

TECHNET TIMES

HYUNDAI | NEW THINKING.
NEW POSSIBILITIES.

VOL. 23, ISSUE 08

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PUBLISHED BY THE NATIONAL SERVICE TRAINING & SUPPORT DEPARTMENT

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For the second competition in a row, a Hyundai Motor America Technician has brought home the Overall Gold Medal! Hyundai Motor Company recently concluded the 10th Hyundai World Skill Olympics, a biennial skills competition that pits Hyundai's automotive service experts and technicians against one another in various Olympic-style competitions and tests.

The 2013 Overall Gold Medal was awarded to Riverside, California Hyundai Technician, Jason Emerson. This acknowledgment propelled the United States to the top of the medal chart, beating out China, Turkey and Australia this year and becoming one of only three countries to have multiple gold medal awards.

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REPEAT!

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“We congratulate Jason on his win and are thrilled he was able to take home the gold for the U.S. and our dealership,” said Jim Sams, Service Manager, Riverside Hyundai. “This is a true testament to Hyundai’s ongoing commitment to providing an exceptional level of quality customer service throughout the lifetime of vehicle ownership.”

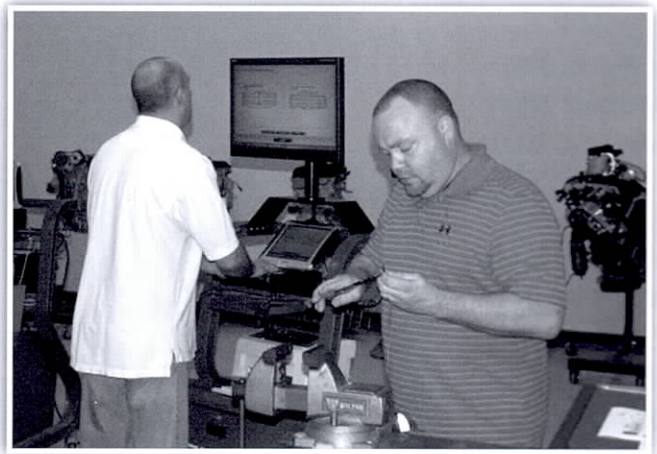
Those sentiments were shared by Coach Dan Kryszczuk, “Jason was on fire, nearly perfect. He figured out every bug and was usually the first technician finished in our nine-person rotation. He finished a couple tasks using less than 15 of the 60 minutes allowed.

Jason’s win is really a team win. The WSO technicians helped train each other with the help of the instructors and HMA Staff. I don’t think this win happens without all of us working together, including alternate Erik Koonce.”

In addition to Jason Emerson receiving the overall gold medal, three other U.S. technicians placed in the competition. Ken Winders from Gene Messer Hyundai in Lubbock, Texas received a gold medal for his performance in the Written and Component competition. Steve Pickett



At the California training, HMA staff strategized with the team and bugged the cars for practice sessions.



The 2013 World Skill Olympics US Team - Left to right: Ken Winders, Steve Pickett, Aronn Walters and Jason Emerson

from Ed Voyles Hyundai in Smyrna, Georgia and Aronn Walters from Regional Hyundai in Broken Arrow, Oklahoma received Excellent Skills medals, recognizing their strong overall performance in the competition.

Steve Pickett returned to the world competition having earned Excellent Skills in 2011. Steve was honored to lead the contestants' oath during the opening ceremonies. The Platinum tech holds an Associate's Degree in Automotive Technology and moved through the automotive ranks working for independents, having his own shop and ultimately joining the Hyundai family when a former co-worker invited him aboard.

Always curious about how things work, Aronn Walters seems to have figured something out. About his first time participating he said, "Self-motivation and study instituted by a belief that you cannot repair anything if you don't understand how it works forced me to take the time to learn about the individual systems of a car, but also how they work together as a whole. This understanding is really the biggest motivator I have every day." That push for excellence took Aronn all the way to Korea.

UTI grad, Ken Winders was thrust into the automotive scene while admiring the repair skills of a friend and his dad who dabbled with cars and mini bikes using terms and skills that were foreign to Ken. Consequently, he took auto shop in high school to get up to speed. The course came so naturally to Ken that he continued on post high school. His first job working with Asian imports began a love affair that continues today. Learning a lot from his late mentor Larry Lawrence, Winders parlayed the work ethic and knowledge into a chance on the world stage. The shop Larry owned was named, "Beyond Repair Japanese Auto Service". Ken is quick to point out



that the name was not an editorial on the condition of the cars, but a statement representing the philosophy of going "above and beyond" in repairing each vehicle. Ken, wishing to move closer to his wife's hometown took a dealership job in Phoenix and ultimately moved on to Flagstaff, his current location.

This is the second consecutive Hyundai World Skill Olympics that resulted in the whole HMA Team scoring in the upper half of the competition and garnering two medals. On what it takes, the reigning 2011 champion Jasen Nowacki shared his thoughts:

"It was nice being the only one [with Overall Gold] in the USA, but I'm glad to share it with Jason Emerson. All through my national competition and through the training I thought it was funny how many the guys said I would win gold. I wondered how they could tell that. I thought the same thing about Emerson, I could tell more by the way he cared about what he did and by the kind of person he is more than the way he worked on cars. Most of us do that part well but it takes a little extra something to pull off the gold."

Do you have what it takes? In 2013, a total of 145 participants including 87 specialists from 54 countries gathered at Hyundai Motor's Technical Center in Korea to perform their latest techniques in an Olympic-style competition. The competition includes practical evaluations of engines, electric devices, chassis, automatic transmission and other automotive components. There is also a written exam portion of the competition.

The next World Skill Olympics is not too far off. The Nation Competition is in less than a year. Can anyone say, "Three-peat?"

My World Skill Olympics Story

By Jason A. Emerson,

The journey to my gold medal moment in Seoul, Korea began in 2010 when I got off a plane in Montgomery, Alabama for my first National Skills Competition and met fellow competitor Erik Koonce, who introduced me to Jasen Nowacki, also a competitor. We were unaware then of our destiny. These two would be instrumental in my growth as a Hyundai Tech, and competitor.

I did not make the cut that year and returned home humbled and deflated. I told myself if I ever get the chance to participate again, I will go with the knowledge of how the “game” works.

The week before the 2012 National Skills Competition, I received news that my Grandpa was not doing well and may not make it through the week. I drove to Oregon to say my last goodbyes with my two daughters by my side. I told my Father, that I planned to cancel my trip and stay with the family. He sternly replied, “No! Grandpa would never forgive you if you missed out on this opportunity that means so much to you.” Half way home I received a call that my Grandpa had passed. I was devastated; and if not for my Dad’s repeated pleas, I may have bowed out.

I boarded the plane later that week with a heavy heart bound for Alabama. At the completion, I left it all “on the table.” At the awards dinner, I was surprised to hear my name called as one of the top four; I was heading to Korea in 2013 to compete against the world. Words can’t describe how I felt at that moment.

Time flew until September 2013 when the USA World Skill Olympic team met in Dallas for practice. That weekend, we really challenged each other. So, I practiced by myself in the shop until we met again for another session just before we flew out for Korea.

The practice at the Fountain Valley Training Center gave some of the best learning I have received as a Technician. The team: Steve Pickett, Ken Winders, Aronn Walters, and Erik “Pinky” Koonce has some of the brightest minds I have met in this business; and it was a privilege to participate. The challenges we exchanged and received from the training staff were some of the best. The bugs were devious at the very least, but unforgettable at best. Each “bugged” vehicle was great practice for what was to come in Korea. After the week of training, we were ready.

As we headed for the 12-plus hour flight to Seoul, I felt anxious, tired, excited and sad all at the same time. Anxious for obvious reasons, tired mentally and physically, excited for the opportunity to compete against the world; and sad for leaving my family for a week. We said goodbye to the alternate, Erik Koonce, a great con-

tributor to our team and to me personally as a voice of encouragement. I wish him well in the future.

When we arrived at the Incheon Airport, we proceeded to the hotel and I began to realize, where I was and what I was about to do. We remained awake to acclimate ourselves and toured the Demilitarized Zone (DMZ). It was unforgettable as I hung my grandpa’s name, written on a ribbon, on the freedom fence acknowledging his service in the Korean War.



The official schedule began the next day with orientation. During the presentation a slide came across the big screen showing an example of the name tags we would receive. My name and photo were on the example! Steve Pickett nudged me; sure that it was a premonition.

We took a 25-question written test covering Hyundai products. I felt that I did ok, and enjoyed free time until the opening ceremony that night.

The opening ceremony and dinner was a grand gala with Hyundai and Shell Executives. It featured a nice formal dinner and a great event. Steve Pickett gave the Oath of Competition to HMC Director, Mr. K.R. Lee and Dan Kryszczuk gave the toast to the attendees.

On the one year anniversary of my Grandpa’s passing, we made the drive to the Chonan training facility for the competition. My nerves were high on the drive down. A million things were racing through my head ranging from technical stuff to phone calls and encouragement that I had received from 2011 WSO overall winner, Jasen Nowacki.

We arrived at the training center and all I could think of as I walked off the bus was the voice of Dr. Phil saying “things are about to get REAL!” I just went into auto pilot. I felt I did well on the first round and it set the tone for the rest of the competition. Everything I tested was

the correct path to find the issue with the vehicle. I felt really good with my performance knowing I gave it everything I had. My teammates gave me grief afterward suggesting that I won the world, but I shrugged them off. Steve Pickett, who also competed next to Jasen Nowacki said to me it was déjà vu of the 2011 competition.

The next day we toured Hyundai Steel and the Asan Manufacturing Plant. In Asan, we were able to walk the assembly line on foot from beginning to end. Seeing a car being built at arm's length and interacting with the plant staff will stay with me forever. Seeing how they are assembled will help me do my job better.

Later that afternoon in stark contrast to the plant tours of modern Korea, we toured a Korean Folk Village and learned of the culture of ancient times. Our tour guide was very knowledgeable and interesting. She made the experience enjoyable.

We enjoyed another full day of events, making a traditional Korean mask and touring an ancient Korean palace from the Joseon Dynasty dating back to the 14th century. I was very intrigued with the culture, both ancient and current. The remainder of the afternoon we attended an entertaining play/performance called "Nanta" and shopped in Insa Dong.

Later that same night Shell Oil held a dinner for us in formal style. It was a delicious multiple course meal with great table chat with some pretty important people.



I thought I would never be dining with such VIPs. It put the whole thing in perspective for me.

I woke up the morning of the award ceremony with a stomach full of butterflies. We jumped on the bus to head for Hyundai Motor Group Headquarters. The wait in the lobby seemed like a thousand years until we were called into the auditorium and seated. The ceremony opened up with a Tae-Kwon-Do exhibition displaying some high flying kicks and acrobatics. Then came a speech by Mr. K.R. Lee; and the awards began. The twenty Excellent Skills winners were called. My nerves heightened after not hearing my name.

Congratulations to my fellow teammates: Steve Pickett and Aronn Walters on their Excellent Skills wins. I envy them a little bit as they are able to go back and compete again. Ken Winders was announced as the gold medal winner in the Written/Component competition. Congrats to my friend, Ken.

After all five competition section winners were called and my name was not called, I was deflated and felt as I must have done something wrong.

At the moment before the overall finalists were called, I was so down on the inside. I made ten thousand excuses in my head of why I had failed. It was an excruciating internal battle.

After they announced the first two finalists I heard JASON EMERSON and could not believe it. I had done it, top three in the world. The emcee prolonged the final medal announcements. As he revealed the results, he stammered, paused then in slowed time I heard every syllable of my name, and jumped for the sky in excitement. Very few things in my life compare to this; it's right behind the birth of my two daughters and the day of my marriage to my beautiful wife Diane. Fourteen years of hard work and sacrifice led to this moment. As I stood on the podium looking out at the cheering crowd, it was an affirmation that I had made the right choices along the path of my life.

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2014 IQS Training Available on TACS

In this fast-paced, web-based training, Erwin Raphael, Director of Engineering and Quality at Hyundai guides you through the ins and outs of the Initial Quality Survey process. The 20-minute course will bring you up to speed on this year's season. The presentation pinpoints the keys areas needing your

attention and focus.

The course launched on Wednesday, October 23rd and will be available through IQS season. Any Technician, Service Consultant or Service Manager will want to complete this course. So, log on and get started helping Hyundai win another IQS trophy or two in 2014!

Absorbent Glass Mat Batteries

Starting with the 2014 model year, there are now two types of lead acid batteries used in Hyundai vehicles.

1. Conventional flooded cell battery
2. Absorbent glass mat or AGM battery.

Absorbent Glass Mat or (AGM) battery technology was developed in the 1980's primarily for military vehicles, aircraft and severe duty applications.

Modern vehicles equipped with more electronics place considerably higher electrical loads on the battery and charging system. Some vehicle systems remain on longer with ignition off or have ignition off wake up modes that cycle on for monitoring of systems. AGM batteries provide longer service life than conventional flooded electrolyte batteries when working under these conditions.

Primary reasons for using AGM batteries:

- AGM batteries have a higher cycle rate (Used by OEM's in idle, stop and go vehicles and highly accessorized vehicles)
- AGM batteries can tolerate a faster charge than flooded cell type.
- AGM batteries can endure at 60% state of charge (SOC) vs. 80% SOC flooded cell.

Key benefits of AGM batteries:

- 3 times higher cycle capability than conventional flooded batteries
- Higher deep discharge capability
- Faster current delivery
- Faster charge capability
- Spill proof
- Maintenance Free
- Low / No out gas
- Low self-discharge
 - Self-discharge for an AGM battery is 1–3% per month and it remains stable over the life of the battery.
 - Flooded battery self-discharge rate is 5-10% per month new and increases with age.

Absorbent glass mat (AGM) batteries are also known and classified as a valve regulated lead-acid (VRLA) sealed battery. AGM battery cell plates may be flat such as those found in a standard rectangular shaped flooded cell battery or they can be spiral wound into cylinder shaped cells. Spiral wound batteries are easily identified

by the six cylindrical shaped cells of the case and they are generally aftermarket high performance brand batteries.

AGM batteries used in Hyundai vehicles are flat plate style and the case resembles that of a conventional flooded battery. Conventional flooded batteries have the positive and negative lead plates separated by a thin sheet of polyethylene material and they are suspended in the cell in which the liquid electrolyte freely surrounds the plates.

The AGM battery uses a fiberglass mat separator that is wrapped around the positive plates and holds the electrolyte in place with capillary action. The battery cells consisting of the lead plates, electrolyte, and fiberglass mat are tightly packed into the case partitions. This tight packing or compression holds the electrolyte absorbed in the glass matting resulting in a battery that is spill proof, impact and vibration resistant. As a result, it has very low internal resistance. The lower internal resistance increases the voltage output, decreases charging time, and reduces losses to heat as power flows through the battery.

How it Works

All lead acid batteries release oxygen from the positive plate during discharging.

Because the AGM battery uses a valve regulated vent the oxygen is combined with the hydrogen that forms on the negative plate and produces water.

This process is called recombination and retains the water in the electrolyte solution eliminating the need to add additional water as a maintenance item.

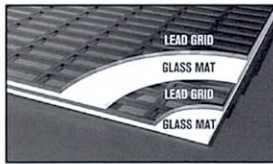
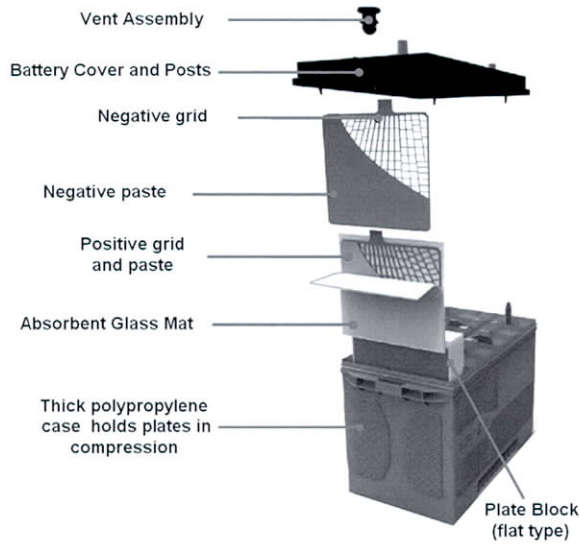
When the battery is charged the oxygen recombined with the positive plate and the hydrogen returns to the electrolyte.

In addition, since the electrolyte is fully absorbed in the AGM separator, the battery is normally sealed and is non spill-able even when it's inverted.

However, there is a valve located in the top cover of the battery. During normal operation the VRLA battery vent is closed. The valve acts as a one way pressure relief safety feature and it will only vent gases in case the battery is severely overcharged and the rate of hydrogen production becomes higher than what the negative plate can absorb causing an increase in the internal pressure of the battery.

The actual construction of the battery is composed of Negative and Positive grid plates coated with a lead oxide paste material. The positive plates are wrapped with absorbent glass mat separating the positive plates from the negative plates. Electrolyte is maintained within the glass mat separating the plates which are tightly compressed into plate blocks forming the battery cell.

AGM Battery Cut-away view



AGM / VRLA batteries are sensitive to overcharging. A severe overcharge condition can cause the battery to give off levels of Oxygen and Hydrogen that are higher than the recombination process can absorb; The battery internal pressure can rise high enough that its one way pressure relief valve vents gases to the atmosphere and the vented gases cannot be replaced. Excessive overcharging will shorten the life of the battery.

AGM Battery Charging Cautions

- Always use a voltage regulated battery charger (Midtronics battery tester / charger has AGM battery settings).
- Never allow the battery temperature to exceed 125°F during charging.
- Immediately stop charging any battery that becomes very hot or makes hissing noises.



Check the Battery specification label, it will indicate if it's the battery is AGM type. All Hyundai factory-installed or service replacement AGM batteries indicate this on the label. An aftermarket spiral cell AGM battery may have six cylindrical shapes on the bottom of the case, however if the battery has a thermal cover around it, it may hide your view of the case.

When testing or charging an AGM battery using the Midtronics GR8-1270 Diagnostic Battery tester / Charger, it is important to select the correct battery type in the setup menu. The GR8 will configure the optimum voltage and current charge rates for the type of battery that is selected. Always refer to the applicable service information and published TSB's for the vehicle that you are working on or the test equipment user manual.

The battery type selection should be changed when the following is performed using the GR8 battery tester:

- Battery testing
- Battery charging
- Battery ECU power supply

Select "AGM" for a Hyundai factory AGM battery or a service replacement AGM battery.

Do not select "AGM SPIRAL". This is only used for aftermarket spiral cell AGM battery only.

Continue testing or charging as normal.

Do not replace an AGM battery with a flooded type.

The key is to identify which battery type is installed in the vehicle prior to any testing, diagnosis or charging. Familiarize yourself with the AGM battery by accessing the AGM battery tutorial found in the Fix-It-Right section at the HyundaiTechInfo.com service information website. The tutorial is listed under Body Electrical.



Fix-It-Right

EV MOTOR TEMPERATURE SENSOR DTC P0A2B, P0A2C, P0A2D, P0A2F

DESCRIPTION: If you are servicing a Sonata Hybrid with the DTC listed below, follow this Service Procedure.

APPLICABLE VEHICLES: ■ 2011~ Sonata Hybrid (YF HEV)

DTC LIST:

DTC	DESCRIPTION
P0A2B	Drive motor A temperature sensor circuit range/performance
P0A2C	Drive motor A temperature sensor circuit low
P0A2D	Drive motor A temperature sensor circuit high
P0A2F	Drive motor A temperature sensor circuit over temperature

PARTS INFORMATION:

MODEL	PART	SECTION	PNC	PART NUMBER
2011~ Sonata Hybrid (YF HEV)	Automatic transaxle (includes EV motor)	43-450	45000A	45000-3D*** 00268-3D***
	Control wiring	91-914	91400D	91400-4R***
	Extension motor wire	39-361A	36595	36595-3D000

WARRANTY INFORMATION: Normal warranty applies

MODEL	OP CODE	OPERATION	OP TIME	CASUAL PART	OP QTY	NATURE CODE	CAUSE CODE
2011~ Sonata Hybrid (YF HEV)	45000R6M	Automatic transaxle	3.7	45000-3D*** (See Parts Catalog)	1	N69	C15
	45000RH1	Additional	0.9				
	45000RQ0	GDS operation	0.3				
	91401R00	Control wiring assembly	0.8	91400-4R*** (See Parts Catalog)	1	N69	C15
	91401RQ0	GDS operation	0.3				
	37561R1H	Wiring harness-volt & temp sensor	1.1	36595-3D000	1	N69	C15
	37561RQ0	GDS operation	0.3				

NOTE: The Op Code for GDS operation can be claimed only one time per repair.



2011 Equus Web Course is Moving!

The New 2014 Equus Web Course will come online shortly. Any Gold or Platinum Technician completing the 2011 Equus online training and attending the current instructor-led Equus Certification course will receive Equus Certification. **If you are in process of completing the 2011 Equus Web Course, you must finish the course by December 31, 2013.** At that time, the 2011 Equus Web Course will be placed in the Tech Info section found under the Technical Training Tab at HyundaiTechInfo.com, and will be available as a review resource.

SERVICE PROCEDURE:

- Depress the brake pedal and press the Start button to activate "EV Ready" mode. Attach a GDS, check for DTC in the "MCU" menu. Record the DTC and description. Delete the DTC.
- Check for "Current Data" in the MCU menu and select Drive Motor, MCU, HSG and MCU (GCU) temperatures. Confirm the drive motor temperature is within specification according to the chart below.
Turn "EV ready" off.
Go to Step 3 to continue the diagnosis.

Transmission Condition	Drive motor temperature
Cold (Parked more than 8 hours)	Same as outside temperature
Operating temperature	<ul style="list-style-type: none"> • Less than 365°F (185°C) • More than 36°F (20°C) above MCU, HSG and MCU (GCU) temperatures

Sensor Name	Value	Unit
Drive Motor Temperature	198	°F
MCU Temperature	100	°F
Generator(HSG) Temperature	108	°F
MCU(GCU) Temperature	97	°F
Auxiliary Battery Voltage	11.4	V
Electric Water Pump(EWP) Operation Status	ON	-
Electric Water Pump(EWP) Speed	3302	RPM
Actual Driver Motor Speed	0	RPM
Drive Motor Torque Reference	0.0	Nm
Actual Driver Motor Torque	0.0	Nm
Drive Motor Phase Current (RMS value)	2.7	Arms
Drive Motor U Phase Current Sensor Offset	0	-
Drive Motor V Phase Current Sensor Offset	2	-
Drive Motor Resolver Offset	2.397	rad
Drive Motor Resolver CAL Command	Ready	-
Drive Motor Resolver Mal Counter	0	-
MCU Gate Board Fault Counter	0	-
Actual Generator(HSG) Speed	0	RPM
Generator(HSG) Torque Reference	0.0	Nm
Actual Generator(HSG) Torque	0.0	Nm
Generator(HSG) Phase Current (RMS value)	3	Arms
Generator(HSG) V Phase Current Sensor Offset	3	-
Generator(HSG) W Phase Current Sensor Offset	2	-
Generator(HSG) Resolver Offset	6.300	rad
Generator(HSG) Resolver CAL Command	Ready	-
Generator(HSG) Resolver Mal Counter	0	-

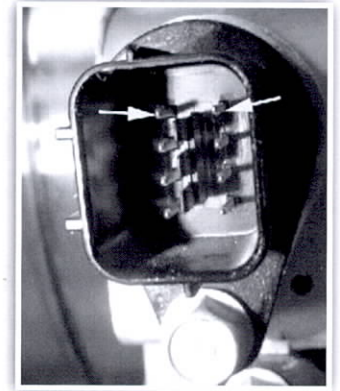
- Disconnect the harness connector to the temperature sensor at the transaxle.
- Measure the resistance between the two pins shown.

EV motor temperature	Resistance
68°F (20°C)	105~133 kΩ
Normal operating temp	5~36 kΩ

If the resistance is:

- Within specification, go to Step 5.
- Not within specification, replace the automatic transaxle and go to Step 6.

- Visually check the control wiring harness and extension wire between the PCM and transaxle for a damaged wire or short circuit to ground. Check for a damaged pin or pin not fully inserted into the connector.

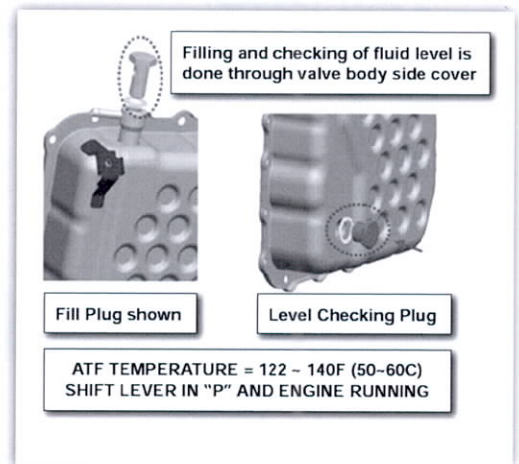


- If damage is found, repair or replace the control wiring and/or extension wire.
- If no visual damage is found, use an ohmmeter to check the resistance in the control harness and extension wire between the PCM and the transaxle. If the resistance is more than 1Ω, repair or replace the control wiring or extension wire.

After repairs are completed, go to Step 7.

- If transaxle was replaced, remove the fill plug.

Use a funnel to add approximately 5~6 quarts of SP-4-M ATF through the fill plug opening. Re-install the fill plug.



Attach the GDS to the DLC and select vehicle, A/T menu, Current Data and "Oil Temperature Sensor".

Start the engine and shift to Park. When the ATF is 122°F~140°F (50~60°C), remove the level checking plug. The level is correct when oil flows from the level checking plug in a thin steady stream.

Collect and dispose of any excess fluid in accordance with local regulations.

- Clear the DTC in the BlueLink system according to instructions in TSB 12-BE-005-2.
- Drive the vehicle for two key-on/key-off cycles to confirm the DTC do not return.

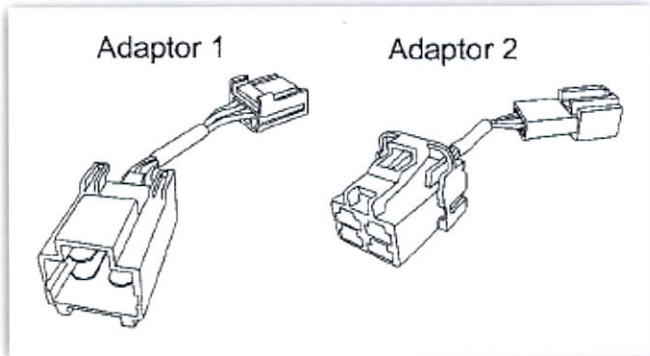
Fix-It-Right

ACCESSORY REMOTE ENGINE START (RES) STOP LAMP SWITCH ADAPTER HARNESS

DESCRIPTION:

This article describes the procedure to install Stop Lamp Switch Wiring Adapters allowing the installation of the Accessory Remote Engine Start (RES) Kit. Some Accessory RES kits come preassembled with connectors that mate to the "Original Design" stop lamp switches. To install these RES kits on vehicles equipped with the "Revised Design" stop lamp switch adapter harnesses are required.

NOTE: This Stop Lamp Switch Adapter Harness is required if the vehicle is equipped with the revised Stop Lamp Switch design (Type B, inline 4-pin) and the Remote Start Kit is equipped with the Original Design connector (Type A, 2+2 4-pin).



APPLICABLE VEHICLES:

- Vehicles equipped with Accessory RES and the Revised Stop Lamp Switch.

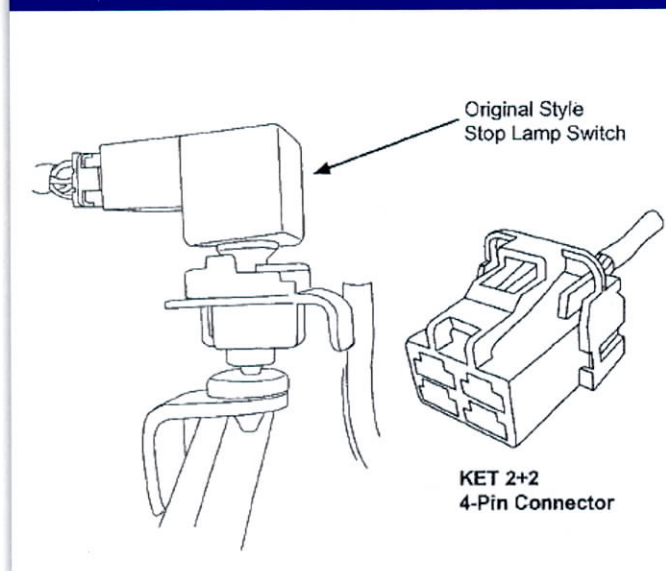
PART NAME	BEFORE	AFTER	QTY
Stop Lamp Switch Adapter Harness	N/A	00056-ADUS0	1

Warranty Information: No applicable warranty applies

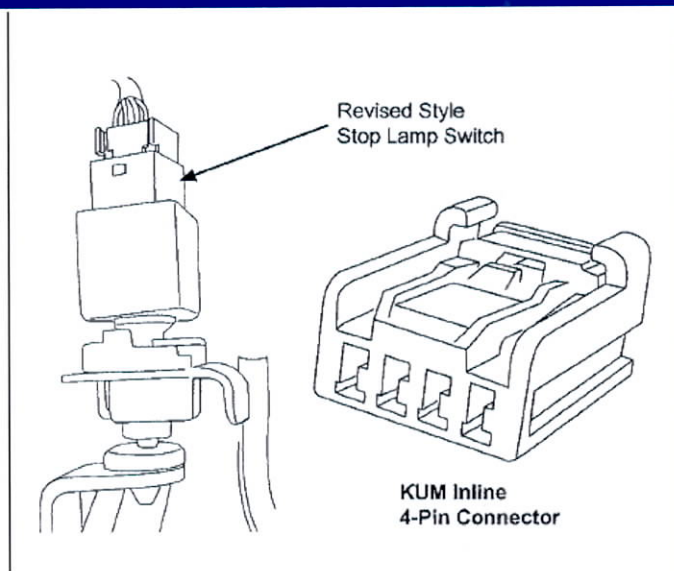
SERVICE PROCEDURE:

1. Disconnect the factory female 4-pin stop lamp switch connector from the stop lamp switch.
2. Connect the RES harness female 4-pin stop lamp switch connector to the male 4-pin stop lamp switch connector on **Adapter 1 Harness**.
3. Connect the RES harness male 4-pin stop lamp switch connector to the female 4-pin stop lamp switch connector on **Adapter 2 Harness**.
4. Connect the female 4-pin stop lamp switch connector on **Adapter 1 Harness** to the stop lamp switch connector.

Original Design (Type A)

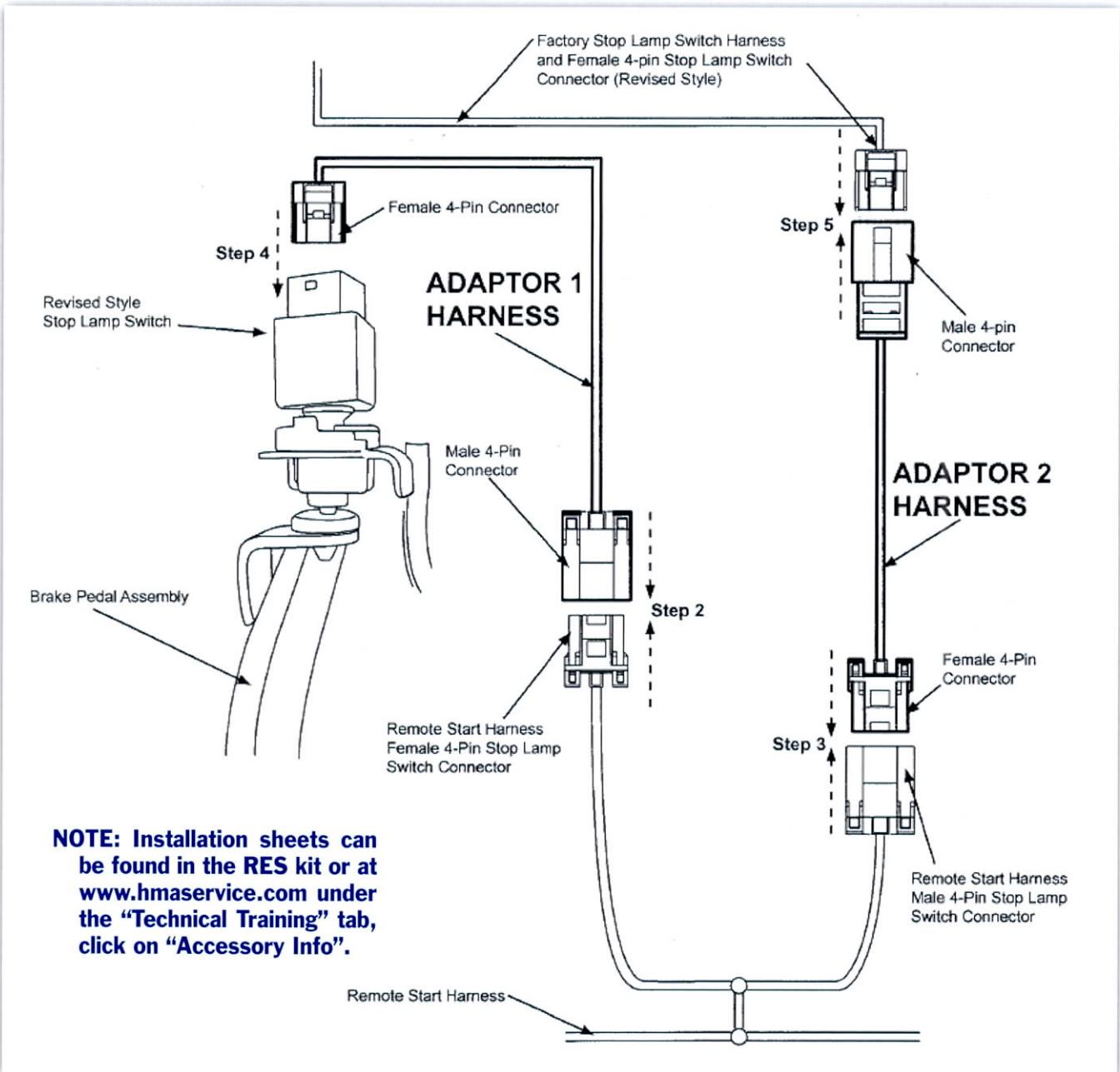


Revised Design (Type B)



5. Connect the factory female inline 4-pin stop lamp switch connector to the male 4-pin stop lamp switch connector on **Adapter 2 Harness**.
6. Refer to the vehicle specific RES Installation Instructions to secure the stop lamp switch connectors to the vehicle harness using the provided small wire ties, trim excess length.

WARNING: Ensure both stop lamp switch adapter harnesses do not contact the Steering Column, Brake Pedal Assembly, Accelerator Pedal Assembly, Bolster Plate or the Knee Bolster Air Bag wiring, if applicable.



NOTE: Installation sheets can be found in the RES kit or at www.hmaservice.com under the "Technical Training" tab, click on "Accessory Info".

My World Skill Olympics Story

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The rest of the day is a blur to me; everyone was so nice and congratulated me at every moment. It felt like rock star status, but just for gearheads.

That night we had the award dinner at a Korean BBQ where I was seated at the head table next to Mr. K.R. Lee, Director of International Service Division HMC, along with the rest of our US team. The dinner with all the competitors and HMC executives was fun and unforgettable.

In closing, I hope my story inspires some young "Bronze Tech" to strive to achieve this once-in-a-lifetime accomplishment. I started this journey fourteen years ago and was able to learn this trade from four of the best technicians I know. Never stop learning, ever! I worked my way through certifications to make Platinum from lot porter.

I would like to thank the following individuals: my

Dealer Principal, Richard Michaelson for allowing me to compete and creating a great dealership for my employment, my instructor Steve Taylor for asking me to participate and providing guidance along the way. Thanks to my wife Diane Emerson for supporting my journey these fourteen years, and to Dan Kryszczuk and Scott Eakin for some great coaching and moral support. Jasen Nowacki and Erik Koonce deserve credit for great advice and being even better friends. Thanks go to my fellow teammates Steve Pickett, Aronn Walters, Ken Winders for being a great group of guys and competitors. Lastly, my service manager deserves mention, the same manager that gave me a chance all those years ago, Jim Sams. Without him, I would of never been afforded this opportunity nor would of I become the skilled technician I am. I recommend this roller coaster ride to anyone who wants to challenge themselves and learn a great deal at the same time. Thanks again HMC and HMA for such a great opportunity!

TechNet Tips

Three internal parts can be replaced in the transmissions shown below for the following DTC:

- Solenoid DTC
- Input/output speed sensor DTC
- Oil temperature sensor DTC

TRANSMISSION	MODEL	SOLENOIDS	INPUT/ OUTPUT SENSORS	OIL TEMP SENSOR
8-SPEED	BH, VI	13-AT-002-1	12-AT-024	12-AT-025
6-SPEED	LM, CM, YF, UD, RB	13-AT-008	13-AT-014	13-AT-012-1
5-SPEED	NF, EF, SM, CM, XG, TG, EP	09-AT-018	09-AT-016	12-AT-023
4-SPEED	HD, FD	10-AT-010	12-AT-007	07-40-012

TECHNET TIDBIT

If you are sure you have an internet connection with your GDS and links do not load when you click on the links button in HTSS, reboot your GDS and try the process again. As a general rule, it is a good practice to power down your GDS unit and reboot daily or at least every other day.

TechNet Times

Volume 23 Issue 8 December 2013

TechNet Times is published monthly by Hyundai Motor America's National Service Training & Support Department for Hyundai Dealership Technicians. The subjects covered in this publication are often one of a kind items, but they may help you to solve similar incidents. In all cases, the diagnostic procedures recommended in the Shop Manuals should always be performed first.

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