



# Technical Service Bulletin

GROUP <b>AUTOMATIC TRANSMISSION</b>	NUMBER <b>20-AT-016H</b>
DATE <b>APRIL 2020</b>	MODEL <b>ALL</b>

**SUBJECT:** AUTOMATIC TRANSMISSION (ATM) POLICY

*This TSB supersedes TSB 18-AT-013 to include new models.*

**Description:** The automatic transmission warranty repair policy authorizes in-dealership repairs of the following components for both OEM (new) and remanufactured automatic transmissions:

## NOTICE

Replace the following components according to the related shop manual or TSB.  
**DO NOT REPLACE THE TRANSMISSION.**

## NOTICE

- All transmission replacements must be submitted for approval through WebDCS, PA Request prior to ordering a transmission.
- Second and subsequent ATM replacements on the same VIN require Techline review and Case Number prior to repair in addition to the PA Request.

**Applicable Vehicles:** ALL

**PARTS INFORMATION:** Refer to Parts Catalog.

**WARRANTY INFORMATION:** Normal Warranty applies

### SERVICE PROCEDURE:

#### **8-SPEED FRONT-WHEEL DRIVE:**

- 2018~ Sonata (LFa) 2.0T,
- 2020~ Sonata (DN8) 1.6T/2.5L
- 2019~ Santa Fe (TMa) 2.0T/2.4L
- 2020~ Palisade (LX2)

Replace	Transmission		PNC	Reference
	New	Reman		
Solenoids	X	X	46202A 46313*	TSB 20-AT-005H
Input/output speed sensor	X	X	42620	TSB 20-AT-003H
Oil temperature sensor	X	X	46307	TSB 20-AT-004H
Position switch assembly	X	X	42700	TSB 20-AT-006H
Axle seals, rear oil seal	X	X	Multiple	Shop manual

**8-SPEED REAR-WHEEL DRIVE:**

2012~16 Equus (VI)  
 2012~16 Genesis Sedan (BH/DH)  
 2013~16 Genesis Coupe (BK)

Replace	Transmission		PNC	Reference
	New	Reman		
Solenoids	X	X	46313*	TSB 19-AT-008H
Input/output speed sensor	X	X	46305C	TSB 19-AT-005H
Oil temperature sensor	X	X	46305C	TSB 19-AT-005H
Oil pressure switch	X	X	45662D	TSB 16-AT-011
Inhibitor switch	X	X	45956B	TSB 14-AT-007
Inhibitor switch oil seal	X	X	46131	Parts catalog
Axle seals	X	X	Multiple	Shop manual

**6-SPEED ATM Generation2:**

2018~19 Accent (HC) 1.6L  
 2017~19 Elantra Sedan (AD/ADa) 2.0L  
 2018~ Elantra GT (PD) 2.0L  
 2018~ Kona (OS) 2.0L  
 2017~18 Santa Fe Sport (AN) 2.4L  
 2019~ Veloster (JS) 2.0L

Replace	Transmission		PNC	Reference
	New	Reman		
Solenoids	X	X	46313*	TSB 20-AT-007H
Input and output speed sensor	X	X	42620	TSB 20-AT-012H
Oil temperature sensor	X	X	46307	TSB 20-AT-015H
Inhibitor switch	X	X	45956B	TSB 19-AT-024H
Axle seals	X	X	Multiple	Shop manual

**6-SPEED ATM Generation1:**

- 2012~17 Accent (RB)
- 2011 Azera (TG)
- 2012~17 Azera (HG)
- 2011~16 Elantra (MD/UD)
- 2013~17 Elantra GT (GD)
- 2013~14 Elantra Coupe (JK)
- 2010~12 Santa Fe (CM)
- 2013~18 Santa Fe Sport (AN) 2.0L
- 2013~16 Santa Fe Sport (AN) 2.4L
- 2013~19 Santa Fe (NC)
- 2011~14 Sonata (YF)
- 2015~19 Sonata (LF) (2.0L/2.4L)
- 2011~15 Sonata Hybrid (YF HEV)
- 2016~19 Sonata Hybrid (LF HEV)
- 2016~19 Sonata Plug-in Hybrid (LF PHEV)
- 2010~15 Tucson (LM) 2.4L
- 2011~15 Tucson (LM) 2.0L
- 2016~ Tucson (TL) 2.0L
- 2013~15 Veloster (FS) 1.6T

Replace	Transmission		PNC	Reference
	New	Reman		
Solenoids	X	X	46313*	TSB 20-AT-008H
Input and output speed sensor	X	X	42620	TSB 20-AT-011H
Oil temperature sensor	X	X	46307	TSB 20-AT-014H
Inhibitor switch	X	X	45956B	TSB 19-AT-024H
Axle seals	X	X	45245A	Shop manual

**6-SPEED ATM (AISIN) – 2007~12 Veracruz (EN) 3.8L:**

Replace	Transmission		TSB or
	New	Reman	Shop Manual
TCU (with proper diagnosis)	X	X	AT-233~234
Manual valve lever oil seal (under TCU)	X	X	AT-14
Oil pump oil seal	X	X	AT-14
Axle seals	X	X	AT-15~16
Transfer case oil seals	X	X	AT-283~290

**6-SPEED ATM (AISIN) – 2009~11 Genesis Sedan (BH) 3.8L:**

Replace	Transmission		Shop Manual
	New	Reman	
TCU (After proper diagnosis)	X	X	AT-477
Input speed sensor	X	X	AT-479
Output speed sensor	X	X	AT-480
Oil temperature sensor	X	X	AT-481
Inhibitor switch	X	X	AT-485
Oil pump oil seal	X	X	AT-454
Drive shaft seal	X	X	AT-454

**6-SPEED ATM (ZF):**

2011 Equus (VI) 4.6L

2009~11 Genesis Sedan (BH) 4.6L

2010~12 Genesis Coupe (BK) 3.8L

Replace	Transmission		TSB or
	New	Reman	Shop Manual
Mechatronics (valve body + TCM)	X	X	TSB 10-AT-009-1
Extension housing oil seal	X	X	AT-3
Selector (manual) shaft oil seal	X	X	AT-3, AT-367

**5-SPEED ATM – 2010~12 Genesis Coupe (BK) 2.0L Turbo:**

Replace	Transmission		Reference
	New	Reman	
Oil pump oil seal	X	X	General information “Special Service Tools”
Extension housing oil seal	X	X	

**4-SPEED AND 5-SPEED ATM – EXCEPT GENESIS COUPE 2.0L**

Replace	Transmission		Reference
	New	Reman	
Solenoids	X	X	TSB 09-AT-018
Input and output speed sensors	X	X	TSB 09-AT-016 TSB 12-AT-007
Oil temperature sensor	X	X	TSB 07-40-012 TSB 13-AT-012-1
Range (inhibitor) switch	X	X	TSB 09-AT-013
Vehicle speed sensor	X	X	TSB 09-AT-010
Pulse generators	X	X	TSB 03-40-022
Axle oil seals	X	X	TSB 05-40-017 TSB 06-40-003
Oil pump seal (P/N 46131-360020)	X	X	TSB 06-40-002

**TRAINING:**

The ATM Diagnosis and Certification Course (#SVCAT28) provides detailed instructions on how to properly diagnose and when to repair or replace an ATM. PA approval is necessary when installing remanufactured transmissions.

**SPECIAL SERVICE TOOLS:**

Your dealership must have on hand the following Special Service Tools/supplies:

- Hyundai Transmission Cooler Flush (Aerosol), P/N 00232-19021
- GDS Mobile: Hyundai: #GDSM-CPKITH

**SERVICE PROCEDURE:**

1. The Service Advisor opens a Repair Order (R.O.) documenting the customer’s detailed comments. A road test by a technician or Service Advisor may be necessary to verify the customer’s description.

2. The technician follows the Diagnostic Flow Chart to make a diagnosis and then carefully completes the ATM Core Return Worksheet.

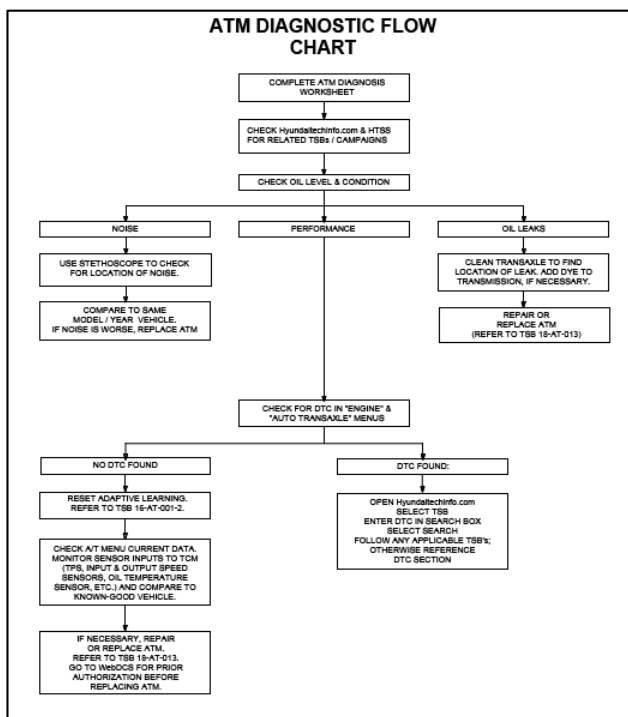
The ATM Core Return Worksheet is included with the remanufactured transmission and also available online from [hyundaidealer.com](http://hyundaidealer.com):

- “Service”
- “Documents Library”
- “Service”
- “Reman ATM and Engine Core Return”
- “ATM Core Return Worksheet”
- Click on the document to open.

The form can be completed online or printed and completed with a pen. The form should be returned with remanufactured and new ATM.

The technician follows the Diagnostic Flow Chart to assist in the diagnosis of the ATM and to make a repair/replace decision.

The technician enters the appropriate Condition Code from the list on the back of the worksheet.



ATM CONDITION CODES	
CODE	DESCRIPTION
100	Slips in Reverse
101	Slips in Drive
102	Slips in 1st gear
103	Slips in 2nd gear
104	Slips in 3rd gear
105	Slips in 4th gear
106	Slips in 5th gear
107	Slips other gear (specify)
110	Slips/flares between gears
111	Slips/flares 1-2 shift
112	Slips/flares 2-3 shift
113	Slips/flares 3-4 shift
114	Slips/flares 4-5 shift
115	Slips/flares 5-4 downshift
116	Slips/flares 4-3 downshift
117	Slips/flares 3-2 downshift
118	Slips/flares 2-1 downshift
119	Slips/flares other gear (specify)
120	Shift shudder
121	Shudder into Drive
122	Shudder into Reverse
123	Shudder 1-2 shift
124	Shudder 2-3 shift
125	Shudder 3-4 shift
126	Shudder 4-5 shift
127	Shudder during acceleration from stop
128	Shudder - Other (Specify)
130	Shifts erratic/up or down too often
131	Erratic upshift (specify)
132	Erratic downshift - other (specify)
140	Check engine light on - "Engine" menu (specify DTC)
141	Check engine light on - "Trans" menu (specify DTC)
150	Leaks
151	Leaks at oil pump/belt/housing
152	Leaks at case (specify location)
153	Leaks at differential oil seal (specify left or right)
154	Leaks between transaxle and transfer case
155	Leaks between case halves
156	Leaks at rear cover
157	Oil leak due to crack in case (specify location)
158	Other leak (specify)
160	Case broken/cracked
161	Converter case broken/cracked (specify location)
162	Transaxle case broken/cracked (specify location)
170	Will not move in Reverse
171	Will not move in Drive/NO forward gears
180	Shifts harsh or rough/bangs/jerks
181	Harsh shift into Drive
182	Harsh shift into Reverse
183	Harsh 1-2 shift
184	Harsh 2-3 shift
185	Harsh 3-4 shift
186	Harsh 4-5 shift
187	Harsh downshift 5-4
188	Harsh downshift 4-3
189	Harsh downshift 3-2
190	Harsh downshift 2-1
191	Delayed shift
192	Delayed shift into Drive
193	Delayed shift into Reverse
194	Delayed 1-2 shift
195	Delayed 2-3 shift
196	Delayed 3-4 shift
197	Delayed 4-5 shift
198	Delayed 5-4 shift
199	Delayed 4-3 shift
200	Delayed 3-2 shift
201	Delayed 2-1 shift
202	Won't shift into Drive
203	Won't shift into Reverse
204	Won't shift in 1st gear (specify DTC)
205	Won't shift in 2nd gear (specify DTC)
206	Won't shift in 3rd gear (specify DTC)
207	Won't shift in 4th gear (specify DTC)
208	Won't shift in 5th gear (specify DTC)
209	Won't shift - other (specify)
210	Noise
211	Noise in 1st gear
212	Noise in 2nd gear
213	Noise in 3rd gear
214	Noise in 4th gear
215	Noise in 5th gear
216	Noise in reverse
217	Noise during acceleration/deceleration
218	Whine noise (specify road speed)
219	Noise from differential (specify road speed)
220	Noise - other (specify)

**NOTICE**

- Diagnostic trouble codes must be recorded on the ATM Core Return Worksheet whenever the GDS is used.
- The form should be returned with remanufactured and new ATM.

3. If it is determined that a remanufactured unit must be ordered and installed, the technician must:
  - Obtain a PA Request online from Web DCS before ordering a transmission.
  - Call Techline for case review for 2<sup>nd</sup> reman on the same VIN.
4. The technician must send both the ATM Core Return Worksheet and the R.O. to the dealer Parts Department.
5. The Parts Department will order a remanufactured ATM from the facing PDC and retain the R.O. and ATM Core Return Worksheet, filed by R.O. number.
6. The Parts Department will receive a remanufactured ATM, shipped prepaid in a reusable box, and provide the ATM to the technician.

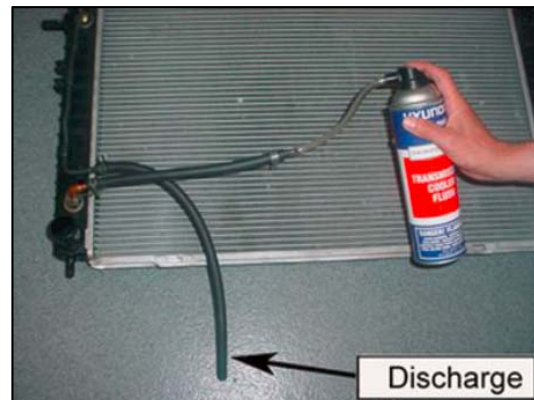
### NOTICE

Retain the reusable box and use to return the removed ATM and torque converter to the remanufacturing center.

7. A complete package of forms is included with each remanufactured ATM, including the ATM Core Return Worksheet. The parts department and technician must complete all required fields on the form. **Failure to do so will result in a debit.**
8. Drain all ATF from the transmission and remove the transmission.
9. Flush the transmission oil cooler and hoses using Hyundai Transmission Cooler Flush (P/N 00232-19021).

Repeat the procedure for the other hose.

This is required for all transmissions with an oil cooler in the radiator or ATF warmer/cooler on the transmission (see TSB #18-AT-008).



### NOTICE

The ATM oil cooler and hoses must be flushed prior to installation of the ATM according to 18-AT-008 for all vehicles with an oil cooler in the radiator or ATF warmer/cooler on the transmission. If a thorough flushing is not performed, the remanufactured ATM can be contaminated by debris left in the cooler and hoses, resulting in shop comebacks and possible claim chargeback.

10. Measure the depth of the torque converter in the converter housing. If the measurement is less than the specification listed in TSB 17-AT-007, rotate the torque converter in either direction and push inward until the measurement is at specification.

**NOTICE**

**Do not use an impact gun to force the installation.**



10. Install the new transmission according to the appropriate shop manual.
11. Confirm the ATF level is at the specified level according to the procedure in the shop manual or related TSB.
12. Reset and relearn the A/T adaptive values according to TSB 16-AT-001-2 (All automatic transmissions except DCT).
13. Place the removed ATM into the shipping container provided with the remanufactured ATM. Secure the lid with the retaining straps.

**NOTICE**

Freight charges are prepaid by HMA for returning the removed ATM to the remanufacturing center, when the request is submitted through "RETURN CORES" on DCS online (see Parts Bulletin 1307 "Reman Core Return Program Reminder") and the ATM is shipped via YRC, HMA's approved carrier. **DO NOT SUBMIT A WARRANTY CLAIM FOR THESE CHARGES.**

14. Ensure the ATM Core Return Worksheet is completely filled out. Place one copy of the form and a copy of the Repair Order in the plastic bag provided with the remanufactured ATM, close the envelope securely and use a tie-wrap to attach the plastic bag to the top of the core. Ship the removed ATM to the remanufacturing center.
15. Retain one copy with the dealership Parts Department, filed by the repair order number .
16. Retain one copy of the R.O. in the dealership service files.

**NOTICE**

A \$50.00 reduction of the core credit and/or chargeback of your warranty claim will be made for:

- Failure to properly complete and/or return the ATM Diagnosis Worksheet.
- Failure to return a copy of the Repair Order.

The forms should be returned with the remanufactured or new ATM core.



17. The dealer is reimbursed for the core ATM.

**NOTICE**

If an incorrect transmission has been ordered and not installed, you may return it to the PDC through DCS using the new 45-day BC Return Program.

If an incorrect transmission has been installed, it must be returned to the remanufacturer. Please write "ordered in error" or "damaged" in the space for the old ATM serial number on the "Core Return Checklist".

**NOTICE**

Dealer Parts Department accepts full responsibility for ensuring that transaxles sold over the counter:

- Have an ATM Core Return Worksheet that is completely and accurately filled out.
- The ATM oil cooler is flushed to HMA specifications using Hyundai Transmission Cooler Flush (P/N 00232-19021).
- Genuine Hyundai transmission fluid is used to refill the ATM according to the shop manual or TSB.