Ian Cull's Auto-Up Circuit V7

Installation and Set-Up Guide

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CHAPTER 1 WELCOME!

Thank you for purchasing the Ian Cull's Auto-Up Circuit version 7. The Ian Cull's Auto-Up Circuit adds several convenience features to the R50, R52 and R53 1st generation new MINIs.

In the summer of 2009, Ian transferred the very successful version 6 circuit to FES, and with Ian's help, FES continued to provide what has been one of the best add-on accessories for the first generation new MINIs to the Mini community.

With the version 7 introduction, FES has added improvements to Ian's excellent original design. We've added more window control modes, audio feedback for mode selection, and dual accessory output controls all while maintaining the same price point.

We're confident that you'll be happy with the latest and greatest version of Ian's circuit!

1.1 FEATURES

The Ian Cull's Auto-Up circuit brings the following features to the 1st generation new MINI:

- **Auto-Up Window**
  Once the auto-up feature has been enabled, it can be activated by a single or double tap of the appropriate window toggle switch (driver and passenger windows are supported).

- **Track-Mode DSC Defeat**
  The "Track-Mode DSC Defeat" will disable the ATC/DSC system shortly after starting the car. This is very useful for those that race, AutoX or participate in HPDEs.

- **Auto Front Fog-Light Control**
  The "Auto Front Fogs" turns the front fog lights on whenever the headlights are turned on. Great for those that likes lots of light.

- **Stealth Mode Accessory Control**
  The circuit comes with two digital outputs that can be controlled via the Door Lock/Unlock buttons. These outputs can be configured as either momentary (required for things like garage door remotes) or latching (required for items like radar detectors or seat heaters) outputs.

All of the functions can be enabled or disabled at any time via the toggle switch panel. Once installed, you'll never need to access the unit to change operational modes.

1.2 WHAT'S IN THE BOX

- 1 Auto-Up Circuit

1.3 TOOLS REQUIRED & ESTIMATED INSTALLATION TIME

- Small Phillips screwdriver (to connect accessory wiring)
- T20 and T40 Torx screwdriver
- File (required on some cars for circuit clearance)
- The installation takes less than 30 minutes.

CHAPTER 2 DISLCAIMER

USE AT YOUR OWN RISK - USE OF THE PRODUCT MIGHT NOT BE ALLOWED ON PUBLIC STREETS. IT'S THE USER'S RESPONSIBILITY TO USE THE PRODUCT IN ACCORDANCE WITH THE LOCAL LAWS AND RESTRICTIONS.

Do not use this product until you have carefully read the following agreement. This sets forth the terms and conditions for the use of this product.

The installation of this product indicates that the buyer has read and understands this agreement and accepts the terms and conditions.

DISCLAIMER OF LIABILITY

FES, LLC (hereafter SELLER) shall in no way be responsible for the product's proper use and service. THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS.

The BUYER acknowledges that he/she is not relying on the SELLER's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof and the BUYER hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, (including without any obligations of the SELLER with respect to fitness, merchantability, and consequential damages) or whether or not occasioned by the SELLER's negligence.

The SELLER disclaims any warranty and expressly disclaims any liability for personal injury or damages. The BUYER acknowledges and agrees that the disclaimer of any liability for person injury is a material term for this agreement and the BUYER agrees to indemnify the SELLER and to hold the SELLER harmless from any claim related to the item of the equipment purchased. Under no circumstances will the SELLER be liable for damages or expenses by reason of use or sale of any such equipment.

The SELLER assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt, contact the manufacturer.

LIMITATION OF WARRANTY

FES, LLC (hereafter "SELLER") gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of SELLER's product sold herewith. The SELLER shall be in no way responsible for the product's open use and service and the BUYER hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by written instrument signed by SELLER and BUYER.

The Warranty is Limited to one (1) year from the date of sale and limited solely to the parts contained in within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to the SELLER and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by FES, LLC.

Under no circumstances shall the SELLER be liable for any labor charged or travel time incurred in diagnosis for defects, removal or reinstallation of this product, or any other contingent expenses.
If the BUYER sends back a failed unit that is out of warranty and chooses to buy a refurbished unit, the refurbished unit will only carry a 60 day warranty. If the BUYER purchases a new unit at a predetermined discounted rate, it will have the standard 1 year warranty.

Under no circumstances will the SELLER be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT: THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE FOR A FULL REFUND.

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITION

CHAPTER 3 CONFIGURATION AND SETUP

All configurations are done via the toggle panel. To enable a feature you need to enter "enable mode". This is achieved by holding the Door Unlock button for more than 5 seconds. In enable mode, every feature can be turned on by a specific button sequence. To disable a feature you need to hold the Door Lock button for more than 5 seconds followed by the button sequence for the feature you want to disable.

More than one feature can be enabled or disabled at a time. It takes a little time to get used to mode configuration, but it is quickly and easily mastered. The module has an integrated buzzer to provide audible feedback to aid knowing what's going on.

The Ian Cull circuit is very a very flexible device. Via mode configuration, one small circuit can be customized to satisfy the needs of every driver. While the almost 200 possible configurations may seem somewhat intimidating, there are really 4 features that can be used in any combination: enhanced window control; ATC/DSC system control; Front Fog Light control; and Accessory control. Each of these can be configured independently based on the particular tastes of each owner.

3.1.1 ENABLING FEATURES

▷ Press the **Door Unlock button**. After 5 seconds the LED starts blinking and the module will beep to indicate that the module is in "Enable Mode".

▷ With the **Door Unlock button** still pressed, you can now enable the Auto-Up, DSC and Auto Front Fog-Lights functions (see below for details and examples).

▷ After releasing the **Door Unlock Button** the module will beep and you now have 2 seconds to enable the Garage Door and Accessory control features (see below for details).

▷ After 2 seconds, the LED stops blinking and the module will beep one last time to indicate the end of the Enable Mode.

3.1.2 DISABLING FEATURES

▷ Press the **Door Lock button**. After 5 seconds the LED starts blinking and the module will beep to indicate that the module has entered " Disable Mode".

▷ With the **Door Lock button** still pressed, you can now disable the Auto-Up, DSC and Auto Front Fog-Lights functions (see below for details and examples).

▷ After releasing the **Door Lock Button** the module will beep and you now have 2 seconds to disable the Garage Door and Accessory control features (see below for details).

▷ After 2 seconds, the LED stops blinking and the module will beep one last time to indicate the end of the disable sequence.

3.2 WINDOW MODES

The Ian Cull Auto-Up circuit supports 2 distinct operation modes:

- **Double Click Mode**

  In this mode a double click on the driver or passenger window close button starts the Auto-up on that window. Clicking the driver or passenger window open button will cancel the Auto-up on that window and movement will stop.

  The Double Click mode is the same on all cars (left hand drive, right hand drive, with and without factory Auto-Up).
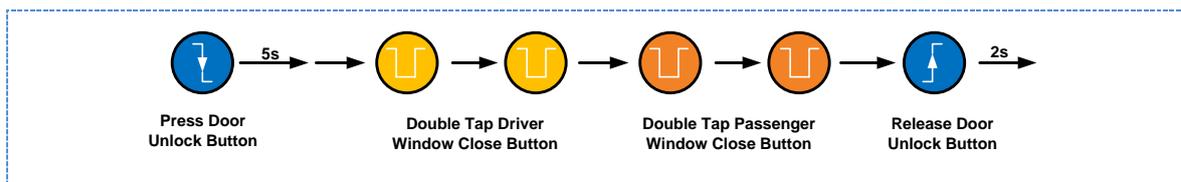
- **Single Click Mode**

  In Single Click Auto-Up mode, a single click on the driver or passenger window close button will start the Auto-up on that window. A double click on the driver or passenger window close button will start the Auto-up on both windows.

  Clicking the driver or passenger window open button will cancel the Auto-up on that window and movement will stop. If both windows are moving up (initiated by a double click) the Auto-up on both windows will be cancelled.

  Depending on the type of car (left hand or right hand drive, with or without factory Auto-Up) you have the single click Auto-Up is enabled differently (see below).

3.2.1 Enable Double Click MODE

▷ Hold the **Door Unlock button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed tap the **Driver Window Close button** twice to set double click mode to that window.

▷ With the **Door Unlock button** still pressed tap the Passenger Window Close button twice to set double click mode to that window.

▷ Release the **Door Unlock button**.

3.2.2 Single Click Auto-Up for cars without factory Auto-Up

This setup works with left hand and right hand drive cars.

▷ Hold the **Door Unlock button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed tap the **Driver Window Close button** once to set single click mode to that window.

▷ With the **Door Unlock button** still pressed tap the **Passenger Window Close button** once to set single click mode to that window.

▷ Release the **Door Unlock button**.

| Press Door Unlock Button | Single Tap Driver Window Close Button | Single Tap Passenger Window Close Button | Release Door Unlock Button |

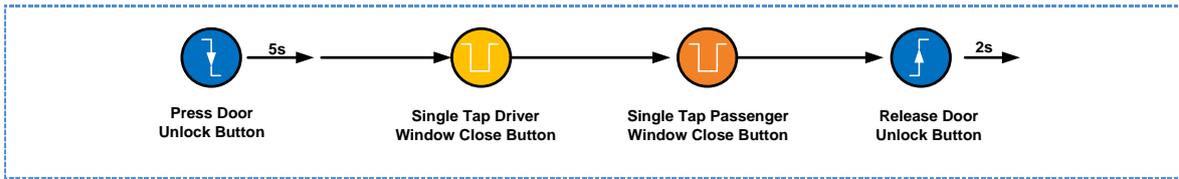### 3.2.3 Single Click Auto-Up for Cars with factory Auto-Up (LH Drive)

▷ Hold the **Door Unlock button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed tap the **Driver Window Close button** three times to set single click mode to that window.

▷ With the **Door Unlock button** still pressed tap the **Passenger Window Close button** once to set single click mode to that window.

▷ Release the **Door Unlock button**.

| Press Door Unlock Button | Tripple Tap Driver Window Close Button | Single Tap Passenger Window Close Button | Release Door Unlock Button |
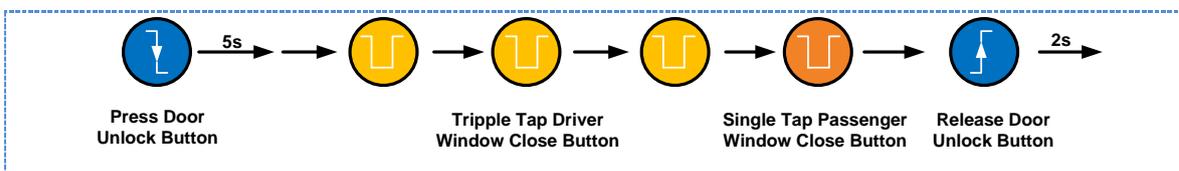
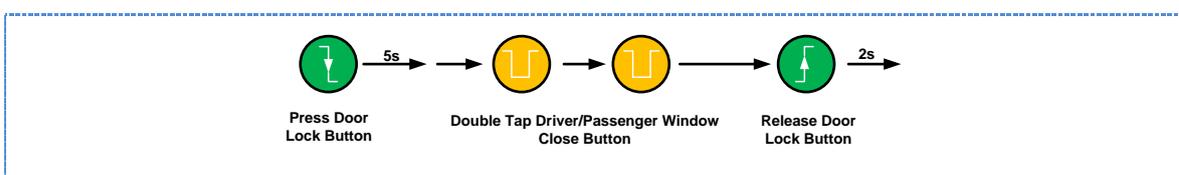### 3.2.4 Single Click Auto-Up for Cars with factory Auto-Up (RH Drive)

▷ Hold the **Door Unlock button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed tap the **Driver Window Close button** once to set single click mode to that window.

▷ With the **Door Unlock button** still pressed tap the **Passenger Window Close button** three times to set single click mode to that window.

▷ Release the **Door Unlock button**.

| Press Door Unlock Button | Single Tap Driver Window Close Button | Tripple Tap Passenger Window Close Button | Release Door Unlock Button |
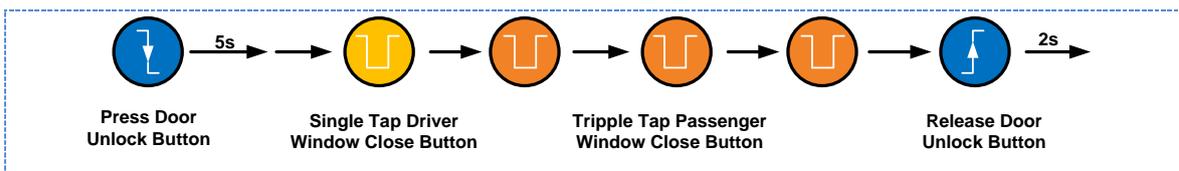
3.2.5 Disabling Window Modes

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed: Double click the **Driver or Passenger Window Close Button** to disable Auto-up on that window.

▷ Release the **Door Lock button.**

| Press Door Lock Button | Double Tap Driver/Passenger Window Close Button | Release Door Lock Button |

3.3 ATC/DSC MODES

When enabled, the Track-Mode DSC defeat turns the ATC/DSC system off shortly after starting the car. This is most useful for those that do performance driving on the track. ATC/DSC systems can provide enhanced safety on the street, but some don't like its intrusive nature. **FES recommends using ATC/DSC while driving on the street**.
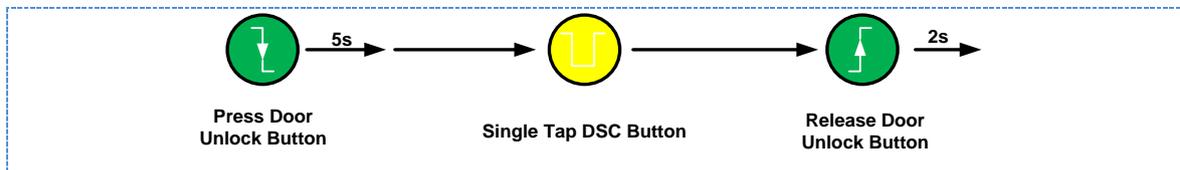
3.3.1 Enable Track Mode DSC

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed: Click the **DSC Button** once to enable Track Mode DSC Defeat

▷ Release the **Door Lock button.**
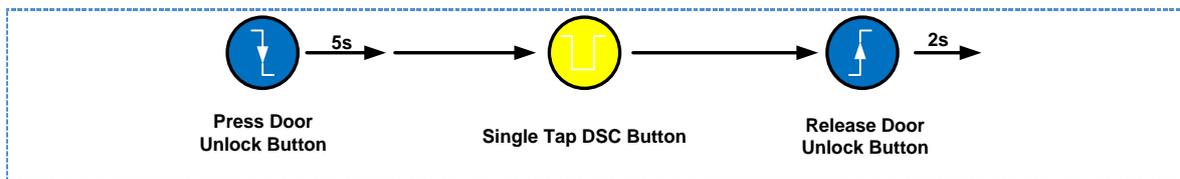
3.3.2 Disable Track Mode DSC

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed: Click the **DSC Button** once to disable Track Mode DSC Defeat

▷ Release the **Door Lock button.**

3.4 FOG LIGHT MODES

When enabled, Auto Front Fog Light mode turns the front fog lights on shortly after the headlights are turned on. Because of how the automatic headlights work, it's not advisable to enable this feature if your car has automatic headlights installed and activated.

3.4.1 Enable Auto Front Fog-Lights

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed: Click the **Front Fog-Light Button** once to enable Auto Front Fog.

▷ Release the **Door Lock button.**
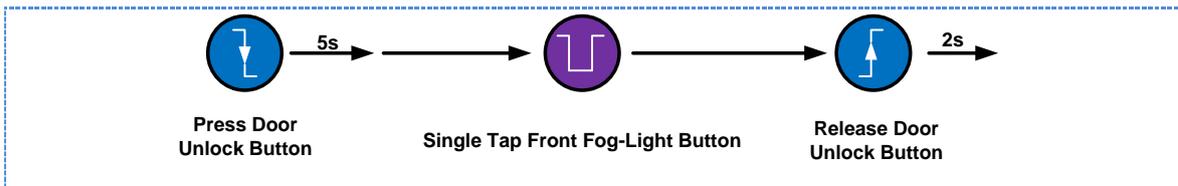
3.4.2 Disable Auto Front Fog-Lights

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ With the **Door Unlock button** still pressed: Click the **Front Fog-Light Button** once to disable Auto Front Fog.
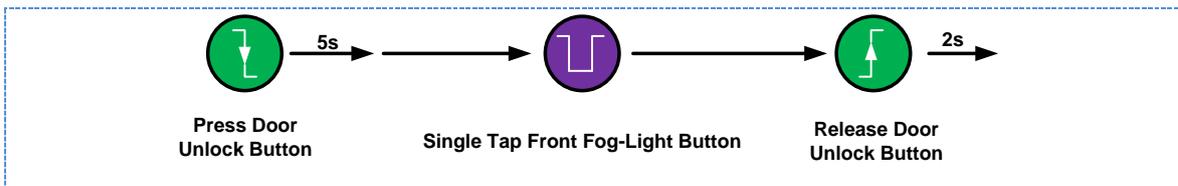
▷ Release the **Door Lock button.**

3.5 ACCESSORY MODES

The version 7 circuit has two user configurable output channels (ACC1 and ACC2). These can be latching, so that they stay on when turned on, or momentary, so that they only stay on briefly when activated. The two outputs can be configured into one of three modes.

The different accessory channels are controlled via the lock toggle.

▷ **Pulling up** on the **lock toggle** for more than ½ second will trigger ACC1.

▷ **Pushing down** on the **lock toggle** for more than ½ second will trigger ACC2.

Latching modes are "sticky". That means that whatever mode was selected when the car was turned off is the mode the output will go to when the car is started again.

When the accessories are disabled, they can still be connected to the circuit but they will not be triggered by holding the lock or unlock toggle for more than ½ second.

- **ACC Mode 1: Both Latching**
  In this mode, both Acc 1 and Acc 2 are latching outputs.
  Holding the Door Unlock button for more than ½ second will turn on or off ACC1.
  Holding the Door Lock button for more than ½ second will turn on or off ACC2.

- **ACC Mode 2: One Latching, One Momentary**
  In this mode, Acc 1 is latching and Acc 2 is momentary.
  Holding the Door Unlock button for more than ½ second will turn on or off ACC1.
  Holding the Door Lock button for more than ½ second will trigger ACC2. The button stays on while the button is held.

- **ACC Mode 3: Both Momentary**
  In this mode, both Acc 1 and Acc 2 are momentary outputs.
  Holding the Door Unlock button for more than ½ second will trigger ACC1. The button stays on while the button is held.

Holding the Door Lock button for more than ½ second will trigger ACC2. The button stays on while the button is held.

3.5.1 Enable Stealth Mode Accessory Control Mode 1, 2 or 3

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ Release the **Door Lock button.**

▷ Within the next two seconds click the **Door Unlock Button** one, two or three times to set the according mode.
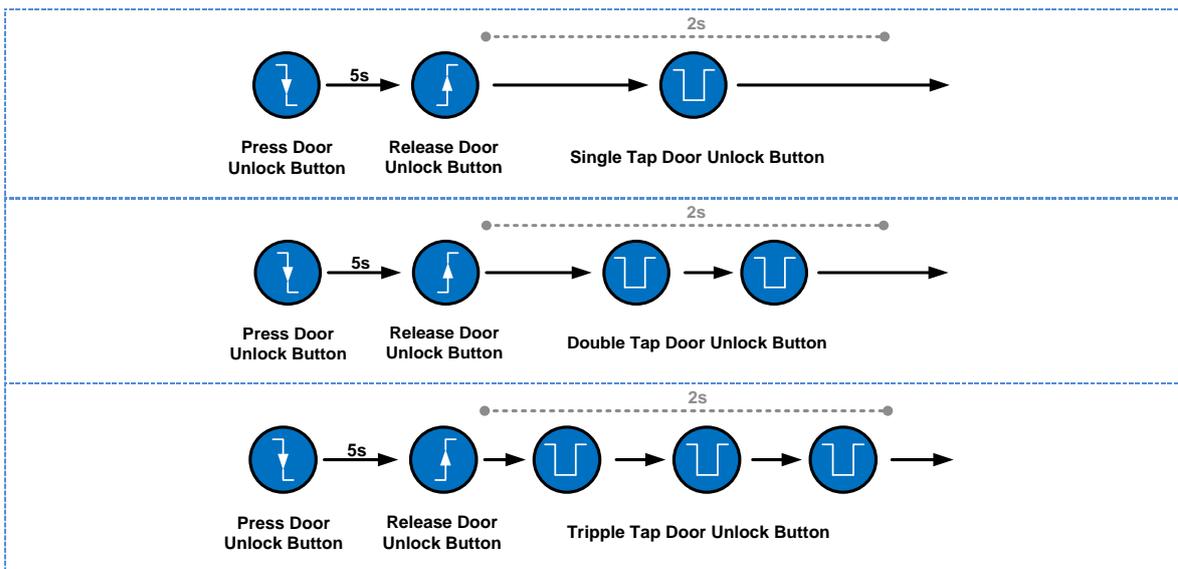
3.5.2 Disable Stealth Mode Accessory Control

▷ Hold the **Door Lock Button** pressed until the LED starts blinking.

▷ Release the **Door Lock button.**

▷ Within the next two seconds double click on the **Door Lock Button** to disable the Stealth mode accessory control.
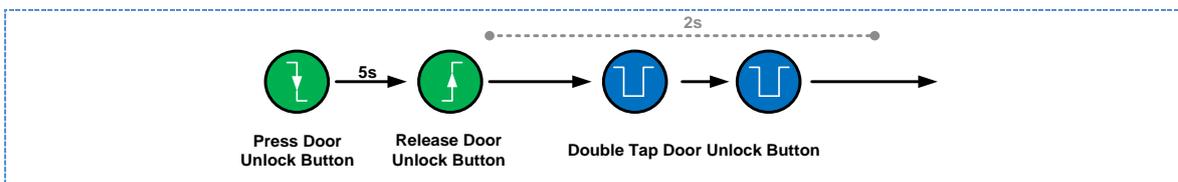
3.6 CONNECTING TO THE OUTPUT CHANNELS

The two output channels can be used to control an external accessory, for example a garage door opener remote control. The circuit is able to drive up to 500mA per output channel, for higher current loads you must use a relay module (for example the "ProShift 2-Channel Relay Module").

3.6.1 Output Connector Location and Pin-Out
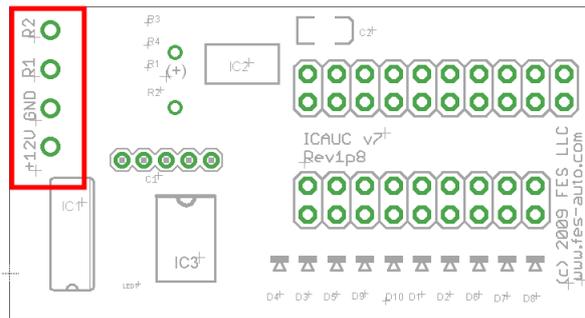
+12V : Power Output to the Accessories

GND **:** Ground

R1 **:** Output 1 (ACC1)

R2 **:** Output 2 (ACC2)

3.6.2 Connecting a Garage Door Opener

There's more than one way to do this. It all depends on the type of Garage Door Opener.

- **Switching the power to the garage door opener remote**

    Use this method if your garage door opener is activated by switching the power line.
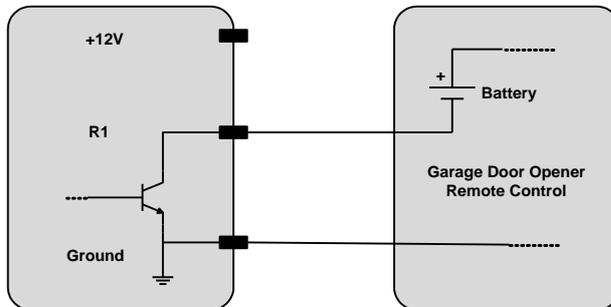
- **Activating the "Open Button" on the garage door opener.**

    If your garage door remote control can't be activating via switching the power, you can also connect the Auto-Up Circuit in parallel to the activation switch of the remote control:
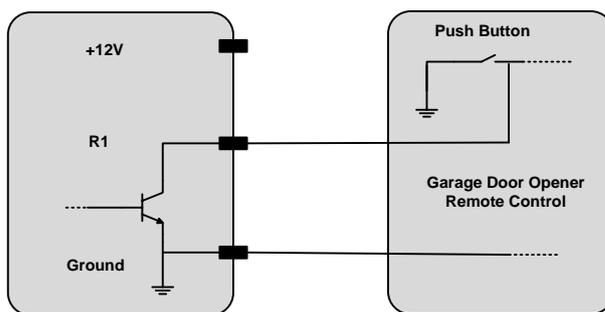
3.6.3 Connecting to the ProShift Relay Module

This is probably the fastest way of hooking up the outputs. Simply connect +12V, Ground and the two Outputs to the according inputs of the relay module – done!

The ProShift Relay Module uses 12V automotive relays, capable of driving up to 15A per channel.
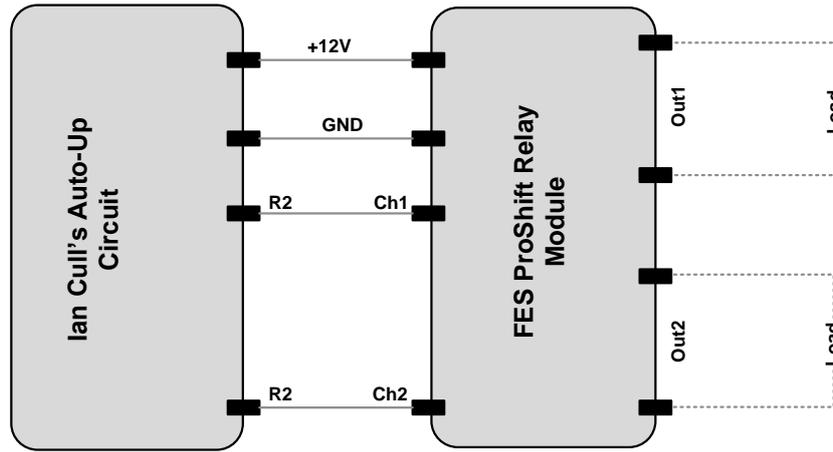
3.6.4 Using the Outputs with your own circuit
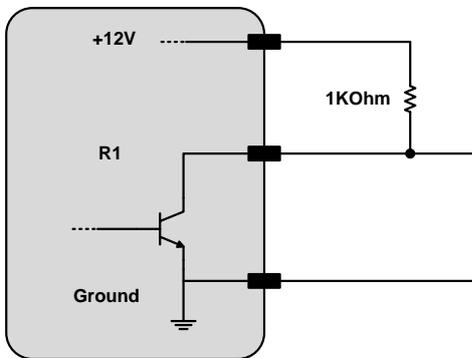
Configuration as Digital Outputs
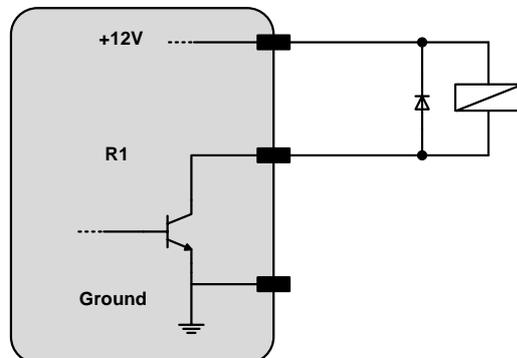
Example showing a relay connected to the module.

CHAPTER 4 INSTALLATION IN YOUR CAR

The MINI circuit is installed "inline" to the toggle switch panel. To achieve this, the original connector into the back of the toggle switch panel must be removed, and a new connector (part of the MINI circuit) installed.

There are two installation paradigms:

- The standard install involves removing the down-tubes, removing the toggle switch panel, and installing the circuit into the panel with the panel removed.

- The second is good for people with smaller hands and this involves a "blind" install via the trim piece below the toggle switch panel. This only works well with Minis 02-04.

As Mini has made changes over time, some of the details of the installation have changed slightly. This section contains all the accrued installation information since Ian first started selling the circuit long ago. We have edited and updated the instructions, but some of the photos show different versions of the circuit.

4.1 BLIND INSTALL

4.1.1 Get access to the toggle panel

For 2002-2004 Minis, this panel is removed for the "blind" install - it is held by one Torx™ screw (T20) and some clips.

Here the trim piece is removed:

Next you need to reach up behind the toggle switch panel, and feel for the connector - you can follow the wire bundle to find it. The original connector is latched into the back of the toggle switch panel; a retaining bump on the back of the connector must be pushed down to allow a latching clip to be slid over it; this will release the connector from the toggle switch panel:

I find it easier to reach the connector from the left side of the car (driver side in USA). Be careful not to reach very high into the car, where this is a similar feeling connector to the a/c controls!

If the connector you get is not black, it is wrong!

Surface

Once the original connector is removed, it can be connected onto the MINI circuit. The connector can be fitted many ways, but only one is correct! You must have the connectors wire bundle exiting from the side that has the piezo and 4 pin accessory header, and you must have all 18 pins connected.

4.1.2 Stop and Test! (#1)

At this point, you should test that the original connector is correct onto the MINI circuit. If you get it wrong you risk blowing fuse F40 in the car, which will disable many features (such as full beam headlights!).

▷ Turn the ignition on; there is no need to start the car but you need to turn the key to position 2 so that the ignition is on.

▷ There is a small LED (light) on the MINI circuit - if you have the connection correct the LED will flash three times in quick succession. If this happens - great! Turn the car off and continue!

▷ If the LED on the MINI circuit does not flash, check the connector and make sure it is the right way up and no pins are missed.

4.1.3 Connect to the toggle panel

Now you want to plug the 20 pin header into the back of the toggle panel. The connector has two empty positions which go to the right (USA: driver side of car) of the opening in the panel and help to guard against misalignment. These extra places in the header help align the connector. The edge of the header goes flush against the inside of the well on the toggle bank. The edges of the circuit are flush with the outside of the well on two sides (see the photos for details).

This is how the circuit mounts up to the toggle switch panel:

Flush Mount
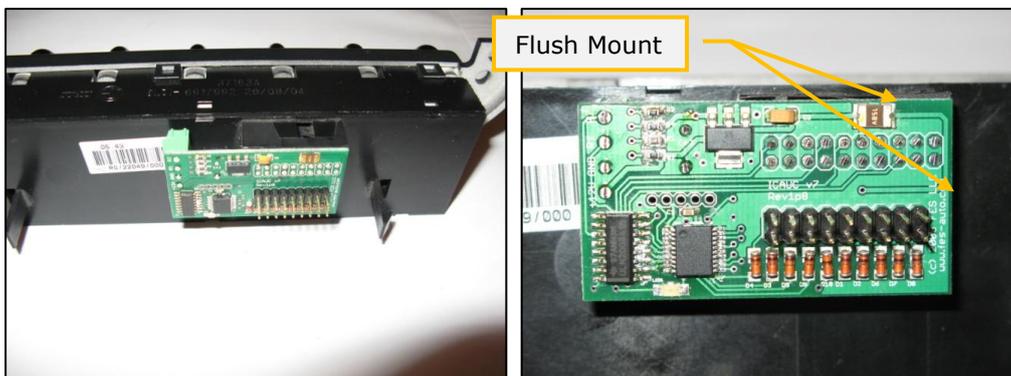
This view is "from the engine bay" looking toward the rear of the car!

IMPORTANT: Be EXTREMELY gentle when trying to connect to the back of the toggle switch panel. The pins on the back of the panel can be easily bent and will be difficult to straighten - if this happens, you will be forced to replace the toggle switch panel!

4.2.4 Stop and Test! (#2)

Now the MINI circuit should be correctly installed.

▷ Turn the car on again (to ignition 2) and check that the LED on the MINI circuit again turns on for three seconds then turns off.

▷ If you can't see the LED or the light it makes shining out of the open access panel, first confirm that the doors lock and unlock as normal. If they do, the circuit is properly aligned and testing can proceed.

▷ If the lock/unlock functions don't work as normal, it's the alignment of the circuit into the toggle housing. This is where 90%+ of problems happen so just take one's time and make sure the alignment is correct.

▷ Now hold the lock switch UP for more than five seconds. After five seconds have passed, the LED will start to flash and you will hear a beep from the piezo buzzer. This indicates that the circuit is in programming mode.

Once the unit is testing fine, just reinstall the access panel and you're done with installation. Now you can select whatever combination of operational modes you want! These are all covered in detail in Chapter 3, and a "cheat sheet" in included at the end of this manual.

4.2 DOWN TUBE REMOVAL INSTALL – FROM WWW.MINI2.COM

Each dash downtube is screwed to the radio-a/c-toggle-switch cluster. The top of each downtube is covered by the dash center fascia (surrounding the speedometer and two air vents), and the bottom of each is anchored in the center console.

To remove them, you may need the following tools: Torx screwdrivers (T40 and T20), #2 Phillips screwdrivers

▷ Remove the 2 Torx screws (T40 or T20) from each downtube:

▷ Accessing the top Torx™ screw where a glovebox or knee bolster is present will require opening the glovebox door or releasing the knee bolster. To release the knee bolster, grab the top edge with both hands. Pull down sharply keeping the pressure toward the direction of the door in order to prevent the bolster from scratching the downtube when it comes free. Once free it can be swung down out of the way to provide clearance to access the Torx™ screw. If you have a parcel shelf in your car, this is retained by two screws as well. After these are removed, the panel pulls out.

▷ Remove the gearshift surround: Pull gently straight up so you don't break any of the 4 pins holding it to the center console. Pull the surround up as far as possible to avoid creasing the leather while you work.

▷ Remove the side -mirror adjustment unit: Reaching through the opening behind the gearshift, depress the two metal prongs and push up from underneath the unit to pop it up.

▷ Remove the 2 Phillips-head screws now visible.

▷ Remove the Phillips-head screw from the middle of each cup holder.

▷ Provide clearance: Lift up the console to reveal the polystyrene piece under each downtube, and carefully remove each piece, allowing the downtubes to drop down.

▷ Remove the downtubes: Angle the downtubes toward you, pulling the tops under the dash center fascia, and lift them out of the center console (again, you cannot do this on newer '05/'06 MINIs – instead just push them out of the way):
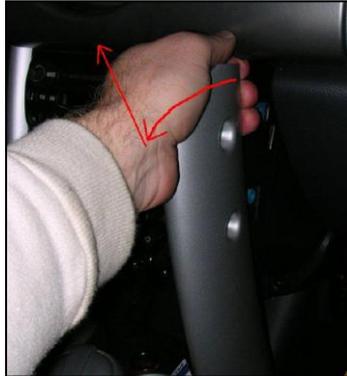
▷ At this point you can remove the Torx screws holding the toggle switch panel, and pull it out to access the connector behind. Now the connector can be removed just like in the "blind" method and the toggle panel can be moved aside.

▷ We have found that some Minis need a bit of plastic filed away to make room for the circuit to go into the panel. This photo shows how much material needs to be removed for circuit clearance. Once the plastic is filed away, it is safe to proceed to the testing phases outlined in the blind install section.
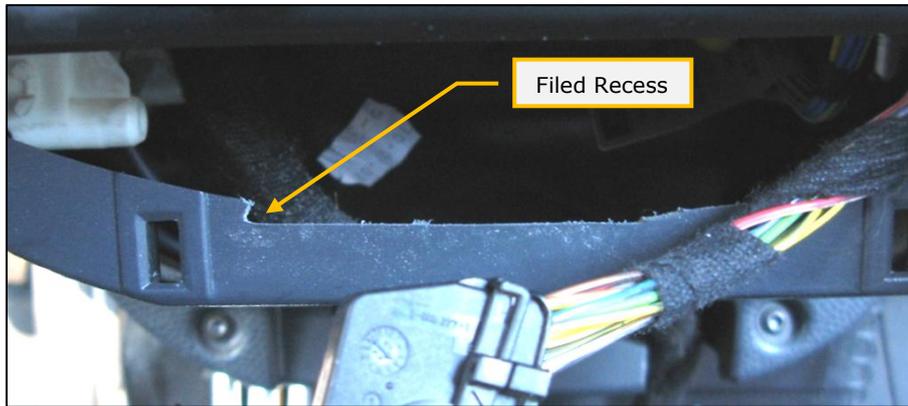
An alternative way of removing the downtubes without having to remove the center console is described here:

Remove the T20 Torx screw that secures lower passenger side edge of the dash center fascia near the airbag panel (not present on all MINIs):

Provide clearance: Pop the lower clips of the fascia by grabbing its lower edges and giving a medium sharp tug. Pull the fascia outward just far enough for the tops of the downtubes to clear

NOTE: Refitting is reverse of removal – ease the downtubes back under the dash center fascia, push the fascia back into place so that the clips re-engage, replace all Torx screws.

Thanks to http://www.MINI2.com and the MINI community for the excellent FAQs from which these instructions are summarized.

4.3 UPDATE: '0 5 & LATER MINIS

On '05/'06 MINIs the trim piece below the toggle switch panel has been redesigned to incorporate a storage area; this makes it VERY difficult to remove, and the "blind install" procedure described for earlier MINIs does not work.

The MINI circuit is compatible with '07 MINI convertibles, but not with '07 MINI hardtops.

If you wish to install the MINI circuit on a '05 MINI without removing the downtubes, it is still possible but people (like me) with large hands will find it painful! Here is a description from Murray:

No need to remove any trim, I simply flipped the trim piece down using the two tabs and there was plenty of 'give ' on the hinge to open it. Then I suggest you do the install from the right-hand side (USA passenger side) if you kneel outside the car your hand can go up the opening where the trip panel is opened. Your first finger can press the release catch while your 2nd finger can flip the clip off the connector. I think it's easier to connect to the switch pane l prior to connecting the cable to your circuit. Also, it then pays one to look at the way the car's connector and your connector differ (cars connector is much thicker) and he lps you think about locating your connector more in the middle of the switch pane l's socket (does that make sense ?)
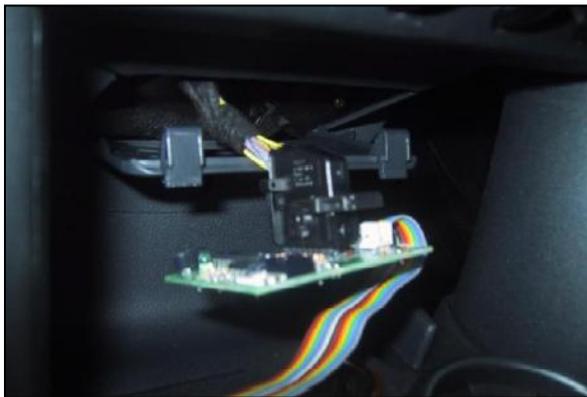
Here is a picture from Luke, showing the partly open trim piece, with the original toggle switch connector removed, extracted, and plugged into an earlier version of the MINI circuit:

You can also still do the "downtube removal" install if you prefer. Bill writes:

I decided to be safe and NOT do it the "blind" way. (I f I was going to do it blind I'd follow the advice in the feedback of Murray since the 2005's larger "Trim" piece is a major pain to completely remove.) My 2005 didn't have any screws holding down the "Fascia". A sharp tug was all it took. (Note: The plastic surrounds from the Hazard, and Dash light buttons also popped out as a result of the tug, but wasn't a problem to replace later.) I also didn't have to remove, or even open the "Trim" piece, as there was enough room to pass the connected MiniCircuit through the hole behind the "Toggle Switch Panel."

This picture from Bill shows the downtubes removed, the toggle switch panel removed, and the original toggle switch panel connector plugged into the MINI circuit.

This picture from Bill shows the MINI circuit pushed in behind where the toggle switch panel normally fits, with the harness from it going to the toggle switch panel (the downtubes are still removed)

July 2005: MikeyTheMINI recently wrote that you cannot pull the downtubes out of the center console on the newest '05 MINIs – however you can move them out of the way sufficiently to access the toggle switch panel screws.

CHAPTER 5 TROUBLESHOOTING & SUPPORT

The circuit functionality is all programmed into firmware. It has a resettable fuse built in, so even shorts in the control outputs will not damage the car or the circuit.

If the circuit does not function properly, first re-check all power, control and accessory connections. Close to every problem ever encountered with the circuit has been traced to misalignment of the connectors. But if the connectors are confirmed to be located properly and if the circuit still does not function properly, contact FES directly via one of the contact methods listed below.

Phone: (650) 241-1161

E-Mail: support@fes-auto.com

Web: www.fes-auto.com/support

CHAPTER 6 ACKNOWLEDGMENTS

Thanks to Ian Cull (www.gbmini.net) for coming up with the circuit, improving it, and helping to transfer production over to FES. Without his help we wouldn't have been able to continue offering it to the MINI community.

Thanks to Murray, Luke, Bill and the many other MINI owners who have helped to improve these directions.

APPENDIX A PROGRAMMING OVERVIEW

Windows Auto-Up Enable/Disable

Enable Double Click Mode	Press Door Unlock Button → 5s → Double Tap Driver Window Close Button → Double Tap Passenger Window Close Button → Release Door Unlock Button → 2s
Enable Single Click Mode (No Factory Auto-Up)	Press Door Unlock Button → 5s → Single Tap Driver Window Close Button → Single Tap Passenger Window Close Button → Release Door Unlock Button → 2s
Enable Single Click Mode (Factory Auto-Up Left Hand Drive)	Press Door Unlock Button → 5s → Tripple Tap Driver Window Close Button → Single Tap Passenger Window Close Button → Release Door Unlock Button → 2s
Enable Single Click Mode (Factory Auto-Up Right Hand Drive)	Press Door Unlock Button → 5s → Single Tap Driver Window Close Button → Tripple Tap Passenger Window Close Button → Release Door Unlock Button → 2s
Disabling Auto-Up	Press Door Lock Button → 5s → Double Tap Driver/Passenger Window Close Button → Release Door Lock Button → 2s

Accessory Control Enable/Disable

Enable Accessory Control Mode 1	Press Door Unlock Button → 5s → Release Door Unlock Button → 2s → Single Tap Door Unlock Button
Enable Accessory Control Mode 2	Press Door Unlock Button → 5s → Release Door Unlock Button → 2s → Double Tap Door Unlock Button → 2s
Enable Accessory Control Mode 3	Press Door Unlock Button → 5s → Release Door Unlock Button → 2s → Tripple Tap Door Unlock Button
Disable Accessory Control	Press Door Lock Button → 5s → Release Door Lock Button → 2s → Double Tap Door Lock Button

Track Mode DSC defeat Enable/Disable

Enable Track Mode DSC	Press Door Unlock Button → 5s → Single Tap DSC Button → Release Door Unlock Button → 2s
Disable Track Mode DSC	Press Door Unlock Button → 5s → Single Tap DSC Button → Release Door Unlock Button → 2s

Auto Front Fog Light Enable/Disable

Enable Auto Front Fog	Press Door Unlock Button → 5s → Single Tap Front Fog-Light Button → Release Door Unlock Button → 2s
Disable Auto Front Fog	Press Door Unlock Button → 5s → Single Tap Front Fog-Light Button → Release Door Unlock Button → 2s