

Welcome to the



Ford Solenoid Strategies

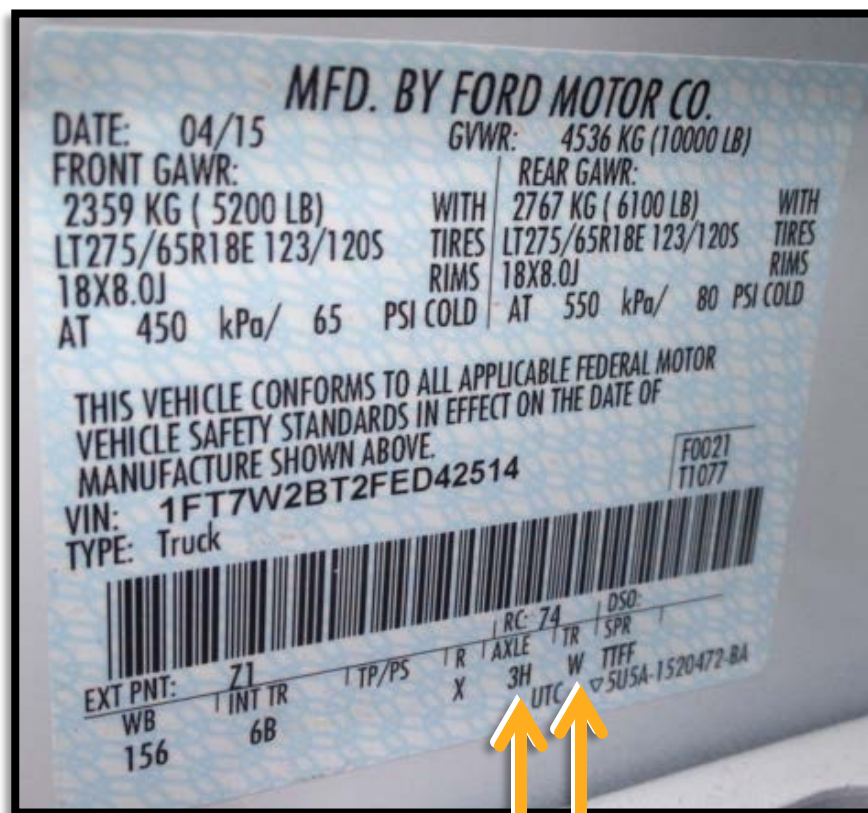
6F35 • 6F50 • 6F55 • 6R80 • 6R140

# WELCOME

- **Connections**
- **Handout**
- **Questions**
- **[steve.garrett@sonnax.com](mailto:steve.garrett@sonnax.com)**
  
- **Sonnax Tech Resources available free of charge at [www.sonnax.com](http://www.sonnax.com)**
- **Call for Tech Assistance: 1-800-843-2600**

# Vehicle Certification Code

6R140

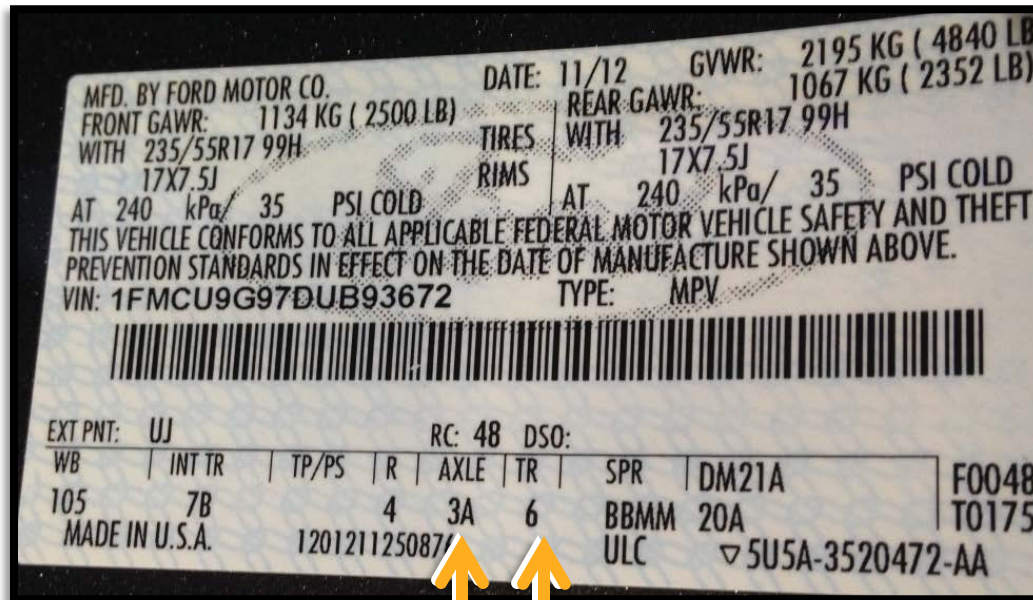


Transmission ID
2 = TR4050
P = 6R140 Gas
T = 5R110
W = 6R140 Diesel
6 = 6R80
Q = 4R75
5 = ZF S6-650
7 = ZF M6 HD-Diesel
B = 5R110W

Vehicle Certification Code (VCC) label located driver's side door, "B" Pillar.

# Vehicle Certification Code

6F35



Transmission Type ID
6 = 6F35
C = 6F55
J = 6F50

Axle Ratio

Transmission Type ID

Vehicle Certification Code (VCC) label located on driver's side door, "B" Pillar.

# Solenoid Strategy

What is it? Who should be concerned?

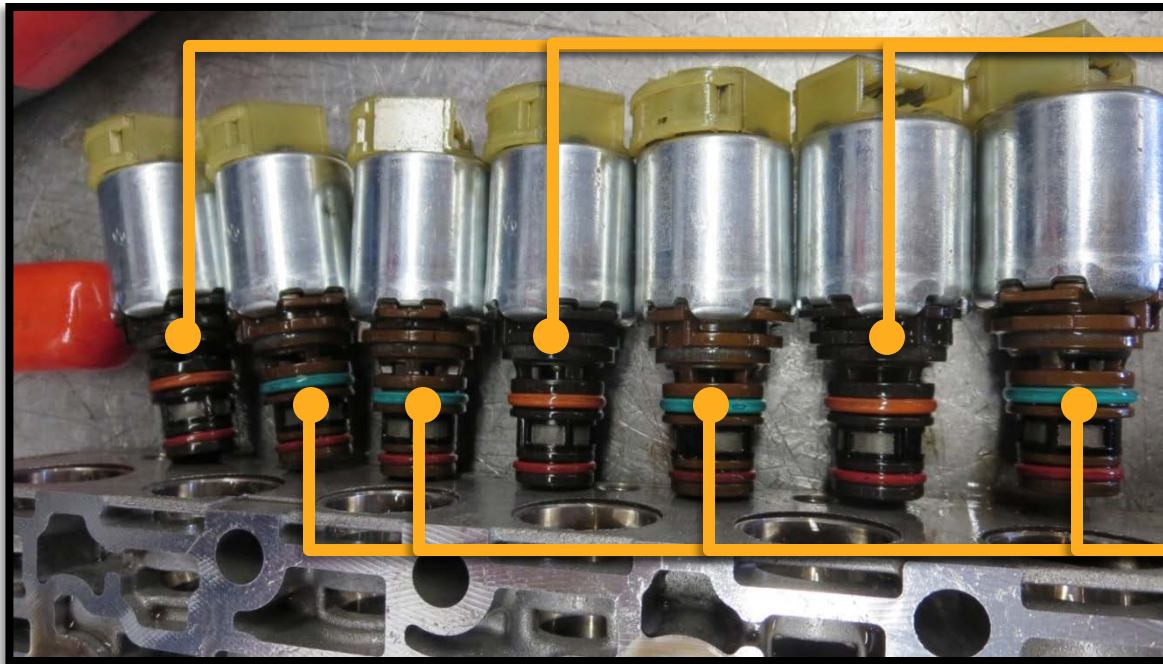
- Ford measures the flow rate for all of their solenoids used in the 6F30, 6F50, 6R80 and 6R140 applications.
- Transmission calibration software is then loaded, taking into consideration the individual solenoid flow characteristics and their position in the valve body.
- When a valve body is replaced it is likely that the solenoid strategy will change, so Ford will include a tag which lists a new solenoid strategy code and a valve body ID code.
- By using your scan tool, update the transmission controller software to match the new valve body and its solenoid configuration.

**NOTICE:** If the solenoid body information does not match the module information, transmission damage or drivability concerns can occur.

- Ford Motor Company

# Normally High & Low Solenoid Position

6R140



**Black Plastic (NH)**

**Brown Plastic (NL)**

# Solenoid Flow Rates

Number Stamping



# Remanufactured Valve Bodies

BC3P-7G342-BA

SOLENOID BODY SERVICE INFORMATION

**1502840679716**

SOLENOID BODY STRATEGY

**103B2890**

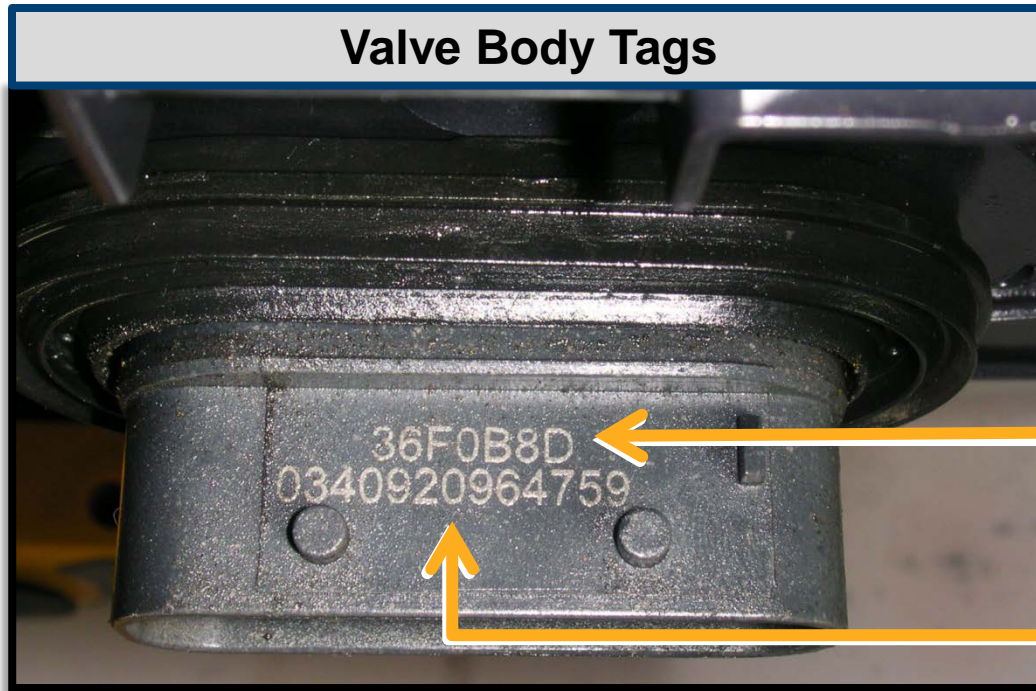
SOLENOID BODY ID

**SEE SHOP MANUAL SECTION 307-01**



# Solenoid Strategy Tag Codes

6F30/35

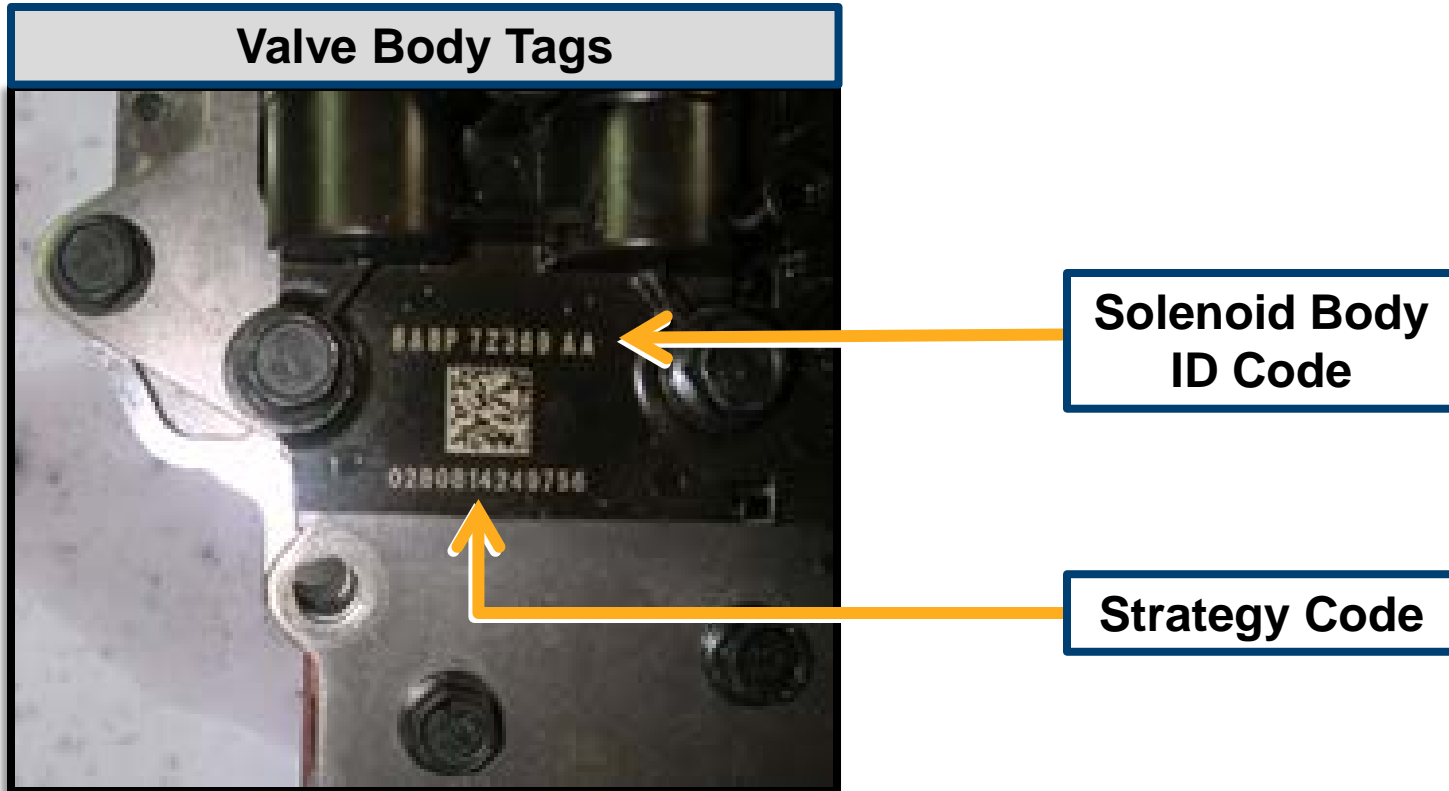


**Solenoid Body  
ID Code**

**Strategy Code**

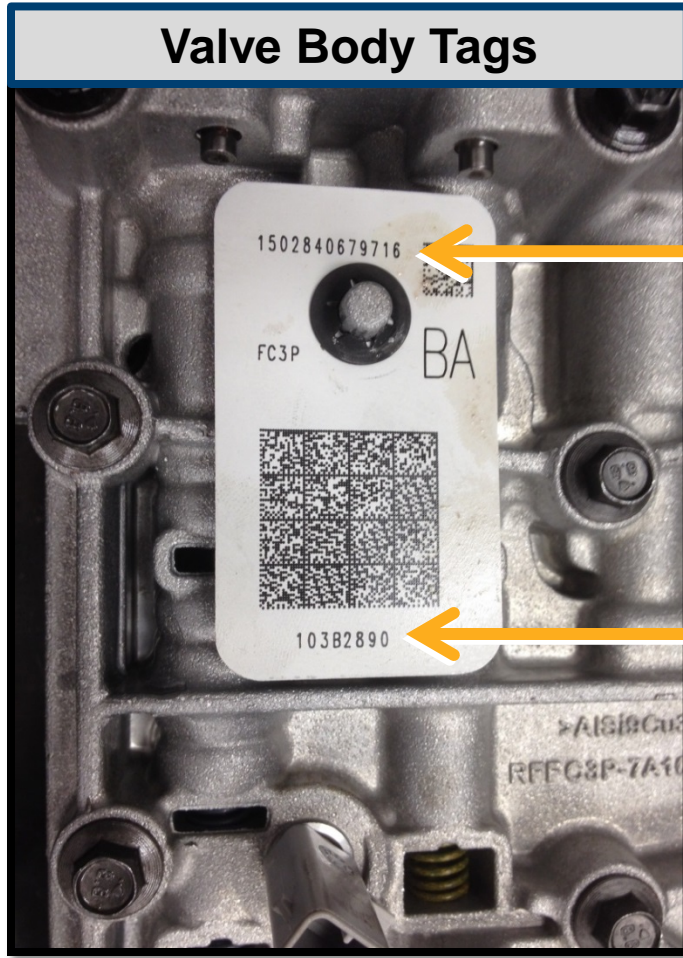
# Solenoid Strategy Tag Codes

6F50/55



# Solenoid Strategy Tag Codes

6R80, 6R140



**Valve Body Tags**

**Strategy Code**

**Solenoid Body ID Code**

# Solenoid Strategy Tag Codes

6R140



Strategy Code

Solenoid Body  
ID Code

# Solenoid Strategy Case Codes



**6F50 Shown**



**6F35 Shown**

# Ford Solenoid Strategy Process

6F35/6F50/6F55

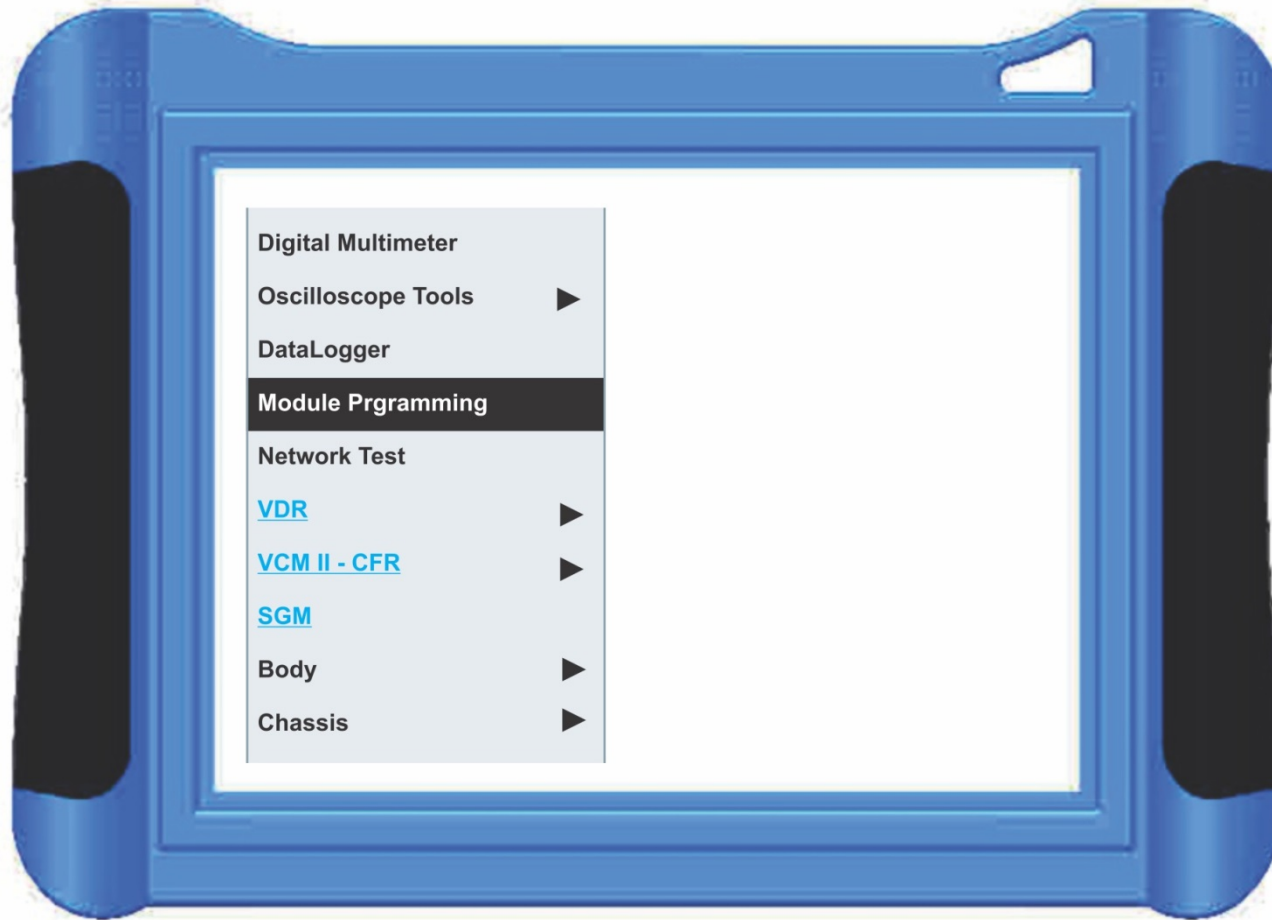
# Ford Solenoid Strategy Process

6F35/6F50/6F55



# Ford Solenoid Strategy Process

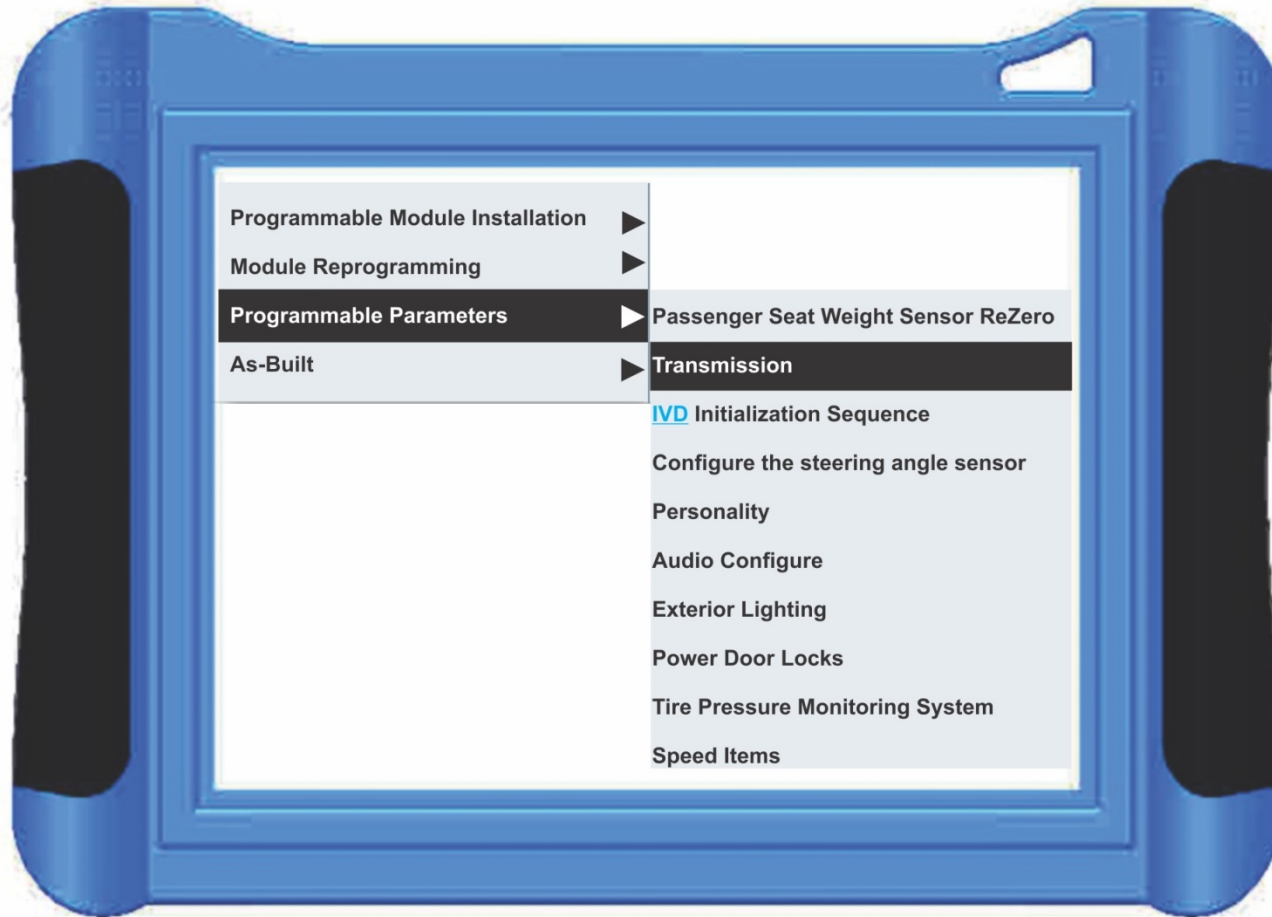
6F35/6F50/6F55





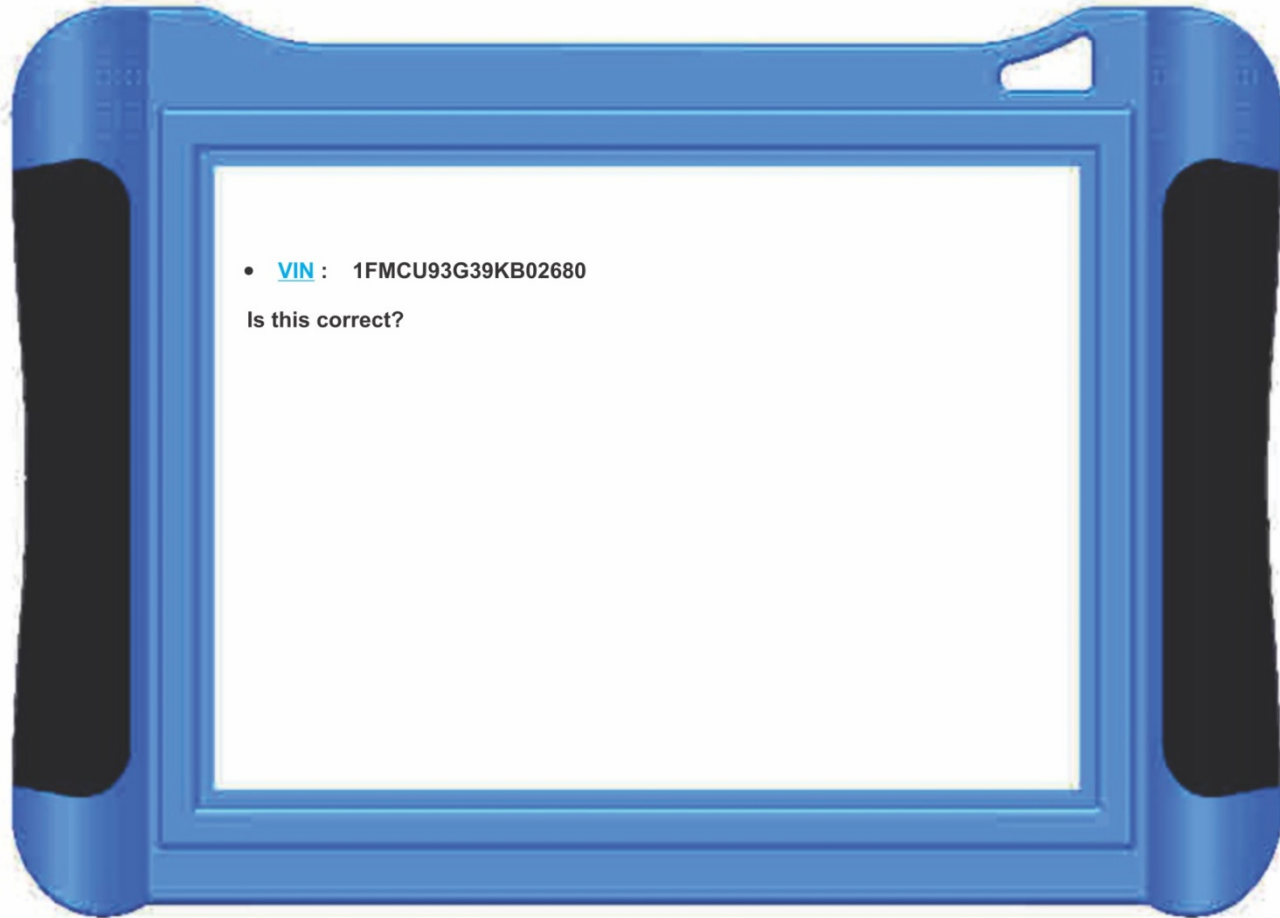
# Ford Solenoid Strategy Process

6F35/6F50/6F55



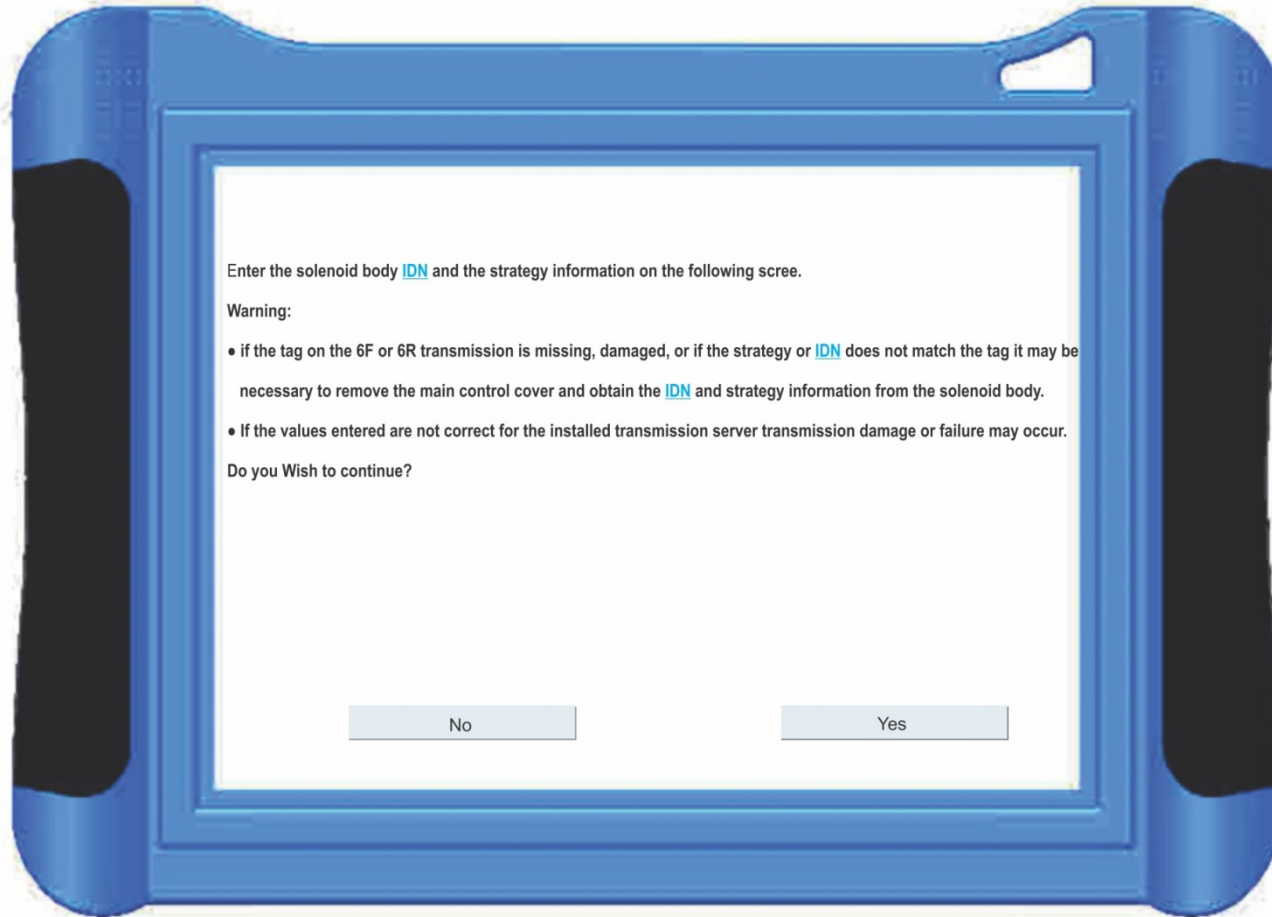
# Ford Solenoid Strategy Process

6F35/6F50/6F55



# Ford Solenoid Strategy Process

6F35/6F50/6F55



# Ford Solenoid Strategy Process

6F35/6F50/6F55

Enter the Solenoid body **IDN** and Strategy data below.

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Note: Select the information button for additional information.

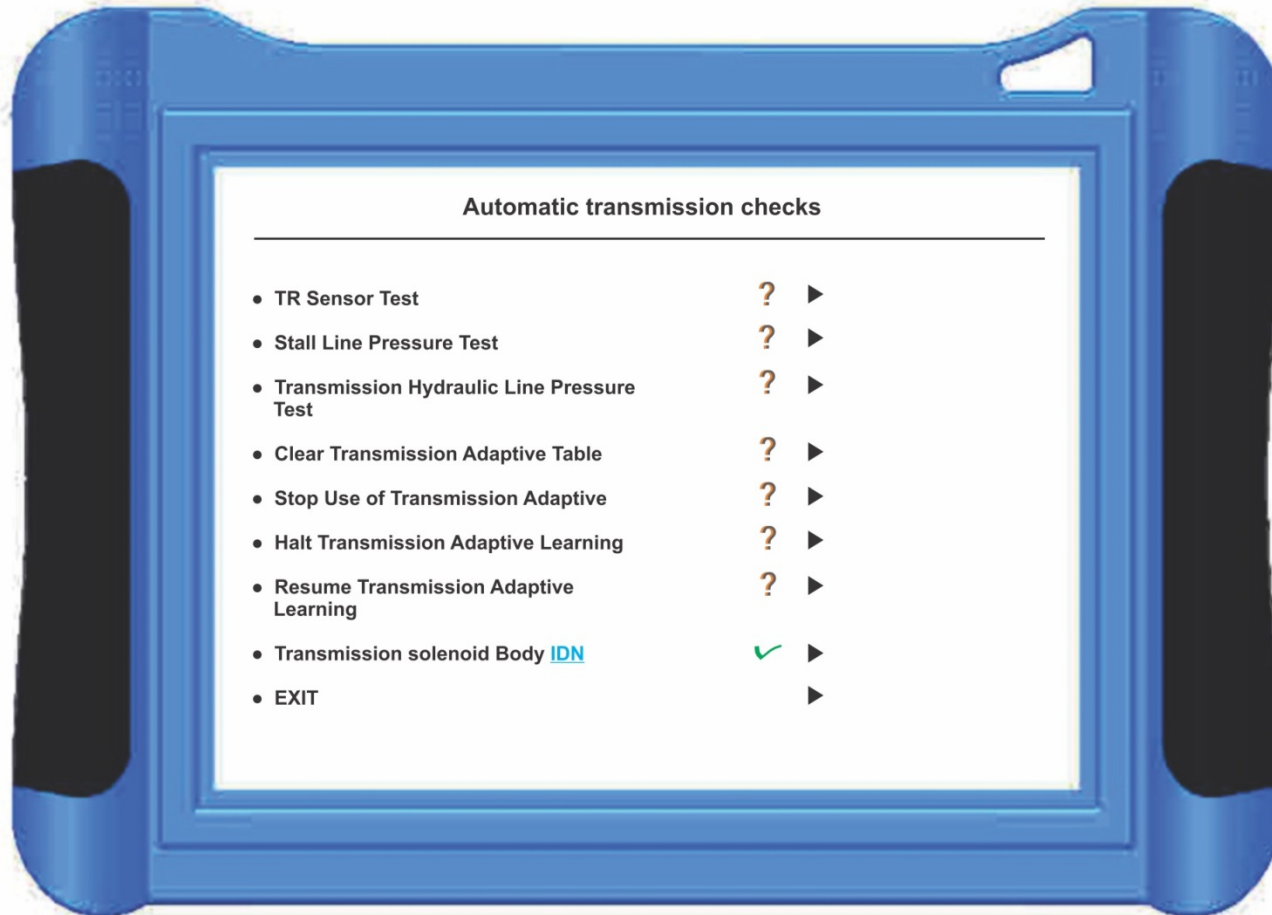
Solenoid Body Strategy

Solenoid Body **IDN**

Q	W	E	R	T	Y	U	I	O	P	1	2	3
A	S	D	F	G	H	J	K	L	←	4	5	6
Z	X	C	V	B	N	M	,	.	-	7	8	9
											0	

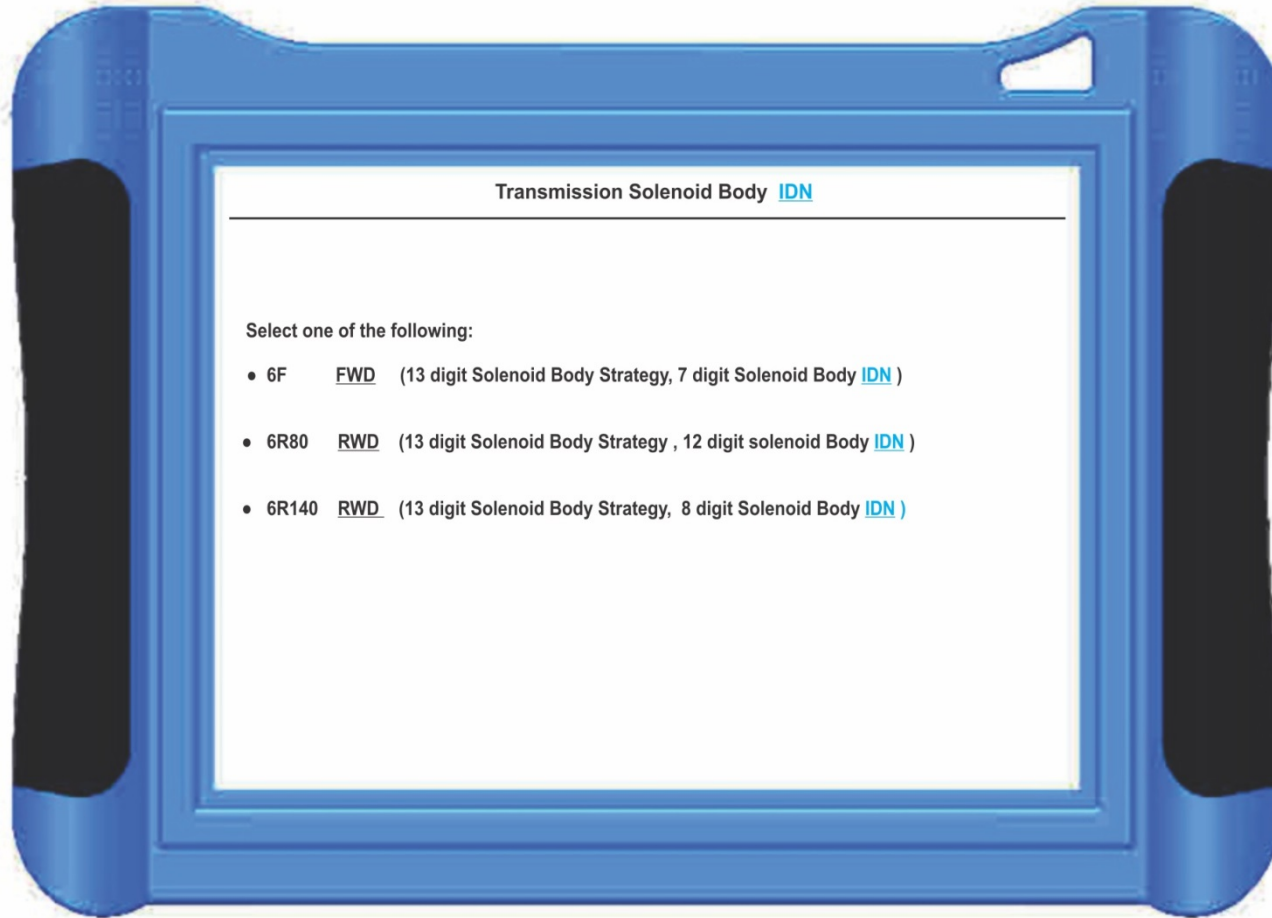
# Ford Solenoid Strategy Process

6F35/6F50/6F55



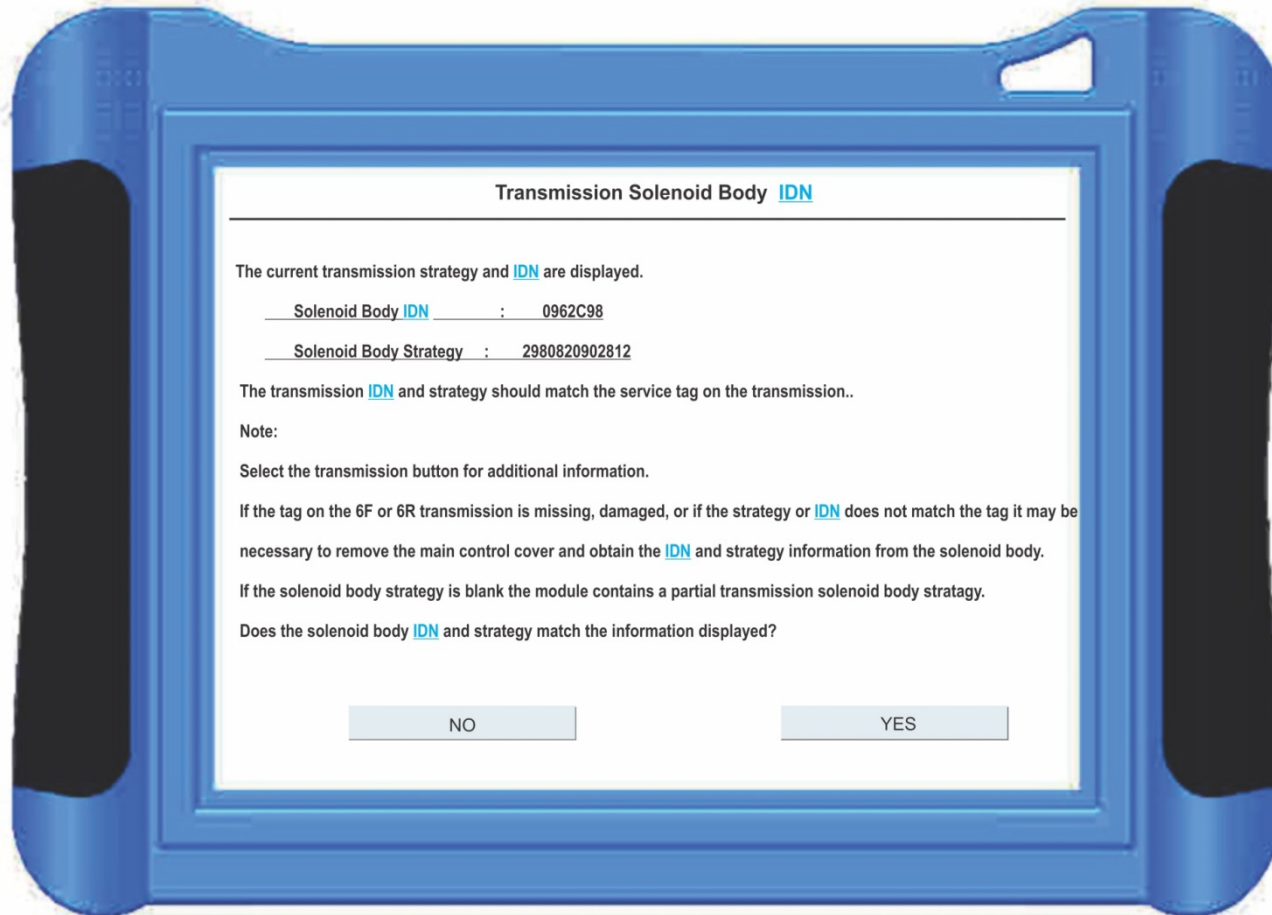
# Ford Solenoid Strategy Process

6F35/6F50/6F55



# Ford Solenoid Strategy Process

6F35/6F50/6F55



# Ford Solenoid Strategy Process

6R80/6R140



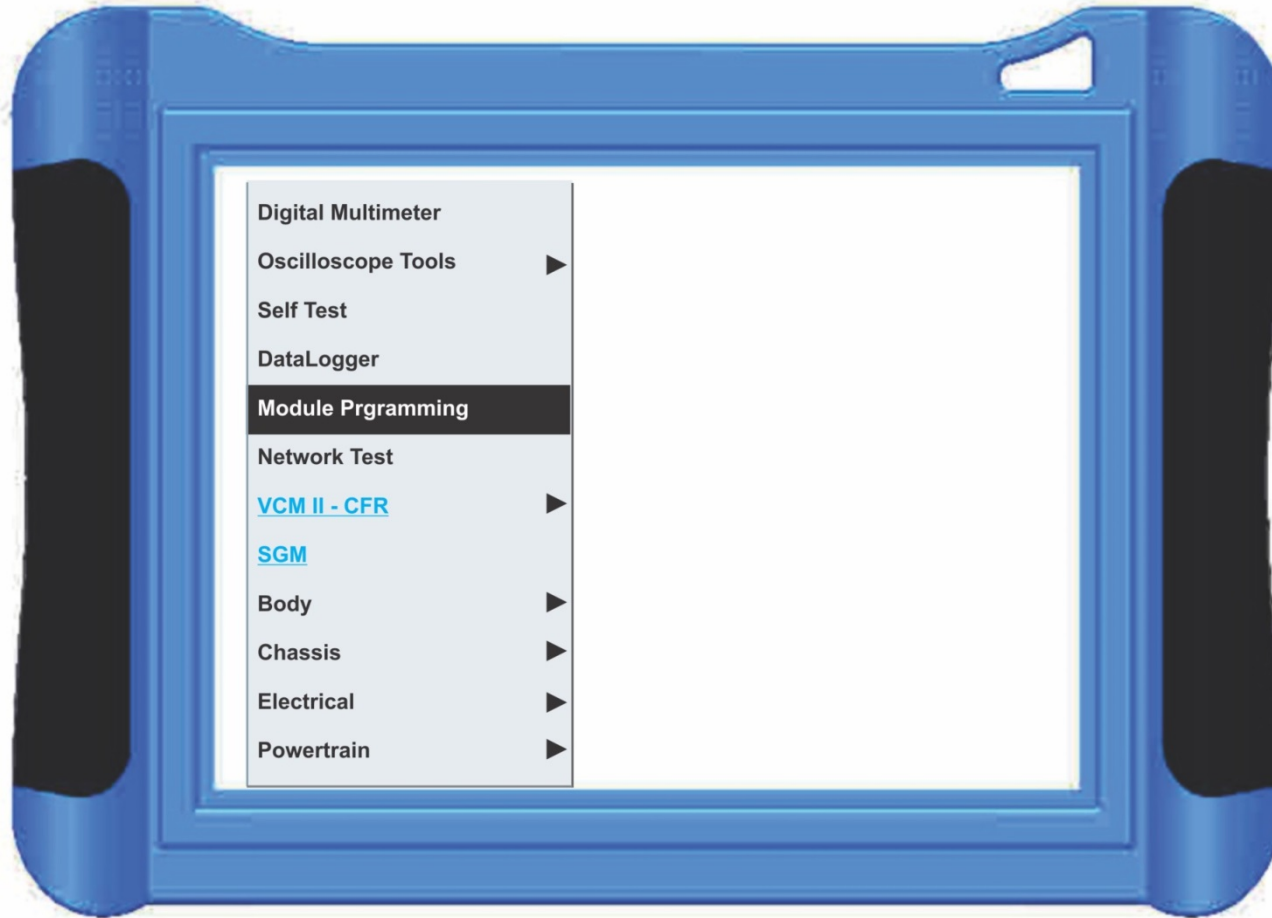
# Ford Solenoid Strategy Process

6R80/6R140



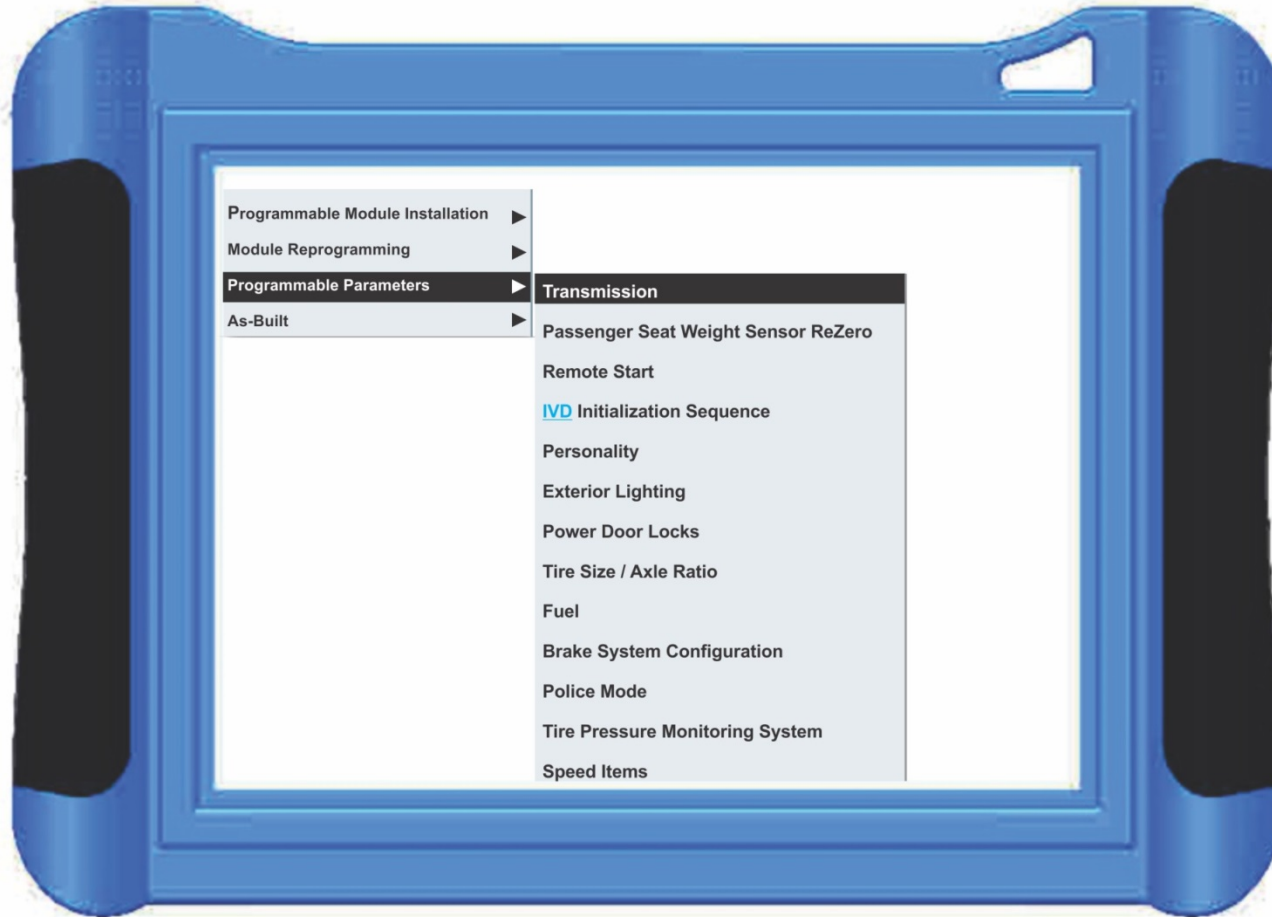
# Ford Solenoid Strategy Process

6R80/6R140



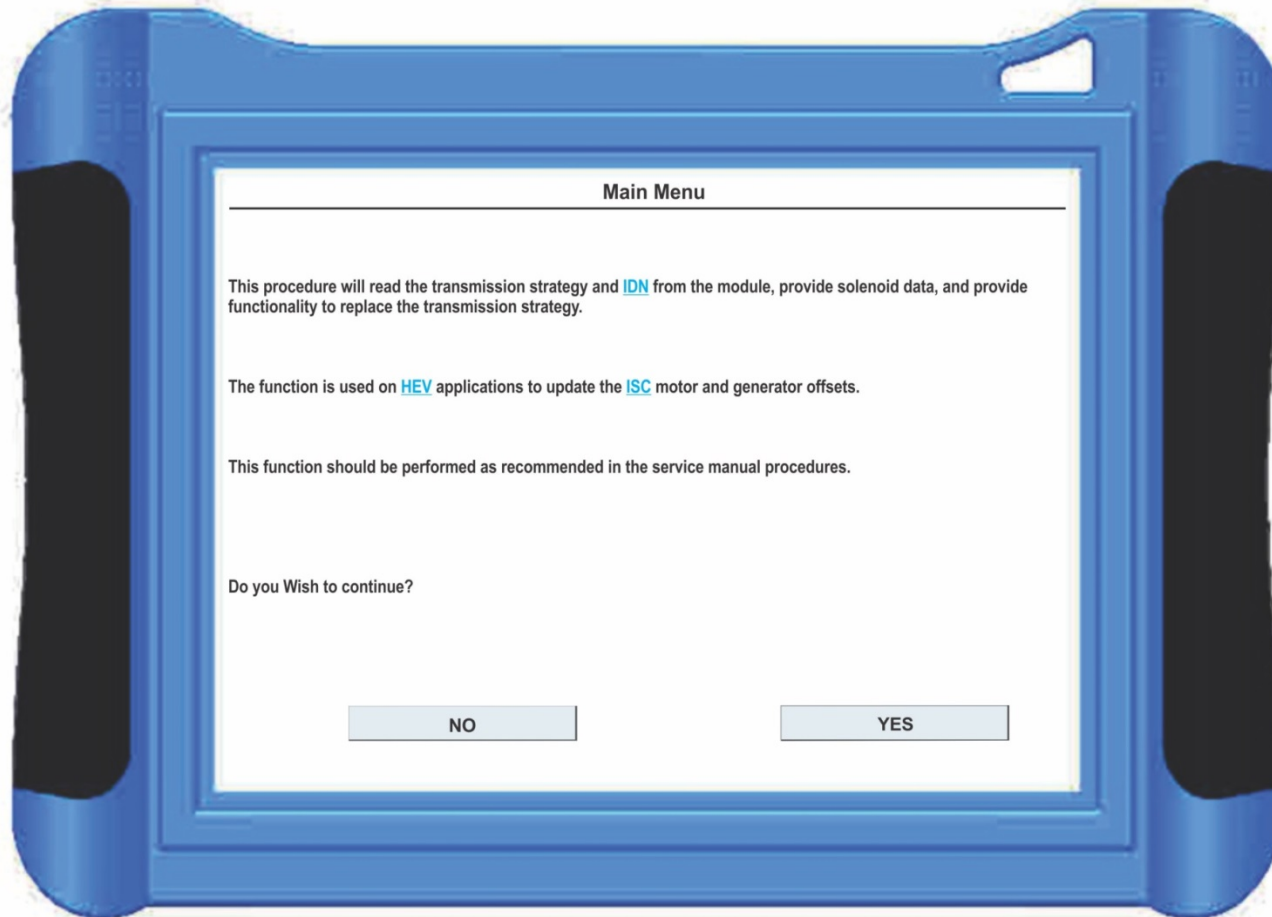
# Ford Solenoid Strategy Process

6R80/6R140



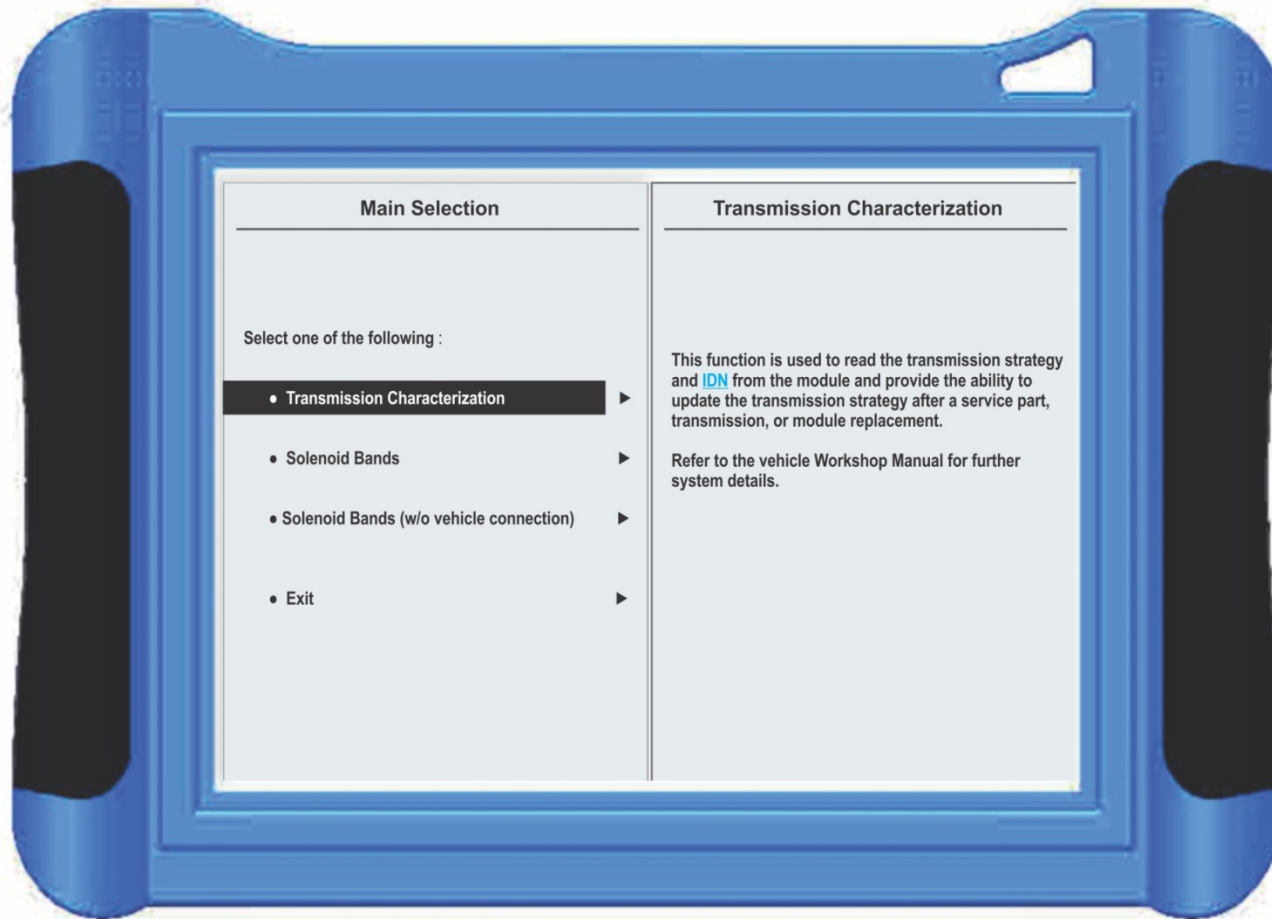
# Ford Solenoid Strategy Process

6R80/6R140



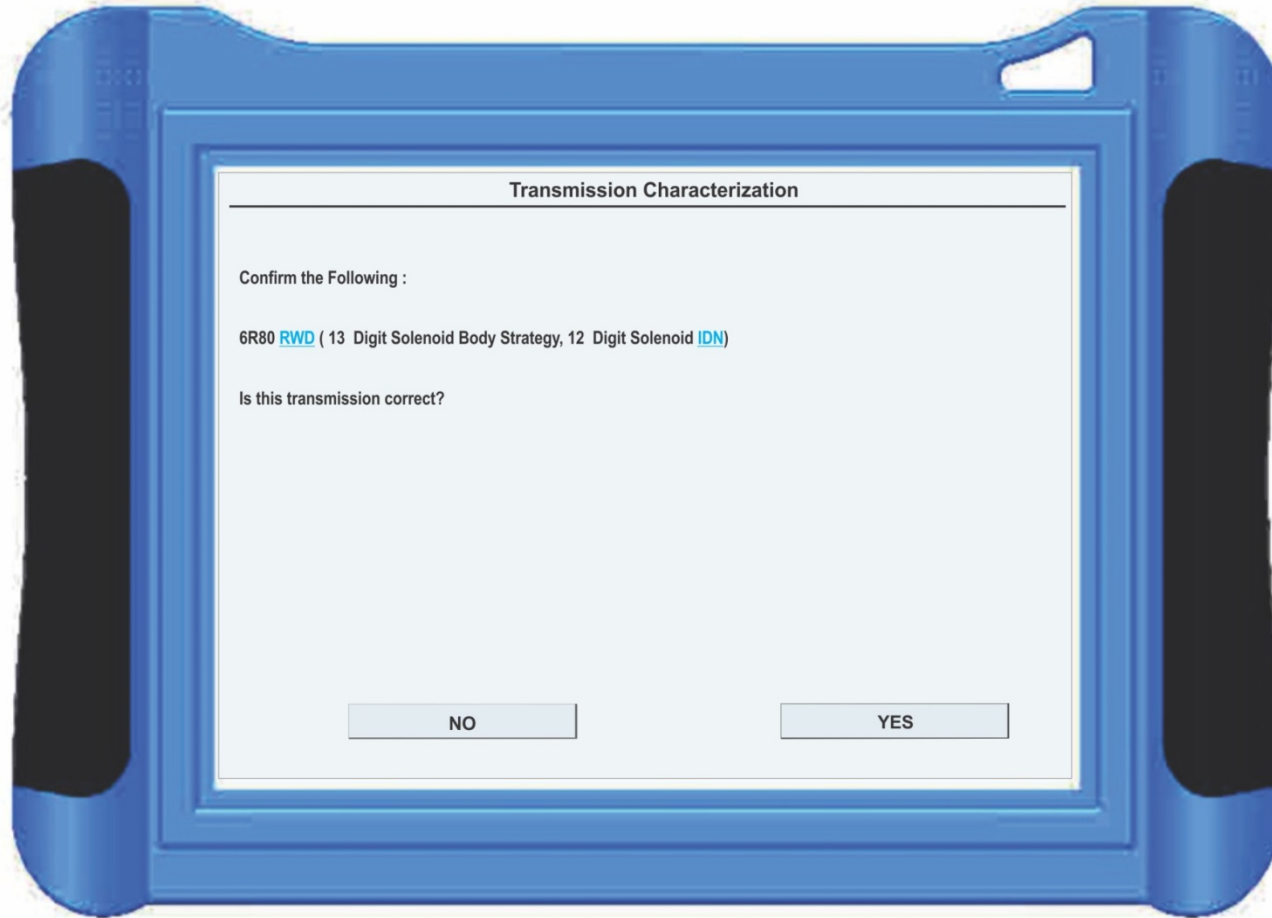
# Ford Solenoid Strategy Process

6R80/6R140



# Ford Solenoid Strategy Process

6R80/6R140



# Ford Solenoid Strategy Process

6R80/6R140

**Transmission Characterization**

The current transmission strategy and IDN are displayed. To update the module data, enter the new transmission strategy and/or IDN. Select update to proceed with update.

Transmission Strategy 1911330113894

Transmission IDN 20A22256AF15

Note :

Select the information button for additional information.

The transmission IDN and strategy should match the service tag on the transmission.

If the tag on the 6F or 6R transmission is missing, damaged, or if the strategy of IDN does not match the tag it may be necessary to remove the main control cover and obtain the IDN and strategy information from the solenoid body.

# Performing a Drive Cycle

6F35

After downloading the solenoid strategy file, a drive cycle should be performed to relearn the transmission adaptive values.

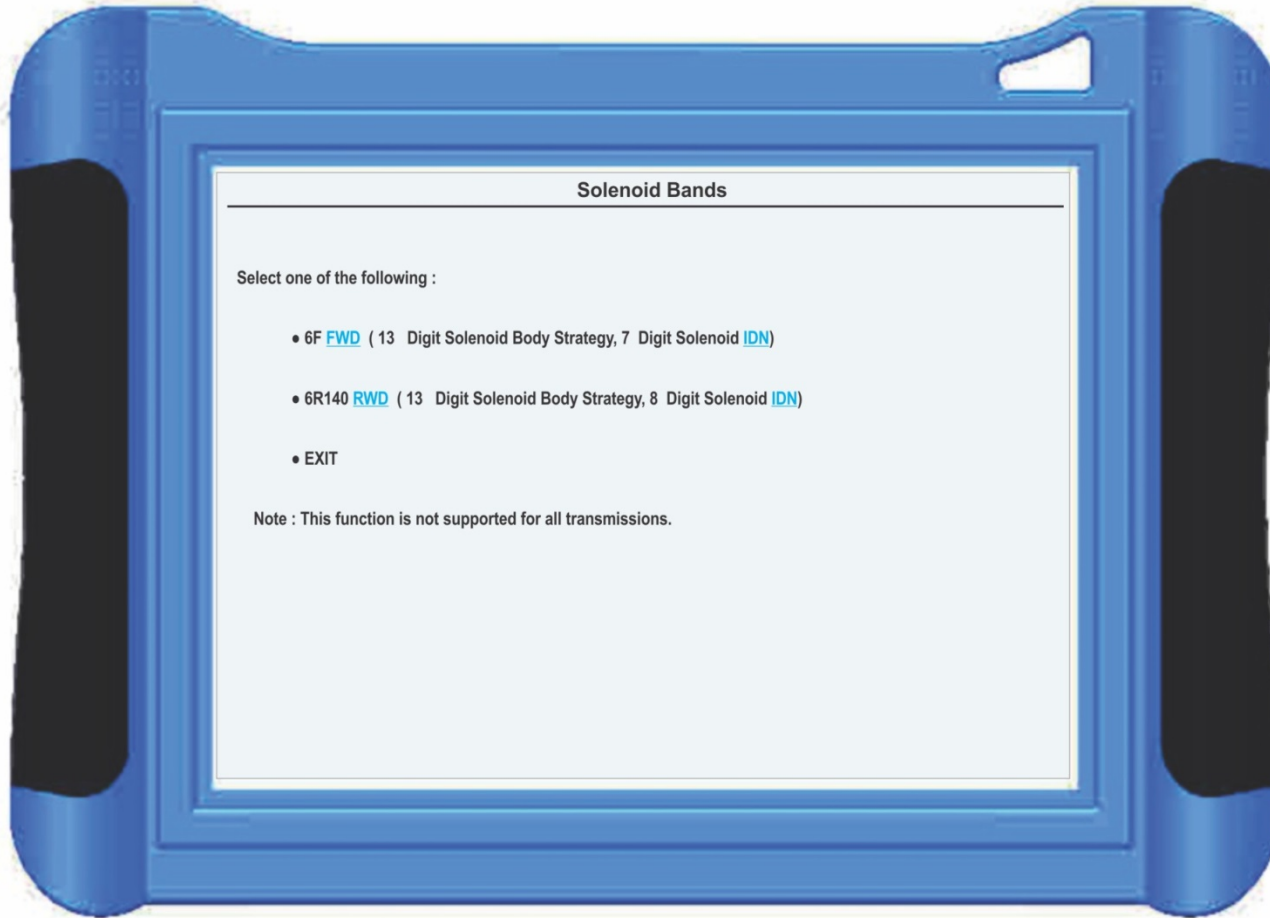
- Engine running, operating temperature.
- Move the shift selector between Neutral and Reverse, Neutral and Drive pausing between each position for 4 seconds. Repeat the pattern at least 2 more times or until the shift quality is acceptable.
- Place the transmission into Drive, accelerate at moderate throttle up to 50mph, brake lightly to a stop. Repeat the pattern at least 2 more times or until the shift quality is acceptable.
- Repeat step 1.
- Accelerate from a stop to 25 mph, release the throttle, shift the transmission to L range and coast to less than 10 mph. Repeat the pattern at least 2 more times or until shift quality is acceptable.



# Locating Solenoid Banding Numbers

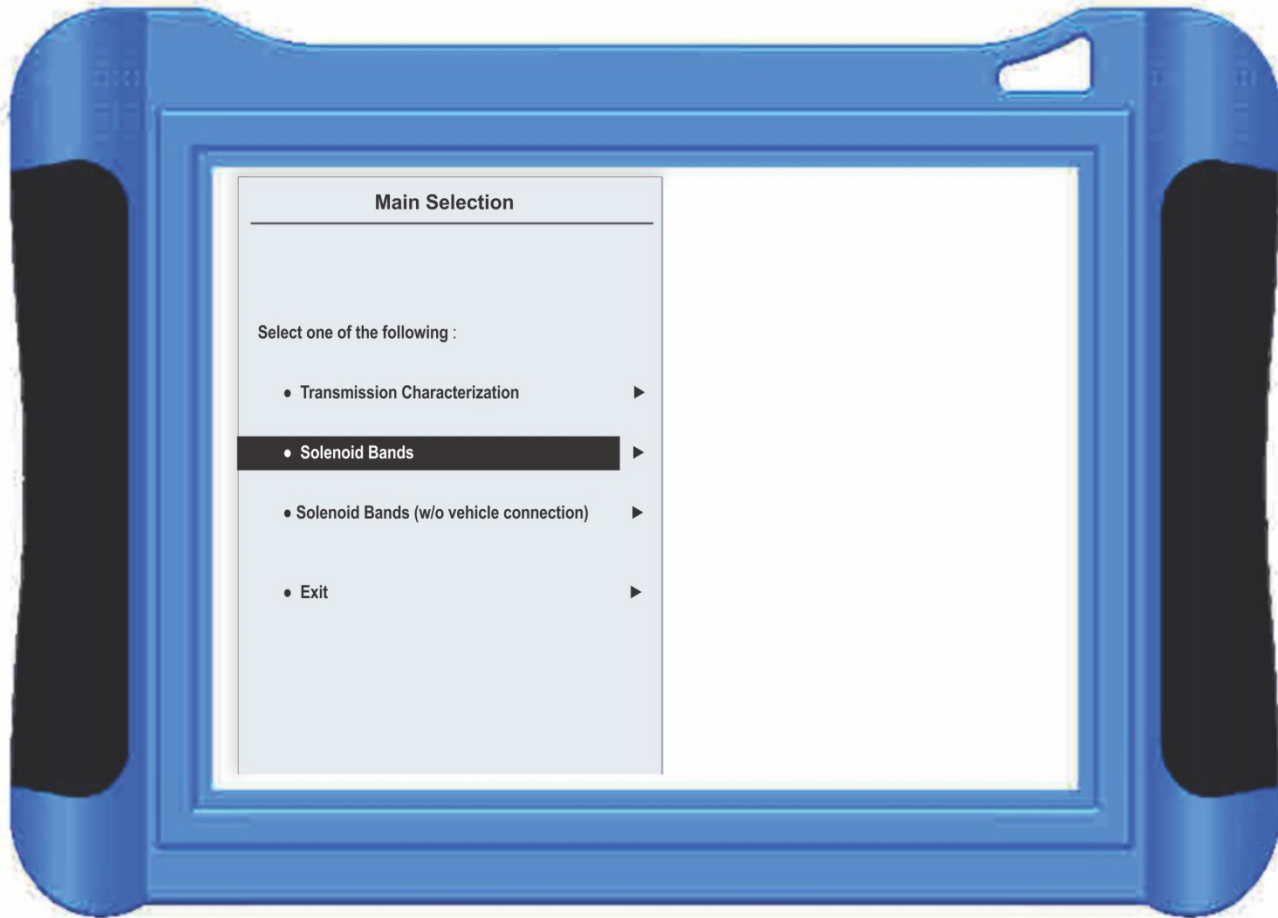
# Locating Solenoid Banding Numbers

6R80/6R140



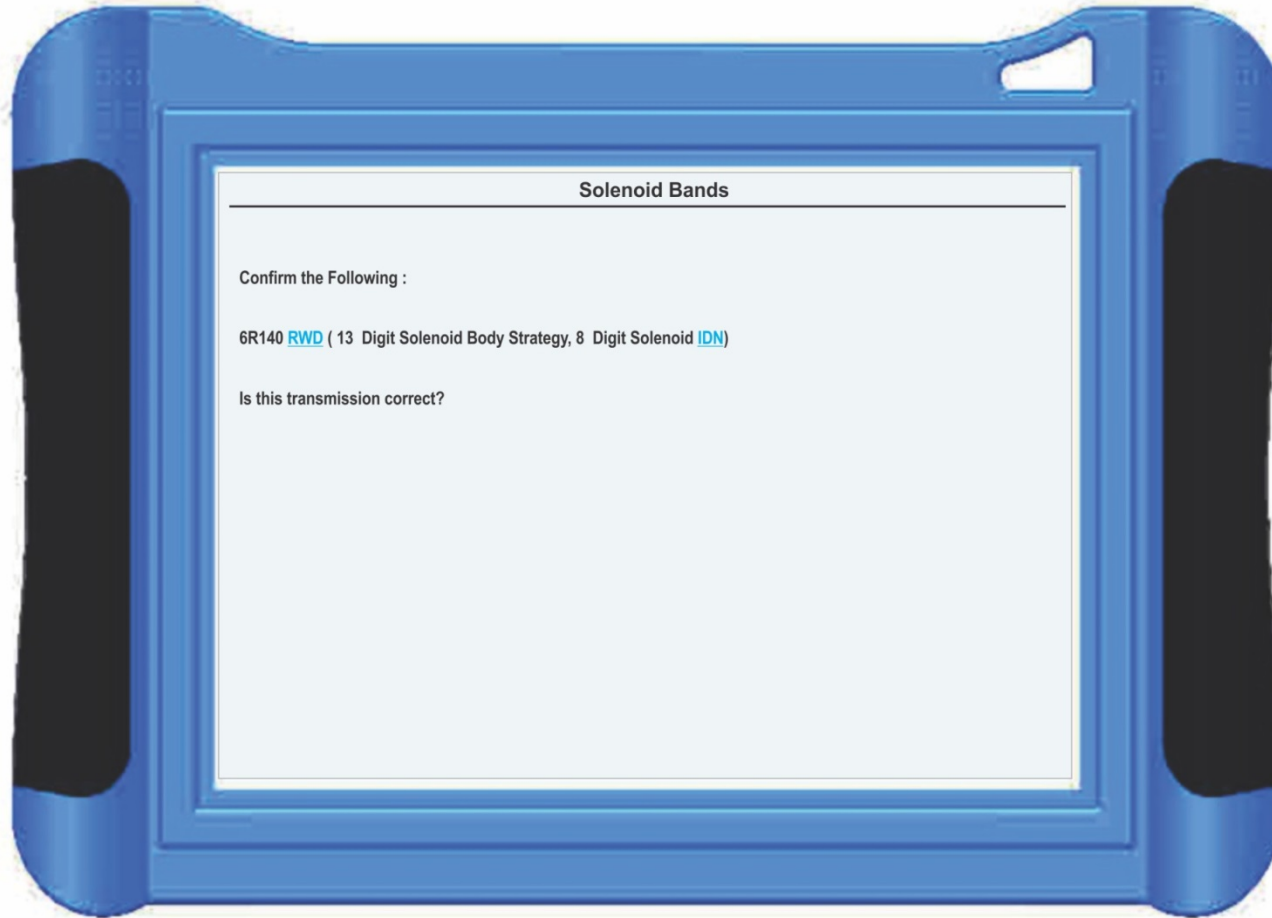
# Solenoid Banding Numbers

6R140



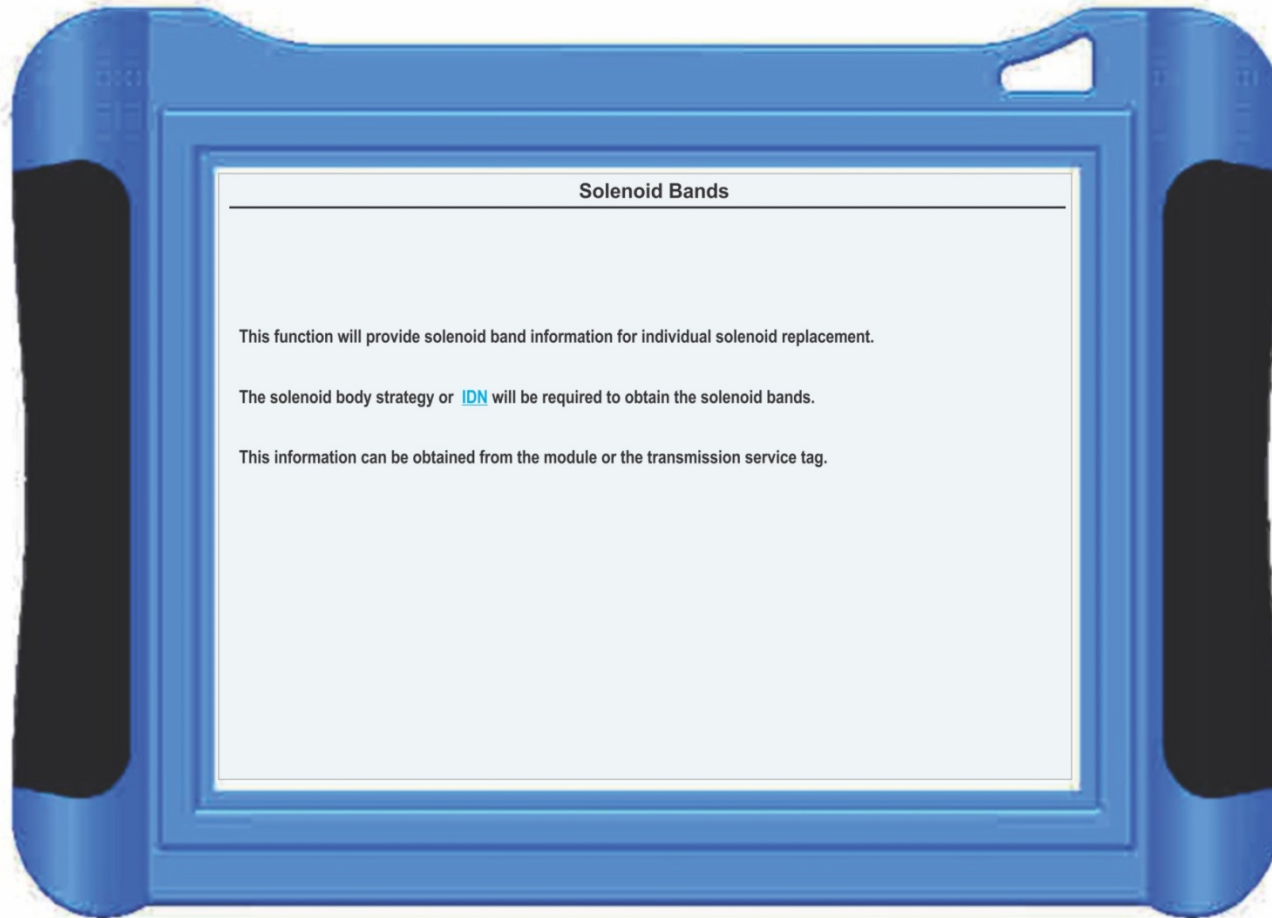
# Solenoid Banding Numbers

6R140



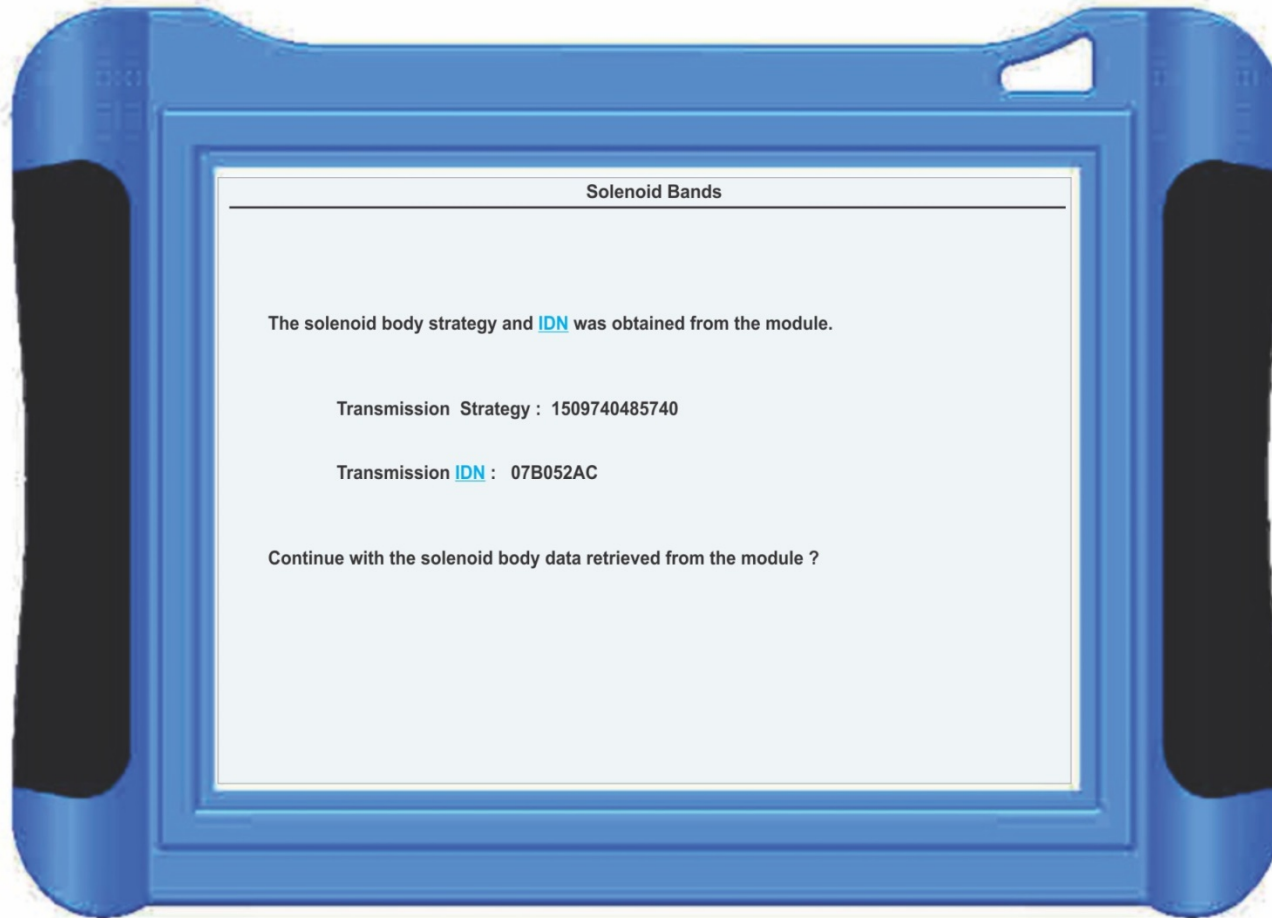
# Solenoid Banding Numbers

6R140



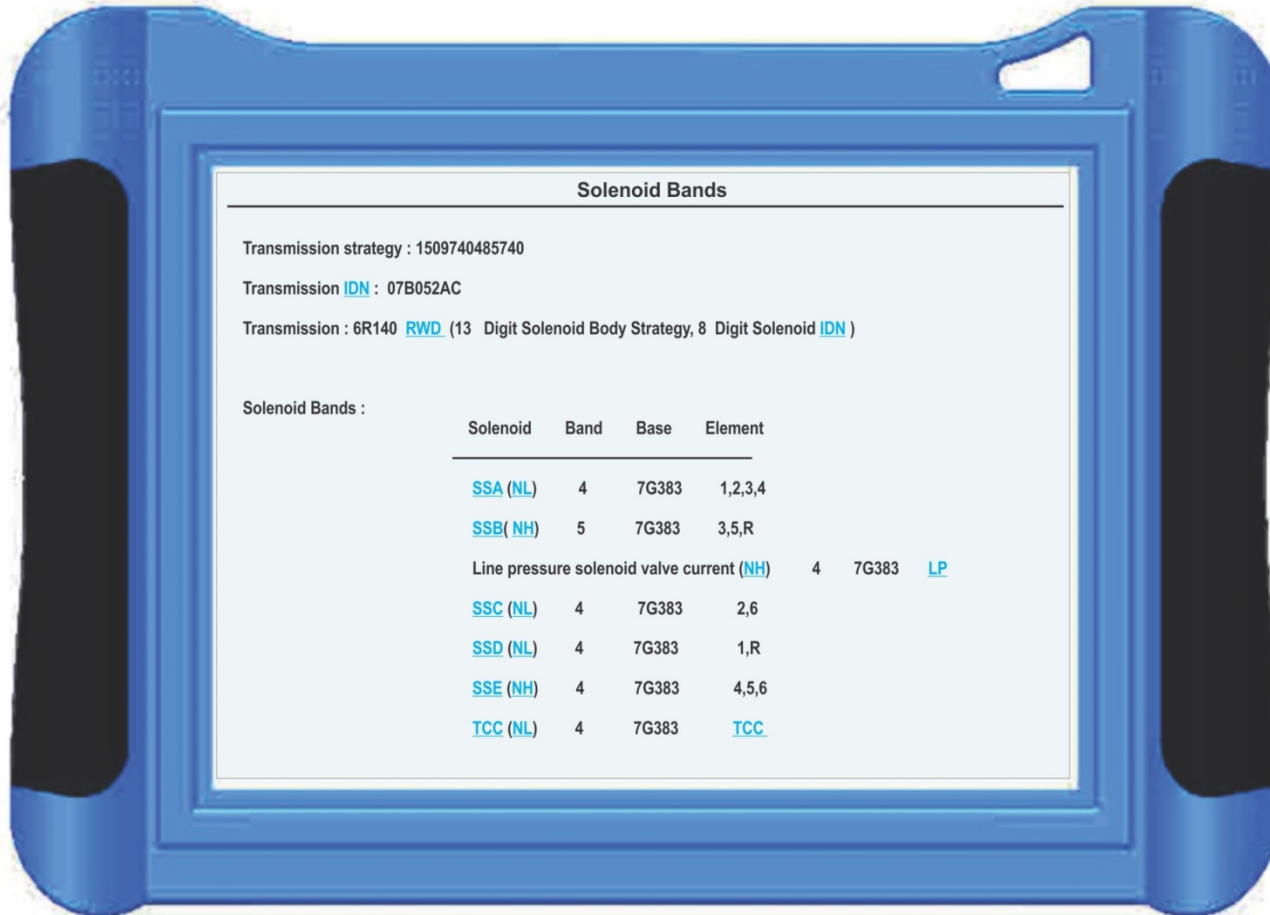
# Solenoid Banding Numbers

6R140



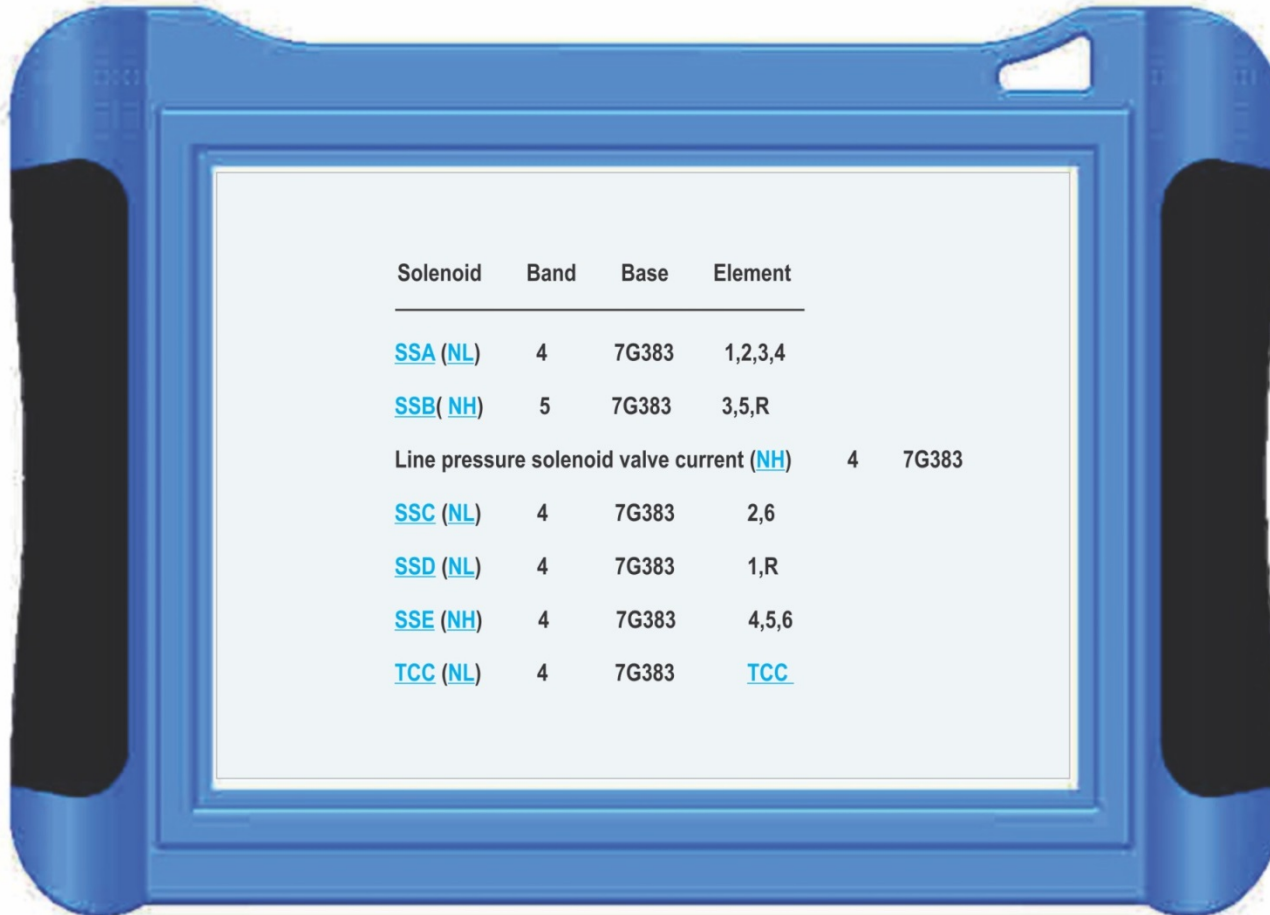
# Solenoid Banding Numbers

6R140



# Solenoid Banding Numbers

6R140

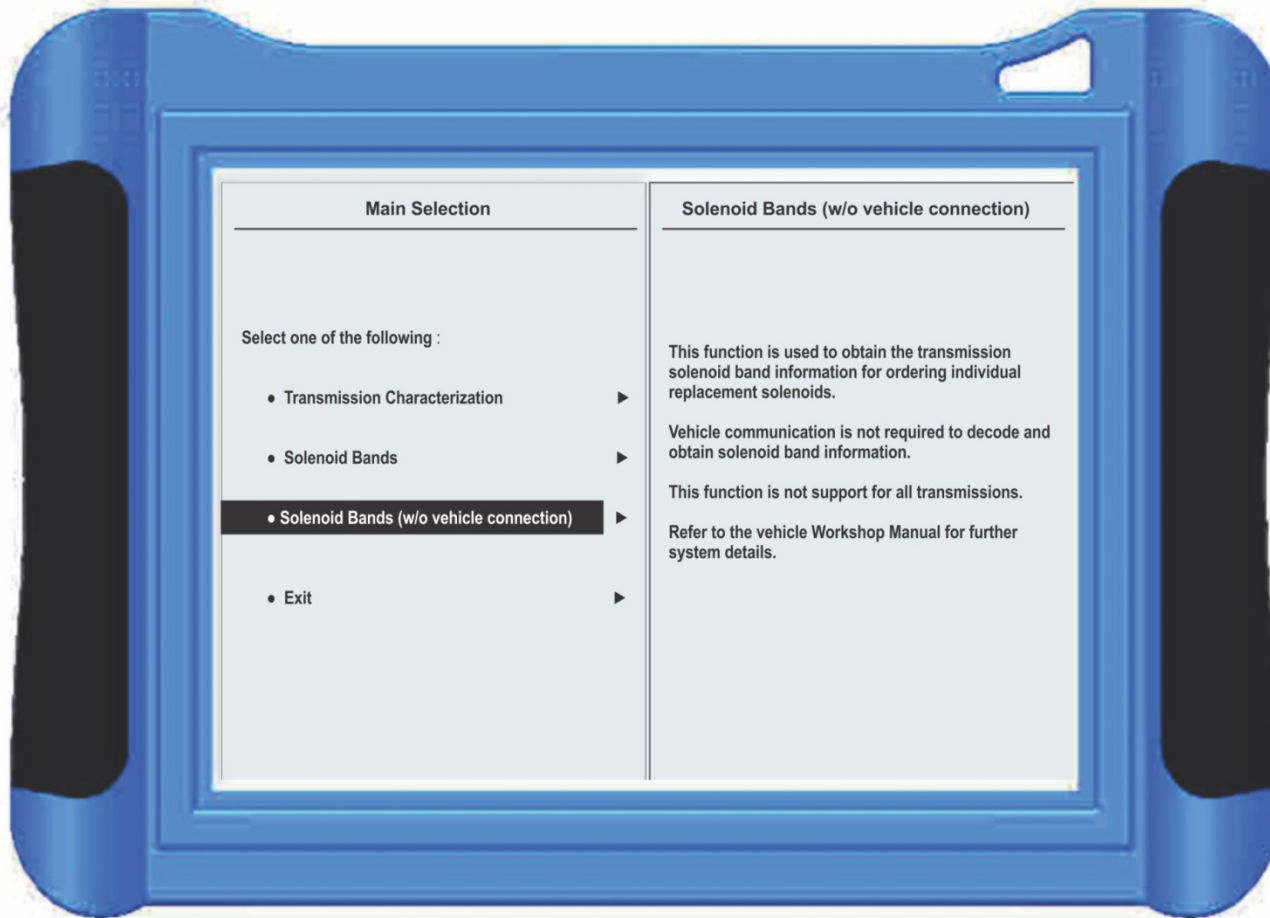


Solenoid	Band	Base	Element
<a href="#">SSA (NL)</a>	4	7G383	1,2,3,4
<a href="#">SSB (NH)</a>	5	7G383	3,5,R
Line pressure solenoid valve current ( <a href="#">NH</a> )			4 7G383
<a href="#">SSC (NL)</a>	4	7G383	2,6
<a href="#">SSD (NL)</a>	4	7G383	1,R
<a href="#">SSE (NH)</a>	4	7G383	4,5,6
<a href="#">TCC (NL)</a>	4	7G383	<a href="#">TCC</a>



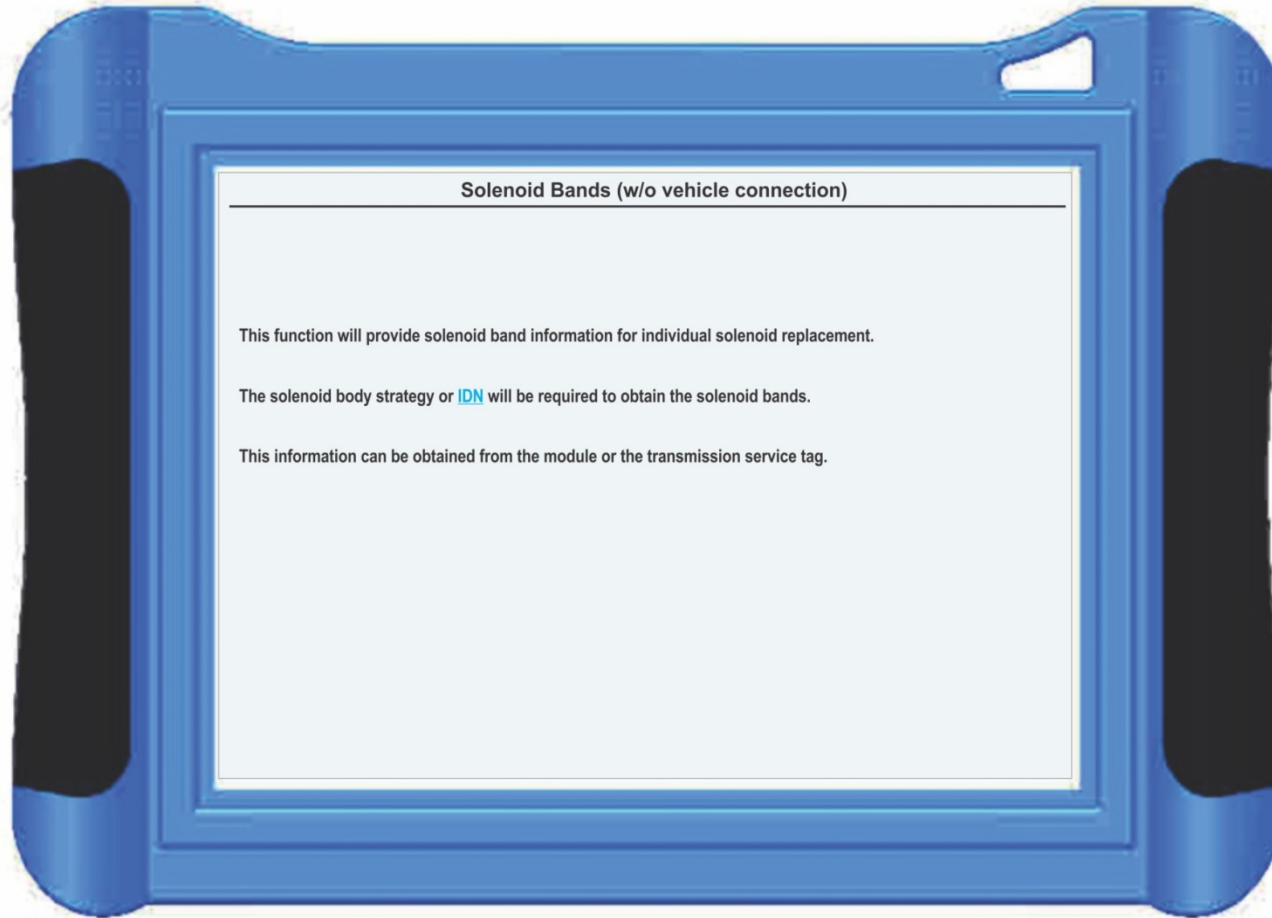
# Solenoid Banding Numbers

6F35



# Solenoid Banding Numbers

6F35



# Solenoid Banding Numbers

6F35

Solenoid Bands (w/o vehicle connection)

Enter the Solenoid body strategy or [IDN](#) to obtain solenoid band information.

6F Transmission 7 Digit [IDN](#) :

6R Transmission 8 Digit [IDN](#) :

6F or 6R Transmission 13 Digit Strategy :

Note : Entering a solenoid body strategy will require a internet connection or access to [PTS](#).

Note : Select the information button for additional information.

# Solenoid Banding Numbers

6F35

Solenoid Bands (w/o vehicle connection)

Enter the Solenoid body strategy or [IDN](#) to obtain solenoid band information.

6F Transmission 7 Digit [IDN](#) :

6R Transmission 8 Digit [IDN](#) :

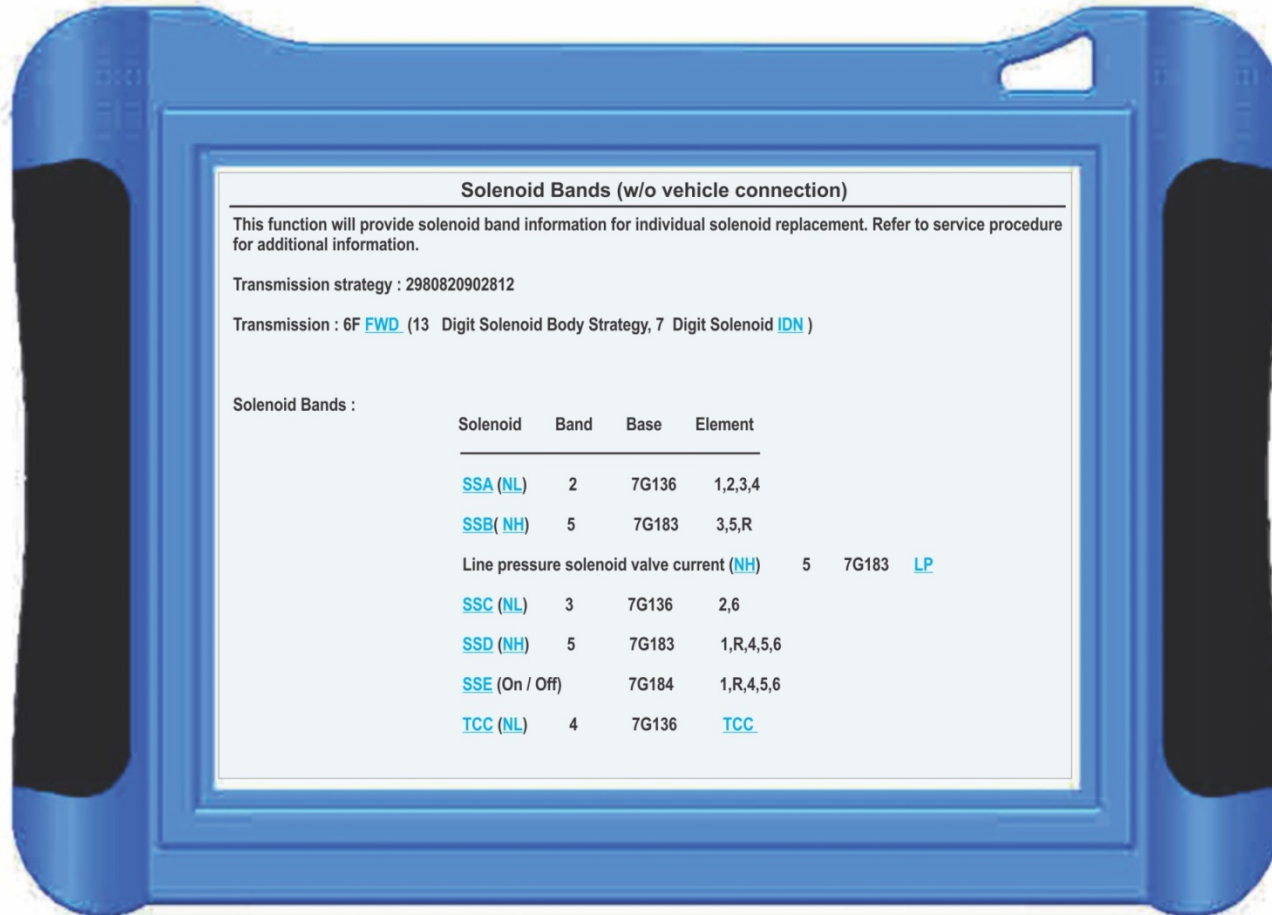
6F or 6R Transmission 13 Digit Strategy :

Note : Entering a solenoid body strategy will require a internet connection or access to [PTS](#).

Note : Select the information button for additional information.

# Solenoid Banding Numbers

6F35

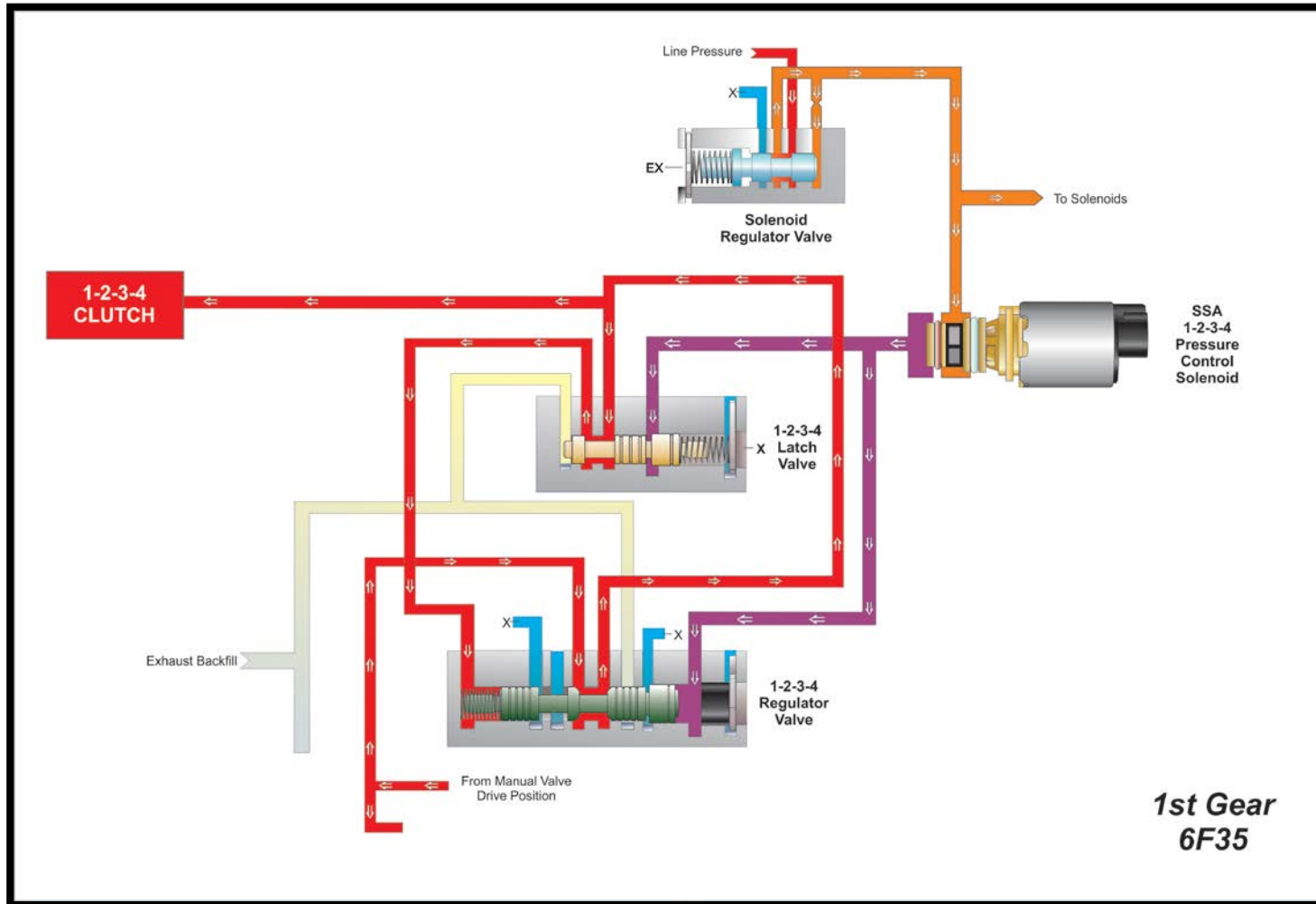


# Misleading Solenoid Issues

Some valves can mislead you into thinking the problem is solenoid related

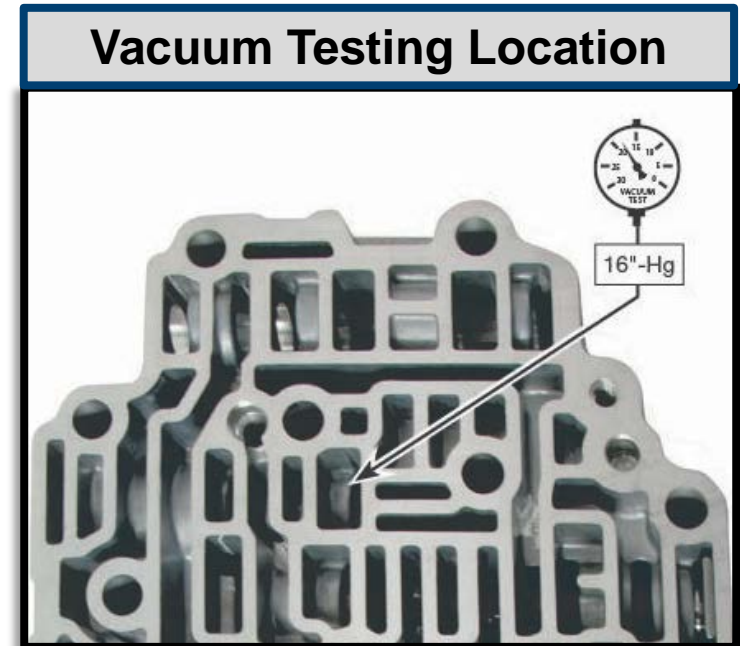
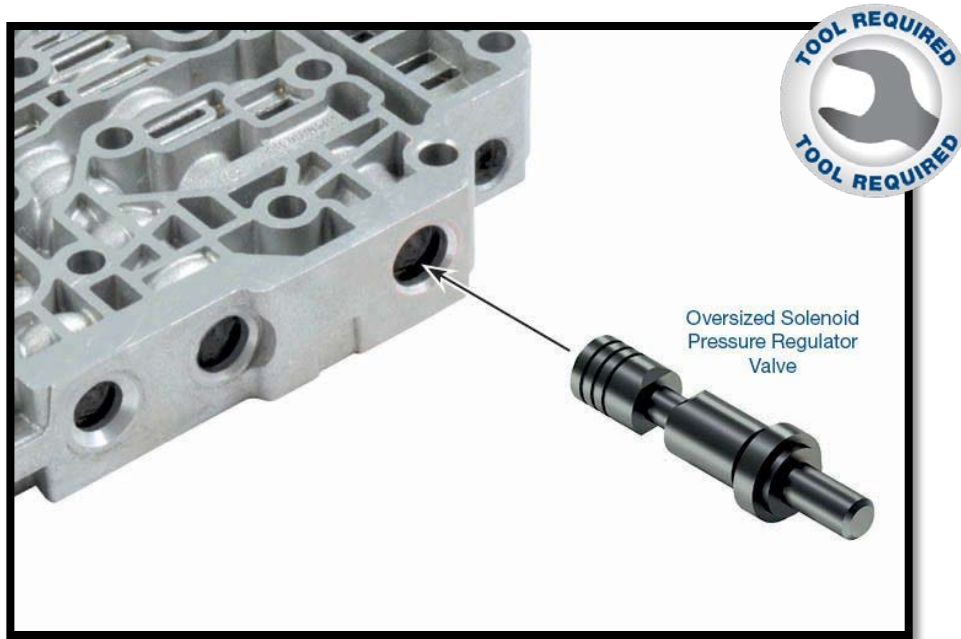
- **Solenoid Regulator/AFL**
- **Clutch Regulator and Clutch Control Valves**
- **Clutch Latching Valves**

# Ford Solenoid Regulator/AFL



# 6F35 AFL Valve

Part No. 144740A-01



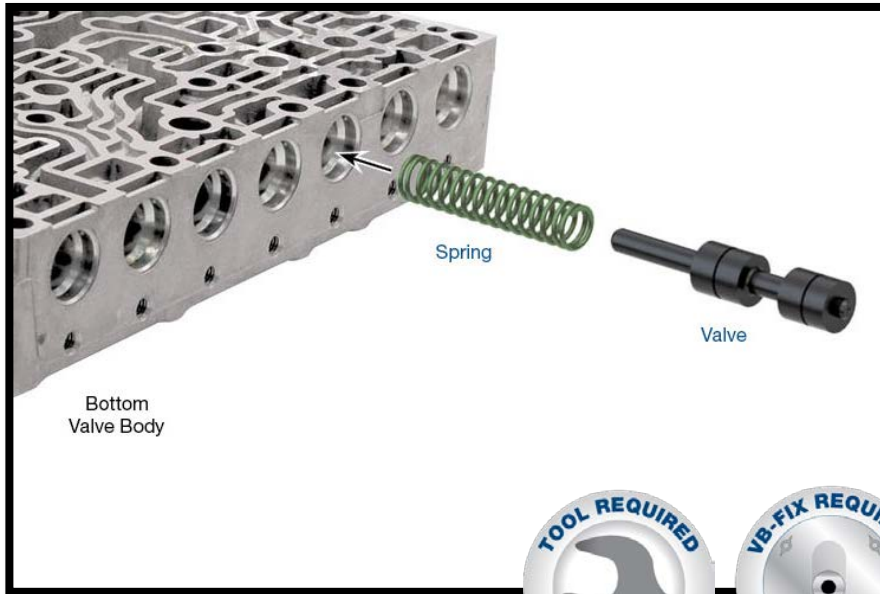
**Requires Tool Kit**  
144740-TL

**Note: Download or print complete vacuum test guides at [www.sonnax.com](http://www.sonnax.com).**

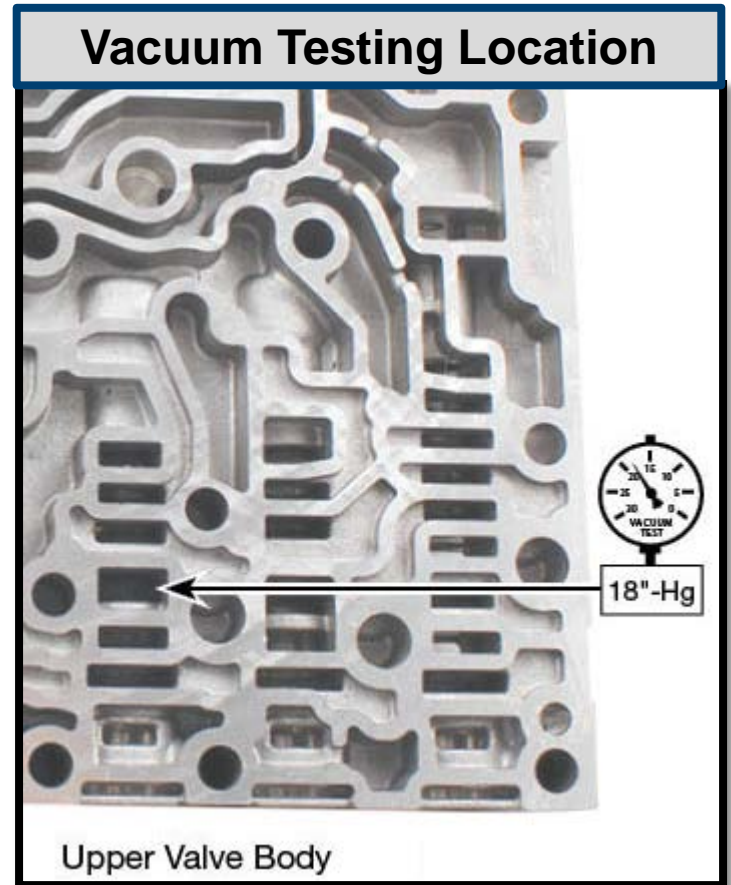


# 6R140 Forward Clutch Latch Valve

Part No. 126740-06K

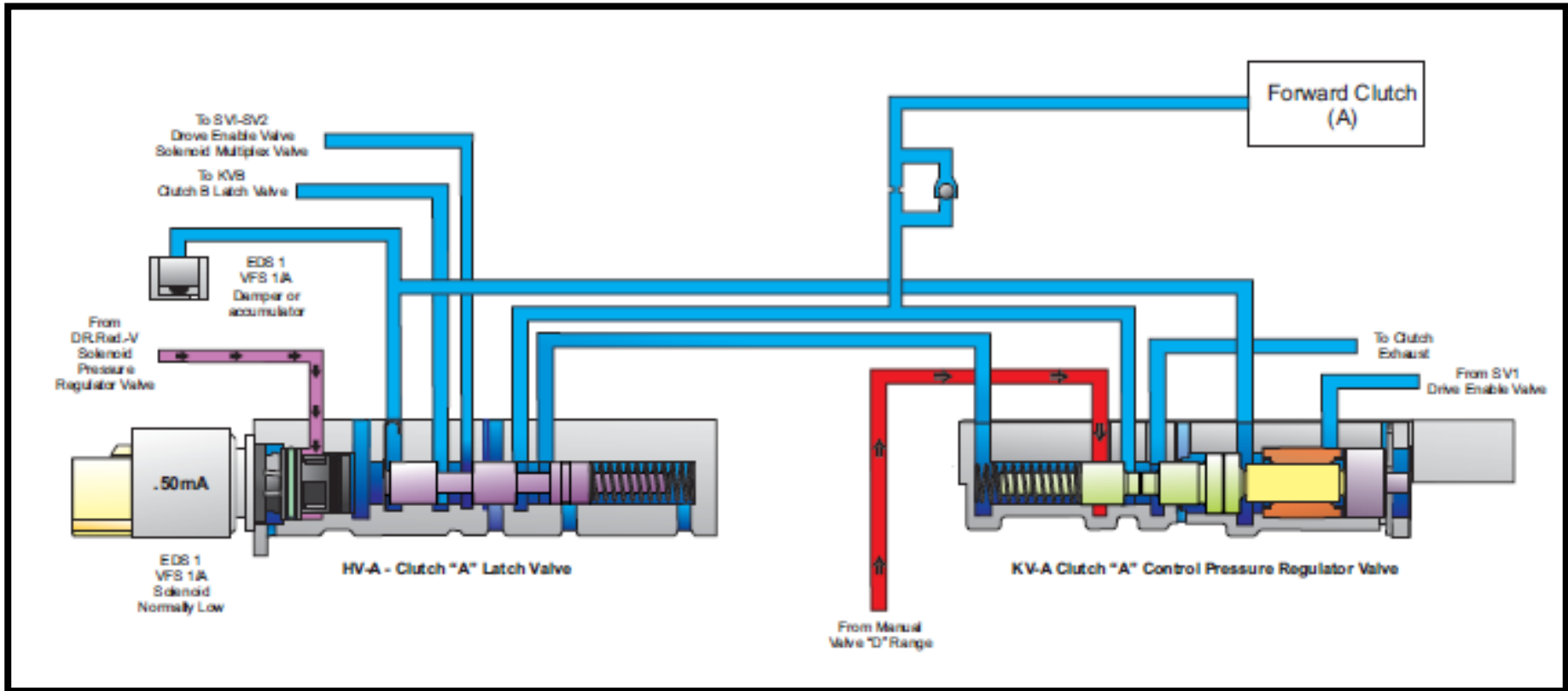


Requires Tool Kit  
F-126740-TL6



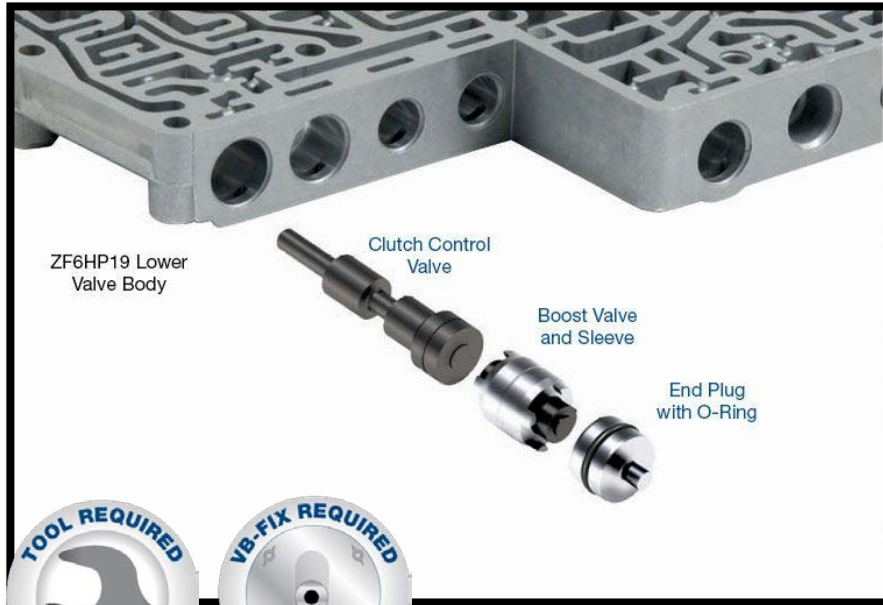
# Forward Clutch Latch Valve

6R60

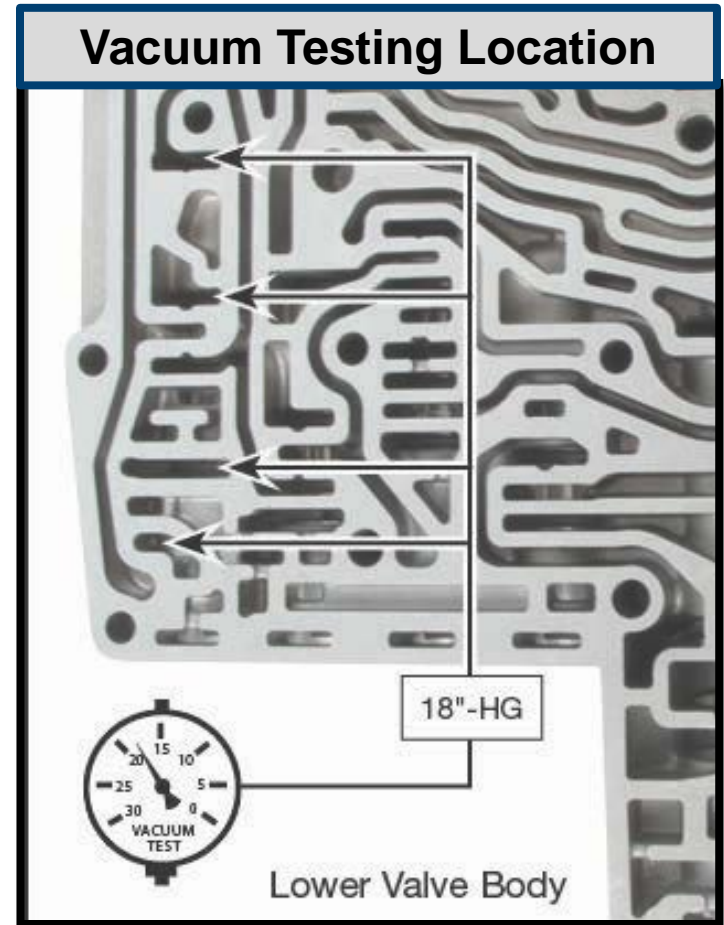


# 6R80 Clutch A Control Valve

Part No. 95740-09K

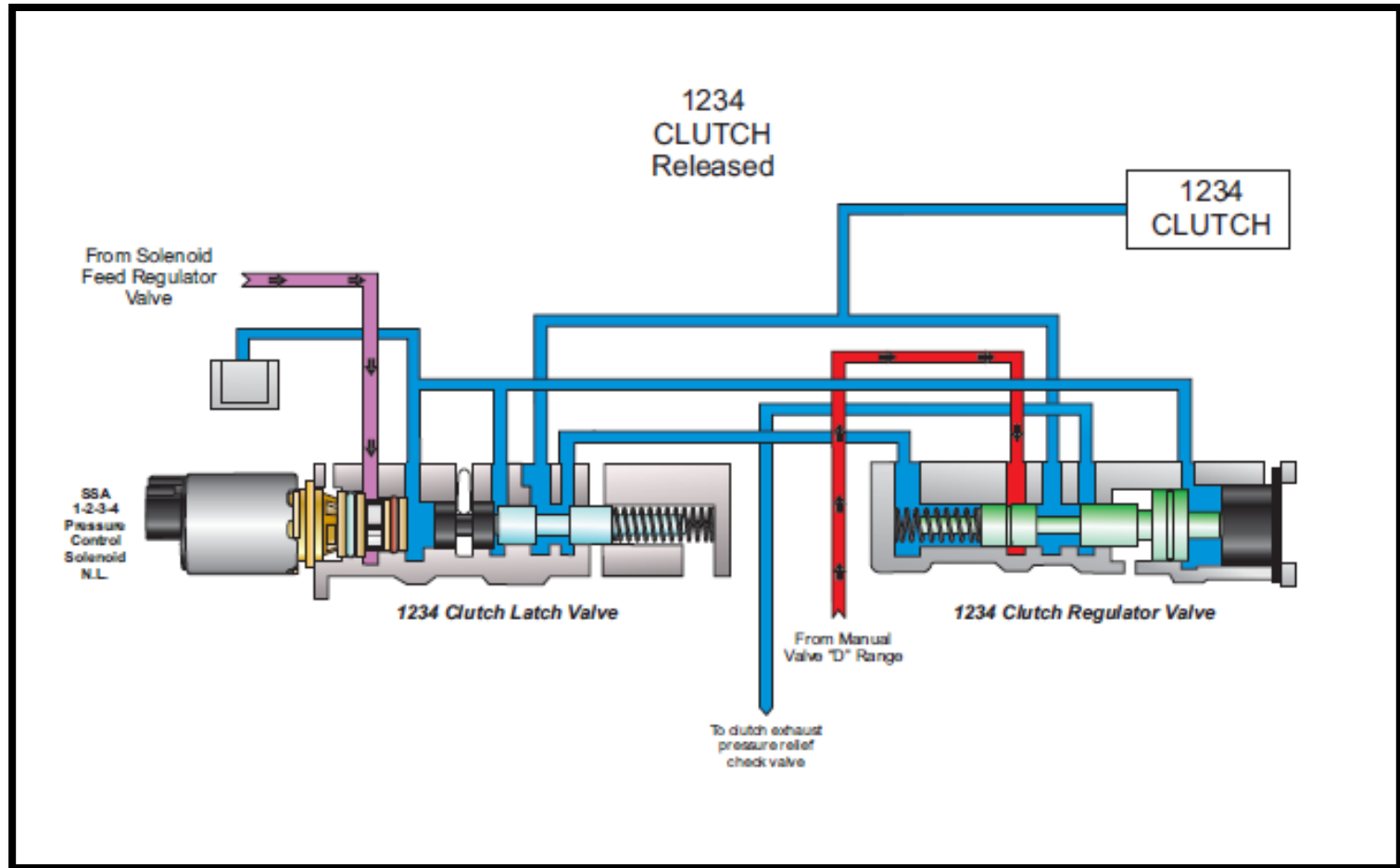


**Requires Tool Kit**  
F-95740-TL8



# Clutch Regulator Control Valve

6R140



# AFL/Solenoid Regulator Valves

	124740-01 Oversized AFL/Solenoid Pressure Regulator Valve	6F50/55	F-104740-TL12
	95740-17K Oversized AFL/Solenoid Pressure Regulator Valve	6R60/80	F-95740-TL17

## Latching Valves

	126740-06K Oversized Forward Clutch Latch Valve Kit	6R140	F-126740-TL6
	144740-23 Oversized Clutch Boost/Latch Valve	6F50	F-144740-TL22
	144740-21 Oversized Clutch Latch Valve	6F35	F-144740-TL21

# Clutch Control Valves

	<p>126740-11K Oversized Direct Clutch Regulator Valve Kit</p>	<p>6R140</p>	<p>F-126740-TL1</p>
	<p>95740-09K Oversized Clutch A Control Valve Kit</p>	<p>6R80</p>	<p>F-95740-TL8</p>
	<p>95740-08K Oversized Clutch D1/E Control Valve Kit</p>	<p>6R80</p>	<p>F-95740-TL8</p>
	<p>124740-26K Oversized 3-5-R Clutch Regulator Valve Kit <i>1.35 Ratio</i></p>	<p>6F50</p>	<p>F-124740-TL26</p>
	<p>124740-21K Oversized 3-5-R Clutch Regulator Valve Kit <i>1.83 Ratio</i></p>	<p>6F50</p>	<p>F-124740-TL21</p>
	<p>124740-17K Oversized 2-6 Clutch Regulator Valve Kit</p>	<p>6F50</p>	<p>F-124740-TL17</p>

# Additional Resources

- **FREE Online Sonnax Tech Resources**  
**[www.sonnax.com](http://www.sonnax.com)**
- **Sonnax Tech Support**  
**(800) 843-2600 or**  
**(802) 463-9722 ext. 398**  
**8:30 a.m. to 7:00 p.m. ET, Mon - Fri**  
**[sonnaxtechsupport@sonnax.com](mailto:sonnaxtechsupport@sonnax.com)**

Thank You  
QUESTIONS?





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# Viewer Questions, Comments & Answers

- **Q: What do the terms 'NL' and 'NH' mean?**  
**A:** They refer to the flow from the solenoid with it in the off position: NL=Low PSI Output and NH=High PSI Output.
- **Q: Can I identify the solenoid strategy without the tag?**  
**A:** Yes, with the use of your scan tool.
- **C: 6R80 does not have scan tool (IDS) ability to identify solenoid banding and location, like 6R140, due to production camera installation.**  
**A:** That used to be the case, but as of last month, the software was updated to allow you to access the solenoid banding numbers with your scan tool.
- **C: 6R60 and 6R75 do not offer individual solenoid sale; you must get the entire control mechatronic. Only the 7G484 on/off is sold (2010 and earlier).**  
**A:** Good-to-know information.