

MS²™ Modular Splicing Rigs and Equipment



MS²™ Series Modular System Splicing tools and equipment are easy to use in any kind of splicing operation, regardless of the environment or working conditions.

By designing system components and techniques that are basically interchangeable, we are able to simplify the splicing task and eliminate potential inventory headaches.

Included in the system are detailed step-by-step instructions for every kind of splicing application, parts and components which are difficult to misuse, and testing equipment which assures splice accuracy.

Systemized splicing technology

MS² Modular System Splicing simplifies wire joining and terminating operations by allowing many jobs to be performed with the same basic components, tools, and techniques. That's why any one of five standard splicing rigs with MS² Splicing Modules could meet all your multi-pair splicing requirements in inside or outside plant — new construction, cable rearrangements or maintenance.

Easily-learned procedures, designed to assure both splicing accuracy and good housekeeping, make all of the system's components simple to master.



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Product Referral Generator

| | |
|------------------------|---------|
| Buried Closures | pg. 128 |
| Compounds/Encapsulants | pg. 179 |
| Tapes & Sealing | pg. 183 |
| Shield Bonding | pg. 197 |



Features — Benefits

| | |
|---|---|
| Built-in seat/lid | Comfortable place to sit while working, easy to transport |
| Self-contained, pistol-gripped MS ² 4036-25 Hand Hydraulic Crimper | Quick crimping of MS ² Splices |
| Comfortable workbelt | Provides easy access to tools |
| Loaded weight of only 25 lbs. | Lightweight; easy to transport |

4020-M Splicing Rig

The 4020-M Splicing Rig is a splicing rig designed for one-person fold-back or inline splicing. The 4020-M Splicing Rig contains the same components as the 4021-M Splicing Rig except the crimping unit.

4021-M Splicing Rig



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The 4021-M Splicing Rig is a complete splicing rig designed for one-person fold-back or inline splicing.

4021-M/36 Splicing Rig

The 4021-M/36 Splicing Rig is a complete splicing rig designed for one-person fold-back or inline splicing. This rig contains the 4036-25 Hand Crimper.

4021-M2 Splicing Rig

The 4021-M2 Splicing Rig is the same as the 4021-M rig with the addition of a 4041 Splice Head for easier two-bank inline splicing.

4021-M2/36 Splicing Rig



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The 4021-M2/36 Splicing Rig is a complete splicing rig designed for one-person fold-back or inline splicing. This rig contains the 4036-25 Hand Crimper.

4022-M Splicing Rig

The 4022-M Splicing Rig is a splicing rig that contains two 4040 Splicing Head assemblies and one short traverse bar. It is complete with all components except a crimping unit.

4045-K Universal Splicing Rig



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The 4045-K Universal Splicing Rig is a splicing rig designed for one-person splicing in difficult-to-reach areas.

4045-K/16 Universal Splicing Rig

The 4045-K/16 Universal Splicing Rig is designed for 16-pair, one-person splicing in central office locations.

4045-K/36 Universal Splicing Rig



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The 4045-K/36 Universal Splicing Rig is versatile and designed for one-person splicing in difficult to reach areas. This rig contains the 4036-25 Hand Crimper.

4049 Lite Rig

The MS² 4049 Lite Rig is a complete splicing rig and provides many features and benefits.

4026-A Module Maintenance Kit



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The 4026-A Module Maintenance Kit contains the tools necessary for reentry of Super-Mini and Super Mate Modules.

4027 Super-Mini Reentry Maintenance Kit



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The 4027 Super-Mini Reentry Maintenance Kit is ideal for maintenance and repair work on MS² Super-Mini Modules. After removing the cover or base, the 4051 Wire Insertion and Cut-off Tool can be used to make changes or repairs on conductors.

The cover or base is put back on with an enclosed E-9BM Tool and the module is ready to be tested with the 4047 Probe enclosed in the kit. All tools come in a handy canvas pouch, which has pockets for MS² 4000-D Super-Mini Covers and Bases.

Complete Splicing Rigs and Maintenance Kits



| Product Number For Kits | 4049 | 4020-M | 4021-M | 4021-M/36 | 4021-M2 | 4021-M2/36 |
|---|--|---|--|--|--|--|
| Application | A lightweight portable splicing rig in a pail. Contains 4036-25 Hand/Hydraulic Tool. | Designed for one-person fold-back or inline splicing. | A complete splicing rig designed for one-person fold-back or inline splicing. Contains 4031 Crimper. | A complete splicing rig designed for one-person fold-back or inline splicing. Contains 4036 Crimper. | A complete splicing rig designed for one-person fold-back or inline splicing. Contains 4031 Crimper. | A complete splicing rig designed for one-person fold-back or inline splicing. Contains 4036 Crimper. |
| Kit Components | | | | | | |
| (can be ordered separately; see accessories pg. 18) | | | | | | |
| 4049 Rig Container/Pail | 1 | | | | | |
| 4036 Tool Holder | 1 | | | | | |
| 4028 Rubbermaid Rig Case | | 1 | 1 | 1 | 1 | 1 |
| 4031 Hand/Hydraulic Crimping Unit | | | 1 | | 1 | |
| 4036-25 Hand Crimper | 1 | | | 1 | | 1 |
| 4041 SH Splice Head Holder | 1 | | | | | |
| 4040 Splicing Head Assembly Includes: | | | | | | |
| 4041 Splicing Head | | 1 | 1 | 1 | 2 | 2 |
| Pedestal | | 1 | 1 | 1 | 1 | 1 |
| Traverse Clamp Assembly With Long Bar | | 1 | 1 | 1 | 1 | 1 |
| Head Clamp | | 1 | 1 | 1 | 1 | 1 |
| 4041-P Splicing Head and "T" Bar Pedestal Support | 1 | | | | | |
| 4042 Support Tube Assembly | | 1 | 1 | 1 | 1 | 1 |
| 4047 Pair Test Plug | | 1 | 1 | 1 | 1 | 1 |
| 4051 Wire Insertion Tool | 1 | 1 | 1 | 1 | 1 | 1 |
| 4052T Tester Check Comb | 1 | 2 | 2 | 2 | 2 | 2 |
| 4053 Cover Removal Tool | | 1 | 1 | 1 | 1 | 1 |
| Short Traverse Bar | | 1 | 1 | 1 | 1 | 1 |
| 4049 Variable Traverse Brace Assembly | 1 | | | | | |
| Ordering Information | | | | | | |
| Product number | 4049 | 4020-M | 4021-M | 4021-M/36 | 4021-M2 | 4021-M2/36 |
| Packaging 1/cs. kg (lbs.) | 11.3 (25) | 20 (44) | 24.95 (55) | 25.0 (55) | 25.4 (56) | 25.4 (56) |
| Minimum order | 1 each [461943] | 1 each [635933] | 1 each | 1 each | 1 each | 1 each [317017] |
| UPC | 054007-92719 | 054007-30251 | 054007-30252 | 054007-91750 | 054007-98506 | 054007-91748 |

Complete Splicing Rigs and Maintenance Kits



| Product Number For Kits | 4022-M | 4026-A | 4026-16 | 4027 | 4045-K | 4045-K/36 | 4045-K/16 |
|-------------------------|--|--|--|--|--|---|--|
| Application | A complete rig designed for two-person fold-back or inline splicing. Crimper not included. | A complete module maintenance kit for super-mini super mate modules. | A complete maintenance kit for 16 pair super mate modules. | A repair maintenance kit for super-mini modules. | A versatile splicing rig designed for one-person splicing applications. Contains 4031 Crimper. | A versatile rig designed for one-person splicing applications. Contains 4036 Crimper. | A one-person splicing rig for central office applications. Contains 4036-16 Crimper. |

Kit Components

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (can be ordered separately; see accessories pg. 18) | | | | | | | |
| 4005-DPM Bottom Test Plug | | 1 | | | | | |
| 4005-DPM/36PTJ | | 2 | 2 | | | | |
| 4028 Rubbermaid Rig Case | | | | | 1 | 1 | 1 |
| Rubbermaid Case | 1 | | | | | | |
| 4031 Hand/Hydraulic Crimping Unit | | | | | 1 | | |
| 4036-25 Hand Crimper | | | | | | 1 | |
| 4036-16 16-Pair Hand/Hydraulic Tool | | | | | | | 1 |
| 4040 Splicing Head Assembly | | | | | | | |
| Includes: | | | | | | | |
| 4041 Hand Held Splicing Head | 2 | | | | | | |
| Pedestal | 2 | | | | | | |
| Traverse Clamp Assembly With Long Bar | 2 | | | | | | |
| Head Clamp | 2 | | | | | | |
| 4041-P Splicing Head and "T" Bar Pedestal Support | | | | | 1 | 1 | |
| 4042 Support Tube Assembly | 1 | | | | | | 1 |
| 4045 Universal Splicing Head Support Assembly | | | | | 1 | 1 | 1 |
| 4047 Pair Test Plug | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4051 Wire Insertion Tool | 1 | 1 | 1 | | 1 | 1 | 1 |
| 4052T Tester Check Comb | 2 | | | | 1 | 1 | |
| 4053 Cover Removal Tool | 1 | 1 | | | 1 | 1 | 1 |
| 4053-PM/16 Separation Tool | | | 1 | | | | |
| 4270-A Handpresser | | 1 | 1 | | | | |
| Short Traverse Bar | 1 | | | | | | |

Ordering Information

| | | | | | | | |
|---------------------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Product number | 4022-M | 4026-A | 4026-16 | 4027 | 4045-K | 4045-K/36 | 4045-K/16 |
| Packaging 1/cs. kg (lbs.) | 22.6 (49.9) | 5.0 (11.0) | 5.0 (11.0) | .77 (1.7) | 21.6 (47.5) | 21.5 (47.5) | 21.5 (47.5) |
| Minimum order | 1 each [636592] | 1 each [578983] | 1 each [57893] | 1 each [575378] | 1 each [634167] | 1 each [630906] | 1 each [317015] |
| UPC | 054007-30253 | 054007-92307 | 054007-92198 | 054007-32963 | 054007-31172 | 054007-91749 | 054007-57376 |

MS²™ Rig Kit Components



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2. 47



3. 48



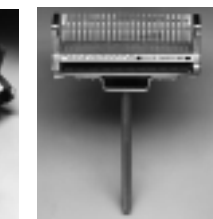
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| # | Product Description | Pkg. kg (lbs.)/cs. | Min. Order | UPC |
|----|--|-------------------------|---------------------|------------------|
| 1. | 4028 Rubbermaid Rig Case 66 x 29.2 x 28.2 cm (26 x 11.5 x 11.1") Cube: 9.8 kg. (21.7 lbs.) Ctn. size: 67.1 x 30 x 58.4 cm (26.4 x 11.8 x 23") | 2/cs. 9.8 (16.5) | 2 each [5716967] | 054007- 77171 |
| 2. | 4030 Air/Hydraulic Crimping Unit The 4030 Air/Hydraulic Crimping Unit is designed for use with an air or nitrogen supply. An air cylinder or compressor with output pressure of 5.37kg/cm 21 (90-100 PSI) must be used. The unit is either hand or operated. | 1/cs. 8.3 (18.2) | 1 each [630869] | 054007- 30183 |
| 3. | 4031 Hand/Hydraulic Crimping Unit The 4031 Hand Crimping Unit is lightweight and hand-operated. When proper crimping pressure is reached, a bypass valve opens. | 1/cs. 6.3 (13.8) | 1 each [631160] | 054007- 30184 |
| 4. | 4035-A Aerial Strand Clamp A 4035-A Aerial Strand Clamp is designed to hold a 4041-P Splicing Head in aerial splicing applications. Anchored to the suspension strand, the aerial strand clamp behind and below the splice bundle and can be used with strands from 5 mm (3/16") diameter to 10 mm (3/8"). | 1/cs. 1.7 (3.7) | 1 each [571876] | 054007- 31917 |
| 5. | 4036-25 Hand Crimper The 4036 Hand/Hydraulic Crimper is a self-contained, pistol-gripped crimper designed to crimp MS ² Modules in the 4041 Splicing Head. | 1/cs. 6.3 (13.8) | 1 each [630351] | 054007- 07240 |
| | 4036-16A 16-pair Hand/ Hydraulic Crimper (not pictured) | | | |
| | This hand-operated, lightweight tool is designed to crimp MS ² 4005-DPM/16 16-pair Modules. | 1/cs. 6.3 (13.8) | 1 each | 054007- 56535 |
| 6. | 4040 Splicing Head Assembly This assembly contains a splicing head, a pedestal, a traverse clamp assembly with a long bar, and a head clamp for use with two man fold-back splicing. | 1/cs. 3.2 (7.1) | 1 each [631158] | 054007- 27822 |
| 7. | 4041 Splice Head The 4041 Splicing Head is the standard MS ² Splicing Head without any support components. | 1/cs. 1.3 (2.9) | 1 each [631161] | 054007- 27823 |
| 8. | 4041-P Splicing Head and "T" Bar Additional Splicing Head and "T" Bar support for use with the MS ² System. | 1/cs. 1.7 (3.7) | 1 each [631159] | 054007- 30266 |
| | 4041-P/16 16-pair Splicing Head and "T" Bar (not pictured) | | | |
| | The 4041-P/16 makes it possible to arrange and hold conductors in their proper locations during the splicing procedure using 4005-DPM/16 Modules. | 1/box, 1/cs. 1.8 (4) | 1 each | 054007- 57040 |

MS²™ Rig Kit Components



| # | Product Description | Pkg. kg (lbs.)/cs. | Min. Order | UPC |
|---|--|------------------------------|---------------------|--------------|
| 9. 4045 Universal Splicing Head Support Assembly | | | | |
| | The 4045 Universal Splicing Head Support Assembly is designed to hold an MS ² Splicing Head so it can be used in all applications. | 1/cs. 3.2 (7) | 1 each [630906] | 054007-30219 |
| 10. 4046 Split Support Tube | | | | |
| | Collapsible for easy transport and set up. | 1/cs. 3.2 (7) | 1 each | 054007-17626 |
| 11. 4047 Pair Test Plug | | | | |
| | This plug is a module probe which permits one pair checking without damaging wire insulation. The prongs fit the test entry port of all MS ² modules. The cord permits easy connection to a talk block or test set. | 1/box 10/cs. 1.0 (2.3) | 10 each [576724] | 054007-30220 |
| 12. 4051 Wire Insertion & Cut-Off Tool | | | | |
| | The 4051 tool is used on MS ² modules to replace conductors back into the module. | 1/bag 10/cs. 0.7 (1.5) | 10 each [578816] | 054007-31137 |
| 13. 4052-T In-Head Tester Check Comb | | | | |
| | The check comb eliminates wiring errors by double-checking tip and ring placement prior to crimping and to insulate pairs when using the in-head tester without a cover. | 1/box 10/cs. 0.6 (1.3) | 10 each [576821] | 054007-33796 |
| 14. 4053 Cover Removal Tool | | | | |
| | The 4053 Cover Remote Tool is recommended for removing either bases or covers from 25-pair Super-Mini and Super Mate Modules. | 1/box 10/cs. 0.4 (0.8) | 10 each [578887] | 054007-30185 |
| 15. 4053-PM Separation Tool | | | | |
| | The only recommended tool to separate MS ² Super Mate 4005-DPM/TR Modules from any other module. Note: The 4053 Cover Removal Tool cannot be used with DPM Modules. | 1/cs. 0.6 (1.3) | 1 each [578997] | 054007-34404 |
| 4053 PM/16 Separation Tool (not pictured) | | | | |
| | The only recommended tool to separate MS ² Super Mate 4005-DPM/16 Modules from each other. | 1/cs. 0.6 (1.3) | 1 each | 054007-56536 |
| 16. 4255 Hand Presser & Holster | | | | |
| | Used to plug modules together (max. 2 connectors) with the 4041-HH Hand Held Splice Head. | 1/cs. | 1 each [585512] | 054007-34346 |
| 17. 4270-A Hand Presser | | | | |
| | The 4270-A presser is used to plug up to seven Super Mate Modules together. | 1/cs. 1.5 (3.4) | 1 each [576747] | 054007-71280 |
| 4270-10 Hand Presser* (not pictured) | | | | |
| | | 1/cs. 1.5 (3.4) | 1 each | — |
| 18. 9753-PM Separator Tool* | | | | |
| | | 1/cs. 0.4 (2.0) | 1 each | — |

*International shipments only, source of supply—3M Germany. Contact your local 3M Representative for additional ordering information.



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13. 58



14. 59



15. 60



16. 61



17. 62



18. 63