Motor Lock Manual

840C-50, 841C-50, 841C-35, 851C-35, 851C-50, 850C-50

ASSA®
ASSA ABLOY

Contents

För manual på svenska, var god vänd.

Installation
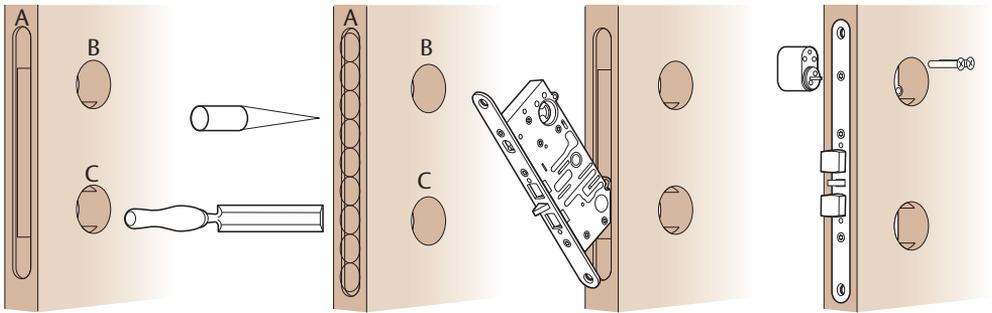
① Mark centerline A (Face plate) when you have decided the position of the lockcase.

② Mark B and C

③ Use a 20 mm drill bit to get the correct depth for the lockcase, 82 mm for 50 mm backset and 48 mm for 35 backset. Do not use force to push the lockcase into the mortice.

④ Drill the 42 mm hole (B and C) for cylinder and handle through the door.

⑤ Mortice the center faceplate into the edge of the door, this has a depth of 3 mm and radius 11.

⑥ Make the mortise for the striking plate. Drill 5 holes Ø20 with a depth of 26 mm. Use a chisel to fit the strike plate into the mortise. Use a chisel to make the outer profile (depth 4 mm for 1487-X). Predrill the four holes (Ø3 mm).

⑦ If the internal door sensor is used. Mount the magnet into the striking plate. The door sensor position is behind the date mark on the forend.

Assa recommends a clearance of 3 mm between forend of lock case and strike plate.
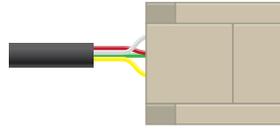
Adjust the door seal pressure.

Before fitting the lock to a firesmoke resisting door, the fire certification should be examined.

Connection

To connect a motor lock to the Hi-O bus a four wire cable is used; two for power and two for communication.

Use supplied cable EA226 (10m), with connector, at installation.

The cable can be connected anywhere on the Hi-O bus.

White   CAN high
Brown   CAN low
Green   + 12–24VDC stab
Yellow 0 V

Factory reset

1	Switch off power to the lock.
2	Make sure that the door is open (no magnet on the lock door sensor).
3	Turn on power.
4	Within 30 seconds, toggle / switch group switch 6 times back and forth.
5	Switch off the power.
6	Turn on the power.
7	Verify that the LED next to the group switch is turned on (Steady light).
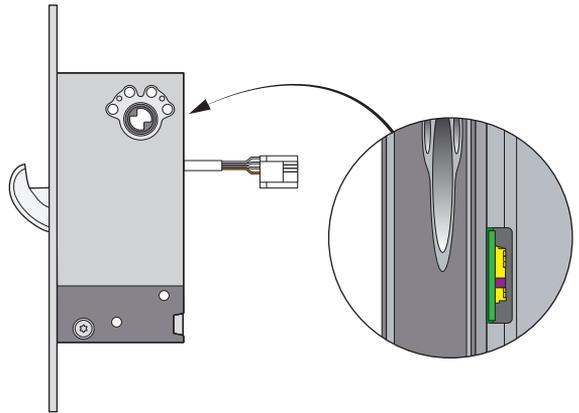
Explanition for LED

- Steady light= Factory mode, not initiated
- LED off= Initiated
- Flashing LED (2Hz)= "Wrong DAC" lock already initiated against another DAC.
- Flashing LED (10Hz)= Timeout wait 240 sec (4 min) then initiate DAC or reset the lock. See the quick guide.

Latch bolt 840C/850C
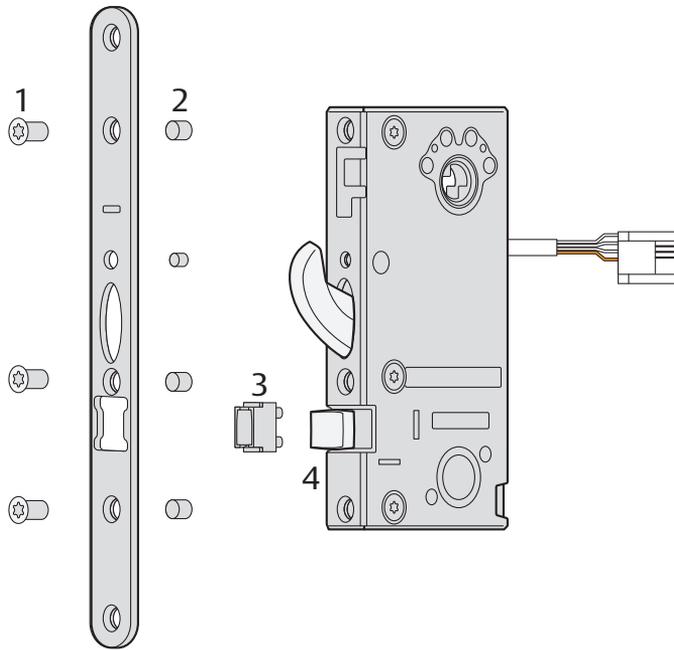
1	Unmount the screws (Torx T20).
2	*Be careful the pin and socket can fall out.*
3	Unmount the plastic.
4	Turn the latchbolt.
5	Assembly the plastic.
6	Assembly the pin and socket.
7	Assembly the forend.
8	Assembly the screws (Torx T20).

Door monitor
The placement of the door monitor is under the date mark on the forend.

Technical data

Currency consumption (mA)

Lock Type	Idle	Running
Assa Motor Lock 841C/840C/850C/851C	50mA	Max 445 mA at 24VDC

Cable

Type: EA226, 10 m
Max length   Total   50 m

Cable length	Cable area 12V
20 m	0,3 mm^2
30 m	0,4 mm^2
40 m	0,5 mm^2
50 m	0,6 mm^2

Contents in package
Complete package: Lock case, Drill protection, DAC-500, Cable EA226, Strike plate, Magnet, Fitting screws, Manual

Half package: Lock case, Drill protection , Cable EA226, Strike plate, Magnet, Fitting screws, Manual

Lock case: Lock case, Drill protection and Manual

DAC530 package: Lock case, DAC530, cable EA226, Magnet for striking plate.

Accessories

ASSA	840C-50 841C-50 850C-50 851C-50	841C-35 851C-35
Cylinder type	Round, oval	Oval
Strike plate	1487-1, -2*, -3, -4, -5	1487-8*
Cable	EA226*	EA226*
Cable loop	EA280, EA281*	EA280, EA281*
Thumb turn	Round thumb turn cyl. 13 Oval thumb turn cyl. 03	Oval thumb turn cyl. 03
Cylinder accessories	3212	4559 SCD
Plastic dome accessory	8065, with round thumb turn cyl.	–
Lever handle	Standard / NA	NA
Security accessories		4559 SCD

* Supplied in set packages

Maintenance of motor locks

Follow this manual thoroughly to maintain characteristics of the motor lock. Do not diverge from this manual without advice from ASSA.

Warranty fails if product is:
- Wrong installed.
- Opened by unauthorised personnel (broken seal) or if cables/connectors has been cut.
- Fitted with accessories or parts not recommended by ASSA.

Maintenance:
- Approximately twice a year, a small amount of designated grease should be applied on latches and bolts. Highly frequented doors may need maintenance with shorter intervals.
- Electric parts need NO maintenance.
- To maintain desired operation and security level of installed unit, it is of great importance to check and adjust the entire door environment:
  - Lock case and strike plate
  - Lock accessories (Lever handle, thumb turn etc.)
  - Hinges, framework and door threshold (sill).
  - Door closer.

NB!!
- Never use lubricants containing graphite or solvent, use designated grease from ASSA only.
- If any uncertainty regarding installation, maintenance or warranty occurs, please contact ASSA or your local supplier.
- The safety features of this product are essential to its compliance with EN 14846. No modification of any kind, other than those described in these instructions, is permitted.
- The locks 841C and 851C must always be combined with a door closer which is proven by test to keep a door in closed position in the event of fire.
- The lock case is intended to sit in single or double acting wooden, aluminum or steel door.

EN14846	-X8E----- (850C,851C,840C,841C)	0402-CPR-SC0155-14	CE
EN14846	3 X 8 E 0 L 7 1 3 (850C,851C)	SC0860-14	Performance
EN14846	3 X 8 E 0 L 5 1 3 (840C,841C)	SC0173-15	Performance
EN 50130-4		4P03456-E6 (841C-35,851C-35) 4P03456-E7 (84XC-50,85XC-50)	EMC
EN1634:1	E90	4P01152	Fire
SFF3522-1093	Class 4/Class 5		

Class 4 and Class5

To meet the Class 4 and Class 5, the following requirements must be met.

For Class 4 and Class 5 requires that the controller is installed in a protected space with at least grade 3 locking. DAC564 controller **must** be installed in the SSF 3522 mode.

SSF 3522 Mode

To install a motor lock SSF 3522 mode you should do this:

1   Initiate lock case.

2   Turn off the power.

3   Dip switch 3,7 & 8 in the On position.

4   Turn on the power.

In 3522 the SSF mode will relay then have the following characteristics:

Relay "Lock" Lock indicator, active for 15 seconds at locked.
Relay "Alarm" Unlocked indication active for 60 seconds when unlocked.
Relay1 RC64 (Security locked) door closed and deadbolt out.
Relay2 RC64 (Unlocked) deadbolt inside.
Relay3 RC64 (Unlocked, with delay).
Relä4 RC64 (Closed Door).
Relä5 RC64 (Summer, Forced door).
Relä5 RC64 (Summer, Forced door).
RELAY6 RC64 (Tamper) Relay energized in alarm, the alarm must be installed.

Accessories SSF 3522

All components belonging to the locking device (such as lock cases, striking plates and Door reinforcement) **shall** have the same classification according to SSF 3522.
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Front plate (left view)

25 (851-35)
22 (841-35)
R5 (4x)
24
25,5
225 (841-35)
177
200
228 (851-35)
24
25,5
20
M5 (2x)

Side view

48
35
3
26
R5 (4x)
Cylinder
59
12
58
∅10
225
62,5
27
R5,5 (2x)

Lower left view

22
20
27,6
Drill for screw
4,0 x 25mm
225
170
Drill for screw
4,0 x 25mm
27,6

Lower right view

82
50
3
∅42
111
∅42
57

Quick guide

Installation and initiation/pairing of Hi-O motor lock and DAC

1 Connect the cables of the motor lock to DAC (White = CAN H, Brown = CAN L, Green = 12 V, Yellow = 0 V).

2 Make sure that the termination jumper link in DAC is set to ON.

3 The input "Door monitor" should be jumper linked and the Button input open, in most cases.

4 Set all DIP switches to OFF, applies in most cases. (For more information, see Initiation matrix).

5 Turn the power on. (Blue DWG LED starts flashing.) Wait until blue DWG flashes fast, can take up to 3 minutes as a maximum. DO NOT TURN OFF the power during the initiation.

6 When yellow PWR LED is lit and blue LED *flashes fast* the initiation is done. (*If blue LED flashes fast and yellow PWR LED* **is unlit** *the initiation has failed.*)

7 Switch off the power.

8 Set DIP 8 for stand alone mode. See also on page 12 for different running/function modes.

9 Turn the power on and control the function.
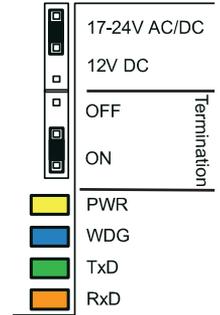
▶ For further information, see the user guide.

	17-24V AC/DC
	12V DC
	OFF
	ON
	Termination
	PWR
	WDG
	TxD
	RxD

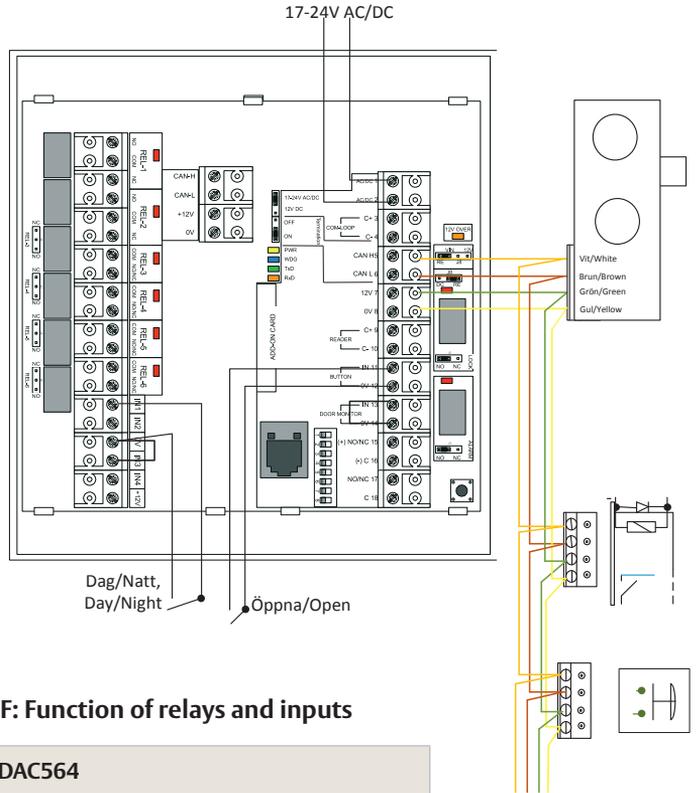| Initiation		
Door monitor switch in motor lock and fail safe/safe secure electric strike		
Door monitor input	DIP 7 – Electric strike	Explanation/result.
Closed	OFF	Sensor in motor lock active Safe secure function on electric strike (Normal mode).
	ON	Sensor in motor lock active Fail safe function on electric strike.
Open	ON	Sensor in motor lock inactive Fail safe function on electric strike.
	OFF	Sensor in motor lock inactive Safe secure function on electric strike.
Button input behaviour at initiation		
Button input: open at initiation	The input will be level triggered, i.e. DAC will set the door unlocked as long as the input is closed, which is normal mode.	
Button input: closed at initiation	The input will be flank triggered, i.e. DAC will lock the door according to set time if the input remains closed while running.	
Information ASSA motor lock		
When there is an LED mounted beside the switch on the case (LED is only visible with the lock in the hand). This locks you can do a factory reset on the lock. The LED function is to facilitate the installation and troubleshooting.		
Steady light	Factory mode, Not initiated.	
LED off	Initiated	
Flashing LED (~2Hz)	"Wrong DAC" lock already initiated against another DAC.	
Flashing LED (~10Hz)	Timeout. Initiate DAC again or reset the lock as shown below.	

Factory reset of ASSA motor lock, with LED beside group switch

▶

Quick guide

Configuration of DAC as control unit

Dag/Natt, Day/Night

Öppna/Open

17-24V AC/DC

Vit/White
Brun/Brown
Grön/Green
Gul/Yellow

DIP8=ON, DIP7=OFF: Function of relays and inputs

KP1 in DAC530 and DAC564	
Relay & Input	**Function**
Relay Out (Lock)	Electric strike
Relay Out (Alarm)	Alarm Bypass
IN 13&14 Door monitor	Door position in
IN 11&12 Button	Open
KP2 in DAC564 and DAC530 with relay board 400RC64		
Relay RE1	Bolt out	
Relay RE2	Bolt in	
Relay RE3	Unlocked	
Relay RE4	Door position	
Relay RE5	Buzzer	
Relay RE6	Tamper	
IN1	Day/Night	
IN2	Not used	
IN3	Alarm blocking	Normally closed
IN4	Not used	
With DIP8 = ON, DIP7 = OFF: The unlock time is set with DIP1 – 4		

DIP8=ON, DIP7=OFF: Function of relays and inputs

KP1	DAC530 board						
DIP 3	**DIP 4**	**Function**	**Out Relay (Lock)**	**Out Relay (Alarm)**	**IN 13 & 14 Door monitor**	**IN 11 & 12 Button**
OFF	OFF	Standard	Electric strikes	Alarm Bypass	Door position in	Open
ON	OFF	EMLA	Bolt out. The relay takes hold for 15 sec	Bolt in. The relay takes hold for 15 sec	Door position in	Open
OFF	ON	Invalid mode				
OFF	ON	Invalid mode				

(KP2)	DAC400RC64 relay board (Applies to Standard & EMLA)							
RE1	RE2	RE3	RE4	RE5	RE6	IN1	IN3
Bolt out	Bolt in	Unlocked	Door position	Buzzer	Tamp	D/N	Alarm blocking

With DIP8 = ON, DIP7 = ON: The unlock time is set with		
Sec./DIP	1	2
4		
8	ON	
12		ON
16	ON	ON

Information!

DAC and other Hi-O products have a function inhibiting them for 240 seconds (4 minutes) if the initiation fails more than three times, when the time expires you have one more chance to try to initiate.

Note that the time only counts when the Hi-O unit has power.

After initiation DAC and other units cannot be moved to another door unless they are "uninitiated" from each other, see user guide. For ASSA motor lock see "Factory recovery ASSA motor lock".

▶ For more information, see manual.