MDC Cruise Control Instructions

Please read the installation manual thoroughly before performing installation of the cruise control. Do not bypass reading the manual prior to installation as you may permanently damage your cruise control unit. Though the installation process is easy, installation can take longer by troubleshooting if the necessary steps are not followed. After reading this manual, if you are still not comfortable, we recommend that you should get it professionally installed.

If there are any questions regarding the installation please contact SMART MADNESS at:
562-981-6800
or
email us at
smartmadness@gmail.com
Installation of the Cruise Control will need to be performed in a well light area as you will be working in the foot well and under the dash of your smart.

**Needed Tools**
- Small flat blade screwdriver
- 10mm and 13mm socket wrench.
- Small ¼ or 3/8” drive with a 3” to 4” extension
- T-10 and T-15 Torx bit screwdriver
- Handy flash light

**Disconnect the battery**
- Pull back the passenger side carpet to access the battery.
- Remove the Styrofoam insert located underneath the carpet.
- Disconnect the negative lead of the battery (BLACK CABLE) using a 10mm socket PRIOR TO INSTALLATION.

**Remove the wiper arm cover**
- Remove these 2 Torque screws with a T-10 Torque bit under the steering wheel
- Remove this Cover. Pull on the bottom of the steering column cover. It will pop loose. Wiggle it and it will come out.
Speedometer Removal

- Pull the speedometer out of the dash (towards your chest) by giving it a firm pull. PLACE YOUR HANDS ON EACH SIDE TO PROVIDE EVEN PULLING FORCE
- You will then see a white connector (see photo below) on the back of the housing.

With the Torx screws removed (pull) on the upper side of the steering column cover and set aside.

- Unlock the connector from the speedometer by pivoting Black lever to the “unlocked” position.
- Remove the connector from the speedometer.
- Follow the next instructions to adapt this connector to the cruise control connector.
Adapting the Stock Speedometer Connector

- Take the wiring connector you just removed from the speedo, and insert a small flat screwdriver in the position shown below. This will release the inner black connector.

![Connector Release Procedure](image1)

- Take the black connector and plug it in to the white connector that came with the cruise control kit (Picture Shown Below)
- **TIP:** To make sure that the connector is oriented correctly, simply line-up the green and purple wires on the black connector with those on the white connector. Then simply plug-in!

![Connector Plug In](image2)

- Gently slide the connector out of the white housing.
- **The white housing you just removed is no longer needed for the installation, discard this piece.**

![Connector Removal](image3)

- Plug the female connector from the Cruise Control Kit into the speedo housing THEN move the lever back into the locked position.
- **TIP:** When plugging in the connector, leave the Black Locking mechanism in the “Unlocked” position. When you seat the connector the force of installing will “push” the locking piece (Black) to pivot to the locking position.

![Connector Plug In](image4)

Next step note… Feed the grey cable with the red connector down to the foot well and refit the speedo/instrument cluster.
Removal & Installation of New Wiper Arm

• Undo the cable/plug. There’s a tab you have to press and hold as you pull out the connector.

• Undo the wiper arm by pressing this tab and pulling up and out.

• Install the NEW wiper stalk (Just reverse the removal process!)
• Install the Cruise Control Cable into the stalk. (Black and Red Connectors)
• Re-insert the wiring harness into the LARGE black connector on your NEW wiper/cruise control arm
• Feed Cruise Control Cable down through to the driver foot well.
• !!!!MAKE SURE ALL CABLES ARE MARKED (Use Tape & a Sharpie) TO DISTINGUISH THEM FROM ONE ANOTHER!!!

• For decorative purposes, you may remove your stock wiper stick, end cap and snap it onto your new CC on/ off switch.
• TIP: To remove the cap you can use a razor blade and CAREFULLY Use the edge to pry the cap off the factory stalk!

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Removing the Accelerator Pedal

- Remove these 2 nuts attaching the accelerator pedal using a 13mm socket or wrench.
- Pull the pedal assemble off the exposed studs and lay on its side to gain access to the electrical connector located on the side of the assembly.

- Undo the cable/plug by pressing and pulling this tab. You may need to use a small flat blade screwdriver to depress the tab.
Installing the optional LED

- With the speedometer still removed, use a drill bit to make a hole large enough to hold the led holder included with the kit!
- Pull the LED along with the attached cable through the hole from the back of the dash. Access to the back of the dash is provided via the hole vacated by the uninstalled speedometer.
- Once pulled through slide the LED holder over the LED and place the entire assembly into the hole!
- Run the corresponding wire along with the other wires down to the foot well! **MAKE SURE TO LABEL IT!**

**IMPORTANT:** We do not “recommend” a drill bit size because we have found variances in the tolerance of the bits. To ensure a tight fitment use a scrap piece of wood/dense cardboard to drill a test hole and try and place the LED holder in the test hole to see if it fits snugly!
Fitting the black box

• Remove this screw
• Pull the carpet back
• Remove accelerator pedal connector
• The Cruise Control module will be installed in the space that exists behind the carpeting between the driver and passenger foot wells.
• The Grey cables of the speedometer & wiper arm are led here behind the grey plastic cover.
Connecting the Black box:

Wire harness for the accelerator

From original harness

Plug to speedometer

Plug for optional illuminating external (LED)

Internal 3-color LED to see the operating status

Plug to Cruise Control and wiper arm striped or marked.

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Reinstallation Instructions

IT IS EXTREMELY IMPORTANT TO DOUBLE AND TRIPLE CHECK ALL CONNECTIONS ON THE CRSUIE PRIOR TO RE-INSTALLATION! WE RECEIVE COUNTLESS CALLS OF “DEFECTIVE” CRUISE CONTROL UNITS ONLY TO FIND THAT THEY WERE IMPROPERLY INSTALLED.

• With the all of the leads plugged into the box, tuck it in the open space behind the carpeting that was referenced earlier.

• BE SURE THAT ALL WIRES ARE SECURLY PLUGGED IN TO THEIR RESPECTIVE CONNECTORS AND THAT ENOUGH SLACK IS LEFT TO ENSURE THAT THE CONNECTORS DO NOT PULL LOOSE FROM THE BOX/PEDAL ASSEMBLY!

• Replace the carpet and all screws that had been removed/loosened in the driver side foot well.

• Double check that the connector plugged into the accelerator pedal is locked in place and will not come loose.

• Place the accelerator pedal back on the studs exposed on the floorboard and reinstall the plastic nuts (Hand tight to start) with the 13mm socket wrench.

• Reinstall the top steering wheel cover using the 2 T-10 torx screws from underneath the steering column. **DO NOT OVERTIGHTEN THE SCREWS**

• With the top cover re-installed proceed to installing the bottom cover (It snaps in) You must install the rear portion (Part that faces the front of the car) first as it has “locating” tabs that must slide into corresponding holes in the steering column.

• Re-install the speedometer by lining-up the locating tabs on the back of the speedometer.

• Then push the speedometer to lock it into the dash (You should hear/feel and audible click)

• Reinstall the Negative Battery cable and tighten the nut with a 10mm socket wrench.

• Replace the Styrofoam insert on the passengers side foot well.

• Replace the carpet.

• Take a seat on the drivers side and fully depress the brake pedal. Next place the key into the ignition and turn to the on position **DO NOT START THE ENGINE!** Wait at least 30 seconds for computer synchronization. Turn the ignition off. **THEN,** release brake pedal!

• You’re DONE!
Attention:
The Cruise Control is **NOT** an autopilot.
The Cruise Control regulates only the speed.
The Cruise Control does **NOT** have a braking function.
The driver must pay close attention to traffic and must switch the Cruise Control off if needed.

**Functions of the Cruise control:**

- **Cruise control:** Set Constant Speed

- **Speed max:** Enables user to set a constant speed like the cruise function. However, it differs from the cruise in that once the speed is set the accelerator can be fully depressed and the speed will remain at the set point. *(IT WILL NO LONGER ACCELERATE UNITL DISENGAGED!)* **To disengage, simply push the button on the end of the cruise stalk.**

- **Recall:** Allows the user to return to the last stored speed set in the cruise. You can change the stored speed with cont +, - set keys

- **LED:** The External LED light indicates the function of the Cruise Control.

- **The Cruise Control has built in safety features that automatically disengage the cruise:** Pushing the foot brake, Pulling the parking brake, Opening a door while driving, Changing the gear lever into position P-R-N, reacting of the ESP, and speeds below 16 mph.

- **Your cruise control has an integrated “Speedbooster” which offers an adjustable throttle response mode.**
To use the new wiper/ cruise control (CC) arm

Operating:
- Push the button on the end of the wiper arm to set the CC on/off
- To disengage simply depress the brake pedal
- Turn the +cont or -set key to change the speed (Only works if Cruise in engaged)
- Turn the +cont key up while CC off to recall the last set speed. (Only works if Cruise in disengaged)
- Turn the -set button down while CC off to set the SPEED MAX. (Only works if Cruise in disengaged)

If the Cruise Control is ON press + to accelerate
If the Cruise Control is OFF recall the last speed of Cruise

If Cruise Control is ON press - to decelerate
If Cruise Control is OFF set SpeedMax
Operation cont.

Cruise Control (CC):

- **Turn ON**: Press the button on the end of the stalk
- **Turn OFF**: Press the button on the end of the stalk AGAIN or press the break pedal
- **Speed change**: turn the ring –Set or +Cont (Only works if Cruise in engaged)

*To disengage, simply depress the brake pedal.*

Speed Max (Set):

- **Turn ON**: Turn set- key down.
- **Turn OFF**: Push wiper arm button.
- **Change speed**: Turn cont+ / set- key up or down.

*When the Speed Max is on a RED LED will illuminate SOLID!  
When you are changing the speed using the cont+ / set- keys the LED will be FLASHING RED*

The Speed Max works from 16 mph till 100 mph.
Customizing Your Cruise:

**Disable after Accelerating.**

Set: With the key turned to the on (with the engine NOT Running) position, Press and hold the CC button on the end of the stalk until the LED stops flashing.

Selection: Push the CC Button.

**Green LED:** INDICATES CC is still enabled after accelerating and returns to the last set speed again. FACTORY SETTING!

**Red LED:** INDICATES that the cruise will be disabled after accelerating.

!!!!!!!To toggle through the setting simply tap the button on the end of the CC stalk!!!!!!

Exit: switch off ignition.

**Selecting Fuel Type**

Set: With the key turned to the on position (with the engine NOT Running) Turn and hold the + key 10 seconds.

Selection: Turn the +cont key to toggle through the settings.

**Green LED:**
- 1 x flashing: INDICATES regulation diesel
- 2 x flashing: INDICATES regulation unleaded FACTORY SETTING!

Exit: switch off ignition.
Speedbooster:

The Speedbooster function makes your car's throttle respond faster to your foot in the low to mid rpm range. It is a device that improves acceleration by continuously measuring and converting the digital signal provided by the electronic throttle potentiometer and providing the ECM with a new altered signal, which results in the throttle body opening faster, shifting faster & accelerating faster.

There are 5 individual settings for the Speedbooster (1 being the stock setting)

WARNING: Do NOT change the levels of your cruise control with the engine on. The engine must be turned OFF and you will need to have visible access to your LED to determine which level of the booster is being activated.

Setting The Speedbooster

1. With the key turned to the ON position and the car NOT running, press and hold the button on the end of the stalk for 20 seconds.
2. You should see a YELLOW FLASHING LED. DO NOT release the button until you see the light flashing! Your first setting should be one flash and then a short pause.
3. Press and hold the Cruise Control button for 5 Seconds and then release to cycle through the different stages of the Speedbooster setting.
4. Repeat step 2 to advance each stage.
5. Switch off engine and remove ignition key.
6. Wait 20 seconds.
7. All Done! To adjust the Speedbooster, start from step 1.

NOTE: On some models you may have to release the CC button (after holding it for the initial 20 seconds) on the end of the stalk and depress it once more to get the LED to flash through the Speedbooster settings.

<table>
<thead>
<tr>
<th>Yellow LED</th>
<th>Throttle response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashes Once</td>
<td>Off &gt; factory setting &lt;</td>
</tr>
<tr>
<td>Flashes Twice</td>
<td>Light throttle response</td>
</tr>
<tr>
<td>Flashes Three Times</td>
<td>Middle throttle response</td>
</tr>
<tr>
<td>Flashes Four Times</td>
<td>Strong throttle response</td>
</tr>
<tr>
<td>Flashes Five Times</td>
<td>Very strong throttle response</td>
</tr>
</tbody>
</table>

To Exit: switch off ignition.
LED COLOR INDICATIONS

LED indication

- OFF
- ☼ flashes normal
- ☼☼ flashes fast

<table>
<thead>
<tr>
<th>Function</th>
<th>LED green</th>
<th>LED red</th>
<th>LED yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immobilizer on</td>
<td></td>
<td>✓ only by standing</td>
<td></td>
</tr>
<tr>
<td>(only on special wish)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cruise Control on</td>
<td></td>
<td>✓ only by driving</td>
<td></td>
</tr>
<tr>
<td>SpeedMax on</td>
<td></td>
<td>✓ only by driving</td>
<td></td>
</tr>
<tr>
<td>Time up to hold the speed after CC on</td>
<td></td>
<td></td>
<td>✓ only by driving</td>
</tr>
<tr>
<td>Brake still not pushed</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>no CAN- BUS signal</td>
<td></td>
<td>✓</td>
<td>☼</td>
</tr>
<tr>
<td>Accelerating by CC on</td>
<td></td>
<td>✓</td>
<td>☼</td>
</tr>
<tr>
<td>on</td>
<td></td>
<td>✓</td>
<td>☼</td>
</tr>
<tr>
<td>SpeedMax preventing an exceeding</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Settings (look descriptions)</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Open door/ rear flap or pull emergency brake</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

!! Please Note !!

After starting the engine the LED is flashing until first push of the foot pedal. The stop light switch is scanned for function. If the stop light switch has an error, the LED flashes continuously. The cruise control is disabled!

If the LED flashes continuously green > red > yellow
There is a door/ rear flap not correctly closed or the emergency brake pulled
In this case the cruise control cannot switch on.

The LED will flash its three colors when the ignition is switched off. That is completely normal!
Trouble Shooting Questions and Answers:

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- I have my check engine light on and the exclamation mark is lit up in my speedometer.

This will generally occur if the cruise control is installed without first disconnecting the battery. It is extremely important to FIRST DISCONNECT THE BATTERY before beginning installation of the cruise control. You will need to un-install the cruise control system completely, re-connect the battery; this should clear the check engine light and exclamation mark. You will then need to re-install the cruise control again.

- The LED is flashing red and it will not stop.

Press the brake pedal and the LED will stop flashing completely or flash, red- yellow- green. This will indicate that either the door is open or the emergency brake is up/ enabled. If the red LED does not stop flashing, and you do not have anything being displayed on your speedometer, please check the connector to your speedometer.

- The LED is flashing Red-Yellow-Green, Red-Yellow- Green.

This is a safety feature that is built into your new cruise control that alerts you if either your emergency brake is on, or a door/hatch is not closed all the way. If all of the doors/hatch are closed and the emergency brake is down/off, this light should go away. You will NOT be able to use the cruise control if this light is flashing.

This light also flashed when the car is turned off. It (LED) will continue to flash for a predetermined period of time. This is completely normal and should not be cause for alarm.

- My car won’t start and I have 3 flashing bars in my speedometer?

This sometimes happens as an indication that your transmission must be reset. With your key to the on position only, shift the lever into neutral. Wait 30-40 seconds for the transmission to reset itself. You will hear the gears moving from behind, do not be alarmed. After the 30-40 seconds, put the car into park, remove the key wait 1 additional minute and then your vehicle should start after completing these steps.

- My gas pedal is unresponsive work.

Check connection behind the gas pedal to ensure that it is snug. If this connection is tight, then check the connection inside the cruise control unit inside the CC unit to ensure that the pins are properly aligned and that the harness has not pulled off of the pins.

- My speedometer is blank and not showing anything in the display?

First, check to ensure battery connection is snug at the terminal. Then check all of your connections to ensure that they are tight. Also make sure the pins inside the male and female connectors are properly aligned to their specified pin numbers.

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