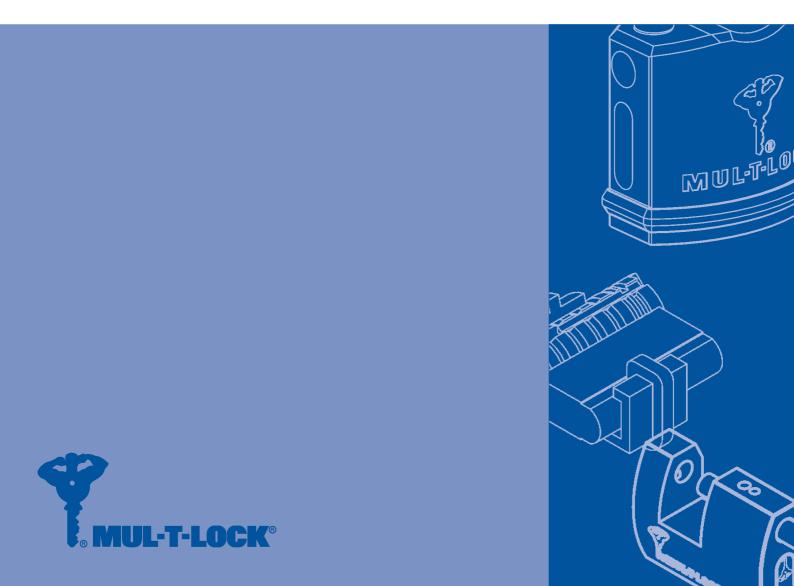
# **Padlock**

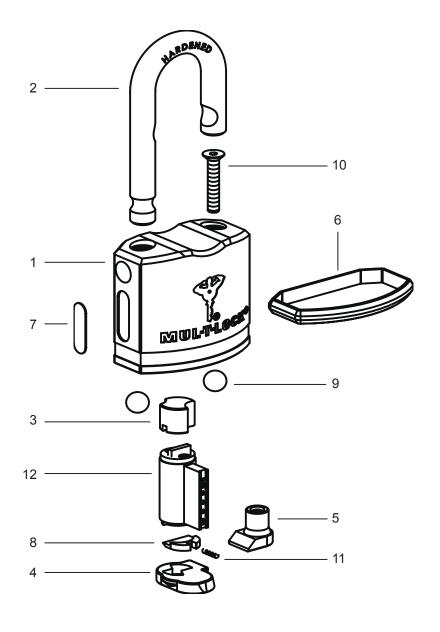
# **Service Manual**



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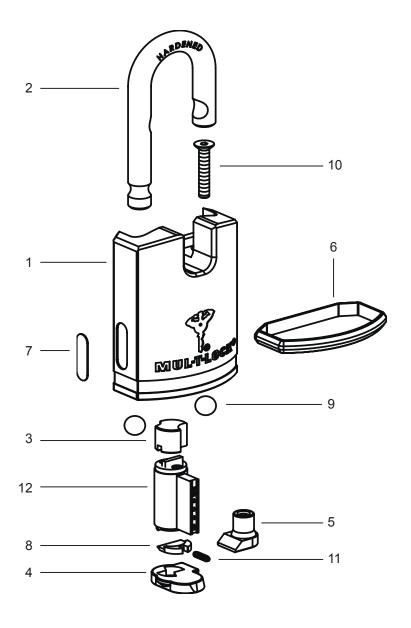
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# E Series Padlock



No.	Part	No.	Part	No.	Part
1	Padlock body	5	Locking plate	9	Ball St. Steel
2	Shackle	6	Bumper	10	Socket head screw
3	Activator cam	7	Identification plate	11	Spring for shutter
4	Body cover	8	Unified shutter	12	Cylinder

## **Protected shackle**



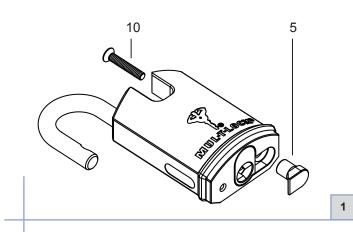
No.	Part	No.	Part	No.	Part
1	Padlock body	5	Locking plate	9	Ball St. Steel
2	Shackle	6	Bumper	10	Socket head screw
3	Activator cam	7	Identification plate	11	Spring for shutter
4	Body cover	8	Unified shutter	12	Cylinder



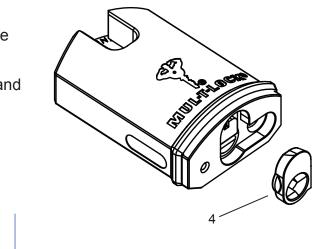
## Disassembly Instructions

#### 1

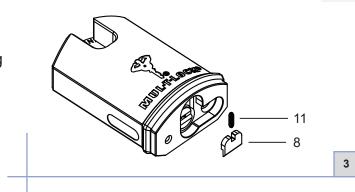
- Unlock the padlock with the operating key.
- Unscrew one socket head screw (10) using 3 mm "allen" key. Remove locking plate (5).



- Lock the padlock with the operating key.
- Take operating key out and remove body cover (4).

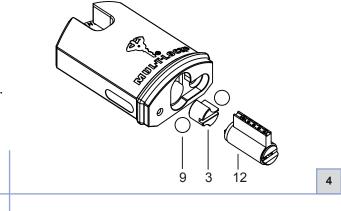


• Remove shutter spring (11) and shutter (8).



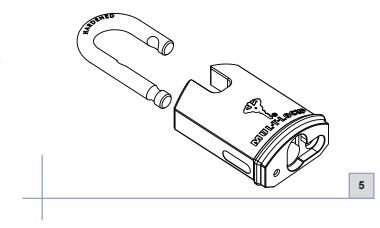
4

 Remove cylinder (12), activator cam (3) and two ball bearings (9).



5

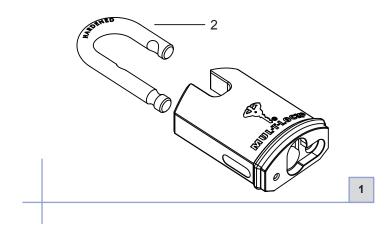
• Remove shackle (2).



### Assembly Instructions

1

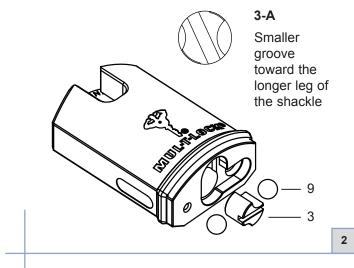
- Insert shackle (2) in the position as illustrated.
- NOTE: Pay special attention to shackle position (height and rotation)!



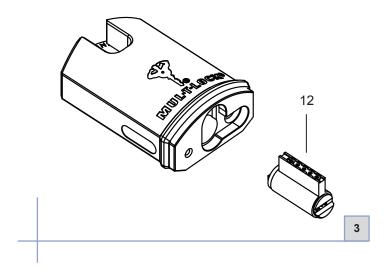
2

- Insert two ball bearings (9).
- Insert activator cam (3) in shown position.

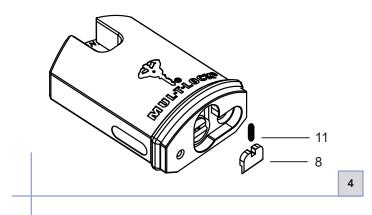
NOTE: Activator cam (3) is not symmetrical.
 See diagram 3-A.



- Insert cylinder (12).
- Insert operating key and rotate the cylinder until it reaches the right position.

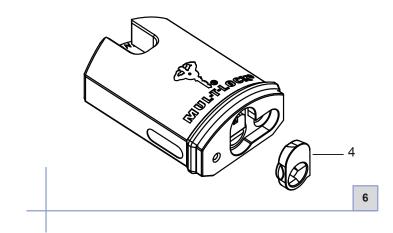


- Lock cylinder (12) and remove operating key.
- Install shutter (8) and shutter spring (11).



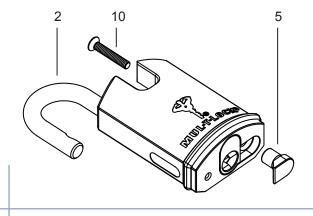


Install body cover (4).

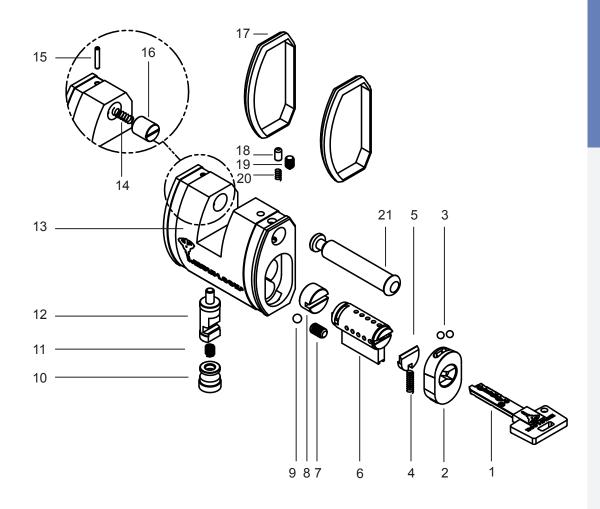


7

- Insert operating key and unlock shackle (2).
- Install locking plate (5).
   Using 3 mm "allen" key
   tighten the socket head
   screw (10).



# Sliding Bolt (SBE)



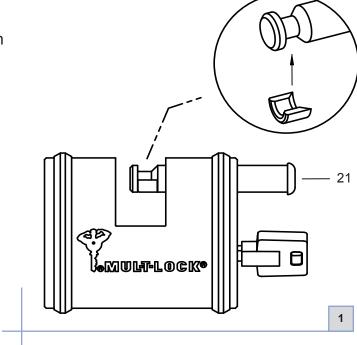
No.	Part	No.	Part	No.	Part
1	Key	8	Activator cam	15	Pin
2	Cylinder front cover	9	Ball bearing 5 mm	16	Bolt pusher
3	Ball bearing 4 mm	10	Latch hole plug	17	Plastic bumper
4	Shutter spring	11	Spring	18	Bolt stopper
5	Shutter	12	Latch	19	Socket set screw with cone point
6	Cylinder	13	Lock body	20	Spring for bolt stopper
7	Socket set screw with cone point	14	Spring	21	Bolt



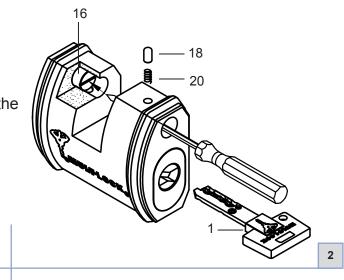
## Disassembly Instructions

#### 1

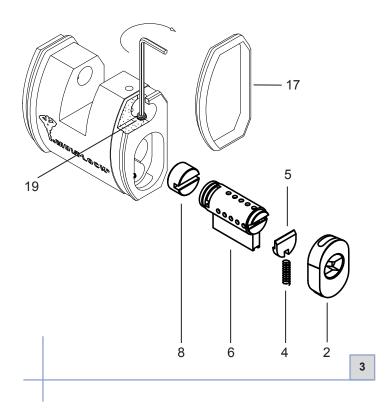
- Unlock the padlock with operating key.
- Mount on the bolt disassembling ring and remove the bolt (21) by pulling it out.



- Take out pin and spring (18,20).
- Using screwdriver push the bolt pusher (16) until the latch (12) pops up.
- Take out the key (1).



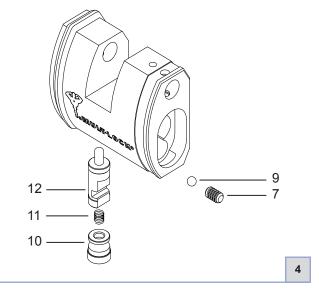
- Remove bumper (17).
- Using 2.5 mm "allen" key insert into hole (located beneath bumper) and loosen screw (19) until until the cylinder cover can be removed (Do not disassemble completely).
- Remove cylinder front cover (2), shutter spring (4) and shutter (5).
- Take out cylinder (6) and activator cam (8).



 NOTE: It is not needed to disassemble the locking mechanism for re-keying!

#### **Assembly tip**

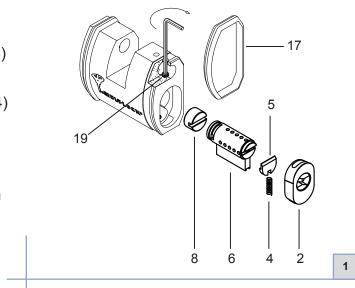
 Check that the mechanism works properly before inserting the bolt!



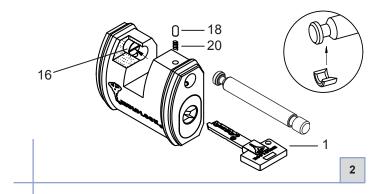
#### Assembly Instructions

1

- Install activator cam (8) and cylinder (6).
- Install shutter spring (4) and shutter (5).
- Place cylinder front cover (2) using 2.5 mm "allen" key, tighten screw (19).



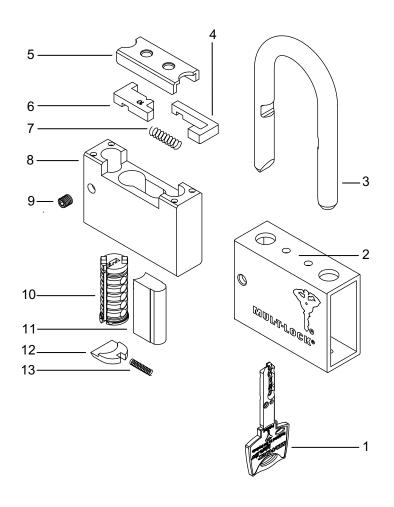
- Install pin and spring (18,20). Push them back with a screwdriver until the shackle is inserted.
- Insert key and check for smooth operation.
- NOTE: you may need to push bolt pusher (16) in order to turn the key.



# C Series Padlock

# C Series Padlock

# Removable Shackles 10, 13 & 16



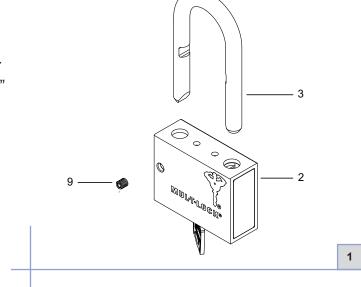
No.	Part	No.	Part	No.	Part
1	Key	6	Short latch	11	Hive
2	Shell	7	Latch spring	12	Dust shutter
3	Shackle	8	Core	13	Dust shutter spring
4	Long latch	9	Set screw M5		
5	Thrust plate	10	Plug		

## Removable Shackle

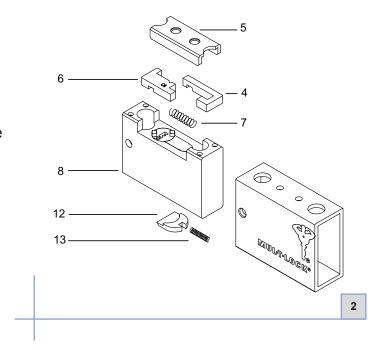
#### Disassembly Instructions

1

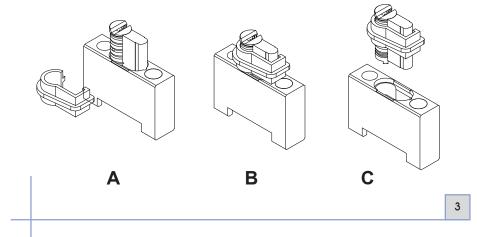
- Unlock the padlock with the operating key.
- Using a 2.5 mm "allen" key, remove the set screw (9).
- Remove shackle (3).



- Take the key out.
- Slide out core (8), making sure to carefully set aside the spring-loaded parts (4,5,6,7,12,13).

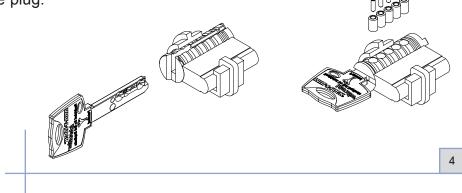


- Turn the core upside down and pull out the cylinder so that the plastic catch can be mounted.
- NOTE: Do not pull the cylinder out of the core more than two-thirds of the way!
- Mount the plastic catch and remove the cylinder.

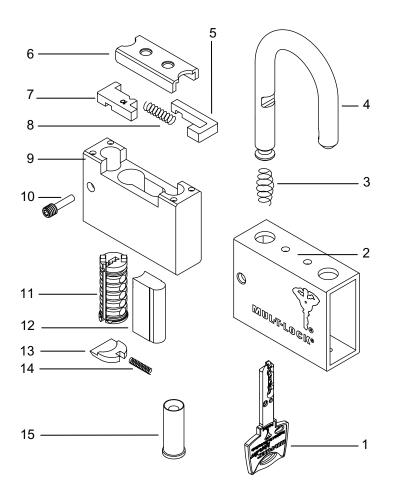


#### 4

 Insert the key into the cylinder and turn it until the pins can be removed from the plug.



# Pop-Open Shackles 10, 13 & 16



No.	Part	No.	Part	No.	Part
1	Key	6	Thrust plate	11	Plug
2	Shell	7	Short latch	12	Hive
3	Shackle spring	8	Latch spring	13	Dust shutter
4	Shackle	9	Core	14	Spring
5	Long latch	10	Threaded pin 10/32" UNF	15	Hardened pin

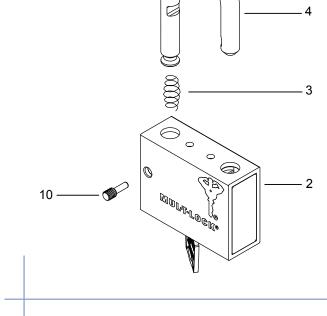
# C Series Padlock

1

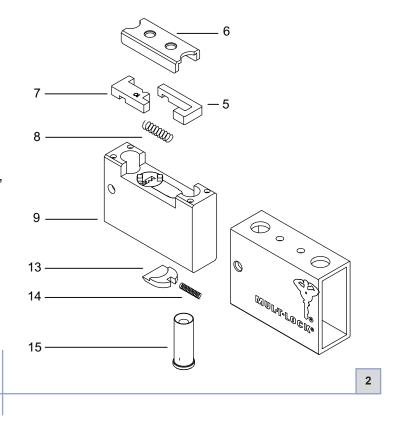
### Disassembly Instructions

#### 1

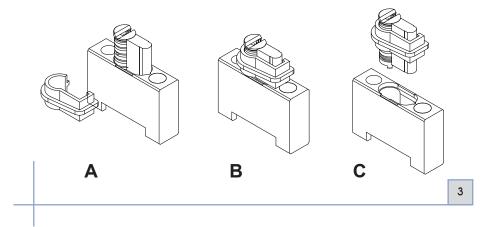
- Unlock the padlock with the operating key.
- Using a 2.5 mm "allen" key, remove the threaded pin (10).
- Remove shackle (4) and spring (3).



- Take the key out.
- Slide out core (9), making sure to carefully set aside the spring-loaded parts (5, 6, 7, 8, 13, 14, 15).

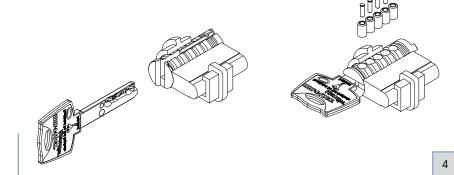


- Turn the core upside down and pull out the cylinder so that the plastic catch can be mounted.
- NOTE: Do not pull the cylinder out of the core more than two-thirds of the way!
- Mount the plastic catch and remove the cylinder.



#### 4

 Insert the key into the cylinder and turn it until the pins can be removed from the plug.



# Conversion between Removable Shackle and Pop-Open Shackle

#### 1

- To convert a removable shackle lock into a pop open shackle lock, change set screw (9R) to socket threaded pin (10P).
- Replace removable shackle (3R) with pop-open shackle (4P).
- Add hardened pin (15P) and spring (3P).

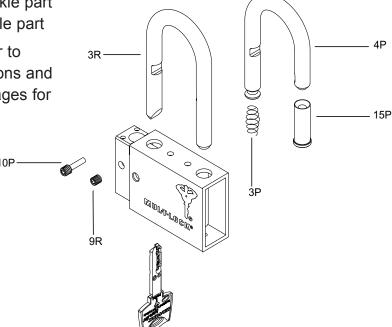
#### 2

- To convert a pop-open shackle lock into a removable shackle lock, change threaded pin (10P) to set screw (9R).
- Replace pop-open shackle (4P) with a removable shackle (3R).
- Remove hardened pin (15P) and spring (3P).

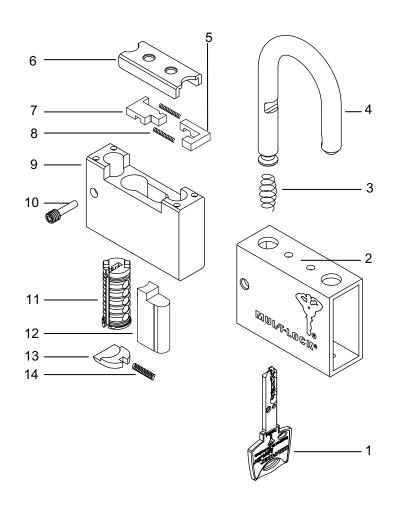
#### NOTE:

R: removable shackle part P: pop-open shackle part

 For assembly, refer to Assembly Instructions and Exploded Views pages for types P and R.



# Pop-Open Shackle No. 8



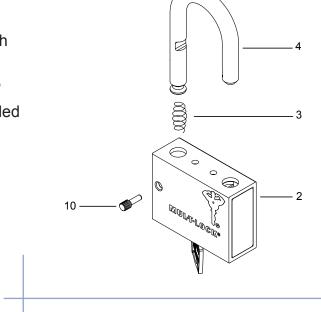
No.	Part	No.	Part	No.	Part
1	Key	6	Thrust Plate	11	Plug
2	Shell	7	Short latch	12	C8 Hive
3	Shackle Spring	8	Latch Springs	13	Shutter
4	Shackle	9	Core	14	Shutter Spring
5	Long latch	10	Threaded pin 10/32" UNF		

# C Series Padlock

### Disassembly Instructions

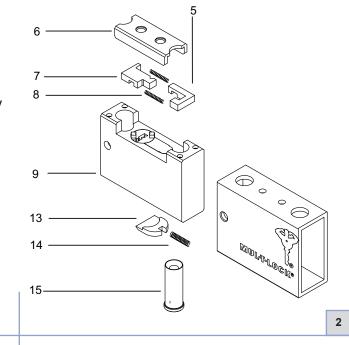
1

- · Unlock the padlock with the operating key.
- Using a 2.5 mm "allen" key, remove the threaded pin (10).
- Remove shackle (4) and spring (3).



2

- · Take key out.
- Slide out core (9), making sure to carefully set aside the springloaded parts (5, 6, 7, 8, 13, 14, 15).



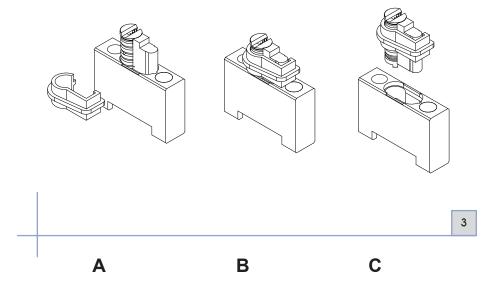
Pop-Open Shackle No. 8 / Disassembly Instructions



## Cylinder Service

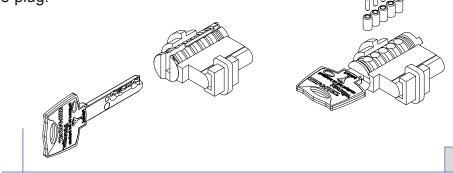
3

- Turn the core upside down and pull out the cylinder so that the plastic catch can be mounted.
- NOTE: Do not pull the cylinder out of the core more than two-thirds of the way!
- Mount the plastic catch and remove the cylinder.



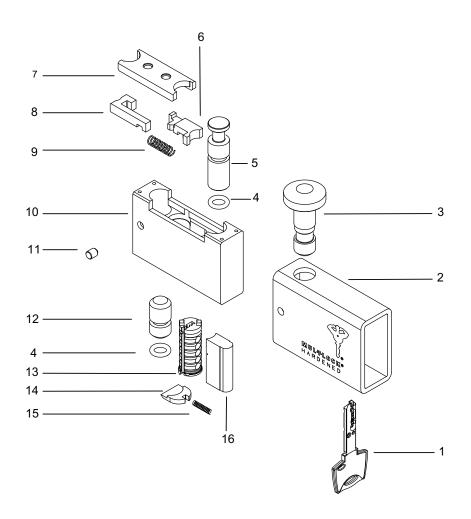
4

 Insert the key into the cylinder and turn it until the pins can be removed from the plug.



# C Series Padlock

# Single Pin

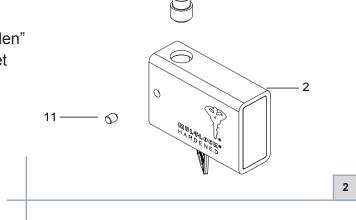


No.	Part	No.	Part	No.	Part
1	Key	7	Thrust plate	13	Plug
2	Shell	8	Long latch	14	Shutter
3	Locking pin	9	Latch spring	15	Shutter spring
4	O - Ring	10	Core	16	Hive
5	Pin	11	Set screw M5		
6	Short latch	12	Lower pin		

## Disassembly Instructions

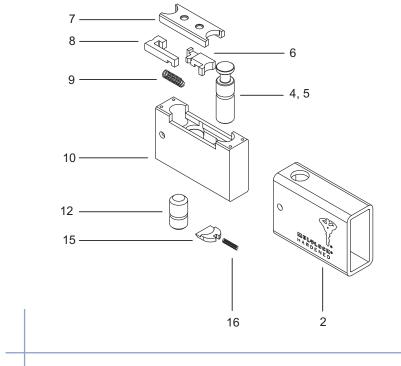
1

- Unlock the padlock with the operating key.
- Using a 2.5mm "allen" key, remove the set screw (11).
- Remove locking pin (3).



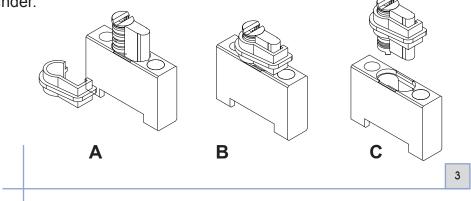
2

- Take key out.
- Slide out core (10), making sure to carefully set aside the spring-loaded parts (6,7,8,15,16).
- Remove pins (4,5,12).



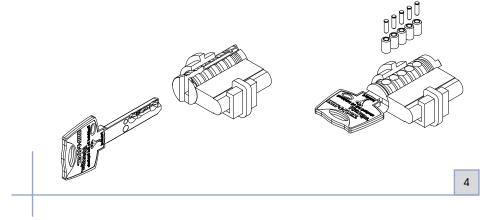
- Turn the core upside down and pull out the cylinder so that the plastic catch can be mounted.
- NOTE: Do not pull the cylinder out of the core more than two-thirds of the way!

 Mount the plastic catch and remove the cylinder.



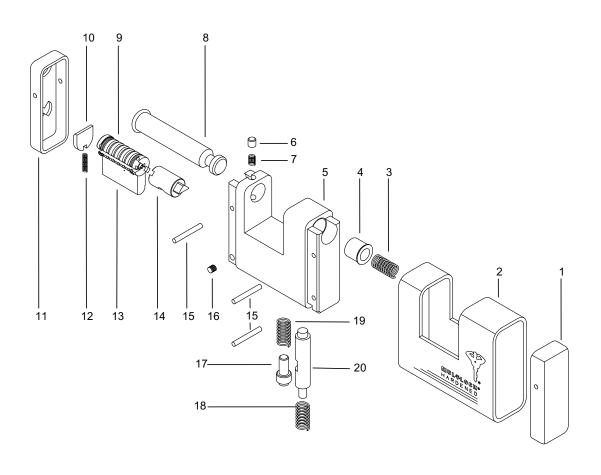
#### 4

 Insert the key into the cylinder and turn it until the pins can be removed from the plug.





# **SBC-13 Sliding Bolt**

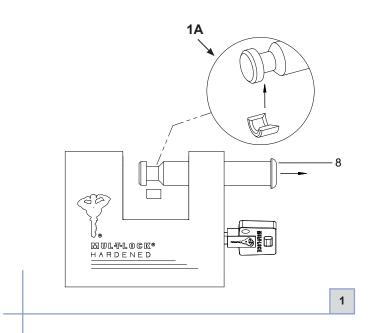


No.	Part	No.	Part	No.	Part
1	Rear protecting plate	8	Bolt	15	Steel pin
2	Shell	9	Plug	16	Set screw M4x4
3	Spring	10	Dust shutter	17	Grooved pin
4	Bolt pusher	11	Front protecting plate	18	Spring
5	Core	12	Spring	19	Spring
6	Stopper	13	Hive	20	Latch
7	Spring	14	Adaptor		

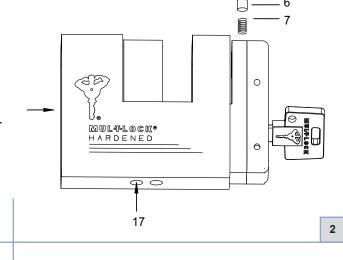
## Disassembly Instructions

#### 1

- Unlock the padlock with the operating key.
- Mount the disassembling ring onto the bolt as illustrated (1A).
- Remove the bolt (8) by pulling it out.

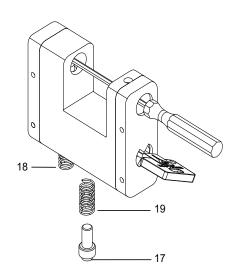


- Remove pin (6) and spring (7).
- Push grooved pin (17) up while sliding core out.



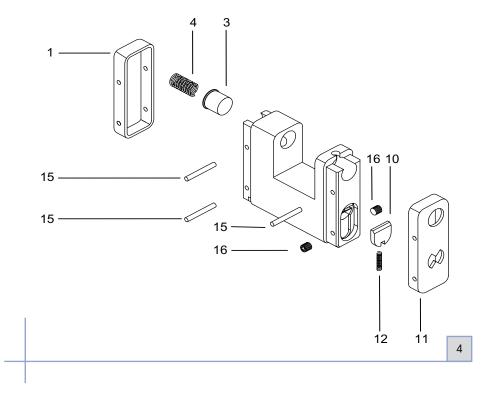


- Remove grooved pin (17) and spring (19).
- To take key out, apply force on spring (18), insert screwdriver and push inside bolt pusher (4).
- Key will return to closed position and can be taken out.

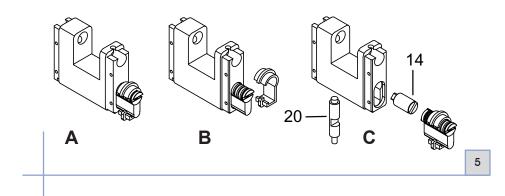


.

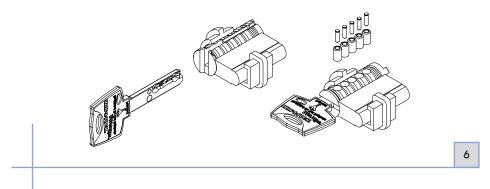
- Remove three pins (15) and two screws (16).
- Remove parts 1, 3, 4, 10, 11, 12.



- Turn the core upside down and pull out the cylinder so that the plastic catch can be mounted.
- NOTE: Do not pull the cylinder out of the core more than two-thirds of the way!
- Mount the plastic catch and remove the cylinder.



- Insert the key into the cylinder and turn it until the pins can be removed from the plug.
- Assembly tip
   Latch (20) goes inside before
   adaptor (14).

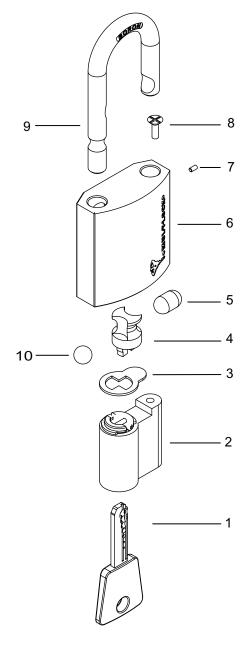






# G Series Padlock

## Padlock G-47



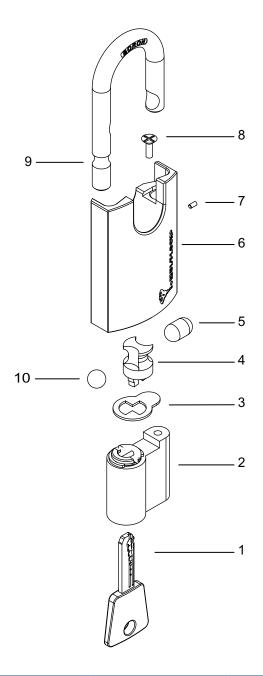
No.	Part	No.	Part	No.	Part
1	Key	5	Latch*	9	Shackle
2	Cylinder	6	G-47 body	10	Ball bearing 8 mm
3	Cam limiter	7	Security pin		
4	Cam activator	8	Screw M4x10		

<sup>\*</sup> Elongated ball bearing



# **G Series Padlock**

## Padlock G-47P

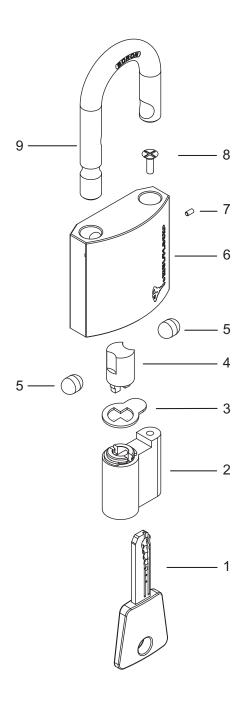


No.	Part	No.	Part	No.	Part
1	Key	5	Latch*	9	Shackle
2	Cylinder	6	G-47 body	10	Ball bearing 8 mm
3	Cam limiter	7	Security pin		
4	Cam activator	8	Screw M4x10		

<sup>\*</sup> Elongated ball bearing

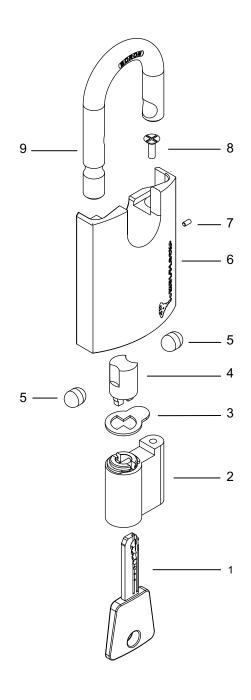


# Padlock G-55



No.	Part	No.	Part	No.	Part
1	Key	4	Cam activator	7	Security pin
2	Cylinder	5	Latch*	8	Screw M4x10
3	Cam limiter	6	G-55 body	9	Shackle

<sup>\*</sup>Elongated ball bearing

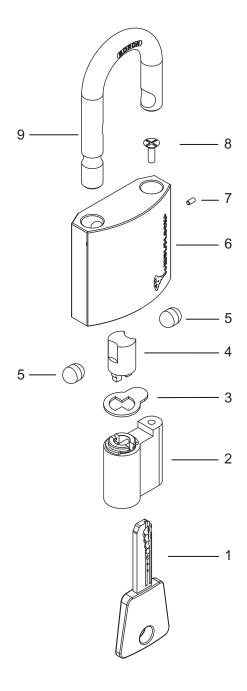


No.	Part	No.	Part	No.	Part
1	Key	4	Cam activator	7	Security pin
2	Cylinder	5	Latch*	8	Screw M4x10
3	Cam limiter	6	G-55 body	9	Shackle

<sup>\*</sup>Elongated ball bearing



## Padlock G-60



No.	Part	No.	Part	No.	Part
1	Key	4	Cam activator	7	Security pin
2	Cylinder	5	Latch*	8	Screw M4x10
3	Cam limiter	6	G-60 body	9	Shackle

<sup>\*</sup>Elongated ball bearing

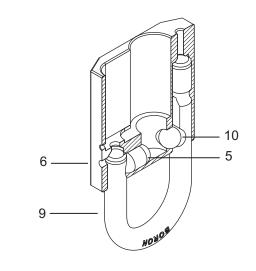
## **G-Series Padlock**

### Assembly Instructions

These assembly instructions are intended to walk you through the assembly process, starting with the padlock disassembled. If you start dismantling an assembled lock, please refer to the next page for instructions on removing the security pin.

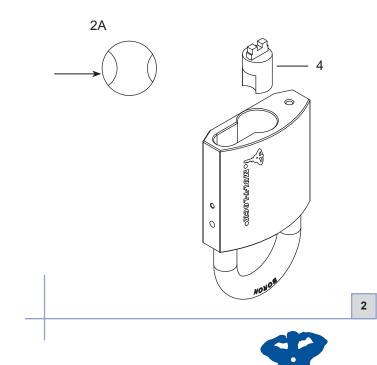
1

- With the shackle (9) inside, hold the padlock body (6) upside-down.
- Push the two elongated ball bearings (5 for G-55 padlocks; 5 & 10 for G-47 padlocks) through the cylinder opening, one per side.
- NOTE: For G-47
  models, ensure that
  the elongated ball
  bearing (5) is placed in
  the direction of the short
  leg of the shackle (2A).



2

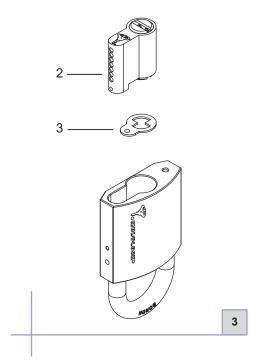
- Insert the padlock activator via the cylinder opening.
- NOTE: For G-47
  models make sure
  that the deepest
  groove is facing
  the short leg of the
  shackle.



1

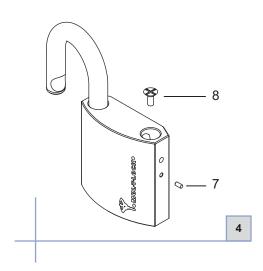
### 3

- Insert the cam limiter (3), ensuring that it engages with the protrusion of the activator (4).
- Insert the cylinder (2) into its place, making sure that the key will be at it's removal point when the padlock is locked.



### 4

- Put the cylinder holding screw (8) into its place. In order to prevent it from working loose, secure it with a drop of "LOCTITE".
- For additional safety, use the security pin
   (7) as described on the next page.

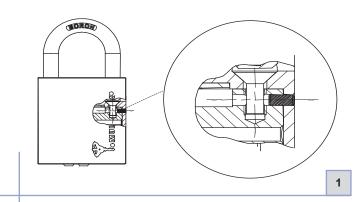


## **Security Pin**

### Assembly Instructions

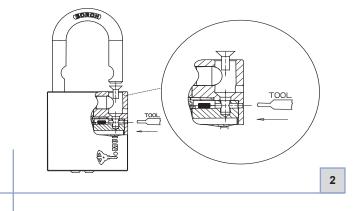
### 1

Unlock the padlock
 with the operating key.
 Reach for the cylinder
 mounting screw
 through the shackle
 hole with a Philips
 screwdriver, release
 and remove it. This will
 not release the cylinder,
 which is still held by the
 security pin.



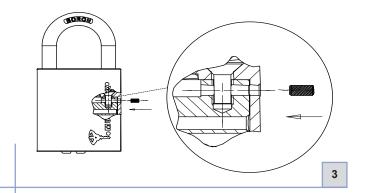
### 2

 Once the screw is out, use a punch and drive in the pin, which will fall into the cavity above the cylinder. The cylinder can now be removed, and you can recover the pin for reassembly.



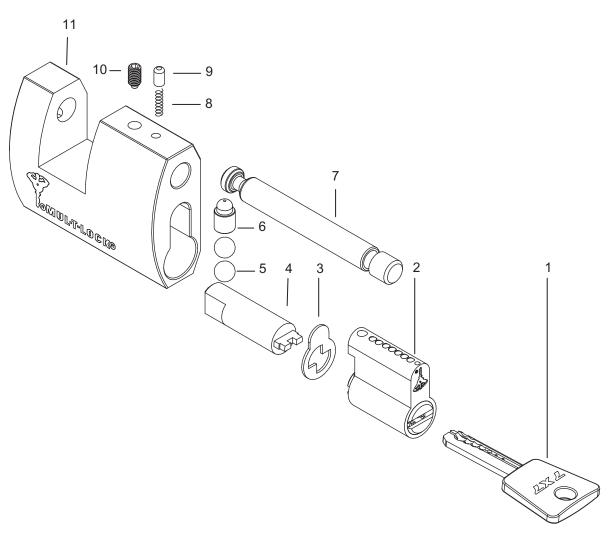
### 3

 Assemble the cylinder in position with the mounting screw and tighten. Check the lock for correct operation.
 Once confirmed, drive the security pin home with a small hammer.
 The pin end should be flush with body outer surface as per Figure 1.



# **G Series Padlock**

# Sliding Bolt (SBG)



No.	Part	No.	Part	No.	Part
1	Key	5	Ball bearing 8 mm	9	Bolt retaining pin
2	Cylinder	6	Locking bolt pin	10	Socket screw M5
3	Cam limiter	7	Sliding bolt	11	Lock body
4	Activator cam	8	Bolt retaining pin Spring		

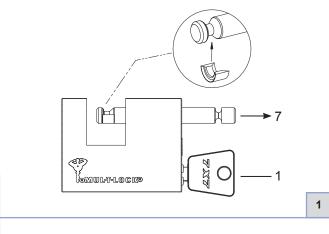
# **G Series Padlock**

# Disassembly & Assembly Instructions

### 1

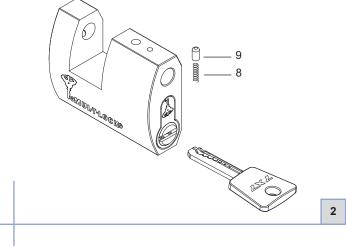
- Unlock the padlock with the operating key (1).
- Mount on the bolt

   (7) disassembling
   ring and remove the
   bolt by pulling it out.



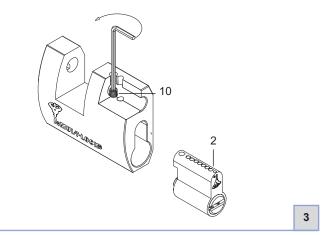
### 2

- Take out pin and spring (8,9).
- Take out the key (1).



### 3

- Using 2.5 mm "allen" key insert into hole and loosen the screw (10).
- Now the cylinder is free, via opening in side remove cylinder and inner parts of the body.
- Disassembling of the locking mechanism is not needed for re-keying.



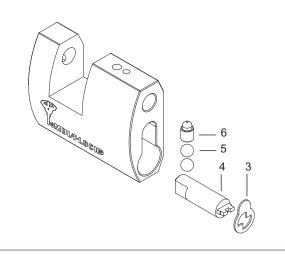
### Sliding Bolt (SBG) /

Disassembly & Assembly Instructions



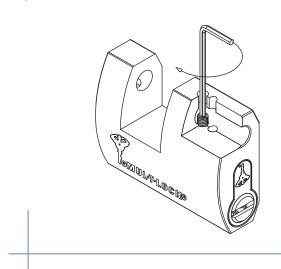
### 4

- Via the opening in side remove inner parts of the body (3,4,5,6).
- NOTE: Disassembling the locking mechanism is not needed for re-keying.



### 5

 After re-keying the cylinder insert all the inner parts and fasten the screw (3, 4, 5, 6)

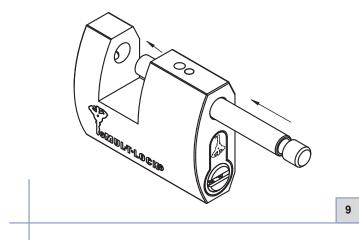


5

4

### 6

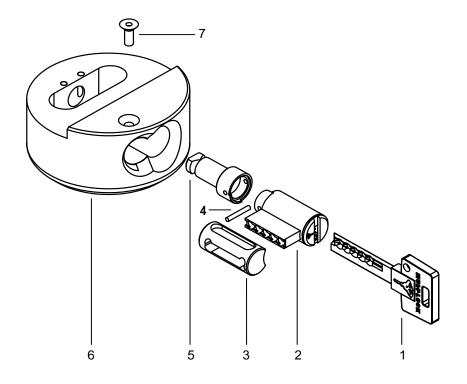
- With the bolt push the follower out.
- Assembly tip
   Check that the
   mechanism function
   properly before
   inserting the bolt!





# **G Series Padlock**

## Round Padlock Hockey Puck Type

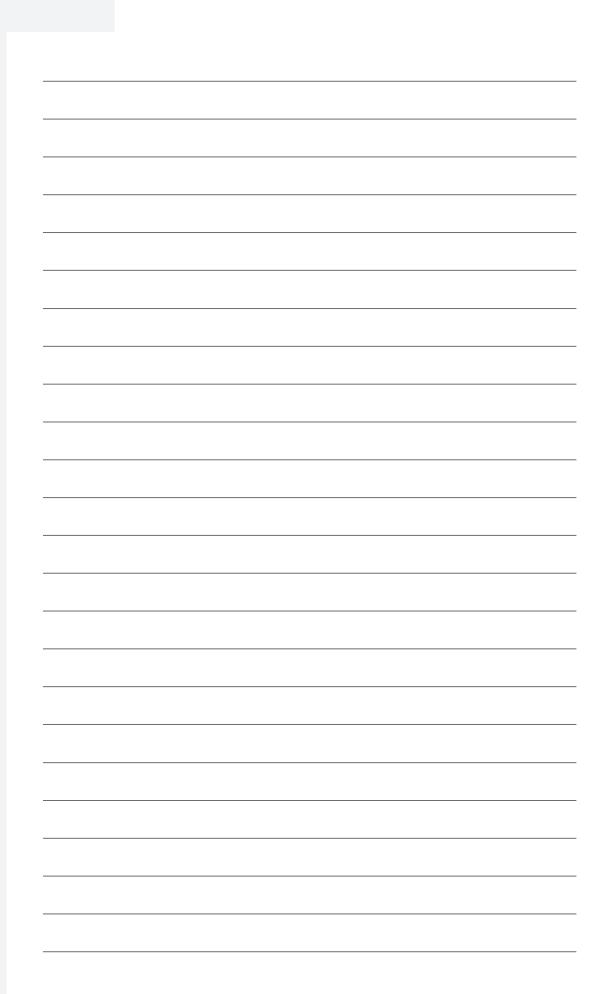


No.	Part	No.	Part	No.	Part
1	Key	4	Connecting Pin	7	Screw
2	Cylinder	5	Bolt		
3	Cylinder Base	6	Padlock Body		



# NOTES





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