



Fall Protection

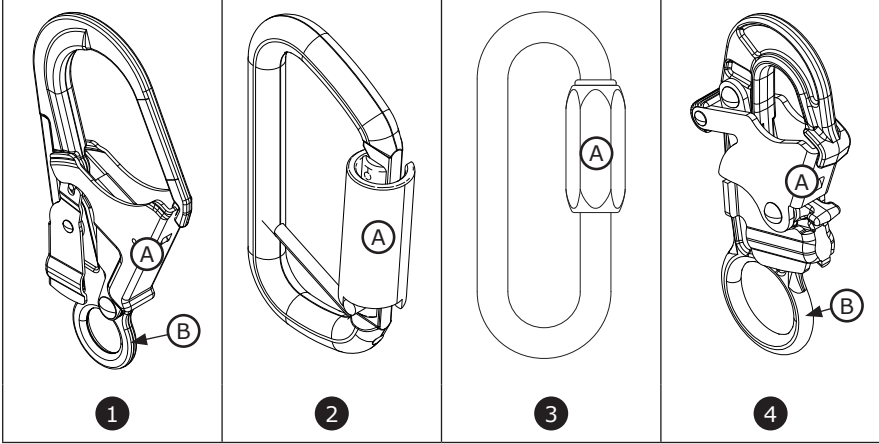
3M Connectors Kit
HOOKS & CARABINERS

USER INSTRUCTIONS
5908511 REV. B

Regulation (EU) 2016/425

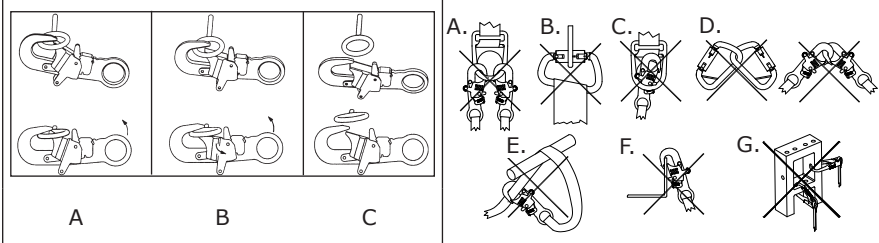
1

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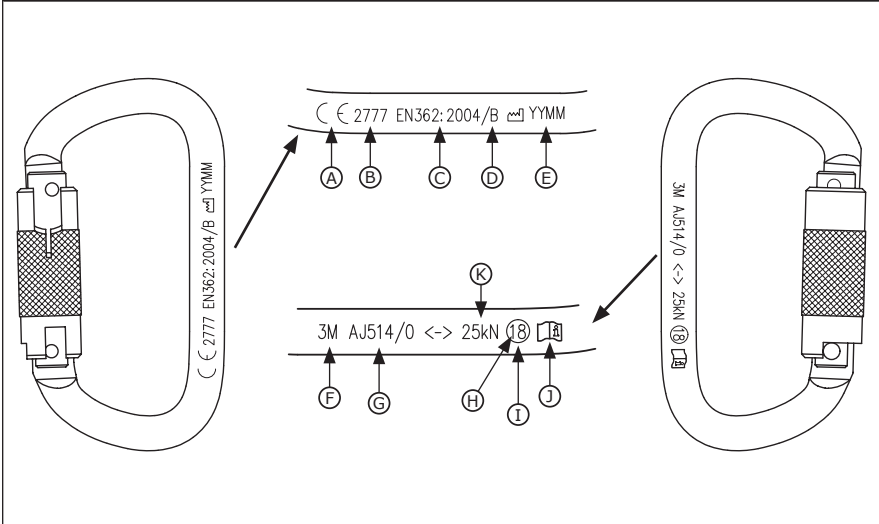


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SAFETY INFORMATION

Please read, understand, and follow all safety information contained in these instructions prior to the use of these 3M Connectors. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

These instructions must be provided to the user of this equipment. Retain these instructions for future reference.

Intended Use:

These 3M Connectors are intended for use as part of a complete personal fall protection system.

Use in any other application including, but not limited to, material handling, recreational or sports related activities, or other activities not described in the User Instructions, is not approved by 3M and could result in serious injury or death.

This device is only to be used by trained users in workplace applications.



WARNING

These 3M Connectors are part of a personal fall protection system. It is expected that all users be fully trained in the safe installation and operation of their personal fall protection system. **Misuse of this device could result in serious injury or death.** For proper selection, operation, installation, maintenance, and service, refer to these User Instructions and all manufacturer recommendations, see your supervisor, or contact 3M Technical Services.

- **To reduce the risks associated with working with 3M Connectors which, if not avoided, could result in serious injury or death:**
 - Inspect the device before each use, at least annually, and after any fall event. Inspect in accordance with the User Instructions.
 - If inspection reveals an unsafe or defective condition, remove the device from service and repair or replace according to the User Instructions.
 - Any device that has been subject to fall arrest or impact force must be immediately removed from service and destroyed.
 - The device must only be installed in the specified substrates or on structures detailed in the User Instructions. Installations and use outside the scope of this instruction must be approved by 3M Fall Protection.
 - The substrate or structure to which the anchorage connector is attached must be able to sustain the static loads specified for the anchor in the orientations permitted in the User Instructions.
 - Only connect other fall protection subsystems to the designated anchorage connection point on the device.
 - Ensure that fall protection systems/subsystems assembled from components made by different manufacturers are compatible and meet the requirements of applicable standards, including the ANSI Z359 or other applicable fall protection codes, standards, or requirements. Always consult a Competent or Qualified Person before using these systems.
- **To reduce the risks associated with working at height which, if not avoided, could result in serious injury or death:**
 - Ensure your health and physical condition allow you to safely work at height. Consult with your doctor if you have any questions regarding your ability to use this equipment.
 - Never exceed allowable capacity of your fall protection equipment.
 - Never exceed maximum free fall distance of your fall protection equipment.
 - Do not use any fall protection equipment that fails pre-use or other scheduled inspections, or if you have concerns about the use or suitability of the equipment for your application. Contact 3M Technical Services with any questions.
 - Some subsystem and component combinations may interfere with the operation of this equipment. Only use compatible connections. Consult 3M prior to using this equipment in combination with components or subsystems other than those described in the User Instructions.
 - Use extra precautions when working around moving machinery (e.g. top drive of oil rigs), electrical hazards, extreme temperatures, chemical hazards, explosive or toxic gases, sharp edges, or below overhead materials that could fall onto you or your fall protection equipment.
 - Use Arc Flash or Hot Works devices when working in high heat environments.
 - Avoid surfaces and objects that can damage the user or equipment.
 - Ensure there is adequate fall clearance when working at height.
 - Never modify or alter your fall protection equipment. Only 3M or parties authorized in writing by 3M may make repairs to the equipment.
 - Prior to use of fall protection equipment, ensure a rescue plan is in place which allows for prompt rescue if a fall incident occurs.
 - If a fall incident occurs, immediately seek medical attention for the worker who has fallen.
 - Do not use a body belt for fall arrest applications. Use only a Full Body Harness.
 - Minimize swing falls by working as directly below the anchorage point as possible.
 - If training with this device, a secondary fall protection system must be utilized in a manner that does not expose the trainee to an unintended fall hazard.
 - Always wear appropriate personal protective equipment when installing, using, or inspecting the device/system.

☒ Before using this equipment, record the product identification information from the ID label in the 'Inspection and Maintenance Log' at the back of this manual.

☒ Always ensure you are using the latest revision of your 3M instruction manual. Visit the 3M website or contact 3M Technical Services for updated instruction manuals.

DESCRIPTION:

3M™ Connectors are designed to be used as end connectors for anchorage systems, in a wide variety of applications. The application of a connector will depend on the type of connector you are using.

Figure 2 illustrates key components of 3M Connectors. The Gate Release (A) opens to enable attachment and removal of the 3M Connector from an anchor point. The Connection Eye (B) provides a second connection point for Class A and Class T Connectors.

Table 1 – Specifications

System Specifications:		
Capacity:	One person with a combined weight (clothing, tools, etc.) of no more than 140 kg (310 lb.) per person.	
Anchorage:	The required Anchorage Strength depends on the application: Anchorage Structure: The concrete structure to which the Anchorage Connector is mounted must be capable of sustaining force in the anticipated direction(s) of loading. Each Anchorage Point location must be capable of sustaining the following values:	
	EN 795	12 kN (2698 lbf)
Dimensions:	See Figure 1 for the dimensions of your 3M Connector.	
Standards:	Designed to meet the test requirements of EN 362.2004.	

Component Specifications:		
Figure 2 Reference	Component	Description
(A)	Gate Release	See Figure 1 for specifications.
(B)	Connection Eye	Present only on Class A and Class T Connectors.

Connector Specifications:		
Connector Type:	Your 3M Connector will be one of four classes: A, B, Q, or T, as defined by EN 362.2004. Please see Figure 1 for information specific to your 3M Connector.	
	Figure 2 Reference	Connector Type
	1	Class A
	2	Class B
	3	Class Q
	4	Class T
Description		
	Anchor Connector	
	Basic Connector	
	Screwlink Connector	
	Termination Connector	

1.0 PRODUCT APPLICATION

- 1.1 PURPOSE:** 3M Connectors are designed to be used as anchorage connectors for Fall Arrest¹ or Fall Restraint² systems: Restraint, Work Positioning, Personnel Riding, Rescue, etc.

☒ **Fall Protection Only:** This 3M Connector is for connection of Fall Protection Equipment. Do not connect Lifting Equipment to this 3M Connector.

- 1.2 STANDARDS:** Your 3M Connector conforms to the national or regional standard(s) identified on the front cover of these instructions. If this product is resold outside the original country of destination, the re-seller must provide these instructions in the language of the country in which the product will be used.
- 1.3 SUPERVISION:** Use of this equipment must be supervised by a Competent Person³.
- 1.4 TRAINING:** This equipment must be installed and used by persons trained in its correct application. This manual is to be used as part of an employee training program as required by CE. It is the responsibility of the users and installers of this equipment to ensure they are familiar with these instructions, trained in the correct care and use of this equipment, and are aware of the operating characteristics, application limitations, and consequences of improper use of this equipment.
- 1.5 RESCUE PLAN:** When using this equipment and connecting subsystem(s), the employer must have a rescue plan and the means at hand to implement and communicate that plan to users, authorized persons⁴, and rescuers⁵. A trained, on-site rescue team is recommended. Team members should be provided with the equipment and techniques to perform a successful rescue. Training should be provided on a periodic basis to ensure rescuer proficiency.
- 1.6 INSPECTION FREQUENCY:** The 3M Connector shall be inspected by the user before each use and, additionally, by a competent person other than the user at intervals of no longer than one year.⁶ Inspection procedures are described in the "Inspection and Maintenance Log". Results of each Competent Person inspection should be recorded on copies of the "Inspection and Maintenance Log".
- 1.7 AFTER A FALL:** If the 3M Connector is subjected to the forces of arresting a fall, it must be removed from service immediately, clearly marked "DO NOT USE", and then destroyed.

2.0 SYSTEM REQUIREMENTS

- 2.1 ANCHORAGE:** Anchorage requirements vary with the fall protection application. The structure to which the 3M Connector is connected as part of a fall arrest or fall restraint system must meet the Anchorage specifications defined in Table 1.
- 2.2 HAZARDS:** Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include, but are not limited to: heat, chemicals, corrosive environments, high voltage power lines, explosive or toxic gases, moving machinery, sharp edges, or overhead materials that may fall and contact the user or Personal Fall Arrest System.
- 2.3 FALL CLEARANCE:** When calculating Fall Clearance for any fall arrest system, the length of the connector being used should be taken into account. For more information on calculating Fall Clearance, please refer to the instructions included with your Lanyard or SRD and Full Body Harness.
- 2.4 SWING FALLS:** Swing Falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as directly below the anchorage point as possible. Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a Self-Retracting Device or other variable length connecting subsystem is used. Please refer to the instructions included with your Lanyard or SRD for more information.

1 Fall Arrest System: A collection of Fall Protection Equipment configured to arrest a free fall.

2 Fall Restraint System: A collection of Fall Protection Equipment configured to prevent the person's center of gravity from reaching a fall hazard.

3 Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

4 Authorized Person: A person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard.

5 Rescuer: Person or persons other than the rescue subject acting to perform an assisted rescue by operation of a rescue system.

6 Inspection Frequency: Extreme working conditions (harsh environments, prolonged use, etc.) may require increasing the frequency of competent person inspections.

2.5 COMPONENT COMPATIBILITY: 3M equipment is designed for use with 3M approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.

2.6 CONNECTOR COMPATIBILITY: Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact 3M if you have any questions about compatibility.

Connectors must comply with EN 362. Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage (see Figure 3). Connectors must be compatible in size, shape, and strength. If the connecting element to which a snap hook or carabiner attaches is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner (A). This force may cause the gate to open (B), allowing the snap hook or carabiner to disengage from the connecting point (C).

2.7 MAKING CONNECTIONS: Snap hooks and carabiners used with this equipment must be self-locking. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

3M connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 4 for examples of inappropriate connections. Do not connect snap hooks and carabiners:

- A. To a D-ring to which another connector is attached.
- B. In a manner that would result in a load on the gate. Large throat snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates, unless the snap hook complies is equipped with a 3,600 lb (16 kN) gate. Check the marking on your snap hook to verify that it is appropriate for your application.
- C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor, and without visual confirmation seems to be fully engaged to the anchor point.
- D. To each other.
- E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).
- F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.
- G. In a manner that does not allow the connector to align properly while under load.

3.0 INSTALLATION

☒ *Installation of the 3M Connector must be supervised by a Qualified Person¹. The installation must be certified by a Competent Person as meeting the criteria for a Certified Anchorage, or that it is capable of supporting the potential forces that could be encountered during a fall.*

3.1 PLANNING: Plan your fall protection system prior to installation of the 3M Connector. Account for all factors that may affect your safety before, during and after a fall. Consider all requirements, limitations and specifications defined in Section 2 and Table 1.

3.2 ATTACHMENT: It is recommended that 3M Connectors with a self-closing or manual-locking gate be used only in situations where the user does not have to attach and remove the connector frequently.

☒ *Screwlink connectors (Class Q) are only safe for use when the screw-motion gate is fully closed. The gate is fully closed when it can be tightened no further.*

4.0 USE

4.1 BEFORE EACH USE: Verify that your work area and Personal Fall Arrest System (PFAS) meet all criteria defined in Section 2 and that a formal Rescue Plan is in place. Inspect the 3M Connector per the 'User' inspection points defined on the "Inspection and Maintenance Log" (Table 2). If inspection reveals an unsafe or defective condition, do not use the system. Remove the system from service and destroy, or contact 3M regarding replacement or repair.

4.2 FALL ARREST CONNECTIONS: The 3M Connector is used with a Full Body Harness and an Energy Absorbing Lanyard or Self-Retracting Device (SRD). Figure 10 illustrates connection of the Lanyard (A) or SRD (B) between the Harness and 3M Connector. Connect the SRD between the connection eye on the 3M Connector and the back Dorsal D-Ring on the Harness as instructed in the instructions included with the Lanyard or SRD.

5.0 INSPECTION

☒ *After equipment has been removed from service, it may not be returned to service until a Competent Person confirms in writing that it is acceptable to do so.*

5.1 INSPECTION FREQUENCY: The 3M Connector must be inspected at the intervals defined in Section 1. Inspection procedures are described in the "Inspection and Maintenance Log" (Table 2). Inspect all other components of the Fall Protection System per the frequencies and procedures defined in the manufacturer's instructions.

5.2 DEFECTS: If inspection reveals an unsafe or defective condition, or if any doubt should arise as to its condition for safe use, remove the 3M Connector from service immediately. Clearly mark the 3M Connector "DO NOT USE" and destroy it.

5.3 PRODUCT LIFE: The functional life of the 3M Connector is determined by work conditions and maintenance. As long as the product passes inspection criteria, it may remain in service, for up to a maximum of 10 years.

6.0 MAINTENANCE, SERVICE, and STORAGE

6.1 CLEANING: Do not attempt to disassemble the 3M Connector or lubricate any parts. Do not attempt to clean any interior pieces. To clean the 3M Connector:

1. Clean the exterior of the 3M Connector using water and a mild soap solution.
2. Rinse the 3M Connector after wash. Rinse must not exceed 40 C (104 F).
3. After rinse, allow the 3M Connector to air dry. Do not apply heat when wet.
4. Disinfect the 3M Connector, if necessary. A disinfectant should be selected that does not cause damage to the 3M Connector.

6.2 SERVICE: Only 3M or parties authorized in writing by 3M may make repairs to this equipment. If the 3M Connector has been subject to fall force or inspection reveals

an unsafe or defective condition, remove the system from service and destroy.

- 6.3 STORAGE AND TRANSPORT:** When not in use, store and transport the 3M Connector and associated fall protection equipment in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors may exist. Thoroughly inspect components after extended storage.

7.0 LABELS and MARKINGS

- 7.1 LABELS:** Figure 1 contains the informational label for the 3M Connector. Information on the label is as follows:

(A)	EU Type Examination
(B)	Conformity to Type
(C)	Product Material
(D)	Product Weight
(E)	Product Dimensions (A, B, C)
(F)	Gate Type
(G)	Tensile Strength
(H)	Applicable Standard and Connector Type
(I)	Item Number
(J)	Article Number

- 7.2 MARKINGS:** Figure 5 illustrates markings on the 3M Connector. Information provided on each marking is as follows:

(A)	CE Marking of European Conformity
(B)	Number of Notified Body carrying out Conformity to Type
(C)	Applicable Standard
(D)	Connector Type
(E)	Manufactured Year and Month
(F)	Manufacturer
(G)	Article Number
(H)	Gate Opening (in millimeters)
(I)	Material (Circle = Steel, Square = Aluminum)
(J)	Read all instructions.
(K)	Minimum Breaking Strength

Table 2 – Inspection and Maintenance Log

Inspection Date:		Inspected By:	
Components:	Inspection: (See Section 1 for <i>Inspection Frequency</i>)	User	Competent Person¹
3M Connector (Figure 2)	Inspect the Connector for damage, bending, and wear of the metal.	<input type="checkbox"/>	<input type="checkbox"/>
	Inspect the Gate Release (A). Verify that it opens and closes with action of the button. The gate should not stick at any point.	<input type="checkbox"/>	<input type="checkbox"/>
	Inspect the Connector for corrosion. Inspect for cracks or wear that may affect strength and operation.	<input type="checkbox"/>	<input type="checkbox"/>
	Inspect the system components according to the manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>
Labels (Figure 5)	Verify that all labels and markings are present and fully legible.	<input type="checkbox"/>	<input type="checkbox"/>
PFAS and Other Equipment	Additional Personal Fall Arrest System (PFAS) equipment (harness, SRD, etc) that are used with the Anchorage System should be installed and inspected per the manufacturer's instructions.	<input type="checkbox"/>	<input type="checkbox"/>
Serial Number(s):		Date Purchased:	
Model Number:		Date of First Use:	
Corrective Action/Maintenance:	Approved By:	Next inspection due:	
	Date:		
Corrective Action/Maintenance:	Approved By:	Next inspection due:	
	Date:		
Corrective Action/Maintenance:	Approved By:	Next inspection due:	
	Date:		
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	Date:		
Corrective Action/Maintenance:	Approved By:	Next inspection due:	
	Date:		
Corrective Action/Maintenance:	Approved By:	Next inspection due:	
	Date:		

1 Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

GLOBAL PRODUCT WARRANTY, LIMITED REMEDY AND LIMITATION OF LIABILITY

WARRANTY: THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Unless otherwise provided by local laws, 3M fall protection products are warranted against factory defects in workmanship and materials for a period of one year from the date of installation or first use by the original owner.

LIMITED REMEDY: Upon written notice to 3M, 3M will repair or replace any product determined by 3M to have a factory defect in workmanship or materials. 3M reserves the right to require product be returned to its facility for evaluation of warranty claims. This warranty does not cover product damage due to wear, abuse, misuse, damage in transit, failure to maintain the product or other damage beyond 3M's control. 3M will be the sole judge of product condition and warranty options.

This warranty applies only to the original purchaser and is the only warranty applicable to 3M's fall protection products. Please contact 3M's customer service department in your region for assistance.

LIMITATION OF LIABILITY: TO THE EXTENT PERMITTED BY LOCAL LAWS, 3M IS NOT LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.



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EU DECLARATION OF CONFORMITY:
3M.com/FallProtection/DOC