

# ACMC1 - User Guide

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Revision 1.2  
22 November 2005



# ACS Remote Control - User Guide

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**Revision 1.6**

**10 May 2005**



# Instruction for Safe Operation

## 1. RANGE OF ENVIRONMENT CONDITIONS

This product is designed to be safe under the following environmental conditions:

- ❑ Indoor Use
- ❑ Altitude up to 2000M
- ❑ Temperature of 5°C to 40°C
- ❑ Maximum relative humidity 80%

2.



This symbol is marked on the equipment when it is necessary for the user to refer to the manual for important safety information.

3.



This symbol denotes a potential hazard. Attention must be given to the statement to prevent damage, destruction or harm.

## NOTICE:

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- ⇒ Reorient or relocate the receiving antenna.
- ⇒ Increase the separation between the equipment and receiver.
- ⇒ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ⇒ Consult the dealer or an experienced radio/TV technician for help.

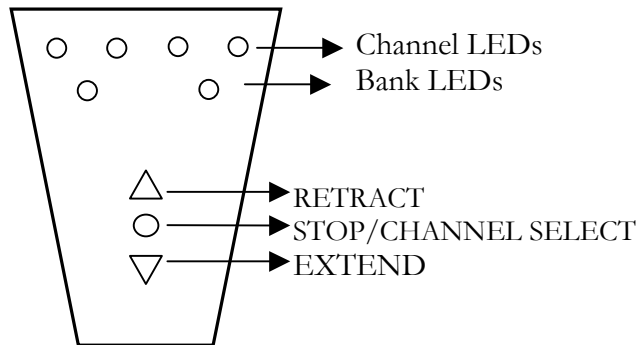
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# 1 The ACS Remote Control

The ACS Remote Control is designed to control the ACS and non-ACS motor controllers used for awnings and slide-rooms. The remote is available in two and eight channel versions, able to control up to two and eight different motor controllers respectively. These motor controllers can be controlled individually or in a group.

The currently selected bank/channel is indicated using six LEDs. The remote control can send commands to local motor controllers using three buttons. The following diagram indicates the position and name of the various buttons and LEDs:



Two AA size batteries power the RF Remote.

## 1.1 Bank and Channel LEDs

When any button is pressed, the remote will 'wake-up' and illuminate the currently selected Bank and Channel LEDs. The remote will automatically 'sleep' 4 seconds after the button is released, and turn off the LEDs. The ACS Remote Control can control up to 8 channels individually or in groups, known as banks.

The ACS Remote Control has two banks. The left bank LED indicates bank 1 and the right bank LED indicates bank 2 (8 channel model only).

If the STOP button is pressed twice and held down for more than 2 seconds, the selected bank/channel will begin advancing automatically. The 2 channel remote can select either channel 1, 2, or 1 and 2. The 8 channel remote will follow the sequence shown below:

Selected Bank/Channel	Bank LED	Channel LED
CH1	Left	1
CH2	Left	2
CH3	Left	3
CH4	Left	4
Bank1	Left	1,2,3,4
CH5	Right	1
CH6	Right	2
CH7	Right	3
CH8	Right	4
Bank2	Right	1,2,3,4
Bank1, Bank2	Left, Right	1,2,3,4

The STOP button should be released when the required channel or group is reached.

## 1.2 Remote Commands

Following operations can be performed from the RF remote.

- **Jog-Retract** - Pressing the RETRACT button for less than two seconds causes the awning to retract in jog mode. Retracting stops the moment the button is released.
- **Jog-Extend** - Pressing the EXTEND button for less than two seconds causes the awning to extend in jog mode. Extending stops the moment the button is released.
- **Stop** - Pressing the STOP button stops awning movement immediately. The STOP button should be released within two seconds to avoid changing the currently selected bank/channel.
- **Full-Retract** - Pressing the RETRACT button for more than 2 seconds causes the awning to fully retract.
- **Full-Extend** - Pressing the EXTEND button for more than 2 seconds causes the awning to fully extend.
- **Override-Retract** - Pressing the EXTEND button for more than 7 seconds causes the awning to retract overriding the current limiter. Retracting stops the moment the button is released.
- **Connect** - This command is used when you want to 'learn' a new remote ID/channel with either the ACS RF board, or the APMC1 board. This is not a group command and it should be used with a single channel only. If the remote ID / channel pair already exists, it will be 'un-learned'.
  1. Select the required channel by using the STOP button.
  2. Press and release the CONNECT button on the ACS RF board or APMC1 board.
  3. The status LED of the ACS RF board or APMC1 board begins to flash.
  4. Press the EXTEND and RETRACT buttons simultaneously until the ACS RF board or APMC1 board status LED stops flashing.
  5. If status LED turns off then the 'learning' process has completed successfully. If the status LED fails to turn off, the process has failed.
  6. Press the RETRACT or EXTEND button to test for proper communication.

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- ❑ Mains supply voltage fluctuations not to exceed  $\pm 10\%$  of the nominal Voltage.

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- ⇒ Reorient or relocate the receiving antenna.
- ⇒ Increase the separation between the equipment and receiver.
- ⇒ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
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## The ACMC1 board

The ACMC1 board is used to control an AC motor, of either an awning or slide-room. The ACMC1 can be controlled by the ACS Remote Control, an existing ACS Controller or from the local control inputs. In addition to basic extend and retract functionality, the ACMC1 supports the following features (not all features are fitted to all models, please consult your dealer for available features):

- **Ignition monitoring** When the vehicle ignition is turned on, the awning or slide-room is automatically retracted for safety reasons.
- **Parking-brake monitoring** When the vehicle parking brake is released, the awning or slide-room is automatically retracted for safety reasons.
- **Anemometer (Wind-speed) sensing** An external anemometer may be used to measure local wind-speed. The awning will be automatically retracted when the wind-speed is too high.
- **Limit-switch inputs** The motor is automatically stopped when the awning / slide-room position limit-switch is tripped.
- **Current-limiter** The motor is automatically stopped when it stalls at the extent of operation. The current-limiter is implemented on retract only, in order to account for awning-stretch over time, ensuring that the awning always is fully retracted.

## 1 Remote Learning Process

Before an ACMC1 board can accept commands from an ACS Remote Control, it must first 'learn' the unique ID and current channel number of the transmitting remote. The ACMC1 can store up to 16 remote control ID/channel pairs in its memory. This means that the ACMC1 board can be controlled by up to 16 different ACS Remote Controls. One may also configure the ACMC1 to respond to multiple channels from an ACS Remote Control. This allows the ACMC1 board to be controlled on a channel individually, and additionally controlled as part of a group, using the same ACS Remote Control. Configuring more than 16 ID/channel pairs will replace the oldest programmed one and so forth.

The remote ID/channel learning process can be initiated either by pressing the Connect Button or during power-up. When the power is turned on, or the Connect Button is pressed, the ACMC1 listens for a connect signal from the ACS Remote Control for 20 seconds. During this interval the status LED will flash. When the connect signal is received, the ACMC1 stores, or 'learns', the unique ID and current channel number of the transmitting remote. The status LED will turn off if the ID/channel is learned successfully. Upon failure the LED will stop flashing and remain on for 1 minute.

An existing ID/channel pair may be removed from memory, or 'unlearned', by attempting to re-learn it. All stored ID/channel pairs may be removed from the ACMC1 board's memory by holding the Connect Button for 10 seconds.

The position of the connect button and status LED will vary by installation, contact your installer for further details.

Consult the documentation for the ACS Remote Control for details on its operation.

## 2 Troubleshooting

Description of Problem	Possible Causes
Awning / slide-room does not respond to commands from remote.	<ul style="list-style-type: none"><li>• The ACS Remote may not have been properly 'learned' by ACMC1 board (section 1).</li><li>• Ignition is active.</li><li>• Park-brake not engaged.</li><li>• Wind speed has exceeded the preset threshold for safe operation.</li><li>• The awning / slide-room is jammed.</li><li>• Slide-room enable button has not been pressed.</li></ul>
Awning / Slide-room automatically retracts and will not extend.	<ul style="list-style-type: none"><li>• Ignition is activate.</li><li>• Park-brake not engaged.</li><li>• Wind speed has exceeded the preset threshold for safe operation.</li></ul>



# ACS RF - User Guide

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**Revision 1.0**  
**10 May 2005**



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## 1 The ACS RF board

The ACS RF board adds RF communication between the ACS Remote Control and the existing ACS controller, used for awnings. In addition to RF remote control functionality, the ACS RF board provides the following additional features:

- Ignition monitoring, to ensure that the awning is automatically retracted if the vehicle is started.
- Park-brake monitoring, to ensure that the awning is automatically retracted if the park-brake is released / not engaged.
- Wind-speed monitoring (via an anemometer), to continuously measure the wind speed and retract the awning if the speed exceeds a defined threshold.

## 2 Learning Process

Before an ACS RF board can accept commands from an ACS Remote Control, it must first 'learn' the unique ID and current channel number of the transmitting remote. The ACS RF can store up to 16 remote control ID/channel pairs in its memory. This means that the ACS RF board can be controlled by up to 16 different ACS Remote Controls. One may also configure the ACS RF to respond to multiple channels from an ACS Remote Control. This allows the ACS RF board to be controlled on a channel individually, and additionally controlled as part of a group, using the same ACS Remote Control. Configuring more than 16 ID/channel pairs will replace the oldest programmed one and so forth.

The remote ID/channel learning process can be initiated either by pressing the Connect Button or during power-up. When the power is turned on, or the Connect Button is pressed, the ACS RF listens for a connect signal from the ACS Remote Control for 20 seconds. During this interval the status LED will flash. When the connect signal is received, the ACS RF stores, or 'learns', the unique ID and current channel number of the transmitting remote. The status LED will turn off if the ID/channel is learned successfully. Upon failure the LED will stop flashing and remain on for 1 minute.

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The position of the connect button and status LED will vary by installation, contact your installer for further details.

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### 3 Troubleshooting

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Awning does not respond to commands from remote.	<ul style="list-style-type: none"><li>• The ACS Remote may not have been properly 'learned' by ACS RF board (section 1).</li><li>• Ignition may have been activated.</li><li>• Park-brake may not be activated.</li><li>• Wind speed may have exceeded the preset threshold for safe operation.</li><li>• The awning may be jammed.</li></ul>
Awning automatically retracts and will not extend.	<ul style="list-style-type: none"><li>• Ignition may have been activated.</li><li>• Park-brake may not be activated.</li><li>• Wind speed may have exceeded the preset threshold for safe operation.</li></ul>