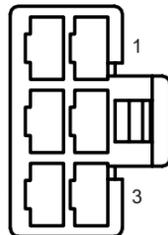


RS-X70 Wire Diagram

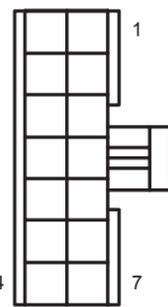
A



WHITE 6 PIN HIGH CURRENT POWER HARNESS (P/N: H-RS6E*)

PIN	POL.	COLOR	FUNCTION	DATA**
1	(+)	PINK/WHITE	<u>IGNITION</u> / Accessory / Start - INPUT/OUTPUT***	✓
2	(+)	VIOLET	START - INPUT/OUTPUT	✓
3	(+)	ORANGE	<u>ACCESSORY</u> / Ignition / Start - INPUT/OUTPUT***	✓
4	(+)	RED/WHITE	Feed For ORANGE(A3) / VIOLET(A2) / PINK/WHITE(A1) - INPUT (30A Fused)	
5	(+)	RED	System Power - INPUT (30A - Fused)	
6	(+)	PINK	<u>IGNITION</u> / Accessory / Start - INPUT/OUTPUT***	✓

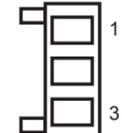
B



WHITE 14 PIN MAIN INPUT/OUTPUT HARNESS (P/N: H-RS14A)

PIN	POL.	COLOR	FUNCTION	DATA**
1	(-)	ORANGE	Starter Kill - OUTPUT (500ma)	
2	(-)	WHITE/BLACK	Light Flash - OUTPUT (250ma)	✓
3	(-)	RED/WHITE	Trunk Release - OUTPUT (250ma)	✓
4	(-)	LT. GREEN/BLACK	OEM Alarm Disarm (Prog. - Installer Feature #18) - OUTPUT (250ma)	✓
5	(-)	GRAY	Hood Trigger - INPUT	✓
6	(-)	VIOLET/WHITE	Tach Pulse Input (coil or injector) - INPUT	✓
7	(-)	BLACK/WHITE	Parking Brake/Neutral Safety - INPUT (Required For Manual Trans.)	✓
8	(-)	WHITE/BLUE	Remote Start Activation - INPUT	✓
9	(+)	YELLOW	External Keyless Ignition Control - OUTPUT	
10	(-)	LT. GREEN/RED	OEM Alarm Arm (Prog. - Installer Feature #18) - OUTPUT (250ma)	✓
11	(-)	BLACK	System Ground - INPUT	
12	(-)	BROWN	Horn Honk / Siren (Prog. - User Feature #4) - OUTPUT (1A)	✓
13	(+)	BROWN/RED	Brake Pedal RS Shutdown - INPUT	✓
14	(+)	WHITE	Light Flash - OUTPUT (10A Fused)	✓

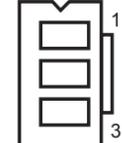
C



RED 3 PIN DOOR LOCK/UNLOCK HARNESS (P/N: DLP-N3)

PIN	POL.	COLOR	FUNCTION	DATA**
1	(-)	GREEN	Lock Pulse - OUTPUT (250ma)	✓
2	(+)	EMPTY PIN	Constant +12V Supply To Plug-in Door Lock Adapters - OUTPUT (500ma)	
3	(-)	BLUE	Unlock #1 Pulse - OUTPUT (250ma)	✓

D



RED 3 PIN REMOTE START HARNESS (P/N: RS-OUTPUT)

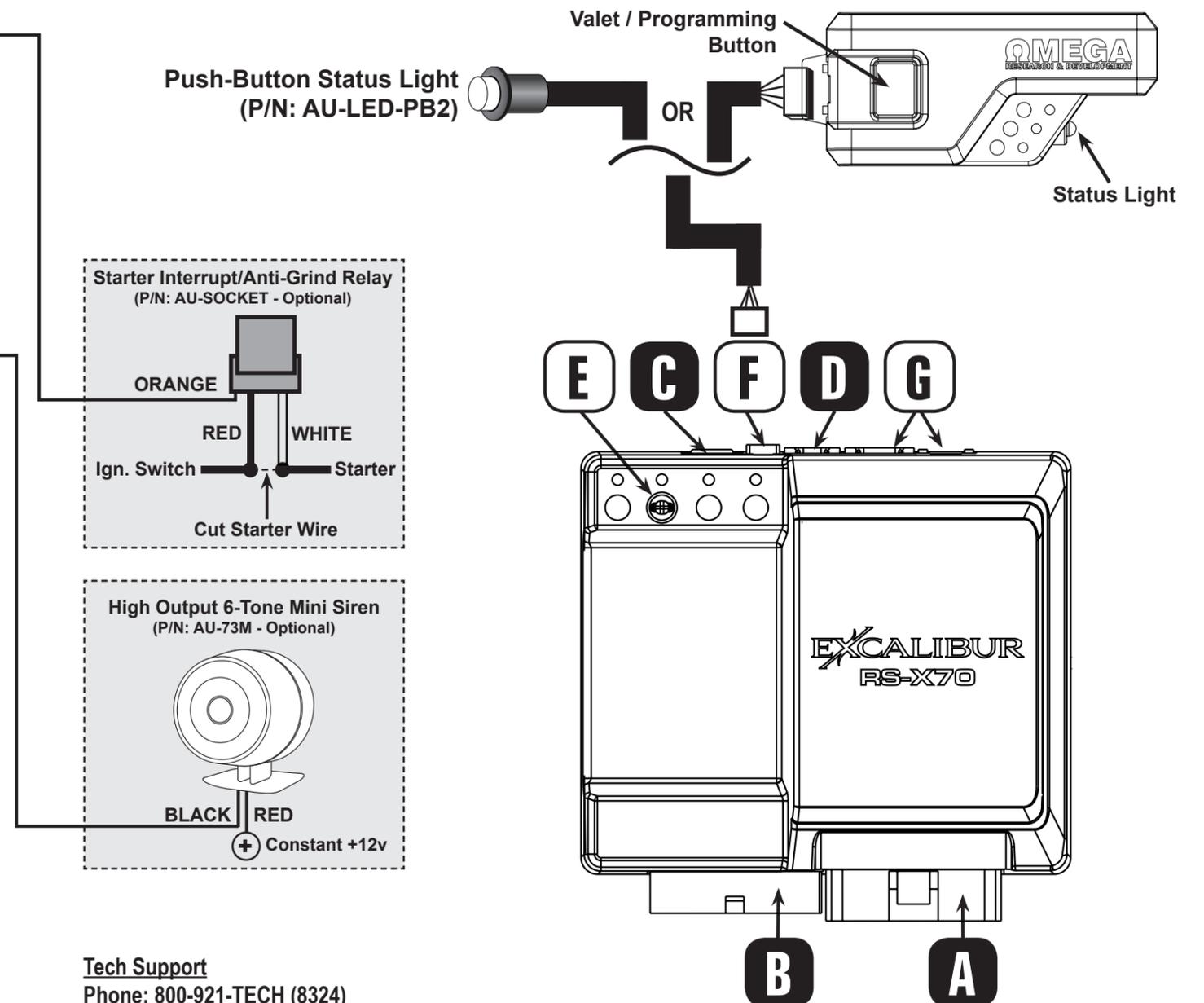
PIN	POL.	COLOR	FUNCTION (RED PORT)	DATA**
1	(-)	BLUE	Status (Prog. - Installer Feature #6) - OUTPUT (250ma)	✓
2	(+)	RED	Constant +12V Supply For Relays Or Modules - OUTPUT (500ma)	
3	(-)	GREEN	Start (Prog. Installer Feature #5) - OUTPUT (250ma)	✓

* Optional 'OL-HRN-RS' T-harnesses available.
 Optional low current (LC) harness available - P/N H-RS6BLC (ask about HC>LC exchange program)
 ** ✓ = The function is supported via the data ports. Confirm vehicle support in interface module install guide.
 *** Function auto-detected during VEHICLE LEARN procedure - SEE OTHER SIDE OF THIS SHEET
 Default function is capitalized and underlined

E TEMPERATURE SENSOR - DO NOT COVER
 (For high/low temp auto start and for automatic low temp crank extender)

F ANTENNA / STATUS LIGHT / VALET PORT - Supports any compatible plug-in antennas or push-button status light (P/N: AU-LED-PB2)

G GREEN & BLACK DATA PORTS - For Telematics / Data Sensor (Shock, Tilt, etc) / Vehicle Interface Module. (DBI & iDataLink protocols supported on both ports - see 'Vehicle Learn' or installer feature #12)



Tech Support
 Phone: 800-921-TECH (8324)
 Web: OmegaDealer.com
 FB dealer group: [Facebook.com/groups/omegadealer](https://www.facebook.com/groups/omegadealer)
 Corporate Site / Product Info: CarAlarm.com

EXCALIBUR

REMOTE START & SECURITY PERFECTED



Scan To Download the full installation guide from OmegaDealer.com! (login required)

RS-X70 QUICK REFERENCE

PROGRAMMING GUIDE (FOR FIRMWARE v1.6)

visit www.OmegaWeblink.com to get the latest firmware
visit www.OmegaDealer.com to download a complete guide

Perform Vehicle Learn (US patent #10,151,289)

Vehicle Learn is the ultimate time saver and remote start configuration tool. It configures most install-critical features to match vehicle requirements.

IT'S FASTER THAN PROGRAMMING EVEN ONE FEATURE MANUALLY OR ON YOUR PC!

Vehicle Learn Will:

- Automatically configure IGNITION, ACCESSORY, AND START circuits to match the vehicle.
- Let you quickly choose crank delay (NOTE: wait-to-start via data is always honored)
- Sample crank time for crank averaging (tachless modes only).
- Auto-detect engine running method: Data-tach, tach wire (will also tach learn), or tachless mode.
- Auto-detect data port protocols
- Let you quickly enable manual transmission reservation mode.

Before You Begin:

- Make all wire connections
- Connect any accessories/modules to the data ports.
- Make sure any interface module/bypass kit is in "DATA MODE" and programmed to the vehicle.
- Set the parking brake if it is connected to the BLACK/WHITE wire for manual transmission.



Vehicle Learn Procedure:

1. Turn the ignition key ON (do not start)
2. Press the valet button 3 times in less than 5 seconds.
 - The system will chirp & flash lights to indicate crank delay (Default: 1 chirp/flash = 1.5 seconds).
3. (OPTIONAL) Press valet to change crank delay.
 - Chirp confirmation: 1=1.5 sec, 2=15 sec, 3=20 sec, 4=30 sec.
4. Start the engine with the key and let the engine reach a normal idle (about 700 rpm).
5. AUTOMATIC TRANSMISSION: Turn the ignition OFF.
 - The system will chirp & flash the lights equal the # of IGN/ACC/START circuits detected (Max: 4).
 - TIP: If you receive fewer chirps/flashes than circuits you connected, check connections and try again.
- MANUAL TRANSMISSION: Release the parking brake (this completes ignition sequence learn.)
 - The system will chirp & flash the lights equal the # of IGN/ACC/START circuits detected (Max: 4).
 - TIP: If you receive fewer chirps/flashes than circuits you connected, check connections and try again.
- Set the parking brake again to enter Manual Trans. Reservation Mode option selection (installer feature #11).
 - The system will chirp & flash the lights to indicate current setting (default: 2 - OFF).
- Release & set the parking brake to scroll through setting options.
 - Chirp confirmation: 1 chirp = ON - Shutdown w/ lock, 2 chirps = OFF, 3 chirps = ON - Shutdown w/ door close, 4 chirps = ON - Shutdown 10 sec. after door close.
- Before turning the key OFF, perform the selected MT reservation sequence (see operation guide)
 - When successful, the LED will once every 2 seconds (ALARM MODELS will flash twice every 2 seconds)
6. PUSH-BUTTON-START VEHICLES: Exit the vehicle & take the OEM fob/key 20 ft. away to allow remote start.
7. Activate remote start within 60 seconds of Step 5. Wait until the engine is running and the LED flashes slowly.
 - The system will then detect data protocols and the best available engine detection method (datatach, tach, etc.).
 - If the brake pedal is pressed before the LED flashes slowly, settings are reset and you must repeat vehicle learn.
8. TO SAVE SETTINGS & COMPLETE VEHICLE LEARN: Press the BRAKE pedal (the engine will stop).
 - This disables VEHICLE LEARN (to enable again, turn on installer feature #2 in bank 10).
- TO CANCEL/START OVER: Press & release the valet button once.

Programming Features Manually

1. Turn the ignition key "ON", then "OFF".
2. Press the valet button equal to the desired bank (press 2x for Bank 2, etc.)
 - This must be done within 5 seconds of step 1.
 - The siren/horn will chirp & the status light will flash indicating the selected bank (see bank header).
 - NOTE: You cannot move from bank to bank. You must start over to change banks.
 - NOTE: When accessing BANK 10 (Installer), you will hear a long chirp after 5 presses (User features). Continue presses 6-10 without delay. You will hear a 2nd long chirp after 10 presses.
3. Press the valet button equal to the desired feature's number.
 - The siren/horn will chirp equal to the selected feature.
 - Finish presses before hearing any chirps. EXAMPLE: press the valet 5x, then you'll hear 5 chirps.
4. Press the transmitter button (or brake pedal) to select the desired setting.
 - 1-BUTTON MODELS: Change the feature by pressing the transmitter button OR brake pedal the same equal to the desired setting. Complete all presses before hearing any chirps.
 - The siren/horn will chirp equal to the selected setting.
5. Repeat steps 3 & 4 at this time IF you wish to change additional features.
6. Turn the ignition key "ON" then "OFF" to exit programming.
 - NOTE: The system will exit automatically at any time after 10 seconds of no activity.



Features Banks

BANK 2 - Low Temp Auto Start: Ignition on, off, press valet 2 times (3 chirps / 3 LED flashes)					
# Feature	Valet 1x	Valet 2x	Valet 3x		
1 Low Temp Auto Start Threshold	0 Deg F	15 Deg F	32 Deg F		

BANK 3 - High Temp Auto Start: Ignition on, off, press valet 3 times (4 chirps / 4 LED flashes)					
# Feature	Valet 1x	Valet 2x	Valet 3x	Valet 4x	
1 High Temp Auto Start Threshold	75 Deg F	90 Deg F	105 Deg F	120 Deg F	

BANK 5 - User Features: Ignition on, off, press valet 5 times (Long chirp/fast LED flash)						
# Feature	Lock Button (Brake 1x)	Unlock Button (Brake 2x)	Trunk Button (Brake 3x)	Start Button (Brake 4x)	Lock + Unlock (Brake 5x)	Trunk + Start (Brake 6x)
1 Remote Start Run Time	3 min	10 min	15 min	20 min	30 min	
2 Flashing Light Confirmations	Unlock: ON RS: ON	Unlock: ON RS: Flash	Unlock: Flash RS: ON	Unlock: Flash RS: Flash		
3 Confirmation Chirp Volume	Low	Med-Low	Med-High	High		
4 BROWN Wire: Siren/Pulsed Horn	Pulse LOW	Pulse MED	Pulse HI	Steady Siren	Human Panic!	
5 Ignition Lock / Unlock	Off	Ign On = Lock	Ign. Off = Unlock	Lock + Unlock		
6 Door Open Bypass for Feat. #5	On*					
7 Unlock w/ Trunk Release	On	Off				
8 RS Activation (Remote)	Start x 1	Start x 2	Start x 3	Start x 4	Start > 3sec	Start > 4sec
9 Last Door Arming	Off	On w/o Lock*	On w/ Lock*			
10 Automatic Rearming	Off	On w/o Lock	On w/ Lock	Enhanced		
11 Confirmation Chirps	Siren + Horn	Siren Only	Horn Only	On Demand	Off	
12 Anti-Carjacking	Ignition	Door*	Ignition + Door*	Off		
13 Override Code	See operation guide for programming instructions. DEFAULT: 1,0					
14 Ignition Override	On	Off				
15 Alarm Trigger Duration	30 sec	60 sec	90 sec	120 sec		
16 Arming Delay	3 sec	15 sec	30 sec	45 sec		
17 Open Door Warn Upon Arming	On	Off				

CONVENIENCE

SECURITY

INSTALLER ONLY

BANK 10 - Installer Features: Ignition on, off, press valet 10 times (2nd Long chirp/fast LED flash)

1 RS Activation (WHITE/BLUE wire)	1 Pulse	2 pulses	3 pulses	4 pulses		
2 Vehicle Learn	Enabled	Disabled				
3 Engine Detection	Prog. Voltage	Voltage	Tach Wire	Data-tach	Crank Only	
4 Crank Delay (Gas/Diesel)	1.5 sec	15 sec	20 sec	30 sec		
5 Red RS Port GREEN Wire	Dome Light	Start	Ignition	Accessory	Status	Light Flash
6 Red RS Port BLUE Wire	Ignition	Status	0.8 sec Defrost Pulse	10 min Defrost Pulse	Pulse After Engine Off	Horn
7 Crank Time (Tachless/Crank Only)	0.75 sec	1 sec	1.5 sec	2.25 sec	3 sec	Average
8 Door Lock/Unlock Outputs	0.8 sec	3 sec	Double Unlock	Total Closure		
9 Remote Start Lock Control	Off	Lock after Start	Unlock before Start	Lock + Unlock	Lock after RS Off	
10 Turbo Timer	Off	1 min	2 min	3 min		
11 Manual Trans. Reservation	On - Engine Off w/ Lock	Off	On - Engine Off w/ Door close (Instant)	On - Engine Off w/ Door close + 10s		
12 Data Port Protocol	Green: DBI Black: DBI	Green: iData Black: iData	Green: DBI Black: iData	Green: iData Black: DBI		
13 Alarm Functions	On	Off	Off-Unlock Only	Sensor Detect		
14 Pulse Ign. + Acc. on Disarm	On	Off				
15 Lock On Prewarm	On	Off				
16 Starter Interrupt	Alarm Only	Anti-grind Only	Alarm/Anti-Grind	Automatic		
17 Low Temp Crank Extender	0 ms	200 ms	300 ms	400 ms		
18 OEM Arm/Disarm or CH. 4/5	Arm/Disarm	Arm/CH. 5	CH. 4/Disarm	CH. 4/CH.5	CH4 Latch/Disarm	CH5 Latch/CH5 Pulse
19 BROWN Wire	Horn	Ignition	Trunk Release	Pulse After Start		
20 Low Current Mode	On	Off				

FEATURE SETTING KEY: Default Setting Installer Feature 13 (Alarm Functions) must be ON
* Door status required from external interface module or DATA sensor w/ analog inputs.

TIP: You can program features via your computer with Omega Weblink. Visit www.OmegaWeblink.com to learn more.

Features Reset

1. Enter Bank 10 feature programming (Installer features - DO NOT SELECT ANY FEATURES).
2. Press LOCK + UNLOCK (or BRAKE x 5)
 - 1-button/2-button models: Press the START button 5 times
 - You will hear a long siren chirp to indicate reset & exit programming.



Tach Wire Signal Learn

When utilizing the tach wire circuit for engine detection, the vehicle's tach signal must be learned. Tach signal is learned during Vehicle Learn and usually does not have to be relearned. Using either method below will automatically change Installer Feature #3 to 'Tach Wire'. If a valid tach signal is not detected, the system will not switch to 'Tach Wire' mode.

METHOD 1:

1. Turn the ignition key "ON".
2. Press the brake pedal 5 times within 5 seconds of step 1.
 - The siren/horn will chirp 5 times.
3. Start the engine.
 - The status LED will turn on when it has learned the tach signal. If not, check tach wire & try again.
4. Press the valet button to resample the tach signal if needed. If the engine has a high idle at startup, allow the idle to "settle" around 700 RPM before resampling.
 - The status light will flash off then back on when the signal has been resampled.
5. Turn the ignition key "OFF".

METHOD 2:

1. Start the engine with the ignition key.
2. Press & hold the brake pedal.
3. Press & release the valet button.
 - The siren/horn will chirp 5 times.
 - The status LED will turn on when it has learned the tach signal. If not, check tach wire & try again.
4. Turn the ignition key "OFF" or release the brake pedal to exit.



Programming Transmitters

Standard Programming: Use this method to program additional or replacement transmitters. BEFORE YOU BEGIN: Have all transmitters which are to operate the system at hand.

1. Turn the ignition key "ON" (do not start).
2. Press the valet button 5 times within 5 seconds of step 1.
 - The horn will briefly sound
3. Press & release the "lock" button on each transmitter one after the other.
 - 1-button models, press the "start" button.
 - The siren/horn will chirp once for each transmitter.
 - NOTE: When the first new transmitter is learned all previous transmitters are erased.
 - NOTE: All other button functions will automatically be assigned.
4. Turn the ignition key "OFF".
 - NOTE: The system will exit automatically at any time after 10 seconds of no activity.



Alarm Diagnostics

Alarm Quick Test Mode: Use this mode to test all zones of the alarm system and quickly adjust any sensors.

1. Press & hold the valet button.
 - The LED will begin to flash rapidly.
2. Press the Lock button on the remote within 2 seconds of step 1 (before the system enters valet mode).
3. Release the valet button.
 - The siren/horn will chirp indicating all alarm zone violations. See the table below.
 - NOTE: Chirps will repeat every 2 seconds while the trigger remains violated.
 - NOTE: If multiple zones are triggered the chirps will cycle thru the zones every 2 seconds then repeat.
4. Press Lock or Unlock on the controller or power cycle the system to exit.
 - NOTE: There is no exit timer to this feature, chirps will continue until the zone is clear or the mode is exited.

Zone Violation Recall: To diagnose alarm triggers, disarm/unlock the alarm with the remote and the status LED will flash to indicate which zone(s) were triggered last. Turn the ignition key "ON" to clear alarm trigger memory.

LED Flashes/Chirps	Alarm Quick Test	Zone Violation Recall
1	Sensor Full Trigger	-
2	Hood	Hood
3	Door	Door
4	Sensor Warning	Sensor Port Trigger



Remote Start Diagnostics

If remote start fails to activate, the system will chirp, flash the lights, and flash the status LED to indicate the cause. If remote start shuts down prematurely after successfully starting, you can recall the violation by putting the system in valet mode (hold the valet button for 3+ seconds). Before the status LED turns on (system in valet mode), the LED will flash to indicate any violated zones.

LED Flashes	Violated Zone
1	Hood
2	Brake
3	Bad tach signal or engine over-rev.
4	BLACK/WHITE wire lost ground
5	3D sensor detected vehicle motion while cranking
6	Received engine stop command (remote, telematics, etc.)
7	Alarm was triggered
8	Run time expired
9	Low vehicle battery voltage detected

