



SECTION 26 05 33.23  
SURFACE RACEWAY SYSTEM

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface Raceway System

1.2 RELATED SECTIONS

- A. Section 07 84 13 - Firestopping.
- B. Section 09 51 23 - Acoustic Tile.
- C. Section 26 05 33 - Raceways.
- D. Section 26 27 23 - Indoor Service Poles.
- E. Section 26 05 39 - Underfloor Raceway Assemblies.
- F. Section 26 27 26 - Wiring Devices: Power, audio, video, telecommunications and data devices.
- G. Section 26 05 00 - Wiring Connections.
- H. Section 27 41 16 - Sound and Video Equipment:

1.3 REFERENCES

- A. UL - Underwriters Laboratories Compliant.
- B. CE RoHS - European Conformity Certification.
- C. ADA - American Disabilities Act Compliant.

1.4 SYSTEM DESCRIPTION

- A. Smart-Way Raceway System is an electrical and communications wire management system configurable for either on top of vinyl, carpet, wood or in any flooring like carpet, wood, tile, and laminate with provided edging. System also has infeed options for walls, ceiling and floors.
- B. System Approval: System is UL, CE RoHS, ADA Compliant.
- C. Performance: Mounted Raceway Load Capacity with raceway mounted directly to a hard surface simulating an in carpet or on-concrete installation. Raceway is designed for light

vehicle roll over and pedestrian traffic.

1. Component Type
  - a. Raceway Straight Sections
    - 1) Tire Load 8,000 lbs.
    - 2) Axle Load 16,000 lbs.
    - 3) Concentrated Load 1,500 lbs.
  - b. Corner Fittings
    - 1) Tire Load 2,500 lbs.
    - 2) Axle Load 5,000 lbs.
    - 3) Concentrated Load lbs.
  - c. Tee Fittings 1,000 lbs.
    - 1) Tire Load 1,500 lbs.
    - 2) Axle Load 3,000 lbs.
    - 3) Concentrated Load 1,000 lbs.

## 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  1. Preparation instructions and recommendations.
  2. Storage and handling requirements and recommendations.
  3. Manufacturer's Installation instructions.
- C. Verification Samples: For each product specified, two samples of each device illustrating size, material, configuration and finish.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of finish materials to avoid damage to adjacent materials.
- B. Coordinate installation of outlet boxes for equipment connected under Section 26 05 00.
- C. Coordinate installation of outlet boxes for equipment connected under 16800 Sound and Video Equipment:

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: FSR Inc., which is located at: 244 Bergen Blvd.; Woodland Park, NJ 07424; Toll Free Tel: 800-332-3771; Tel: 973-785-4347; Fax: 973-785-4207; Email: [request info \(djohnson@fsr.com\)](mailto:request_info@djohnson@fsr.com); Web: <http://fsrinc.com>

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

## 2.2 SURFACE RACEWAYS SYSTEM

- A. Smart-Way Raceway System: Provide electrical and communications wire management system configured for surfaces and located as indicated on Drawings, for Smart-Way Raceway System, including raceway, corners and fitting, tee fittings, device boxes, hardwired raceway transitions, wall, ceiling and floor feed boxes and Installation accessories. Boxes are shown in the approximate locations unless dimensioned.
- B. Smart-Way Raceway Lengths, Corner Fittings and Tee Fittings finish shall be:
  - 1. Aluminum.
  - 2. Slate Gray
- C. Smart-Way Raceway Lengths One end stop (SW-END) is required at the end of the Raceway. Each section includes a base and cover, couplers, moveable wire guides, raceway base edges, and a hex tool for installation.
  - 1. 18203 SW-T72-ALM: 72 inch Raceway Aluminum
  - 2. 18204 SW-T72-SLT: 72 inch Raceway Slate Gray
  - 3. 18297 SW-T36-ALM: 36 inch Raceway Aluminum
  - 4. 18298 SW-T36-SLT: 36 inch Raceway Slate Gray
  - 5. 18299 SW-T12-ALM: 12 inch Raceway Aluminum
  - 6. 18300 SW-T12-SLT: 12 inch Raceway Slate Gray
  - 7. 18301 SW-T123-ALM: 1 ft, 2 ft ,3 ft Saw-less Installation Kit
  - 8. 18302 SW-T123-SLT: 1 ft, 2 ft ,3 ft Saw-less Installation Kit
  - 9. 18478 SW-T24-ALM: 24 inch Raceway Kit Clear Anodized Aluminum
  - 10. 18479 SW-T24-SLT: 24 inch Raceway Kit Slate Powder Coat
- D. Smart-Way Corners and Fittings: Smart-Way corners come in either a 45 degrees or 90 degrees corner. Both corners are available in aluminum and slate gray. The corner kits transition the cables seamlessly around a corner without compromising the minimal bend radius.
  - 1. 18207 SW-L90-ALM: 90 degree Corner Aluminum
  - 2. 18208 SW-L90-SLT: 90 degree Corner Slate Gray
  - 3. 18303 SW-L45-ALM : 45 degree Corner Aluminum
  - 4. 18304 SW-L45-SLT: 45 degree Corner Slate Gray
- E. Smart-Way Fitting Tee.
  - 1. 18305 SW-TEE-ALM: Two Part Tee
  - 2. 18306 SW-TEE-SLT: Two Part Tee
- F. Smart-Way Device Boxes
  - 1. 18211 SW-DB-1P1D2, gang device box with 1 power and 1 low voltage Decora opening, Divider is not removable.
  - 2. 18212 SW-DB-2P: 2 gang device boxes with 2 power Decora openings (NEMA spacing). Accesses the 2 outer channels only.
  - 3. 18213 SW-DB-2D: 2 gang device boxes with 2 low voltage Decora openings (NEMA spacing). Accesses the inner channel only.
  - 4. 18214 SW-DB-2P1D: 3 gang device boxes with 2 power and 1 low voltage Decora opening. Two power openings have NEMA spacing. Compartments access the appropriate track channels, can't be interchanged, and the divider is not removable.
  - 5. 18440 SW-DB-2P2D: 4 gang device box with 2 power and 2 low voltage Decora opening. The two sets of openings have NEMA spacing. Compartments access the appropriate track channels, can't be interchanged, and the divider is not removable.

6. 18215 SW-DB-1P2D 3 gang device box with 1 power and 2 low voltage Decora openings. Two low voltage openings have NEMA spacing. Compartments access the appropriate track channels, can't be interchanged, and the divider is not removable.
  7. 18441 SW-DB-3P1D 4 gang device box with 3 power and 1 low voltage Decora opening. Three power openings have NEMA spacing. Compartments access the appropriate track channels, can't be interchanged, and the divider is not removable.
- G. International Device Boxes, Plate Inserts and Power Receptacles
1. 18337 SW-IDB-2P: International Device Box with 2 openings for power inserts.
  2. 18338 SW-IDB-1P1D: International Device Box with openings for 1 power insert/1 Decora opening
  3. 18339 SW-IDB-1P2D: International Device Box with 1 opening for power insert/2 Decora openings.
  4. 18340 SW-IDB-D45I : Device Plate Insert with 2-45 mm openings for power receptacles.
  5. 18341 SW-IDB-S45I: Device Plate Insert with 45 mm opening for a power receptacle.
  6. 18356 SOC45-UN: 45 mm Universal Socket 10 Amp / 250VAC
  7. 18357 SOC45-TF: 45 mm Type F SCHUKO - Europe & Russia 16 Amp / 250VAC
  8. 18358 SOC45-TI: 45 mm Type I - Australia, New Zealand, China & Argentina 10 Amp / 240VAC
  9. 18359 SOC45-TG: 45 mm Type G - UK, Ireland, Malta, Malaysia & Singapore 13 Amp / 250VAC
- H. Smart-Way Hardwired Raceway Transitions
1. 18216 SW-DB-1HWP1D: 2 gang device boxes with 1 gang power and 1-1/2 inch and 3/4 inch KO and 1 gang low voltage Decora opening.
  2. 18320: SW-FCT-SLT: Flexible conduit transition with removable dividers. Its small design allows wires and cables to transition from the Smart-Way raceway to tables via conduit with provided 3/4 inch rubber bushing.
- I. Smart-Way Raceway Infeed for New or Old Construction
1. 18217 SW-WF-LP-ALM: Wall feed for 1 or 2 circuits of power and low voltage feed through.
  2. 18219 SW-WF-LP-SLT: Wall feed for 1 or 2 circuits of power and low voltage feed through.
  3. 18218 SW-WF-HP-ALM: Wall feed for 2 or more circuits of power and low voltage feed through
  4. 18220 SW-WF-HP-SLT: Wall feed for 2 or more circuits of power and low voltage feed through.1
  5. 8332 SW-WF-WLP-SLT: Wall Feed for metal stud only with 1 or 2 circuits of power per channel and low voltage
- J. Smart-Way Raceway In-Feed for New or Existing Construction
1. 18317 SW-WF-RIN: In-wall rough-in feed with construction cover. Use with SW-RINLP on-wall feed.
  2. 18333 SW-RINLP-ALM: On-wall feed with cover. Use with SW-WF-RIN in-wall rough-in feed to pass wires through and into the raceway
  3. 18334 SW-RINLP-SLT: On-wall feed with cover. Use with SW-WF-RIN in-wall rough-in feed to pass wires through and into the raceway
- K. Smart-Way Raceway In-feed for Surface Mount Applications
1. 18221 SW-WF-RCWY-ALM: Kits contains:
    - a. 1 Smart-Way Wall Feed Box
    - b. 1 Hubbell 1G Low Profile Box (PW1LPB)
    - c. 1 Hubbell 1G Box Cover (KP14)
    - d. 1 Hubbell Flat Elbow (PW1FE)
    - e. 2 Hubbell 30 inch Wall Track (PW1BC)

2. 18222 SW-WF-RCWY-SLT: Kits contains:
    - a. 1 Smart-Way Wall Feed Box
    - b. 1 Hubbell 1G Low Profile Box (PW1LPB)
    - c. 1 Hubbell 1G Box Cover (KP14)
    - d. 1 Hubbell Flat Elbow (PW1FE)
    - e. 2 Hubbell 30 inch Wall Track (PW1BC)
  3. 18320 SW-FCT-SLT: Surface mount conduit transition In-Feed with removable dividers. Its small design allows wires and cables transition from conduit to the Smart-Way raceway.
- L. Smart-Way Raceway Additional In-Feeds
1. 18326 SW-PKF-SFIT4: Poke through to Smart-Way In-Feed. Allows power and data to feed the raceway through fire rated concrete floors. To be used with FSR 4 inch SF-CPT-FF-ALM: Poke through.
  2. 18328 SW-DB-HPP: Power Pole to Smart-Way In-Feed. Feed power and data to the raceway from the ceiling with a power pole. To be used with Hubbell aluminum service pole HBLPP.
- M. Smart-Way Raceway Installation Accessories
1. 18206 SW-END-SLT: Raceway End Stop - Slate. Required at the end of the raceway
  2. 18308 SW-CCEF-SLT: Center Channel End Feed (same as stick end)
  3. 18318 SW-DB-2GEXT: 2 Gang Extension, 1 inch. Device Box Not Included
  4. 18319 SW-DB-3GEXT: 2 Gang Extension, 1 inch. Device Box Not Included.
  5. 18321 SS-BRSH-BLK: Brush Insert for Decora Opening
  6. 18277 SW-CVR-TOOL: Smart-Way Cover Removal Tool
  7. 18327 SW-TPE-NO: No Transition Flush Plastic Edging
  8. 18307 SW-STRC-6: 6 pack of extra couplers
  9. 18322 WM-CP-BCKMT: Cable Path from Table to Smart-Way Device Box

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify locations of floor boxes and outlets in prior to rough-in.
- C. Verify openings in access floor are in proper locations.
- D. Verify outlet locations and routing and termination locations of raceway prior to rough-in.
- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions. System installs on or in any surface.
  1. On any floor surface including concrete, wood, tile or laminate
  2. In any carpet up to .375 inch thick
  3. In any laminate .21 inch to .237 inch thick
  4. In wood 3.75 to .5 inches thick. Optional Raceway base SW-TPE-NO edging required.

5. In any tile between .21 inch and .375 inch thick
6. In any tile .375 to .5 inches thick optional raceway SW-TPE-NO edging required. For conditions over .5 inches shim base.

- B. Raceway, raceway boxes and fittings are indicated on Drawings in approximate locations unless dimensioned.
- C. Orient boxes to accommodate wiring devices oriented as specified.
- D. Install boxes and fittings to preserve fire resistance rating of slabs and other elements, using materials and methods specified in Section 07 84 13 - Penetration Firestopping and 16070.
- E. Install wall mounted boxes at elevations to accommodate mounting heights as indicated on Drawings.
- F. Secure wall mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- G. Support boxes independently of conduit.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

### 3.5 ADJUSTING

- A. Section 01 70 00 - Execution and Closeout Requirements.

### 3.6 CLEANING

- A. Section 01 70 00 - Execution and Closeout Requirements.
- B. Clean interior of boxes to remove dust, debris, and other material.
- C. Clean exposed surfaces and restore finish.

### 3.7 SCHEDULES

- A. :
- B. :

END OF SECTION