THM 3T40 (125C)

VALVE BODY IDENTIFICATION AND PRESSURE SWITCH IDENTIFICATION

VALVE BODY NUMBER ONE:

Valve Body Number One and the auxiliary valve body that goes with it, are illustrated in Figure 1, and were used in 1982-1983 models. Most models used only the two terminal 3rd clutch switch and it was not used in all models. Refer to Figure 8 for 3rd clutch switch usage by model. Some of these models also used a governor switch screwed into the auxiliary valve body to control the converter clutch application, which requires a governor pressure passage drilled in the main valve body and the auxiliary valve body. This model auxiliary valve body also used an orificed cup plug in the channel behind the lock-up solenoid, to orifice line pressure down to a value that the solenoid could exhaust. This auxiliary valve body also has shift TV oil routed to the converter clutch regulator valve, which requires a shift TV pressure passage drilled in the main valve body. This valve body and auxiliary valve body combination is recommended for use only on 1982-1983 model vehicles. Refer to Figure One.

VALVE BODY NUMBER TWO:

Valve Body Number Two and the auxiliary valve body that goes with it, are illustrated in Figure 2, and were used in 1984-1986 and partial 1987 models. Most models used only the two terminal 3rd clutch switch and it was not used in all models. Refer to Figure 8 for 3rd clutch switch usage by model. Some of these models also used a governor switch screwed into the auxiliary valve body to control the converter clutch application, which requires a governor pressure passage drilled into the main valve body and the auxiliary valve body. The only difference between this valve body and auxiliary valve body combination, and the 1982-1983 version, is the orificed cup plug was removed from behind the lock-up solenoid. This combination requires a different auxiliary valve body cover gasket with a slot to orifice the oil to the solenoid. This valve body and auxiliary valve body combination can be used on 1982-1986 models and any 1987 model that still has the converter clutch regulator valve line-up and shift TV oil fed to the auxiliary valve body. Refer to Figure Two.

VALVE BODY NUMBER THREE:

Valve Body Number Three and the auxiliary valve body that goes with it, are illustrated in Figure 3, and were used in 1988-1989 models and partial 1987 models. Notice that the auxiliary valve body worm track configuration changes drastically, as the previous converter clutch regulator valve was removed and in its place goes a 3-2 Orifice Control Valve line-up. Notice also that the governor passage is now gone in both the main valve body and auxiliary valve body, and in its place is 2nd clutch oil to accommodate the addition of a 2nd clutch switch on some models. These models can use any one of three different 3rd clutch switches. Refer to Figure 8 for 3rd clutch switch and 2nd clutch switch usage by model, and Figures 10 and 11 for switch identification. This combination also requires a different auxiliary valve body cover gasket than number 1 or number 2. Notice also that this was the first year for the screen in the auxiliary valve body for the lock-up solenoid. 1988 was also the first year for a different case connector. Some models used a round case connector instead of the square one. Refer to Figure 8 for case connector usage by model and Figure 12 for case connector identification. This valve body and auxiliary valve body combination can be used on 1988-1989 models and any 1987 model that uses the 3-2 orifice control valve line-up and 2nd clutch pressure fed to the auxiliary valve body. Refer to Figure Three.

VALVE BODY NUMBER FOUR:

Valve Body Number Four and the auxiliary valve body that goes with it, are illustrated in Figure 4, and used in 1988-1989 models and partial 1987 models. The only difference between this combination and valve body number 3 is the orifice cup plug installed in the 2nd clutch oil passage in the main valve body, as shown in Figure 4. This valve body and auxiliary valve body combination should interchange with valve body number 3 without any functional problems. Refer to Figure Four.

VALVE BODY NUMBER FIVE:

Valve Body Number Five and the auxiliary valve body that goes with it, are illustrated in Figure 5, and used in 1990-1993 models. These models use a "Push-In" 3rd clutch switch instead of the screw-in and is a single terminal normally closed switch, which requires a different auxiliary valve body to accommodate the new 3rd clutch switch. Also notice that the auxiliary valve body has an extra passage drilled that the other 1990-Up auxiliary valve bodies that use the screw-in 3rd clutch switch do not have, directly above the round 3rd clutch feed passage. Even with these differences, the 1990-Up valve bodies and auxiliary valve bodies will interchange as long as the correct 3rd clutch switch and 2nd clutch switch are used for the model you are working on. Refer to Figures 8 and 9 for 2nd and 3rd clutch switch usage by model and Figures 10 and 11 for switch identification. Refer to Figures 8 and 9 for case connector usage and Figure 12 for case connector identification. This valve body and auxiliary valve body combination can be used on 1990-Up models as long as proper switch configurations are met. Refer to Figure Five.

VALVE BODY NUMBER SIX:

Valve Body Number Six and the auxiliary valve body that goes with it, are illustrated in Figure 6, and used in 1990-Up models. These models use a "Screw-In" 3rd clutch switch and 2nd clutch switch that are model sensitive. Refer to Figures 8 and 9 for 2nd and 3rd clutch switch usage by model and Figures 10 and 11 for switch identification. This valve body and auxiliary valve body combination can be used on 1990-Up models as long as proper switch configurations are met. Refer to Figure Six.

VALVE BODY NUMBER SEVEN:

Valve Body Number Seven and the auxiliary valve body that goes with it, are illustrated in Figure 7, and used in 1990-Up models. These models use a "Screw-In" 3rd clutch switch and 2nd clutch switch that are model sensitive. Also notice that the passage next to the 2nd clutch passage in the main valve body that normally carries 3rd clutch oil has not been drilled into the direct clutch passage, however we still have 3rd clutch oil fed to the auxiliary valve body through the small round hole. Refer to Figures 8 and 9 for 2nd and 3rd clutch switch usage by model and Figures 10 and 11 for switch identification. This valve body and auxiliary valve body combination can be used on 1990-Up models as long as proper switch configurations are met. Refer to Figure Seven.

INTERCHANGE CHART

	Auxiliary V.B. No. 1	*Auxiliary V.B. No. 2*	*Auxiliary V.B. No. 3*	*Auxiliary V.B. No. 4*	*Auxiliary V.B. No. 5*	*Auxiliary V.B. No. 6*	*Auxiliary V.B. No. 7*
Valve Body No. 1	***YES***	***YES***	***NO***	***NO***	***NO***	***NO***	***NO***
Valve Body No. 2	***NO***	***YES***	***NO***	***NO***	***NO***	***NO***	***NO***
Valve Body No. 3	***NO***	***NO***	***YES***	***YES***	***NO***	***NO***	***NO***
Valve Body No. 4	***NO***	***NO***	***YES***	***YES***	***NO***	***NO***	***NO***
Valve Body No. 5	***NO***	***NO***	***NO***	***NO***	***YES***	***YES***	***YES***
Valve Body No. 6	***NO***	***NO***	***NO***	***NO***	***YES***	***YES***	***YES***
Valve Body No. 7	***NO***	***NO***	***YES***	***YES***	***YES***	***YES***	***YES***

VALVE BODY NUMBER ONE

USED 1982-1983

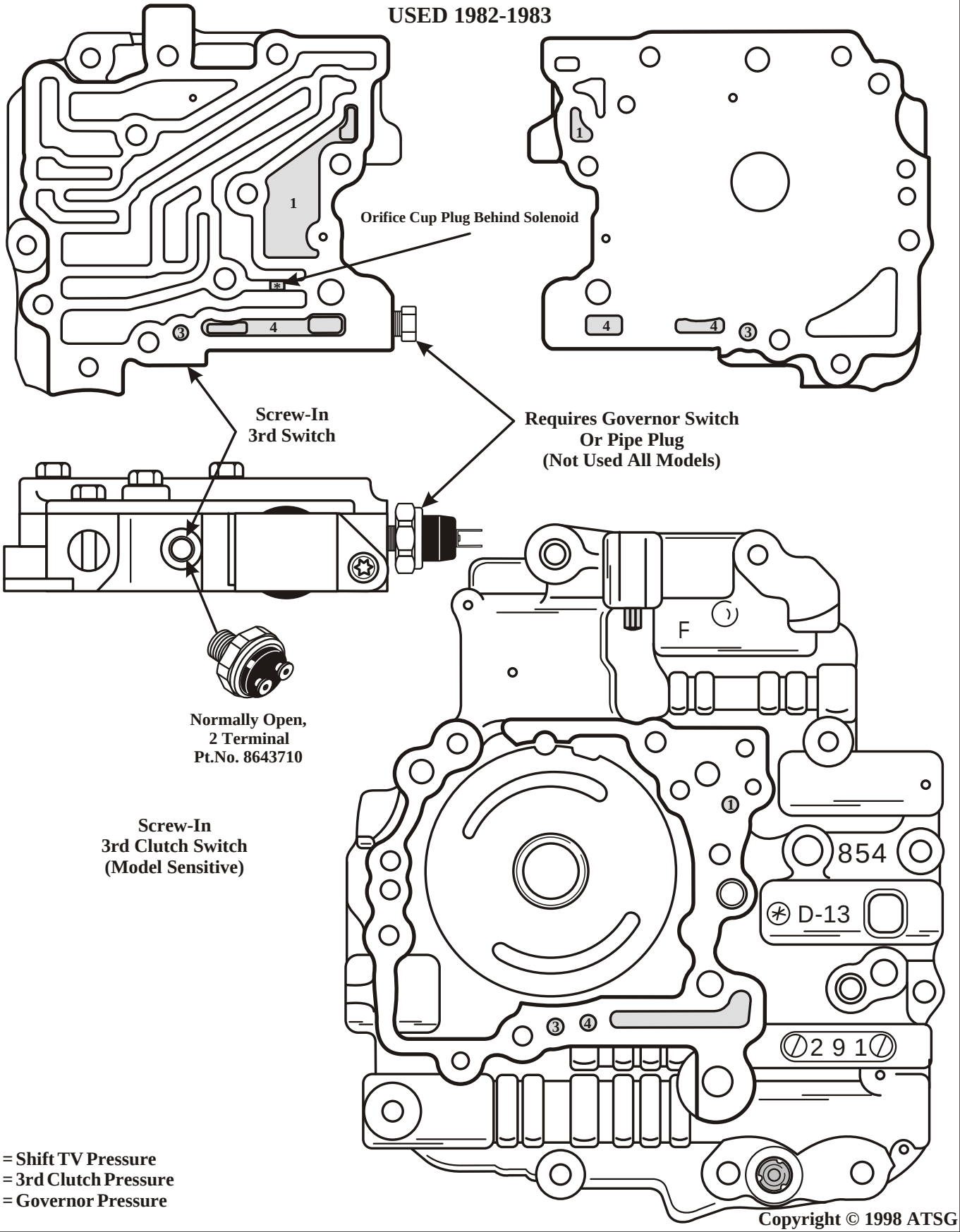

Figure 1

VALVE BODY NUMBER TWO
USED 1984-1987

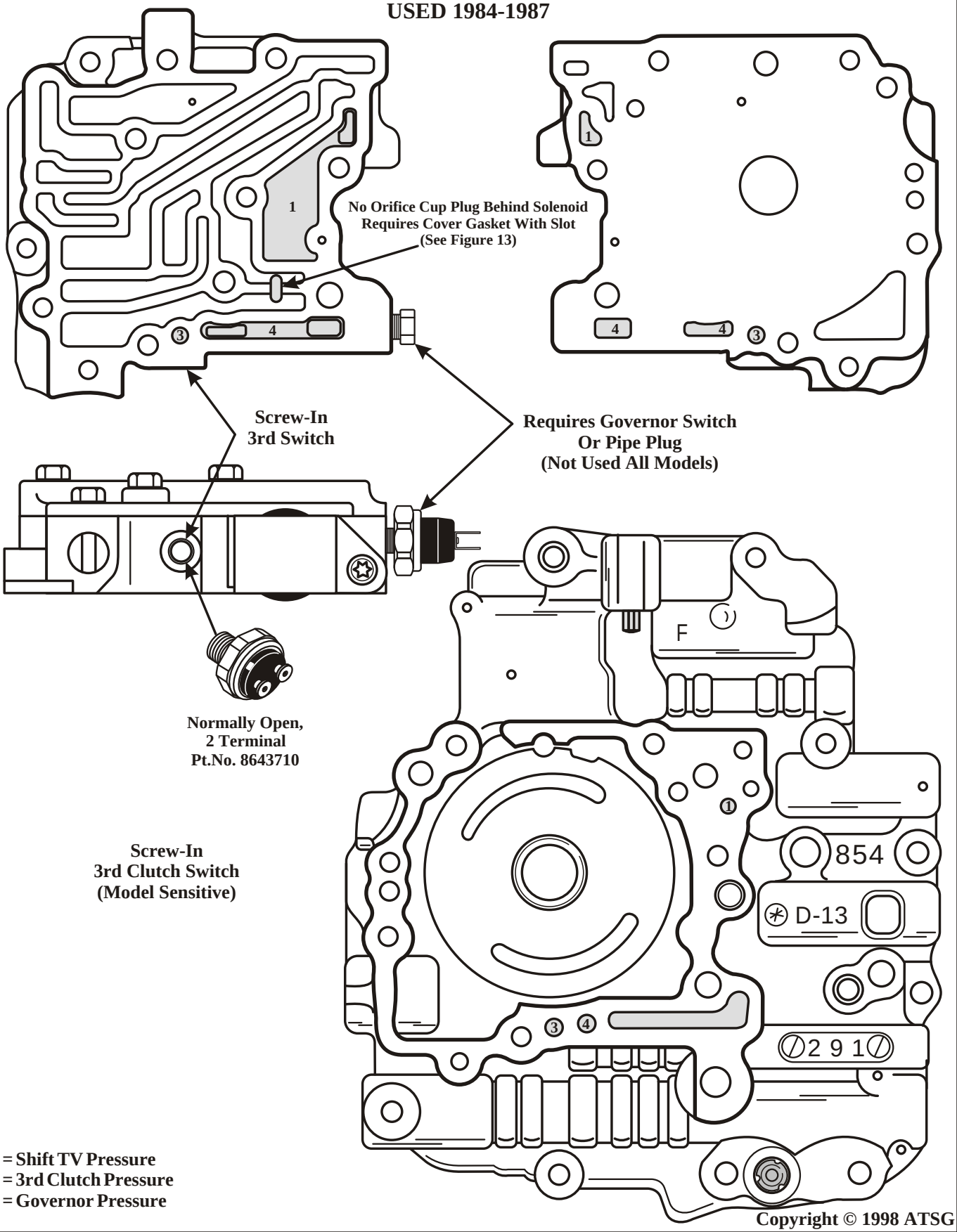

Figure 2

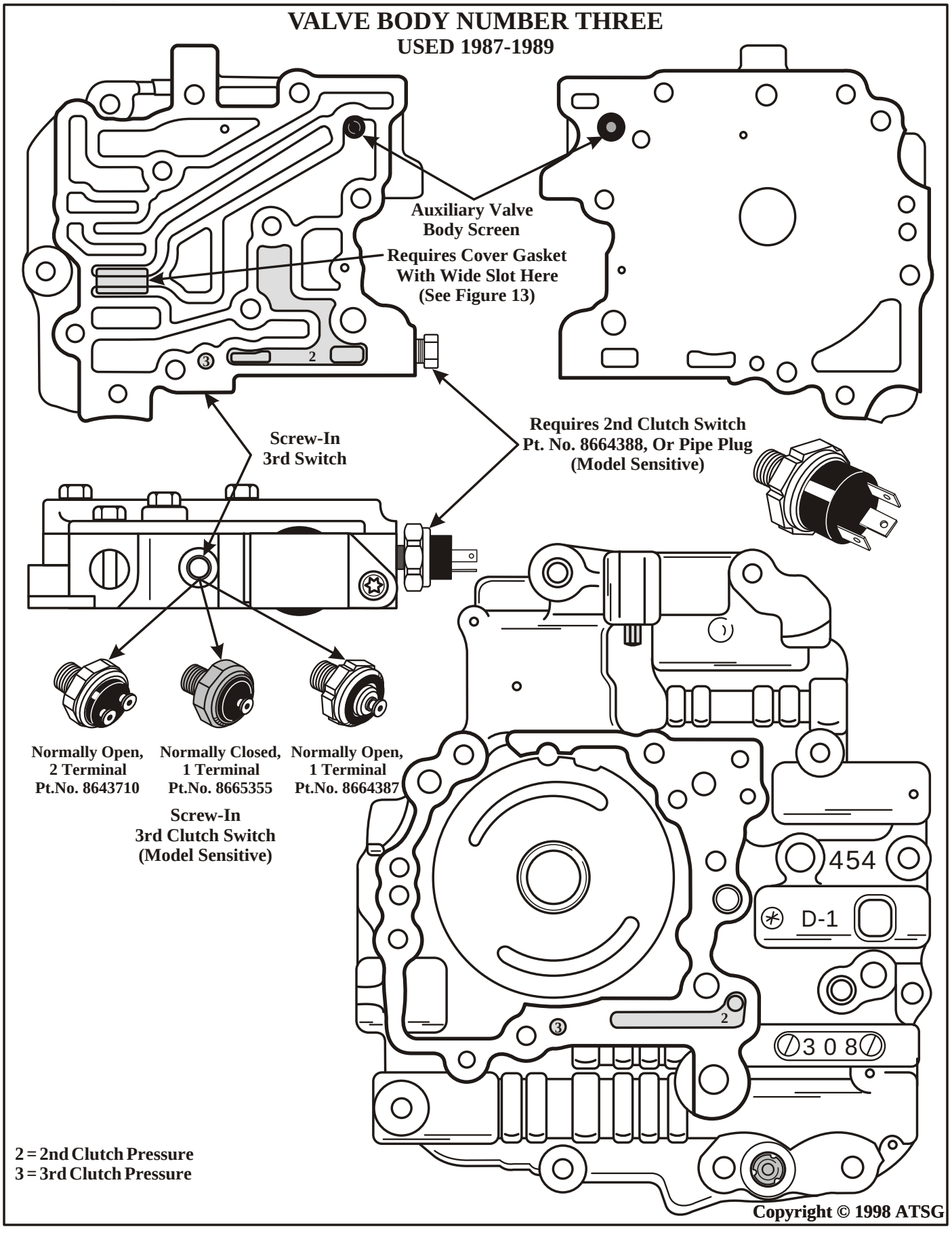
VALVE BODY NUMBER THREE
USED 1987-1989
Auxiliary Valve Body Screen
Requires Cover Gasket With Wide Slot Here (See Figure 13)
Screw-In 3rd Switch
Requires 2nd Clutch Switch Pt. No. 8664388, Or Pipe Plug (Model Sensitive)
Normally Open, 2 Terminal Pt.No. 8643710
Normally Closed, 1 Terminal Pt.No. 8665355
Normally Open, 1 Terminal Pt.No. 8664387
Screw-In 3rd Clutch Switch (Model Sensitive)
454
D-1
3 0 8
2 = 2nd Clutch Pressure
3 = 3rd Clutch Pressure
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Figure 3

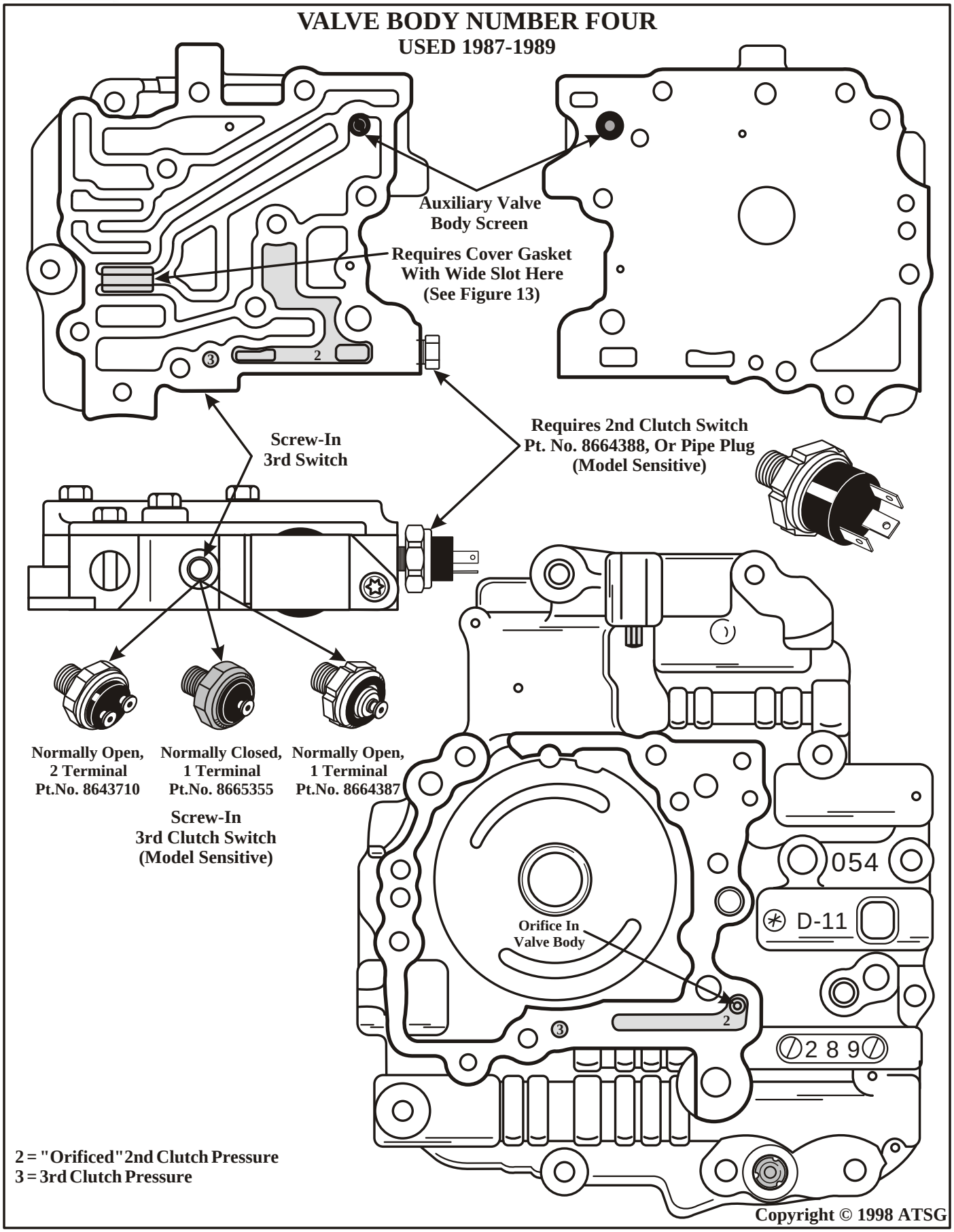
VALVE BODY NUMBER FOUR
USED 1987-1989
Auxiliary Valve Body Screen
Requires Cover Gasket With Wide Slot Here (See Figure 13)
Screw-In 3rd Switch
Requires 2nd Clutch Switch Pt. No. 8664388, Or Pipe Plug (Model Sensitive)
Normally Open, 2 Terminal Pt.No. 8643710
Normally Closed, 1 Terminal Pt.No. 8665355
Normally Open, 1 Terminal Pt.No. 8664387
Screw-In 3rd Clutch Switch (Model Sensitive)
Orifice In Valve Body
2 = "Orificed" 2nd Clutch Pressure
3 = 3rd Clutch Pressure
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Figure 4

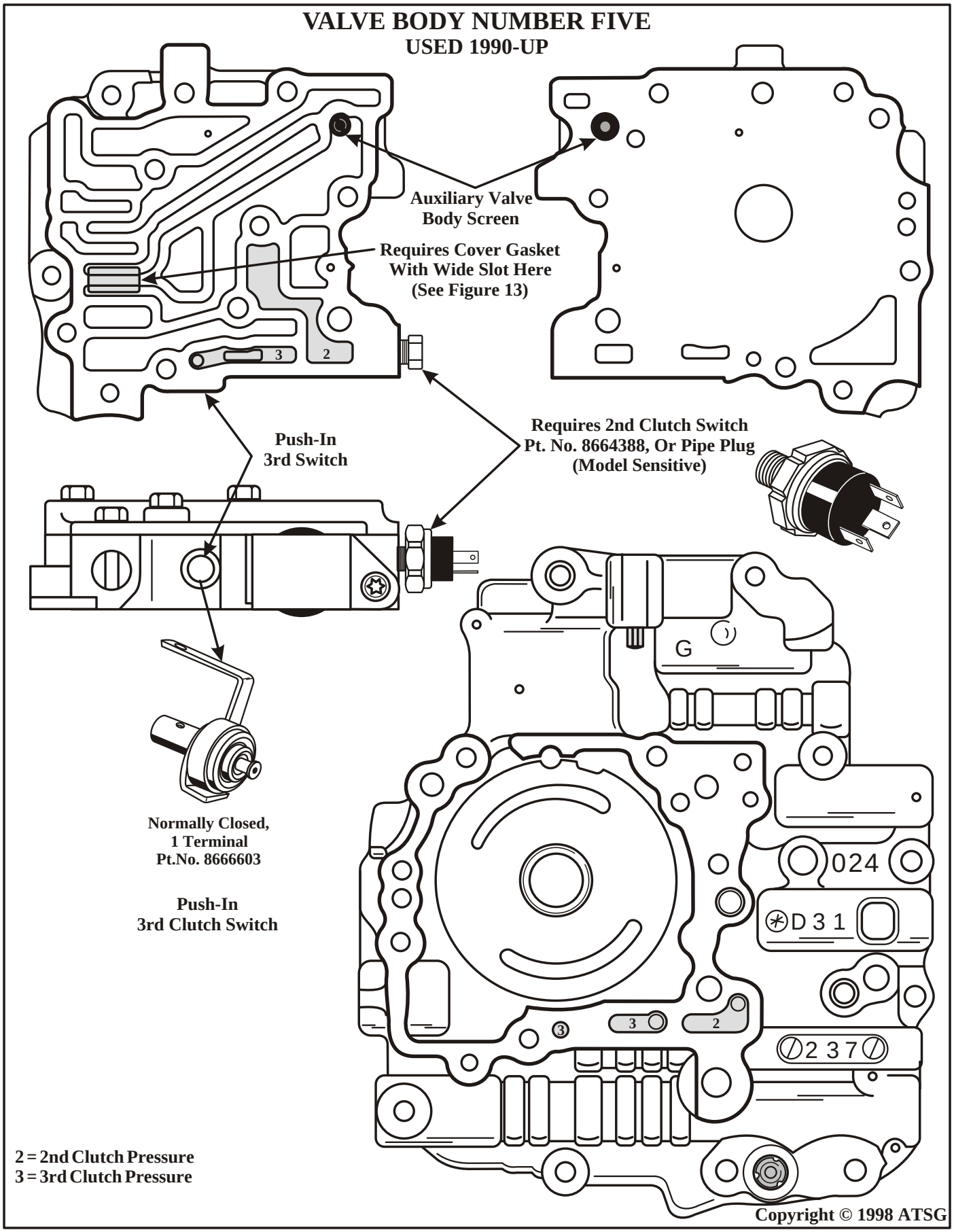

VALVE BODY NUMBER FIVE
USED 1990-UP
Auxiliary Valve Body Screen
Requires Cover Gasket With Wide Slot Here (See Figure 13)
3
2
Push-In 3rd Switch
Requires 2nd Clutch Switch Pt. No. 8664388, Or Pipe Plug (Model Sensitive)
Normally Closed, 1 Terminal Pt.No. 8666603
Push-In 3rd Clutch Switch
G
024
D 3 1
3
2
2 3 7
2 = 2nd Clutch Pressure
3 = 3rd Clutch Pressure
Copyright © 1998 ATSG

Figure 5

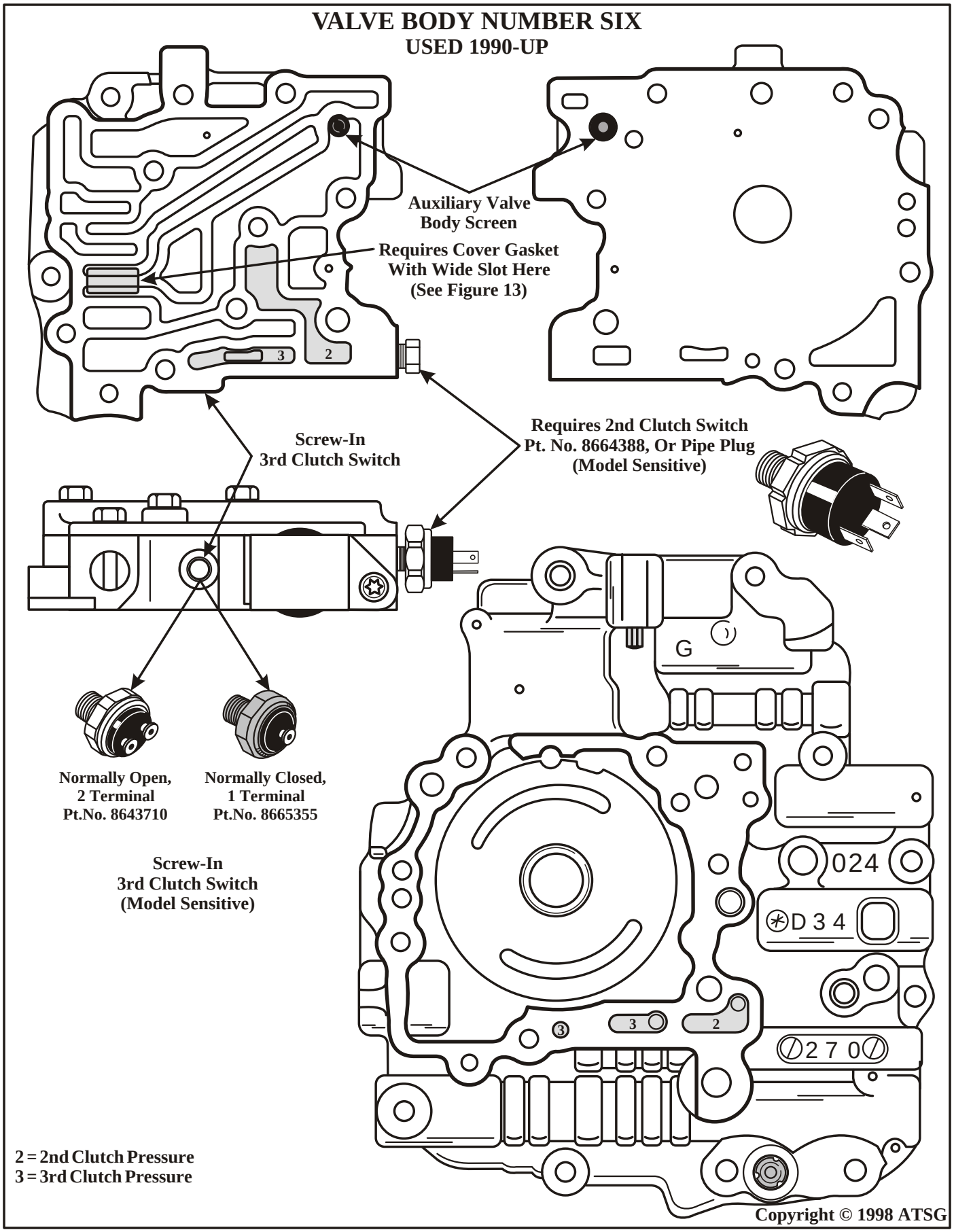

VALVE BODY NUMBER SIX
USED 1990-UP
Auxiliary Valve Body Screen
Requires Cover Gasket With Wide Slot Here (See Figure 13)
3
2
Screw-In 3rd Clutch Switch
Requires 2nd Clutch Switch Pt. No. 8664388, Or Pipe Plug (Model Sensitive)
Normally Open, 2 Terminal Pt.No. 8643710
Normally Closed, 1 Terminal Pt.No. 8665355
Screw-In 3rd Clutch Switch (Model Sensitive)
G
024
D 3 4
2 7 0
2 = 2nd Clutch Pressure
3 = 3rd Clutch Pressure
Copyright © 1998 ATSG

Figure 6

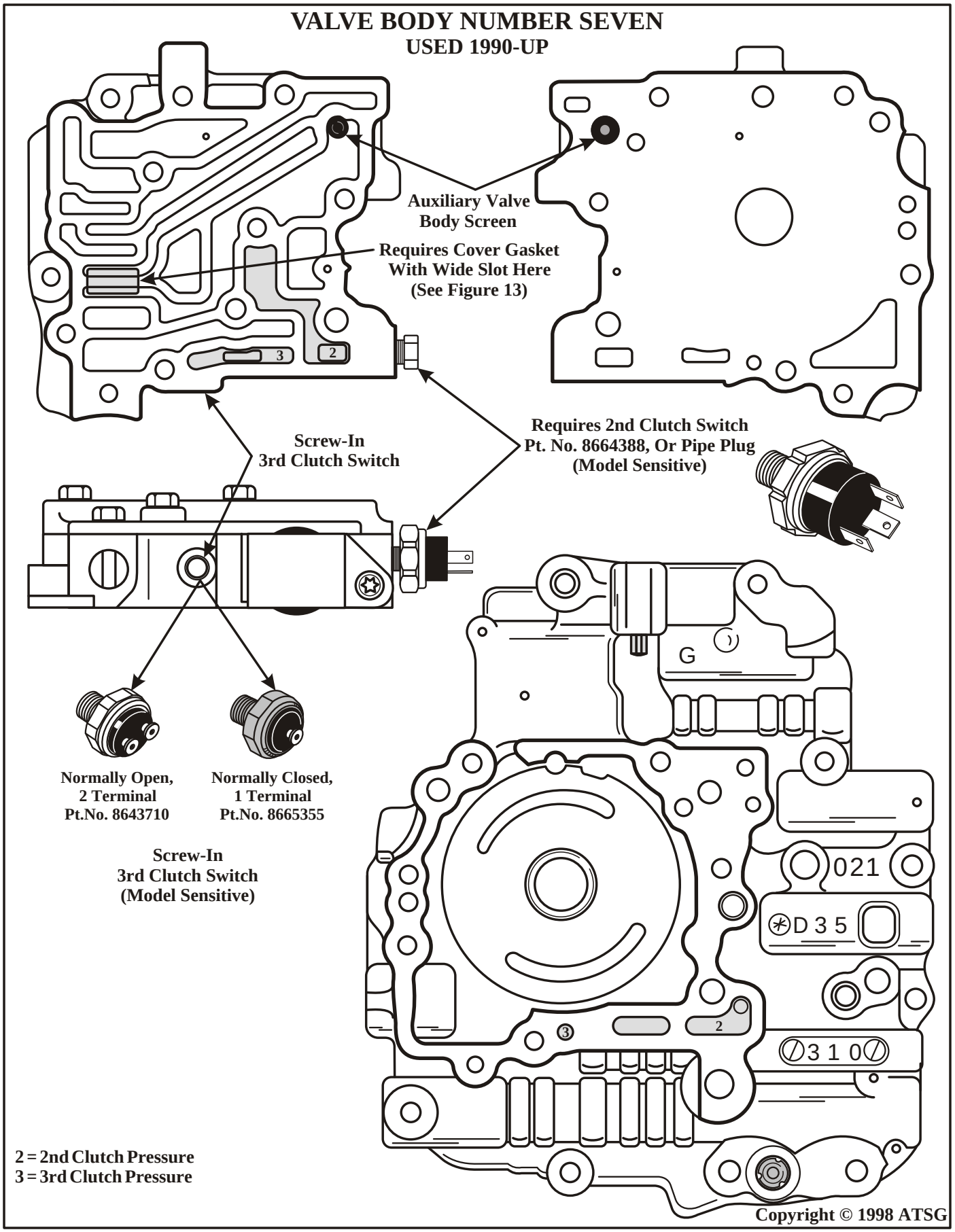

VALVE BODY NUMBER SEVEN
USED 1990-UP
Auxiliary Valve Body Screen
Requires Cover Gasket With Wide Slot Here (See Figure 13)
3
2
Screw-In 3rd Clutch Switch
Requires 2nd Clutch Switch Pt. No. 8664388, Or Pipe Plug (Model Sensitive)
Normally Open, 2 Terminal Pt.No. 8643710
Normally Closed, 1 Terminal Pt.No. 8665355
Screw-In 3rd Clutch Switch (Model Sensitive)
G
021
D35
3
2
310
2 = 2nd Clutch Pressure
3 = 3rd Clutch Pressure
Copyright © 1998 ATSG

Figure 7

1982-1985 MODELS				
Transaxle Models	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
BF, BL, BP, CA, CB, CC, CD, CE, CI, CJ, CK, CL, CT, CU, CX, C2, C3, C4, H3, H4, PD, PE, PF, PG, PJ, PN, PW	8643710	8689901	8634383	8643370
HS, HV	8643710	8652378	8634383	8643370
OP	8652693	8652376	8634383	8643370

1986-1987 MODELS				
Transaxle Models	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
ALL	8643710	8689901	8634383	8643370

1988 MODELS					
Transaxle Models	***2nd Clutch Switch***	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
BHC, BJC, CBC, CJC, CMC, CPC, CRC, CTC, CUC, LSC, PDC, PKC, PMC, PNC, POC, PPC, PRC, PSC, PTC, PUC, PZC, TNC, TRC	NONE	8643710	8689901	8634383	NONE
8KDC	8664388	8664387	8665016	8665015	NONE

1989 MODELS					
Transaxle Models	***2nd Clutch Switch***	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
CBC, CJC, CRC, CTC, CUC, PDC, PMC, PNC, PPC, PRC, PTC, RTC, RUC, TRC	NONE	8643710	8689901	8634383	NONE
KCC, KDC, KRC	8664388	8664387	8665016	8665015	NONE
BUC, BYC, BZC	8664388	8665355	8689902	8662395	NONE

1990-1991 MODELS					
Transaxle Models	***2nd Clutch Switch***	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
AYC, HSC, LUC, LYC, PDC, PJC, PNC, PPC, PRC, PTC, RTC, RUC, TRC	NONE	8643710	8689901	8634383	NONE
CHC, KDC, KKC, KXC, LAC, LJC,	8664388	8665355	8689902	8662395	NONE
	8664388	8666603	8689902	8662395	NONE

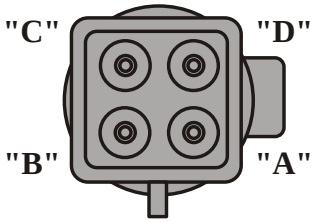
Figure 8

1992 MODELS					
Transaxle Models	***2nd Clutch Switch***	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
AJC, AKC, KSC, LUC, PDC, PJC, PRC, PTC, PXC	NONE	8643710	8689901	8634383	NONE
CHC, KDC, KKC, LFC,	8664388	8665355	8689902	8662395	NONE
	8664388	8666603	8689902	8662395	NONE

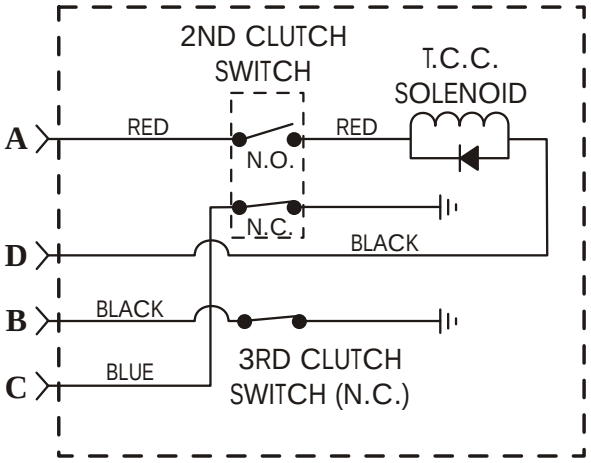
1993 MODELS					
Transaxle Models	***2nd Clutch Switch***	***3rd Clutch Switch (If Used)***	***T.C.C. Solenoid***	***Case Connector***	***Governor Switch (If Used)***
AJC, AKC, CWC, CYC, LUC, PTC PXC, SWC	NONE	8643710	8689901	8634383*	NONE
CHC, KLC, KNC, LFC,	8664388	8665355	8689902	8662395	NONE
	8664388	8666603	8689902	8662395	NONE

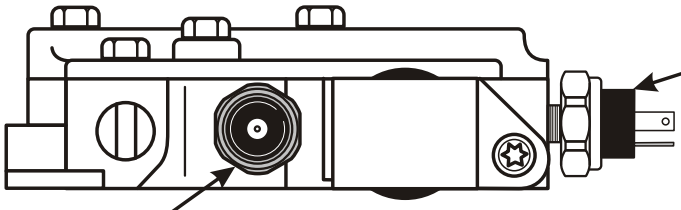
Figure 9

TYPICAL 2ND CLUTCH SWITCH WIRING SCHEMATIC

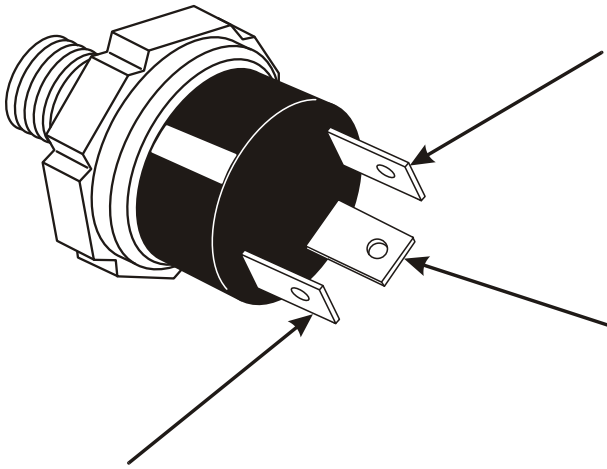


Square, Black Color
Four Terminal
OEM Part Number 8662395





2ND CLUTCH SWITCH

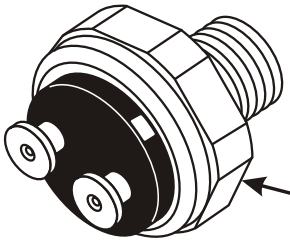


NOTE: If The Wires Are Connected Improperly:
1. May create a no lock-up condition.
2. May send 12V signal to ECM, which may destroy ECM.
3. May blow a fuse the instant the key is turned on.

Figure 10

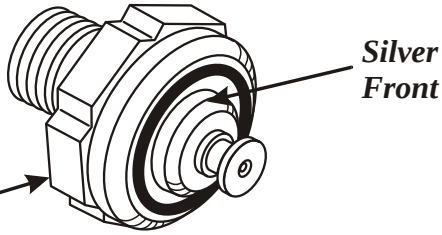
3RD CLUTCH SWITCHES
DESCRIPTION AND IDENTIFICATION

SWITCH "A"



"Normally Open", Two Terminal
OEM Part Number 8643710

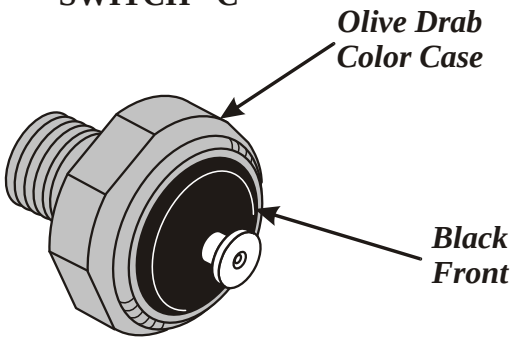
SWITCH "B"



Silver Case

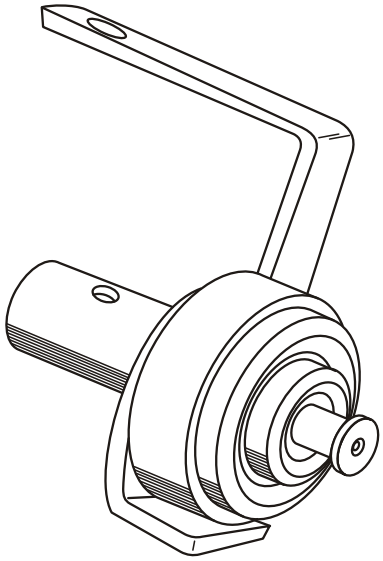
"Normally Open", Single Terminal
OEM Part Number 8664387

SWITCH "C"



"Normally Closed", Single Terminal
OEM Part Number 8665355

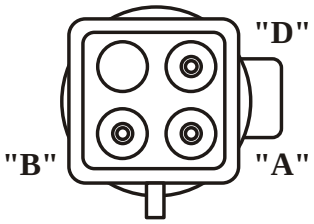
SWITCH "D"



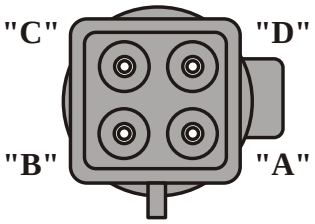
"Normally Closed", Single Terminal
OEM Part Number 8666603

Figure 11

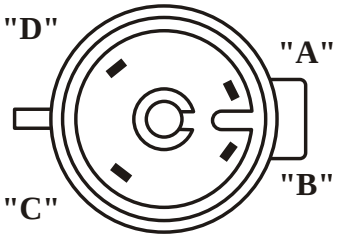
CASE CONNECTOR IDENTIFICATION



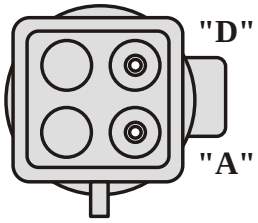
Square, Natural Color
Three Terminal
OEM Part Number 8634383



Square, Black Color
Four Terminal
OEM Part Number 8662395



Round, Natural Color
Four Terminal
OEM Part Number 8665015

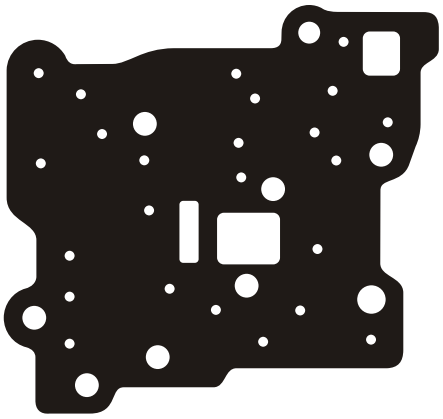


Square, Blue Color
Two Terminal
OEM Part Number 8670106

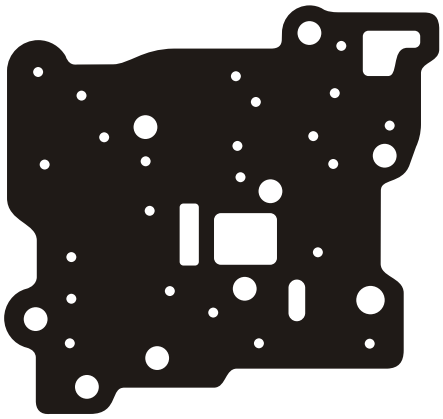
Figure 12

AUXILIARY VALVE BODY COVER GASKETS

OEM Part Number 8653947
Used Only With Auxiliary
Valve Body No. 1



OEM Part Number 8643863
Used Only With Auxiliary
Valve Body No. 2



OEM Part Number 8666381
Used Only With Auxiliary
Valve Body No,s 3, 4, 5, 6, 7

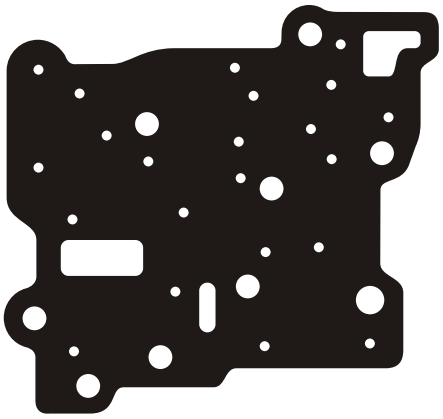


Figure 13