## SURFACE TRACK (120/250V) · SPECIFICATIONS

**GENERAL** Lighting Track shall allow fixtures to be located anywhere along the track length. Fixtures shall be easily focused, switched, dimmed, accessorized and removed as desired. Track system shall have a ten year warranty from date of shipment.

**MECHANICAL** Lighting Track shall be constructed of .070 (2mm) extruded aluminum with overall height of 1.42 (36mm) and overall width of 1.812 (46mm). Track shall have same overall dimensions and physical appearance for both one and two circuit models.

Track shall be available in nominal 4 foot (1.2m), 8 foot (2.4m), and 12 foot (3.7m) lengths, in Silver, Black, White, or Graphite high temperature baked paint finish. Track shall be field cuttable to any length with a single cut.

Track system shall be available with End Feed, End Cap, Straight Mini-Joiner, Straight Joiner/Feeder, Flexible Joiner and L, T, and X Joiner/Feeders as standard components.

Track shall have the ability to be directly surface mounted. Track shall have pre-punched mounting slots for direct mounting to any surface. Track shall have the ability to: be mounted 1/2 inch (13mm) from a surface by extruded aluminum mounting clips, be suspended from a surface by a field cuttable stainless steel cable system, be suspended from a surface by a field cuttable steel stem system, and be mounted into UniTrack housing.

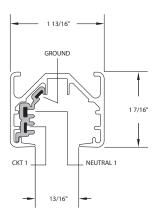
**ELECTRICAL** Lighting Track and components shall be UL and CUL listed, CE Certified, and comply with the National Electric Code standards for Lighting Track. One and two circuit Lighting Track shall be rated at 120/250 volt, 50/60 Hz. 2400 watts maximum each circuit. Each 20 amp/120 volt circuit shall be comprised of flat copper busbars and have a separate neutral busbar for each circuit busbar. The neutral busbar shall be oversized to be comparable to #10 gauge 30 amp wire to reduce the possibility of overheating due to nonlinear loads and harmonics. **Track shall have integral wiring channels for six (6) additional #12 THHN wires to create three (3) additional 20 amp/120 volt circuits, which can be dropped into any Joiner/Feeder, for a total track power capacity of 100 amps. A separate grounding busbar shall be integral in all track lengths. All busbars shall be insulated to prevent contact with aluminum extrusion.** 

Track shall have electric feed capability through all Joiner/Feeders (except Flexible Joiner and Straight Mini-Joiner) using either 1/2 or 3/4 U.S. trade size knock-outs (.875 diameter [22mm] or 1.125 diameter [29mm]). Joiner/Feeders can be electrically field modified by removing the Lexan™ cover and rerouting internal pre-wired jumpers. All Joiner/Feeders shall be available in Black, White, Silver, and Graphite GE fiber reinforced Lexan™.

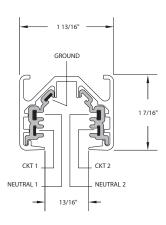
One and two circuit Lighting Track with separate neutral busbars shall have the ability to have each circuit separately dimmed as required when using standard voltage and low voltage fixtures with either magnetic or electronic transformers. Track shall have the ability to be dimmed or switched in selected sections in addition to dimming or switching an entire track configuration or track run.

FIXTURE FITTING INTERFACE Track shall accept GE fiber reinforced Lexan™ fixture fittings which positively lock into track and cannot be energized by the integral switch until safety interlock handle is in the closed position. Safety interlock shall also prevent fixture fitting removal from track unless the switch is in the "off" position. Upon insertion of fixture fitting into track, grounding connection from fixture fitting to track shall be automatically completed before any electrical contact is made with busbars. When removing fixture fitting from track, the grounding connection shall automatically be disconnected last. The fixture fitting shall recess into the track, creating a minimal profile below the track. Fixture fittings for magnetic low voltage fixtures shall be furnished with fuse of the correct ampere rating for integral transformer protection, and shall not be fused as a branch circuit.

#### One Ckt 120/250V Track

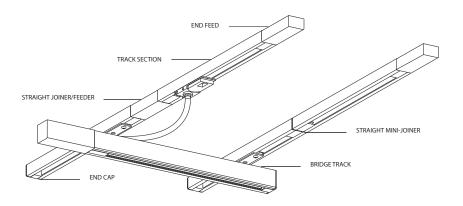


#### Two Ckt 120/250V Track



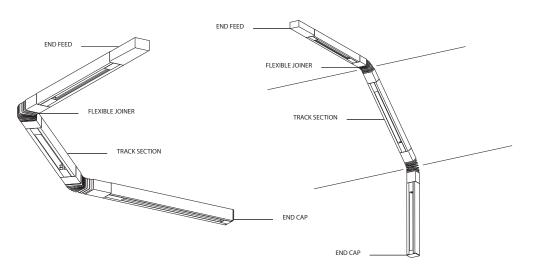
# SURFACE TRACK (120/250V) · CONFIGURATIONS

#### **Bridge Track Application**

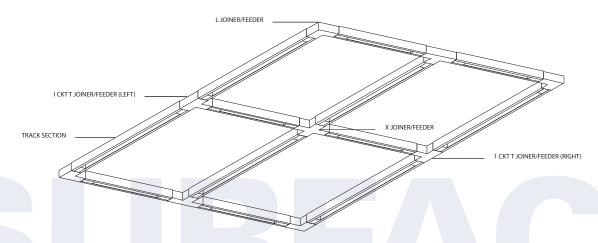


### **Ceiling Application/Horizontal Mount**

### **Ceiling to Wall Application/Vertical Mount**



## **One Circuit Configuration**



## SURFACE TRACK (120/250V) · COMPONENTS

## **Key Features / Applications**

UL and CUL listed, CE Certified, Dry Location • IBEW union made at LSI plant in USA • Specification grade heavy duty .070 (2mm) extruded aluminum track • 4 foot (1.2m), 8 foot (2.4m) and 12 foot (3.7m) field cuttable lengths • One circuit 20 amp or two circuit 40 amp capacity/120/250 volt • 100 amp total capacity when using integral wireways • Copper busbars equivalent to #12 AWG wire used as circuit and ground track conductors • Oversized copper busbars equivalent to #10 AWG wire used as neutral track conductors • Separate neutral track conductor used for each circuit • Separate copper grounding busbar used throughout track system • Black, White, Silver, and Graphite finishes • All Joiner/Feeders, Flexible Joiners, Mini-Joiners, End Feeds and End Caps are injection molded of GE fiber reinforced Lexan™ • All Joiner/Feeders and Flexible Joiners are prewired and simply couple into track • All Joiner/Feeder circuits can be easily field modified by changing internal jumper wires • Fixture fitting recesses into track for minimum profile • LSI surface track can be mounted directly to any surface 5′-0″ above finished floor.

#### **Surface Track Sections**



120/250V Surface Track Sections are used in conjunction with an End Feed, End Cap and a variety of Joiner/Feeders to form track runs and configurations. Track Section lengths are nominal 4 foot (1.2m), 8 foot (2.4m) and 12 foot (3.7m) which are field cuttable.

		Nomi	Nominal Length		
Finish		4 ft	8 ft	12 ft	
Silver	One Ckt	31010	31020	31030	
	Two Ckt	32010	32020	32030	
Black	One Ckt	31210	31220	31230	
	Two Ckt	32210	32220	32230	
White	One Ckt	31310	31320	31330	
	Two Ckt	32310	32320	32330	
Graphite	One Ckt	31410	31420	31430	
	Two Ckt	32410	32420	32430	

#### **Bridge Track**



120/250V Bridge Track is a complete, portable, field cuttable, surface UniTrack system that mechanically and electrically mounts to and spans parallel runs of LSI Track. Bridge Track provides an additional range of striking angles for track lighting fixtures or for centering a fixture over a target located between parallel runs of track up to 8 foot (2.4m) on center.

Finish		9 ft
Silver	One Ckt	31025
Black	One Ckt	31225
White	One Ckt	31325
Graphite	One Ckt	31425

### **Emergency/Worklite Track**



120/250V Emergency/Worklite Track is a separately fed one circuit Track Section, suitable for most LSI track fixtures, that integrates into any LSI Track run or configuration at any location. Consult fixture cutsheet. LSI fixtures (add suffix EF) mechanically lock into Emergency/Worklite Track by means of special hardware and do not have on/off switches.

	All One Ckt			
Finish	18" Joiner Section	18" End Feed Section	18″ End Cap Section	18" Conduit End Feed Section
Silver	31050	31051	31052	31053
Black	31250	31251	31252	31253
White	31350	31351	31352	31353
Graphite	31450	31451	31452	31453

#### Unimount



120/250V Unimount is a compact canopy mount Track section which will accept most single LSI Track fixtures up to 500 watts.

Finish		
Silver	One Ckt	31161
Black	One Ckt	31261
White	One Ckt	31361
Graphite	One Ckt	31461

#### **End Feed**



120/250V End Feed is used in conjunction with a Canopy Kit for top feeding from a recessed outlet box and can also be top fed directly with cable.

Finish		
Silver	One Ckt Two Ckt	31100 32100
Black	One Ckt Two Ckt	31200 32200
White	One Ckt Two Ckt	31300 32300
Graphite	One Ckt Two Ckt	31400 32400

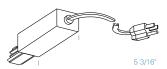
## End Feed for Conduit Connector



120/250V End Feed for Conduit Connector is used when feeding directly into the end of an End Feed. Connector supplied with 1/2" US trade size hole.

Finish		
Silver	One Ckt Two Ckt	31102 32102
Black	One Ckt Two Ckt	31202 32202
White	One Ckt Two Ckt	31302 32302
Graphite	One Ckt Two Ckt	31402 32402

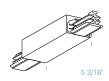
#### **Portable Feed**



120/250V Portable Feed is used when a portable or temporary track hookup is desired. Supplied with 15 foot #16 AWG-10 Amp/125 Volt 3 wire flexible cord with NEMA 5-15P grounding plug. Non-UL listed.

Finish		
Silver	One Ckt	31101
Black	One Ckt	31201
White	One Ckt	31301
Graphite	One Ckt	31401

#### **Straight Joiner/Feeder**



120/250V Straight Joiner/Feeder is used to mechanically and electrically couple any two lengths of track in a straight line. Straight Joiner/Feeder can also be top fed to energize the track from a recessed outlet box when used in conjunction with appropriate Canopy Kit or can be top fed directly with cable.

Finish		
Silver	One Ckt Two Ckt	31104 32104
Black	One Ckt Two Ckt	31204 32204
White	One Ckt Two Ckt	31304 32304
Graphite	One Ckt Two Ckt	31404 32404

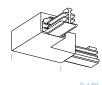
#### **Straight Mini-Joiner**



120/250V Straight Mini-Joiner is used to mechanically and electrically couple any two lengths of track in a straight line. Add .125 (3mm) for Straight Mini-Joiner when calculating overall lengths of straight runs or configurations (overall lengths are not the same as when using Straight Joiner/Feeder). Not for use as feeder.

Finish		
Silver	One Ckt Two Ckt	31111 32111
Black	One Ckt Two Ckt	31211 32211
White	One Ckt Two Ckt	31311 32311
Graphite	One Ckt	31411 32411

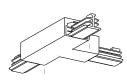
## L Joiner/Feeder



120/250V L Joiner/Feeder is used to mechanically and electrically couple any two lengths of track in an L right angle configuration. This L Joiner/Feeder can also be top fed to energize the track from a recessed outlet box when used in conjunction with appropriate Canopy Kit or can be top fed directly with cable.

Finish		
Silver	One Ckt Two Ckt	31105 32105
Black	One Ckt Two Ckt	31205 32205
White	One Ckt Two Ckt	31305 32305
Graphite	One Ckt Two Ckt	31405 32405

## T Joiner/Feeder

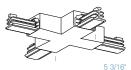


120/250V T Joiner/Feeder is used to mechanically and electrically couple any three lengths of track in a T configuration. This T Joiner/Feeder can also be top fed to energize the track from a recessed outlet box when used in conjunction with appropriate Canopy Kit or can be top fed directly with cable. Internal Joiner wiring can be field modified. Note that in the one circuit version, a right or a left T must be ordered and must be used directly opposite each other when used in a configuration so that busbar continuity is maintained. For two circuit track, a left and right T is not necessary.

Finish		Left Joiner	Right Joiner
Silver	One Ckt	31106	31107
	Two Ckt	32108	32108
Black	One Ckt	31206	31207
	Two Ckt	32208	32208
White	One Ckt	31306	31307
	Two Ckt	32308	32308
Graphite	One Ckt	31406	31407
	Two Ckt	32408	32408

## SURFACE TRACK (120/250V) · COMPONENTS

#### X Joiner/Feeder



120/250V X Joiner/Feeder is used to mechanically and electrically couple any four lengths of surface track in an X configuration. This X Joiner/Feeder can also be top fed to energize the track from a recessed outlet box when used in conjunction with appropriate Canopy Kit or can be top fed directly with cable.

Finish				
Silver	One Ckt	31109	Two Ckt	32109
Black	One Ckt	31209	Two Ckt	32209
White	One Ckt	31309	Two Ckt	32309
Graphite	One Ckt	31409	Two Ckt	32409

#### Flexible Joiner



120/250V Flexible Joiner is used to mechanically and electrically couple any two lengths of surface mount track to create angles from 0° (straight) through 90° (right angle). The Flexible Joiner can be flexed in either horizontal or vertical planes. Not for use as feeder.

Finish				
Silver	One Ckt	31112	Two Ckt	32112
Black	One Ckt	31212	Two Ckt	32212
White	One Ckt	31312	Two Ckt	32312
Graphite	One Ckt	31412	Two Ckt	32412

#### **End Cap**



120/250V End Cap is used for mechanically ending any straight run, individual Track Section, or open configuration Track Section.

Finish		
Silver	One & Two Ckt	30103
Black	One & Two Ckt	30203
White	One & Two Ckt	30303
Graphite	One & Two Ckt	30403

#### **Current Limiter**



LSI Track Current Limiters integrate directly into single circuit runs, available in the following amperages: 3 AMP (360 Watts); 5 AMP (600 Watts); 8 AMP (960 Watts); 12 AMP (1440 Watts).

Finish	3 AMP	5 AMP	8 AMP	12 AMP
Silver	TCL3S	TCL5S	TCL8S	TCL12S
Black	TCL3B	TCL5B	TCL8B	TCL12B
White	TCL3W	TCL5W	TCL8W	TCL12W
Graphite	TCL3G	TCL5G	TCL8G	TCL12G

#### **Adjustable Angle Bracket**



The Adjustable Angle Bracket for Flex Joiner is designed to attach to cable mounted track. This assembly locks the set angle of a Flex Joiner when there is no rigid mounting means.

Finish		
Silver	One & Two Ckt	30116
Black	One & Two Ckt	30216
White	One & Two Ckt	30316
Graphite	One & Two Ckt	30416

## **Raceway Cover**



Field cuttable Raceway Covers are used to enclose additional lay-in circuit wiring in top section of track.

Nominal Length				
Finish	4 Ft	8 Ft	12 Ft	
Galvanized	30613	30614	30615	

### **Track U-Ground Outlet**



120/250V Track U-Ground Outlet provides a convenient switched and fused U-Ground receptacle for power and is rated at 5A-120V. Non-UL listed.

ı	Finish		
	Silver	One & Two Ckt	31160
	Black	One & Two Ckt	31260
	White	One & Two Ckt	31360
	Graphite	One & Two Ckt	31460

## Display Hook



Display Hook is used to mechanically hang an item from the track without electrifying it. Do not exceed 20 lbs. at minimum spacing of two feet.

Finish		
Silver	One & Two Ckt	30761

## Weight Support Bar



Weight Support Bar provides threaded nipple and nuts to mount an item to track without electrifying it. Do not exceed 20 lbs. at minimum spacing of two feet. Nipple size 1/8-27 NPS (.406 diameter).

Finish		
Silver	One & Two Ckt	3076

### **Track Closure Cover**



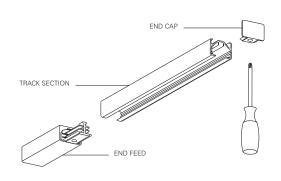
Field cuttable Noryl Track Closure Covers are used to enclose the open face of the track, and simply snap into place.

	Nom	inal Len	ıgth		
Finish	4 Ft	8 Ft	12 Ft		
Silver	30165	30166	30167		
Black	30265	30266	30267		
White	30365	30366	30367		
Graphite	30465	30466	30467		

## SURFACE TRACK (120/250V) · INSTALLATION

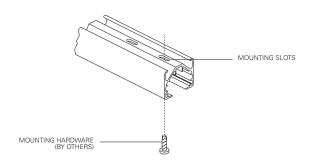
#### **General Notes**

When installing or using this track system, basic safety precautions should always be followed, including the following: Read all instructions. Do not install this track in damp or wet locations. Do not install any part of the track system less than five feet from floor. Do not install any fixture assembly closer than six inches from any curtain or similar combustible material. Disconnect electrical power before adding to or changing the configuration of the track. Check with a qualified electrician. Do not attempt to energize anything other than lighting track fixtures on the track. To reduce the risk of fire and electric shock, do not attempt to connect power tools, extension cords, appliances and the like to the track. Install per NEC and local codes. Save these instructions.



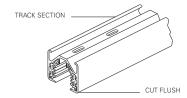
### **Assembling**

Insert End Cap, End Feed or any other Joiner/Feeder completely into Track Section and tighten the recessed Phillips head screw. Do not use excessive force when inserting components into Track Section.



#### Mounting

Fasten track directly to surface through pre-punched mounting slots with hardware (by others) capable of withstanding a 50 lb. pull. Mount track in compliance with NEC Lighting Track Article #410-101 (Installation), #410-104 (Fastening) and any other applicable codes. To prevent distortion of the track opening which may prevent insertion of fixture fittings, do not over tighten mounting screws. LSI recommends a minimum of two mounting points per section of track. LSI track can be mounted on centers up to 6'-0".



### **Field Cutting**

LSI track can be easily field cut using a sharp hacksaw or a chop saw with a blade for non-ferrous metals, such as Oldham commercial carbide series metal blade.

Together, cut the aluminum track, NoryI™ insulation, and copper with one straight cut.

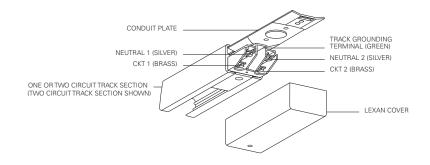
All pieces must be exactly the same length. Be sure to remove any burrs on the aluminum or the copper as this may affect the electrical and mechanical interconnection of components to track. Do not cut track to less than one foot in length.

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## SURFACE TRACK (120/250V) · INSTALLATION

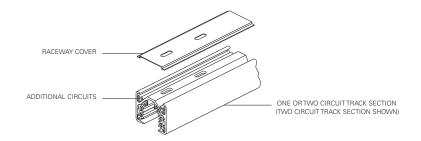
#### **Electrical**

Remove the Lexan<sup>™</sup> cover from any End Feed or Joiner/Feeder, bring wires through combination 1/2, 3/4 U.S. trade size knock-out (.875 diameter [22mm], 1.125 diameter, [29mm]) in conduit plate and attach conductors to identified terminals. Joiner/Feeders can be electrically field modified after removal of Lexan<sup>™</sup> cover by rerouting internal pre-wired jumpers.



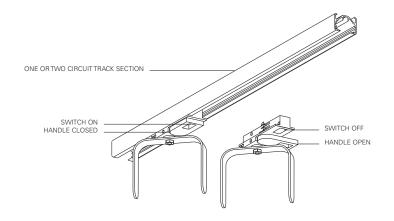
#### **Additional Circuits**

LSI Track has integral wiring channels for six additional #12 THHN wires to create three additional 20 amp circuits with separate neutrals. Place conductors in wiring channels and slide raceway covers into track prior to mounting.



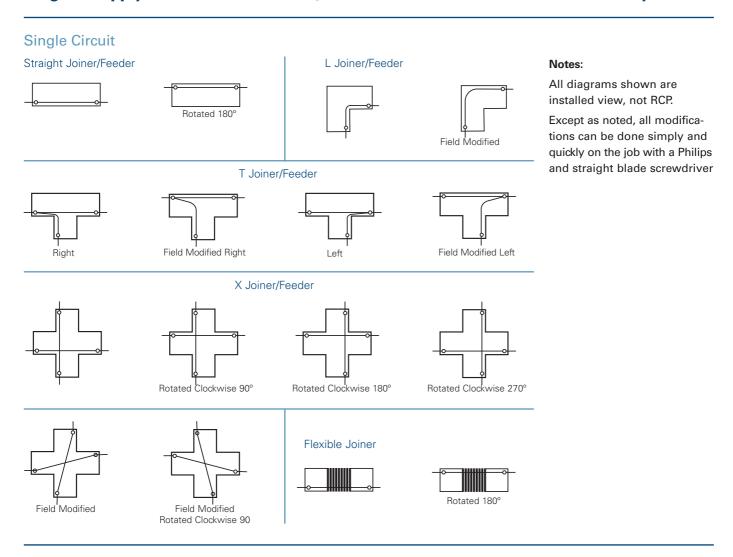
#### **Installing LSI Fixtures**

To insert a fixture fitting into the track, the switch must be in the "off" position, with the handle open. Insert the fixture fitting straight up into the track until it seats evenly, close handle completely, switch on. If using one circuit track, make sure that the brass contacts which protrude from the side of the fixture fittings are inserted facing the copper busbars. If using two circuit track, inserting the fixture fitting in one direction will connect to circuit one. Removing and reversing the direction of the fitting will connect to circuit two.



## TYPICAL WIRING DIAGRAMS

## Diagrams apply to 120V Surface Track, 277V Surface Track and Recessed Track Systems



## Two Circuit

