

SPWM(Seat Position With Memory) UNIT

7410-32

GENERAL

1. SPECIFICATIONS

1) Driver's Power Seat

Input s	Specifications		
Position sensor	Type	Reed switch type	
	ON:OFF ratio	50 ± 20 %	
	Contact current	Max. 0.5 A	
	Chattering	Max. 0.2 msec	
	Stroke	Sliding	228 mm ± 3 mm
		Reclining	23° (front) ↔ 0° ↔ 48° (rear)
		Raising (FRT/RR)	30 ± 3mm
	Total number of pulses	Sliding	1,200 Pulses
		Raising (FRT/RR)	46.93 Pulses
	Operation speed	Sliding	17.9 mm / Sec
		Reclining	3.50° / Sec
		Raising (FRT/RR)	7.0 mm / Sec
	Resolution	Sliding	0.188 / Pulse
Raising (FRT/RR)		0.64 / Pulse	
Variable resistance	REC		
SPWM memory switch	Type	Self-return type	
	Contact current	Min. 10 mA	
	Chattering	Max. 10 msec	
Manual switch	Type	Self-return type (Active low)	
	Contact current	Max. 7A	
	Chattering	Max. 10 msec	

2) Actuator

Actuator	Specifications		
For sliding/ reclining/raising front and rear (DC motor)	Rated voltage	DC 12V	
	Operation current	Sliding	Max 2A (No-load)
		Reclining (REC)	Max 3.6A (AT 1.5 Nm)
			Max 8.0A (AT 12 Nm)
	Raising (FRT/RR)	Max 3A	
	Limited current	Sliding	Max 16A
		Reclining	Max 13A
Raising		Max 11A	

Modification basis	
Application basis	
Affected VIN	

 SPWM
 undefined
FUSE &
RELAYS

RKSTICS

IMMOBIL
IZERCLUSTE
R

SPWM

SEAT
WARMER

SWITCH

WIPER &
WASHERRAIN
SENSOR

LAMP

MULTI
JACKPARKING
AIDAV
SYSTEM

3) Outside Rearview Mirror

► Manual Mode (Normal): 12V

Inputs	Specifications	
Mirror drive motor	Rated voltage	DC 12V
	Operation current	Max. 0.2A
	Limited current	Max. 1.5A
	Operation speed	$2.5^{\circ} \pm 0.5^{\circ} / \text{sec}$ (at 12V)
Folding motor	Rated voltage	DC 12V
	Operation current	Max. 3A
	Limited current	Max. 3.4A
	Turn over torque (by hand)	Manual folding: Min 50 kgf·cm Electric folding: Max 100 kgf·cm

► Position Sensor and Folding Switch

Inputs	Specifications	
Position sensor	Type	Variable resistance
	Rated voltage	DC 5V
	Output tolerance	$\pm 0.1 \text{ V}$ ($\pm 2\%$ from max. output)
	Supply current	Max 20 mA, 0.25W
	Operation range	Vertically and horizontally: $\pm 8^{\circ}$
Folding switch	Type	Self-return type (Active high)
	Contact current	Min. 10 mA
	Chattering	Max. 10 msec
Manual switch	Type	Self-return type (Active low)
	Contact current	Max. 7A
	Chattering	Max. 10 msec

► Motor

Inputs Controls	H	C	V
UP	GND	12V	GND
DOWN	12V	GND	12V
OFF	GND	GND	GND
RIGHT	GND	12V	12V
LEFT	12V	GND	GND

► Motor Output (normal mode: ground)

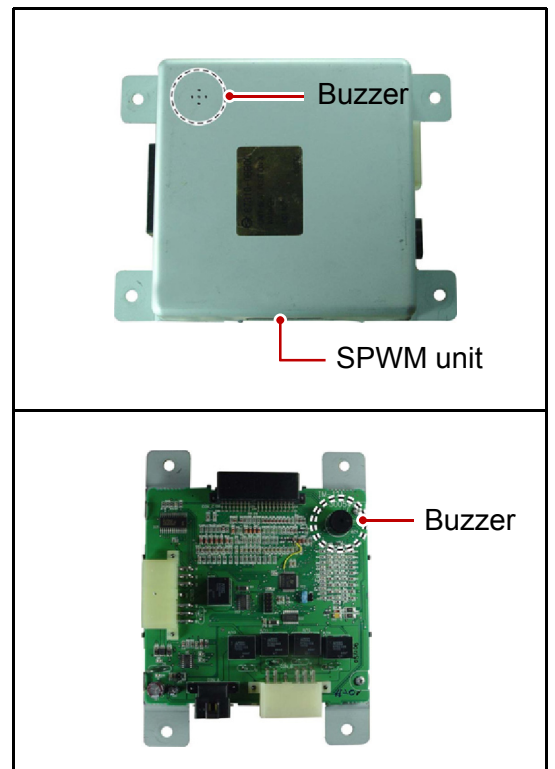
Controls \ Input s	H	C	V
UP	GND	GND	12V
DOWN	12V	12V	GND
RIGHT (IN)	GND	12V	12V
LEFT	12V	GND	GND

4) Buzzer

Output	Specifications	
Buzzer	Rated volatage	DC 12V
	Rated current	Max. 30 mA
	Acoustic pressure	Min. 92 dB
	Base frequency	2200 ± 150 Hz

1. Output time: 2Hz, DUTY 20% (ON: 0.1 sec., OFF: 0.4 sec.)
2. Buzzer output conditions

- When the memory operation is permitted (memory switch ON): once
- After completing the memory recall (position switch ON): twice
- When starting to recall the memory (position switch ON): once
- When pressing the position switch button twice consecutively: three times
- When detecting a sensor error while recalling (position switch ON): three times
- No buzzer output for the easy access memory/recall operations
- No buzzer output for the outside mirror position recall by the auto down operation when reversing



Modification basis	
Application basis	
Affected VIN	