SERVICE BULLETIN

QUALITY INFORMATION ANALYSIS
OVERSEAS SERVICE DEPT. MITSUBISHI MOTORS CORPORATION

SERVICE BULLETIN	**No.:** MSB-97E17-502	
	Date: 1997-11-24	**<Model>** ALL MODELS / **<M/Y>** 97-10
Subject: CRUISE CONTROL SYSTEM CIRCUIT DIAGRAMS AND TROUBLESHOOTING		
Group: ENGINE & EMISSION CONTROL	**Draftno:** 97-JY-010	
CORRECTION	**OVERSEAS SERVICE DEPT**	R. USAMI - MANAGER QUALITY INFORMATION ANALYSIS

1. Description:

This Service Bulletin informs you of correction of errors in the cruise control system circuit diagrams and in its troubleshooting.

2. Applicable Manuals:

Manual	Pub. No.	Language	Page(s)
'97 GALANT Technical Information Manual	PYDE9604	(English)	1-22
'97 GALANT Workshop Manual chassis	PWDE9611	(English)	17-4, 19, 20, 25
	PWDS9612	(Spanish)	
	PWDF9613	(French)	
	PWDG9614	(German)	
	PWDD9615	(Dutch)	
	PWDW9616	(Swedish)	
'97 GALANT Workshop Manual Electrical wiring	PHDE9608	(English)	4-436, 442, 448, 454
	PHDS9609	(Spanish)	4-236, 242
	PHDF9610	(French)	
	PHDG9611	(German)	
	PHDD9612	(Dutch)	
	PHDW9613	(Swedish)	

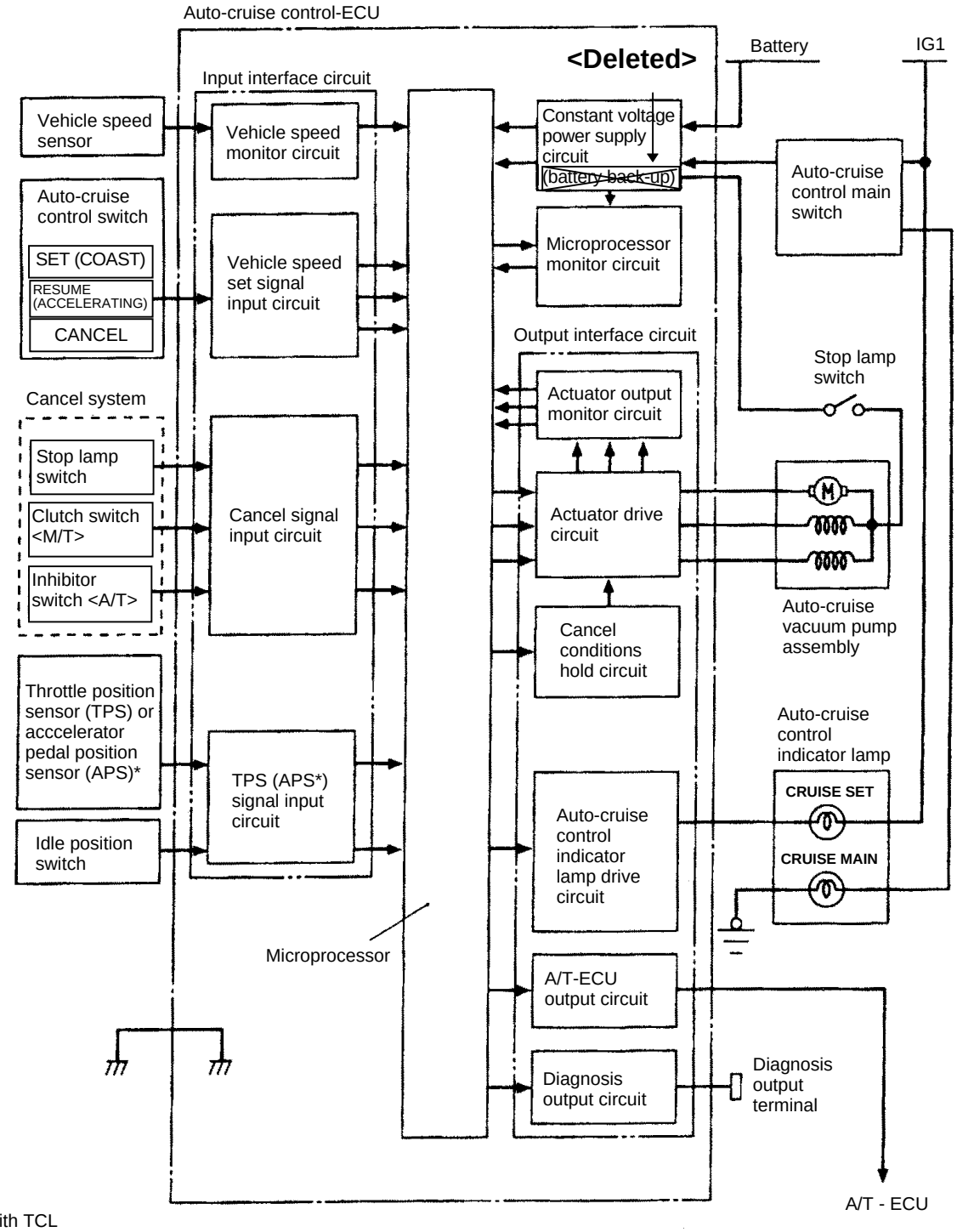
3. Details:

'97 GALANT Technical Information Manual Page 1-22
'97 GALANT Workshop Manual (Chassis) Page 17-14, 19, 20, 25
'97 GALANT Workshop Manual (Electrical Wiring) Page 4-436, 442, 448, 454

AUTO CRUISE CONTROL-ECU

The auto-cruis control-ECU consist of the input interface circuit, microprocessor, constant voltage power supply circuit, microprocessor monitor circuit and output interface circuit. Signals from the vehicle speed sensor, TPS (APS*) and each switch are input into the auto-cruise control-ECU. It processes them according to the program in the microprocessor memory and outputs control signals to the actuator. It also outputs system self-diagnosis results and conditions of input signals to the diagnosis output terminal

Control Logic and Block Diagram



NOTE
*: Vehicles with TCL

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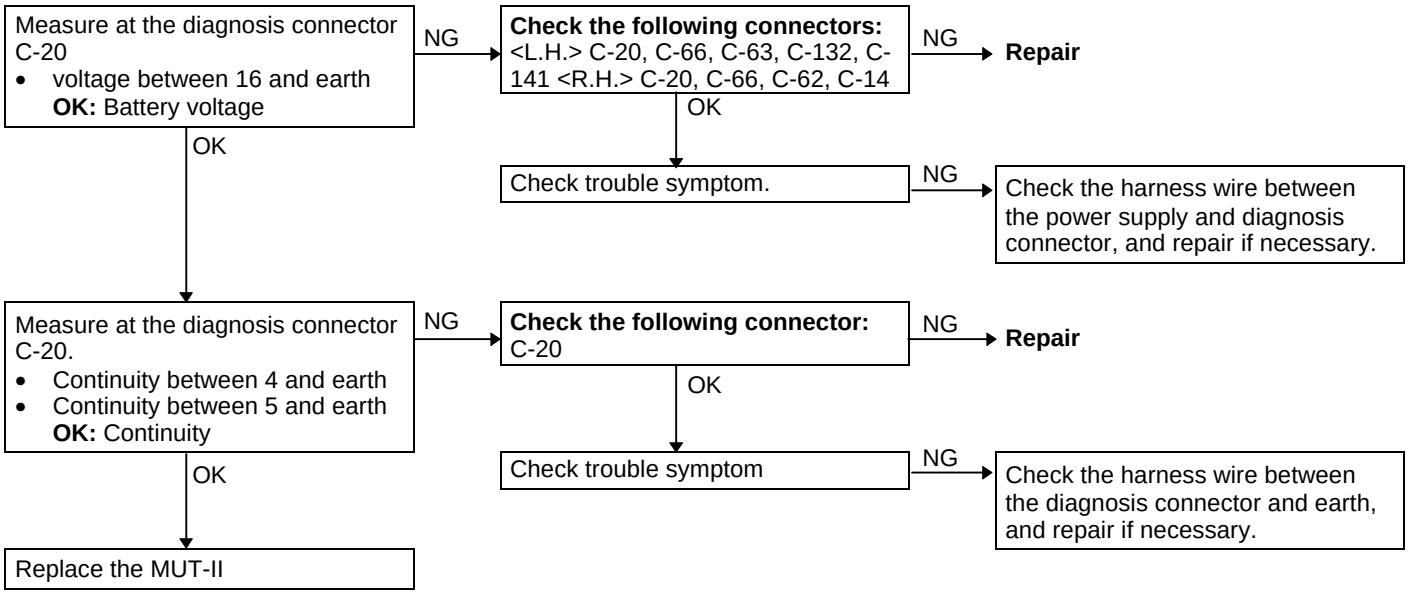
Trouble symptom		Inspection procedure No.	Reference page
Auto-cruise control is not cancelled. **<Deleted>**	Even brake pedal is depressed	4	17-17
	Even clutch pedal is depressed <M/T>	5	17-18
	Even if select lever is set to N range <A/T>	6	17-18
	Even if CANCEL switch is set to ON	7	17-19
~~The diagnosis result displayed on the MUT-II is normal even though auto-cruise control cannot be set~~		~~8~~	~~17-19~~
Auto-cruis control cannot be set		9	17-20
Hunting (repeated acceleration and deceleration) occurs at the set vehicle speed		10	17-21
Even though auto-cruise control main switch is ON, switch indicator lamp does not illuminate. (However, auto-cruise control is normal.)		11	17-21
Auto-cruise control main switch illumination lamp does not illuminate.		12	17-22
Auto-cruise control indicator lamp (CRUISE MAIN, CRUISE SET) inside combination meter does not illuminate. (However, auto-cruise control is normal)		13	17-22

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

Inspection Procedure 1

Communication with MUT-II is not possible. (Communication with all system is not possible.)	**Probable cause**
The reason is probably a defect in the power supply system (including earth) for the diagnosis line.	• Malfunction of the connector • Malfunction of the harness



Inspection Procedure 7

Even if auto-cruise control CANCEL switch is set to ON, auto-cruise control is not cancelled.	Probable cause
The cause is probably an open-circuit inside the CANCEL switch.	• Malfunction of the auto-cruise control-ECU

Replace the auto-cruise control switch.

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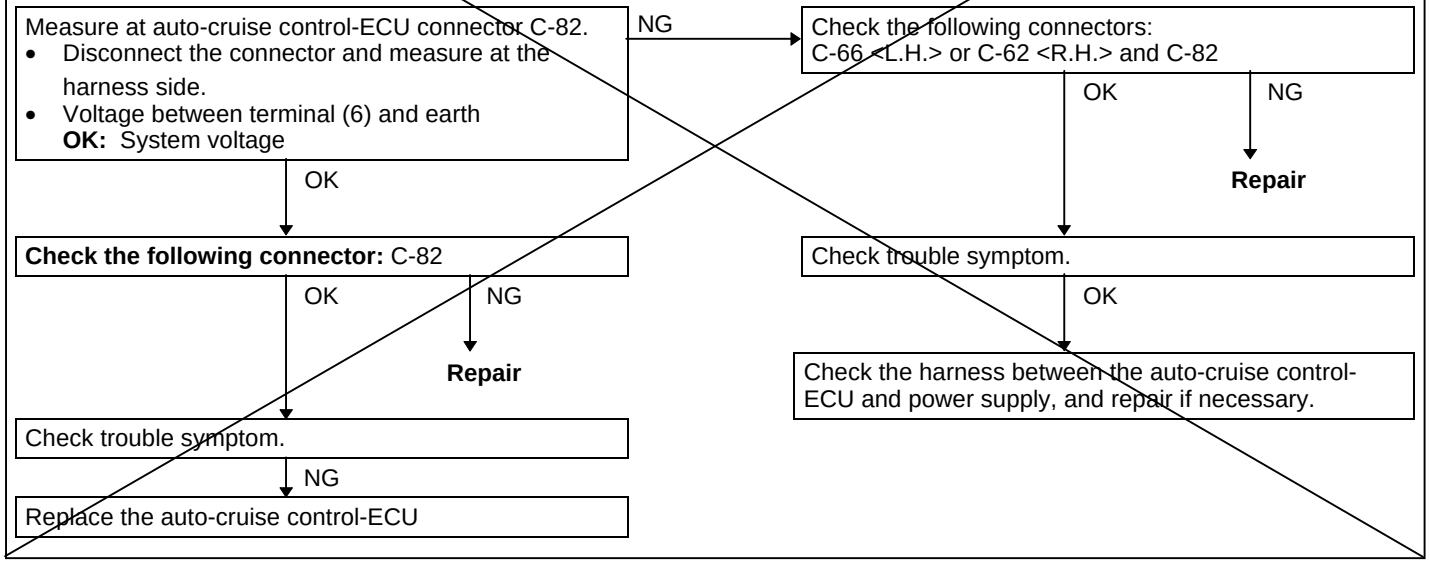
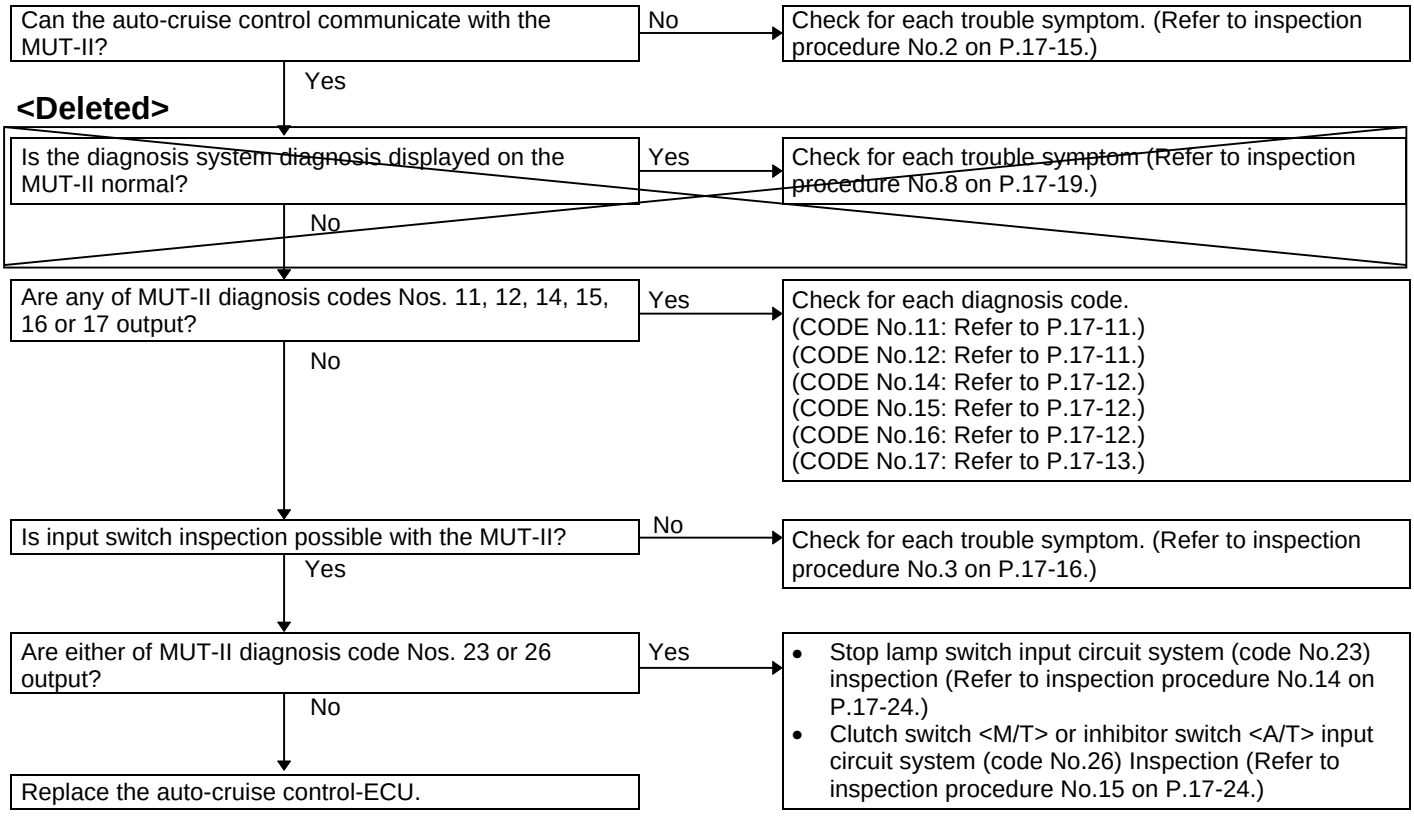
Inspection Procedure 8

The diagnosis result displayed on the MUT-II is normal even though auto-cruise control cannot be set.	Probable cause
Because of an open-circuit in the battery backup circuit system, the fail-sage function prevents diagnosis codes from being memorised and displayed even though auto-cruise control is cancelled.	• Malfunction of the connector • Malfunction of the harness • Malfunction of the auto-cruise control-ECU



Inspection Procedure 9

Auto-cruise control cannot be set.	Probable cause
The cause is probably that the fail-safe function is cancelling auto-cruise control. In this case, the MUT-II can be used to check the trouble symptoms in each system by inspecting the diagnosis codes. The MUT-II can also be used to check if the circuits of each input switch are normal or not by inspecting the input switch codes.	• Malfunction of the auto-cruise control main switch • Malfunction of the auto-cruise control switch • Malfunction of the slip ring <Vehicles without SRS> • Malfunction of the clock spring <Vehicles with SRS> • Malfunction of the harnesses or connectors • Malfunction of the clutch switch <M/T> • Malfunction of the auto-cruise control-ECU



CHECK AT THE ECU TERMINALS

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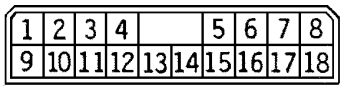

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Terminal No.	Check item	Check conditions		Normal condition
1	Throttle position sensor (accelerator pedal position sensor*) input	When accelerator pedal is fully depressed		4.5 - 5.5 V
		When accelerator pedal is released		0.3 - 1.0 V
2	Idle switch output	When accelerator pedal is depressed	When idle switch is OFF	4.5 - 5.5 V
		When accelerator pedal is not depressed	When idle switch is ON	0 V
3	ACC power supply	When ignition switch is in ACC position		System voltage
4	Stop lamp switch input	When brake pedal is depressed	When stop lamp switch is ON	System voltage
		When brake pedal is not depressed	When stop lamp switch is OFF	0 V
5	Diagnosis control input	When ignition switch is On		4 V or more
6	ECU backup power supply	At any time		System voltage
7	Auto-cruise vacuum pump release valve and control valve input	When decelerating with the SET switch while driving at constant speed	Release valve closed	0 V
8			Control valve open/closed	System voltage/0 V
7		When cancelling constant speed driving with the CANCEL switch	Release valve open	System voltage
8			Control valve open	System voltage
9	Earth	At any time		Continuity
10	A/T control output	No OD-OFF request		System voltage
		OD-OFF request		0V

NOTE
8: Vehicles with TCL

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AUTO-CRUISE CONTROL SYSTEM

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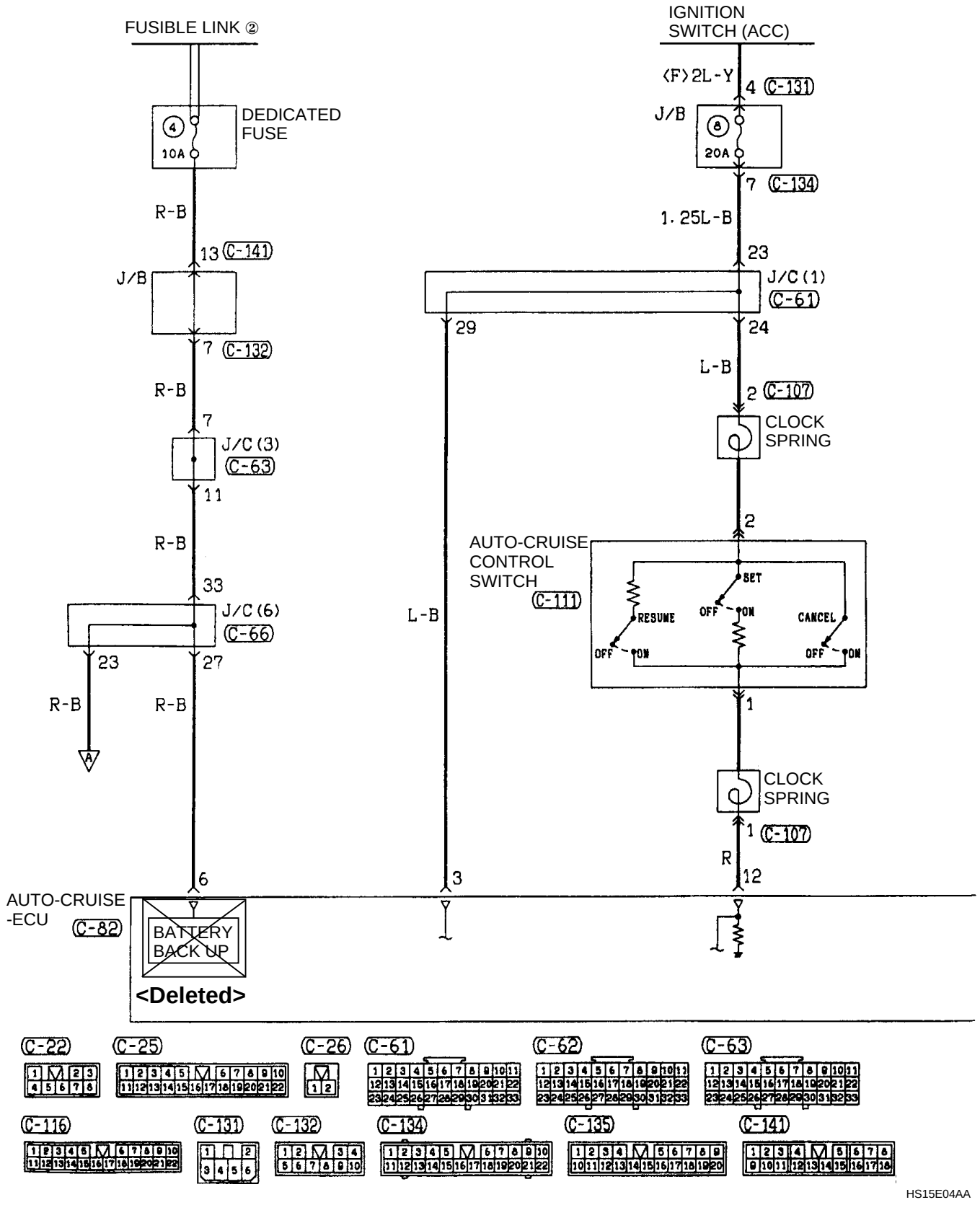
L.H. drive vehicles with TCL



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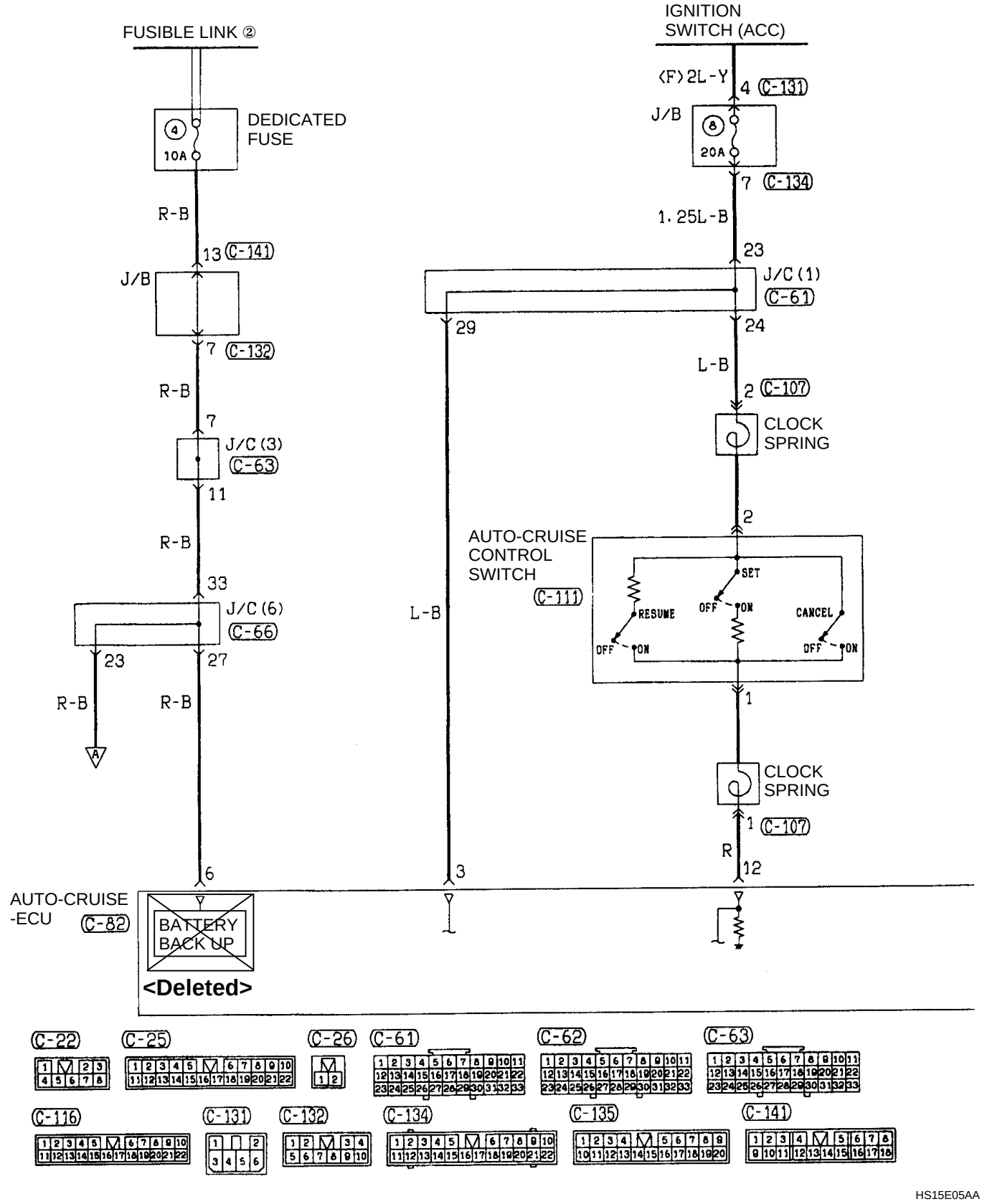
AUTO-CRUISE CONTROL SYSTEM

L.H. drive vehicles without TCL



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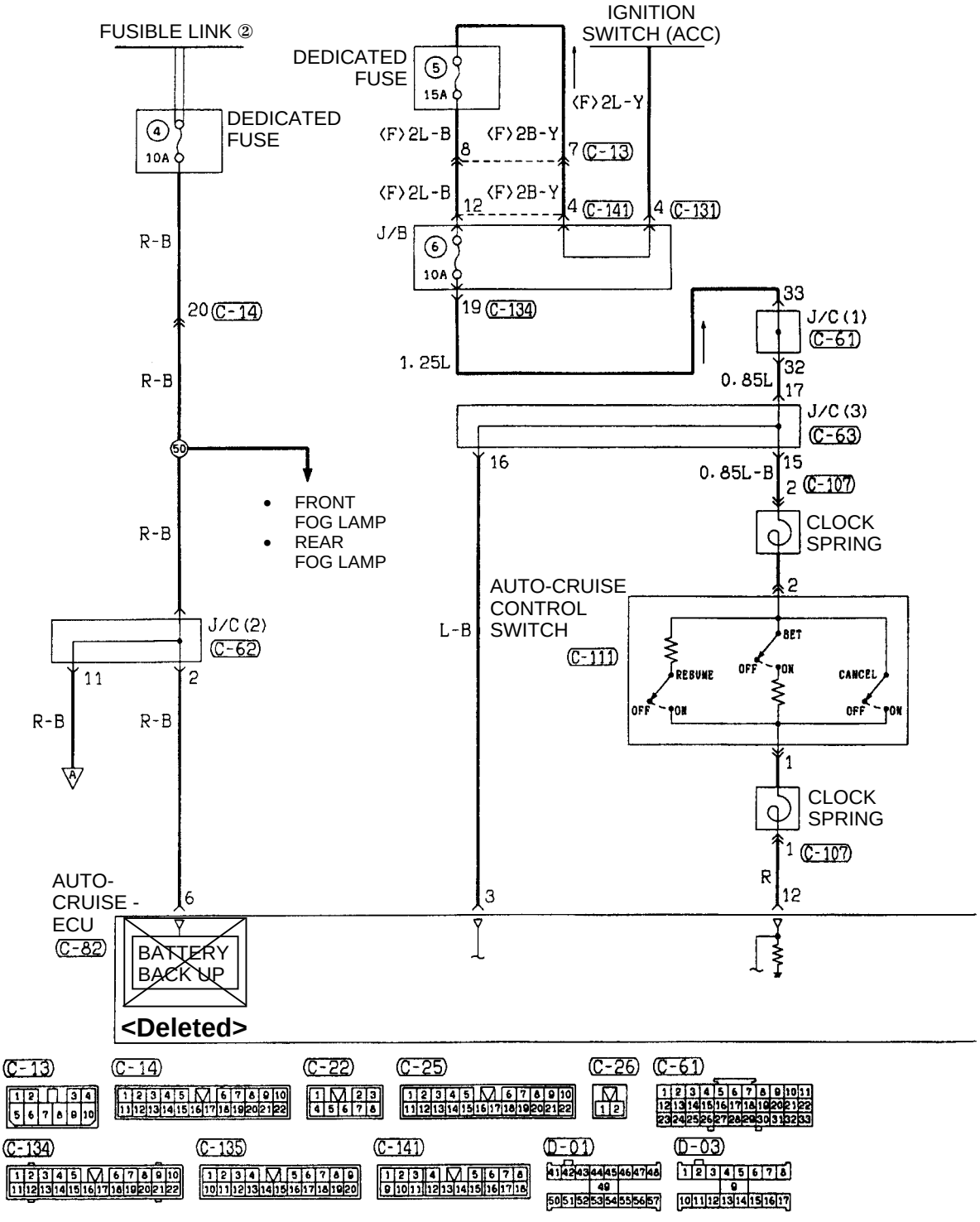
AUTO-CRUISE CONTROL SYSTEM

R.H. drive vehicles with TCL



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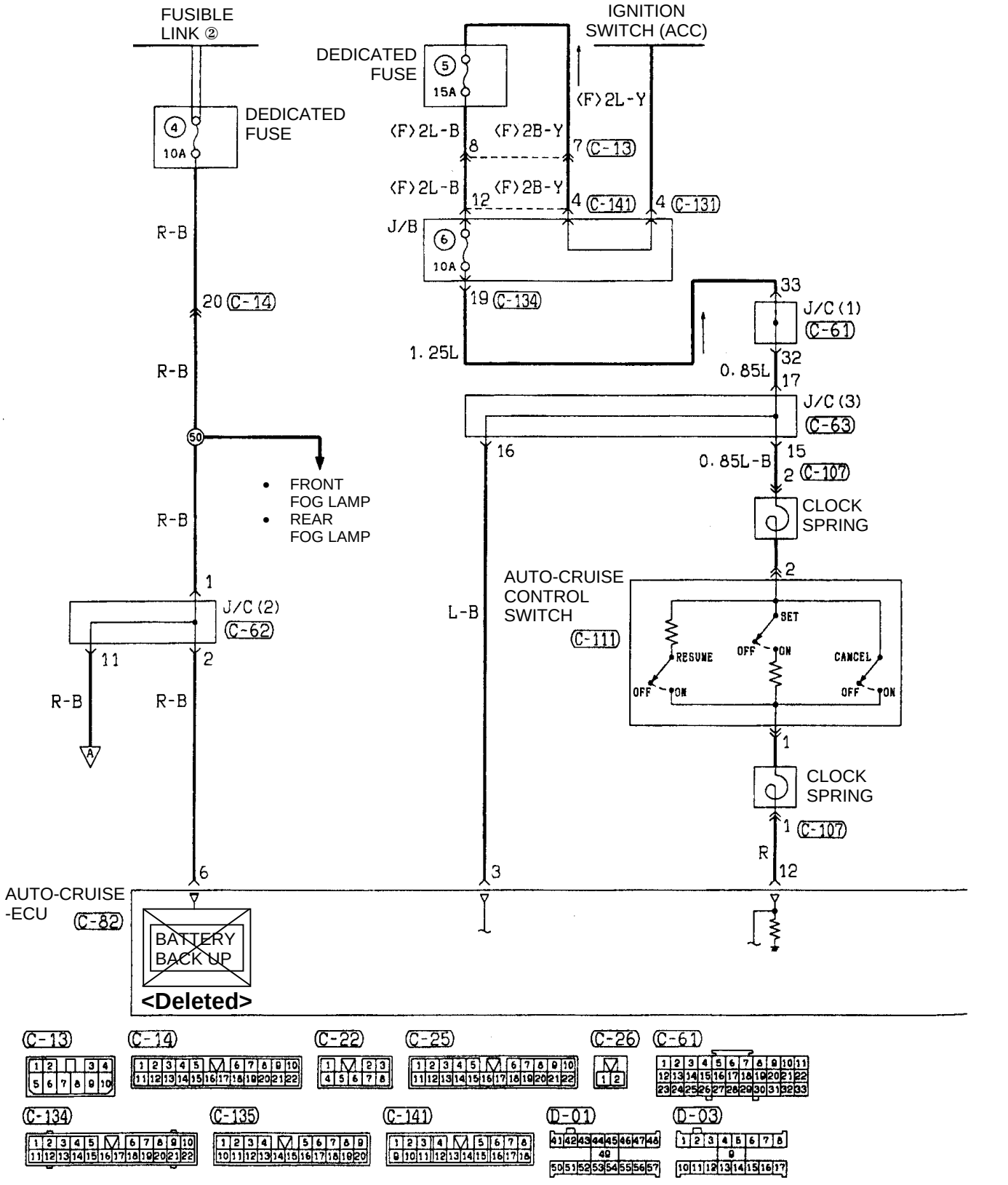
AUTO-CRUISE CONTROL SYSTEM

90100930487

R.H. drive vehicles with TCL



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