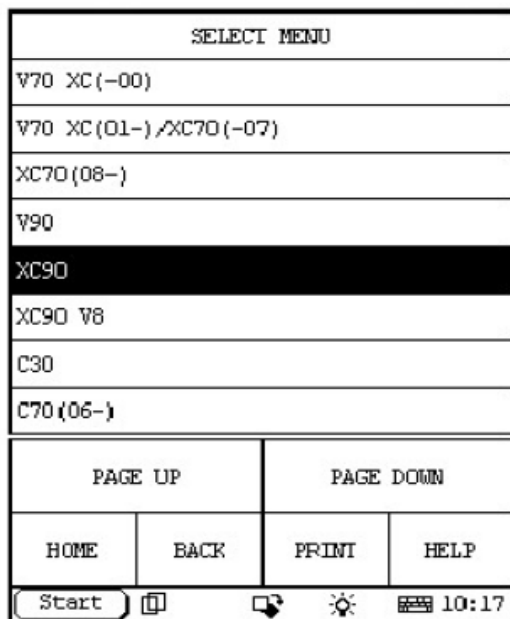# Programming control module
----- Daytime running lamps

The Daytime running lights can be programmed to always on, always off or activated by sensor.
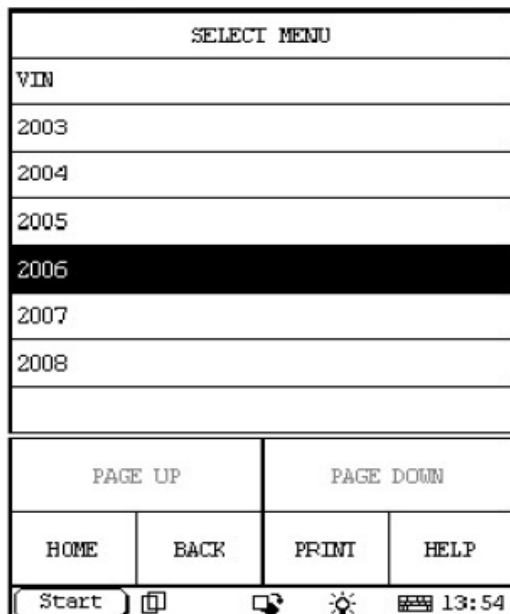
Now we take XC90 2006 30728579 AA (ECU Diagnostic Part Number) as an example to illustrate the operation:

Note: The highlight item in the figure indicates corresponding action.

1. step 1:   XC90

SELECT MENU
V70 XC(-00)
V70 XC(01-)/XC70(-07)
XC70(08-)
V90
XC90
XC90 V8
C30
C70(06-)

PAGE UP		PAGE DOWN	
HOME	BACK	PRINT	HELP

Start ▯   ⟳   ☀   ⌨ 10:17

2. step 2:   select year

SELECT MENU
VIN
2003
2004
2005
2006
2007
2008

PAGE UP		PAGE DOWN	
HOME	BACK	PRINT	HELP

Start ▯   ⟳   ☀   ⌨ 13:54

3. step 3:   select CEM

SELECT MENU
General Service
ECM(Engine Control Module)
DIESEL ENG(Fuel system/Combined system)
TCM(Transmission Control Module)
ABS/BCM(Anti-brake System Module)
SRS(Supplemental Restraint System Module)
CEM(Central electrical module)

PAGE UP		PAGE DOWN	
HOME	BACK	PRINT	HELP

(Start) ▢   ⟳   ☼   ▤ 10:18

4. step 4:
   Select: Special Function.

If you can't find the Special Function menu, it means the function has not been developed on your vehicle. Please record the VIN (Vehicle Identification Number) and Version Information (can be read by X431 with the function: Reading off control module ID) and email to Launch (x431@cnlaunch.com). We may work out a solution on how to solve the problem.

Select function
Reading off control module ID
Reading off Diagnostic Trouble Codes
Erasing Diagnostic Trouble Codes
Parameter display
Activating components/functions
Special Function

PAGE UP		PAGE DOWN	
HOME	BACK	PRINT	HELP

(Start) ▢   ⟳   ☼   ▤ 10:19

5. step 5:

Select: Programming control module

```
┌─────────────────────────────────────┐
│   Please select special function item │
├─────────────────────────────────────┤
│ Programming control module            │
├─────────────────────────────────────┤
│ Resetting the factory settings        │
├─────────────────────────────────────┤
│ Resetting low voltage counters        │
├─────────────────────────────────────┤
│ Resetting crash mode                  │
├─────────────────────────────────────┤
│                                       │
├─────────────────────────────────────┤
│                                       │
├─────────────────────────────────────┤
│                                       │
├─────────────────────────────────────┤
│                                       │
├──────────────────┬──────────────────┤
│    PAGE UP        │    PAGE DOWN      │
├──────┬──────┬─────┴──────┬───────────┤
│ HOME │ BACK │   PRINT    │   HELP     │
├──────┴──┬───┴────────────┴───────────┤
│ Start │ 🗗      🠗    ☼   ⌨ 10:19     │
└─────────────────────────────────────┘
```
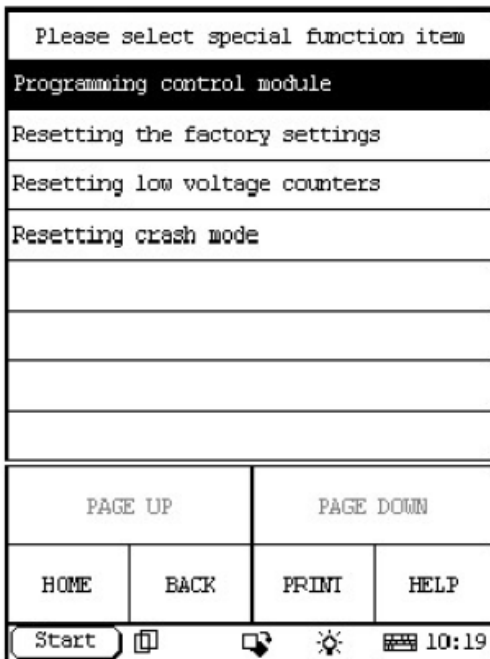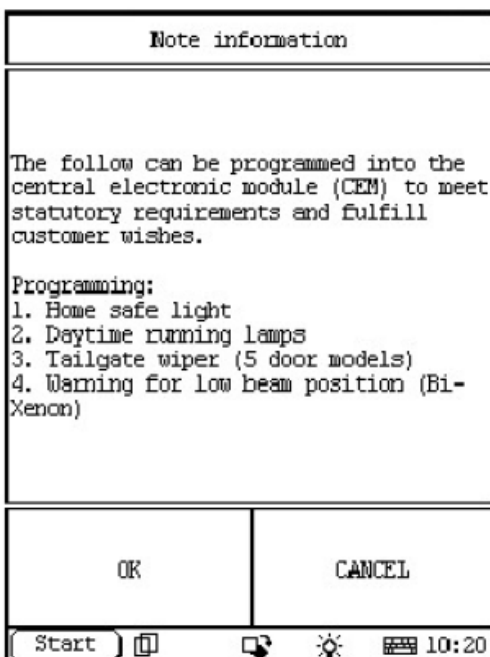
6. step 6:

The information of Programming control module:

The follow can be programmed into the central electronic module (CEM) to meet statutory requirements and fulfill customer wishes.

Programming:
1. Home safe light
2. Daytime running lamps
3. Tailgate wiper (5 door models)
4. Warning for low beam position (Bi-Xenon).

```
┌─────────────────────────────────────┐
│           Note information            │
├─────────────────────────────────────┤
│                                       │
│                                       │
│ The follow can be programmed into the │
│ central electronic module (CEM) to meet│
│ statutory requirements and fulfill    │
│ customer wishes.                      │
│                                       │
│ Programming:                          │
│ 1. Home safe light                    │
│ 2. Daytime running lamps              │
│ 3. Tailgate wiper (5 door models)     │
│ 4. Warning for low beam position (Bi- │
│ Xenon)                                │
│                                       │
│                                       │
├──────────────────┬──────────────────┤
│       OK          │     CANCEL        │
├──────────────────┴──────────────────┤
│ Start │ 🗗      🠗    ☼   ⌨ 10:20     │
└─────────────────────────────────────┘
```

7. step 7:
   Select OK, then it will display four Items function:
   Home safe light
   Daytime running lamps
   Tailgate wiper (5 door models)
   Warning for low beam position (Bi-Xenon)

Now please select Daytime running lamps

Programming control module
Home safe light
Daytime running lamps
Tailgate wiper (5 door models)
Warning for low beam position (Bi-Xenon)

PAGE UP	PAGE DOWN

HOME	BACK	PRINT	HELP

Start 🗔   🗗   ☀   ⌨ 11:02
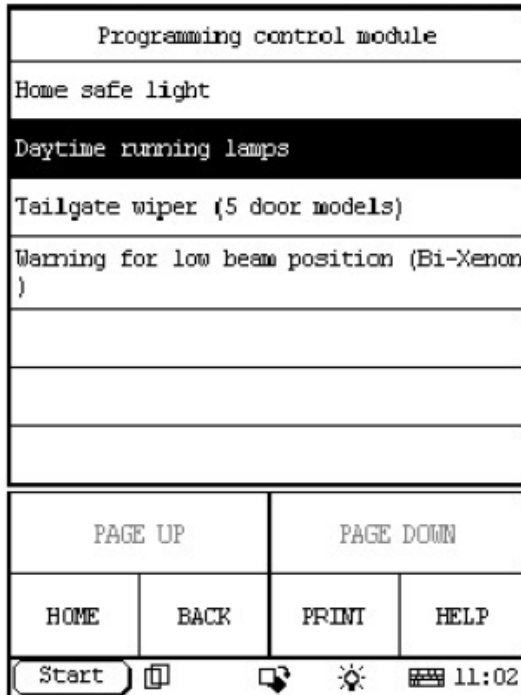
8. step 8:
   The information of Daytime running lamps:
   Three different daytime running light functions can be programmed:
   It is also possible to program daytime running lamp status: Always on, Activated by sensor
   and Off.

   Daytime running lamp function
   1. Low beam in all switch positions except the parking lamp position (Flex zero)
   Position light switch:
   OFF: Parking and daytime running lamps or Bi-Xenon lamps are activated based on the signal
   from the twilight sensor.
   Parking lamps: Only parking lamps activated.
   ON: Parking and Bi-Xenon lamps are activated.

   2. Light switch works as follows: Off, Parking lamps and Low beam (Flexstd).
   Position light switch:
   OFF: Daytime running lamps are activated. If the twilight sensor registers insufficient light,
   all lighting is switched off (Bi-Xenon lamps are not activated).

Parking lamps: Only parking lamps activated.
ON: Parking and Bi-Xenon lamps are activated.

3. Low beam always on regardless of the position of the light switch (Flex low).
Position light switch:
OFF: Parking and daytime running lamps or Bi-Xenon lamps are activated based on the signal from the twilight sensor.
Parking lamps: Parking and Bi-Xenon lamps are activated.
ON: Parking and Bi-Xenon lamps are activated.

4. Stop
Restore the vehicle's default setting. For information on reading the vehicle's default setting, see Vehicle configuration, Low beam function.

Daytime running lamp status
1. Daytime running lamp status. Always on.
Parking and daytime running lamps or Bi-Xenon lamps are always activated when the light switch is in the OFF position.
2. Daytime running lamp status. Activated by sensor.
Parking and daytime running lamps or Bi-Xenon lamps are activated based on the signal from the twilight sensor. The daytime running lamp functions Flex zero, Flexstd and Flex low are only operational when the light switch is in the OFF position if daytime running lamp status is set to Activated by sensor.
3. Daytime running lamp status. Off.
Parking and daytime running lamps or Bi-Xenon lamps are not activated when the light switch is in the OFF position.

It is essential that the legal requirements of each country are followed.

Note! It is not permitted to change this programming in the Canadian market.

To change the setting, mark the desired value from the drop down menu and start programming.

```
┌─────────────────────────────────┐
│         Note information         │
├─────────────────────────────────┤
│ Three different daytime running  │
│ light functions can be programmed:│
│ It is also possible to program   │
│ daytime running lamp status:     │
│ Always on, Activated by sensor   │
│ and Off.                         │
│                                  │
│ Daytime running lamp function    │
│ 1. Low beam in all switch        │
│ positions except the parking     │
│ lamp position (Flex zero)        │
│ Position light switch:           │
│ OFF: Parking and daytime running │
│ lamps or Bi-Xenon lamps are      │
│ activated based on the signal    │
│ from the twilight sensor.        │
│ Parking lamps: Only parking lamps│
│ activated.                       │
│ ON: Parking and Bi-Xenon lamps are│
├────────┬─────────┬────────┬──────┤
│   OK   │ PAGE UP │PAGE DOWN│CANCEL│
├────────┴─────────┴────────┴──────┤
│ Start  🗔        🖳   ☼   ▦ 11:02 │
└─────────────────────────────────┘
```

9. step 9:

Select Ok then it will send command to ECU, and display information like this:

```
┌─────────────────────────────────┐
│         ACTUATION TEST           │
├─────────────────────────────────┤
│ CEM-Daytime running      Flexnoll│
│ lights                           │
├─────────────────────────────────┤
│ F1: CEM-Daytime running          │
│ lights = Flexnoll                │
├─────────────────────────────────┤
│ F2: CEM-Daytime running          │
│ lights = Flexstd                 │
├─────────────────────────────────┤
│ F3: CEM-Daytime running          │
│ lights = Flexlgt                 │
├─────────────────────────────────┤
│ F4: CEM-Daytime running          │
│ lights = Stop                    │
├─────────────────────────────────┤
│ CEM-DRL, status        Always on │
├───────────┬───────────┬──────────┤
│  PAGE UP  │ PAGE DOWN │  PRINT   │
├───┬───────┼──────┬────┼──────┬───┤
│ < │  F1   │  F2  │ F3 │  F4  │ > │
├───┴───────┴──────┴────┴──────┴───┤
│ Start  🗔       🖳   ☼   ▦ 13:56 │
└─────────────────────────────────┘
```

The first line, CEM-Daytime running lights Flexnoll is the present programmed value for your vehicle, if you want to change this value, you can select the desired value in the list:

F1: CEM-Daytime running lights = Flexnoll
F2: CEM-Daytime running lights = Flexstd
F3: CEM-Daytime running lights = Flexlgt
F4: CEM-Daytime running lights = Stop
F5: CEM-DRL, status = Always on
F6: CEM-DRL, status = Activated with sensor
F7: CEM-DRL, status = Off

For example: if you want to change this value to Flexlgt, please touch F3 and it will start programming. When programming finish, the Programmed Value will change to Flexlgt as following figure, it means that the programming succeed.

```
┌────────────────────────────────────────┐
│             ACTUATION TEST              │
├────────────────────────────────────────┤
│ CEM-Daytime running       Flexlgt       │
│ lights                                  │
├────────────────────────────────────────┤
│ F1: CEM-Daytime running                 │
│ lights = Flexnoll                       │
├────────────────────────────────────────┤
│ F2: CEM-Daytime running                 │
│ lights = Flexstd                        │
├────────────────────────────────────────┤
│ F3: CEM-Daytime running                 │
│ lights = Flexlgt                        │
├────────────────────────────────────────┤
│ F4: CEM-Daytime running                 │
│ lights = Stop                           │
├────────────────────────────────────────┤
│ CEM-DRL, status           Always on     │
├──────────────┬───────────────┬──────────┤
│   PAGE UP    │  PAGE DOWN     │  PRINT   │
├──┬───────┬───┴────┬──────┬────┴─────┬────┤
│< │  F1   │   F2   │  F3  │   F4     │ >  │
├──┴───────┴────────┴──────┴──────────┴────┤
│ Start    ⬜        ⮐      ☼    ⌨ 14:02  │
└──────────────────────────────────────────┘
```

10. step 10:

    When you want to exit this programming, please select EXIT:

```
┌────────────────────────────────────────┐
│             ACTUATION TEST              │
├────────────────────────────────────────┤
│ CEM-Daytime running       Flexlgt       │
│ lights                                  │
├────────────────────────────────────────┤
│ F1: CEM-Daytime running                 │
│ lights = Flexnoll                       │
├────────────────────────────────────────┤
│ F2: CEM-Daytime running                 │
│ lights = Flexstd                        │
├────────────────────────────────────────┤
│ F3: CEM-Daytime running                 │
│ lights = Flexlgt                        │
├────────────────────────────────────────┤
│ F4: CEM-Daytime running                 │
│ lights = Stop                           │
├────────────────────────────────────────┤
│ CEM-DRL, status           Always on     │
├──────────────┬───────────────┬──────────┤
│   PAGE UP    │  PAGE DOWN     │  PRINT   │
├──┬──────┬────┴──┬──────┬──────┴───┬──────┤
│< │  F5  │  F6   │  F7  │  EXIT    │  >   │
├──┴──────┴───────┴──────┴──────────┴──────┤
│ Start    ⬜        ⮐      ☼    ⌨ 14:03  │
└──────────────────────────────────────────┘
```