

Sesam

Robust radio remote control for industrial
and mobile applications



NAME: Sesam 800 Keyring.
SPECIALITY: Radio remote control
for garage door.
READY FOR MISSION: 2013



NAME: Sesam 800 Large 99.
SPECIALITY: Radio remote control
for 999 industrial doors.
READY FOR MISSION: 2013



NAME: Sesam 800 Small 6.
SPECIALITY: Radio remote control
for conveyor.
READY FOR MISSION: 2013

ÅKERSTRÖMS







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An aerial photograph of a logging operation in a forest. A red logging truck is visible on the left, with its rear and a large log on its trailer. A black crane arm with yellow and red segments is positioned over the truck. A semi-transparent information box is overlaid on the center of the image, containing a Swedish flag and company details.

08702118422 POLARPOINT

NAME: Åkerström & Björbo AB.
FOUNDED: 1918.
VISION: To be the obvious choice for robust radio remote control for industry and mobile markets.

A photograph of a forest scene. In the background, a log truck is partially visible, carrying several large logs. The truck has large, treaded tires. The foreground is filled with a dense layer of dry pine needles and branches, creating a textured, brown ground cover. Tall, thin trees with green foliage stand in the background, with sunlight filtering through the canopy.

WELCOME TO THE REAL WORLD.

Our products are right at home in extreme environments. When other products give up, ours just keep on going without complaint. Rugged, reliable remote control for industrial and mobile applications, designed for constant use. Whenever. Wherever. In the real world.

Today we are an international company that develops, manufactures, markets, and services robust wireless products for demanding industrial environments and mobile applications. Our entire range is distinguished by excellent ergonomics and design. We are scattered far and wide geographically, but we value personal contact with our customers above all. This brochure contains information on our radio remote control for industrial and mobile applications: **Sesam**

Sesam 800 is our product family for radio remote control of industrial applications such as opening systems for doors, booms and gates, switching on and off fans and floodlights. The Sesam 800 series is developed to provide flexibility, reliability, ruggedness and ease-of-use required for applications in demanding industrial environments.

Robust and durable

Sesam 800 is a complete family of transmitters and receivers. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. They are class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses.

Feedback indicator and unique codes

The Sesam 800 system uses the 869 MHz frequency band. Communication between the transmitter and receiver is two-way, which allows a feedback indicator on the transmitter to show when a relay is active. The system uses 16.7 million unique codes. Checksums ensure error-free message transmission. For applications with even higher security requirements, the system can be configured for encrypted transmissions.

Receiver with PIN code

The receiver is available in several models: a wall-mounted unit with display, a wall-mounted unit without display, and a

smaller unit for DIN mounting. The display unit makes it easy to add or remove new transmitters and system users. It also has a removable memory card for operationally critical systems, which allows each receiver to be used with a large number of transmitters. Settings in the receiver may be password-protected with a four-digit code, restricting its functionality to authorised users. Settings and access are controlled easily using the keypad on the display receiver.

Configuration tools

The Sesam MC manager is a configuration tool that assists in administration of PIN codes and simplifies installation, configuration, testing and maintenance of large-scale Sesam 800 door installations.



SESAM 800

Sesam 800 is our product family for radio remote control of industrial applications.

SESAM

Sesam 800 — Transmitters

The Sesam 800 transmitters are highly robust and easy to use. They are available in six models. Sesam 800 Large 99 is our most advanced transmitter. With the capability to control up to 1,000 receivers, this system is perfect for large installations. The Large 99 transmitter supports group ID coding and can be used with Sesam MC Manager, our proprietary configuration tool that simplifies the installation, configuration, testing and maintenance of large-scale installations. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. They come equipped with a shock-protective frame.

SESAM 800 Keyring

Number of functions/buttons:
3

Supply voltage:
CR2025 X2, 6V (2x3V)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Output power:
5 mW

Current consumption:
15 mA during transmission

Protection class:
IP65

Size:
67 x 44 x 13 mm

Weight:
30 g

Art. No.
Sesam 800 Keyring:

940332-000



SESAM 800 Small 3

Number of functions/buttons:
3

Supply voltage:
3V (2xAAA)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Output power:
5 mW

Current consumption:
15 mA during transmission

Protection class:
IP67

Size:
75 x 46 x 22 mm

Weight:
80 g (incl. batteries)

Art. No.
Sesam 800 Small 3:

940334-000



SESAM 800 Small 6

Number of functions/buttons:
6

Supply voltage:
3V (2xAAA)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Art. No.
Sesam 800 Small 6:

Output power:
5 mW

Current consumption:
15 mA during transmission

Protection class:
IP67

Size:
75 x 46 x 22 mm

Weight:
80 g (incl. batteries)

944574-000



SESAM 800 Medium

Number of functions/buttons:
6

Supply voltage:
3V (2xAA)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Art. No.
Sesam 800 Medium 6:

Output power:
5 mW

Current consumption:
15 mA during transmission

Protection class:
IP67

Size:
100 x 60 x 25 mm

Weight:
130 g (incl. batteries)

940338-000



SESAM

Sesam 800 — Transmitters

SESAM 800 Large 15

Number of functions/buttons:
15

Supply voltage:
3V (2xAA)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Output power:
5 mW

Current consumption:
15 mA during transmission

Protection class:
IP67

Size:
120 x 75 x 30 mm

Weight:
200 g (incl. batteries)

Art. No.
Sesam 800 Large 15:

940340-000



SESAM 800 Large 99

Number of functions:
3

Number of controlled units:
1,000

Supply voltage:
3V (2xAA)

Temperature range:
-25°C to +55°C

Frequency:
869.8 MHz GMSK

Response time:
50 ms (typ.)

Output power:
5 mW

Current consumption:
30 mA during transmission

Protection class:
IP67

Size:
120 x 75 x 30 mm

Weight:
200 g (incl. batteries)

Display type:
LCD, 1 row 3 characters

Art. No.
Sesam 800 Large 99:

940341-000





When other products give up.
Ours just keep on going.
Day after day.
In the real world.
Your world.

SESAM

Sesam 800 — Receivers

The Sesam 800 receivers are available in three models: wall-mounted unit with LCD display, wall-mounted unit without LCD display, and a smaller unit for DIN mounting. The LCD character display makes it easy to add or remove new transmitters and system users. It also has a removable memory card for operationally critical systems, which allows each receiver to be used with a large number of transmitters. Settings in the receiver may be password-protected with a four-digit code, restricting its functionality to authorised users. Settings and access are controlled easily using the keypad on the display receiver.

SESAM 800 RX

Number of relays:
3 (SPDT)

Memory capacity:
Max 100 transmitters

Frequency:
869.8 MHz GMSK

Supply voltage:
12-24V AC/DC or 230V AC

Current consumption:
60mA (+30mA when the relay is active) at 12V DC

Relay contact rating:
NO/NC 8A/3A 230V AC (resistive load)

Power consumption:
Max 5W

Response time:
50 ms (typ.)

Temperature range:
-25°C to +70°C

Protection class:
IP65

Size:
120 x 90 x 51 mm

Weight:
450 g

Other:
16.7 million unique codes, CRC-16 hashcheck, configurable security mode with encrypted authentication

Art. No.

Sesam 800 RX 230V:

940156-000

Sesam 800 RX 12-24V AC/DC:

941244-000



SESAM 800 RXD

Number of relays:
3 (SPDT)

Memory capacity:
500 transmitters or groups of transmitters (with L99) max.

Frequency:
869.8 MHz GMSK

Supply voltage:
12-24V AC/DC or 230V AC

Current consumption:
60mA (+30mA when the relay is active) at 12V DC

Relay contact rating:
NO/NC 8A/3A 230V AC (resistive load)

Output power:
Max 5W

Response time:
50 ms (typ.)

Temperature range:
-25°C to +70°C

Protection class:
IP65

Size:
120 x 90 x 51 mm

Weight:
450 g

Other:
16.7 million unique codes, CRC-16 hashcheck, configurable security mode with encrypted authentication

Art. No.

Sesam 800 RXD 230V:

940224-000

Sesam 800 RXD 12-24V AC/DC:

941243-000



SESAM 800 RX DIN

Number of relays:
3

Memory capacity:
Max 100 transmitters

Frequency:
869.8 MHz GMSK

Supply voltage:
12-24V AC/DC

Current consumption:
60mA (+30mA when the relay is active) at 12V DC

Relay contact rating:
NO/NC 8A/3A 230V AC (resistive load)

Power consumption:
Max 5W

Art. No.
Sesam 800 RX DIN:

Response time:
50 ms (typ.)

Temperature range:
-25°C to +70°C

Size:
85 x 75 x 30 mm

Weight:
180 g

Other:
16.7 million unique codes,
CRC-16 hashcheck,
configurable security
mode with encrypted
authentication

942216-000



SESAM

SESAM 800 — Configuration tool

The Large 99 transmitter has support for group ID coding. Transmitters using the same group ID are considered identical. The RXD receiver can store up to 500 different IDs. This capability and our MC Manager software simplify installation, testing and maintenance of large-scale installations. Through the software, all receiver configurations can be centrally managed and easily copied to the receivers through their memory cards. This allows for full control of Sesam receivers and transmitters in a single system. Changes are also easily made through the software.

SESAM 800 MC Manager

The Sesam MC manager is a configuration tool that assists in administration of PIN codes. The software simplifies the installation, configuration, testing and maintenance of large-scale Sesam 800 door installations. Through the software, all receiver configurations can be centrally managed and easily copied to the receivers through their memory cards. This allows for full control of Sesam receivers and transmitters in a single system. Changes are easily done through the software.

Art. No.

Sesam 800 MC Manager:

946422-000





Sesam 800 Mobile is our product family for radio remote control of mobile applications such as winches for ATVs and forest equipment as well as tail lifts. The Sesam 800 Mobile product family is designed to provide the most flexible, reliable and straightforward management needed for equipment in demanding environments.

Robust and rugged

The Sesam 800 Mobile product family has four transmitter models and one receiver. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. The transmitters and receiver are of class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses.

Confirmation of completed relay

The Sesam 800 Mobile system utilizes the 869 MHz frequency band with 12-channel automatic frequency selection. The system has an excellent response time, so the system immediately halts the selected function when the stop button is released. Communication between the transmitter and receiver is two-way, which allows a feedback indicator on the transmitter to show when a relay is active. The system uses 16.7 million

unique codes. Checksums ensure error-free message transmission. For applications with even higher security requirements, the system can be configured for encrypted transmissions.

Receiver with six high-side solid-state relays

The receiver is equipped with six high-side solid-state relays, which provide five motion functions through the main relay switch and one additional function. It comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more.



SESAM 800 MOBILE

Sesam 800 Mobile is our product family for radio remote control of non-safety critical mobile applications.

SESAM

Sesam 800 Mobile — Transmitters

The transmitters in the Sesam 800 Mobile product family are highly robust and designed to be user-friendly. The transmitters are available in four models, designed for tail lifts and winches for ATVs and forestry equipment. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. The transmitters are sturdily designed, with a shock-resistant edge guard. Each transmitter is class IP67, and can be exposed to extreme environments with dust, humidity and water without interruption.

SESAM 800 Mobile Winch 4

Number of functions/buttons:
4

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. No.
Sesam 800 Mobile Winch 4:

946858-000



SESAM 800 Mobile Winch 6

Number of functions/buttons:
6

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. No.
Sesam 800 Mobile Winch 6:

940339-000



SESAM 800 Mobile Tail Lift 4

Number of functions/buttons:
4

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. No.

Sesam 800 Mobile Tail Lift 4:

942412-000



SESAM 800 Mobile Tail Lift 6

Number of functions/buttons:
6

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. No.

Sesam 800 Mobile Tail Lift 6:

942413-000



SESAM

Sesam 800 Mobile — Receiver

The Sesam 800 Mobile receiver is equipped with six high-side solid-state relays, which provide five motion functions through the main relay switch and one additional function. It comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more. The receiver has a built-in antenna and uses two-way (duplex) communication. The receiver is adapted for forest and ATV winches and tail lifts with or without a cable.

SESAM 800 Mobile RX

Number of relays:

Six intelligent 10-24V DC high-side solid-state relays 3A continuous (4A peak) with short-circuit protection and current-limited.

Frequency:

869.700-870.000 MHz,
12 channels, GMSK

Supply voltage:

10-24V DC

Current consumption:

25mA at 12V DC

Output power:

Max 5W

Temperature range:

-25°C to +70°C

Art. No.

Sesam 800 Mobile receiver for:

ATV winch incl. cable:

Forest winch without cable:

Forest winch with cable:

Tail lift, 4 functions:

Tail lift, 6 functions:

Protection class:

IP67

Size:

120 x 90 x 50 mm

Weight:

350 g

Antenna:

Internal

Compliance:

IP67 EN 60529, Vibration EN 60068-2-6, Shock EN 60068-2-27

Radio compliance:

R&TTE Directive 99/5EC

941501-002

941501-100

941501-101

942407-000

942407-001





Sesam 800 Configurable is a robust, configurable radio control system for industrial and mobile applications. The system is suitable for an infinite range of applications. Some common usage areas include conveyor belts, water pumps, anchor gears and various on and off functions for lighting, fans, etc.

Robust and durable

Sesam 800 Configurable consists of two transmitter models, one with a customisable layout, and one receiver. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. The transmitters and receiver are of class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses.

Automatic frequency selection and six configurable buttons

Sesam 800 Configurable utilizes the 869 MHz frequency band with 12-channel automatic frequency selection. The system has six configurable functions that can be programmed for immediate/persistent functions. It is very easy to use and incorporates modern digital technology.

Rapid response time

Response time in the system is very quick due to duplex communication between

the transmitter and receiver. This two-way technology enables a relay feedback indicator on the transmitter that turns green during active communication with the application. Checksums ensure error-free message transmission.

Receiver with six high-side solid-state relays

The receiver is equipped with six high-side solid-state relay switches, a fiber-glass reinforced enclosure, and a diaphragm vent, that enables it to be used in extreme environments that put high requirements on tolerances for shock, vibration and more.

SESAM 800 Configurable



SESAM 800 CONFIGURABLE

Sesam 800 Configurable is a robust, configurable radio control system for industrial and mobile applications.

SESAM

Sesam 800 Configurable — Transmitters

The transmitters are highly robust, easy to use, and available in two models: one with a 1-6 layout, and one with a blank layout where it is possible to customize the symbols on the button frame. A frame label with standard symbols is always included. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. They are sturdily designed, with a shock-resistant edge guard. Each transmitter is class IP67, and can be exposed to extreme environments with dust, humidity and water without interruption.

SESAM 800 Configurable 1-6

Number of functions/buttons:
6

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. no.
Sesam 800 Configurable 1-6:

947046-000



SESAM 800 Configurable (custom frame layout)

Number of functions/buttons:
6

Current consumption:
25mA at 12V DC

Supply voltage:
3V (2xAAA)

Protection class:
IP67

Temperature range:
-25°C to +70°C

Size:
100 x 60 x 25 mm

Frequency:
869.700-870.000 MHz,
12 channels, GMSK

Weight:
130 g (incl. batteries)

Output power:
Max 5 mW

Art. No.
Sesam 800 Config, blank layout:
(Delivered with a standard layout label)
Sesam 800 Config, custom layout:

947040-001

947040-002





When other products give up.
Ours just keep on going.
Day after day.
In the real world.
Your world.

SESAM

Sesam 800 Configurable— Receiver

The Sesam 800 Configurable receiver is equipped with six high-side solid-state relays, which provide five motion functions through the main relay switch and one additional function. It comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more. The receiver has a built-in antenna and uses two-way (duplex) communication.

SESAM 800 Configurable RX

Number of relays:

Six intelligent 10-24V DC high-side solid-state switches 3A continuous (4A peak) with short-circuit protection and current-limited.

Frequency:

869.700-870.000 MHz,
12 channels, GMSK

Supply voltage:

10-24V DC or 230V AC with a separate relay box

Current consumption:

25mA at 12V DC

Output power:

Max 5W

Temperature range:

-25°C to +70°C

Protection class:

IP67

Size:

120 x 90 x 50 mm

Weight:

350 g

Antenna:

Internal

Compliance:

IP67 EN 60529, Vibration EN 60068-2-6, Shock EN 60068-2-27

Radio compliance:

R&TTE Directive 99/5EC

Art. No.

Sesam 800 Configurable RX:

947051-000

Relay box for 230V including relay:

947394-000





SESAM 6000

Sesam 6000 is a robust radio control system for mobile applications. The system can be used for radio control in warehouse storage systems and for applications in which display values are transmitted from one or more transmitters. The Sesam 6000 consists of one transmitter and two receivers.

SESAM 6099

Number of functions:
4 (optional 6)

Supply voltage:
9V battery or 12–24V DC
via vehicle cassette

Temperature range:
-25°C to +55°C

Frequency:
434.050–434.775 MHz FSK
30 channels

Art. No.

Sesam 6099:

Output power:
10 mW, TDMA

Size:
142 x 68 x 26 mm

Weight:
175 g

939340-000



TRANSMITTER SESAM 6099

The Sesam 6099 transmitter uses a three-digit lit LCD display and can be vehicle-mounted. When mounted, the transmitter is powered through its cassette holder, which is connected to 12–24V. The keyboard is lit while the transmitter is in the vehicle holder. The transmitter also has a keypad lock and a low battery warning.



SESAM

Sesam 6000 — Receiver

The Sesam 6000 system includes two receiver models. The first has 13 relay outputs with selectable applications. These are pre-programmed with applications, which are selected using a dial for each usage area. The second model is a compact unit that operates under 12-24V DC. This unit has one serial port (RS-232) for connecting to an external PLC/PC, and four half-side solid-state relay switches with short-circuit protection for control of simple systems. The serial port makes it possible to connect the unit to a host system for further processing of information from the transmitter, such as display values, serial numbers and function values. The receiver contains an event log and a blacklist for lost transmitters.

SESAM 6000 RX

Number of relays:
13 relay outputs, variable function

Size:
285 x 180 x 75 mm

Frequency:
434.050-434.775 MHz FSK
30 channels

Weight:
1.4 kg

Maximum load:
4A/250V AC resistive load

Supply voltage:
115/230V AC or 12-35V DC

Power consumption:
max 12 VA

Temperature range:
-25°C to +55°C

Art. No.
Sesam 6000 RX: 937772-000



SESAM 6000c

Number of relays:
1 serial port (RS-232) and 4 high-side solid-state relays

Size:
110 x 114 x 38 mm

Frequency:
434.050-434.775 MHz FSK
30 channels

Weight:
270 g

Maximum load:
1A 12-24V DC

Supply voltage:
12-24V DC

Current consumption:
max 50 mA w/o load

Temperature range:
-25°C to +55°C

Art. No.
Sesam 6000c: 938683-000





SESAM

SESAM — Accessories

We offer various accessories such as lanyards and wall and vehicle mounting units. Cassette holders for vehicle mounting are available for the Sesam 800 Large and Sesam 6099 transmitters. The cassette holders have an external power input of 12-24V and an antenna connector (FME) for poor transmission conditions. The cassette holder for Large99 is also available without electronic components. For special conditions, an external antenna and cable for the receiver is available.



Cassette holder

**CASSETTE HOLDER
INCL. ELECTRONICS**
Sesam 800 Large 15/99
Art. No. 943015-000

**CASSETTE HOLDER
WITHOUT ELECTRONICS**
Sesam 800 Large 15/99
Art. No. 943015-003



Cassette holder

**CASSETTE HOLDER
INCL. ELECTRONICS**
Sesam 6099
Art. No. 924325-000



Holder for vehicle or wall

HOLDER MEDIUM
Sesam 800 Medium
Art. No. 947219-001



Holder for vehicle or wall

HOLDER SMALL
Sesam 800 Small 3/6
Art. No. 947220-001
HOLDER KEYRING
Sesam 800 Keyring
Art. No. 947568-00



Lanyard

**LANYARD WITH SNAP-
HOOK AND QUICK CLIP,
100 CM**

Art. No. 941258-000



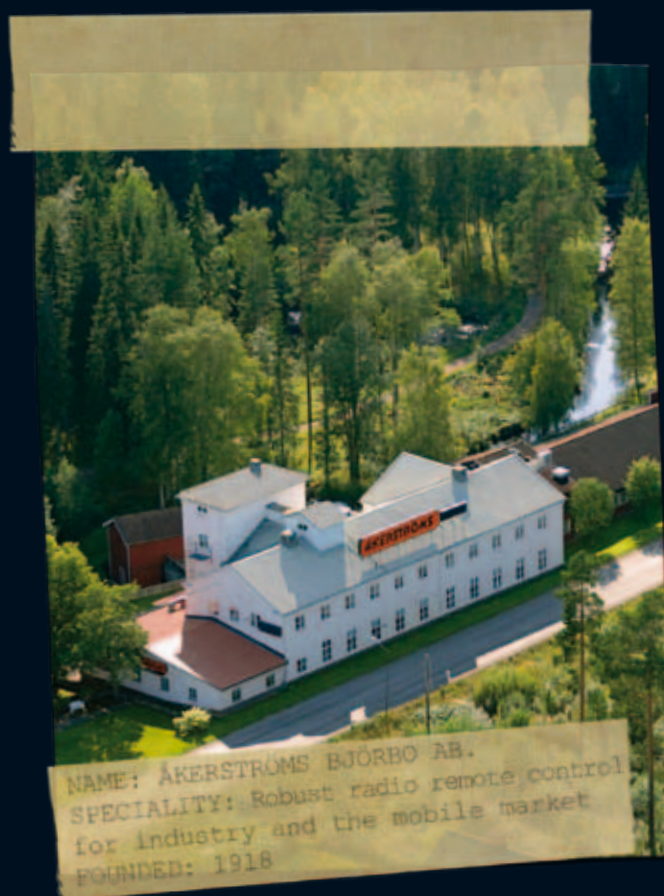
Wall mount

WALL MOUNT LARGE
Sesam 800 Large 15/99
Art. No. 947147-000



SESAM 800 CASSETTE HOLDER

The cassette for vehicle installation has an external power input of 12-24V and an antenna connector (FME) for an optional antenna during poor transmission conditions. The cassette holder is also available without electronic components.



Åkerströms Björbo AB
SE-785 45 Björbo, Sweden
Phone +46 241 250 00
sales@akerstroms.com
akerstroms.com

