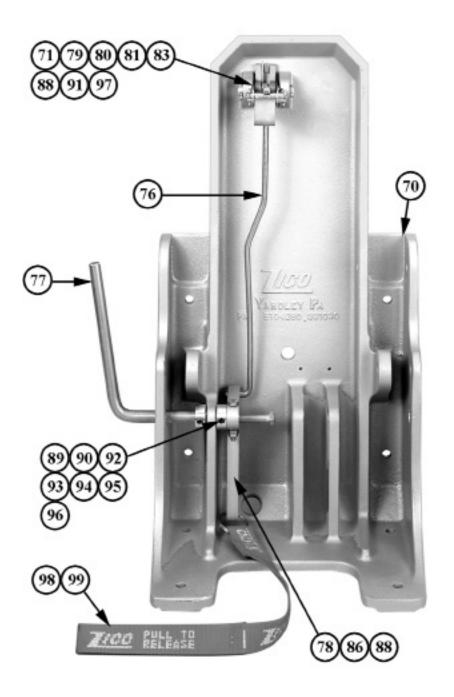
QUIC-LIFT[™] Ladder Access System (LAS) Manual Locking System Field Installation Guide





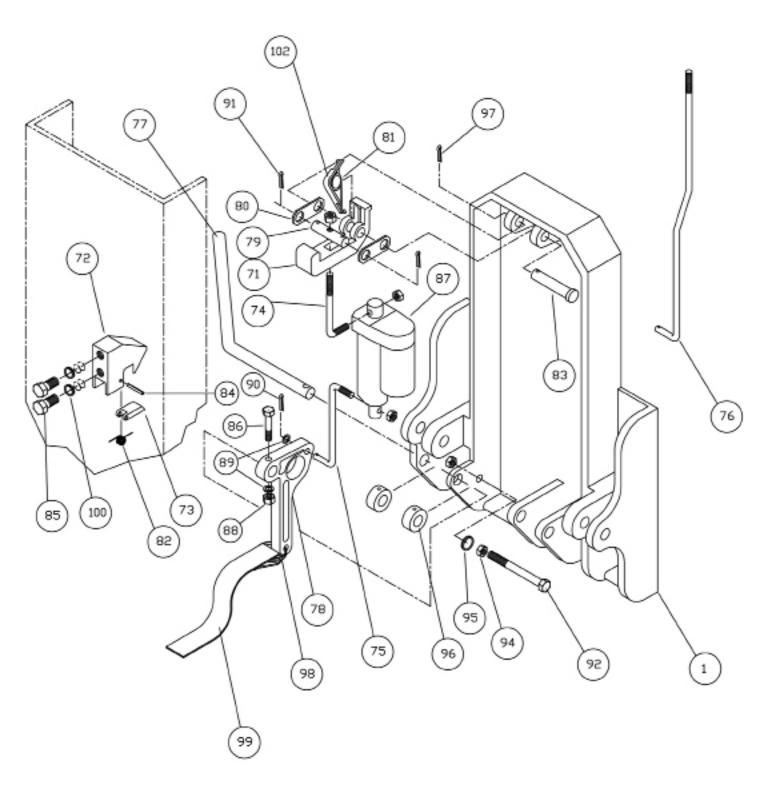
Model LLAS-MLS shown for use with LAS Systems Model LLAS-BHM-MLS is used with LAS-BHM Systems QUIC-LIFT[™] Ladder Access Systems are available with either a manual or electric locking system. This guide covers installation of the manual system.

The standard model LAS base casting was changed on march 23, 1998.

The model LAS-BHM Bulk Head base casting was changed September 16, 1998.

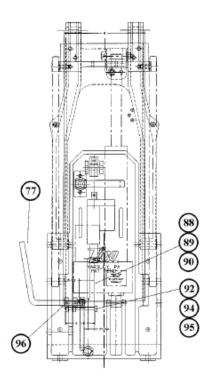
If your system predates the above dates, new base castings will be required for installation of the manual locking system.

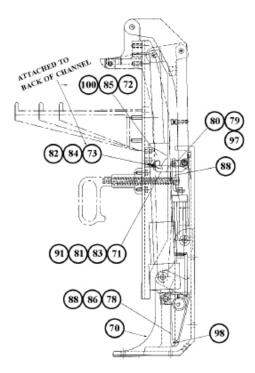
The manual locking system provides a positive means of retaining the ladders.



Use eye protection while working with spring (81) Use extreme care when loading and unloading spring on tool (102) Remove and discard tool after pin (83) is installed When working with Manual System, item (76) replaces items (74) (75) (87)

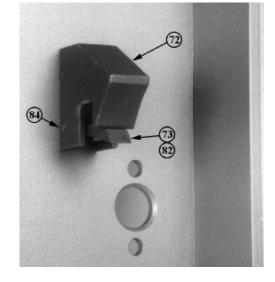
COMPONENT PARTS FOR MANUAL AND ELECTRIC LOCKING SYSTEMS - EXPLODED VIEW





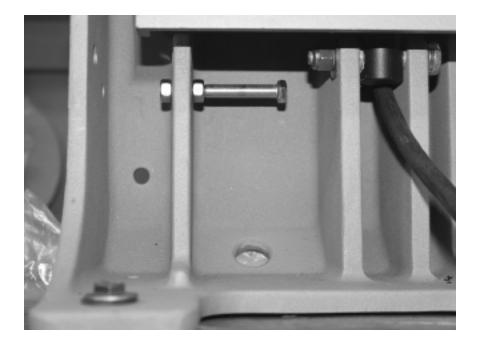
ITEM NO.	PART NO.	DESCRIPTION	QTY.
70	3097-280-101	Base casting for LAS	}1
	3097-107-101	Base casting for LAS-BHM	
71	3097-280-103	Latch casting	1
72	3097-280-105	Hook casting	1
73	3097-280-107	Latch keeper casting	1
76	3097-280-113	Manual rod	1
77	3097-280-115	Handle	1
78	3097-280-117	Crank arm	1
79	3097-280-119	Link pin	1
80	3097-280-121	Link plate	2
81	3097-280-123	Latch spring	1
82	3097-280-125	Keeper spring	1
83	9080-004336	Clevis pin - 7/16 x 2-1/4	1
84	9040-101214	Spring pin - 1/8 x 7/8	1
85	9010-163712	Screw, hex head - 3/8-16 x 3/4 S/S	2
86	9010-332522	Screw, allen - 1/4-20 x 1-3/8	1
88	9013-172500	Nut, self-locking - 1/4-20	2
89	9014-112500	Washer, plain - 1/4 ID	2
90	9070-000608	Cotter pin - 1/16 x 1/2	1
91	9070-000912	Cotter pin - 3/32 x 3/4	2
92	9010-103180	Screw - 5/16-18 x 5	1
94	9013-103100	Nut - 5/16-18	2
95	9014-203100	Washer, lock - 5/16 ID	1
96	3097-280-127	Shaft collar - 1/2"	2
97	9070-001212	Cotter pin - 1/8 x 3/4	1
98	0000-000-120	Key ring - 1"	1
99	3097-280-129	Strap - 1" W x 24" L	1
100	9014-203700	Lockwasher, split - 3/8 ID	2
102	3097-280-131	Spring installation tool	1
103	3097-725-113	Hook spacer shim	3

Hook Casting and Latch Keeper Assembly attached to channel support 3097-105-154 or 3097-105-155. Parts 72, 73, 82, 84 85 & 100.

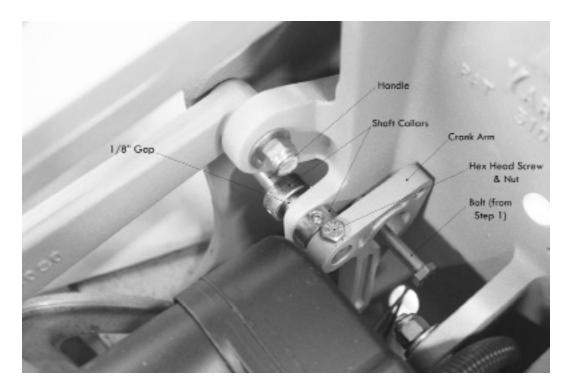


Note: Numbers in parenthesis refer to item numbers (see LAS manual page 34).

1. With ladders removed and system in stored position, install 5-1/16 x 2-3/4 Bolt (92) through LAS Base Casting, then lower system completely.



2. Connect Handle (77) and Crank Arm (78) to LAS Base Casting using two 1/2" Shaft Collars (96), one Hex Head Screw (86), and one 1/4-20 Self-Locking Nut (88). See cover page for additional reference.



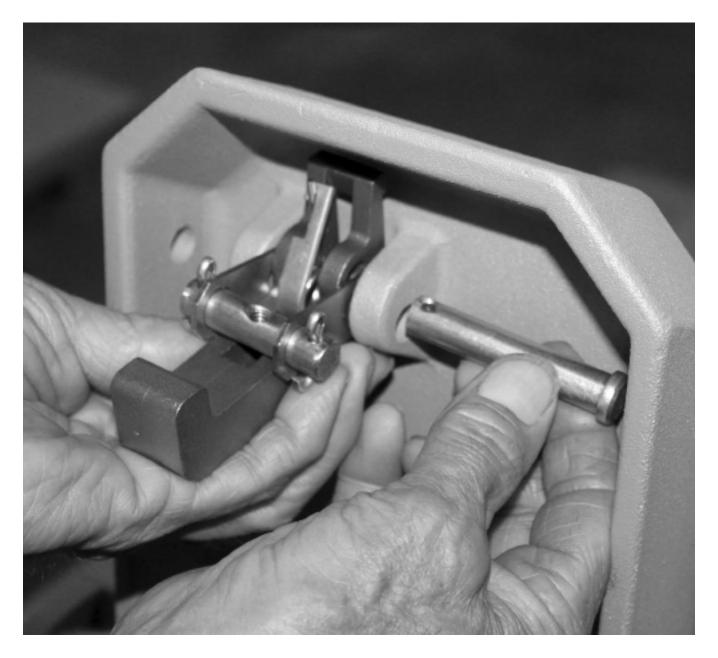
3. Build Sub Assembly by combining Link Plate (80) with Link Pin (79) and Cotter Pin (91), then position Sub Assembly to Latch Casting (71).

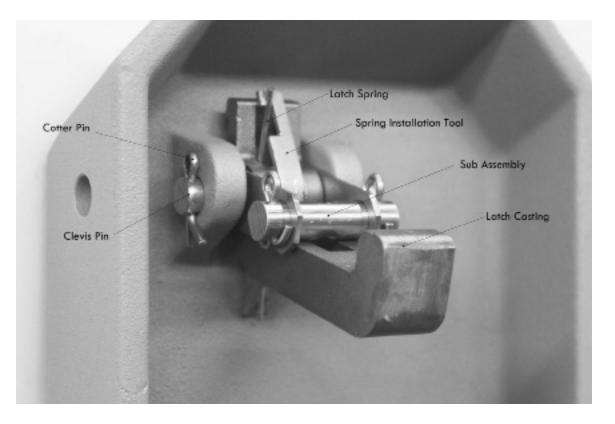


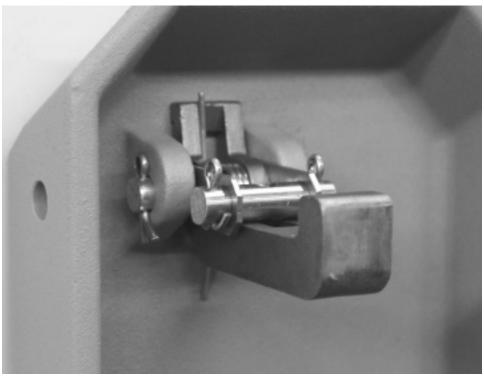
4. Remove shipping ziptie from the Latch Spring (81) and Spring Installation Tool (102).



5. Place Spring Installation Tool (102) with mounted Latch Spring (81), shorter side of spring up, into the Latch Casting as shown. Install Latch Casting with Sub Assembly and Spring Installation Tool into LAS Base Casting using Clevis Pin (83) and Cotter Pin (97). Remove Spring Installation Tool from Latch Spring, leaving Latch Spring in place.





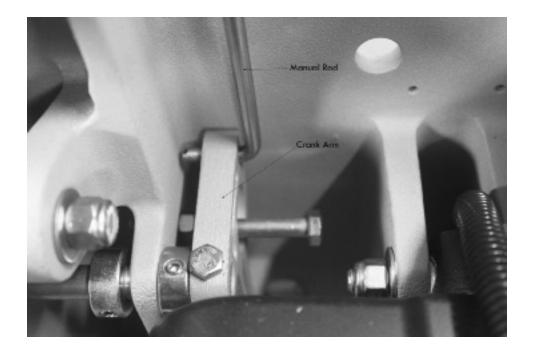


Shown with Spring Installation Tool Removed

- 6. Install the Manual Rod (76).
 - A. Insert threaded end of Manual Rod (76) up through the slot in the Latch Casting (71) and thread it into Link Pin (79) until rod extends out 1/4".



B. Turn the Manual Rod (76) until it engages the hole in the Crank Arm (78).



C. Add Nut (88) to threaded end of Manual Rod through Sub Assembly and tighten.



D. Secure Manual Rod to Crank Arm with Washer (89) and Cotter Pin (90).



E. Push Handle and confirm that latch system is operating properly.



Proper Locked Position

Proper Unlocked Position

7. Install the pre-assembled Hook (72) and Latch Keeper (73) castings to the LAS Channel Support with two Hex Head Bolts (85) and two Lock Washers (100), using the holes provided. Apply striker grease to Hook and Latch Keeper.



Inside View

Outside View

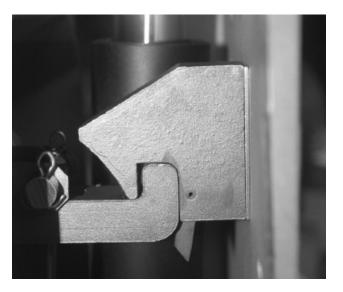
8. Raise LAS system to full "UP" position until actuators ratchet. Looking through the side of the unit, confirm that the Latch Assembly is fully engaging the Hook and Latch Keeper. Lock is properly adjusted if Hook moves towards the Base Casting when lock is unlatched.



Fully Engaged

Not Fully Engaged

9. If Hook is not fully engaging, you can add shims under the hook to adjust. Note: If more than one shim is needed, you'll need to use longer bolts with Hook and Latch Keeper Assembly.



Shown with Shim

10. When unlocking, System will stay unlocked until it is cycled at least 1/3 of the way down and then returned to the full upright position.

