



2000RSM PLUS SERIES

MANUAL TRANSMISSION
REMOTE START SYSTEM

PRODUCT MANUAL SUPPLEMENT

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Remote Start Features

Remote Starting

With engine running and Handbrake engaged put the vehicle transmission in neutral and remove the foot from the brake pedal, press remote start button on your transmitter, sidelights will flash twice indicating Manual Start Mode is enabled, turn off the Ignition switch, the engine will remain running. Open and close the door, the system will shut the engine Off. Using the remote Control lock the vehicle doors.

Starter is now ready for remote start operation.

Starter Ready Mode is canceled any time the door is opened; hand brake is released or any other error condition.

To Remote Start the System:

1. Be sure the system is not in Valet Mode.
2. Press and hold Button 4 for three seconds.
 - The parking lights will turn on.
 - The LED will flash rapidly.
 - The engine will start and run for the duration of its programmed Run Time.*
 - The heater or air conditioner will turn on (if turned on prior to exiting the vehicle).

***If the engine fails to start on the first attempt, it will repeat the starting procedure 2 more times. If the vehicle fails to start after a total of 3 times the parking lights will flash 4 times and the doors will lock (if installed).**

Turn on the ignition and press the brake pedal to disengage the remote start feature and drive the vehicle.

Shut Down

When the the Remote Start feature is active, any of the following actions will shutdown the engine:

1. Pressing Button 4.
 - After the engine shuts down the doors will lock (if installed).
2. Pressing the Brake Pedal.
3. Opening the Hood.
4. Remote Start Time-Out (completion of the timed run cycle).

Turbo Timer Feature

The optional Turbo Timer feature allows vehicles with turbocharged engines to remain running after the ignition key is removed, for proper cool-down of the turbocharger. The Turbo Timer feature requires connection to the vehicle's parking brake wire and is compatible with most gasoline powered engines, and diesel engines where a glow plug connection is not required.

To activate the Turbo Timer feature:

1. Leave the engine running after parking the vehicle.
2. Set the vehicle's parking brake.
 - The Turbo Timer will begin a two-minute run cycle to allow the turbocharger to cool down.
3. Turn OFF the ignition and exit the vehicle.

To deactivate the Turbo Timer feature:

1. Turn OFF the ignition.
2. Press the brake pedal.
 - The Turbo Timer countdown will automatically stop and the engine will shutdown.

WARNING: the Turbo Timer feature is not intended for use inside garages or other non-ventilated areas. Make sure to deactivate the Turbo Timer feature when parking in such areas.

System Installation

1. Thoroughly read and become familiar with the installation instructions before beginning the installation.
2. Review system contents:
 - Main Unit
 - Two 5-Button Remote Transmitters
 - Siren
 - Shock Sensor
 - Harnesses
 - 6-Pin starter harness
 - 20-Pin main harness
 - 4-Pin shock sensor harness
 - 3-Pin door lock harness
 - LED harness
 - Override Switch harness

***Note: Manual Transmission Starter requires RPM start.**

3. Verify vehicle is equipped with electronic fuel injection, and starts/idles normally before installation.
4. Determine if vehicle is equipped with a factory theft deterrent system and obtain proper bypass module if required.
5. Find a location to mount the hood pin switch that will not interfere with the opening of the hood, and is not in a position that can accumulate water. The hood pin is a safety device that must be installed to avoid remote starting during engine servicing.
6. Verify with the owner, the mounting locations for all visible components, including the LED and Override switch.
7. Verify with the owner, the optional features of the Galaxy 5000RS Plus and the features that must be programmed during installation.
8. Inspect and perform a function test of all vehicle systems before and after the installation.
9. Always use a Volt / Ohm meter for testing vehicle circuits. Never use a test light.
10. Always look before drilling any holes or mounting self-tapping screws. Be sure fuel lines and exterior wiring looms are clear as they are often close to the chassis and difficult to see.
11. Protect all wires running from the engine compartment to the interior of the vehicle by covering with electrical tape and split loom tubing. Be sure to use a grommet when routing wires through the firewall.
12. Properly fuse any additional accessories such as window modules, door lock actuators, etc., making sure to power them separate from the alarm module. This will ensure the functionality of the security system in the event of an accessory failure.

System Wiring

6-Pin Starter Harness

- Pin 1 **RED WIRE A:** Main Power Input A (+). Connect to the battery or constant power wire at the ignition switch with a minimum 30 Amp supply. Remove the fuse until the installation is complete and all wiring is checked.
- Pin 2 **RED WIRE B:** Main Power Input B (+). Connect to the battery or constant power wire at the ignition switch with a minimum 30 Amp supply. Note: if connecting at the ignition switch it is highly recommended to use separate power wires for each Red wire, each with a minimum 30A supply. Remove the fuse until the installation is completed and all wiring is checked.
- Pin 3 **BROWN WIRE:** Second Ignition Output (+). The Brown wire provides +12V for a second ignition wire. This wire may instead be programmed for use as a second accessory or second starter wire.
- Pin 4 **ORANGE WIRE:** Accessory Output (+). Connect to the accessory wire coming from the ignition switch that supplies power to the heater/air-conditioner. Some cars may have multiple accessory wires.
- Pin 5 **YELLOW WIRE:** Ignition Output (+). Connect to the main ignition wire that provides +12V when the ignition is on and while cranking the starter.
- Pin 6 **VIOLET WIRE:** Starter Output (+). Connect to the the vehicle's starter wire.

20-Pin Main Harness

- Pin 1 **GREEN/WHITE WIRE:** Brake Input (+). Connect to the wire that shows +12V when pressing the brake. The Green/white wire is a safety shutdown wire that must be connected.
- Pin 2 **BLACK/GRAY WIRE:** Tach Input. Connect to the vehicle's tach wire or a fuel injector wire.
***Note: must be always connected in Manual Transmission Starter.**
- Pin 3 **WHITE/RED WIRE:** Auxiliary 2 Output (-) 500 mA. Connect to a relay or module for an optional feature such as power window activation, etc. This output may be programmed for momentary, timed, or latched operation.
- Pin 4 **BLACK/WHITE WIRE:** Dome Light Output (-) 500 mA. Connect to the wire that activates the vehicle's dome light, usually the door pin switch wire. NOTE: The dome light output can usually connect to the same wire used for the door trigger input (see Green and Violet door trigger wires).
- Pin 5 **YELLOW WIRE:** +12V Ignition Input. The Yellow wire must connect to a main ignition wire at the ignition harness. This wire must show +12V when the ignition is on and while cranking the starter. The voltage must not drop when the car is starting.
- Pin 6 **BLUE/YELLOW WIRE:** Glow Plug Input (+). For vehicles equipped with diesel engines the Blue/yellow wire must be connected to the wait-to-start light in the gauge panel. This wire will show +12V when the light is on, and ground when the light turns off. If the wait-to-start wire shows ground when the light is on, a relay must be installed (see wiring diagrams).
- Pin 7 **BLUE/WHITE WIRE:** Passenger Unlock Output (-) 500 mA. Connect to a relay to unlock the passenger doors when the system is configured for Driver Priority Unlocking.
- Pin 8 **BLUE/ORANGE WIRE:** Ground When Running Output (-) 500 mA. Connect to an optional factory security bypass module if required.
- Pin 9 **BLACK WIRE:** Ground Input (-). The Black wire must connect to a solid chassis ground. Clean away any paint or dirt to insure the best possible ground.
- Pin 10 **RED WIRE:** Module Power Input (+). Connect to a constant source of +12V.
- Pin 11 **VIOLET WIRE:** Positive Door Input (+). Connect to the door switch circuit wire that shows +12V when the door is open. This type of door circuit is usually found on Ford vehicles.

- Pin 12 **GREEN WIRE**: Negative Door Input (-). Connect to the door switch circuit wire that shows ground when the door is open.
- Pin 13 **WHITE/BLACK WIRE**: Hood Pin Input (-). Connect the to the hood pin switch. The switch must provide a ground output when switch is opened.
- Pin 14 **ORANGE WIRE**: Anti-Grind Output (-) 500 mA. The Orange wire provides a ground output to activate a relay for anti-grind protection.
- Pin 15 **VIOLET/WHITE WIRE**: Factory Disarm Output (-) 500 mA. The Violet/white wire provides a ground output on disarming and before remote starting to disarm a factory security system. Connect to the wire that requires a ground pulse to disarm the factory security system.
- Pin 16 **WHITE/VIOLET WIRE**: Factory Rearm Output (-) 500 mA. The White/violet wire provides a ground output on remote start shutdown to rearm a factory security system. Connect to the wire that requires a ground pulse to rearm the factory security system.
- Pin 17 **BROWN WIRE**: Audible Status Output (+) 3A. The Brown wire may be connected to an optional audible status indicator such as a siren or piezo device.
- Pin 18 **GRAY WIRE**: Auxiliary 1 Output (-) 500 mA. Connect to a relay for an optional feature such as trunk release, etc. This output may be programmed for momentary, timed, or latched operation.
- Pin 19 **WHITE WIRE**: Parking Light Output (+/-) relay. Connect the White wire to the circuit that shows +12V or ground only when the parking lights are on and set the internal parking light relay jumper to the proper polarity. For parking light circuits exceeding 10 amps, a relay is required. For vehicle's with independent left and right parking light circuits, diodes must be installed to keep the circuits separate. NOTE: Do not connect the WHITE wire to the vehicle's headlight circuit.
- Pin 20 **BROWN/WHITE WIRE**: Horn Output (-) 500 mA. Connect to a relay to activate the vehicle's horn when the alarm is triggered. This wire may instead be programmed as an ignition 3 relay trigger.

Plug-in Connectors

4-Pin White Connector: Auxiliary start input port for use with after-market security system.

- WHITE WIRE - Parking Brake (-) input. This wire must be connected to the parking brake wire. For vehicles with a positive parking brake wire, a relay must be used to invert the polarity.
- BLUE WIRE - 1 pulse remote start (-) input. Connect to auxiliary output from aftermarket alarm.
- RED WIRE - not used.
- BLACK WIRE - not used.

2-Pin Blue Connector: Valet switch port. Mount switch where it is accessible from the driver's position.

2-Pin Red Connector: LED port. Mount LED where it may be easily seen from either side of the vehicle.

3-Pin White Door Lock Connector: Door lock port.

- BLUE WIRE - negative unlock output (-) 500mA.
- RED WIRE - (+) 100mA trigger output for optional plug-in door lock relay module,
- GREEN WIRE - negative lock output (-) 500mA.

3-Pin Blue Network Connector: The plug-in network connector port is located on the side of the main module. This network port may be used with the optional personal computer interface or Pocket PC for diagnostics, software customization and expanded programming options. The network also offers connection to several optional accessories. *See your dealer for more information.*

4-Pin White Flat Connector: Antenna connector port.

System Programming

Entering System Programming

This system is compatible with both the optional LCD transmitter or the standard AM transmitter, all system programming can be performed using either one.

To enter System Programming:

1. Turn on ignition.
2. Within 5 seconds, press the valet switch 5 times.
 - The siren will provide one long chirp, indicating that you have entered Programming.
3. Press the valet switch the number times equal to the System Parameter you want to change.
 - The siren will chirp each time the valet switch is pressed.
4. Within 5 seconds, press the transmitter button corresponding to the desired operating mode for that System Parameter.
 - The siren will chirp to indicate the setting.

1 chirp	=	Button 1
2 chirps	=	Button 2
3 chirps	=	Button 3
5. When you are finished, turn off the ignition to save the changes.

Default Reset

Following this procedure will set all System Programming Parameters to factory default settings.

1. Enter System Programming.
2. Press Transmitter Button 3.
 - The siren will chirp 6 times indicating that the reset signal was received.
 - All System Programming parameters are now set to factory default settings.
 - The Valet Mode is off.
 - The Disarm Code is 1.
3. Turn off ignition.

Programmable System Options

The following is a description of the programming options of the system. Some of the program branches control more than one option, and may require accessing a particular branch number twice in order to program all desired features.

1. **Ignition Door Locking.** Selects whether or not the system will automatically lock the doors 5 seconds after the ignition key is turned on.
2. **Ignition Door Unlocking.** Selects whether or not the system automatically unlocks the doors when the ignition is turned off. The Ignition Door Locking feature may be programmed to unlock all doors or the driver's door only. If driver's door only is selected, the optional Passenger Unlock wire must be connected. (*See Two Stage Door Lock Diagrams*)
3. **Door Unlock Pulse.** Selects between one pulse or two pulse operation for the door unlock output. Many new import vehicles' factory door locking systems require two pulses on the proper wire to unlock the doors. These systems can be interfaced directly without the use of relays or any additional circuitry

Branch	Feature	Button 1 (default)	Button 2	Button 3
1.	Ignition Door Locking	On	Off	
2.	Ignition Door Unlocking	Unlock All	Unlock Driver Only	Off
3.	Door Unlock Pulse	Single	Double	
4.	Door Lock Pulse Length	1 second	3 seconds	
5.	Aux 2 Activate on Lock	Off	On	
6.	Aux 1 Mode	Pulsed	Timed	Latched
7.	Aux 2 Mode	Pulsed	Timed	Latched
8.	not used			
9.	Start in Valet Mode	Enabled	Disabled	
10.	Lock after Start	On	Off	
11.	Lock after Shutdown	On	Off	
12.	Engine Run Time	15 minutes	25 minutes	
13.	Automatic Start Mode	2 hours	1 hour	
14.	Remote Start Program	RPM Learn	Gas Engine	Diesel Engine
15.	FM Transmitter Program	not used	FM Remote Learn	
16.	Ignition 2 Output Program	Ignition 2 Output	Accessory 2 Output	Starter 2 Output
17.	Horn Honk Output	Horn Output	Ignition 3 Output	
18.	Turbo Mode	Disabled	Enabled	

by programming the system for double unlock pulse.

4. **Door Lock Pulse Length.** Selects between a 1-second and a 3-second output for door locking and unlocking. Program to 3 seconds for vehicles equipped with vacuum door locking systems.
5. **Aux 2 Auto Activate with Arm.** When selected, the Auxiliary 2 output will activate when the system is armed. This feature can be used to roll-up windows, close sunroofs, activate accessories, etc.
6. **Auxiliary 1 Mode.** Selects from momentary, 10 second timed, or latched operation for Auxiliary 1. Momentary operation provides an output for as long as the transmitter button is pressed. Timed operation provides an output that turns on for 10 seconds each time the transmitter button is pressed. If the button is pressed again during the 30 seconds, the output will turn off. Latched operation provides an output that turns on when the transmitter button is pressed and remains on until the transmitter button is pressed again.
Note: With the optional ScyNet network interface and Wizard software, any auxiliary function can be programmed to output for 1 second up to 255 seconds.
7. **Auxiliary 2 Mode.** Selects from Momentary, Timed, or Latched operation for Auxiliary 2.
8. **Disarm with Auxiliary 1.** When selected, activating the Auxiliary 1 output (usually used to open the trunk) will disarm the alarm.
9. **Start in Valet Mode.** Selects whether or not the vehicle can remote start while in the valet mode.
10. **Lock After Start.** When selected, the doors will automatically lock after remote starting.
11. **Lock After Shutdown.** When selected, the doors will automatically lock after remote shutdown.
12. **Engine Run Time.** Selects between 15 or 25 minutes for the remote start run cycle.
13. **Automatic Start Mode.** Selects between every two hours or every hour for the automatic engine

starting feature.

14. **Remote Start Program.** This dual program branch sets the engine mode for Gas or Diesel, and learns the vehicle's RPM threshold. For installation into a diesel equipped vehicle, first set the engine type to diesel before learning RPM.

RPM Learn. After engine type is set, start the engine, re-enter Branch 21 and press Button 1 to learn the vehicle's tach signal. The siren will chirp and the LED will flash once to confirm learning of the tach signal. The siren will chirp four times and the LED will flash four times if the tach signal was not learned.

Gas Engine. Sets the engine type for Gasoline.

Diesel Engine. Sets the engine type for Diesel and monitors the glow plug input to make sure the glow plugs are warm before cranking the starter. If the glow plug wire is not connected, the built-in timer waits 15 seconds before automatically cranking the starter.

15. **FM Transmitter Program.*** Programs the optional FM module and transmitter into the system.

FM Module Learn. Learns the add-on FM module ID so the FM transmitter can operate the system. The FM module must be connected before completing this step.

FM Remote Learn. Learns the optional 2-way FM transmitter. Press Button 2 on the 1-way remote to enter FM Transmitter learn mode, then press transmitter Button 1 on each FM remote (max 2).

*Requires the optional ScyNet FM LCD Pager Module.

16. **Ignition 2 Relay Program.** Selects one of three operating modes for the Ignition 2 relay output: Ignition 2, Accessory 2, or Starter 2.
17. **Horn Output.** When set for Horn Output the horn wire will pulse when the alarm is triggered. When Ignition 3 Output is selected, the output will activate during remote start to trigger a relay for Ignition 3.
18. **Turbo Timer.** When enabled, if the emergency brake has been applied Ignition power will be kept On for a predetermined time (2min. Factory Default) from the application of the emergency brake.

Starter Diagnostics

Starter doesn't start and Side Lights flash:

3 Times -

Engine RPM not detected

Hood Trigger is active

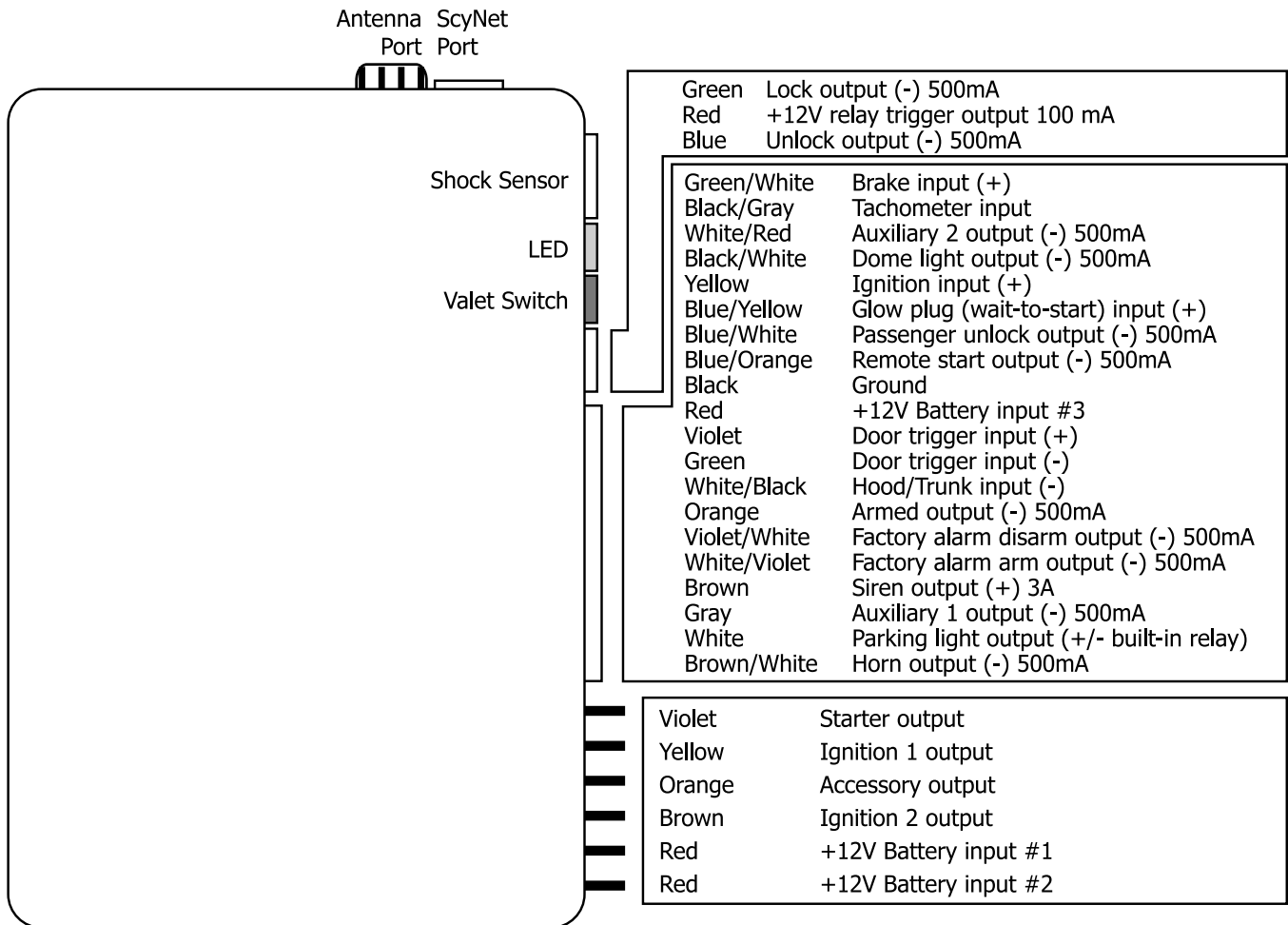
4 Times - Brake Trigger is active

5 Times - Unit is in Valet (service) mode, and start is disabled.

6 Times - Emergency Brake Disengaged

7 Times - Start Canceled

Wiring Diagram



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