-	Data - [Any Color], Pin 2 on XLR Conn.	Orange
not used	Signal Common (bare drain wire), Pin 1on XLR Conn.	Brown / White

Depending on the polarity of the Connector, D+ and D- are located as shown below:



SPECIAL CONSIDERATIONS FOR 1-10V CONTROL

It is important to remember that although all track has multiple power circuits, there is only one signal bus circuit. For fixtures requiring 0-10V dimming controls, all fixtures connected to the 0-10V bus will receive the same dimming signal regardless of what power circuit they are on. The maximum number of fixtures on a control run depends on the 0-10V control device that is used.

SPECIAL CONSIDERATIONS FOR DALI CONTROL

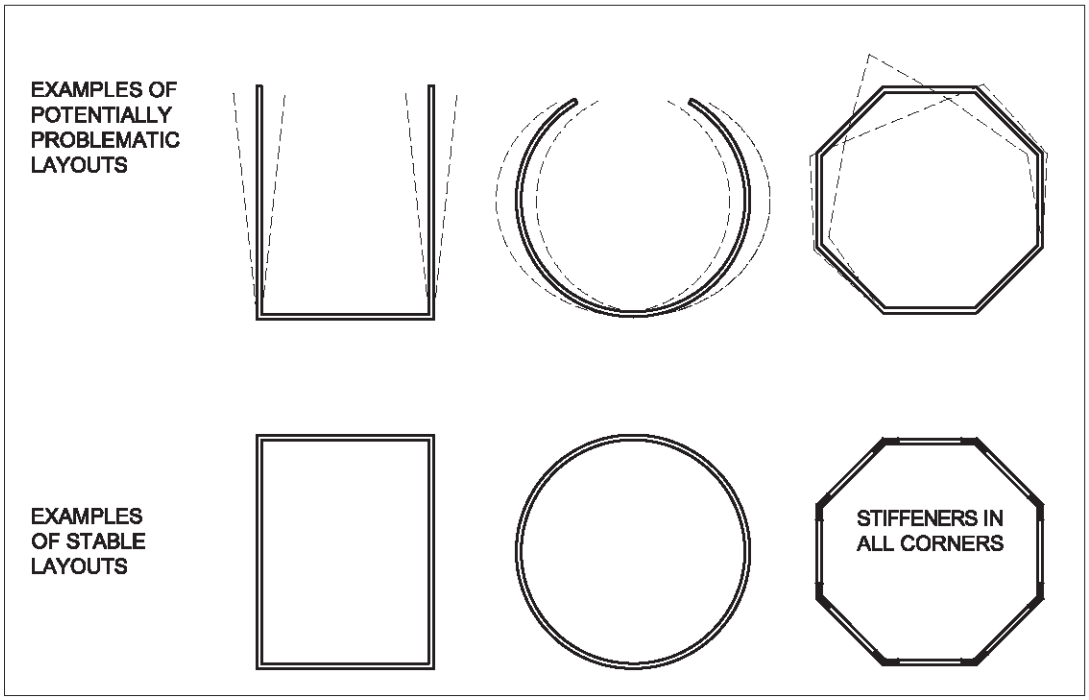
The maximum control run between the first and the last DALI components may not exceed 984 feet. The maximum number of fixtures on a control run depends on the DALI control device that is used. The DALI standard specifies a voltage of 16V DC (typical), 22.5V DC MAX and a current of 250mA. The voltage drop may not exceed 2V. DALI fixtures should have a maximum consumption of 2mA. DALI control wiring on any layout may be run in a daisy chain or a star arrangement or in mixed form. The control signal has no polarity.

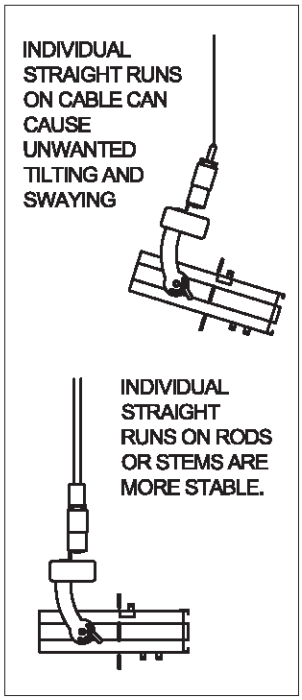
Continued on next page

Guidelines for Track System Layouts (Continued)

PROBLEMATIC SUSPENDED LAYOUTS

Certain *suspended* track layouts, employing long lengths of Pendants, Wire Cable, or 1/4"-20 Threaded Rod, may deform, twist or splay. This condition sometimes worsens with the additional weight of fixtures. Arcs suspended with Wire Cable being especially problematic. Track layouts of closed loops are more stable, and less apt to deform. Also, layouts using Adjustable Joiners (hexagons, octagons, etc.) may deform without custom stiffeners. Consult factory for guidance.





Often there is a need to suspend track using supports that are more than 4 feet apart. Per the NEC, *track* supports, whether they be pendants, threaded rod, etc., must be provided a maximum of every 4 feet along the length of the track section. One solution is to mount the track as code allows directly to low profile strut channel or the like, and then support the channel up to whatever the maximum span would be allowed by the authority having jurisdiction. The diagram below illustrates how an 8' track section can be suspended with two supports only.