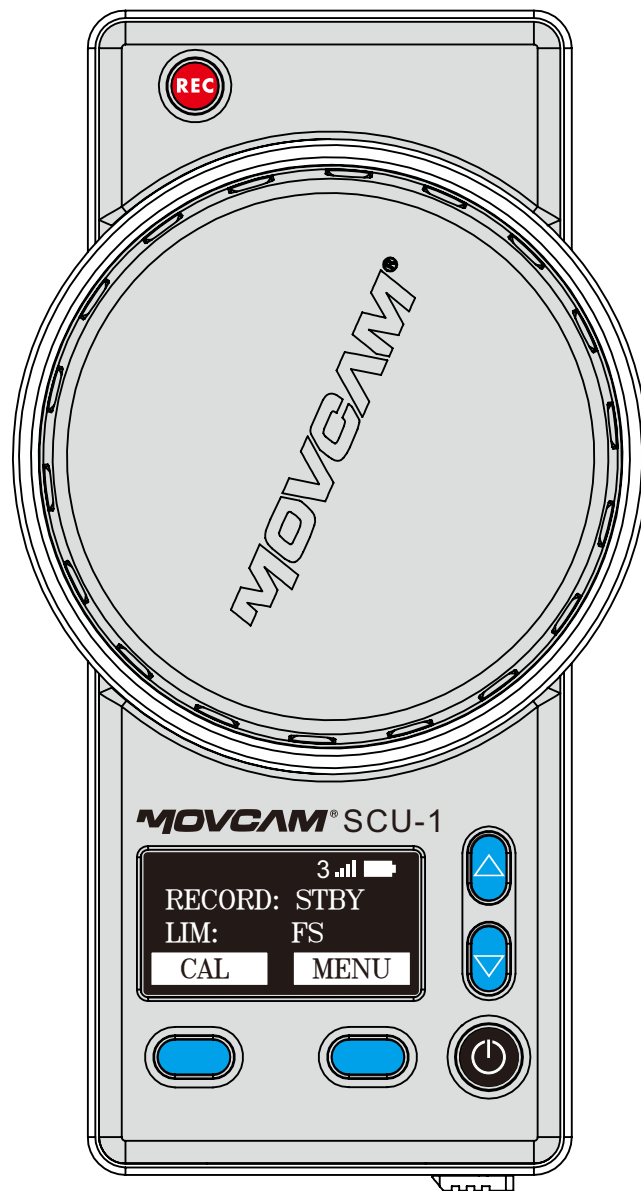




# Wireless Lens Control System

## User Guide



Version: V1.00  
April, 2015

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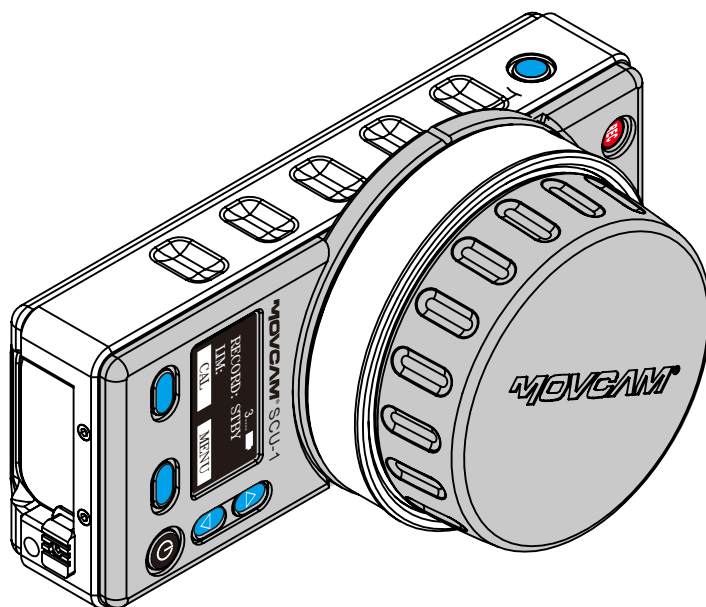
## **Caution:**

1. Please read the instructions carefully before use.
2. Keep fingers away from the gear when the motor is working to avoid possible injury.
3. Keep the motor gear set against the lens gear and tighten the motor lock screw when mounting motors.
4. Re-calibrate the motor every time after changing lens and motor position to avoid possible damage to lens.
5. Hand control unit and receiver box must be set at the same channel to achieve wireless transmission.
6. Make sure the battery is fully-charged before updating software. Do not turn off the power or turn off the system during updating.
7. Operation Environment: Operation Temperature: -20--50°C, Humidity: 20% --90% RH (non-condensing)

**A:Features**

1. Silent motor, precision speed reduction mechanism
2. Modular design and zoom extension module
3. Wireless module with ISM 2.4M frequency range
4. Work with all most cameras' REC/STOP 'button
5. 1.56"OLED screen, readable under sunlight
6. Software update via miniSD card
7. Lightweight and compact
8. Calibrating and setting limit on both ends of lens automatically
9. Two control modes: wireless control and cable control
10. Control of ENG lens
11. Compatible with Movcam auto follow focus system-- AcFocus
12. Ergonomical design, easy to operate

# Features



1. Single Axis Hand Control Unit SCU-1

### Technical Data

#### Wireless Module:

Frequency: ISM2.4M

Transmission delay: less than 12ms

Indoor transmission distance: 30m

Outdoor transmission distance: 200m

Memory Card: miniSD card

Battery: SONY NP-F570/F550 7.4V 2600mAh

Power: 12v---24V

Power Consumption: 150mA, 7.2V

Screen: 1.54" OLED screen, Visible in sunlight

#### Measurements:

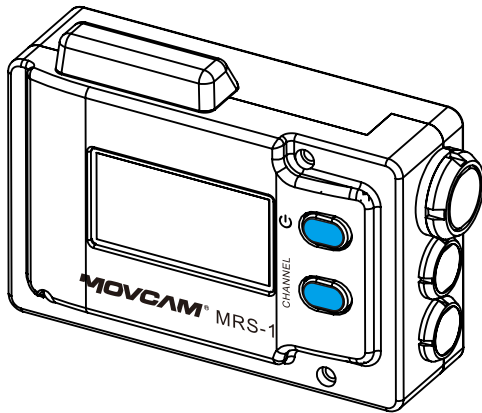
length:156mm

Width:84mm

Height:75.5mm

Weight(without battery):435g

# Components



### 2. Receiver Box Module MRS-1

Cameras MRS-1 can control::

ARRI:ARIXA,AMIRA,ARIXA MINI,

SONY:F5/F55, FS700, FS7,

RED:EPIC,SCARLET,

CANON:C500/C300/C100

BLACK MAGIC:BMCC,BMPCC,

### Wireless Module

Transmission Delay: less than 12ms

Indoor transmission distance: 30m

Outdoor transmission distance: 200m

Volt Range: 12V-24V

Power supply:  $>2$  A

Screen: 0.48" OLED, Visible in sunlight

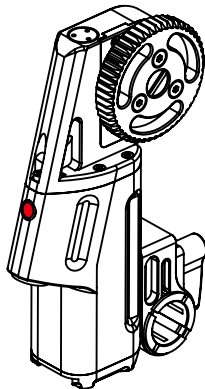
### Measurements

Length:79mm

Width:83mm

Height:29.5mm

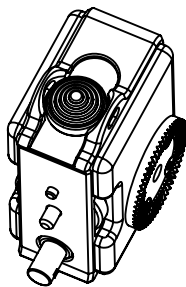
Weight:175g



### 3. UM-1 Motor

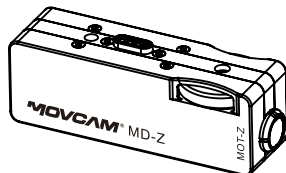
Motor is very quiet. It uses precision speed reduction mechanism to ensure smooth operation.

Press the button to change direction of motor. Press and hold for 3 seconds, the motor calibrates automatically.



### 4. ZOOM extension module ZSU-1 (Optional)

It uses pressure sensor, which is extremely sensitive and ideal for precision control.



### 5. Extension Motor Drive Modules MD-I/ MD-Z (Optional)

There are 2 extension motor drive modules: MD-I and MD-Z, corresponding to IRIS and ZOOM of lens. When 2 modules are required, one must be MD-I and the other MD-Z. Two of the same module cannot be used together.

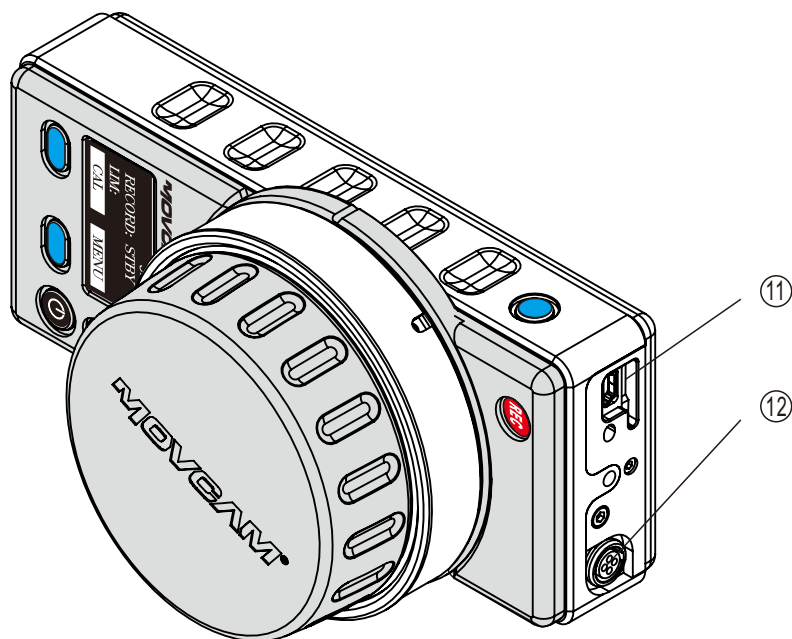
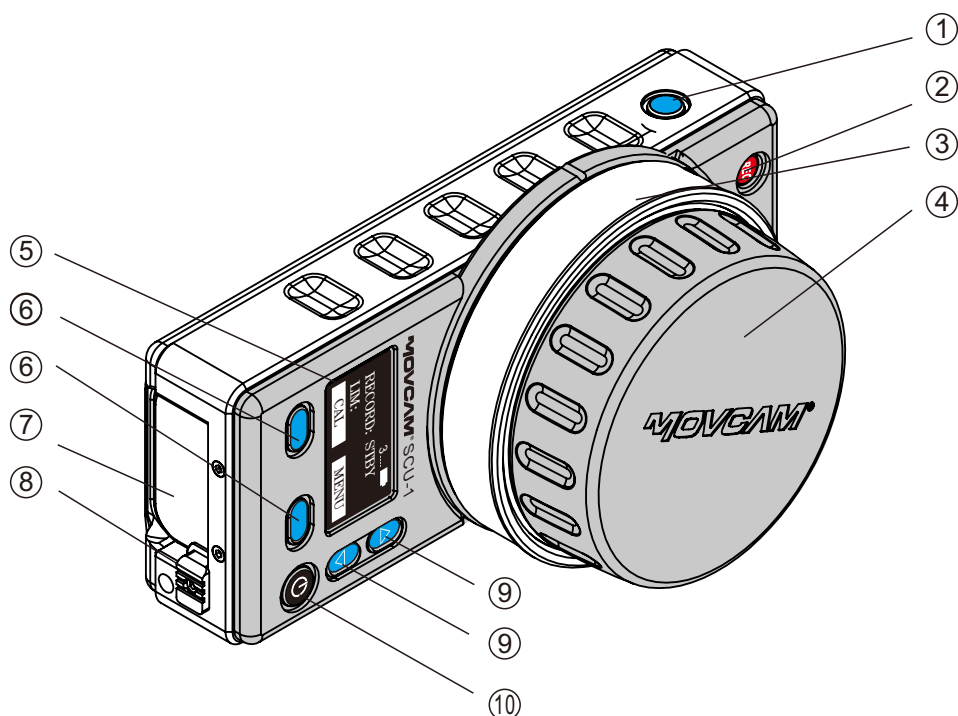
### 6. Accessories

Motor cable: CRM-1

CAN cable: CAN-1

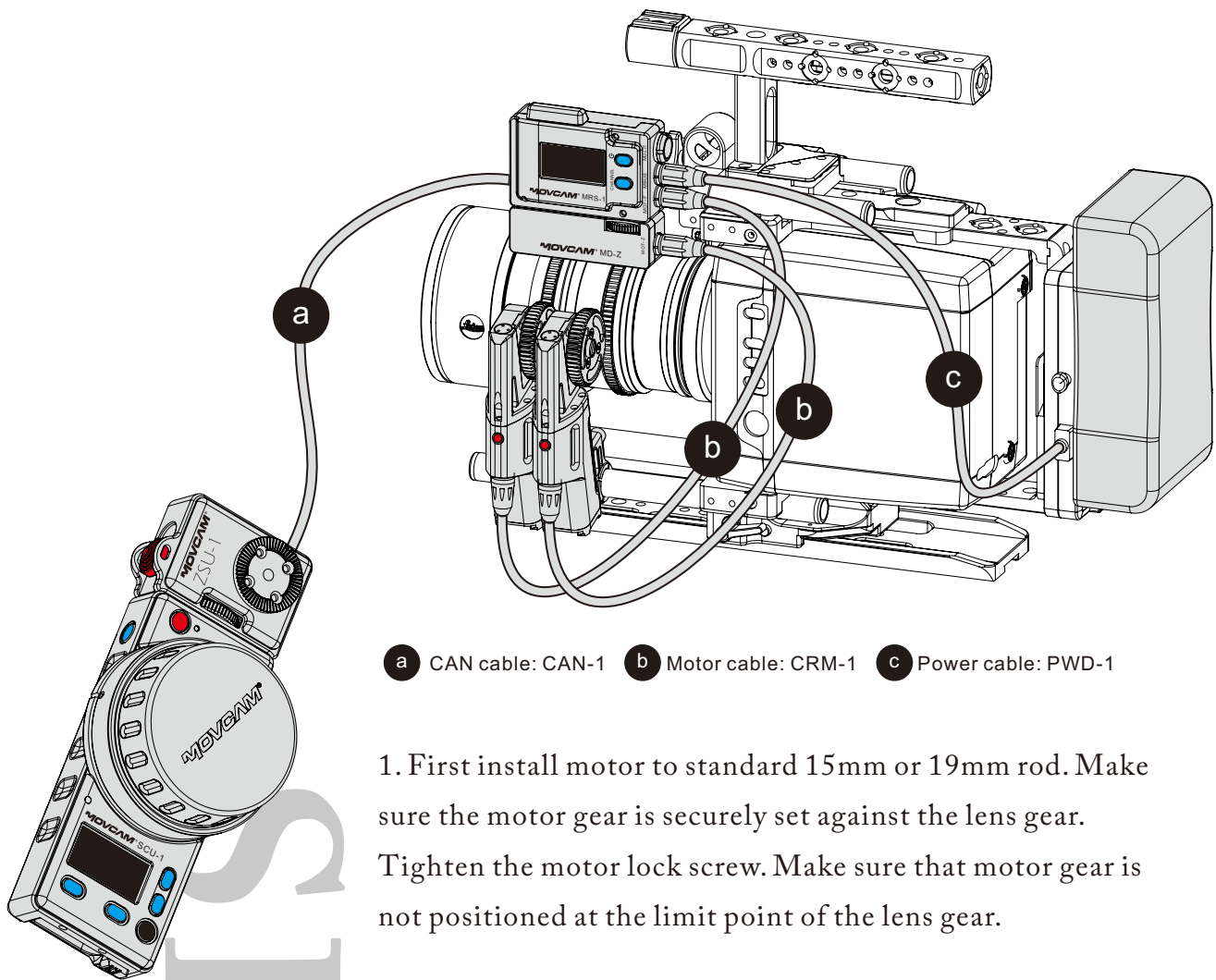
Power cable: PWD-1

Strap



- |                |                          |                    |
|----------------|--------------------------|--------------------|
| ① Limit Button | ⑤ OLED Display Screen    | ⑨ UP / Down Button |
| ② Start / Stop | ⑥ Function Buttons       | ⑩ Power Switch     |
| ③ Marking Disc | ⑦ Battery Cartridge      | ⑪ USB/miniSD CARD  |
| ④ Hand Knob    | ⑧ Battery Cartridge Lock | ⑫ MBUS             |





**a** CAN cable: CAN-1   **b** Motor cable: CRM-1   **c** Power cable: PWD-1

1. First install motor to standard 15mm or 19mm rod. Make sure the motor gear is securely set against the lens gear.

Tighten the motor lock screw. Make sure that motor gear is not positioned at the limit point of the lens gear.

2. Mount the wireless receiver box

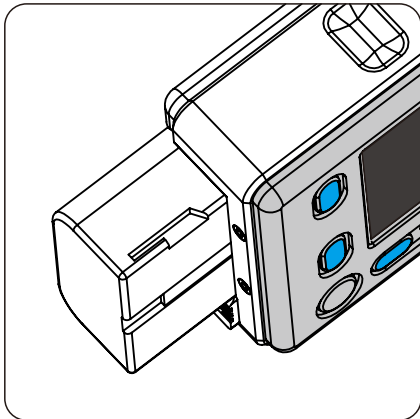
Secure the wireless receiver box properly and turn the antenna upward to enhance the wireless transmission.

3. Connect motor and wireless receiver via RCM-1;  
Plug PWD-1 to receiver box.

4. Turn on the receiver

Press and hold ON/OFF button for 3 seconds

Set the wireless module at the same channel as the control unit.

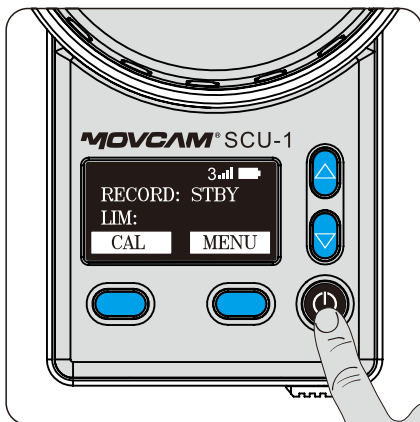


#### 5. Install battery for hand control unit

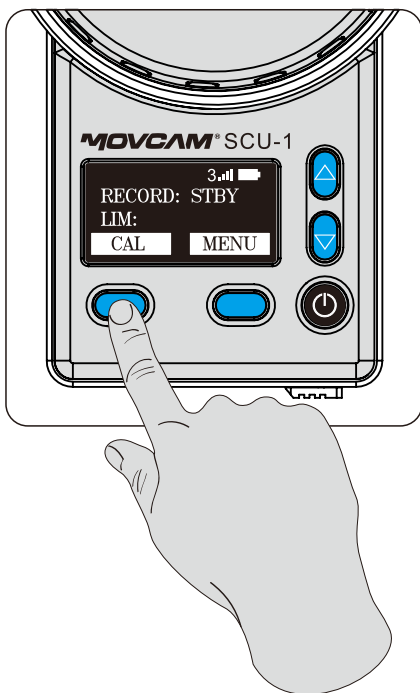
Insert fully-charged battery into battery cartridge

#### 6. Turn on the Hand Control Unit

Press and hold ON/OFF button for 3 seconds.



#### 7. Set wireless module at the same channel as the receiver.



#### 8. Motor Calibration

Press and hold "CAL" button for 3 seconds, motor starts calibrating automatically.

## Limit Set

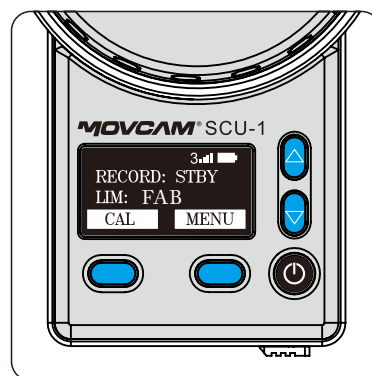
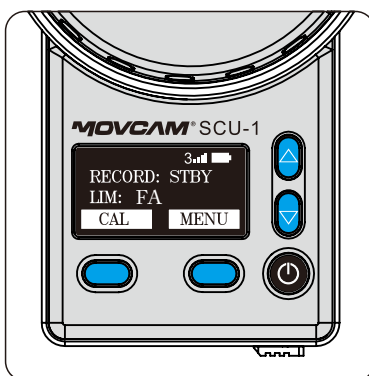
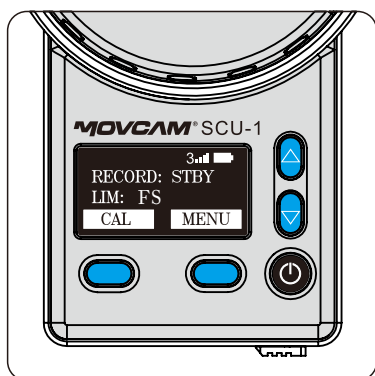
Limit button makes focus change easily between point A and point B.

### How to Set:

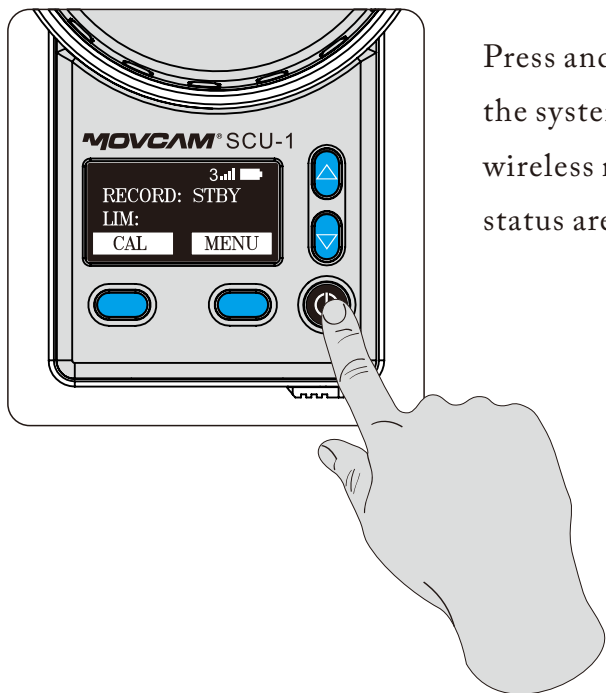
Turn handwheel/ handknob to expected focus point A, press limit button to set. The screen display will show: LIM: FA. Then, turn handwheel / handknob to expected focus point B, press limit button to set again. The screen will read : LIM: FAB. Thus limit set is completed and focus is set between Point A and Point B.

### How to Cancel Limit Set:

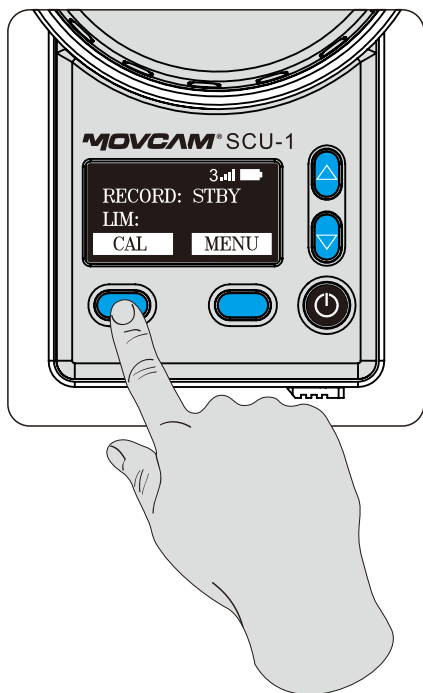
Press the limit button, then limit set is cancelled.



### 1. Turn-on



Press and hold ON/OFF button for 3 seconds to turn on the system and enter home menu, where intensity of the wireless module, frequency, battery capacity and camera status are all displayed.



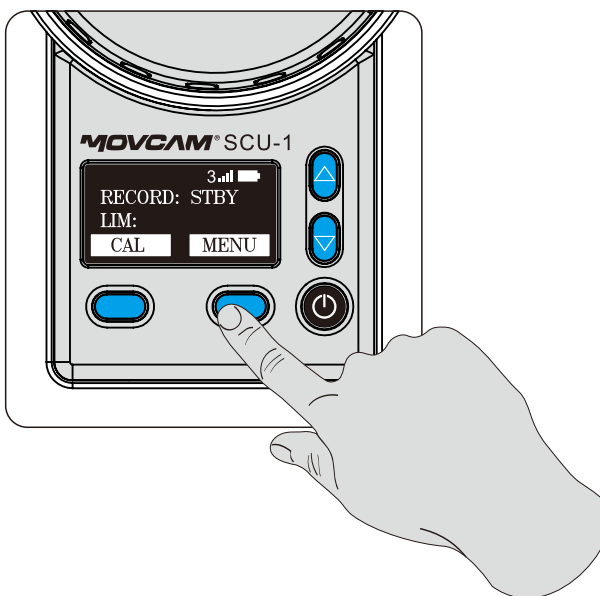
### 2. Motor Calibrating

Press and hold "CAL" button for 3 seconds to start automatic calibrating.

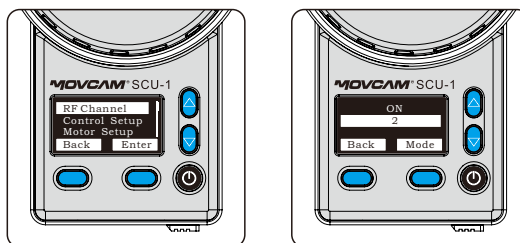
# Menu

### 3. Enter Menu

Press "Menu" button to enter home page



### 4. Switch wireless module channel



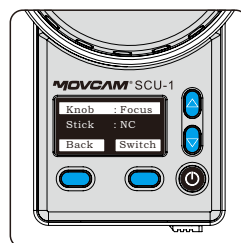
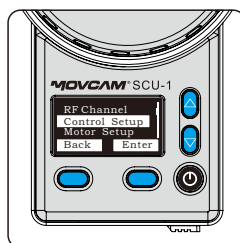
Select "RF Channel"

Press "UP" or "DOWN" buttons to select a range of channels from 1 to 9.

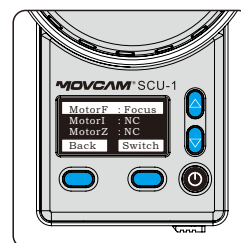
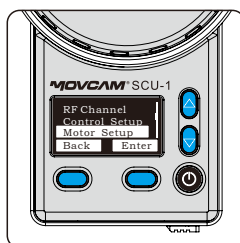
Turn on/ Turn off wireless module.

Press "Mode" button to turn on or turn off wireless module.

5. Select “Control Setup”, Press “Enter” to go to next level to choose among “Focus/ Iris/ Zoom” for the handwheel or stick. Press Up or Down button to choose “Knob” or “Stick”. Then Press “Swicth” to change among focus ring, iris ring or zoom ring.



6. Select “Motor Setup”, press “Enter” to go to next level to choose among “Focus/ Iris/ Zoom” for the right motor via Up or Down button. Then, you can use Switch button to change control among focus, iris and zoom.

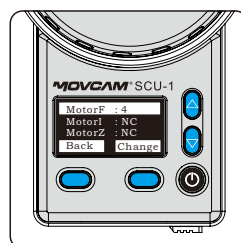
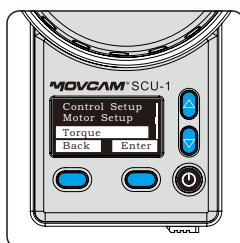


## 7. Adjust torque

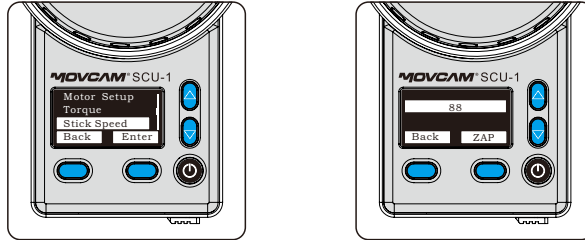
Select “Torque”, press “Enter” to go to next level to choose among “Focus/ Iris/ Zoom” for the right motor via Up or Down button. Press “Change” button to choose the torque scale.

Each motor torque can be adjusted individually.

Scale 1 is the weakest setting while scale 4 is the strongest.



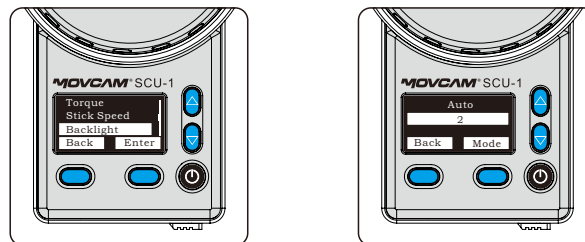
## 8. Stick Speed



Select "Stick Speed" to set the stick speed on a range from 1 to 100.

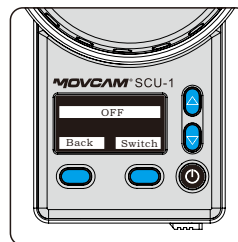
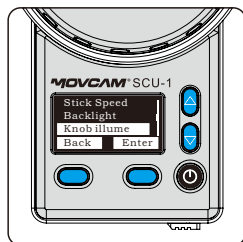
Scale 1 is the lowest speed while scale 100 is the highest speed. Press "ZAP" button for highest speed.

## 9. Adjust brightness of the OLED screen



Select "Backlight" to adjust brightness of the OLED screen. Press "Mode" button to switch between manual and auto setup. Manual setup has a range from 1 to 9 scales to choose brightness.

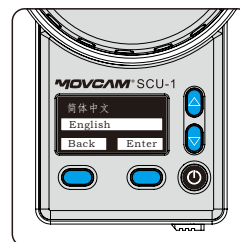
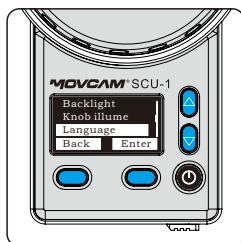
#### 10. Knob Illumination Switch



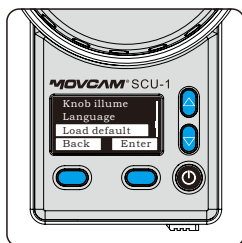
Select "Knob Illume"

Press "Switch" button to turn on or turn off knob illumination.

#### 11. Language

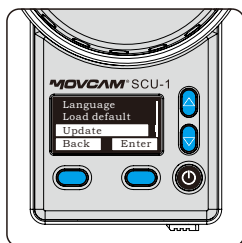


Select "Language" or "语言" to switch between English and Chinese.



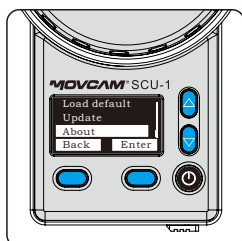
#### 12. Restore Factory Defaults

Select "Load default" to go back to factory defaults.



#### 13. Software update

Select "update" to set up each module software, including single-axial hand control unit, ZOOM extension module and receiver box.



#### 14. System data

Including system model, software version, product serial number, address for wireless module MAC, which are all very important information for maintenance.





#### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **Report All Incidents**

If your Movcam wireless lens control system performs in a way that you do not intend or in a way that it is not supposed to, contact Movcam Customer Center.

Phone: +86 755 83114888

Fax: +86 755 83115333

Email: [mov800@movcam.com](mailto:mov800@movcam.com)

Website: <http://www.movcam.com>