



MASTER GUIDE

**DIGITAL REMOTE STARTER + ALARM** 





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#### MODULE CONNECTORS CONNECTOR PINOUT FIRST GENERATION HCx [HCX-192] 01 ORANGE - ACCESSORY (+)-02 RED - POWER (30A) M1 - 8 PIN BLACK -03 PURPLE - STARTER (+) = 04 PINK/WHITE - PROG. RELAY #4 - IGNITION 2 (+) (DEFAULT) 05 PINK - IGNITION (+) -06 WHITE - PROG. RELAY #5 (10A) - PARKING LIGHTS (+) (DEFAULT) = AUTOMATIC 07 RED - POWER (30A)-TRANSMISSION 08 BLACK - GROUND -**CUT LOOP** M2 ■ 01 GREEN • BLACK DOT - LOCK (-) OUTPUT 02 BLUE BLACK DOT - UNLOCK (-) OUTPUT M2 - 12 PIN BLACK 03 RED/WHITE BLACK DOT - TRUNK RELEASE (-) OUTPUT M5 - 6 PIN BLUE 04 GREEN/WHITE BLACK DOT - ARM (-) OUTPUT M3 - 10 PIN WHITE -05 GREEN/BLACK BLACK DOT - DISARM (-) OUTPUT -06 BLUE/WHITE.BLACK DOT - GWR (-) OUTPUT-M4 - 20 PIN BLACK TELEMATIC 1 - 4 PIN BLUE -08 WHITE/PURPLE•BLACK DOT - POC 1 - 2ND UNLOCK OTHER DOORS (-) OUTPUT 3 PIN BLACK - TEMP. SENSOR 09 PURPLE/BLACK BLACK DOT - POC 2 - RAP SHUTDOWN (-) OUTPUT-SMARTSTART - 4 PIN RED -10 WHITE/BLACK BLACK DOT - POC 3 - HORN (-) OUTPUT= - PROGRAMMING BUTTON NC - 4 PIN RED 11 BROWN/BLACK BLACK DOT - POC 4 - STARTER KILL (-) OUTPUT 12 WHITE BLACK DOT - PARKING LIGHTS (-) OUTPUT = LED 2 (RS) LED 1 (BYPASS) M3 T01 BROWN • SILVER DOT - BRAKE (+) INPUT-02 BLACK/WHITE SILVER DOT - E-BRAKE (-) INPUT-RF PORT/WEBLINK PORT - 4 PIN BLACK 03 PURPLE+SILVER DOT - DOOR (+) INPUT-04 GREEN+SILVER DOT - DOOR (-) INPUT 05 PURPLE/WHITE SILVER DOT - TACH (-) INPUT = 06 WHITE/BLUE SILVER DOT - X-TRIGGER (-) INPUT: 07 GRAY • SILVER DOT - HOOD (-) INPUT 08 BLUE SILVER DOT - TRUNK (-) INPUT 09 GRAY/BLACK•SILVER DOT - GLOW PLUG (+) INPUT 10 EMPTY **SECOND GENERATION HCx [HCA-320]** M1 - 8 PIN BLACK FUNCTIONS DEFINED BY FIRMWARE M2 - 12 PIN BLACK M5 - 6 PIN BLUE M3 - 10 PIN WHITE -M4 - 20 PIN BLACK TELEMATIC 1 - 4 PIN BLUE -PROGRAMMING BUTTON LED 2 (RS) -LED 1 (BYPASS) FUNCTIONS DEFINED BY FIRMWARE RF PORT/WEBLINK PORT - 4 PIN BLACK



# Introduction

Thank you for purchasing this iDatastart system for your vehicle. The following installation manual is intended for experienced and authorized iDatastart technicians. We highly recommend that you contact your local iDatastart dealer and seek professional installation. Call 866-427-2999 or visit our website at www.idatastart.com to locate your nearest dealer. If you need additional or replacement remotes and/or online support, please visit www.idatastart.com.



Caution: The Manufacturer's warranty will be void if this product is installed by anyone other than an authorized iDatastart dealer. iDatastart provides installation support services to authorized dealers only.

This manual may change frequently. Please check www.idatalink.com for updates.

# **Kit Contents**

All iDatastart ADS-HC controllers include the following:

- ADS-HC main control module
- High Current ignition harness
- 20-pin main wiring harness
- Supplemental Wiring harnesses
- Hood pin

The following accessories and sensors are available but **not included** with every system:

- RF antenna and long-range remotes
- Temperature sensor (ACC-TEMP1)

iDatastart remote(s) and antenna sets are modular and not specific to the control modules. You can pair any iDatastart remote(s) and 4-pin antenna receiver to the ADS-HC.

Any questions on contents please contact your distributor or us directly at 1.866 427.2999, Monday through Friday, 8:30 AM to 5:30 PM Eastern Standard Time.



# **Installation Basics**

If you are new to installing iDatastart HC Series Remote Starts and/or Alarms, we highly recommended that you thoroughly review this manual to installing your first unit.

# BLACK loop must be cut for AUTOMATIC transmission vehicles.

You must cut the loop to confirm installation into an automatic transmission vehicle. The module will not program to the vehicle or remote start if the loop is not cut.

# ⊃ Flashing firmware to the HC on the web:

Before you can use your HC, it must be connected to the internet and flashed with firmware tailored to the vehicle you are installing on. To connect to the module to your computer, you will need the Weblink USB PC programmer (available from your distributor). Then visit http://www.idatalink.com to flash your module. You will need to create an account if you don't already have one. You can also program the HC using the Weblink Mobile adapter for iOS or Android. The Weblink Mobile RS app is available through iTunes or Google Play. PLEASE NOTE: All HC's are shipped without any firmware loaded at the factory.

# Configuring options:

During or after flashing the module online (see above) you can configure programmable options for remote start/doorlocks/alarm and more (See Option Programming Tables). PLEASE NOTE: These options can only be configured online or with our mobile apps.

## System programming:

Make sure the control module has been flashed on the web, and that all the required connections have been made.

Plug in all the connectors starting with M1 (Connect M4 first if M1 is not used in your installation. Cycle the vehicle's ignition ON, the control module's LEDs will go solid GREEN, then out. Programming is complete - Perform the Tach learning procedure.

# ⊃ Tach learning procedure:

Learn tach by: (1) Starting the vehicle with the key, (2) Press and hold the foot brake, then (3) Press and release the programming button on the HC - one or two GREEN flashes (module led) indicates that the vehicle tach signal has been successfully learned. Three or more RED flashes (module led) indicates that the control module failed to see a proper tach signal. Consult the 'Tach sensing and learning' section for more info and parklight flash diagnostics. (These units also have the option for assumed start).

# Remote programming:

If you are adding iDatastart transmitters to your installation, you must code the remotes to the system before they will operate (4 remotes max). Begin by cycling the ignition ON, then press and release the button on the antenna. Then press and hold the button on the antenna (leds on antenna will come on solid). Press and release button 1 (half second) on the first remote, and then press and release button 1 (half second remote. With each button press, the leds on the antenna will flash. After pressing the last remote, release the antenna button and cycle ignition OFF.

IMPORTANT: Remotes can only be programmed to the main module once all other programming to the vehicle has been completed!

# High Current 2nd Ignition Output (M1 Pink/White Wire) (Web Programmable)

High Current Parking Light Output (M1 White Wire) (Web Programmable)

# IDATASTART REMOTE PROGRAMMING PROCEDURE

This procedure applies to iDatastart RF only. NOTE: The HC must be flashed for the correct RF brand in Weblink prior to programming remotes.

01



WARNING: Complete the module programming procedure and tach programming procedure before programming the remotes. A maximum of four [4x] remotes per system.

02



Set ignition to ON position.

03



Press and release the antenna button, then press and hold the antenna button. The antenna's leds will turn solid BLUE.

04



Parking Light will flash once [1x].

05



Press once [1x] on the LOCK button of each remote.

06



The antenna's leds will flash BLUE once [1x] for each successful pairing.

07



Release the antenna button. The antenna's leds will turn OFF.

08



Set ignition to OFF position.

09



Remote Programming Procedure completed.

>>



To program an additional remote as second vehicle mode: Follow steps 1 to 4. Press twice [2x] on the "F" button then press once [1x] on the LOCK button of the remote. Follow steps 6 to 9.

>>



Please visit www.idataguides.com to see all of our remote user manuals

# **Remote Programming Procedure**

# ALTERNATE REMOTE PROGRAMMING PROCEDURE 1

Use this sequence to program non iDatastart remotes to the HC. NOTE: The HC must be flashed for the correct RF brand in Weblink prior to programming remotes.

# ALTERNATE REMOTE PROGRAMMING PROCEDURE 2 PTS (Push to Start) application

**STEP 1:** Set the vehicle to the ignition or "ON" position

**STEP 2:** Within 5 seconds push to the "OFF" position

**STEP 3:** Within 5 seconds set the vehicle to the ignition or "ON" position (do not start)

**STEP 4:** Step on the foot brake 3 times within 5 seconds. The parking lights will flash 1 time to indicate remote programming is enabled

**STEP 5:** Tap (a quick 0.5 second press and release) the lock button on the remote. The parking lights will flash 1 time indicating remote code has been accepted

**STEP 7:** After 5 seconds of no valid remote codes being transmitted the HC will automatically exit programming mode



WARNING: Program aftermarket remotes before usage. A maximum of four [4x] aftermarket remotes per system.



Time restriction. Complete next step within 7



Cycle ignition ON five times [5x OFF/ON] rapidly.



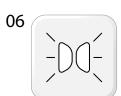
Parking Light will flash once [1x].



Time restriction. Complete next step within 5 seconds from previous step.



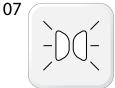
Press once [1x] on LOCK button of aftermarket remote.



Parking Light will flash once [1x].



To program additional remotes: repeat steps 4 to 6 using each additional remote.



Wait, Parking Light will flash twice [2x].



Turn ignition to OFF position.



Aftermarket Remote Programming Procedure completed.



Valet Mode disables all system features except for the keyless entry. Use Valet when servicing or loaning your vehicle to others to avoid any inconvenience or mishap when operating the vehicle.

There are no visual indicators when the security system is in Valet Mode. There is a parking light indication when remote starting in Valet Mode. (3 flashes followed by 10 flashes).

Also when in Valet Mode, the keyless entry feature will still operate. There are multiple options available for setting valet mode (see menu option 1-17). Below is the most popular as it does not require a transmitter or antenna, and it is best adapted to PTS vehicles.



NOTE: In Valet Mode, the Remote starter is not functional. Keyless entry, Lock and Unlock will remain functional. See RF kit user manual for alternate valet mode programming.



Time restriction. Complete next step within 7 seconds.



Cycle ignition ON twice [2x OFF/ON] rapidly.



Press and release the BRAKE pedal three times [3x].



Parking Light will flash once [1x] then will flash twice [2x].



Set ignition to OFF position.



06

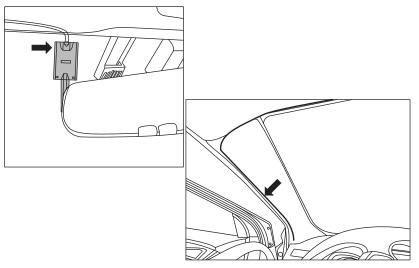
Valet Mode Programming Procedure completed.



To exit valet mode: repeat steps 1 to 5.



**IMPORTANT:** The placement and use of components are critical to the performance of this system.



#### Antenna and Cable

iDatastart antennas are calibrated for vertical installation at the top of the windshield. The cable that connects the antenna to the control module must be free from any pinches or kinks.

Use caution when running cables down a pillar equipped with airbags to avoid obstructing these devices in the event they are activated. Installing the antenna in areas other than the windshield may adversely affect the effective transmitting distance of the remotes.



#### **Hood Pin**

The hood pin switch triggers the alarm in the event the hood is opened while the alarm is armed. The hood pin doubles as an important safety feature that prevents the remote start from engaging while the hood is open.



#### **Tach Sensing**

The default engine sensing mode is tach. In cold weather climates we recommend using an injector wire verses a computer "data" signal, or a coil wire for tachometer sense. iDatastart recommends using a digital multimeter when testing for tach.

**Learn tach**: Start the vehicle, press and hold the foot brake. Press and release the module's programming button. (OR if the remotes are already programmed to the vehicle, press and hold the start button of the remote for 2.5 seconds.) Wait, LED 2 will flash GREEN. (See the Module Diagnostics page)

Number of Parking Light Flashes	Tach learning diagnostic
1	Tach signal programmed in Analog
2	Tach signal programmed in Data
3	No tach signal detected
4	System is in Valet mode
5	N/A
6	Tach set for 'assumed start'. No tach programming required

## Assumed Timed Crank - (Automatic Transmission Vehicles Only)

Assumed Time Crank is intended for vehicles with built-in anti-grind feature or vehicles that do not have a 12V Positive starter wire at the ignition harness. This option will send a crank signal to the vehicle for the length of time selected in menu option 1-2. This option can be used on vehicles with built in anti-grind systems or Push To Start (PTS) systems.

01



START vehicle for 15 seconds.

Proceed to step 2 within

60 seconds

02



Press and hold the brake pedal.

03



Press and release the module's programming button. (OR if the remotes are already programmed to the vehicle, press and hold the start button of the remote for 2.5 seconds.)

04



Wait, LED 2 will flash GREEN. (See the Module Diagnostics page)

05



Release the brake pedal.

06



Module Programming Procedure completed.





A system reset will clear any programming performed in the vehicle including tach learn. Following a reset, the module will need to be programmed to the vehicle again, and you will need to complete the tach learn procedure.

SYSTEM RESET DOES NOT ERASE A FIRMWARE PROGRAMMED TO THE MODULE, OR ALTER ANY SETTINGS IN THE OPTION MENUS.
ANY FIRMWARE OR OPTION CHANGES REQUIRE YOU TO CONNECT THE MODULE TO THE WEB OR A MOBILE DEVICE USING A WEBLINK PROGRAMMER.



The following procedure resets the module programming to the vehicle. It does not reset any settings configured online.



Disconnect all connectors from module except the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.



Disconnect the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.



PRESS AND HOLD the module's programming button while connecting the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.



Wait, LED 1 will flash RED. RELEASE programming button.



LED 1 will turn RED for 2 seconds.



Module RESET completed.



Reconnect all connectors.



Repeat programming procedure.



Failure to follow procedure may result with a DTC or a CHECK ENGINE error message.



#### Connector M1, 8-Pin Black

Pin 1 **ORANGE** - Accessory 12V positive (+) output. This wire must be connected to the vehicle accessory / HVAC blower motor wire. The proper wire will test 0V with the key in the off position, (+) 12V while key is in the on position, 0V while cranking and back to (+) 12V when the key is returned to the on position.

Pin 2 **RED** - Constant 12V positive (+) power input. This wire must be connected as it provides power for the starter (PURPLE), Accessory (ORANGE), and the module's microprocessor. The proper wire will test (+) 12V at all times, even when the key is in the off position, on position, and during crank.

Pin 3 **PURPLE -** Starter 12V positive (+) output. This wire must be connected for remote start. The proper wire will test 0V with the key in the off position, 0V while the key is in the on position and (+) 12V during crank.

Pin 4 **PINK/WHITE (Programmable Output) -** Positive 12V (+) output that powers up during remote start. The default setting for this wire is (+) 2nd ignition. To change this setting, go to menu option 1-4

Pin 5 **PINK -** Ignition 12V positive (+) output and input. This wire must be connected to the vehicle's ignition for remote start and valet / remote programming. The proper wire will test 0V with the key in the off position, 12 V (+) while the key is in the on position and 12V (+) during crank.

Pin 6 **WHITE (Programmable Output) -** This positive (+) parking light wire triggers when you lock, unlock, remote start, or during troubleshooting diagnostics. To change this setting, go to menu option 1-5.

Pin 7 **RED** - Constant 12V positive (+) power input. This wire must be connected as it provides power for the ignition (PINK) and 2nd ignition (PINK/WHITE) outputs. The proper vehicle wire will test (+) 12V at all times - while the key is in the off position, the on position and during crank.

Pin 8 **BLACK -** Ground negative (-) input. This wire must be connected to the vehicle's chassis ground. Make sure no paint or rust is on the mounting surface. We recommend connecting this wire before the others.



#### Connector M2, 12-Pin Black

Pin 1 GREEN•BLACK DOT - Lock 250mA (-) negative output: This is an output that will provide a (-) pulse for locking doors. System will lock doors and arm alarm.

Pin 2 **BLUE•BLACK DOT** - Unlock 250mA negative (-) output: This is an output that will provide a (-) pulse for unlocking doors. System will unlock doors and disarm alarm.

Pin 3 **RED/WHITE•BLACK DOT** - Trunk release 250mA negative (-) output: This is an optional output that will release the trunk. Use M1, Pin 4 if the vehicle is equipped with a (+) trunk release.

Pin 4 **GREEN/WHITE•BLACK DOT** - Factory Alarm Arm (FAA) 250mA negative (-) output: This is an optional output that will provide a (-) pulse during lock, after crank and again after the ignition shuts down. The FAA output can be configured using menu option 2-15

Pin 5 **GREEN/BLACK DOT** - Factory Alarm Disarm (FAD) 250mA negative (-) output: This output will provide a (-) pulse during unlock and every time prior to the GWR (ground when running) turning on during the remote start sequence. It is typically used to disarm factory security systems.

Pin 6 **BLUE/WHITE•BLACK DOT** - Ground while running (GWR) 250mA negative (-) output: This is an optional output that will provide a negative (-) output 250mS before the ignition turns on, stays on throughout the remote start duration and will be the last to shut off.

#### Pin 7 EMPTY

Pin 8 WHITE/PURPLE•BLACK DOT - (POC1) Programmable output. Default setting is 'Unlock other doors' 250mA negative (-) output. The output control is based on feature 5-01 option setting.

Note: There are 21 additional POC setting options for this POC.

Pin 9 **PURPLE/BLACK DOT** - (POC2) Programmable output. Default setting is 'RAP shutdown' 250mA negative (-) output. The output control is based on feature 5-02 option setting.

Note: There are 21 additional POC setting options for this POC.

Pin 10 **WHITE/BLACK DOT** - (POC3) Programmable output. Default setting is 'HORN' 250mA negative (-) output. The output control is based on feature 5-03 option setting.

Note: There are 21 additional POC setting options for this POC.

Pin 11 **BROWN/BLACK•BLACK DOT** - (POC4) Programmable output. Default setting is 'Starter-Kill' 250mA negative (-) output. The output control is based on feature 5-04 option setting.

Note: There are 21 additional POC setting options for this POC.

Pin 12 WHITE•BLACK DOT - Parking light 250mA negative (-) output. This will provide output whenever the parking lights are activated for lock, unlock, remote start, diagnostics, and programming. The proper wire in the vehicle will test (-) when the parking light switch is in the on.



#### Connector M3, 10-Pin White

Pin 1 **BROWN•SILVER DOT** - Brake 12V positive (+) input: This wire must be connected as it provides a shut down for the remote start. It is also required for various programming options. The proper wire will test (+) 12V while the foot brake is pressed.

Pin 2 **BLACK/WHITE•SILVER DOT** - Parking / Emergency brake negative (-) input: This input is required for manual transmission/reservation and Turbo Timer mode. The proper e-brake wire will provide a (-) trigger when parking / emergency brake is set and the key is in the ignition or "on" position. This wire or input is required for manual transmission and turbo timer mode.

Pin 3 **PURPLE•SILVER DOT** - Door zone input (+). This wire monitors positive (+) trigger door-pins. The proper wire will provide a (+) trigger only when the doors are opened. You will need to test the wire for proper polarity. IMPORTANT: A doorpin connection is required for manual transmission remote starts.

Pin 4 **GREEN•SILVER DOT** - Door zone input (-). This wire monitors negative (-) trigger door-pins. The proper wire will provide a (-) trigger only when the doors are opened. You will need to test the wire for proper polarity. IMPORTANT: A doorpin connection is required for manual transmission remote starts.

Pin 5 **PURPLE/WHITE•SILVER DOT** - Engine sensing input (A/C): This wire is connected to the vehicle's Tach wire and is required when using the tach sense setting.

IMPORTANT: To change engine-sensing modes, you must change Option 1-02; Default option is set for tach input.

Pin 6 WHITE/BLUE•SILVER DOT - External RS trigger input (-) programmable input. This is an input (-) that can be used to activate the start sequence when triggered 1, 2, or 3 times based on option selected on feature 1-16. This can be done with a door lock motor output being operated by a factory keyless entry or another external source; Default option is 'disabled'.

Pin 7 **GRAY•SILVER DOT** - Hood Pin negative (-) input: This input is a safety shut down and alarm trigger. It prevents the vehicle from remote starting while the hood is open and triggers the alarm if the hood is opened while the alarm is armed. You can connect this wire to the hood pin supplied with this kit, or to a wire in the vehicle that shows (-) only while the hood is open.

Pin 8 **BLUE•SILVER DOT** - Trunk zone input (-): This is an optional input that will monitor when the vehicle's trunk has been opened. The proper wire will provide a (-) trigger while the trunk is open.

Pin 9 **GRAY/BLACK•SILVER DOT** - Glow plug input (+): Reads any positive input as a glow plug or wait to start input. This is recommended for diesel vehicles that may have a positive analog glow plug output available.

Pin 10 EMPTY



#### Connector M4, 20-Pin Black

This connector is reserved for use with vehicle specific applications. If any connections to M4 are required, they will be indicated in the vehicle specific install diagram after flashing the HC.

#### Connector M5, 6-Pin Blue

This connector is reserved for use with vehicle specific applications. If any connections to M5 are required, they will be indicated in the vehicle specific install diagram after flashing the HC.

#### RF / Weblink Port, 4-Pin Black

Used for programming and configuration of features and options. Connect the WEBLINK-USB programmer to interface with a compatible PC (not included). Also used to connect WEBLINK MOBILE RS programmers for Android or iOS (not included). This is also the port used to connect an iDatastart RF antenna for use with long-range remotes.

#### Telematic 1 Port, 4-Pin Blue

Used for pairing with most supported telematic devices. Supported devices will appear during the flash/configuration procedure.

Pin 1 (B+) - Constant 12V positive (+) output

Pin 2 (B-) - Ground (-) output

Pin 3 (RX) - Input, this wire receives data

Pin 4 (TX) - Output, this wire transmits data

## SmartStart Port, 4-Pin Red

Used for pairing with specific supported Telematic devices. Supported devices will appear during the flash/configuration procedure.

## I2C Port, 4-Pin Red

Not used.

# Temp sensor, 3-pin Black

The HC has a built-in temperature sensor that supports all temperature related features such as cold start mode, defrost/heated seats (if supported) and temperature reporting to telematic devices. For improved accuracy, an external temperature sensor (ACC-TEMP) can be added to the HC.

## Automatic transmission loop, Black

If present, the black loop must be cut. This remote start system is only compatible with AUTOMATIC transmission vehicles.

# Programming Button, Black

Used for activating various programming features such as tach learn and performing system reset.



			ME	NU 1 - Remot	e Starter				
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
1-1	Engine/Wait to start	Gas	Diesel (Glow plug)	3 sec	5 sec	10 sec	15 sec	25 sec	45 sec
1-2	Engine sensing	Tach	N/A	assume start (2)	assume start (2.5)	assume start (3)	assume start (4)	assume start (5)	
1-3	Run time	3 min	5 min	10 min	15 min	25 min	30 min	35	
1-4	Programmable Relay 1 (4th relay)	Ignition	Accessories	Starter	Trunk	Parking Lights			
1-5	Programmable Relay 2 (5th relay)	Ignition	Accessories	Starter	Trunk	Parking Lights			
1-8	Weather mode	Disable	every 2 hour	every 3 hour	every 4 hour	with temp sen- sor			
1-8B	Weather mode runtime	Same as RS runtime	3 min	5 min	10 min				
1-9	Temp sensor for cold weather start	Disable	-20C/-4F	-15C/5F	-10C/14F	-5C/23F	-25C/-13F	-30C/-22F	-35C/-31F
1-10	Temp sensor for hot weather start	Disable	25C/77F	30C/86F	35C/85F	40C/104F			
1-11	Idle mode	Disable	Enable						
1-12	Turbo timer	Disable	30 sec	1 min	2 min	4 min			
1-13	Take over behavior	Enable	Shutdown with Door	Shutdown with Unlock					
1-14	Secure take over delay	45 sec	90 sec	3 min	4 min				



			MENU 1	- Remote Starte	r Continue	d			
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
1-15	Factory keyless RS sequence	Disable	Hold lock 3 sec (Not always avail- able)	Lock, Unlock, Lock	Lock, Lock, Lock				
1-16	External RS input trigger (X-trig input)	Disable	single pulse (-)	double pulse (-)(-)	triple pulse (-)(-)(-)	Analog Factory Keyless [X-Trigger = lock input, Door(+) = unlock input]			
1-17	Valet mode	Remote or 5x ignition ON or 2x ign. ON + 3x brake	Remote or Antenna button only	Remote or Antenna or 5 x ignition ON or 2 x ign. ON + 3x brake	Remote or 5 x ignition ON	Antenna or Remote or 2 x ign. ON + 3x brake	5 x ignition ON or 2 x ign. ON + 3x brake	Antenna but- ton only	Antenna or 5 x ignition ON or 2 x ign. ON + 3x brake
1-18	Heated accessory control	AUX trigger only	Always on	-10C/14F	-5C/24F	0C/32F	4C/40F	8C/46F	12C/54F
1-19	Cooled seats control	AUX trigger only	Always on	20C/68F	24C/76F	28C/82F	32C/90F	36C/96F	
1-20	RS Parking lights confirmation	Disable	constant	Flashing					
1-21	Crank time adjustment (tach)	Disable	+0.2 Second to crank	+0.6 Second to crank	-0.2 Second to crank				
1-22	Remote Starter	Disable	Enable						
1-23	Defrost Trigger	Aux trigger only	Always on	0C / 32F	-10/14F				
1-24	Defrost control	1 sec	5 min	10 min	15 min				
1-25	Shutdown on Trunk	Disable	Enable						



			MENU 2	- Doorlocks					
#	Feature	Option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
2-1	Doorlock analog output Duration	0.4 sec	0.8 sec	2 sec	4 sec				
2-2	Trunk analog output Duration	0.4 sec	0.8 sec	2 sec	4 sec				
2-3	Priority Unlock	Disable	Enable						
2-4	Double pulse Lock	Disable	Enable						
2-5	Double pulse unlock	Disable	Enable						
2-6	Auto re-lock	Disable	Enable						
2-7	Unlock before start	Disable	Enable						
2-8	Re-Lock after start	Disable	Enable	Smart re-lock					
2-9	Re-Lock after RS shutdown	Disable	Enable	Smart re-lock					
2-10	Lock after MT shutdown sequence	Disable	Enable	Smart re-lock					
2-11	Lock after turbo mode	Disable	Enable						
2-12	Ignition controlled doorlock	Disable	Enable	Enable 2000 RPM					
2-13	Ignition controlled doorlock setting	Lock + unlock	Lock only	Unlock only					
2-14	Trunk sequence	Disarm, unlock and trunk	disarm and trunk	trunk only	Disarm, unlock all and trunk				



	MENU 2 - Doorlocks Continued											
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8			
2-15	Analog Rearm Trigger	after start, shutdown and first lock	after shut down and first lock	after start only	after shutdown only							
2-16	Analog Disarm Sequence	Disarm only	Disarm with Ign cycle									
2-17	DL Parking lights confirmation	Disable	Enable	Enable with Ignition Only	Enable without ignition							
2-18	Headlight output (POC)	Lock and Unlock	Lock only	Unlock only								
2-19	Secure Trunk	Disable	Enable	Enable while locked/ armed								



			M	1ENU 3 - Securit	у			
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7
3-1	Alarm	Disable	Enable					
3-2	Alarm duration	30 sec	60 sec	120 sec				
3-3	Alarm Triggered behavior	No Delay	Delay with parking lights	Delay with parking lights and chirps				
3-4	Passive alarm/locks	Active only	Alarm & Locks	Alarm only	Locks only			
3-5	Passive alarm/auto-relock notification	Disable	Alarm & Locks	Alarm only	Locks only			
3-6	Passive alarm/auto-relock timing	30 sec	60 sec	5 min	10 min			
3-7	Passive open zone bypass (Force rearm)	Disable	Enable					
3-8	Open zone notification	Disable	Enable	15 sec delay	20 sec delay	25 sec delay	30 sec delay	35 sec delay
3-9	Confirmation chirp (Horn Output)	Disable	Lock only	Double lock only	Lock and unlock	unlock only	Lock, Unlock, Start	Double Lock, Start
3-10	Confirmation chirp (Siren Output)	Disable	Lock only	Double lock only	Lock and unlock	unlock only	Lock, Unlock, Start	Double Lock, Start
3-11	Siren notification from OEM keyless	Disable	Enable					
3-12	Horn chirp pulse duration	20 ms	30 ms	40 ms	45 ms	50 ms	60 ms	100 ms
3-13	Shock Sensor input behavior	Disable	Enable	Warn away only	Shock only			
3-14	Analog sensor (-) input behavior	Disable	Warn away only (-)	Shock(-)	Normaly Closed Alarm(+)	Zone 2 passive 15(-)	Zone 2 passive 30(-)	



			Mi	ENU 3 - Security Cont	inued				
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
3-15	Alarm control from OEM keyless	Disable	Enable with notifica- tion on aftermarket remotes	Enable without notification on aftermarket remotes					
3-16	LED flashing	Disable	Follow alarm status	External follow alarm status	Antenna follow alarm status				
3-17	alarm/panic with Parking lights	Disable	Enable						
3-18	Car finder duration	5 sec	10 sec	15 sec	60 sec				
3-19	Starter kill/anti-grind	Anti-grind + active SK	Anti-grind only	Anti-grind+ passive SK 30 seconds	Anti-grind+ passive SK 60 seconds				
3-20	Alarm event on remote	Disable	Enable						
3-21	Alarm first disarm behavior	Disarm, Unlock, Silence	Silence only						
3-22	Alarm and keyless override option	Custom code option	Valet switch						
3-23	Real Panic Sound (Random pulse length)	Disable	Enable						
3-24	Siren Chirp pulse duration	20 ms	30 ms	40 ms	45 ms	50 ms	60 ms	100 ms	



		M	IENU 4 - AUX fui	nction assignme	nt				
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
4-1	Transmitter AUX 1	Left sliding door	Right sliding door	PT0 1	PTO 2	PT0 3	PT0 4	Car Finder	Gas cap
4-2	Transmitter AUX 2	Left sliding door	Right sliding door	PTO 1	PT0 2	PT0 3	PTO 4	Car Finder	Gas cap
4-3	Transmitter AUX 3	Left sliding door	Right sliding door	рто 1	PT0 2	PT0 3	PTO 4	Car Finder	Gas cap
4-4	Transmitter AUX 4	Left sliding door	Right sliding door	PT0 1	PTO 2	PTO 3	PT0 4	Car Finder	Gas cap
4-5	Transmitter AUX 5	Left sliding door	Right sliding door	PT0 1	PT0 2	PT0 3	PT0 4	Car Finder	Gas cap
4-6	Secure Auxiliaries (for AUX 1 & 2)	Disable	Enable	Enable while armed					
		MENU	4 - AUX function	n assignment cor	ntinued				
#	Feature	option 9	option 10	option 11	option 12	option 13			
4-1	Transmitter AUX 1	Rear glass	Heated Seats	Cooled Seats	Panic	Defrost			
4-2	Transmitter AUX 2	Rear glass	Heated Seats	Cooled Seats	Panic	Defrost			
4-3	Transmitter AUX 3	Rear glass	Heated Seats	Cooled Seats	Panic	Defrost			
4-4	Transmitter AUX 4	Rear glass	Heated Seats	Cooled Seats	Panic	Defrost			
4-5	Transmitter AUX 5	Rear glass	Heated Seats	Cooled Seats	Panic	Defrost			



				MENU 5 - P	rogrammable o	utputs (POC)			
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
5-1	P0C 1	Unlock Others	Defrost	Horn	IGN	ACC	Start	Parking Lights	Pulse Timer Output 1
5-2	POC 2	Unlock Others	Defrost	Horn	IGN	ACC	Start	Parking Lights	Pulse Timer Output 2
5-3	POC 3	Unlock Others	Defrost	Horn	IGN	ACC	Start	Parking Lights	Pulse Timer Output 3
5-4	POC 4	Unlock Others	Defrost	Horn	IGN	ACC	Start	Parking Lights	Pulse Timer Output 4
				MENU 5 - Progra	ammable output	s (POC) continued	i		
#	Feature	option 9	option 10	option11	option 12	option 13	option 14	option 15	option 16
5-1	P0C 1	PT01	PT02	PT03	PT04	Future use	Arm	Disarm	Lock
5-2	POC 2	PT01	PT02	PT03	PT04	Future use	Arm	Disarm	Lock
5-3	POC 3	PT01	PT02	PT03	PT04	Future use	Arm	Disarm	Lock
5-4	POC 4	PT01	PT02	PT03	PT04	Starter kill	Arm	Disarm	Lock
				MENU 5 - Progra	ammable output	s (POC) continued	i		
#	Feature	option 17	option 18	option 19	option 20	option 21	option 22	option 23	option 24
5-1	P0C 1	Unlock	Trunk	GWR	Left sliding door	Right sliding door	Rap Shutdown	Siren	GND when Engine ON
5-2	POC 2	Unlock	Trunk	GWR	Left sliding door	Right sliding door	Rap Shutdown	Siren	GND when Engine ON
5-3	P0C 3	Unlock	Trunk	GWR	Left sliding door	Right sliding door	Rap Shutdown	Siren	GND when Engine ON
5-4	POC 4	Unlock	Trunk	GWR	Left sliding door	Right sliding door	Rap Shutdown	Siren	GND when Engine ON
				MENU 5 - Progra	ammable output	s (POC) continued	i		
#	Feature	option 25	option 26	option 27	option 28	option 31	option 32	option 33	
5-1	P0C 1	Ground when disarm	Domelight	GND Headlight output	RS/Alarm LED	Ground w/vehicle ign	Secure Start N/C	Secure Start N/0	
5-2	POC 2	Ground when disarm	Domelight	GND Headlight output	RS/Alarm LED	Ground w/vehicle ign	Secure Start N/C	Secure Start N/0	
5-3	P0C 3	Ground when disarm	Domelight	GND Headlight output	RS/Alarm LED	Ground w/vehicle ign	Secure Start N/C	Secure Start N/0	
5-4	POC 4	Ground when disarm	Domelight	GND Headlight output	RS/Alarm LED	Ground w/vehicle ign	Secure Start N/C	Secure Start N/0	



			N	MENU 6 - Pul	se timer outpu	ıt configurat	ions (PTO)				
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8	option 9	option 10
6-1	PTO 1 duration	1 second pulse	latched 10 sec	latched 15 sec	latched 20 sec	latched 30 sec	latched 5 min	latched 10 min	Run time latch		
6-2	PTO 2 duration	1 second pulse	latched 10 sec	latched 15 sec	latched 20 sec	latched 30 sec	latched 5 min	latched 10 min	Run time latch		
6-3	PTO 3 duration	1 second pulse	latched 10 sec	latched 15 sec	latched 20 sec	latched 30 sec	latched 5 min	latched 10 min	Run time latch		
6-4	PTO 4 duration	1 second pulse	latched 10 sec	latched 15 sec	latched 20 sec	latched 30 sec	latched5 min	latched 10 min	Run time latch		
6-5	Secure Start N/C duration 1 minute 2 minute 3 minute 4 minute 5 minute 6 minute 7 minute 8 minute 9 minute 10 minute										
6-6	Secure Start N/0 duration	1 minute	2 minute	3 minute	4 minute	5 minute	6 minute	7 minute	8 minute	9 minute	10 minute



		N	1ENU 7 - Input s	ource configui	rations						
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8		
7-1	Brake	Analog	Data	AUTO							
7-2	Door	Analog	Data	AUTO							
7-3	Tach	Analog	Data	AUTO							
7-4	Hood	Analog	Data	AUTO	Analog Inv.						
7-5	Trunk	Analog	Data	AUTO							
7-6	Glow plug	Analog	Data	AUTO							
7-7	E-brake	Analog	Data	AUTO							
7-8	Thermistor/temp sensor	Analog	Data	AUTO							
7-9	VSS	Disable	Data (Auto)								
7-10	T-Harness firmware support	Disable	Enable	AUTO							
7-11	Digital shock sensor	Disable	Internal	iDataSiren	MTDS						
7-12	Digital tilt sensor	Disable	Internal	iDataSiren	MTDS						
7-20	Temperature sensor adjustment	Select value on web	link/Diagnostic tool : (-	15 to 15 deg C), Def	ault 0 Deg.C						
7-21	Digital shock sensor trigger adjustment	Select value on web	Select value on weblink/Diagnostic tool : (0.5-10), Default 1 (less sensitive). 0 = 0FF, 0.5 = min, 10 = max.								
7-22	Digital shock sensor warn away adjustment	Select value on weblink/Diagnostic tool : (0.5-10), Default 1 (less sensitive). 0 = OFF, 0.5 = min, 10 = max.									
7-23	Digital tilt adjustment	Select value on web	elect value on weblink/Diagnostic tool : (OFF, 1.0 to 4.0 deg), Default 2.5 Deg								



MENU 8 - Output source configurations										
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8	
8-1	Arm	Analog	Analog/Data							
8-2	Disarm	Analog	Analog/Data							
8-3	Lock	Analog	Analog/Data							
8-4	Unlock all	Analog	Analog/Data							
8-5	Unlock driver door	Analog	Analog/Data							
8-6	Trunk	Analog	Analog/Data							
8-7	Left sliding door	Analog	Analog/Data							
8-8	Right sliding door	Analog	Analog/Data							
8-9	Parking lights	Analog	Analog/Data							
8-10	Rap shut down	Analog	Analog/Data							
8-11	Panic and alarm	Analog	Analog/Data							
8-12	Car finder	Analog	Analog/Data							
8-13	Defrost	Analog	Analog/Data							
8-14	Horn chirp (notification)	Analog	Analog/Data							
8-15	Sleep status on LED	Disable	Enable							



MENU 9 - Input configurations									
#	Feature	option 1	option 2	option 3	option 4	option 5	option 6	option 7	option 8
9-1	PIC1 negative input (M3 - TAN•SILVER DOT)	External Alarm Sensor	Valet Input Switch						



- 1-01 Engine type: Every HC is shipped in manual transmission mode. Tach sensing is our default engine sense option.
  - F01 Gas: Suitable for all gas powered vehicles. This option relies on the input specified in 1-02.
  - **F02 Diesel (with glow plug signal):** This option uses the hardwired glow plug input (gray/black M3 white connector) to read the (+) glow plug status from the vehicle. This is usually connected to the signal going to the light in the dash. Once the light goes out and the signal is lost, the vehicle will crank. This option relies on the input specified in 1-02.
  - **F03 to F08 Wait to start delay:** Any of these settings will force the remote starter to wait (with ignition on) for the selected time before cranking the engine. Determine the maximum time required to insure the vehicle's gloplug are ready, and set the delay accordingly. This option relies on the input specified in 1-02.
- 1-02 Engine tach detection: Method used to determine when we need to release start signal.
  - <u>FO1 Tach input/data</u>: This option uses a hard wired input (purple/white on the M3 white connector) to read the vehicles RPM's in order to release the starter during the remote start process and determine that the engine is running. In some vehicle specific solutions, this signal may be obtained through the vehicle's databus (no connection required).
  - F03 to F07 Assumed start (for hybrid): The vehicle will crank for the time specified by your selection. The remote starter will then 'run' for the selected runtime. It does not require a connection to the vehicle other than the main ignition harness.
- 1-03 Runtime: This feature consists of four different settings for the remote start run time.
  - F01 Runtime of 3min: The remote starter will run for a period of 3 minutes.
  - F02 Runtime of 5min: The remote starter will run for a period of 5 minutes.
  - F03 Runtime of 10min: The remote starter will run for a period of 10 minutes.
  - F04 Runtime of 15min: The remote starter will run for a period of 15 minutes.
  - F05 Runtime of 25min: The remote starter will run for a period of 25 minutes.
  - F06 Runtime of 30min: The remote starter will run for a period of 30 minutes.
  - **F07 Runtime of 35min:** The remote starter will run for a period of 35 minutes.
- 1-04 Programmable high power relay #4 (M1 Pink/White): Controls the function of this wire.
  - **F01 Ignition:** Follows the behavior of the primary (+) Ignition wire.
  - **F02 Accessory:** Follows the behavior of the primary (+) Accessory wire.
  - F03 Starter: Follows the behavior of the primary (+) Starter wire.
  - F04 Trunk: Provides a high-current (+) output for trunk release.
  - F05 Parking Lights: Provides a high-current (+) output for parking lights.



1-05 Programmable high power relay #5 (M1 - White): Controls the function of this wire.

**F01 - Ignition:** Follows the behavior of the primary (+) Ignition wire.

**F02 - Accessory:** Follows the behavior of the primary (+) Accessory wire.

**F03 - Starter:** Follows the behavior of the primary (+) Starter wire.

**F04 - Trunk:** Provides a high-current (+) output for trunk release.

F05 - Parking Lights: Provides a high-current (+) output for parking lights.

1-08 Weather mode: This feature is designed to allow the user to have the HC automatically remote start at the end of a selected timed cycle. It also be controlled by the thermistor so it will start at a specified temperature at the end of the timed cycle. Weather mode must also be activated each time between vehicle uses.

The system must not be in valet and for added security a lock command needs to be sent before activating (max 10 seconds before). Once it's activated, the vehicle will remain in weather mode for a maximum of 24 hours or until the ignition is turned on.

F01 - Disable: Weather mode is disabled.

F02 - Every 2 hours: Will activate every 2 hours and run for the programmed runtime.

F03 - Every 3 hours: Will activate every 3 hours and run for the programmed runtime.

F04 - Every 4 hours: Will activate every 4 hours and run for the programmed runtime.

F05 - With temp sensor: Will activate based on the selected temp settings in menu 1-09, 1-10 and run for the programmed runtime.

1-08B Weather mode runtime: This feature consists of four different settings for the weather mode run time.

F01 - Same as remote start runtime: Weather mode will start and run for the time set by option 1-03.

**F02 - 3 minutes:** Weather mode will start and run for

F03 - 5 minutes: Weather mode will start and run for

F04 - 10 minutes: Weather mode will start and run for



1-09 Temperature option for cold weather start: Use this option to set the temperature to automatically start the vehicle in cold weather. This option uses the internal temperature sensor, or an external sensor if one is connected. Requires that menu option 1-08 be set for 'Enable with temp sensor'.

Weather mode is cancelled automatically after 24 hours or if the vehicle is started by key or RS.

F01 - Disable

F02 - Below -20C / -4F

F03 - Below -15C / 5F

F04 - Below -10C / 14F

F05 - Below -5C / 23F

1-10 Temperature option for hot weather start: Use this option to set the temperature to automatically start the vehicle in hot weather. This option uses the internal temperature sensor, or an external sensor if one is connected. Requires that menu option 1-08 be set for 'Enable with temp sensor'.

Weather mode is cancelled automatically after 24 hours or if the vehicle is started by key or RS.

F01 - Disable

F02 - Above 26C / 77F

F03 - Above 30C / 86F

F04 - Above 35C / 95F

F05 - Above 40C / 104F

1-11 Idle mode (also know as pit stop mode): Allows the remote starter to be activated while the vehicle is running under key. When activated, the user can exit the vehicle with the key or fob and the vehicle will continue to run for the programmed runtime. NOTE: This option is not available on all vehicles.

F01 - Disable

F02 - Enable

1-12 Turbo Timer: (This feature requires door and e-brake input) This feature allows the user to activate Turbo Timer Mode with their iDatastart remote or accessory. This will keep the engine running after removing the key for the specified time selected below. (Please check specific remote or accessory user's manual for steps to activate Turbo Timer Mode).

F01 - Disable: Weather mode is disabled.

F02 - Enable for 30sec: Vehicle with continue to run for 30 seconds.

F03 - Enable for 1min: Vehicle with continue to run for 1 minute.

F04 - Enable for 2min: Vehicle with continue to run for 2 minutes.

F05 - Enable for 4min: Vehicle with continue to run for 4 minutes.

1-13 Takeover: Controls what happens when the user enters the vehicle which is running under remote start. NOTE Not all options are available for all vehicles.

F01 - Enable: Vehicle will stay running as the user takes control of the vehicle during remote start.

F02 - Disable and shut down on door open: Vehicle will shutdown as soon as a door is opened. Vehicle must be restarted manually.

F03 - Disable and shutdown on unlock: Vehicle will shutdown as soon as an unlock command is received. Vehicle must be restarted manually.



- 1-14 Secure take over delay: This feature only applies to specific PTS vehicle solutions. Consult the vehicle specific info on our website. This menu controls the amount of time the user has to complete takeover once they have entered a remote started vehicle. If the user has not completed all the steps for takeover in the given time, the process will be cancelled and the vehicle will shut down when the brake is pressed.
  - F01 Timeout of 45 seconds
  - FO2 Timeout of 1.5 minutes
  - F03 Timeout of 3 minutes
  - F04 Timeout of 4 minutes
- 1-15 Factory keyless remote start activation: Allows the remote starter to be engaged using the vehicles OEM remote or keyfob. NOTE: This feature is not available on all vehicles. Consult our website for more information.
  - F01 Disable
  - FO2 Hold Lock for 3 sec: Activates remote start 3sec hold on Lock from OEM remote. (Not available with all firmware).
  - F03 Lock, Unlock, Lock: Activates remote start when a sequence of lock/unlock/lock is received from the OEM remote.
  - F04 Lock, Lock, Lock: Activates remote start when a sequence of lock/lock is received from the OEM remote.
- 1-16 External RS trigger input: Allows the remote starter to be triggered using an external negative signal connected to M3-06 WHITE/BLUE. Choose from these different options to control how this input works;
  - F01 Disable: Input is disabled
  - **F02 Single pulse:** A single pulse to the wire will activate remote start.
  - **F03 Double pulse:** A double pulse to the wire will activate remote start.
  - **F04 Triple pulse:** A triple pulse to the wire will activate remote start.
  - **F05 Analog factory keyless (lock input):** This option is only required if you are setting menu option 1-15 for option F02 (lock/unlock/lock). M3-06 will act as a (-) lock input. Use M3-03 PURPLE/silver dot as a (+) unlock input.
- 1-17 Valet: In Valet mode, the remote starter and alarm(if activated) are disabled. Only keyless entry is functional. This option is used when an emergency disarm is required (lost remote) or the vehicle is brought in for service. NOTE: For a comprehensive explanation of each option, see the VALET section of this guide.
  - F01 Remote / 5x Ignition / 2x Ignition + 3x Brake
  - F02 Remote / Antenna
  - F03 Remote / Antenna / 5x Ignition / 2x Ignition + 3x Brake
  - FO4 Remote / 5x Ignition
  - F05 Remote / Antenna / 2x Ignition + 3x Brake
  - F06 5x Ignition / 2x Ignition + 3x Brake
  - F07 Antenna button only
  - F08 Remote / Antenna / 5x Ignition / 2x Ignition + 3x Brake



- 1-18 Heated accessory control: This feature controls the activation of heated accessories. This option is NOT associated with an analog output, and is available only when a vehicle specific firmware supports it. For an analog output to control defrost or heated seats, use menu options 1-23 and 1-24 in conjunction with an POC output set for 'Defrost'.
  - F01 Aux trigger only: Will only activate when an auxiliary programmed to 'heated seats' is activated.
  - F02 Always on: Activates on each remote start.
  - **F03 Activate at -10C/14F:** Activates at the preset temperature.
  - F04 Activate at -5C/24F: Activates at the preset temperature.
  - F05 Activate at 0C/32F: Activates at the preset temperature.
  - **F06 Activate at 4C/40F:** Activates at the preset temperature.
  - **F07 Activate at 8C/46F:** Activates at the preset temperature.
  - F08 Activate at 12C/54F: Activates at the preset temperature.
- 1-19 Cooled seats control: This feature controls the activation of cooled seats feature. This option is NOT associated with an analog output, and is available only when a vehicle specific firmware supports it. For an analog output to control this type of feature, use menu options 1-23 and 1-24 in conjunction with an POC output set for 'Defrost'.
  - F01 Aux trigger only: Will only activate for an auxiliary programmed to 'cooled seats' is activated.
  - F02 Always on: Activates on each remote start.
  - F03 Activate at 20C/68F: Activates at the preset temperature.
  - F04 Activate at 24C/76F: Activates at the preset temperature.
  - F05 Activate at 28C/82F: Activates at the preset temperature.
  - F06 Activate at 32C/90F: Activates at the preset temperature.
  - F07 Activate at 36C/96F: Activates at the preset temperature.
- 1-20 Parking light confirmation: Controls the behavior of the parking lights feature during remote start.
  - F01 Disable: All parking light outputs are disabled during remote start.
  - F02 Constant ON: Parklights will output steady the entire duration of runtime.
  - **F03 Flashing:** Parklights will flash once every 5 seconds for the duration of the runtime.
- 1-21 Crank time adjustment: Allows fine adjustments to the default crank time for remote start. NOTE: Only use this feature to correct start issues related to crank time.
  - F01 Disable: The remote starter will crank for the default crank time.
  - F02 Add 200ms to crank: The remote starter will crank for 200ms longer than the default.
  - F03 Add 600ms to crank: The remote starter will crank for 200ms longer than the default.
  - F04 Subtract 200ms from crank: The remote starter will crank for 200ms less than the default.



1-22 Remote Starter: This feature turns the remote starter function on/off.

F01 - Disable F02 - Enable

- 1-23 Defrost trigger: This option controls the activation of the defrost feature. A POC must be programmed associated with an analog output (menu 5). The duration of the output is controlled in menu 1-24.
  - F01 Aux trigger only: Activates only when an aux is activated. Requires you to configure an aux for one of the POC's in menu 4.
  - F02 Always on: Activates automatically on remote start. A POC must be programmed associated with an analog output (menu 5)
  - F03 Activate at 0C/32F: Activates at the preset temperature. A POC must be programmed associated with an analog output (menu 5)
  - F04 Activate at -10C/14F: Activates at the preset temperature. A POC must be programmed associated with an analog output (menu 5)
- 1-24 Defrost control: Controls the duration of the defrost output when engaged. A POC must be programmed associated with an analog output (menu 5)
  - F01 1 second: Output will pulse for 1 second upon activation based on setting in menu 1-23.
  - FO2 5 minutes: Output will latch for 5 min. upon activation based on setting in menu 1-23.
  - F03 10 minutes: Output will latch for 10 min. upon activation based on setting in menu 1-23.
  - F04 15 minutes: Output will latch for 15 min. upon activation based on setting in menu 1-23.
- 1-25 Shutdown on trunk: Controls if the remote starter shuts down when the trunk is opened during runtime.
  - F01 Disable
  - F02 Enable



2-1 Lock & Unlock analog pulse length: This does not affect the behavior of the factory arm output (green/white/silver dot) or factory alarm disarm output (green/black/silver dot) wires.

**F01 - 0.4 seconds:** (-) Negative lock and unlock output time. This option may be helpful when using lock/unlock to arm/disarm vehicles that may roll windows down with factory Arm/Disarm wires when the standard output is too long.

F02 - 0.8 seconds: (-) Negative lock and unlock output time.

F03 - 2 seconds: (-) Negative lock and unlock output time.

F04 - 4 seconds: (-) Negative lock and unlock output time.

2-2 Trunk analog pulse length: Controls the length of the analog trunk release output.

F01 - 0.4 seconds: Trunk release output time.

**F02 - 0.8 seconds:** Trunk release output time.

F03 - 2 seconds: Trunk release output time.

F04 - 4 seconds: Trunk release output time.

2-3 Priority unlock: When enabled, provides a dual stage unlock for driver's door priority. For analog doorlocks you must program a POC for 'Unlock others' in menu 5. For vehicle specific firmware solutions, this option may not be available.

F01 - Disable

F02 - Enable

2-4 Double pulse lock: This option will provide a double pulse when the lock command is executed by the CM. The length of output time will be determined by menu option 2-1

F01 - Disable

F02 - Enable

2-5 Double pulse unlock: This option will provide a double pulse when the unlock command is executed by the CM. The length of output time will be determined by menu option 2-1

F01 - Disable

F02 - Enable

2-6 Auto relock: This option will relock the doors 30 seconds after they have been unlocked by the CM, if no doors have been opened. The length of output time will be determined by menu option 2-1

F01 - Disable

F02 - Enable



- 2-7 Unlock before remote start: Sends an unlock command when the remote start sequence is triggered.
  - F01 Disable
  - F02 Enable
- 2-8 Re-lock after start: Sends a lock command as soon as the CM has confirmed remote start success.
  - F01 Disable
  - F02 Enable
  - F03 Enable with smart re-lock: Doors will only re-lock if they were locked by the CM before remote start.
- 2-9 Re-lock after remote start shutdown: Sends a lock command after the remote start shuts down.
  - F01 Disable
  - F02 Enable
  - FO3 Enable with smart re-lock: Doors will only re-lock if they were NOT unlocked by the CM during remote start.
- 2-10 Lock after manual transmission shutdown sequence: Upon successful completion of reservation mode (vehicle shuts down), the CM will send a lock command.
  - F01 Disable
  - F02 Enable
  - F03 Enable with smart re-lock: Doors will only re-lock if they were NOT unlocked by the CM during the reservation sequence.
- 2-11 Lock after turbo timer shutdown: If Turbo mode is engaged in menu 1-12, the CM will send a lock command after the vehicle shuts down.
  - F01 Disable
  - F02 Enable
- 2-12 Ignition controlled doorlock: This option will provide a door lock output when the vehicle's ignition is turned on by the user, or once the vehicle's RPM reaches a pre-determined value while driving. This setting also depends on menu option 2-13 NOTE: When FO2/FO3 are selected, the user can activate the "drive lock" or ignition controlled door locking feature using a iDatastart remote or Drone. (Please check specific remote user's manual for steps to activate Drive lock.)
  - F01 Disable
  - F02 Enable
  - FO3 Enable at 2000 RPM (only is tach input is selected in menu 1-2)
- 2-13 Ignition controlled doorlock setting: Determines if the ignition on/off controls lock, unlock, or both. For lock, the CM will provide a door lock output when the vehicle's ignition is turned on. For unlock, CM will provide a door unlock output as soon as the key is turned off or 12v ignition is removed.
  - F01 Lock & Unlock
  - F02 Lock only
  - F03 Unlock only



- 2-14 Trunk activation sequence: Controls what occurs when a trunk release command is sent to the CM.
  - F01 Disarm, then unlock, then trunk release
  - F02 Disarm, then trunk release
  - F03 Trunk release only
  - FO4 Disarm, then unlock all, then trunk release
- 2-15 Analog rearm trigger output: Sets the behavior for the analog arm wire (M2-04 GREEN/WHITE/BLACK DOT).
  - F01 After start & after shutdown & on first lock press
  - FO2 After shutdown & on first lock press
  - F03 After start only
  - F04 After shutdown only
- 2-16 Analog disarm sequence: Controls how disarm occurs when the CM receives an unlock command or remote start command.
  - FO1 Disarm only: The CM will send an pulse output to the analog disarm (M2-05 GREEN/BLACK/BLACK DOT).
  - **F02 Disarm with ignition cycle:** The CM will send an pulse output to the analog disarm (M2-05 GREEN/BLACK/BLACK DOT) AND pulse the ignition (+) output wire simultaneously.
- 2-17 Doorlock parking lights confirmation: Controls the behavior of the parking light output as doolock commands are executed. These settings are generally reserved for vehicle specific applications and will be set by the firmware. For general purposes, the default is always 'enable'.
  - F01 Disable
  - F02 Enable
  - F03 Enable with ignition ON only
  - FO4 Enable with ignition OFF only
- 2-18 Headlight output: This feature can serve to turn on the headlights for courtesy illumination when the keyless entry is used. This option works in conjunction with a POC programmed as 'GND headlight output' in menu 5.
  - F01 Lock and unlock
  - F02 Lock only
  - F03 Unlock only
- 2-19 Secure trunk: This feature is designed to prevent accidental activation of the Trunk output by requiring an additional step when using an aftermarket remote.
  - F01 Disable
  - **F02 Enable:** Unlock must be pressed before activating trunk release.
  - F03 Enable while locked/armed: Unlock must be pressed before activating trunk release if the system is in a locked/armed state.



3-1 Alarm: Activates or deactivates the ALARM features of the HC.

F01 - Disable

F02 - Enable

- 3-2 Alarm duration: Sets the length of time the alarm will sound if triggered.
  - F01 30 seconds
  - F02 60 seconds
  - F03 120 seconds
- 3-3 Alarm triggered behavior: Controls the delay between an alarm infraction and the system triggering the lights/horn/siren.
  - F01 Alarm will sound right after the trigger: The alarm system will activate lights and siren/horn instantly when a trigger is detected.
  - **FO2 Delay with parking lights, then alarm:** When the alarm is triggered, the CM will flash the parking lights for <u>5 seconds</u> before sounding the alarm.
  - **F03 Delay with parking lights and chirps, then alarm:** When the alarm is triggered, the CM will chirp the siren and flash the parking lights for <u>5 seconds</u> before sounding the alarm.
- 3-4 Passive alarm / Passive lock: This feature is used to control automatic (passive) arming or locking of the system. When ignition is turned off, and a door is opened then closed, it will activate the passive delay. If activated, the timing for this feature is controlled in menu option 3-6
  - F01 Off: Only commands from the user will arm and/or lock the system.
  - F02 Passive arming with passive locking: The alarm will arm and the doors will lock automatically based on the timing in menu option 3-6.
  - F03 Passive arming only: The alarm will arm automatically based on the timing in menu option 3-6. The doors will NOT lock.
  - F04 Passive locking only: The doors will lock automatically based on the timing in menu option 3-6. The alarm will NOT arm.
- 3-5 Passive alarm and/or doorlock notification: When alarm or doorlocks are set for passive arming, you can control the notifications that occur.
  - F01 Disable
  - FO2 Notification of passive arming & locking: The siren/horn will chirp when the system locks the doors and arms the alarm passively.
  - F03 Notification of passive arming only: The siren/horn will chirp only when the system arms passively.
  - F04 Notification of passive locking only: The siren/horn will chirp only when the system locks the doors passively.



- 3-6 Passive alarm and/or doorlock timing: Controls the delay before the passive arm and/or lock features are activated.
  - F01 Delay of 30 seconds: The passive features will activate after the selected time.
  - F02 Delay of 60 seconds: The passive features will activate after the selected time.
  - F03 Delay of 5 minutes: The passive features will activate after the selected time.
  - F04 Delay of 10 minutes: The passive features will activate after the selected time.
- 3-7 Passive open zone bypass (Force rearm): When enabled, passive arming will still occur even if a protected zone such as a door or trunk is still open. Passive arming/locking will still respect the delay selected in menu 3-6.
  - F01 Disable
  - F02 Enable
- 3-8 Open zone notification: If a protected zone such as a door or trunk is detected during the arming of the alarm, you can control if there is any notification. You can also delay the notifications which can be useful when you want to allow time for a zone to close.
  - F01 Disable: There will be no audible/visual notifications.
  - FO2 Enable (no delay): 3 chirps/flashes immediately.
  - F03 Enable with 15 sec delay: 3 chirps/flashes 15 seconds after arming if a zone is still open.
  - F04 Enable with 20 sec delay: 3 chirps/flashes 20 seconds after arming if a zone is still open.
  - **F05 Enable with 25 sec delay:** 3 chirps/flashes 25 seconds after arming if a zone is still open.
  - F06 Enable with 30 sec delay: 3 chirps/flashes 30 seconds after arming if a zone is still open.
  - F07 Enable with 35 sec delay: 3 chirps/flashes 55 seconds after arming if a zone is still open.
- 3-9 Confirmation chirp (Horn output): Controls the output for the horn when commands are executed. This does not effect the sounding of the horn when the alarm is triggered. These options do NOT effect the siren output either.
  - F01 Disable: No command confirmations to the horn output.
  - F02 Lock only: The horn will sound with a lock command only.
  - F03 Second lock only: The horn will sound if a second lock command is received within 10 seconds of the first lock command.
  - F04 Lock and unlock: The horn will sound with a lock and unlock commands.
  - **F05 Unlock only:** The horn will sound with a unlock command only.
  - F06 Lock, unlock, start: The horn will sound with a lock, unlock, and start commands.
  - F07 Second lock and start: The horn will sound if a second lock command is received within 10 seconds of the first lock command, as well a start.



- 3-10 Confirmation chirp (Siren output): Controls the output for the siren when commands are executed. This does not affect the sounding of the siren when the alarm is triggered. These options do NOT affect the horn output either.
  - F01 Disable: No command confirmations to the siren output.
  - F02 Lock only: The siren will sound with a lock command only.
  - F03 Second lock only: The siren will sound if a second lock command is received within 10 seconds of the first lock command.
  - **F04 Lock and unlock:** The siren will sound with a lock and unlock commands.
  - F05 Unlock only: The siren will sound with a unlock command only.
  - F06 Lock, unlock, start: The siren will sound with a lock, unlock, and start commands.
  - F07 Second lock and start: The siren will sound if a second lock command is received within 10 seconds of the first lock command, as well a start.
- 3-11 Siren notification from OEM keyless: Controls if the siren will chirp to confirm arming if the OEM remote is used to lock/unlock. This option requires that OEM keyless detection is supported in the vehicle specific firmware. This feature is NOT available on analog firmware.
  - F01 Disable
  - F02 Enable
- 3-12 Confirmation horn chirp pulse duration: Used to control the length of the pulse sent to the horn for command confirmations. This is useful if the horn chirps are either too long or too short.
  - F01 Pulse of 20ms
  - F02 Pulse of 30ms
  - F03 Pulse of 40ms
  - FO4 Pulse of 45ms
  - F05 Pulse of 50ms
  - F06 Pulse of 60ms
  - F07 Pulse of 100ms
- 3-13 Shock sensor input behavior: Controls the shock sensor input behavior for both the DAS port (4-pin red) and sensor 2 port (4-pin green).
  - F01 Disable: Both ports are disabled
  - **F02 Enabled:** Both ports are enabled for warn-away and full shock.
  - F03 Warn away only: Only the warn-away triggers will be enabled.
  - F04 Full shock only: Only the full shock triggers will be enabled.



- 3-14 Analog sensor (-) input behavior: Controls M3 pin-10 (Tan/silver dot) wire. This input can be configured for a variety of different special applications. Read the different option descriptions carefully before making your selection.
  - F01 Disable
  - F02 Warn-away only: A (-) input will trigger a warn-away notification similar to that of the shock sensor.
  - F03 Full shock only: A (-) input will trigger a full alarm similar to that of the shock sensor.
  - F04 Normally closed alarm: The input will expect to see (-) constant while the system is armed. If the (-) signal is lost, the alarm will trigger.
  - **F05 Zone 2 passive 15:** This input will always passively arm 15 seconds after zone 2 is closed if the vehicle is not running under key start or in valet mode. Zone 2 will disarm with the system but will ALWAYS passively arm itself regardless if the alarm is in active arming mode. A (-) input is needed to trigger Zone 2.
  - **F06 Zone 2 passive 30:** This input will always passively arm 30 seconds after zone 2 is closed if the vehicle is not running under key start or in valet mode. Zone 2 will disarm with the system but will ALWAYS passively arm itself regardless if the alarm is in active arming mode. A (-) input is needed to trigger Zone 2.
- 3-15 Alarm & Starter kill control from OEM keyless: When enabled, lock and unlock commands sent from the vehicle's OEM fob will also arm/disarm the HC alarm and/or starter-kill (if enabled).
  - F01 Disable
  - <u>FO2 Enable with remote notification</u>: OEM commands will control CM alarm and arm/disarm and notifications will be sent to iDatastart 2-way transmitters (if installed).
  - **F03 Enable without remote notification:** OEM commands will control CM alarm and arm/disarm but notifications will NOT be sent to iDatastart 2-way transmitters (if installed).
- 3-16 Antenna/External LED: Controls the behavior of the external LED and/or LED built in to an RF antenna. If enabled, the LED will follow the alarm status.
  - F01 Disable
  - FO2 Both follow alarm status: The external LED and RF antenna LED both follow the system's alarm status.
  - **F03 External LED follow alarm status:** The external LED will follow the system's alarm status.
  - **F04 Antenna follows alarm status:** The RS antenna's LED will follow the system's alarm status.
- 3-17 Alarm and panic with parking lights: Controls if the parklights flash during alarm and panic states.
  - F01 Disable: No parking lights
  - **F02 Enable:** Parking light during alarm and panic states



- 3-18 Car finder duration: Activating the car finder feature will flash the parklights and sound the horn or siren for the selected time. This feature is activated from an RF transmitter (see transmitter instructions for using this feature. You may need to set an auxiliary output in menu 4).
  - F01 Duration of 5 seconds
  - FO2 Duration of 10 seconds
  - FO3 Duration of 15 seconds
  - FO4 Duration of 60 seconds
- 3-19 Starter-kill / Anti-grind: Controls the behavior of M3 pin-11 BROWN/BLACK (POC4) when configured for starter-kill in menu 5-4.
  - F01 Anti-Grind + Active Starter-kill: The output will be active during Remote start and when the system has been armed/locked manually.
  - F02 Anti-Grind only: The output will be active during Remote start only.
  - F03 Anti-Grind + Passive Starter-kill 30 sec: The output will be active during Remote start and 30 seconds after ignition OFF, or if system has been armed/locked manually.
  - **F04 Anti-Grind + Passive Starter-kill 60 sec:** The output will be active during Remote start and 60 seconds after ignition OFF, or if system has been armed/locked manually.
- 3-20 Alarm trigger notifications on 2 way transmitters: Controls if alarm trigger notifications are sent to 2-way transmitter programmed to the system. Turning off trigger notifications can increase transmitter battery life.
  - F01 Disable: No alarm trigger notifications. Command notifications such as lock/unlock/start always confirm.
  - **F02 Enable:** Full alarm trigger notifications. Command notifications such as lock/unlock/start always confirm as well.
- 3-21 Alarm first disarm behavior: Controls what happens when you send unlock during an alarm trigger.
  - F01 Disarm, unlock, silence: On first unlock command, the system will stops ringing, disarm, unlock the doors.
  - **F02 Silence only:** On first unlock command, the system will stops ringing (silence) but remain armed with the door locked. A second unlock command will disarm and unlock.
- 3-23 Real panic sound: When enabled, the horn pulses sent during a panic trigger will vary in length (unlike an OEM panic feature) to better draw attention.
  - F01 Disable
  - F02 Enable



3-24 Confirmation siren chirp pulse duration: Controls the pulse duration for the siren on confirmations chirps.

F01 - Pulse of 20ms

F02 - Pulse of 30ms

F03 - Pulse of 40ms

FO4 - Pulse of 45ms

F05 - Pulse of 50ms

F06 - Pulse of 60ms

F07 - Pulse of 100ms

# Menu #4: AUX function assignment

Auxiliary functions can be assigned to button combinations on iDatastart RF transmitters, or to command buttons in the Drone Mobile app. Not all transmitters can support the same numbers of auxiliaries - see the transmitter's guide for more information.

- 4-1 Transmitter AUX 1: Sets the action when activating AUX 1 from an RF transmitter
- 4-2 Transmitter AUX 2: Sets the action when activating AUX 2 from an RF transmitter
- 4-3 Transmitter AUX 3: Sets the action when activating AUX 3 from an RF transmitter
- 4-4 Transmitter AUX 4: Sets the action when activating AUX 4 from an RF transmitter
- 4-5 Transmitter AUX 5: Sets the action when activating AUX 5 from an RF transmitter
- 4-6 Secure auxiliaries: This feature is designed to prevent accidental activation of the AUX outputs by requiring an additional step.
  - F01 Disable
  - **F02 Enable:** Unlock must be pressed before activating any AUX commands.
  - F03 Enable: Unlock must be pressed before activating any AUX command if the system is in a locked/armed state.

# Auxiliaries 1 through 5 can be configured for any of the following functions:

- **F01 Left sliding door:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the left sliding door. In analog, assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.
- **F02 Right sliding door:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the Right sliding door. In analog, assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.
- **F03 Pulse Timer Output (PT01):** A PTO can be set to come on for as little as 1 seconds, or up to 10 minutes. It can also stay on for the entire duration of a remote start cycle. Assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.
- **F04 Pulse Timer Output (PT02):** A PTO can be set to come on for as little as 1 seconds, or up to 10 minutes. It can also stay on for the eitire duration of a remote start cycle. Assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.
- **F05 Pulse Timer Output (PT03):** A PTO can be set to come on for as little as 1 seconds, or up to 10 minutes. It can also stay on for the eitire duration of a remote start cycle. Assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.



**F06 - Pulse Timer Output (PT04):** A PTO can be set to come on for as little as 1 seconds, or up to 10 minutes. It can also stay on for the eitire duration of a remote start cycle. Assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.

F07 - Car finder: Activates the car finder feature of the system. Car finder settings are controlled in menu 3-18.

**F08 - Gas cap:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the gas cap release. In analog, assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.

**F09 - Rear glass release:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the rear glass release. To trigger a similar feature in analog, use a PTO (3-3 to 3-6).

**F010 - Heated seats:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the heated seats. To trigger a similar feature in analog, use a PTO (3-3 to 3-6).

**F011 - Cooled seats:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the heated seats. To trigger a similar feature in analog, use a PTO (3-3 to 3-6).

F012 - Panic: Activates the panic feature of the system. Panic settings are controlled in menu 3-23.

**F013 - Defrost:** If supported in vehicle specific firmware, you can assign this feature to any auxiliary to trigger the defrost. In analog, assign this feature to an auxiliary, and configure one of the POC's in menu 5 to activate the matching feature.

# Menu #5: Programmable Outputs (POC)

These programmable outputs can be configured to trigger from an Auxiliary as set in menu 4, or can follow a variety of other commands and events.

5-1 POC 1 negative output (M2 - WHITE/PURPLE/BLACK DOT)

5-2 POC 2 negative output (M2 - PURPLE/BLACK/BLACK DOT)

5-3 POC 3 negative output (M2 - WHITE/BLACK/BLACK DOT)

5-4 POC 4 negative output (M2 - BROWN/BLACK/BLACK DOT)

POC 1 through 4 can be configured for any of the following functions:

**F01 - Unlock other doors:** Follows the unlock command - This output will trigger on a second unlock press within 10 seconds of the first. Use this to achieve 2 stage unlock when driver's door priority is desired.

**F02 - Defrost:** This feature is dependent on menu settings1-23, 1-24. This output will trigger on a successful remote start for the time selected in menu 1-24.

F03 - Horn: Follows the horn output settings in menu settings 3-9, 3-12.



- F04 Ignition: Follows the primary ignition wire (M1-05 PINK) output behavior.
- F05 Accessory: Follows the primary accessory wire (M1-01 ORANGE) output behavior.
- F06 Starter: Follows the primary starter wire (M1-03 PURPLE) output behavior.
- **F07 Parking lights:** Follows the parking light output behavior. Also dependant on the settings in menu 1-20.
- F09 Pulse timer output 1 (PT0): An auxiliary must be assigned to PT01. The time adjustment for this out is controlled in menu 6-1.
- F10 Pulse timer output 2 (PT0): An auxiliary must be assigned to PT02. The time adjustment for this out is controlled in menu 6-2.
- F11 Pulse timer output 3 (PT0): An auxiliary must be assigned to PT03. The time adjustment for this out is controlled in menu 6-3.
- F12 Pulse timer output 4 (PT0): An auxiliary must be assigned to PT04. The time adjustment for this out is controlled in menu 6-4.
- F14 Arm: Follows the primary arm wire (M2-04 GREEN/WHITE/BLACK DOT) output behavior. Also dependant on the settings in menu 1-15.
- F15 Disarm: Follows the primary disarm wire (M2-05 GREEN/BLACK/BLACK DOT) output behavior. Also dependant on the settings in menu 1-16.
- F16 Lock: Follows the primary lock wire output behavior. Also dependant on the settings in menu 2-1 and 2-4.
- F17 Unlock: Follows the primary unlock wire output behavior. Also dependant on the settings in menu 2-1, 2-3 and 2-5.
- F18 Trunk release: Follows the primary trunk release wire (M2-03 RED/WHITE/BLACK DOT) output behavior. Also dependant on the settings in menu 2-2.
- F19 Ground when running (GWR): Follows the primary GWR wire (M2-06 BLUE/WHITE/BLACK DOT) output behavior.
- **F20 Left sliding door:** An auxiliary must be assigned to this option in menu 4. The output will pulse 1 sec upon activation of the auxiliary.
- F21 Right sliding door: An auxiliary must be assigned to this option in menu 4. The output will pulse 1 sec upon activation of the auxiliary.
- **F22 RAP shutdown:** provides a 1 second pulse after remote start shutdown which is often used to shutdown the radio or autolights.
- **F23 Siren:** Follows the primary siren wire (M2-07 BROWN/BLACK/BLACK DOT) output behavior. Also dependant on the settings in menu 3-10, 3-11 and 3-24.
- **F24 GND when engine running:** The output will come on after the crank cycle on a successful remote start, and stay on until the runtime expires.
- **F25 GND when disarmed:** The output will follow the status of the alarm (when activated in menu 3-1) or the doorlocks if the alarm is disabled. The output is on anytime the alarm is in the disarmed state and stays on until the alarm is armed again. If the alarm is disabled, the output is on when the doorlock state us 'unlocked'.
- **F26 Domelight:** The output will come on when the system is disarmed/unlocked and shut off after 30 seconds, or if the doors are re-locked or ignition is turned ON.
- **F27 GND Headlight output:** This option can be used to activate the headlights for up to 30 seconds following a command from an RF transmitter or Telematic device (Drone). To control what activates this option see menu 2-18. NOTE: This option will NOT activate from the vehicle's OEM keyless.
- **F28 RS/Alarm LED:** This option can be used to provide ground (-) to an external LED for RS and alarm status. If using a LED rated for less than 12v, a resistor may be required.
- **F31 GND with vehicle ignition:** This output will come on when the vehicle's ignition is switched on with the key.
- **F32 Secure Start N/C:** This output will send ground (-) for the duration set by option 6-05. It is designed to be used with Firstech's FTI-SPTS (secure Push To Start) vehicle disable T harnesses. In its active state the N/C option used with the vehicle disable harness will disable the PTS button ONLY WHEN THE ALARM IS TRIGGERED, all other times there will be no output from the N/C Secure Start PTO, and the PTS button will function normally.
- -During an alarm event the N/C will disable the PTS button for the selected time to make sure any additional attempts to "hack" or force start the vehicle will not work even after the siren/horn output times out. Once the HCX is unlocked/disarmed the N/C output will no longer function making the PTS button operate normally.
  - -NOT RECOMMENDED WHEN USING N/O SECURE START FEATURE.
- -IF the user needs to disable the N/C Secure Start Output completely they will need to enter valet mode.



F33 - Secure Start N/O: This output will send ground (-) for the duration set by option 6-06. It is designed to be used with Firstech's FTI SPTS (secure Push To Start) vehicle disable T harnesses. In its rest state the vehicle disable harness will disable the PTS button until the driver is ready to use it.

NOTE: The Vehicle will not be able to go to ignition on until the system is disarmed/unlocked. Once the HCX is unlocked/disarmed the N/O output will energize the SPTS harness making the PTS button available for use for the preselected time, or until the HCX is armed/locked. Once ignition on is detected the output will remain latched until ignition has been turned off and the preselected time has expired or the system has been armed/lock using the aftermarket remote, telematics, OEM remote (when supported), or passive arming.

-NOTE: When using the N/O option be sure to select a timed output that will be most convenient for your customer. IF the timer runs out, they MUST disarm/unlock again to re-activate the Secure Start Output.

-IF the user needs to disable the N/O secure start output for some reason, you can put the HCX into Valet Mode. While in Valet mode the Secure Start Output will activate any time a door is opened, (or when disarmed/unlocked) allowing the PTS button to function normally.

-The (-) Valet Mode Input (PIC 1, M3 - TAN • SILVER DOT) will need to be enabled to enter/exit Valet mode when using the N/O Secure Start function. The open PTS button will not allow the vehicle to go to ignition on position.

-NOTE: It is strongly recommend to disable option 3-15: "Alarm & Starter kill control from OEM keyless function". This will significantly increase the security of the vehicle.

# Menu #6: Pulse timer output configuration (PTO)

If any of the POCs in menu 5 are set to Pulse Timer output (PTO) or Secure Start, you can set the output time using the options below.

6-1 PTO 1 duration (M2 - WHITE/PURPLE/BLACK DOT)

6-2 PTO 2 duration (M2 - PURPLE/BLACK/BLACK DOT)

6-3 PTO 3 duration (M2 - WHITE/BLACK/BLACK DOT)

6-4 PTO 4 duration (M2 - BROWN/BLACK/BLACK DOT)

6-5 Secure Start N/C duration

6-6 Secure Start N/O duration

PTO 1 through 4 can be configured for any of the following durations:

F01 - 1 second pulse: The output will come on for 1 second when activated, regardless if the vehicle is running or not.

F02 - Latched 10 seconds: The output will come on for 1 second when activated, regardless if the vehicle is running or not.

F03 - Latched 15 seconds

F04 - Latched 20 seconds

F05 - Latched 30 seconds

F06 - Latched 5 minutes

F07 - Latched 10 minutes

F08 - Latched for runtime: The output will come on when activated ONLY if the vehicle is running under remote start, and stay on until the runtime expires.



# Menu #7: Inputs configuration

These settings specify the source the system uses for various inputs. The vehicle databus is only used in vehicle specific firmware. When using analog firmware, only analog inputs are used. The default setting for each input is 'Auto' which will automatically take the analog input when no databus input is detected.

- 7-1 Brake input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-2 Door input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-3 Tach input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-4 Hood input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-5 Trunk input source
  - **F01 Analog:** Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.



- 7-6 Glo-plug input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - <u>FO3 Auto by firmware</u> The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-7 Emergency brake input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-8 Temp sensor input source
  - F01 Analog: Only the analog input will be used.
  - FO2 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-9 Speed sensor input source
  - F01 Analog: Only the analog input will be used.
  - F02 Vehicle databus: The vehicle databus will provide the input when available. Only applies to digital firmware solutions (vehicle specific).
  - **FO3 Auto by firmware** The system will look for an input on the vehicle's databus. If the input is not available, or there is no databus connection, the analog input will be used.
- 7-10 T-harness firmware support
  - F01 Disable: No t-harness support (future use)
  - F02 Enable: T-harness support (future use)
  - FO3 Auto by firmware The system will automatically determine if a T-harness is supported. Only applies to digital firmware solutions (vehicle specific).
- 7-11 Digital shock sensor
  - F03 iDataSiren: specifies the default source for the shock sensor
- 7-12 Digital tilt sensor
  - **NOT USED:** specifies the default source for the tilt sensor
- 7-20 Temperature sensor adjustment
  - **F01 to F030:** If the temperature reported by the CM does not match the actual temperature outside, you can use this setting to adjust the reported temp up or down +/- 30 degrees.



### <u>FO</u> = Default Feature Option

# Menu #8: Outputs configuration

These settings specify how the system treats various outputs. The vehicle databus is only used in vehicle specific firmware. When using analog firmware, only analog outputs are used. The default setting for each output is 'Auto' which will automatically use the analog output when no databus interface is available.

- 8-1 Arm output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available</u>: If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-2 Disarm output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-3 Lock output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-4 Unlock driver's door output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-5 Unlock others output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-6 Trunk release output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-7 Left sliding door output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-8 Right sliding door output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available</u>: If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.



## FO = Feature Option

- 8-9 Parking light output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available</u>: If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-10 RAP shutdown output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available:</u> If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-11 Panic and alarm output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-12 Car finder output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available:</u> If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-13 Defrost output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-14 Horn chirp output source
  - F01 Analog output only: Only the analog output will be used.
  - <u>FO2 Analog output and on Databus when available</u>: If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.
- 8-15 Sleep status on module LED
  - F01 Disable
  - F02 Enable
- 8-16 Siren chirp output source
  - F01 Analog output only: Only the analog output will be used.
  - **FO2 Analog output and on Databus when available:** If using a digital firmware solutions (vehicle specific) the output may be sent in data. The output is always sent in analog as well.





# FO = Feature Option

9-1 PIC 1 (-) input (M3 - TAN • SILVER DOT)

<u>FO1 - External Alarm Sensor</u>: This will trigger the alarm with any negative (-) input while the system is armed. There are different options for the behavior of this input in menu 3-14.

F02 - Valet Input Switch: This will put the module in valet mode by grounding the input for a minimum of 5 seconds, followed by 5 (-) pulses.



MODULE STATUS DURING:	LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
		•	Flashing RED	Missing/wrong information from firmware or vehicle. See firmware specific diagnostics, or contact technical support.
		•	Solid RED	Module waiting for more vehicle information. Programming incomplete.
(5)		•	Flashing GREEN	Additional steps required to complete programming. Refer to install guide.
MODULE PROGRAMMING		•	Solid GREEN then OFF	Module programming completed successfully.
Σ		0	OFF	No activity or module already programmed.
3RA	•		1 RED flash	No firmware on module. Connect to Weblink and flash device.
ROC	•		2 ORANGE flashes	Contact technical support.
Щ	•		3 ORANGE flashes	Module programming not completed.
	•		4 ORANGE flashes	Contact technical support.
] O	•		7 ORANGE flashes	Contact technical support.
	•		8 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
	•		9 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
	•		10 ORANGE flashes	Boot loader update failed. Contact technical support.
	•		11 ORANGE flashes	T-harness detection does not match install type selection in Weblink.
9	•		Solid RED	Tach learn in progress.
PROGRAMMING	•		1 GREEN flash	Tach signal programmed in analog.
ΑA	•		2 GREEN flashes	Tach signal programmed in data.
OGF	•		3 RED flashes	No tach signal detected
PR	•		4 RED flashes	System is in valet mode. Turn off valet mode to program tach.
ТАСН	•		6 RED flashes	Engine sensing set for 'assumed start'. No tach programming required.
₹	•		7 ORANGE flashes	Engine sensing not configured properly. Contact technical support.

<sup>\*</sup> LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.

<sup>\*\*</sup> LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module. Visit the programming diagnostics page for more information.





MODULE STATUS DURING:	LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
ببا	•		Flashing rapid RED	Remote start shutdown sequence.
SEQUENCE	•		Flashing slow RED	Remote start shutdown error code. Contact technical support.
a DE	•		Solid RED	Remote start crank delay.
SE	•		Flashing rapid GREEN	Remote start cycle in progress. Working correctly.
START	•		1 GREEN flash	Remote start initiated successfully.
ST,	•		3 GREEN flashes	Idle mode cycle in progress.
OTE	•		4 GREEN flashes	Turbo mode cycle in progress.
REMOTE		•	Flashing GREEN	Remote start cycle in progress. Displays vehicle platform during runtime.
22		•	Rapid GREEN flashing	Secure takeover initiated. Waiting to complete takeover after brake press.
G	•		Solid RED	Remote programming in progress, waiting for remote pairing.
PROGRAMMING	•		1 GREEN flash	Remote programmed.
Ψ	•		4 RED flashes	Shutdown remote starter before attempting remote programming.
JGR.	•		5 RED flashes	Engine must be off before attempting remote programming.
2RC	•		6 RED flashes	System must be unlocked/disarmed before attempting remote programming.
TRANSMITTER	•		7 RED flashes	Module must be learned to the vehicle before attempting remote programming.

<sup>\*</sup> LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.

<sup>\*\*</sup> LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module. Visit the programming diagnostics page for more information.





REMOTE STARTER ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC	
I WARNING: The following applies only when the parking lights are	3 + 1	Tach is not programmed OR engine is already running.	
connected and supported by the system.	3 + 2	Key is in ignition ON position.	
	3 + 3	Door is open.	
II After a remote starter failure, the parking lights will flash three [3x]	3 + 4	Trunk is open.	
times followed by the error code. See table.	3 + 5	Foot brake is ON.	
	3 + 6	Hood is open.	
	3 + 7	Loop is not cut.	
	3 + 8	Vehicle failed to remote start.	
	3 + 9	Vehicle movement detected (VSS).	
	3 + 10	System is in Valet Mode.	
	3 + 11	CAN communication failure	
	3 + 12	RS not synchronized. Start vehicle with OEM key for 15 sec before trying a new RS sequence.	
	3 + 13	Bypass problem.	
	3 + 14	Idle mode or takeover is not available on this vehicle.	
	3 + 15	Overheat protection.	

REMOTE STARTER SHUTDOWN ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC	
I WARNING: The following applies only when the parking lights are	4 + 1	Engine tach signal was lost.	
connected and supported by the system.	4 + 2	Emergency brake signal was lost.	
	4 + 3	Foot brake ON detected.	
II If the engine shuts down after a remote starter sequence	4 + 4	Hood open detected.	
use the query command from a compatible aftermarket	4 + 5	Tach over rev detected.	
remote to display the shutdown error code. The parking lights will flash four [4x] times followed by the error code. See table.	4 + 6	Glow plug timeout error.	
rtasirrour [4x] times lottowed by the error code. See table.	4 + 7	Vehicle movement detected (VSS).	
	4 + 8	Check engine light ON.	
	4 + 9	Low fuel level.	
	4 + 10	Open door detected.	
	4 + 11	CAN communication failure during RS sequence.	
	4 + 12	RS not synchronized. Start vehicle with 0EM key for 15 sec before trying a new RS sequence.	
	4 + 13	Bypass problem.	
	4 + 14	Idle mode or takeover is not available on this vehicle.	
	4 + 15	Overheat protection.	



ALARM ERROR CODES: NOTES	PARKING LIGHT FLASHES	ANTENNA LED FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are	5 + 1	1	Shock sensor triggered
connected and supported by the system.	5 + 2	2	Door open
	5 + 3	3	Trunk open
II If the alarm has been triggered, the parking lights will flash	5 + 4	4	Hood open
five [5x] times followed by the alarm activation event.	5 + 5	5	Zone 2 input triggered
	5 + 6	6	Foot brake ON
III The alarm event code is also displayed in a repeating pattern	5 + 7	7	Ignition ON
on the antenna's LED when the alarm is triggered, until unlock	5 + 8	8	Motion detected
is received.	5 + 9	9	Tilt detected
	5 + 10	10	Warn away input triggered



## I have everything hooked up and the system will not respond.

A: The module must first be flashed on the web before it can be used in a vehicle. If you have already flashed and programmed your control module, you must also program any transmitters to the system before they can be used. See 'Installation Basics'.

## When remote starting, the parking lights flash 3 times, followed by 1 time (4 total).

A: You must program tach before remote starting. This requires that the foot brake and ignition inputs connected and working properly. See the 'Tach sensing & learning' section.

## When remote starting, the parking lights flash 3 times, followed by 7 times (10 total).

A: The system is in Manual Transmission mode. If installing on an automatic vehicle, you must cut the BLACK loop on the control module. If you have already completed programming, you must cut the loop, then perform a system reset and repeat the programming and tach learn.

## When remote starting, the parking lights flash 3 times, followed by 8 times (11 total).

A: The remote start did not complete successfully. Determine when/where the process is failing and troubleshoot accordingly: Is ignition coming on? Is it cranking? Is the immobilizer bypass or key wrap preventing a successful start? Can the vehicle still be key started? Contact technical support for troubleshooting help.

## Does the HC series have Hybrid mode?

A: YES. For details, review the "Tach sensing and learning" section of this manual.

## The vehicle starts and shuts down 3 times in a row.

A: This usually means that the engine sensing mode is not working correctly. If you are using a coil, change to an injector.

B: Does you vehicle have an immobilizer system which will need to be bypassed for remote start? If using analog firmware, you will be required to take extra steps to complete your installation. Please contact technical support.

# The vehicle cranks but will not start (armed or disarmed).

A: Check ignition switch wiring including starter-kill relay (if installed).

B: Does you vehicle have an immobilizer system which will need to be bypassed for remote start? If using analog firmware, you will be required to take extra steps to complete your installation. Please contact technical support.

## How do I program the auxiliary outputs?

A: You must connect the HC to Weblink via your PC or Weblink Mobile app. Go to menus 4, 5, 6 in the options settings. You can program up to 4 outputs for a variety of applications. See the "menu Option Descriptions' section for details.

## How do I make the alarm work?

A: The HC's alarm must be turned on and configured using configuration menu 3-1. See the 'Option programming tables' section for details.

# I have activated the alarm feature, and whenever I try to arm the vehicle, it chirps the horn 3 times instead of just once.

A: Open zone detected. Check the hood and trunk, and door trigger inputs.



## I have activated the alarm feature. The vehicle remote starts when disarmed, but not when armed.

A: Did you install a starter kill relay? If so, check to make sure the M1 Violet wire is connected wire is going to the engine side of your vehicles starter wire.

## Can I use the wires in the blue 6 pin M5 connector? Is it user programmable?

A: The wires in M6 are controlled in firmware for vehicle specific applications. In full analog, these outputs are disabled.

### I don't have access to the module, how do I learn tach?

A: If you have a transmitter programmed to the system, it can be used to perform a tach learn. Start the vehicle with the key, apply the foot brake, then initiate a start sequence from the transmitter. The parklights will flash 1 or 2 times to confirm learn. See the 'Tach sensing and learning' section for more information.

## Why are the ignition controlled doorlocks not working?

A: Once ignition locks have been activated in menu 2-12, then should work automatically. If they don't, verify that they have not been toggled off using the transmitter (see transmitter guide). Their may also be a limitation due to the vehicle architecture. Contact technical support for more information.

#### How do I activate turbo mode?

A: Set menu option 1-12 to enable Turbo mode. Refer to your transmitter's manual for user instructions on toggling this feature ON/OFF. Apply the Ebrake while vehicle is running, remove the key from the ignition. The vehicle will stay running for the programmed turbo time. This feature may not be supported on all vehicles. Contact technical support for more details.

# **Technical Support Contacts**

iDatastart technical support is reserved for authorized dealers only.

Monday - Friday: 866-427-2999

(8:30 am - 7:30 pm Eastern Standard Time)

Email: support@idatalink.com

Web: www.idatalink.com

Wiring Diagrams

Diagrams for most vehicles are available when you flash your module at www.idatalink.com. If you are an authorized dealer and unable to access this site please contact your sales rep or us

call 866-427-2999

Monday through Friday, 8:30 am – 7:30 pm Eastern Standard Time.