## **USER GUIDE**

# CRUISE CONTROL & SPEED LIMITER

AP900Series

SL900 Series



e1



03 5747

## **CONTENTS:**

1	Product variants	2
1.1	AP900/AP900C Cruise Control & Speed Limiter	2
1.2	SL900/SL900C Speed Limiter	2
2	Cruise Control Safety Features	3
3	Operating Instructions	4
3.1	Speed Limiter	4
3.2	Cruise Control	7
4	Extra safety feature SAVIOR	9
5	System Diagnostics	10

#### **PRODUCT VARIANTS:**

#### 1.1 AP900/AP900C CRUISE CONTROL & SPEED LIMITER

The AP900 / AP900C is featuring Speed Limiter functionality and as well a comprehensive Cruise Control System.

One touch of the ON command key will activate the Cruise Control, and when switched off an over 1 second press & hold of the ON command key will activate the Speed Limiter. Activation of both functions will be acoustical confirmed with respective 2-low beeps and 1-low + 2-high beeps.

If the Speed Alert is programmed the system will give an acoustic warning (3 high tone beeps) if the programmed speed is exceeded. This is a permanent function independent next to the Cruise Control and Speed Limiter functions.

The Speed Alert will warn the drive that a certain (maximum) speed is exceeded with the purpose to assist in safe driving. Speed Alert will not limit vehicle speed or have any effect on the Cruise Control settings.

The operation of the Cruise Control is identical to the other LITE-ON Cruise Controls. Follow the operating instructions described in chapter 3.

#### 1.2 SL900 / SL900C SPEED LIMITER

SL900 Speed Limiter will operate solely as a speed limiter to 1 preprogrammed fixed maximum speed value. The programming of the Speed Limit needs to be executed during the product installation by an authorized dealer.

Optional a Command Module can be added to this device and will give the additional functionality to Set, Increase, Decrease, Resume, Memorize and Cancel other speed limit values below the fixed maximum speed limit. Follow the operating instructions described in chapter 3.

For safety the driver can override the self programmed speed limit by pressing the accelerator pedal fast to its maximum.

#### **CRUISE CONTROL SAFETY FEATURES:**

The cruise control is fitted with various safety features, which will disengage the cruise control in the following situations:

- 1. When pushing the brake pedal.
- 2. When pushing the command module COAST or CANCEL key.
- 3. When pushing the command module OFF key.
- 4. When pushing the clutch pedal.
- 5. When the automatic gearbox is placed in Neutral or Park.
- 6. When pressing any command module key over 20 seconds.
- 7. When turning the ignition OFF.
- 8. When engine revs increase faster than 150% of the set value.
- 9. When decelerating to 75% of the set speed (up-hill).
- 10. When accelerating to 150% of the set speed (down-hill).
- 11. When the brake fuse blows.
- 12. Minimum engage speed 33 km/hr.
- 13. Automatic disengages at less than 33 km/hr.
- 14. Maximum engage speed 240 km/hr.
- 15. Automatic disengages over 250 km/hr.

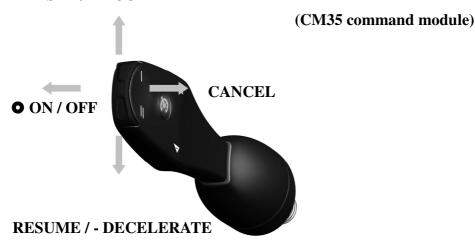
For a safe and economical operation, NEVER operate the Cruise Control in congested traffic or on wet or slippery roads.

SAFETY NOTE: Should a situation ever arise where action 1 through to 4 above will not disengage the cruise you can always turn the ignition OFF (action 5).

If your vehicle has a steering lock, be sure it cannot be activated when the ignition key is in the ignition lock or the car is in gear.

#### **OPERATING INSTRUCTIONS**

**SET / + ACCELERATE** 



#### 3.1 SPEED LIMITER

#### ON/OFF:

Pressing the ON/OFF key for **more** than 1 second will turn the Speed Limiter ON or OFF.

LED GREEN - Speed Limiter Stand-by LED ORANGE - Speed Limiter Activated

#### **CANCEL:**

Press and release the CANCEL key after the Speed Limiter is engaged and the speed limiter will disengage. The previous set speed limit is memorized.

#### **SET / + :**

#### **SET**

Press and release the SET/+ key while the Speed Limiter is disengaged and the Speed Limiter will activate and start to limit at the present vehicle speed.

#### TAPUP(+1 km/h)

Press and release the SET/+ key while the Speed Limiter is engaged and the set speed limit will be increased with 1 km/hr.

#### **STEP UP (+10 km/h)**

Press the SET/+ key for 1 second and the set speed limit will step up 10km/h.

#### **RES/ - :**

#### **RESUME**

Press and release the RES/- key while the Speed Limiter is disengaged and the Speed Limiter will engage and restore the speed limit at the previous set value. If no valid restore speed limit is memorized, the Speed Limiter will set to the current vehicle speed.

#### TAP DOWN (-1 km/h)

Press and release the RES/- key while the Speed Limiter is engaged and the set speed limit will be decreased with 1 km/hr.

#### STEP DOWN (-10km/h)

Press the DEC/- key for 1 second and the set speed limit will step down 10km/h.

#### DECEL (< -3 km/h)

Release the accelerator pedal to reduce speed. Press the SET key to program the new speed limit. This procedure can be repeated if the speed has dropped at least 3km/h below the actual programmed speed limit or if the accelerator pedal is released completely.

#### **MEMORY FUNCTION**

Some command modules offer the Memory function

#### **MEMORY PROGRAMMING**

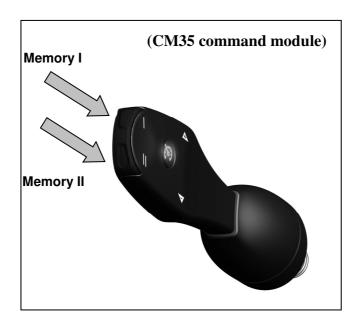
Switch the Cruise Control ON (green LED);

Drive the desired speed;

Press & hold memory button I or II till a beep is heard.

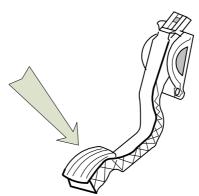
#### **SELECT MEMORY SPEED**

Switch the Cruise Control ON (green LED) Press button I or II



#### **OVERRIDE SPEED LIMIT**

Press the throttle pedal quickly to override the Speed Limiter. The Override function will work only for Speed Limits programmed via the command module. A Fixed Speed Limit programmed at the product installation cannot be overridden!



#### 3.2 CRUISE CONTROL

#### ON / OFF:

Pressing the ON/OFF key <u>for less than 1 second</u> will turn the Cruise Control ON or OFF.

LED GREEN - Cruise Control Stand-by

LED ORANGE - Cruise Control Activated

#### **CANCEL:**

Press and release the CANCEL key after the Cruise Control is engaged and the cruise control will disengage. The previous set speed is memorized.

#### **SET / + :**

#### **SET**

Press and release the SET/+ key while the Cruise Control is disengaged and the Cruise Control will engage and maintain the present vehicle speed.

#### TAPUP(+1 km/h)

Press and release the SET/+ key while the Cruise Control is engaged and the set speed will be increased with 1 km/hr.

#### STEP UP (+10km/k)

Press the SET/+ key for 1 second and the set speed will step up 10km/h.

#### ACCELERATE(> +10 km/k)

Press the accelerator pedal to increase speed with more the 10km/h. Press the SET key to program the new set speed.

#### <u>RES/ - :</u>

#### **RESUME**

Press and release the RES/- key while the Cruise Control is disengaged and the Cruise Control will engage and resume to the last memorized set speed. If no valid resume speed is memorized, the Cruise Control will program the actual vehicle speed.

#### TAP DOWN (-1 km/h)

Press and release the RES/- key while the Cruise Control is engaged and the set speed will be decreased by 1 km/hr.

#### STEP DOWN (-10 km/h)

Press the DEC/- key for 1 second and the set speed will step down 10km/h.

#### **MEMORY FUNCTION**

For command modules that are offering the Memory functions.

#### **MEMORY PROGRAMMING**

Switch the Cruise Control ON (green LED)

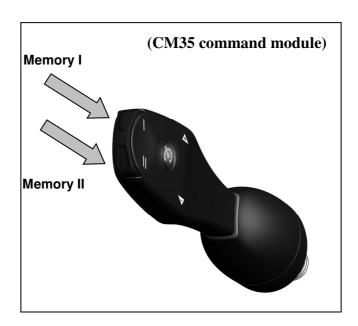
Drive the desired speed

Press & hold memory button I or II till a beep is heard.

#### **SELECT MEMORY SPEED**

Switch the Cruise Control ON (green LED)

Press button I or II



### **EXTRA SAFETY FEATURE: SAVIOR**

All AP900-series Cruise Controls and Speed Limiters are all equipped with an additional unique optional safety feature called SAVIOR. The SAVIOR prevents permanently life threatening situations in case of any reason the accelerator pedal and brake pedal are depressed simultaneously!

Such life-threatening situation can occur if due to a mechanical failure the accelerator pedal stuck or if accidentally brake and accelerator pedal are depressed simultaneously by foot. In such circumstances the SAVIOR will activate and set the accelerator pedal back to idle position to stop the car acceleration and to allow brake system to STOP the car if the brake pedal remains depressed. SAVIOR mode has to be activated during product installation.

SAFETY NOTE: The SAVIOR stops functioning when the brake pedal is released! In emergency situations keep the brake pedal depressed till then car stands still. Then turn ignition off, turn the hand brake on and release the brake pedal.

SAFETY NOTE: The SAVIOR does not activate the brake system. The SAVIOR provides under above described circumstanced driver-assistance only! The drive will always remain responsible for the movement of the car!

**SAFETY NOTE:** Never activate the SAVIOR on purpose. Avoid dangerous situations at all times!

# 5

#### **SYSTEM DIAGNOSTICS:**

The Cruise Control has integrated self-diagnostics. The self-diagnostics will send a code via the buzzer when the system disengages automatically for safety reasons or if a system error is detected.

- 1 Hi tone beep When any command module key get stuck or hold down for over 20 seconds. The cruise control will disengage and issue one Hi tone beep for the identification.
- 2 Hi tone beeps When the speed accelerate exceptional (over 9 kmh / s), the cruise control will disengage and issue two Hi tone beeps for the idendification.
- 3 Hi tone beeps When the Speed drops below 33 km/hr the cruise control will disengage and issue three Hi tone beeps for the idendification.
- 4 Hi tone beeps When the Speed exceeds 250 km/hr the cruise control will disengage and issue 4 Hi tone beeps for the idendification.
- 5 Hi tone beeps When the Speed drops below 75% of set speed (uphill), the cruise control will disengage and issure 5 Hi tone beeps for the idendification.
- 6 Hi tone beeps When the Speed exceeds 150% of set speed (down-hill), the cruise control will disengage and issue 6 Hi tone beeps for the idendification.
- 7 Hi tone beeps When an error is detected at the throttle pedal connections. The cruise control will disengage and issure 7 Hi tone beeps for the idendification.
- 8 Hi tone beeps When RPM increases exceptional, the cruise control will disengage and issue 8 Hi tone beeps for the idendification.





#### **Aftermarket Vehicle Solutions Limited**

7 Dudley Court , Jessop Close, Clacton-on-Sea, Essex, CO15 4LY

TEL: +44 (0) 1255 434353 Email: sales@avsgemini.com | Web: www.avsgemini.com

UK Distributors of the Gemini Alarm Systems

AVS reserve the right to effect changes to the product without further notice. E&OE