

SERVICE MANUAL

3 SERIES

SERVICE MANUAL

STANLEY BEST ACCESS SYSTEMS

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1 GETTING STARTED

INTRODUCTION

The *B Series Padlock Service Manual* contains essential information to help you assemble, install, and maintain your BEST padlocks. BEST recommends that your lock maintenance personnel be thoroughly familiar with the contents of this manual.

CERTIFICATIONS AND STANDARDS

All of the padlocks comply with ASTM F883 Grade 6 standards for option E.

11B Padlock

- The steel shackle complies with ASTM F883 Grade 1 standards.

21B, 41B Padlocks

- The steel shackle complies with ASTM F883 Grade 4 standards.
- The 21B XSPL shackle complies with ASTM F883 Grade 6 standards for shackle cutting force.

TECHNICAL SUPPORT

Support services

When you have a question about a B Series Padlock, your first resource for help is the *B Series Padlock Service Manual*. If you cannot find a satisfactory answer, contact your local BEST representative.

Telephone technical support

A factory-trained Certified Product Specialist (CPS) is available in your area whenever you need help. Before you call, however, please make sure you are where the padlock is, and that you are prepared to give the following information:

- what happened and what you were doing when the question arose
- what you have done so far to answer the question.

Best Access Systems Representatives provide telephone technical support for all B Series products. You may locate the representative nearest you by calling (317) 849-2250 Monday through Friday, between 7:00 a.m. and 4:00 p.m. eastern standard time; or visit the web page, www.bestaccess.com.

2 COMPONENT REPLACEMENT

The following pages contain exploded diagrams and parts lists for all B Series Padlocks. The diagrams include all field serviceable parts. Use the diagrams and parts lists to find the part numbers that you need. For more information about ordering parts, see your B Series Catalog. This chapter also contains function conversion information, instructions for disassembling and assembling the padlocks, and instructions for lubricating the padlocks.

11B EXPLODED DIAGRAM

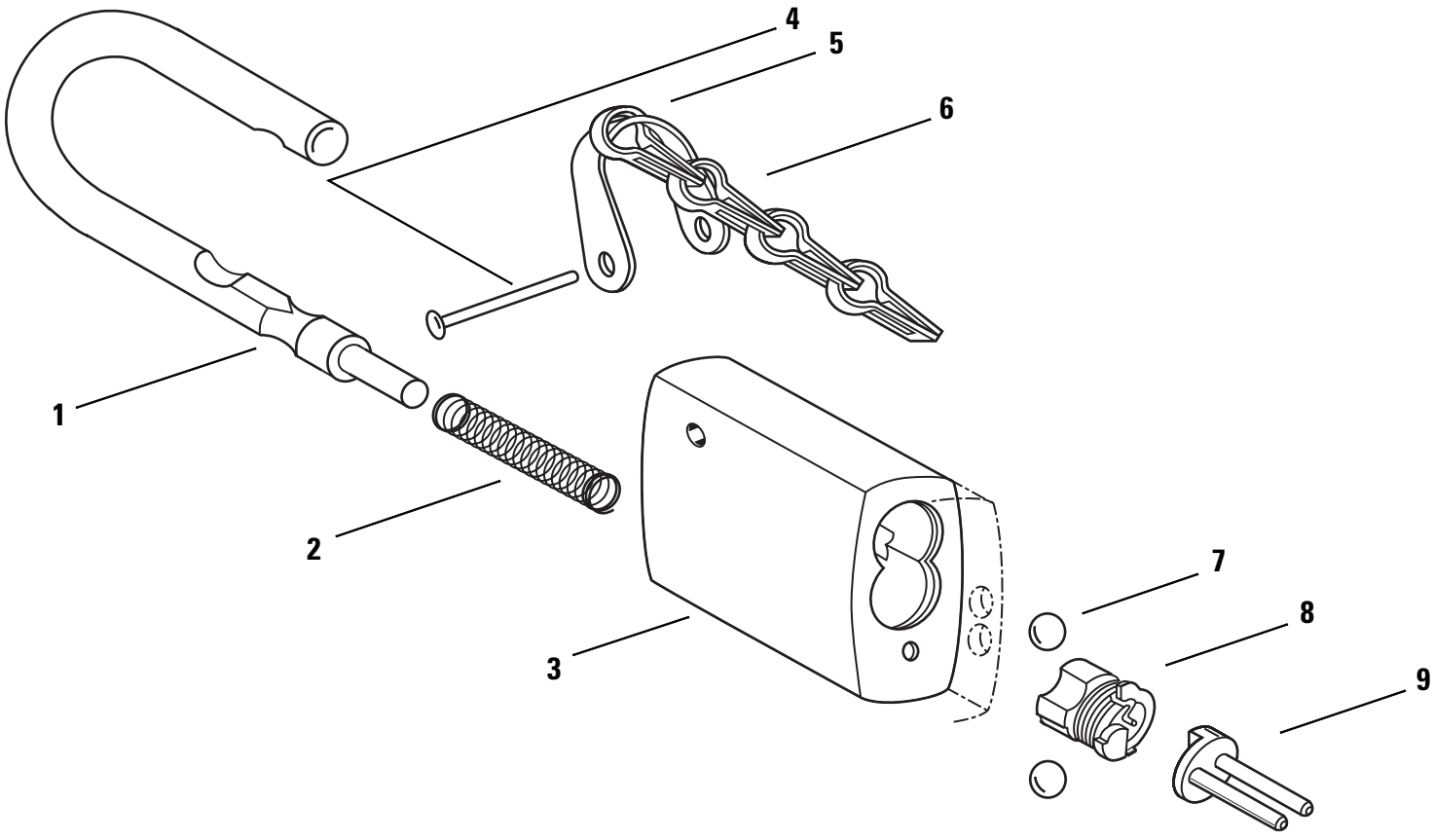


Figure 2.1 11B exploded diagram

11B parts list

Refer to Figure 2.1 and the table below to find the part that you need.

Item	Part No.	Qty.	Description
1	C26195	1	Stainless steel shackle for 3/4″ opening*
not shown	C26197	1	Stainless steel shackle for 1 1/2″ opening
not shown	C26199	1	Stainless steel shackle for 2″ opening
not shown	C26203	1	Stainless steel shackle for 4″ opening
not shown	C26194	1	Bronze shackle for 3/4″ opening
not shown	C26196	1	Bronze shackle for 1 1/2″ opening
not shown	C26198	1	Bronze shackle for 2″ opening
not shown	C26202	1	Bronze shackle for 4″ opening
not shown	C26250	1	Frangible shackle for 1 1/2″ opening
not shown	C26249	1	Frangible shackle for 4″ opening
2	A26193	1	Shackle spring
3	C26179	1	Standard case
	A26265	1	Double lockout case for chain (indicated by dashed lines)
	C26175	1	Double lockout case (indicated by dashed lines)
	A26252	1	Case for chain
4	A26255	1	Clevis rivet
5	B26261	1	Clevis
6	A21417	1	M1 Chain *[there is no distinction between length and bulk for M1 chain like the M5 chain]*
not shown	A21420	1	M5 Chain – 9 inch†
7	A26192	2	Tumbler
8	B26187	1	Locking cam assembly
9	A26177	1	Key retained throw member
not shown	A26185	1	Non-key retained throw member
not shown	A06831	‡	Spacer (For 6-pin or 5-pin core only)
not shown	B70146	1	Colored O.S.H.A. cover**
not shown	C26517	1	Weather cover

* The length of the shackle opening is measured from the top of the case to the inside of the shackle when the padlock is locked.

† To order M5 bulk chain use part number A23121 and specify the length.

‡ One needed for 6-pin core. Two needed for 5-pin core.

** When ordering the O.S.H.A. cover, indicate color: red; yellow; blue; black; orange; or green.

21B EXPLODED DIAGRAM

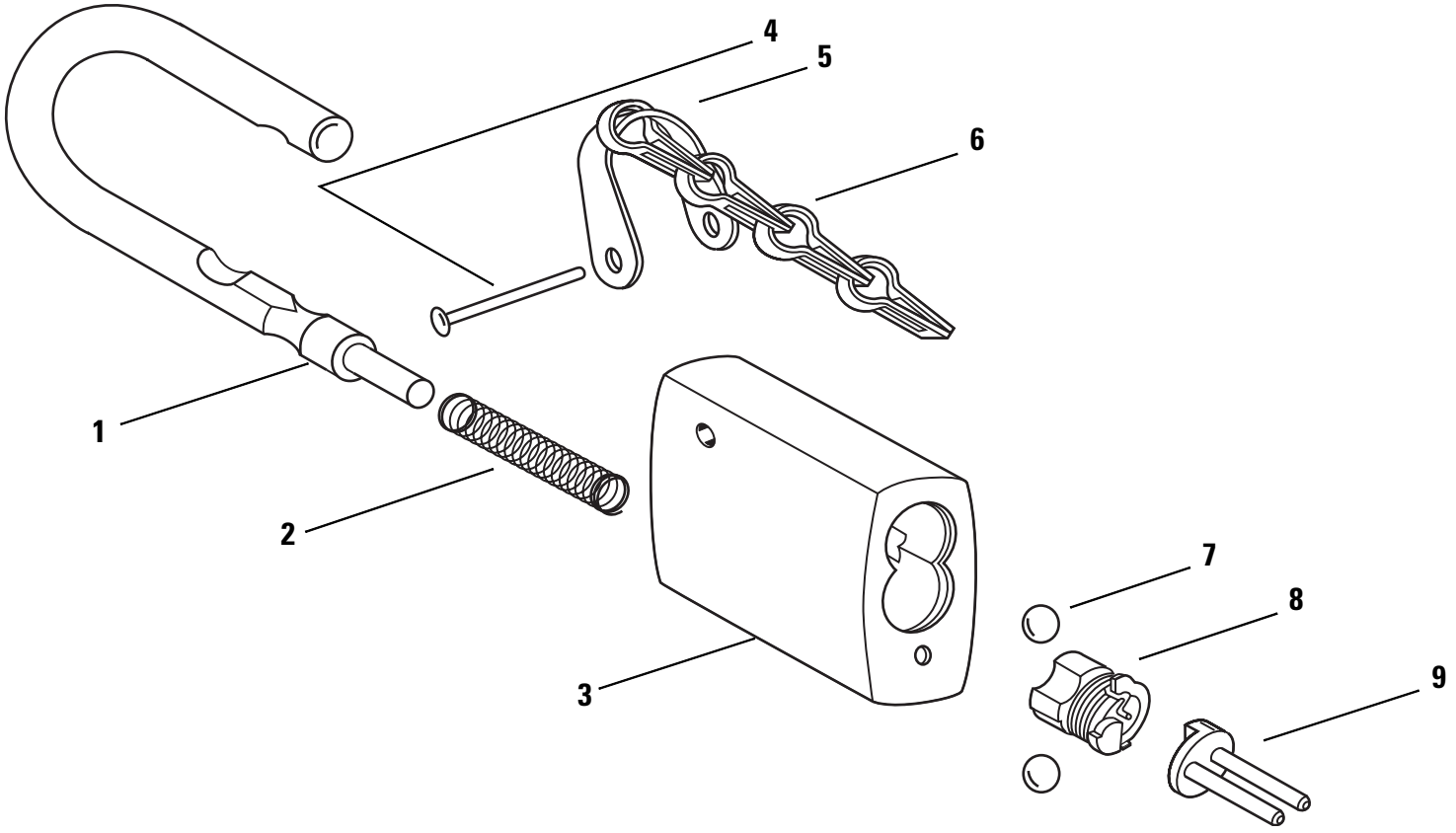


Figure 2.2 21B exploded diagram

21B parts list

Refer to Figure 2.2 and the table below to find the part that you need.

Item	Part No.	Qty.	Description
1	C26211	1	Stainless steel shackle for 3/4″ opening*
not shown	C26213	1	Stainless steel shackle for 1 1/2″ opening
not shown	C26215	1	Stainless steel shackle for 2″ opening
not shown	C26219	1	Stainless steel shackle for 4″ opening
not shown	C26210	1	Bronze shackle for 3/4″ opening
not shown	C26212	1	Bronze shackle for 1 1/2″ opening
not shown	C26214	1	Bronze shackle for 2″ opening
not shown	C26218	1	Bronze shackle for 4″ opening
not shown	C26540	1	Cut-resistant shackle for 3/4″ opening
not shown	C26541	1	Cut-resistant shackle for 1 1/2″ opening
not shown	C26542	1	Cut-resistant shackle for 2″ opening
not shown	C26543	1	Cut-resistant shackle for 4″ opening
2	A26193	1	Shackle spring†
3	A26253	1	Case for chain
not shown	C26180	1	Standard case
4	A26256	1	Clevis rivet
5	B26261	1	Clevis
6	A21417	1	M1 Chain
not shown	A23120	1	M5 Chain – 9 inch‡
7	A26192	2	Tumbler
8	B26187	1	Locking cam assembly
9	A26177	1	Key retained throw member
not shown	A26185	1	Non-key retained throw member
not shown	A06831	**	Spacer (For 6-pin or 5-pin core only)
not shown	B70147	1	Colored O.S.H.A. cover††
not shown	C26518	1	Weather cover
not shown	C81131	1	Shroud
not shown	B81132	1	Shroud pin

* The length of the shackle opening is measured from the top of the case to the inside of the shackle when the padlock is locked.

† Not needed for 21B shrouded.

‡ To order M5 bulk chain use part number A23121 and specify the length.

** One needed for 6-pin core. Two needed for 5-pin core.

†† When ordering the O.S.H.A. cover, indicate color: red; yellow; blue; black; orange; or green.

21B SHROUDED EXPLODED DIAGRAM

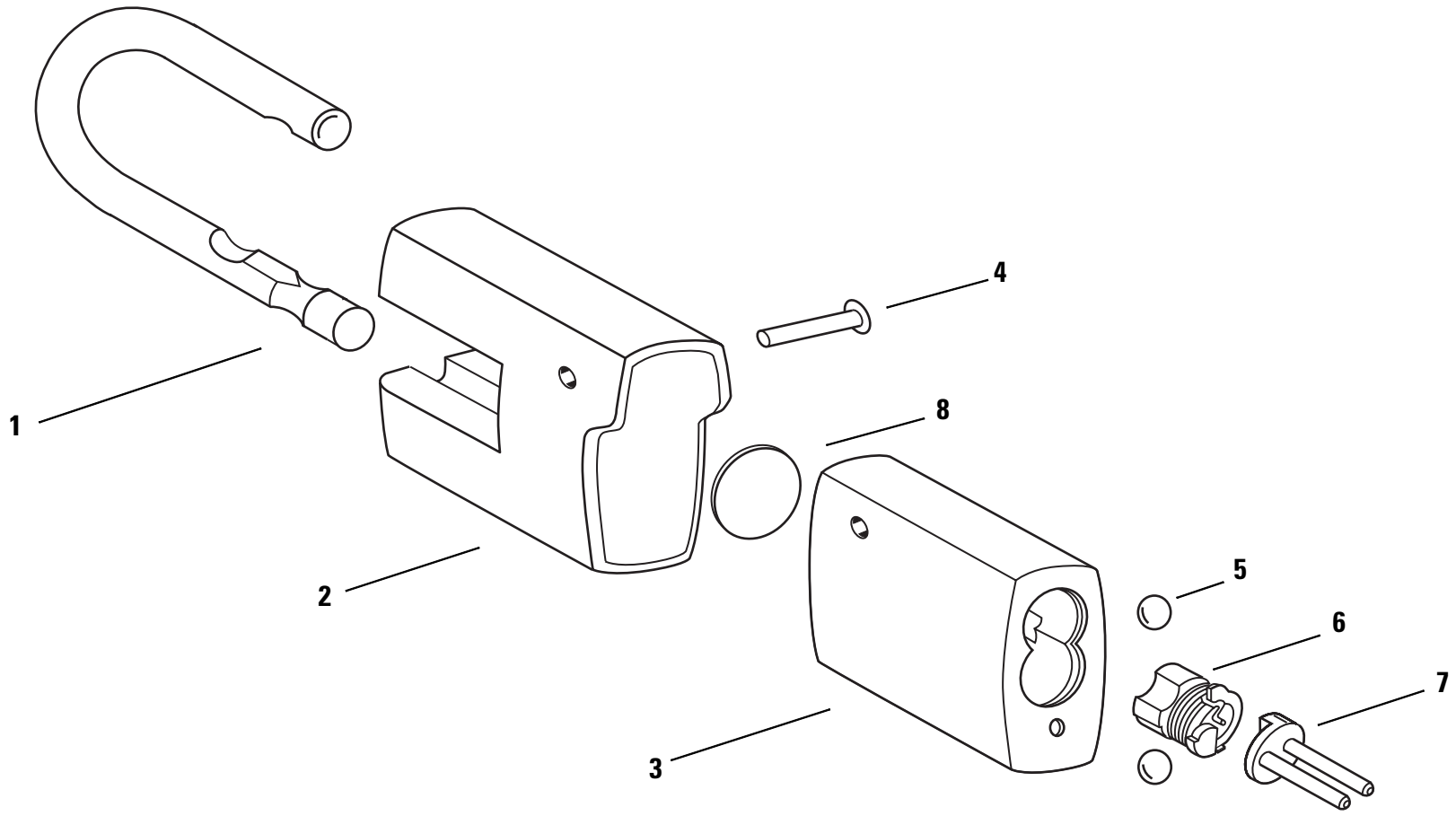


Figure 2.3 21B shrouded exploded diagram

21B shrouded parts list

Refer to Figure 2.3 and the table below to find the part that you need.

Item	Part No.	Qty.	Description
1	C81133	1	Cut-resistant shackle
2	C81131	1	Shroud
3	A26268	1	Case
4	A26257	1	Clevis rivet
5	A26192	2	Tumbler
6	B26187	1	Locking cam assembly
7	A26177	1	Key retained throw member
not shown	A26185	1	Non-key retained throw member
8	A81136	1	Rubber spacer
not shown	A06831	*	Spacer (For 6-pin or 5-pin core only)

* One needed for 6-pin core. Two needed for 5-pin core.

21JB EXPLODED DIAGRAM

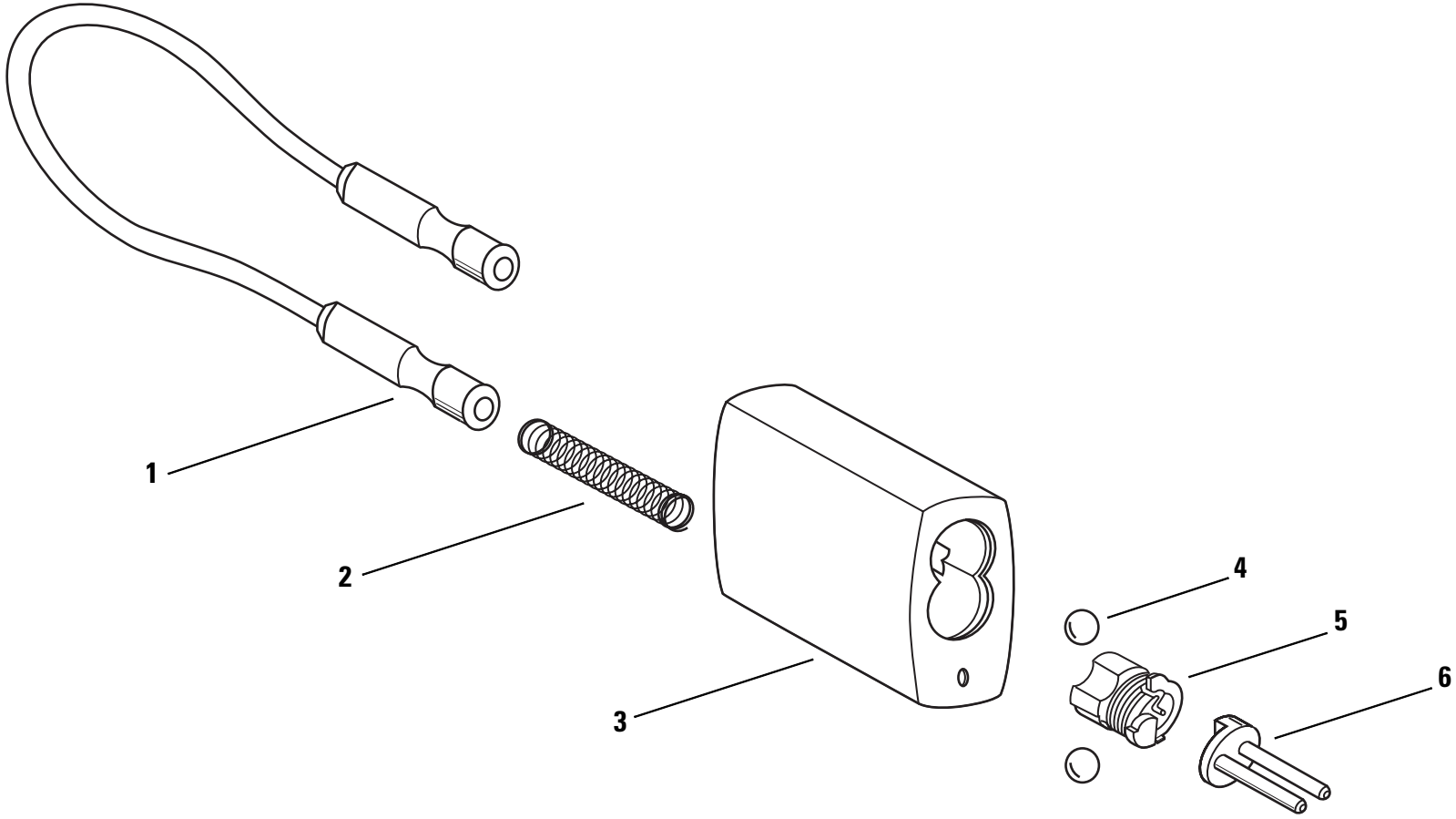


Figure 2.4 21JB exploded diagram

21JB parts list

Refer to Figure 2.4 and the table below to find the part that you need.

Item	Part No.	Qty.	Description
1	B26209*	1	Cable assembly
2	A26193	1	Shackle spring
3	C26180	1	Standard case
4	B26289	1	Locking cam assembly
5	A26192	2	Tumbler
6	A26177	1	Key retained throw member
not shown	A06831	†	Spacer (For 6-pin or 5-pin core only)

* The cable assembly number is determined by the length of the cable ordered. When ordering, indicate number B26209 followed by a dash and the length of the cable in inches.

† One needed for 6-pin core. Two needed for 5-pin core.

41B EXPLODED DIAGRAM

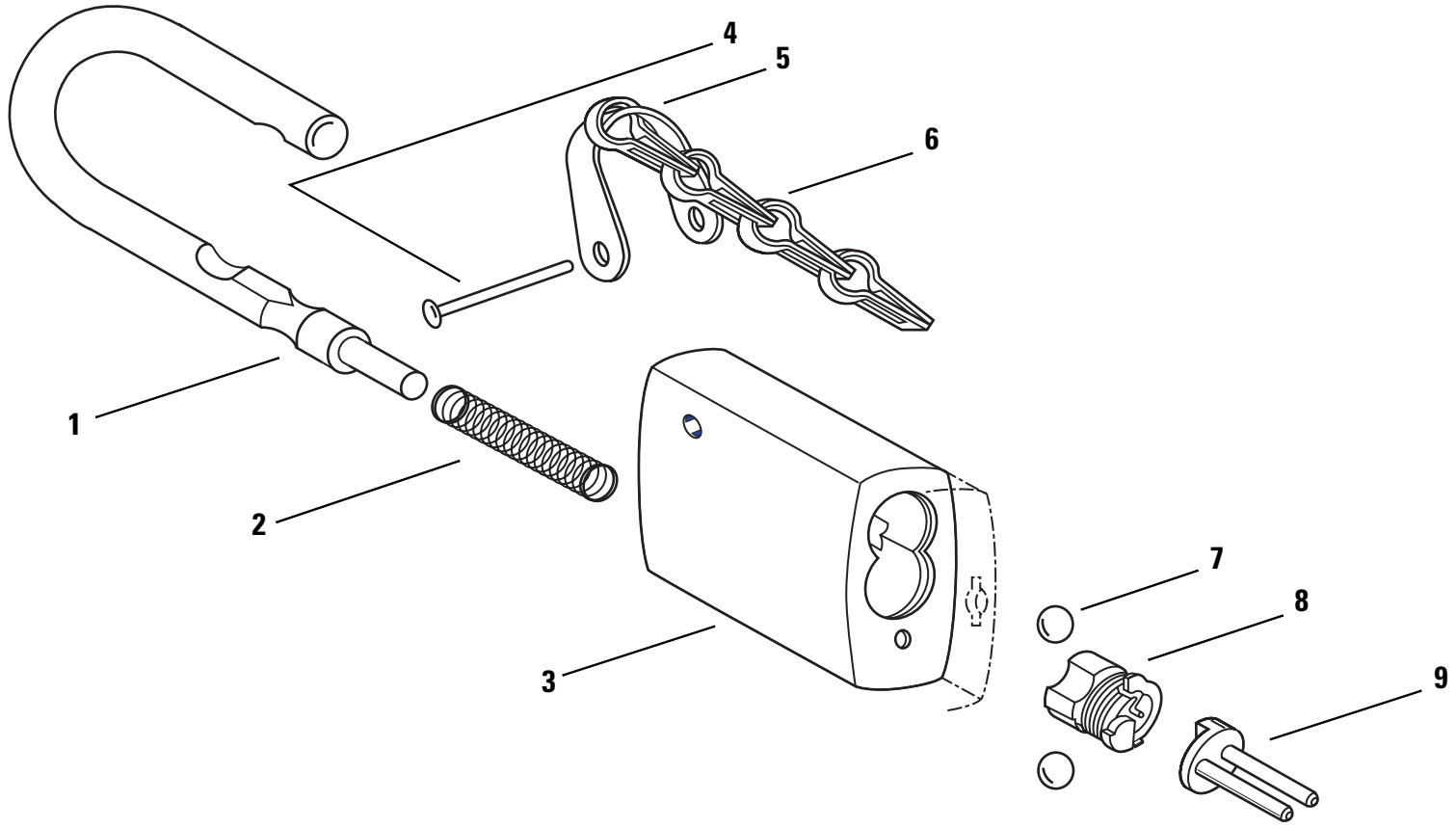


Figure 2.5 41B exploded diagram

41B parts list

Refer to Figure 2.5 and the table below to find the part that you need.

Item	Part No.	Qty.	Description
1	C26227	1	Stainless steel shackle for 3/4″ opening*
not shown	C26229	1	Stainless steel shackle for 1 1/2″ opening
not shown	C26231	1	Stainless steel shackle for 2″ opening
not shown	C26235	1	Stainless steel shackle for 4″ opening
not shown	C26226	1	Bronze shackle for 3/4″ opening
not shown	C26228	1	Bronze shackle for 1 1/2″ opening
not shown	C26230	1	Bronze shackle for 2″ opening
not shown	C26234	1	Bronze shackle for 4″ opening
not shown	C26544	1	Cut-resistant shackle for 3/4″ opening
not shown	C26545	1	Cut-resistant shackle for 1 1/2″ opening
not shown	C26546	1	Cut-resistant shackle for 2″ opening
not shown	C26547	1	Cut-resistant shackle for 4″ opening
2	A26193	1	Shackle spring
3 not shown	C26262	1	Cutaway padlock case
not shown	A26254	1	Case for clevis and chain
not shown	A26266	1	Car seal case for chain
not shown	C26161	1	Car seal case
not shown	C26181	1	Standard case
4	A26257	1	Clevis rivet
5	B26261	1	Clevis
6	A21417	1	M1 Chain
not shown	A23120	1	M5 Chain – 9 inch†
7	A26192	2	Tumbler
8	B26187	1	Locking cam assembly
9	A26177	1	Key retained throw member
not shown	A26185	1	Non-key retained throw member
not shown	A06831	‡	Spacer (For 6-pin or 5-pin core only)
not shown	B70148	1	Colored O.S.H.A. cover**
not shown	C26519	1	Weather cover

* The length of the shackle opening is measured from the top of the case to the inside of the shackle when the padlock is locked.

† To order M5 bulk chain use part number A23121 and specify the length.

‡ One needed for 6-pin core. Two needed for 5-pin core.

** When ordering the O.S.H.A. cover, indicate color: red; yellow; blue; black; orange; or green.

MISCELLANEOUS PARTS

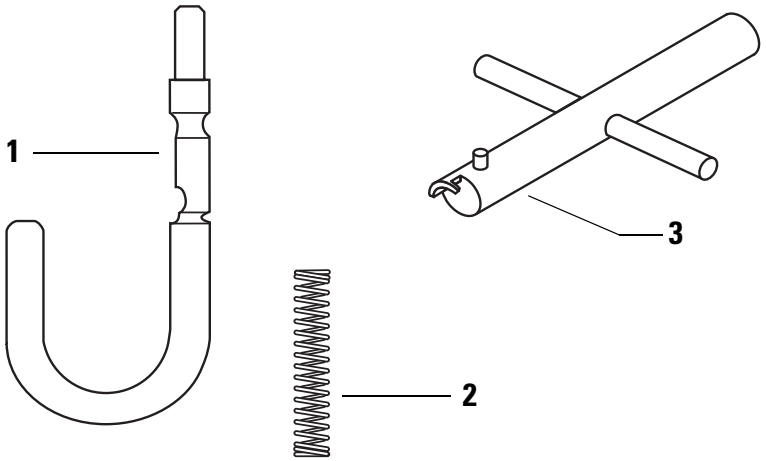


Figure 2.6 11B Frangible Shackle Kit

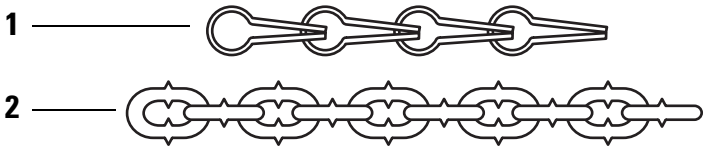


Figure 2.7 Chains

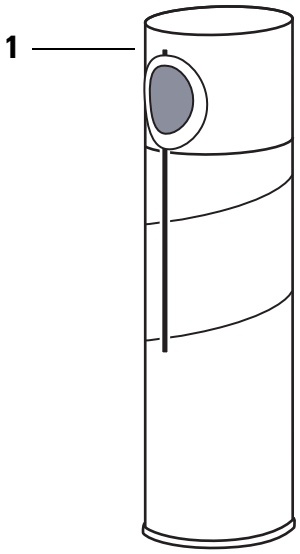


Figure 2.8 Corrosion Free Lubricant

11B Frangible Shackle Kit parts list

Refer to Figure 2.6 and the table below to find the part that you need.

Item*	Part. No.	Qty.	Description
1	C26249	3	Shackle
2	A26193	3	Shackle spring
3	A26270	1	Disassembly tool

* These parts can be ordered as a kit by indicating part number is B26290.

Chains parts list

Refer to Figure 2.7 and the table below to find the part that you need.

Item	Part No.	Description
1	A21417	M1 Bronze chain
2	A23120	M5 Galvanized steel chain with gray plastic polycoat covering – 9 inch (10 links)
not shown	A23121	M5 Galvanized steel chain with gray plastic polycoat covering – bulk; specify length

Lubricant parts list

Refer to Figure 2.8 and the table below to find the part that you need.

Item	Nomenclature	Description
1	BD660	Corrosion Free Formula 8000 Industrial Lubricant

FUNCTION CONVERSION

To convert the function of 11B, 21B, and 41B Padlocks, change the throw member:

- to convert to key retained, order part number A26177.
- to convert to non-key retained, order part number A26185.

Figure 2.9 shows the available throw members. To remove and replace the throw member, see *Disassembling the 11B, 21B, 21JB, and 41B Padlocks on page 2-15* and *Assembling the 11B, 21B, 21JB, and 41B Padlocks* on page 2-16.

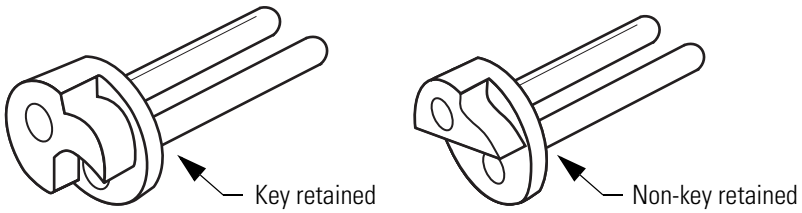


Figure 2.9 11B, 21B, and 41B throw members

DISASSEMBLING AND ASSEMBLING PADLOCKS

Disassembling the 11B, 21B, 21JB, and 41B Padlocks

To disassemble the 11B, 21B, 21JB, and 41B Padlocks, perform the following steps:

1. If there is a dust cover assembly on the lock, unscrew the screw and remove the dust cover with the rubber seal and dust cover hinge.
2. With the padlock in the locked position, insert the control key into the core and rotate the key to the right. Remove the core and throw member from the core receptacle, as shown in Figure 2.10.

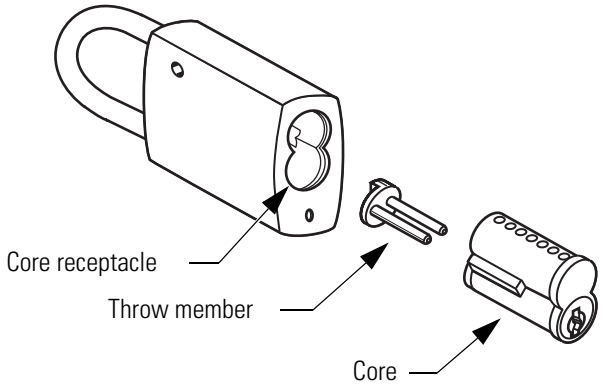


Figure 2.10 Removing the core and throw member

3. With the padlock in the locked position, insert the disassembly tool into the bottom core receptacle lobe, as shown in Figure 2.11, until it touches the locking cam.

   Note: The assembly tool guidepost allows the tool to be inserted only one way.

Caution

When performing Step 3, be sure to hold the shackle. The shackle could eject from the case while you're removing the locking cam.

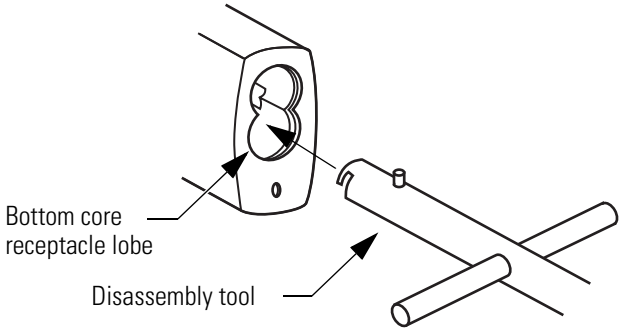


Figure 2.11 Inserting the disassembly tool

4. Press in on the disassembly tool and turn it counterclockwise until it is engaged between the locking cam assembly and the spring positioner, as shown in Figure 2.12. Gently pull the tool to remove the locking cam assembly from the core receptacle.

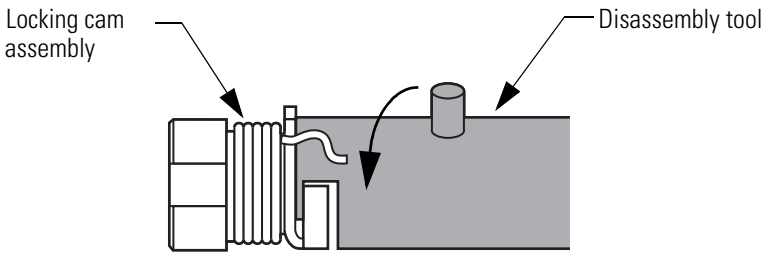


Figure 2.12 Engaging and rotating the disassembly tool

5. Remove the shackle, shackle spring, and tumblers.

Assembling the 11B, 21B, 21JB, and 41B Padlocks

To assemble the 11B, 21B, 21JB, and 41B Padlocks, perform the following steps:

1. Place the shackle spring on the shackle spring post, as shown in Figure 2.13.

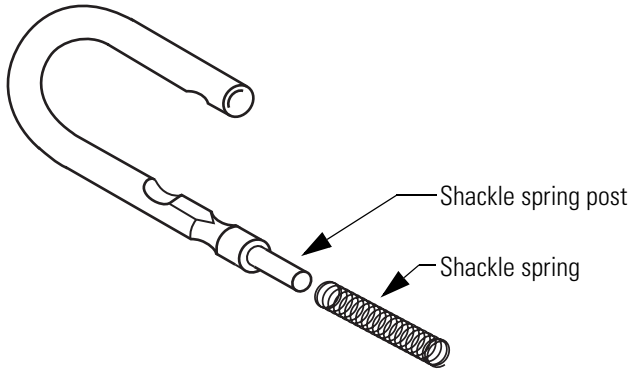


Figure 2.13 Placing the shackle spring

2. Insert the long shackle leg and shackle spring into the long shackle hole, and the short shackle leg into the short shackle hole. Hold the shackle in the locked position.

3. Turn the case upside-down. Drop the tumblers into the core receptacle and push the tumblers into the case cross holes, as shown in Figure 2.14.

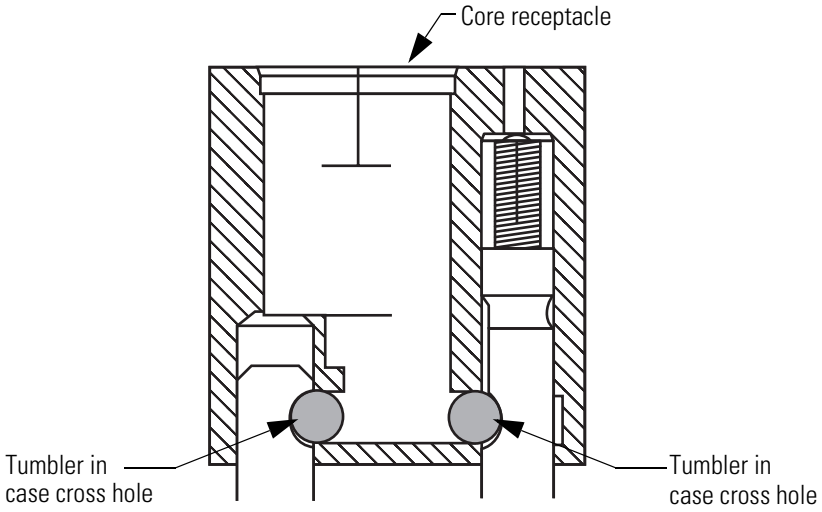


Figure 2.14 Pushing the tumblers into position (side, cross–section view)

4. Insert the locking cam into the bottom core receptacle lobe so that the round tip of the spring positioner is pointed toward the top core receptacle lobe, as shown in Figure 2.15.

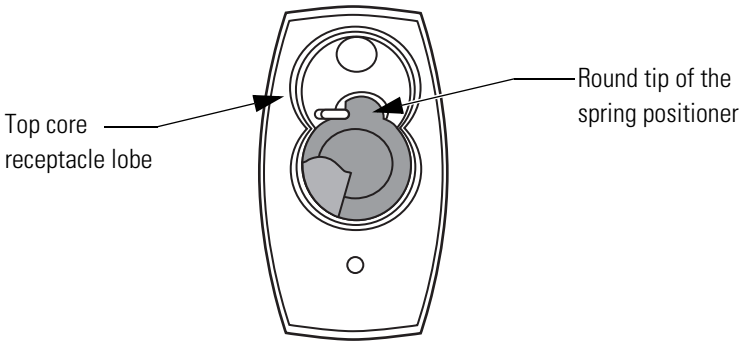


Figure 2.15 Inserting the locking cam (bottom view)

5. Using a punch or screwdriver, push on the round tip of the spring positioner until the locking cam snaps clockwise into the slot, as shown in Figure 2.16.

Caution

If the locking cam doesn't seat fully, the tumblers may have rolled out of position. Remove the locking cam and reposition the tumblers before continuing.

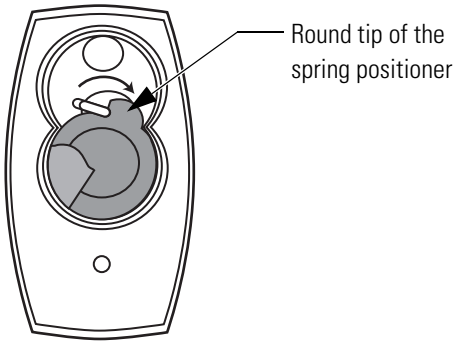


Figure 2.16 Pushing the locking cam into position (bottom view)

6. With the throw member's recess on the same side as the core lug, insert the throw member into the core, as shown in Figure 2.17. With the control key in the core, insert the core with the throw member into the core hole. Turn the control key to the left and remove it.

   Note: If the throw member is not installed properly, the core cannot be installed.

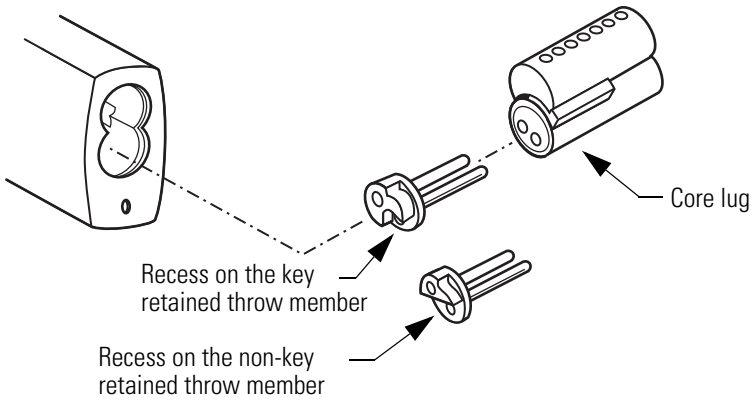


Figure 2.17 Installing the core and throw member

7. If there is a dust cover assembly for the lock, position the dust cover so that the lip faces upwards. Position the rubber seal under the dust cover and push the button on the rubber seal through the opening in the dust cover.

Disassembling Lubricating padlock parts

Apply one quick spray of BD660 Corrosion Free Formula 8000 Industrial Lubricant in both shackle holes every six months. The shackle can be in either the locked or unlocked position. It is not necessary to disassemble the padlock in order to lubricate it.

Note: Lubricate more often if the padlock is used frequently or is located in a corrosive environment.

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