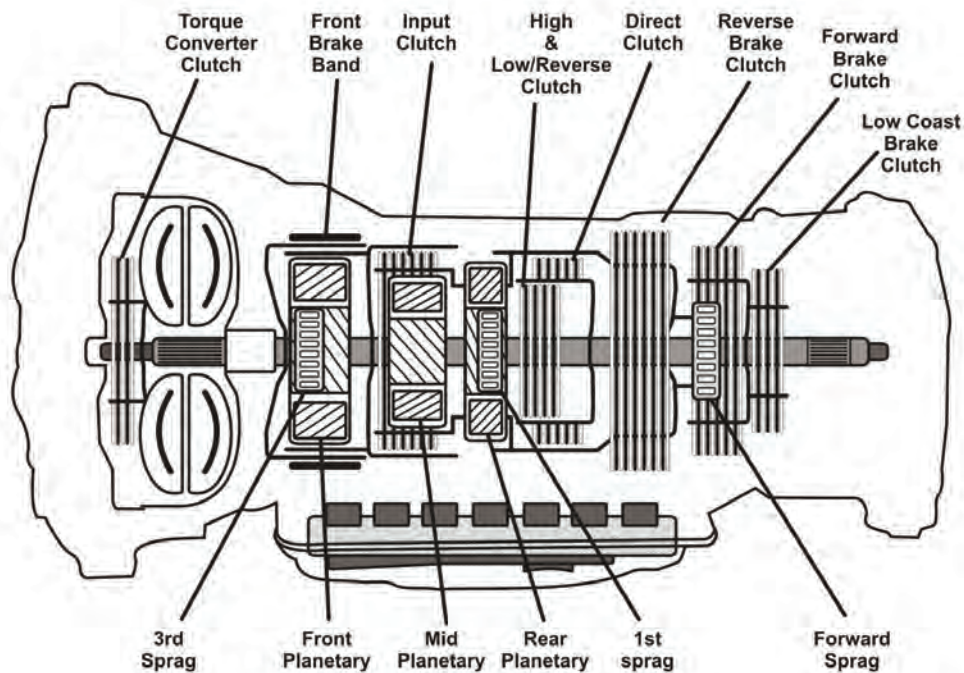


RE5R05A: A Deeper Look *PART II*



by Mike Souza
members.atra.com
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Recommended Fluid: Nissan Matic Fluid J (part synthetic)
Castrol Transmax J will work in place Nissan and Subaru J type fluids.
Meets requirements for Japanese JASO IA standard, also approved by GM and Ford
requiring DEXRON III or MERCON ATF.
Note: Not recommended for use with CVT transmissions.

Figure 1

Another year, another Expo; I'm looking forward to seeing some of my old friends from all over the country and abroad. Hopefully there'll be some new faces, as fewer young techs have been finding their way into this industry.

For this issue, I've collected some of the most valuable reference information for the RE5R05A, and put it all together in one place for you. We start with a cutaway view of the transmission to identify the component loca-

tions (figure 1).

Figures 2 and 3 are application charts for the floor shift and column shift models. They're followed by the solenoid apply chart (figure 4), including solenoid function.

Figures 5 through 11 are the hydraulic diagrams for this unit; hard to find, but isn't that why you depend on ATRA and *GEARS*?

This compiled information should make it easier for you to understand and diagnose the RE5R05A. Knowing what

applies when, and what valve controls which hydraulic circuit, should make it easier to diagnose a shift problem or track down a circuit leak.

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Nissan RE5R05A (Floor Shift Models)

	GEAR	I/C	HLR/C	D/C	R/B	FR/B	LC/B	Fwd/B	1st OWC	Fwd OWC	3rd OWC
P			H			H					
R			H		H	H			L		L
N			H			H					
D	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
	5th	H	H			H		H	FW		FW
4 TAP Shift	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
3 TAP Shift	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
2 TAP Shift	1st		H			H	H*	H	L	L	L
	2nd			H		H	H	H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
1 TAP Shift	1st		H			H	H	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		

H = Applied
H* = Applied on coast down
L = Locked
FW = Freewheels while coasting

I/C: Input Clutch
HLR/C: High and Low Reverse Clutch
D/C: Direct Clutch
R/B: Reverse Brake Clutch
FR/B: Front Brake Band
LC/B: Low Clutch Brake Clutch
Fwd/B: Forward Brake Clutch
1st OWC: 1st One-Way Clutch
Fwd OWC: Forward One-Way Clutch
3rd OWC: 3rd One-Way Clutch

Figure 2

Nissan RE5R05A (Column Shift Models)

	GEAR	I/C	HLR/C	D/C	R/B	FR/B	LC/B	Fwd/B	1st OWC	Fwd OWC	3rd OWC
P			H			H					
R			H		H	H			L		L
N			H			H					
D	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
	5th	H	H			H		H	FW		FW
M5	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
	5th	H	H			H		H	FW		FW
M4	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
	4th	H	H	H				H	FW		
M3	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
	3rd		H	H		H		H	FW		L
M2	1st		H			H	H*	H	L	L	L
	2nd			H		H		H		L	L
M1	1st		H			H	H	H	L	L	L

H = Applied
H* = Applied on coast down
L = Locked
FW = Freewheels while coasting

NOTE: The torque converter clutch is applied in 4th and 5th gears, depending transmission fluid temperature, throttle position, and vehicle speed, to eliminate slippage and increase fuel efficiency. The current output supplied by the TCM to the TCC solenoid is varied, to gradually increase the torque converter clutch apply pressure to prevent converter clutch apply shock.

I/C: Input Clutch
HLR/C: High and Low Reverse Clutch
D/C: Direct Clutch
R/B: Reverse Brake Clutch
FR/B: Front Brake Band
LC/B: Low Clutch Brake Clutch
Fwd/B: Forward Brake Clutch
1st OWC: 1st One-Way Clutch
Fwd OWC: Forward One-Way Clutch
3rd OWC: 3rd One-Way Clutch

Figure 3

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Park	MOD	Off	On	On	On	Off	Off
Reverse	MOD	Off	On	On	On	Off	Off
1st	MOD	Off	On	On	On	Off	On (c)
2nd	MOD	Off	Off	On	On	On	Off
3rd	MOD	Off	Off	On	On	Off	Off
4th	MOD	On	Off	Off	Off	Off	Off
5th	MOD	On	On	On	Off	Off	Off

MOD: Modulating according to engine load
(c): During coast down

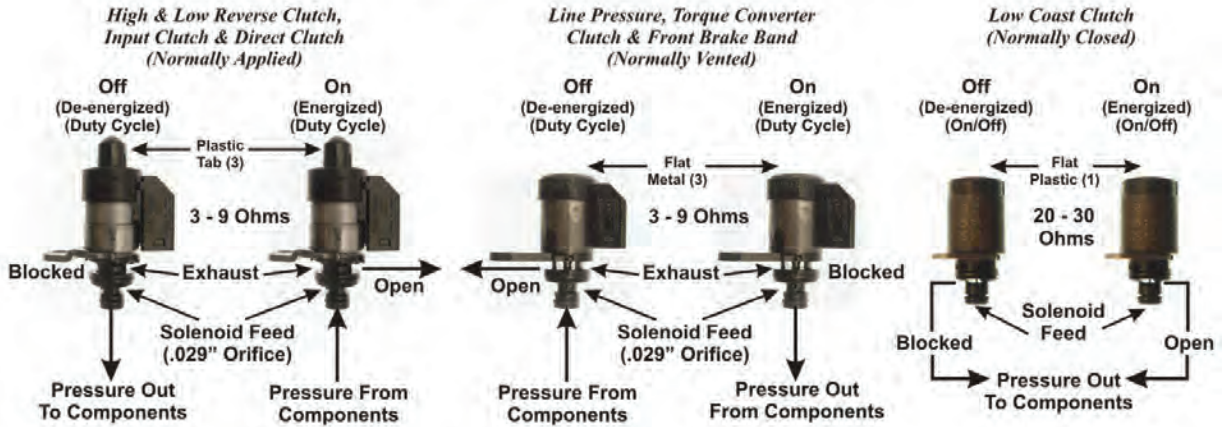


Figure 4

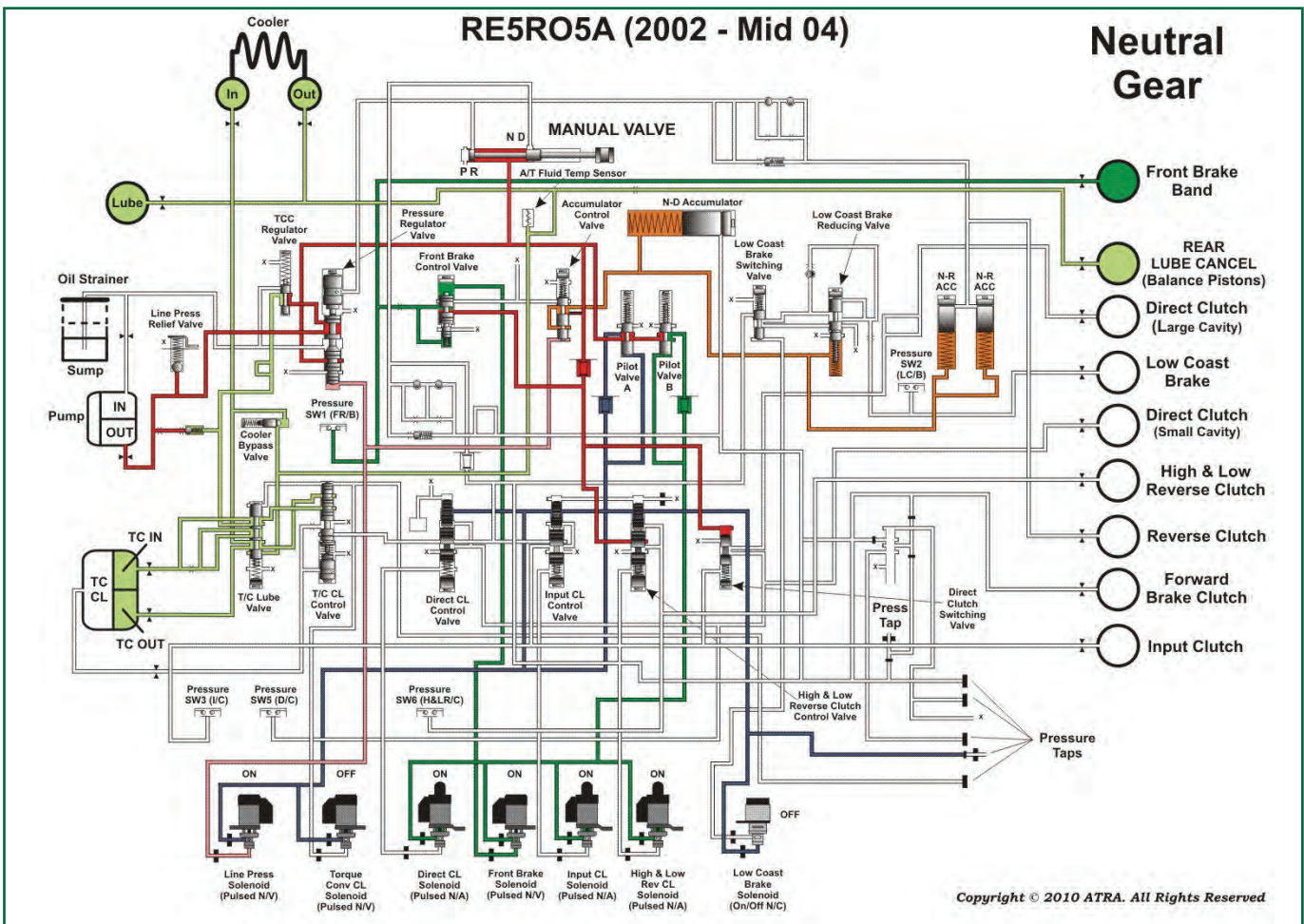
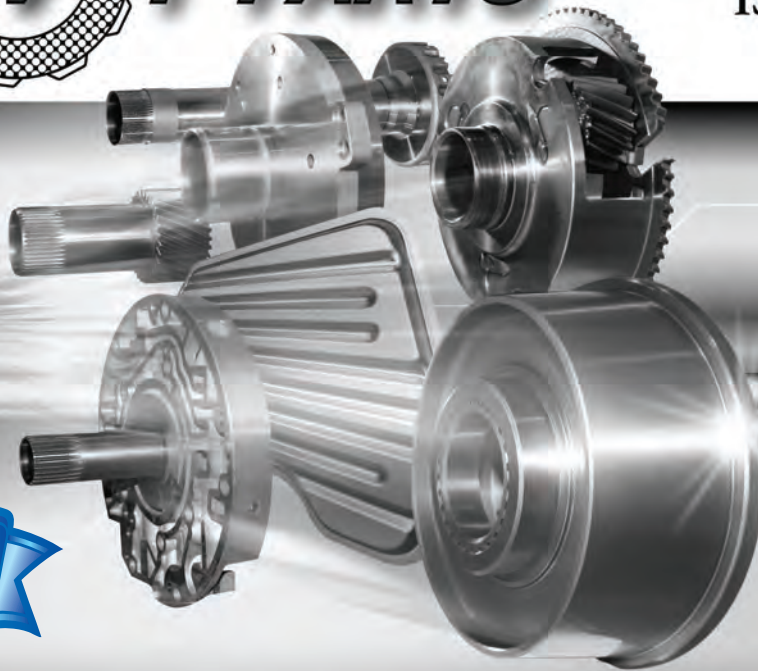


Figure 5



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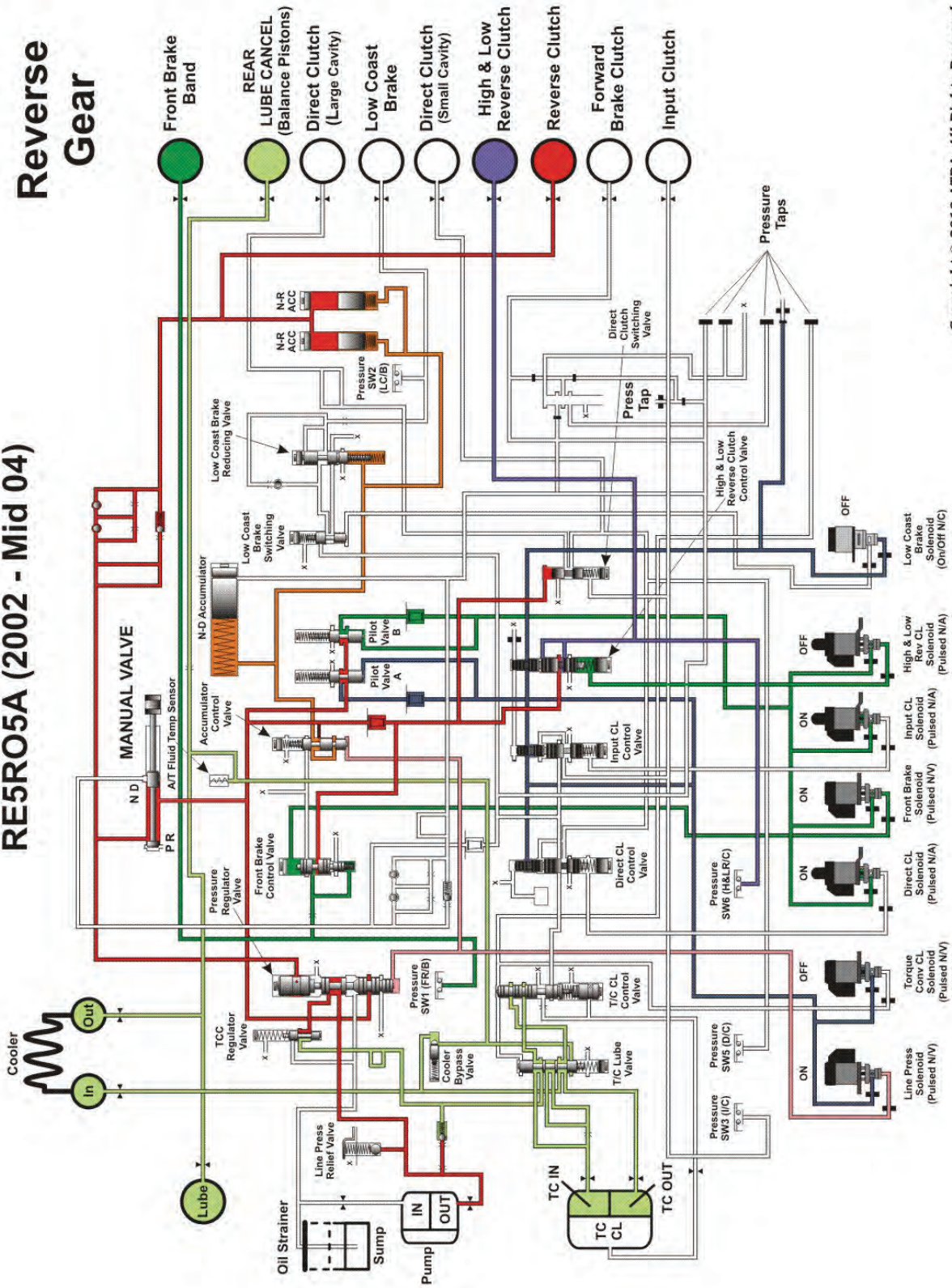


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Reverse Gear

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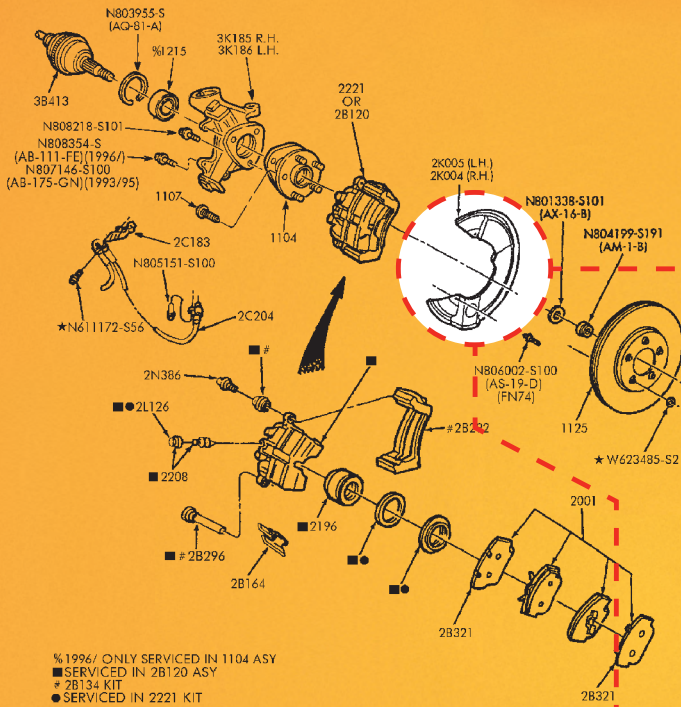
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Figure 6

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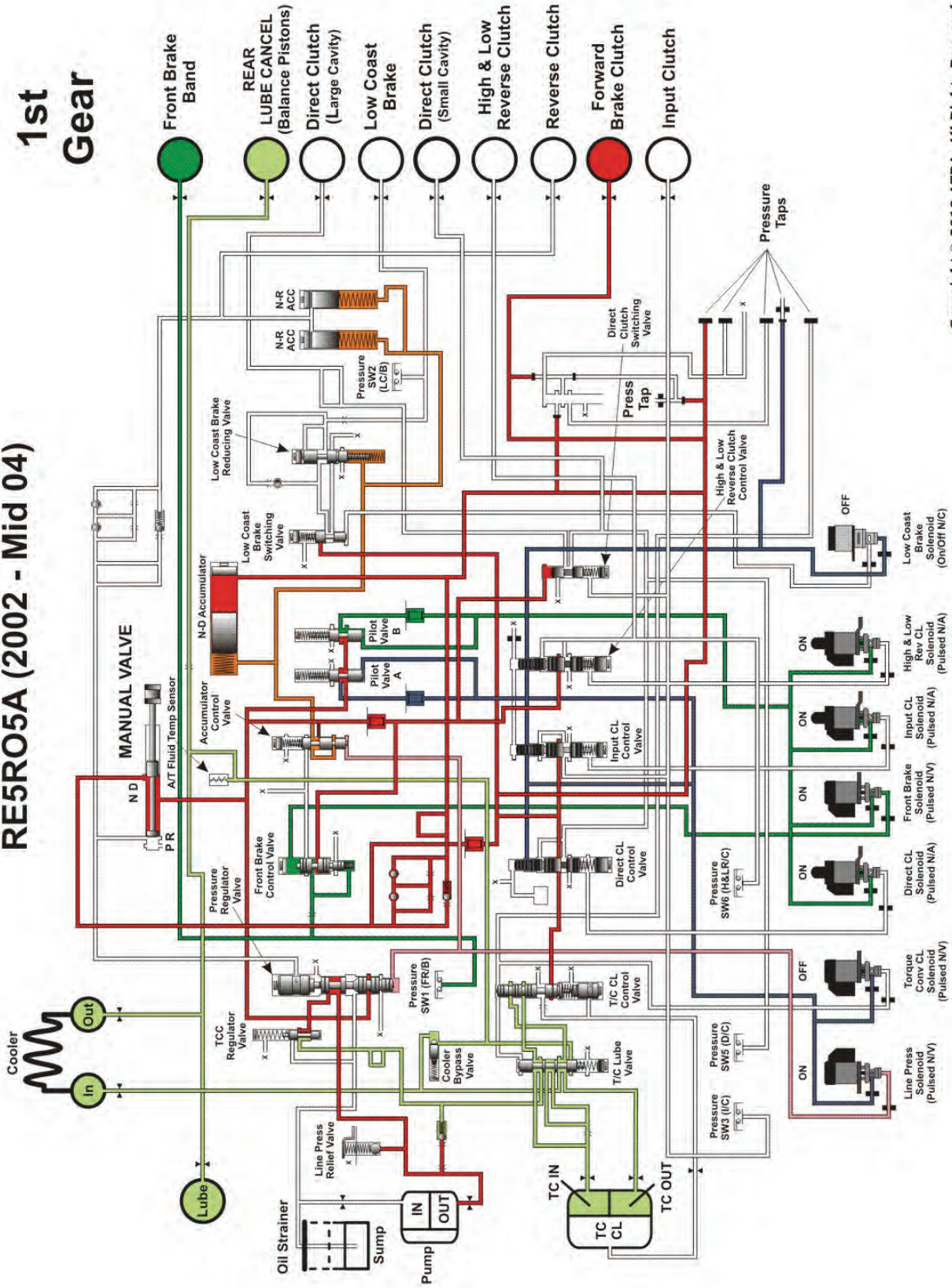
FordParts.com includes detailed diagrams that let you view every part in an assembly. Competitive sites might leave you guessing. Make sure you're getting everything you'll need to finish a job right the first time. Log on to FordParts.com any time for money-saving rebates and better ways to order quality parts.

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1st Gear



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Figure 7



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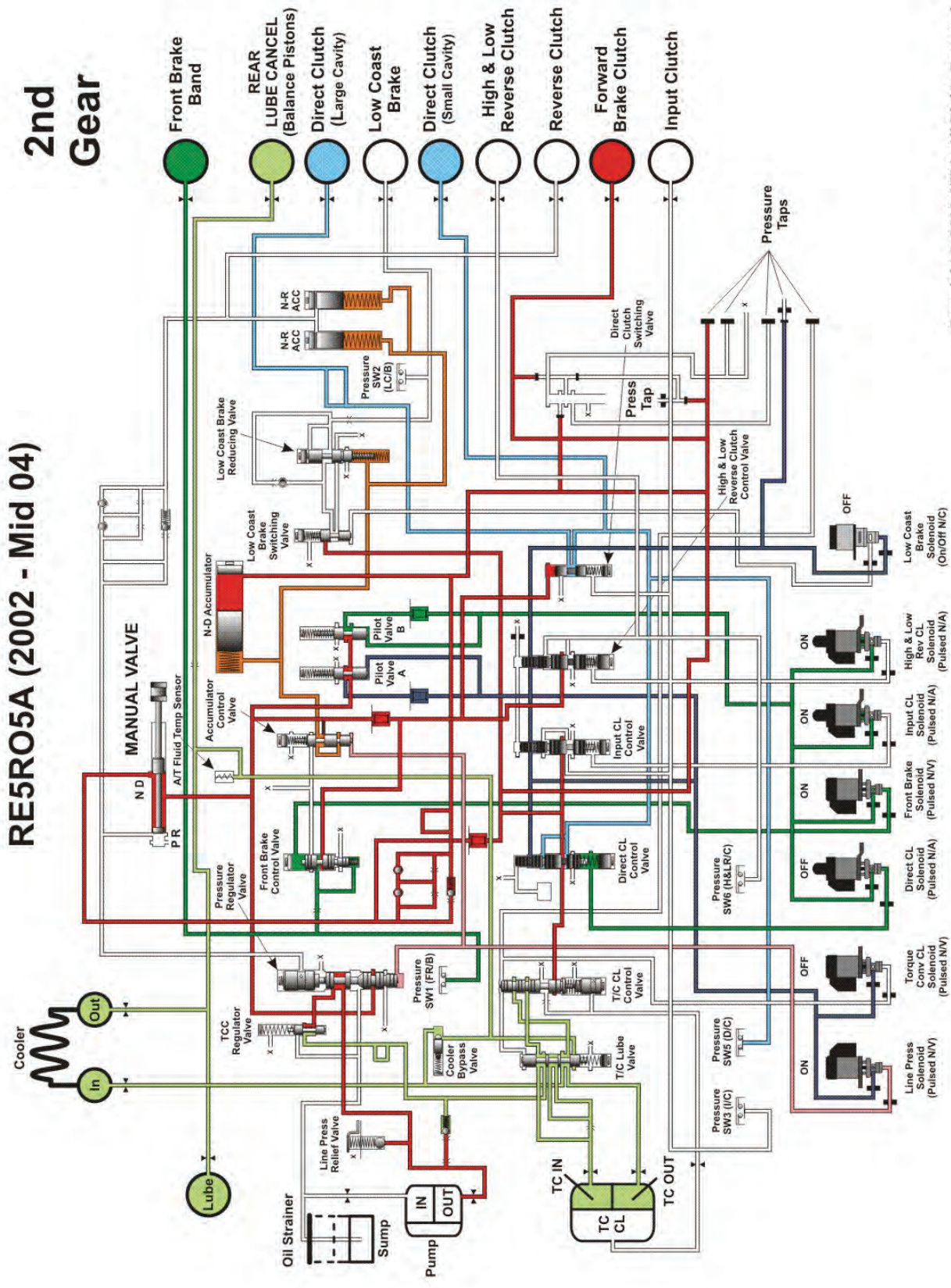


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Figure 8



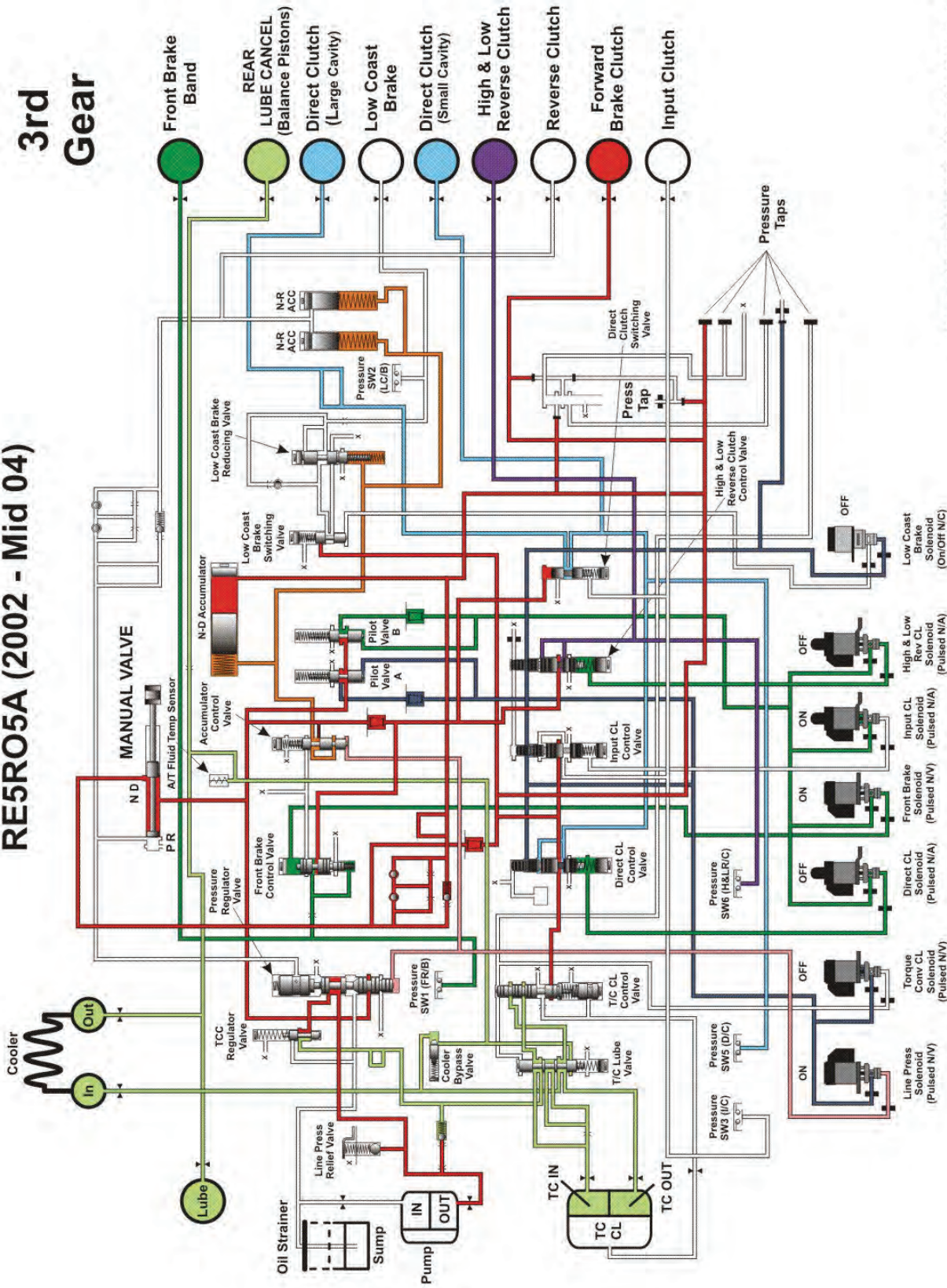
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3rd Gear



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Figure 9

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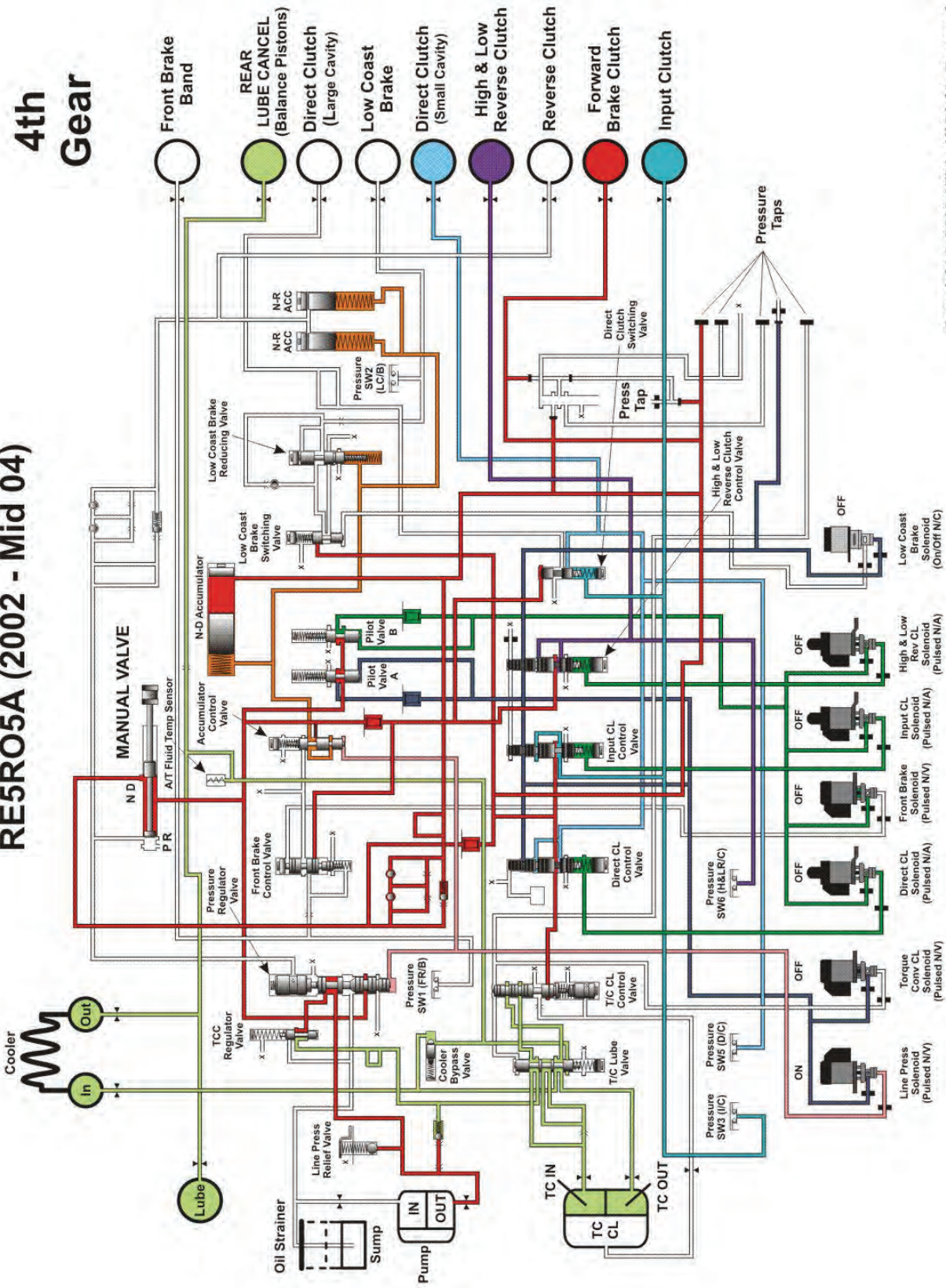
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4th Gear

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Figure 10

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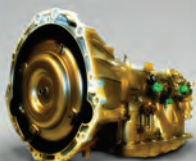
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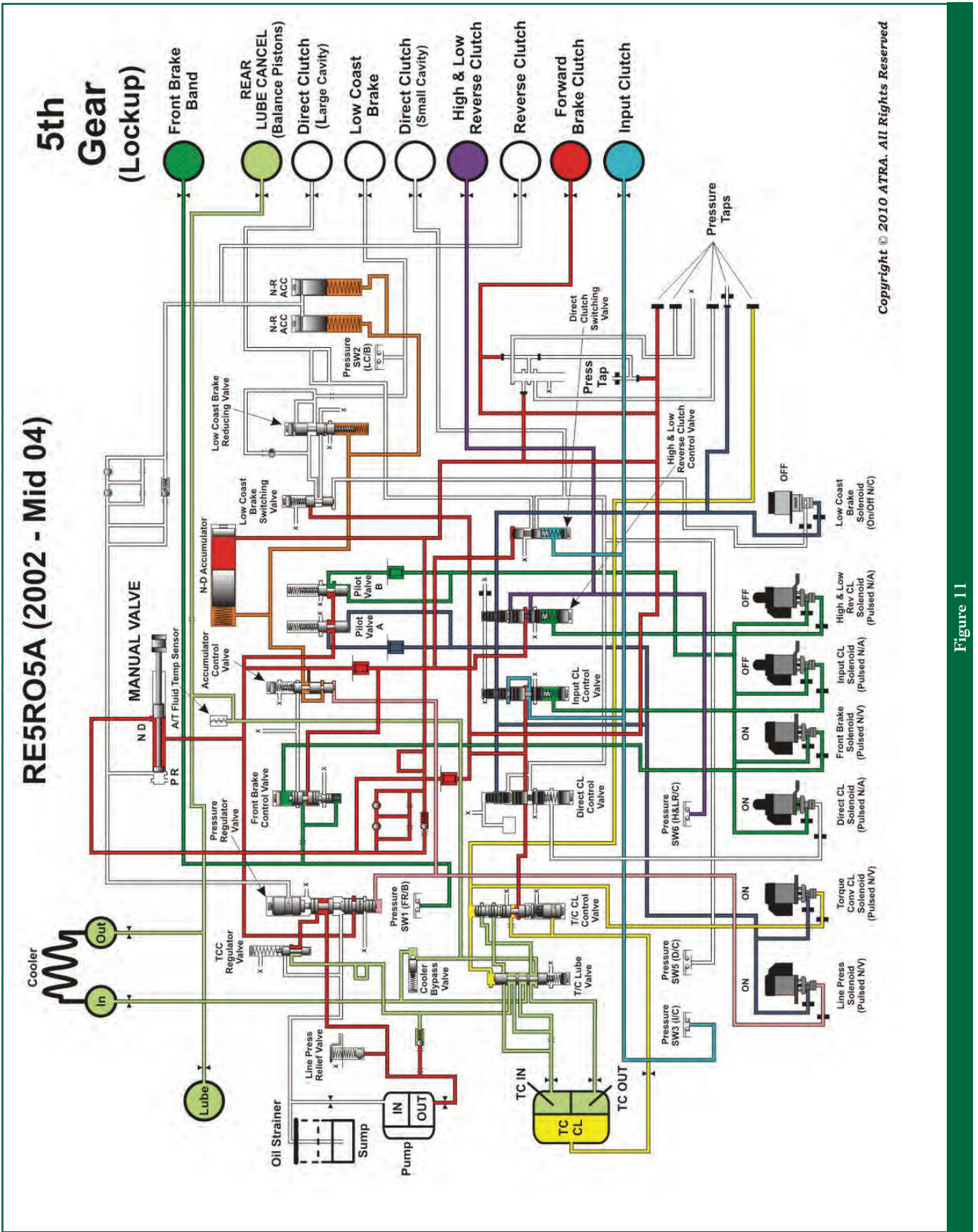


Figure 11

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