

Installation Instructions for Lifeline® MC/RC90: Cable Splice Using Ceramic Standoffs

Technical Information Sheet #402



Classified by UL/ULC to UL 2196/ULC-S139 for one-hour installations For use with Lifeline® MC/RC90 Cables and Jacketed LSZH MC/RC90 Cables sizes 14AWG to 350MCM, UL Electrical Circuit Integrity System (FHIT) No. 50A or ULC Electrical Circuit Integrity System Certified for Canada (FHIT7) No. 51A

DESCRIPTION

The Lifeline® MC/RC90 Splice Kit contains components required to assemble the 1-hour fire rated splice system. The components supplied in this kit are for use only with Selco Manufacturing Corp. (Selco Mfg) or Resolve One UL listed NEMA 4X stainless steel enclosure with mounting plate, REMKE PowR-Teck™ stainless steel metal clad cable connectors and Thomas & Betts Blackburn® copper compression connectors. Please refer to UL Classification FHIT No. 50A for USA installations or ULC FHIT7 No.51A for Canada for more details and read these instructions thoroughly before beginning installation.

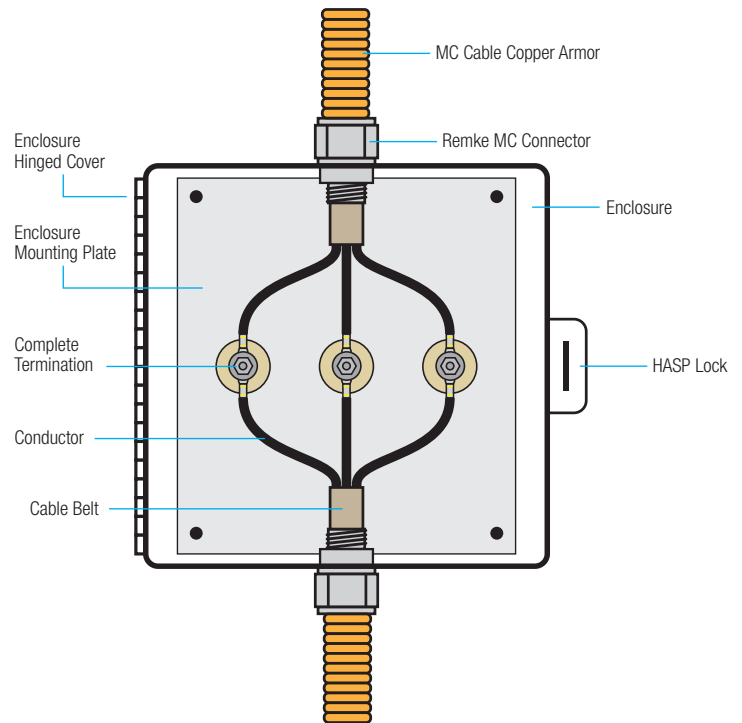
For technical support please contact Prysmian Lifeline team at na.lifeline@prysmian.com.

MATERIALS NEEDED

- Lifeline® MC/RC90 Splice Kit(s)
- UL listed NEMA 4X stainless steel enclosure with interior mounting panel. Enclosure model numbers and manufacturers are listed in Table 4. Enclosures manufactured by Resolve One and Selco can be used in USA, and Resolve One enclosures can be used in Canada.
- REMKE PowR-Teck™ stainless steel metal clad cable connectors
- Stainless steel connector locking nut

TOOLS NEEDED

- Pipe cutter
- Wire stripping tool
- Utility knife
- Large flat head screw driver
- Hammer
- Channel lock pliers
- Cable cutter
- Stainless steel capable hole saw
- Crimping tool
- 1/4" inch drill bit
- Tape Measure
- Two 7/16" wrenches



Lifeline® MC/RC90 Splice Kit*

CONTENTS FOR ONE TERMINAL

• 0.25"-20 X 1.5" Stainless steel stud	x1
• 0.25"-20 Nut, stainless steel	x2
• 0.25" Belleville spring washer, stainless steel 884lb flattening load	x1
• 0.25" x 0.75" Flat washer, stainless steel	x2
• 0.24" x 0.38" Silicone O-Ring	x1
• 1" x 1" Grade L5 ceramic, round, female threaded standoff	x1
• 0.25"-20 X 0.5" Stainless steel bolt	x1
• 0.25" x 0.5" Stainless steel split washer	x1
• Thomas & Betts Blackburn® copper compression connectors, straight barrel, one-hole lug	x2

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number.

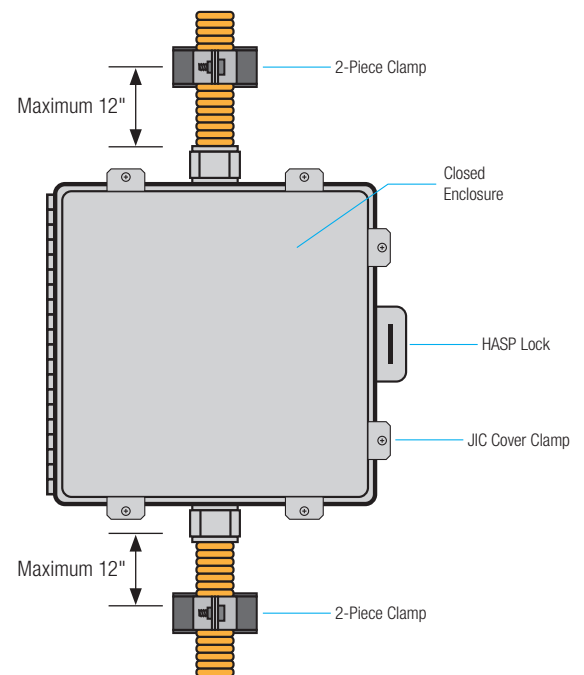
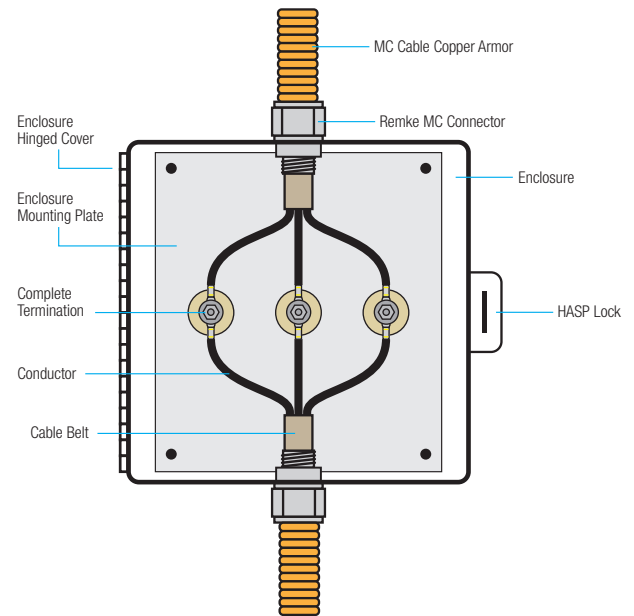
Example: Lifeline® MC/RC90 cable Part Number LMCJ05014 requires Part Number CUSLMCJ05014 when order a splice kit.

MATERIALS NOT SUPPLIED

- REMKE PowR-Teck™ stainless steel metal clad cable connectors, catalog numbers provided in Tables 1 and 2.
- Stainless steel locking nut.
- UL Listed NEMA 4X stainless steel enclosure with mounting plate. Enclosure model numbers & manufacturers for USA or Canada installations provided in Table 4.

GENERAL

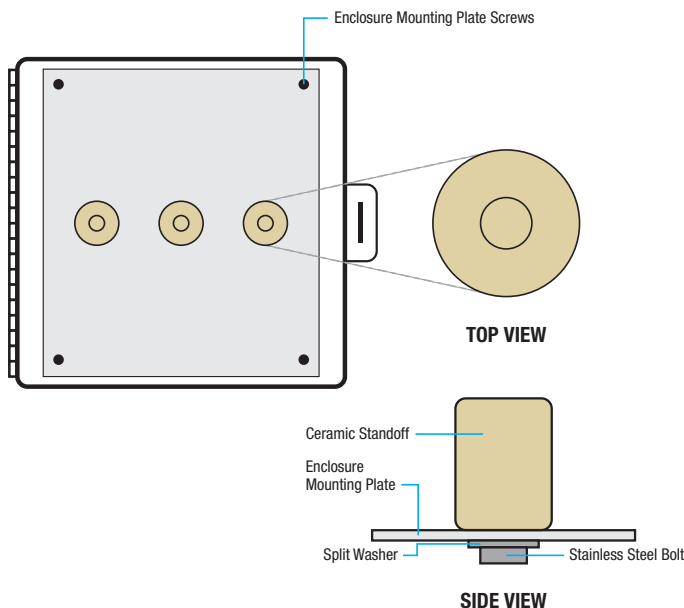
Only use NEMA 4X stainless steel enclosures with mounting plate as specified in Table 4 for USA or Canada Installations, REMKE PowR-Teck™ stainless steel metal clad cable connectors and Thomas & Betts Blackburn® copper compression connectors. Support the Lifeline® MC/RC90 cable with a 2-piece clamp a maximum of 12 inches from the enclosure and every four feet thereafter. Do not add any other materials inside the splice enclosure that are not included in the installation instructions. Cables can be installed in a horizontal or vertical directions, these instructions only show vertical orientation as examples. Check the size of the enclosures and connectors prior to beginning installation. Recommended enclosure sizes for Lifeline® MC/RC90 cables are provided in Table 1 and Table 2, also reference REMKE PowR-Teck™ Metal Clad cable connector installation, Doc No 2-100102.



SPLICE TERMINAL INSTALLATION

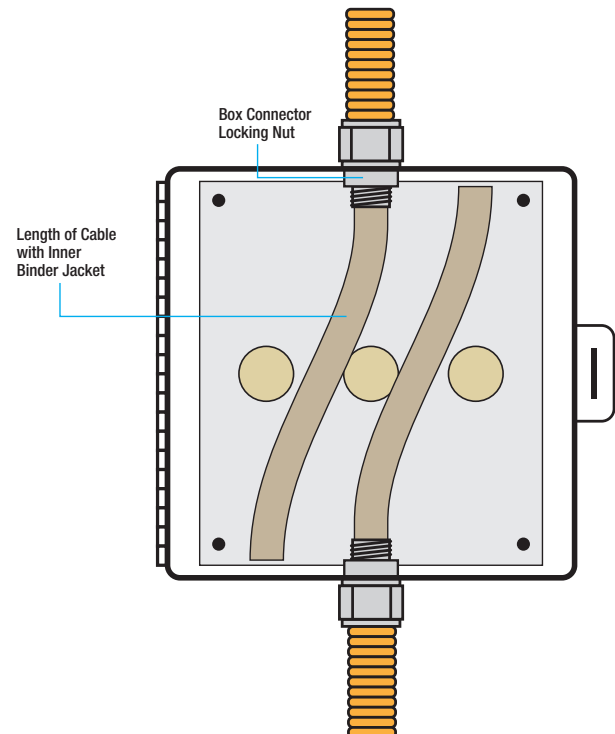
1. Mounting Enclosure and Ceramic Standoff

- Prepare enclosure holes for Remke connectors. Holes should be located at the center of the enclosure wall and only offset as needed to ensure clearance necessary for installation between the enclosure cover, hasp, or hinge.
- Drill 0.25 inch holes in enclosure mounting plate to mount stand-offs. Holes should be centered vertically in the enclosure for horizontal cable installations and centered horizontally in the enclosure for vertical cable installations. Holes should be spaced a minimum of 1-3/4 inch on center between terminals and 1-3/8 inch on center from terminal to enclosure wall for conductor sizes 1/0AWG and smaller, and 2 inches on center between terminals and 1-3/4 inches on center from terminal to enclosure wall for conductor sizes 2/0AWG and larger.
- Remove any sharp edges and clean away any oil or metal shavings from enclosure and mounting plate.
- Attach the ceramic standoff to the mounting plate using the bolt and split washer, hand tighten holding bolt with wrench and turning ceramic standoff.
- Insert the mounting plate back into the enclosure and secure.
- Install enclosure to fire rated support structure using 3/8 inch or larger steel bolt.



2. Securing Cable

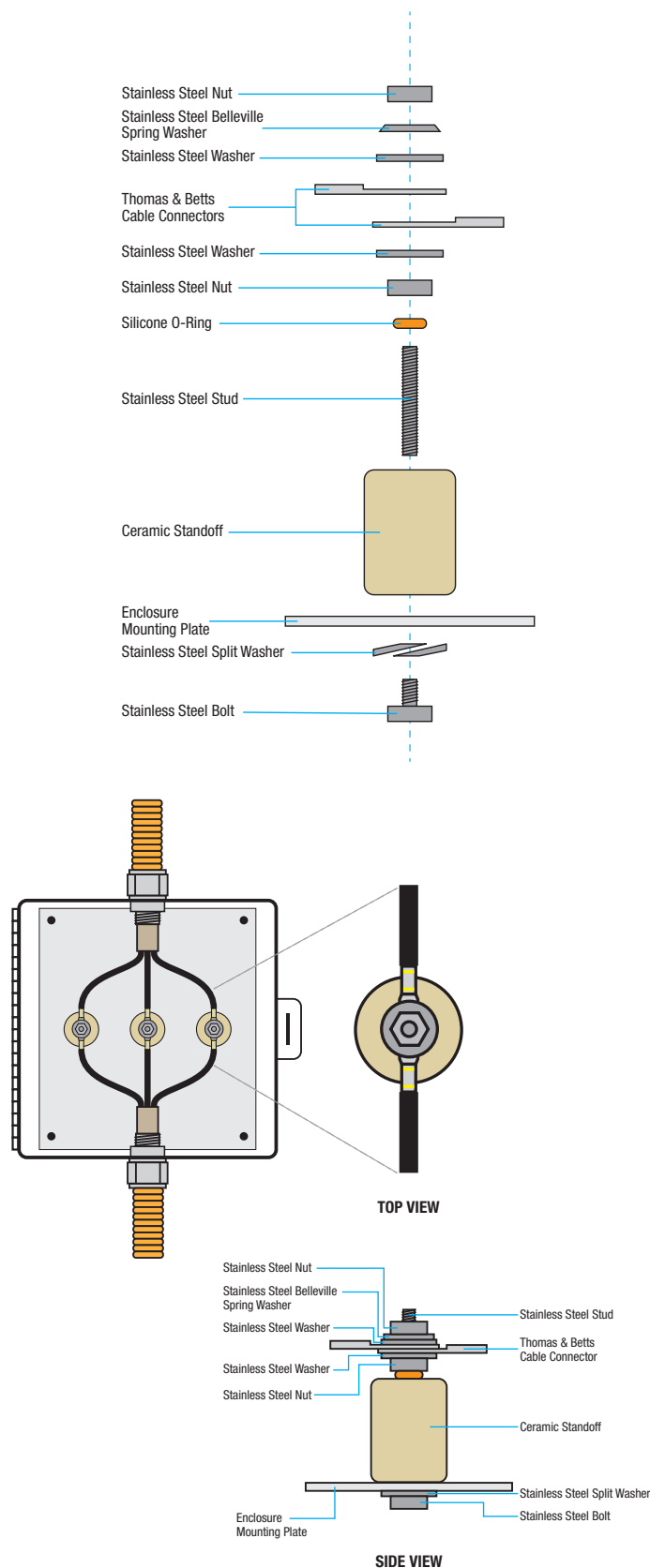
- Install REMKE PowR-Teck™ Metal Clad cable connector and secure using stainless steel locking nut according to REMKE manufacturers installation Doc No. 2-100102.
- Remove copper armor from cable using pipe cutter being careful not to cut into the inner binder jacket. It is recommended to have cable the length of the enclosure available for terminating.
- Cut off excess outer filler where it exits the armor.
- Insert the Lifeline® MC/RC90 cable and the connector into the enclosure. Take care not to damage the cable when pushing into enclosure.
- Tighten REMKE connector gland nuts according to REMKE manufacturers installation Doc No. 2-100102. It may be necessary to hold the connector body to prevent movement while tightening.
- Taking care not to cut the conductor insulation, remove the inner binder jacket to approximately 1inch from the MC/RC90 connector. Do not damage, nick or cut the black insulation. Any damage to the insulation will require a replacement cable.



3. Termination

Building the splice terminal will use the following steps:

- Screw the stud into the ceramic standoff, finger tight the full depth of the ceramic standoff hole.
- Turn stud counter clock-wise to loosen one ½ turn.
- Install on the silicone O-Ring.
- Screw a nut on the stud until slightly compressing the O-Ring.
- Install a stainless steel washer.
- Position conductors to the terminals using an arrangement that minimizes crossed conductors. Do not exceed the minimum bend radius of 8x conductor OD, conductors should not touch the enclosure.
- Install the T&B cable connectors. Using the terminal center as the end point, cut the conductors to length. Conductors should not be installed under tension and there should be a minimum 1/2 inch extra length of conductor to ensure conductor is not under tension. Strip the insulation off the end of the conductors and verify lug fits easily over termination stud before crimping. If lug does not fit easily over termination lug the conductor should be adjusted by bending or trimming before crimping lug. When good fit over stud is achieved, crimp on the T&B connector lug on conductor. Take care when installing the T&B cable connector lugs that the copper conductor is fully inserted in the connector barrel before crimping. After crimping inspect connector to ensure conductor did not move in the connector barrel while crimping. Please follow T&B connection by compression installation guidelines.
- Install a stainless steel washer.
- Install a Belleville spring washer with wide side of cone facing stainless steel washer installed in step VIII.
- Screw on top stainless steel nut and tighten while holding nut close to ceramic standoff with a wrench. Nut should be tightened until Belleville spring washer is flattened.
- Repeat the above step to connect all terminals.



4. Closing the Enclosure

- Clean away any leftover materials from inside the enclosure.
- Inspect the insulation for any damage or accidental cuts made during installation.
- Close up the enclosure, securing the cover with clamps.
- Secure the cable within 12 inches of the enclosure using steel 2-piece conduit clamps.

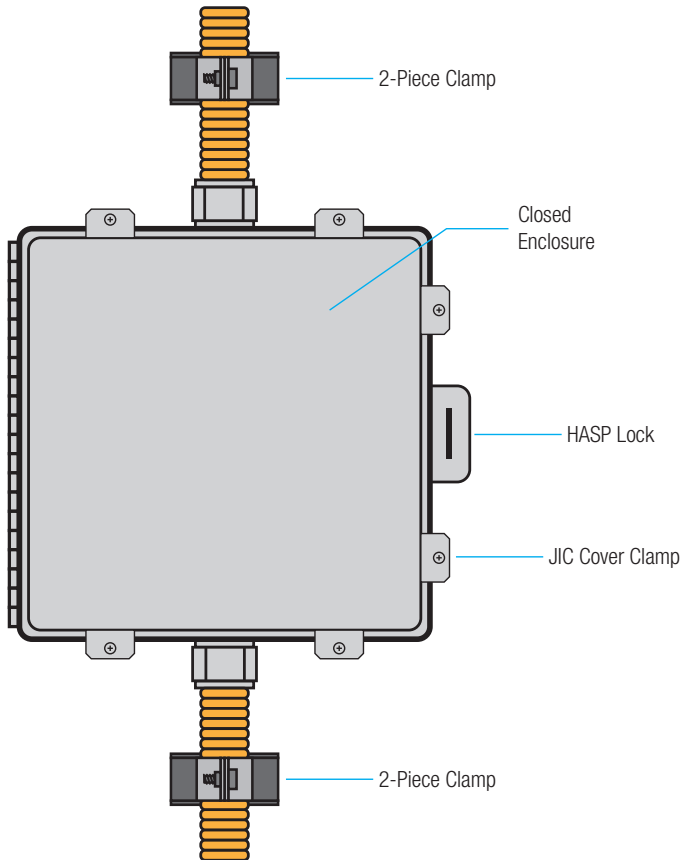


Table 1¹ Non-Jacketed Lifeline MC/RC90 Cable²

² When ordering the Lifeline® MC/RC90 Splice kit, please specify by adding the prefix CUS to the Part Number (Kit P/N: CUSLMC05014)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMC03014	14AWG	3	0.55	0.85	RTKSS-050-4-LNSS	0.5	8 x 8 x 4
LMC05014	14AWG	5	0.66	0.96	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMC02012	12AWG	2	0.56	0.85	RTKSS-050-4-LNSS	0.5	8 x 8 x 4
LMC03012	12AWG	3	0.59	0.90	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC04012	12AWG	4	0.64	0.96	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC05012	12AWG	5	0.70	0.96	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMC02010	10AWG	2	0.61	0.85	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC03010	10AWG	3	0.64	0.96	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC04010	10AWG	4	0.70	0.96	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC05010	10AWG	5	0.77	1.08	RTKSS-075-6-LNSS	0.75	10 x 10 x 6
LMC07010	10AWG	7	0.85	1.27	RTKSS-100-7-LNSS	1.25	10 x 14 x 6 or 14 x 10 x 6 ⁴
LMC02008	8AWG	2	0.70	0.96	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMC03008	8AWG	3	0.75	1.08	RTKSS-075-6-LNSS	0.75	8 x 8 x 4
LMC04008	8AWG	4	0.82	1.20	RTKSS-100-7-LNSS	1	8 x 8 x 4
LMC05008	8AWG	5	0.90	1.27	RTKSS-100-7-LNSS	1.25	10 x 10 x 6
LMC02006	6AWG	2	0.78	1.08	RTKSS-075-6-LNSS	0.75	8 x 8 x 4
LMC03006	6AWG	3	0.83	1.20	RTKSS-100-7-LNSS	1	8 x 8 x 4
LMC04006	6AWG	4	0.91	1.27	RTKSS-100-7-LNSS	1.25	8 x 8 x 4
LMC05006	6AWG	5	1.00	1.35	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMC03004	4AWG	3	0.95	1.35	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMC04004	4AWG	4	1.04	1.35	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMC05004	4AWG	5	1.15	1.57	RTKSS-125-10-LNSS	1.25	10 x 10 x 6
LMC03003	3AWG	3	1.00	1.35	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMC04003	3AWG	4	1.11	1.40	RTKSS-125-9-LNSS	1.25	10 x 10 x 6
LMC03002	2AWG	3	1.07	1.40	RTKSS-125-9-LNSS	1.25	10 x 10 x 6
LMC04002	2AWG	4	1.18	1.57	RTKSS-125-10-LNSS	1.25	10 x 10 x 6
LMC03001	1AWG	3	1.24	1.77	RTKSS-150-12-LNSS	1.5	12 x 12 x 6
LMC04001	1AWG	4	1.37	1.77	RTKSS-150-12-LNSS	1.5	12 x 12 x 6
LMC011/0	1/0AWG	1	0.65	0.90	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMC031/0	1/0AWG	3	1.33	1.77	RTKSS-150-12-LNSS	1.5	12 x 12 x 6
LMC041/0	1/0AWG	4	1.47	1.83	RTKSS-150-12-LNSS	1.5	12 x 12 x 6
LMC012/0	2/0AWG	1	0.69	0.96	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMC032/0	2/0AWG	3	1.41	1.83	RTKSS-150-12-LNSS	1.5	12 x 12 x 6
LMC042/0	2/0AWG	4	1.56	1.98	RTKSS-150-13-LNSS	1.5	12 x 12 x 6
LMC013/0	3/0AWG	1	0.74	1.08	RTKSS-075-6-LNSS	0.75	10 x 10 x 6
LMC033/0	3/0AWG	3	1.52	1.98	RTKSS-200-14-LNSS	2	16 x 16 x 6
LMC043/0	3/0AWG	4	1.69	2.15	RTKSS-200-15-LNSS	2	18 x 18 x 6
LMC014/0	4/0AWG	1	0.80	1.20	RTKSS-100-7-LNSS	1	12 x 12 x 6
LMC034/0	4/0AWG	3	1.64	2.15	RTKSS-200-15-LNSS	2	18 x 18 x 6
LMC044/0	4/0AWG	4	1.82	2.27	RTKSS-200-16-LNSS	2	18 x 18 x 6
LMC01250	250MCM	1	0.87	1.27	RTKSS-100-7-LNSS	1.25	12 x 12 x 6
LMC03250	250MCM	3	1.81	2.27	RTKSS-200-16-LNSS	2	18 x 18 x 6
LMC04250	250MCM	4	2.00	2.48	RTKSS-200-18-LNSS	2	18 x 18 x 6

¹ To ensure proper sizing of connectors and enclosures please check <https://www.prysmian.com> for the latest version of this document.

³ Enclosure sizes used for splicing are based on 1-in-1-out scenario and must be sized in accordance with NFPA 70, Article 314.28 for USA installations or Canadian Electrical Code for Canada installations or with these instructions, whichever is larger. In case of splicing scenarios other than 1-in-1-out, please contact na.lifeline@prysmian.com for enclosure sizing.

⁴ For horizontal installations use 10x14x6 enclosure and for vertical installations use 14x10x6 enclosure.

Table 2¹ Jacketed Lifeline MC/RC90 Cable²

² When ordering the Lifeline® MC/RC90 Splice kit, please specify by adding the prefix CUS to the Part Number (Kit P/N: CUSLMCJ05014)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Nominal Jacket Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMCJ03014	14AWG	3	0.55	0.85	0.95	RTKSS-050-4-LNSS	0.50	8 x 8 x 4
LMCJ05014	14AWG	5	0.66	0.96	1.06	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMCJ02012	12AWG	2	0.56	0.85	0.95	RTKSS-050-4-LNSS	0.50	8 x 8 x 4
LMCJ03012	12AWG	3	0.59	0.90	1.00	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ04012	12AWG	4	0.64	0.96	1.06	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ05012	12AWG	5	0.70	0.96	1.06	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMCJ02010	10AWG	2	0.61	0.85	0.95	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ03010	10AWG	3	0.64	0.96	1.06	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ04010	10AWG	4	0.70	0.96	1.06	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ05010	10AWG	5	0.77	1.08	1.18	RTKSS-075-6-LNSS	0.75	10 x 10 x 6
LMCJ07010	10AWG	7	0.85	1.27	1.37	RTKSS-125-8-LNSS	1.25	10 x 14 x 6 or 14 x 10 x 6 ⁴
LMCJ02008	8AWG	2	0.70	0.96	1.06	RTKSS-075-5-LNSS	0.75	8 x 8 x 4
LMCJ03008	8AWG	3	0.75	1.08	1.18	RTKSS-075-6-LNSS	0.75	8 x 8 x 4
LMCJ04008	8AWG	4	0.82	1.20	1.30	RTKSS-100-7-LNSS	1.00	8 x 8 x 4
LMCJ05008	8AWG	5	0.90	1.27	1.37	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ02006	6AWG	2	0.78	1.08	1.18	RTKSS-075-6-LNSS	0.75	8 x 8 x 4
LMCJ03006	6AWG	3	0.83	1.20	1.30	RTKSS-100-7-LNSS	1.00	8 x 8 x 4
LMCJ04006	6AWG	4	0.91	1.27	1.37	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ05006	6AWG	5	1.00	1.35	1.45	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ03004	4AWG	3	0.95	1.35	1.45	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ04004	4AWG	4	1.04	1.35	1.45	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ05004	4AWG	5	1.15	1.57	1.69	RTKSS-125-10-LNSS	1.25	10 x 10 x 6
LMCJ03003	3AWG	3	1.00	1.35	1.45	RTKSS-125-8-LNSS	1.25	10 x 10 x 6
LMCJ04003	3AWG	4	1.11	1.40	1.50	RTKSS-125-9-LNSS	1.25	10 x 10 x 6
LMCJ03002	2AWG	3	1.07	1.40	1.50	RTKSS-125-9-LNSS	1.25	10 x 10 x 6
LMCJ04002	2AWG	4	1.18	1.57	1.69	RTKSS-125-10-LNSS	1.25	10 x 10 x 6
LMCJ03001	1AWG	3	1.24	1.77	1.89	RTKSS-150-12-LNSS	1.50	12 x 12 x 6
LMCJ04001	1AWG	4	1.37	1.77	1.89	RTKSS-150-12-LNSS	1.50	12 x 12 x 6
LMCJ011/0	1/0AWG	1	0.65	0.90	1.00	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMCJ031/0	1/0AWG	3	1.33	1.77	1.89	RTKSS-150-12-LNSS	1.50	12 x 12 x 6
LMCJ041/0	1/0AWG	4	1.47	1.83	1.95	RTKSS-150-12-LNSS	1.50	12 x 12 x 6
LMCJ012/0	2/0AWG	1	0.69	0.96	1.06	RTKSS-075-5-LNSS	0.75	10 x 10 x 6
LMCJ032/0	2/0AWG	3	1.41	1.83	1.95	RTKSS-150-12-LNSS	1.50	12 x 12 x 6
LMCJ042/0	2/0AWG	4	1.56	1.98	2.10	RTKSS-150-13-LNSS	1.50	12 x 12 x 6
LMCJ013/0	3/0AWG	1	0.74	1.08	1.18	RTKSS-075-6-LNSS	0.75	10 x 10 x 6
LMCJ033/0	3/0AWG	3	1.52	1.98	2.10	RTKSS-200-14-LNSS	2.00	16 x 16 x 6
LMCJ043/0	3/0AWG	4	1.69	2.15	2.27	RTKSS-200-15-LNSS	2.00	18 x 18 x 6
LMCJ014/0	4/0AWG	1	0.80	1.20	1.30	RTKSS-100-7-LNSS	1.00	12 x 12 x 6
LMCJ034/0	4/0AWG	3	1.64	2.15	2.27	RTKSS-200-15-LNSS	2.00	18 x 18 x 6
LMCJ044/0	4/0AWG	4	1.82	2.27	2.42	RTKSS-200-16-LNSS	2.00	18 x 18 x 6
LMCJ01250	250MCM	1	0.87	1.27	1.37	RTKSS-125-8-LNSS	1.25	12 x 12 x 6
LMCJ03250	250MCM	3	1.81	2.27	2.42	RTKSS-200-16-LNSS	2.00	18 x 18 x 6
LMCJ04250	250MCM	4	2.00	2.48	2.63	RTKSS-200-18-LNSS	2.00	18 x 18 x 6

¹ To ensure proper sizing of connectors and enclosures please check <https://www.prysmian.com> for the latest version of this document.

³ Enclosure sizes used for splicing are based on 1-in-1-out scenario and must be sized in accordance with NFPA 70, Article 314.28 for USA installations or Canadian Electrical Code for Canada installations or with these instructions, whichever is larger. In case of splicing scenarios other than 1-in-1-out, please contact na.lifeline@prysmian.com for enclosure sizing.

⁴ For horizontal installations use 10x14x6 enclosure and for vertical installations use 14x10x6 enclosure.

Table 3

Thomas & Betts Blackburn® Copper Compression Connectors

(Note: connectors are included in the splice kit)

Conductor Size (AWG/MCM)	Thomas & Betts Catalog Number
14	54101
12	54101
10	54101
8	54130
6	54105
4	54106
3	54107
2	54107
1	54108
1/0	54152-TB
2/0	54157
3/0	54162-TB
4/0	54167
250	54172-TB

Table 4

NEMA 4X Enclosures

Enclosure (WxHxD)	Selco Mfg Model Number ⁵	Resolve One Model Number ⁶
8 x 8 x 4 - inch	NE4X-080804-F-BP	AB-R080804JHFX3T304HT
10 x 10 x 6 - inch	NE4X-101006-F-BP	AB-R101006JHFX3T304HT
10 x 14 x 6 - inch	NE4X-101406-F-BP	AB-R141006JHFX3T304HT
14 x 10 x 6 - inch	NE4X-141006-F-BP	AB-R101406JHFX3T304HT
12 x 12 x 6 - inch	NE4X-121206-F-BP	AB-R121206JHFX3T304HT
18 x 18 x 6 - inch	NE4X-181806-F-BP	AB-R181806HFX3T304HT

⁵ Selco NEMA 4X Enclosures may only be used in 480 volt USA installations per FHIT No. 50A

⁶ Resolve One NEMA 4X Enclosures may be used in both 480 volt USA installations per FHIT No. 50A and 600 volt Canada installations per FHIT7 No. 51A

Additional instructions for cable constructions not addressed above are included in the following addendums:

- **TIS 402 Addendum 1:** Additional Instructions for splicing Lifeline® MC/RC90 cables with 350MCM conductors using ceramic standoffs
- **TIS 402 Addendum 2:** Additional Instructions for splicing Lifeline® MC/RC90 cables with four 2AWG conductors and four 10AWG grounding conductors using ceramic standoffs and copper grounding bar.

Scope

This addendum provides additional installation instructions for splicing with Lifeline® MC/RC90 Cables and Jacketed LSZH MC/RC90 Cables with 350MCM conductors. Most of the installation procedure of TIS 402 apply to this construction and this addendum only includes the necessary additional instructions.

Tools Needed

- 3/8 inch drill
- Two 9/16 inch wrenches

Materials Needed

- Lifeline® MC/RC90 Splice Kit(s)
- UL Listed NEMA 4X stainless steel enclosure with mounting plate. Enclosure model numbers & manufacturers for USA or Canada installations provided in NEMA 4X Enclosures (Table 7)
- REMKE PowR-Teck™ stainless steel metal clad cable connectors
- Stainless steel connector locking nut

Lifeline® MC/RC90 Splice Kit for 350MCM*

Contents for 1 Terminal

• 0.375"-16 X 1.75" Stainless steel stud	x1
• 0.375"-16 Nut, stainless steel	x2
• 0.375" Belleville spring washer, stainless steel 1528 lb flattening load	x1
• 0.375" x 1.0" Flat washer, stainless steel	x2
• 0.375" x 0.5" Silicone O-Ring	x1
• 1" x 1.25" Grade L 5 ceramic, round, female treaded standoff	x1
• 0.375"-16 X 0.625" Stainless steel bolt	x1
• 0.375" x 0.69" Stainless steel split washer	x1
• Thomas & Betts Blackburn® copper compression connectors, straight barrel, one-hole lug, 0.375 inch bolt size	x1

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number (Kit P/N: CUSLMC03350)

Installation

Mounting Enclosure and Ceramic Standoffs

Drill 0.375 inch mounting holes should be drilled to maintain at least 2 inches center to center spacing for all components and 1.75 inches center to enclosure spacing for ceramic standoffs.

TIS 402 Addendum 1:



Additional Instructions for Splicing Lifeline® MC/RC90 Cables with 350MCM Conductors Using Ceramic Standoffs

TABLE 5
Lifeline MC/RC90 Cable*

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number (Kit P/N:CUSLMC03350)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMC01350	350MCM	1	0.98	1.35	RTKSS-125-8-LNSS	1.25	12 X 12 X 6
LMC03350	350MCM	3	2.04	2.48	RTKSS-250-19-LNSS	2.50	24 x 18 x 6 or 18 x 24 x 6
LMC04350	350MCM	4	2.26	2.73	RTKSS-250-20-LNSS	2.50	24 x 18 x 6 or 18 x 24 x 6
LMC01300	300MCM	1	0.93	1.27	RTKSS-125-8-H-LNSS	1.25	12 x 12 x 6

TABLE 6
Jacketed Lifeline MC/RC90 Cable*

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number (Kit P/N:CUSLMCJ03350)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Nominal Jacket Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMCJ01350	350MCM	1	0.98	1.35	1.45	RTKSS-125-8-LNSS	1.25	12 X 12 X 6
LMCJ03350	350MCM	3	2.04	2.48	2.63	RTKSS-250-19-LNSS	2.50	24 x 18 x 6 or 18 x 24 x 6
LMCJ04350	350MCM	4	2.26	2.73	2.88	RTKSS-250-20-LNSS	2.50	24 x 18 x 6 or 18 x 24 x 6
LMCJ01300	300MCM	1	0.93	1.27	1.37	RTKSS-125-8-H-LNSS	1.25	12 x 12 x 6

³ Enclosure sizes used for splicing are based on 1-in-1-out scenario and must be sized in accordance with NFPA 70, Article 314.28 for USA installations or Canadian Electrical Code for Canada installations or with these instructions, whichever is larger. In case of splicing scenarios other than 1-in-1-out, please contact na.lifeline@prysmian.com for enclosure sizing.

Thomas & Betts Blackburn® Copper Compression Connector for 350MCM Conductor

• Use Cat Number: 256-30695-112 (Note: connectors are included in splice kit)

TABLE 7
NEMA 4X Enclosures

Enclosure (W x H x D)	Selco Mfg Model Number ⁵	Resolve One Model Number ⁶
12 X12 X 6 - inch	NE4X-121206-F-BP	AB-R121206JHFX3T304HT
24 x 18 x 6 - inch	NE4X-241806-F-BP	AB-R241806HFX3T304HT
18 x 24 x 6 - inch	NE4X-182406-F-BP	AB-R182406HFX3T304HT

⁵ Selco NEMA 4X Enclosures may only be used in 480 volt USA installations per FHIT No. 50A

⁶ Resolve One NEMA 4X Enclosures may be used in both 480 volt USA installations per FHIT No. 50A and 600 volt Canada installations per FHIT7 No. 51A

TIS 402 Addendum 2:



Additional Instructions for Splicing Lifeline® MC/RC90 Cables with Four 2AWG Conductors and Four 10AWG Grounding Conductors Using Ceramic Standoffs and Copper Grounding Bar

Scope

This addendum provides additional installation instructions for splicing four conductor 2AWG cables with 10AWG grounding conductors, part numbers LMC04002-0410 and LMCJ04002-0410. Most of the installation procedure of TIS 402 applies to these two constructions and this addendum only includes the necessary additional instructions which are related to proper termination of the four 10AWG grounding conductors.

Material Needed and Not Supplied

- Copper ground bar, Ilco Cat. No D167-8
- Stainless steel bolt, $\frac{3}{4}$ " X $\frac{1}{4}$ -28
- Stainless steel split washer, 0.025" X 0.5"
- Lifeline® MC/RC90 Splice Kit(s)
- UL Listed NEMA 4X stainless steel enclosure with mounting plate. Enclosure model numbers & manufacturers for USA or Canada installations provided in NEMA 4X Enclosures Table.
- REMKE PowR-Tech™ stainless steel metal clad cable connectors
- Stainless steel connector locking nut

Tools Needed

- Tap, $\frac{1}{4}$ -28
- Tap wrench
- Small flat head screw driver

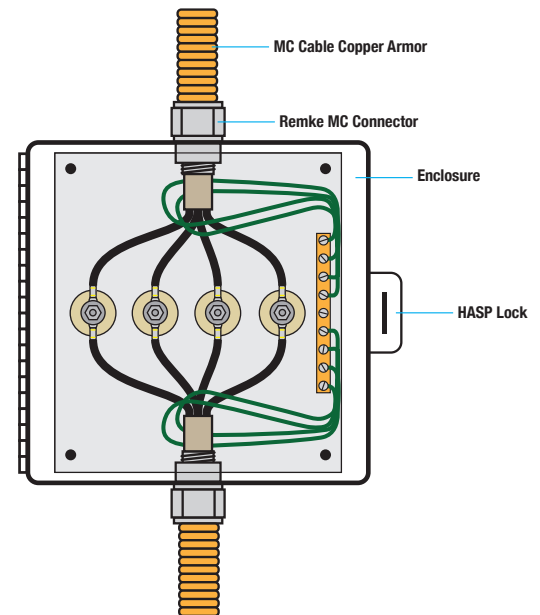
Installation

Mounting Enclosure and Ceramic Standoffs

- Mounting holes should be drilled to maintain at least 1.75 inches center to center spacing for all components and 1.375-inch center to enclosure spacing for ceramic standoffs. The ground bar should be aligned lengthwise with the cable installation orientation, parallel to and approximately one inch from the enclosure wall as shown in figure the right.
- Prior to installing the ground bar, a 14-28 tap should be run through the two partially threaded holes.
- Install components with bolts through panel. Split washers should be installed between bolt head and panel. Ceramic standoffs required $\frac{1}{4}$ -20 bolts and ground bar requires $\frac{3}{4}$ inch long $\frac{1}{4}$ -28 bolts.

Securing Cable

- Remove 16 inches of armor for sufficient conductor length within enclosure to run and terminate ground conductors.



TIS 402 Addendum 2:



Additional Instructions for Splicing Lifeline® MC/RC90 Cables with Four 2AWG Conductors and Four 10AWG Grounding Conductors Using Ceramic Standoffs and Copper Grounding Bar

Lifeline MC/RC90 Cable*

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number
(Kit P/N:CUSLMC04002-0410)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMC04002-0410	2 and 10	4 and 4	1.20	1.57	RTKSS-125-10-LNSS	1.25	10 X 10 X 6

Jacketed Lifeline MC/RC90 Cable*

* When ordering the Lifeline® MC/RC90 Splice kit, please specify by **adding** the prefix **CUS** to the Part Number
(Kit P/N:CUSLMCJ04002-0410)

Part Number	Conductor Size (AWG/MCM)	Number of Conductors	Nom. Core Diameter (in)	Nom. Armor Diameter (in)	Nom. Jacket Diameter (in)	Remke Connector (Cat. No.)	Remke Connector Hub Size (in)	Recommended Enclosure Size ³ (W x H x D)
LMCJ04002-0410	2 and 10	4 and 4	1.20	1.57	1.69	RTKSS-125-10-LNSS	1.25	10 X 10 X 6

³ Enclosure sizes used for splicing are based on 1-in-1-out scenario and must be sized in accordance with NFPA 70, Article 314.28 for USA installations or Canadian Electrical Code for Canada installations or with these instructions, whichever is larger. In case of splicing scenarios other than 1-in-1-out, please contact na.lifeline@prysmian.com for enclosure sizing.

Thomas & Betts Blackburn® Copper Compression Connector for 2AWG Conductor

• Use Cat Number: 54107 (Note: connectors are included in splice kit)

NEMA 4X Enclosures

Enclosure (W x H x D)	Selco Mfg Model Number ⁵	Resolve One Model Number ⁶
10 X10 X 6	NE4X-101006-F-BP	AB-R101006JHFX3T304HT

⁵ Selco NEMA 4X Enclosures may only be used in 480 volt USA installations per FHIT No. 50A

⁶ Resolve One NEMA 4X Enclosures may be used in both 480 volt USA installations per FHIT No. 50A and 600 volt Canada installations per FHIT7 No. 51A