

SECTION 01-14B Keyless Entry System

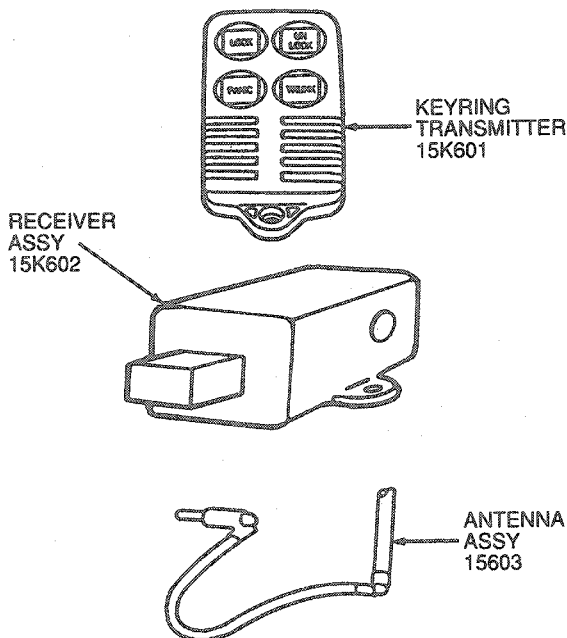
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VEHICLE APPLICATION

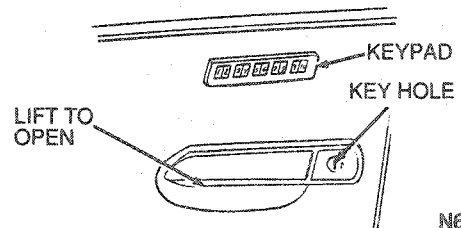
Taurus / Sable.

DESCRIPTION

The remote keyless entry system has four main components: The electronic control module, located under the package tray in the luggage compartment, the five-button keypad on the driver's door, the existing antenna and the four button (hand-held) transmitter.



N9330-B



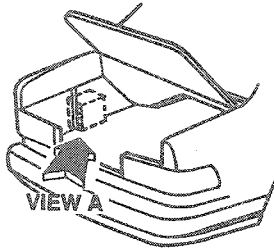
N6953-B

The electronic control module performs the following functions:

- Unlocking driver's door
- Unlocking all doors
- Unlocking luggage compartment
- Locking all doors
- Automatic locking of all doors when all doors are closed, the ignition switch is in the RUN position, someone is seated in the driver's seat, and the transmission is shifted through the REVERSE position. This feature is available only on vehicles equipped with automatic transmissions.
- Turning on interior lamps, keypad and keyhole illumination after any button on the keypad is pushed or either front door handle is lifted.
- Turn on interior lamps and keyhole illumination when using the transmitter.
- Activate and deactivate security feature which sounds horn and flashes parking lamps.
- Activates battery saver feature which removes power from convenience lamps and interior lamps 45 minutes after last input to control module.

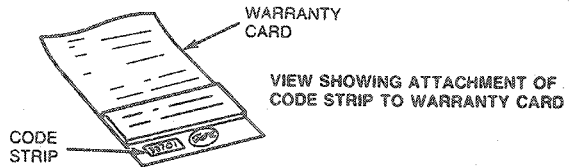
The control module will also accept and store a temporary owners alternate entry code. Either code will then operate the system.

DESCRIPTION (Continued)



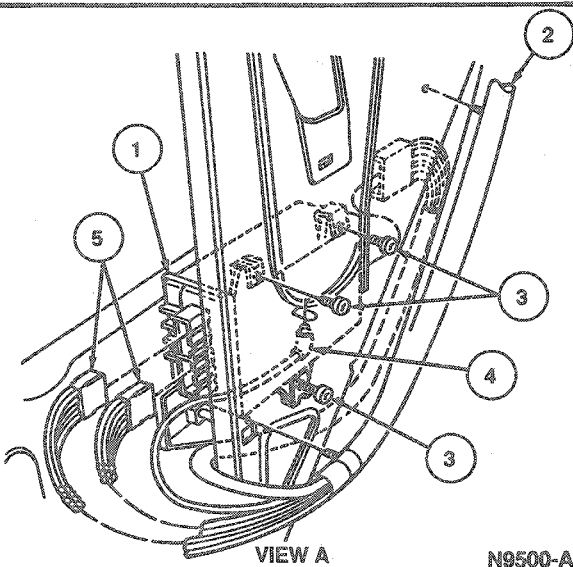
Entry Code

The system (permanent) entry code is located in four places: on the owner's warranty card, on a label on the inside of the luggage compartment deck lid, on an owner's code card, and on the control module.



N6954-A

The control module is programmed at the factory with a five-digit entry code. Replacement modules include replacement labels and a new owner's code card.



N9500-A

Item	Part Number	Description
1	15K602	Remote Keyless Entry Module
2	14A488	Wiring Harness Assembly
3	56903-S2	Screw (3 Req'd)
4	—	Antenna Connector (part of 14A488 Wiring Harness Assembly)
5	—	J1, J2 Connectors (part of 14A488 Wiring Harness Assembly)

TN9500A

OPERATION

The remote / keyless entry system receives inputs from the following:

- Front door handles
- Driver's seat sensor
- Transmission backup lamp switch
- Ignition switch
- Electric door lock / unlock switches
- Courtesy lamp switches
- Door ajar switches
- Keypad
- Program connector
- Transmitter(s)

The system distributes output to the following:

- Keypad illumination
- Convenience lamps
- Door lock actuators and motors
- Luggage compartment deck lid release solenoid
- Interior lamps and keyhole illumination
- Horn relay
- Autolamp relay (parking lamps)
- Anti-theft module (if equipped)

Transmitter

The remote / keyless entry system includes a four-button (hand-held) transmitter. Transmitter(s) are re-programmable and all transmitters for the vehicle must be set at the same time. When troubleshooting the vehicle, one transmitter is essential to perform tests.

Battery Saver

The remote / keyless entry module includes a battery saver relay which supplies power to the convenience lamps (Circuit 705), courtesy lamps (Circuit 53) and luggage compartment lamp (Circuit 707) when active. When the battery saver relay deactivates, power is removed from these lamps.

OPERATION (Continued)

The battery saver relay is activated anytime the control module receives an input signal. This relay deactivates 45 minutes after the last input to the control module.

NOTE: The battery saver relay does NOT control power to the headlamps.

Keyless Keypad

To unlock the driver's door, enter the permanent factory code or the owner's alternate code.

To unlock the passenger door(s), press the 3/4 button within five seconds of unlocking the driver's door or luggage compartment.

To unlock the luggage compartment, press the 5/6 button within five seconds of unlocking driver's or passenger door(s).

To turn on the interior lamps, lift either front door handle or press any button on the keypad. All illuminated components will light.

To lock all doors, press the 7/8 and 9/0 buttons at the same time. It is not necessary to enter the key code first. This will turn off courtesy lamps and arm Anti-theft system, if equipped.

To program temporary code, press 1/2 button within five seconds of the last command. Enter any alternate five digit code within five seconds of pressing the 1/2 button.

Autolock

NOTE: This feature is only available on vehicles with automatic transmissions.

All doors will automatically lock after all the following steps are completed.

- The autolock feature is activated.
- The driver's seat is occupied.
- All doors are fully closed.
- The ignition switch is in the RUN position.
- The shift lever passes through the REVERSE position.

After initial lock, all doors automatically re-lock when any door is opened and then closed, except if driver's seat is empty or ignition switch is OFF.

To activate the autolock feature, use the following steps:

1. Enter the five-digit permanent entry code into keypad.
2. Within five seconds of entering the code, press and hold the 7/8 button on the keypad.
3. Within five seconds of pressing and holding the 7/8 button, press and then release the 3/4 button.

4. Within five seconds of releasing the 3/4 button, release the 7/8 button on keypad.

To deactivate the autolock, repeat the above sequence.

Remote Transmitter Operation

To unlock the driver's door, press the UNLOCK button on the transmitter (which is programmed into the module) once. This will also disarm the anti-theft system, if equipped.

To unlock all doors, press the UNLOCK button on the transmitter twice, the second depression must be within five seconds of the first.

NOTE: If more than five seconds have elapsed since the first depression of the UNLOCK button, pressing the UNLOCK button again will only unlock the driver's door.

To unlock the luggage compartment, press the blue TRUNK button on the transmitter once.

To turn on interior lamps and keyhole illumination, press any of the following transmitter buttons: UNLOCK, TRUNK or PANIC.

To lock all doors, press LOCK button on the transmitter once. This will also arm the anti-theft system, if equipped.

To confirm that doors have locked, press LOCK button again, within five seconds of the first depression. This will beep the horn and lock all doors again.

To activate the personal security alarm, press the red PANIC button on the transmitter. The horn will beep and parking lamps will flash for a maximum of three minutes.

To deactivate the personal security alarm, press the red PANIC button again or turn the ignition key ON.

NOTE: The remote entry features will not function when the ignition switch is in the RUN or ACCESSORY position.

Programming Transmitter(s)

To program (or re-program) transmitter(s) into the remote/keyless entry module, perform the following steps:

1. Turn ignition switch to ON or ON / ACCESSORY position and momentarily short the two terminals of the Program Connector (J4) (a two-pin connector taped to the wire assembly and accessed by dropping the glove compartment). All doors should lock then unlock. Remove shorting pin.
2. Press any button on transmitter. All doors should lock then unlock, to verify that transmitter has been programmed.

NOTE: If door locks do not respond, press button again (up to three times maximum with the same transmitter). If door locks still fail to respond, go to Pinpoint Test I.

OPERATION (Continued)

- 3. Repeat Step 2 to program additional transmitters into the control module (up to four transmitter maximum).
- 4. Turn ignition OFF. All doors should lock then unlock.

- 5. Check operation.

NOTE: The remote / keyless entry module erases all previous transmitters from memory when the transmitters are programmed or re-programmed. The remote / keyless entry module can store up to four transmitters in memory.

System Wiring

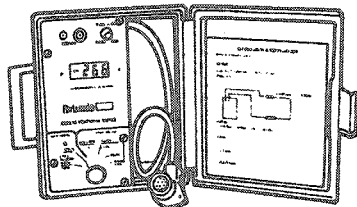
Refer to Section 18-01 for individual wiring harness installations.

DIAGNOSIS

Before proceeding with diagnosis and service of the remote keyless entry electrical operation, check for mechanical binds in the door locks. Operate all door locks several times and check lock operation. Also be sure the battery is fully charged.

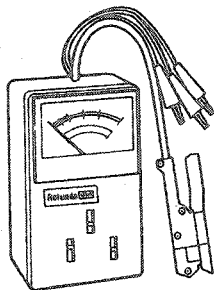
The following diagnosis procedures begin with an explanation page on how to use the procedures. Read this carefully before beginning Diagnosis. Refer to the following diagrams and charts for additional information when performing the diagnostic tests.

NOTE: Voltage and resistance readings can be obtained using Rotunda Digital Volt-Ohmmeter 014-00407 or Rotunda Dwell-Tach-Volt-Ohms Tester 059-00010 or equivalent.

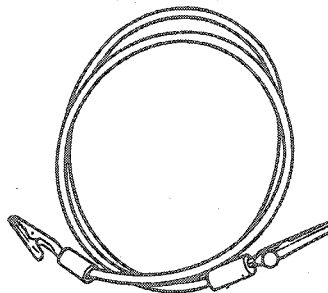


ROTUNDA DVOM 014-00407

OR



ROTUNDA VOM 059-00010

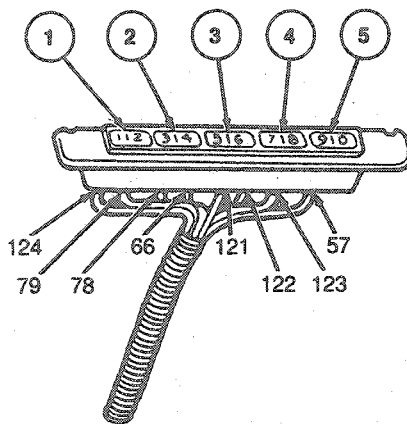


JUMPER WIRE N4958-C

DIAGNOSIS (Continued)

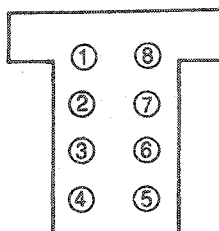
Remote Keyless Entry Keypad Connector

KEYPAD



TO KEYPAD CONNECTOR

CIRCUIT NO.	PIN NO.	COLOR	KEYPAD BUTTON SWITCH NO.	CIRCUIT DESCRIPTION
124	8	BROWN	—	KEYLESS DOOR LOCK SWITCH COMMON
78	2	LIGHT BLUE-YELLOW	1	KEYLESS DOOR LOCK SWITCH; 1/2 TO MODULE
79	1	LIGHT GREEN-RED	2	KEYLESS DOOR LOCK SWITCH; 3/4 TO MODULE
121	5	YELLOW-BLACK	3	KEYLESS DOOR LOCK SWITCH; 5/6 TO MODULE
122	6	YELLOW	4	KEYLESS DOOR LOCK SWITCH; 7/8 TO MODULE
123	4	RED	5	KEYLESS DOOR LOCK SWITCH; 9/0 TO MODULE
66	7	LIGHT BLUE	—	KEYLESS DOOR LOCK SWITCH ILLUMINATION FEED
57	3	BLACK	—	GROUND CIRCUIT (FOR KEYPAD LAMP)



KEYPAD CONNECTOR

N9333-A

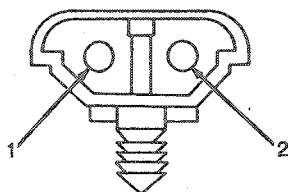
Remote Keyless Entry Module Connectors

There are four connectors to the module: J1 (26-pin), J2 (16-pin), J3 (antenna), and J4 (program connector). Connectors J1, J2, and J4 have the pins laid out as shown here.

PROGRAM CONNECTOR (J4)

PIN. NO.	WIRE NO. AND COLOR	CONNECTS TO
1	808 W/Y	PROGRAM A
2	809 GY/Y	PROGRAM B

NOTE: THE PROGRAM CONNECTOR IS LOCATED BEHIND THE GLOVE COMPARTMENT, TAPED TO THE HARNESS.

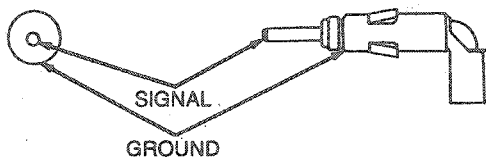


MODULE CONNECTOR DIAGRAM (LOOKING INTO CONNECTOR)

ANTENNA PLUG (J3)

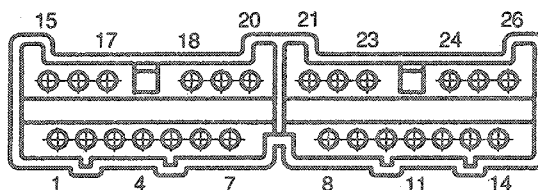
END VIEW

SIDE VIEW



N9335-B

J1 Connector



R7662-A

26-Pin Connector (J1)

PIN NO.	WIRE NO. AND COLOR	CONNECTS TO
1 and 15	57 BK	Power Ground
2 and 16	117 PK/BK	All Doors Lock
3	163 R/O	Driver's Door Unlock
4	119 PK/Y	Lock Switch
5	120 PK/LG	Unlock Switch
6 and 18	118 PK/O	All Doors Unlock
7 and 19	53 BK/LB	Interior Lamps
8	N/C	No Connection
9 and 22	84 P/Y	Luggage Compartment Release
10 and 23	54 LG/Y	Battery Saver Input (Power B+)
11 and 12	705 LG/O	Battery Saver Output
13	517 BK/W	Parking Lamps Input (Power B+)
14 and 25	517 BK/W	Power B+
17	706 GY	Door Jamb

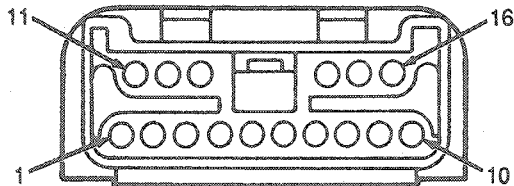
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DIAGNOSIS (Continued)

26-Pin Connector (J1) (Cont'd)

PIN NO.	WIRE NO. AND COLOR	CONNECTS TO
20	707 W/Y	Luggage Compartment Lamp / Switch
21	N/C	No Connection
24	14 BR	Parking Lamps Output
26	6 Y/LG	Horn Relay

J2 Connector



N9334-A

16 Pin Connector (J2)

PIN NO.	WIRE NO. AND COLOR	CONNECTS TO
1	54 LG/Y	Signal B+
2	123 R	9/0 Keypad Switch

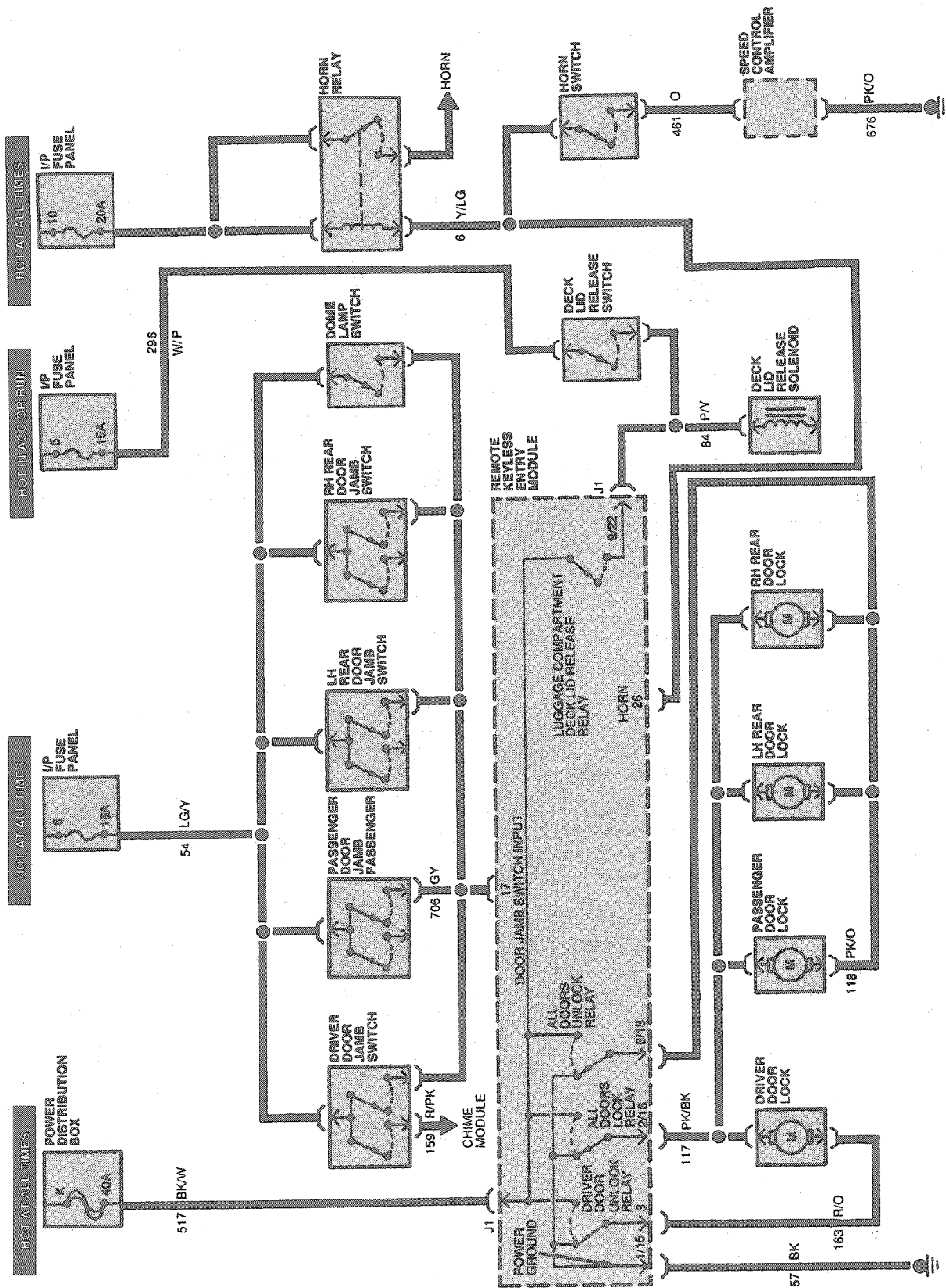
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16 Pin Connector (J2) (Cont'd)

PIN NO.	WIRE NO. AND COLOR	CONNECTS TO
3	79 LG/R	3/4 Keypad Switch
4	124 BR	Keypad Common
5	397 BK/W	Signal Ground
6	298 P/O	Ignition (Hot in RUN)
7	465 W/LB	Door Latch Switch
8	66 LB	Keypad Lamp
9	627 BK/O	Door Ajar
10	809 GY/Y	Program B
11	122 Y	7/8 Keypad Switch
12	121 Y/BK	5/6 Keypad Switch
13	78 LB/Y	1/2 Keypad Switch
14	177 W	Seat Switch
15	808 W/Y	Program A
16	140 BK/PK	PRNDL Switch

DIAGNOSIS (Continued)

Remote/Keyless Entry Schematic Diagrams

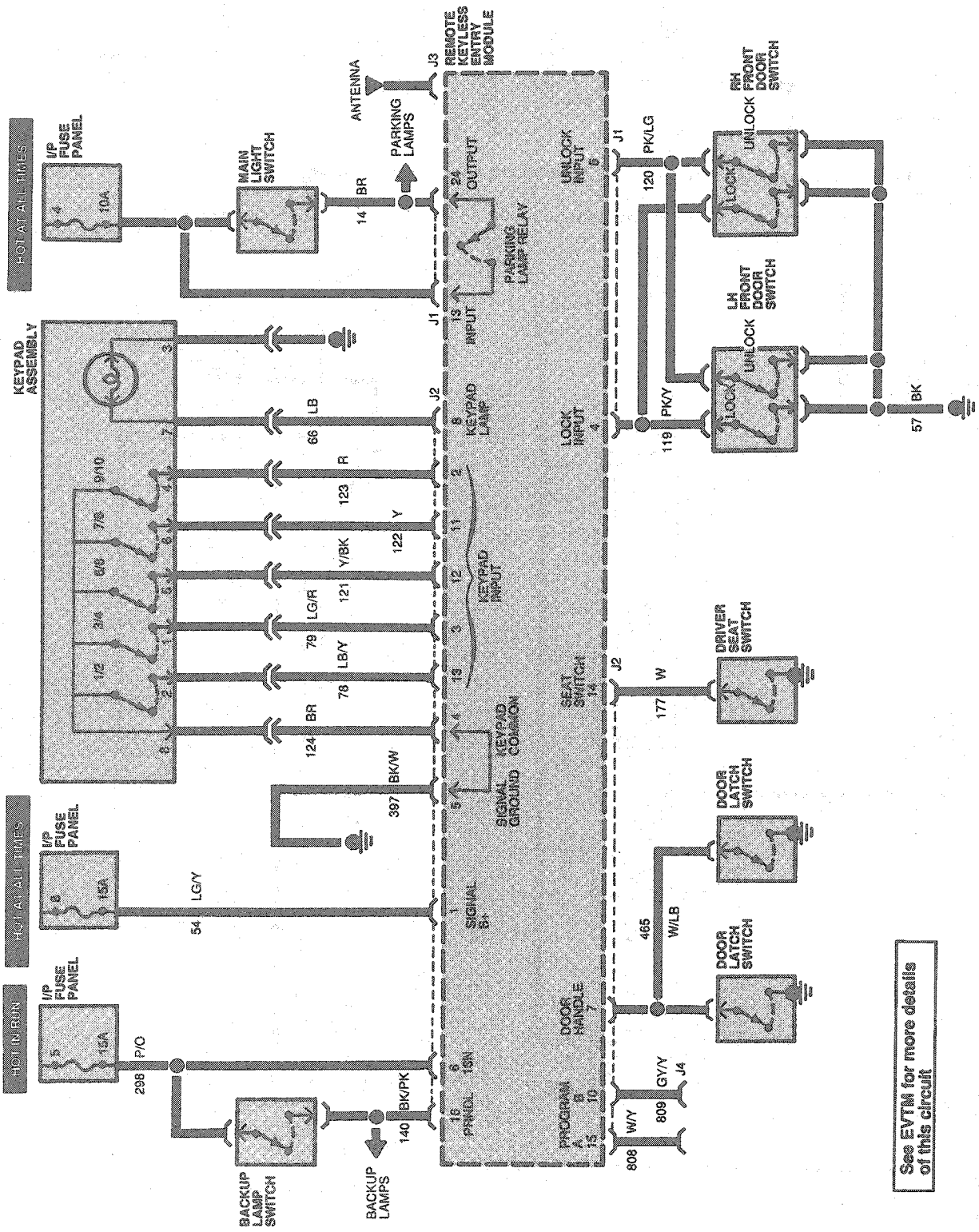


See EVTM for more details of this circuit

N10336-A

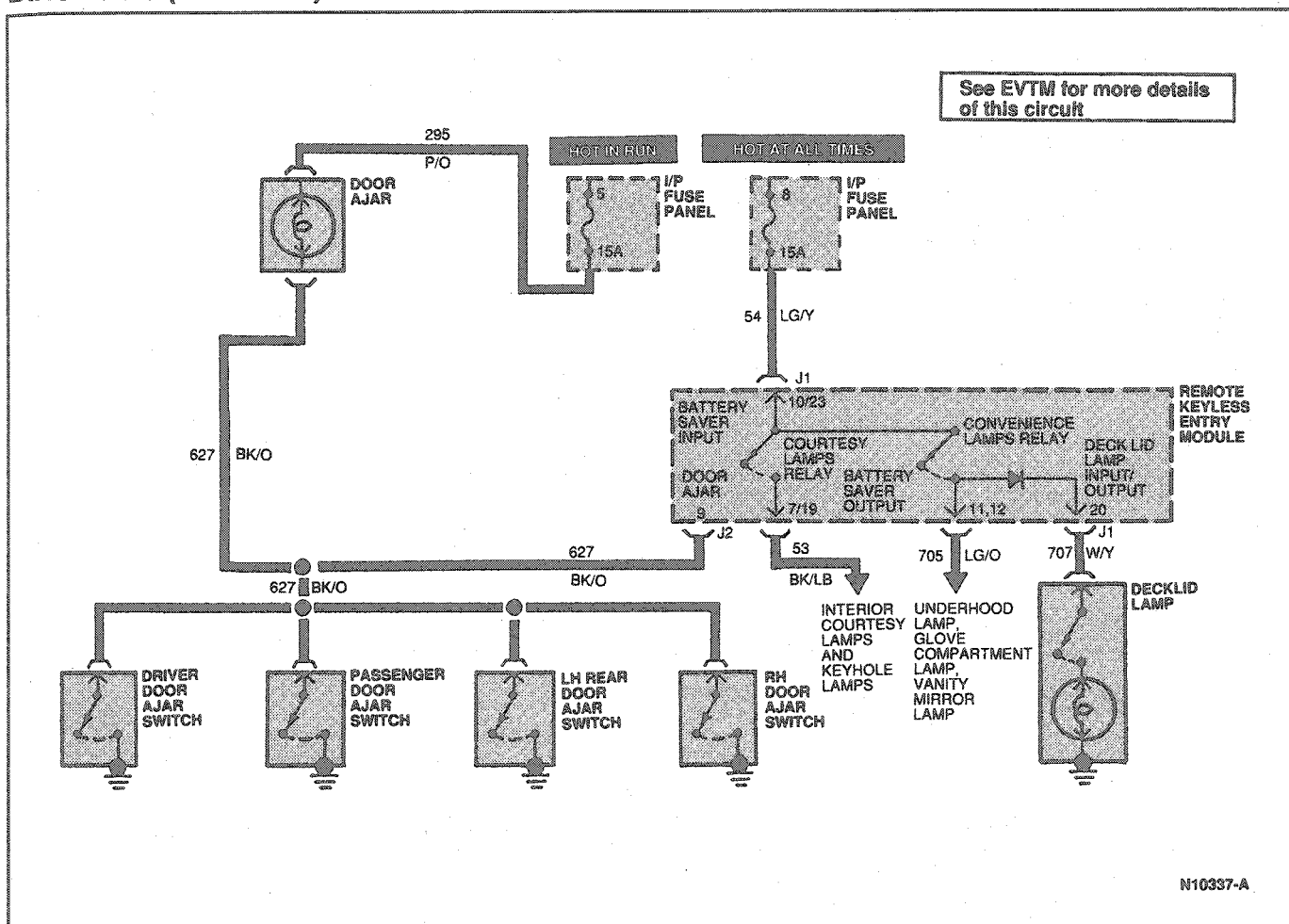
DIAGNOSIS (Continued)

N6644-A



See EVTM for more details of this circuit

DIAGNOSIS (Continued)



To test and service remote /keyless entry system:

- Perform the Quick Test.
- Perform the Pinpoint Tests as specified by the Quick Test (only perform them when a step of the Quick Test has failed.)
- Service only as specified in the tests.
- Repeat the quick test to make sure the system is operational.

Quick Test

Check that battery is fully charged (if not, it may be causing the concern).

Disconnect and reconnect battery to ensure system is reset.

FOR THIS SPECIFIC COMPLAINT	GO TO
Manual Locks	
Locks bind when manually operated	F
Locks do not operate in freezing	F 18
Locks only work when engine is running	F 19
Locks work intermittently	F 17
Illuminated Entry	
Interior lamps do not turn on with remote /keyless entry functions, when ignition key OFF; they ONLY work when a door is opened	E
Interior lamps do not turn on ONLY when door is opened from inside the vehicle, and ignition key OFF; the interior lamps do work with all other functions	E 16

(Continued)

DIAGNOSIS (Continued)

FOR THIS SPECIFIC COMPLAINT	GO TO
Interior lamps do not turn on ONLY when either of the front door handles is lifted, and ignition key OFF; they work with all other functions	E 12-E 14
Keyless Keypad Entry	
Keypad works, but the keypad lamp does not turn on when keypad buttons are pressed, and the interior lamps do turn on, with ignition key OFF	C
Doors automatically lock with ignition ON, and driver gets out of vehicle and closes door	B2-B5
ONLY the auto-lock/re-lock feature does not work	B
Keypad functions do not work	A1
Remote Transmitter Entry	
All doors lock then unlock every time ignition key is turned to RUN/ACCESSORY	H3
Remote features will not work at all, but all other features operational	H1
The remote/keyless entry system works, but the remote entry functions only work when the transmitter is held very close to the vehicle	H1
Remote entry functions do not operate in freezing or extremely hot weather; but all other module functions do operate properly	H15
If all of the above are OK	A1
If any of above conditions are found: service and test to see if condition is solved.	

TN9668A

NOTE: Keep the driver window rolled down during the Quick Test and the Pinpoint Tests, to avoid being locked out of the vehicle.

QUICK TEST

TEST STEP	RESULT	ACTION TO TAKE
A1 OPERATE LOCKS FROM DOOR SWITCHES		
<ul style="list-style-type: none"> ● For the door lock switch in each door: <ul style="list-style-type: none"> — LOCK and UNLOCK the doors several times using the switch. Check that all the doors lock/unlock properly. ● Do all doors lock/unlock properly from each switch? 	Yes No	GO to A2. PERFORM Pinpoint Test F.
A2 CHECK BATTERY SAVER FEATURE		
<ul style="list-style-type: none"> ● Sit in vehicle with all doors closed. ● Key ON, then OFF. ● Turn interior lamps ON with dimmer switch. ● Open deck lid. ● Do interior lamps and luggage compartment lamps turn on? 	Yes No	GO to A3. PERFORM Pinpoint Test E.
A3 ILLUMINATE KEYPAD BY PRESSING KEYPAD BUTTONS		
<ul style="list-style-type: none"> ● Use the dimmer switch to turn OFF interior lamps. ● Key OFF. ● For each button on the keyless entry keypad: <ul style="list-style-type: none"> — Press button. — Check that the keypad lights up. — Wait until the keypad lamp goes out (about 5 seconds) before pressing the next button. 	Interior lamps or keyhole illumination do not turn ON Keypad lights for each button, interior lamps, keyhole illumination ON with first button pressed. None of the buttons light the keypad One or more of the buttons fail to light the keypad	PERFORM Pinpoint Test E. GO to A4. PERFORM Pinpoint Test C. PERFORM Pinpoint Test D.

DIAGNOSIS (Continued)

QUICK TEST (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A4	LOCK DOORS USING KEYPAD		
	<ul style="list-style-type: none"> Close all doors and luggage compartment deck lid. — Make sure all doors are unlocked. Simultaneously press buttons 7/8 and 9/0 on the keypad. <p>NOTE: This step applicable only on vehicles equipped with anti-theft.</p> <ul style="list-style-type: none"> Watch the anti-theft indicator lamp located on instrument panel, while performing this step. 	<ul style="list-style-type: none"> Anti-theft light OFF when doors closed and locked All doors lock, interior lamps OFF, keypad lamp OFF, and optional anti-theft indicator OFF when doors closed, ON for 30 seconds after doors lock, then OFF Interior lamps stay ON Anti-theft light ON when doors closed and unlocked No doors lock or keypad lamp stays ON 	<ul style="list-style-type: none"> Perform Pinpoint Test H. GO to A5. PERFORM Pinpoint Test E. PERFORM Pinpoint Test H. REPEAT Step A4, if not OK, REPLACE module. REPEAT Quick Test.
A5	UNLOCK DRIVER DOOR USING PERMANENT CODE		
	<ul style="list-style-type: none"> Enter the permanent code by pressing the buttons on the keypad in the proper sequence. Use the code sequence that appears on the module. — Key OFF Doors closed and locked Open driver's door <p>NOTE: Ensure you press each button within five seconds of the previous depression. If keypad lamp goes off, system has timed out and you must re-enter entire code</p>	<ul style="list-style-type: none"> Alarm sounds (anti-theft equipped system) Driver's door unlocks, interior lamps ON, alarm does not sound when door is open Driver's door fails to unlock or interior lamps stay OFF 	<ul style="list-style-type: none"> REFER to Anti-Theft system (Section 01-14C) REPEAT Quick Test. GO to A6. REPEAT Step A5, if not OK, REPLACE module. REPEAT Quick Test.
A6	UNLOCK PASSENGER DOOR(S) USING BUTTON 3/4		
	<ul style="list-style-type: none"> If more than 5 seconds have elapsed since Step A5 (if the lamp on the keypad has gone out) re-enter the permanent code. Press button 3/4 on the keypad (must be done within 5 seconds of entering the permanent code). Do passenger doors unlock? 	<ul style="list-style-type: none"> Yes No 	<ul style="list-style-type: none"> GO to A7. REPEAT Step A6. If not OK, REPLACE module. REPEAT Quick Test.
A7	UNLOCK LUGGAGE COMPARTMENT DECK LID USING BUTTON 5/6		
	<ul style="list-style-type: none"> If more than 5 seconds have elapsed since Step A6 (if the lamp on the keypad has gone out) re-enter the permanent code. Press button 5/6 (must be done within 5 seconds of entering the permanent code or within five seconds of unlocking passenger doors with button 3/4). 	<ul style="list-style-type: none"> Luggage compartment deck lid unlocks Luggage compartment deck lid does not unlock Luggage compartment lid always OPEN or in UNLOCKED position 	<ul style="list-style-type: none"> Go to A8. PERFORM to Pinpoint Test G. PERFORM Pinpoint Test G, Step 5.

DIAGNOSIS (Continued)

QUICK TEST (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A8	DOORS LOCK WHEN SEATED DRIVER SHIFTS TRANSAXLE PARK / REVERSE / DRIVE		
	<ul style="list-style-type: none"> ● Sit in the driver's seat. ● Ensure that transaxle lever is in PARK. ● Close driver's door. <ul style="list-style-type: none"> — All doors unlocked. — All doors fully closed. — Interior lamps off. ● Key to ON. ● Shift the transaxle lever: <ul style="list-style-type: none"> — To REVERSE. — Then to DRIVE. ● Do doors lock? 	Yes No	GO to A9. Depress and release the brake pedal. REPEAT Test Step A8 once. If concern still exists, perform the following: <ul style="list-style-type: none"> ● If more than five seconds have elapsed since Step A7, RE-ENTER the permanent code ● PRESS and HOLD button 7 / 8 ● PRESS and RELEASE button 3 / 4 ● RELEASE button 7 / 8. If concern still exists, GO to Pinpoint Test B.
A9	AUTOMATIC RELOCK OF ANY DOOR		
	<ul style="list-style-type: none"> ● Still seated in driver seat. <ul style="list-style-type: none"> — Transaxle still in DRIVE. — Key still ON. ● Open any door. ● Close door. ● Does door lock? 	Yes No	GO to A10. PERFORM Pinpoint Test B.
A10	DOES NOT RE-LOCK WHEN DRIVER SEAT IS NOT OCCUPIED		
	<ul style="list-style-type: none"> ● Open driver door (seat should be empty). <ul style="list-style-type: none"> — Transaxle still in DRIVE. — Key still ON (engine not running). ● Close driver door. ● Does driver door lock? 	No Yes	GO to A11. PERFORM Pinpoint Test B.
A11	LIFTING DOOR HANDLE TO TURN ON ILLUMINATED ENTRY		
	<ul style="list-style-type: none"> ● Key to OFF. ● Transaxle in PARK. ● Doors closed and locked. ● Lift either front door handle to open door. ● Within 25 seconds, unlock door with key, get inside vehicle and turn ignition ON. 	Interior lamps illuminated with door handle lifted and go off when ignition is turned ON Interior lamps illuminate and do not go off when ignition is turned ON Interior lamps do not illuminate	GO to A12. REPLACE module. REPEAT Quick Test. PERFORM Pinpoint Test E.
A12	CHECK IF ALTERNATE CODE IS ACCEPTED		
	NOTE: In the following, no more than 5 seconds should elapse between successive key presses. <ul style="list-style-type: none"> ● Key OFF ● Enter the permanent code on the keypad. ● Press button 1 / 2 (this alerts system to accept an alternate code). ● Press (in sequence) buttons 9 / 0, 7 / 8, 5 / 6, 3 / 4 and 1 / 2. 	Keypad lamp and interior lamps go out immediately after pressing the last button Keypad lamp stays on	GO to A13. REPLACE module. REPEAT Quick Test.

DIAGNOSIS (Continued)

QUICK TEST (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A13	UNLOCK DOOR USING ALTERNATE CODE		
	<ul style="list-style-type: none"> ● Close and lock doors. ● Press (in sequence) buttons 9/0, 7/8, 5/6, 3/4 and 1/2 on the keypad. ● Does driver door unlock? 	Yes No	GO to A14. REPEAT A11 and A12. If still not OK, REPLACE module. REPEAT Quick Test.
A14	DISABLE ALTERNATE CODE		
	<ul style="list-style-type: none"> ● Starting with the keypad lamp out, enter the permanent code on the keypad. ● Press button 1/2 (within 5 seconds of entering the permanent code). ● Wait until keypad lamp goes out. — This removes the alternate code. ● Close and lock driver door. ● Press (in sequence) buttons 9/0, 7/8, 5/6, 3/4 and 1/2 on the keypad. 	Doors remain locked Some doors unlock	GO to A15. REPLACE module. REPEAT Quick Test.
A15	DO NOT ARM ANTI-THEFT SYSTEM WHILE IGNITION IS ON		
	NOTE: Perform this step only for vehicles equipped with FORD factory installed anti-theft option. <ul style="list-style-type: none"> ● Key ON and doors closed and unlocked. ● Simultaneously press buttons 7/8 and 9/0 on keypad. ● Anti-theft indicator lamp response: 	Lamp does not turn on after doors lock Lamp on for 30 seconds after doors lock	GO to A16. REPLACE module. REPEAT Quick Test.
A16	CHECK PROGRAM CONNECTOR		
	<ul style="list-style-type: none"> ● Key ON. ● Momentarily insert a shorting plug into program connector (J4) (located behind the glove compartment, taped to the harness). NOTE: This shorting plug connects Program A input to Program B on the module. <ul style="list-style-type: none"> ● Do doors lock and unlock? 	Yes No	GO to A17. PERFORM Pinpoint Test I, Step 3.
A17	LOCK DOORS USING TRANSMITTER		
	<ul style="list-style-type: none"> ● Remove shorting plug from program connector (J4). ● Key OFF. ● Close all doors, doors should be unlocked. ● Press the LOCK button on transmitter that has been programmed into the module. NOTE: May have to press the button more than once. NOTE: For vehicles equipped with anti-theft option, watch the anti-theft indicator lamp, located on the instrument panel while performing this step.	All doors lock; interior lamps OFF; anti-theft indicator lamp OFF when doors closed, then ON for 30 seconds after doors lock No response from the door locks (even after 3 button pushes) Anti-theft does not respond correctly	GO to A18. PERFORM Pinpoint Test I, Step 1. Perform Pinpoint Test H.

DIAGNOSIS (Continued)

QUICK TEST (Continued)

	TEST STEP	RESULT	ACTION TO TAKE
A18	UNLOCK DRIVER'S DOOR USING TRANSMITTER		
	<ul style="list-style-type: none"> ● Key OFF. ● Program connector (J4) NOT shorted. ● Doors closed and locked. ● Press the UNLOCK button on transmitter. ● For vehicles with anti-theft option: <ul style="list-style-type: none"> — Open driver door 	Driver's door unlocks; interior lamps turn on; alarm does not sound when door is opened Driver's door fails to unlock or interior lamps do not turn on Alarm sounds	GO to A19. REPLACE module. REPEAT Quick Test. REFER to anti-theft system (Section 01-14C). REPEAT Quick Test.
A19	UNLOCK PASSENGER DOOR(S) USING TRANSMITTER		
	<ul style="list-style-type: none"> ● Press the UNLOCK button on transmitter twice (the second press must be within 5 seconds of the first) or if less than 5 seconds since Step A18, press the UNLOCK button on transmitter once. <ul style="list-style-type: none"> — Key OFF. — Program connector (J4) NOT shorted. ● Do door(s) unlock? 	Yes No	GO to A20. REPLACE module. REPEAT Quick Test.
A20	UNLOCK LUGGAGE COMPARTMENT USING TRANSMITTER		
	<ul style="list-style-type: none"> ● Press the (BL) TRUNK button on transmitter. <ul style="list-style-type: none"> — Key OFF. — Program connector (J4) NOT SHORTED. ● Does luggage compartment open? 	Yes No	GO to A21. REPLACE module. REPEAT Quick Test.
A21	ACTIVATE THE PANIC ALARM USING TRANSMITTER		
	<ul style="list-style-type: none"> ● Press the (R) PANIC button transmitter. <ul style="list-style-type: none"> — Key OFF. — Program connector (J4) NOT shorted. ● Does horn sound and parklamps flash ON and OFF continuously? 	Yes No	GO to A22. PERFORM Pinpoint Test J.
A22	ENSURE PANIC ALARM DOES NOT SHUT OFF WITH DIFFERENT TRANSMITTER		
	NOTE: If only one transmitter is available, OMIT this step. <ul style="list-style-type: none"> ● If more than 3 minutes has elapsed since Step A21 (if the panic alarm has shut off) repeat Step A21. <ul style="list-style-type: none"> — Key OFF. — Program connector (J4) NOT shorted. ● If more than one transmitter is available, press the (R) PANIC button on a different transmitter than was used in step A21. ● Do horn and parklamps shut OFF? 	No Yes	GO to A23. REPLACE module. REPEAT Quick Test.
A23	DEACTIVATE PANIC ALARM USING SAME TRANSMITTER		
	<ul style="list-style-type: none"> ● If more than 3 minutes has elapsed since Step A21 (if the panic alarm has shut off), repeat Step A21. <ul style="list-style-type: none"> — Key OFF. — Program connector (J4) NOT shorted. ● Push the (R) PANIC button on the same transmitter that was used in Step A21. ● Do horn and parklamps shut OFF? 	Yes No	GO to A24. REPLACE module. REPEAT Quick Test.
A24	TURN OFF PANIC ALARM WITH IGNITION ON		
	<ul style="list-style-type: none"> ● Press the (R) PANIC button on any transmitter which has been programmed into the module. <ul style="list-style-type: none"> — Program connector (J4) NOT shorted ● Then turn the ignition switch ON. ● Do horn and parklamp shut OFF with ignition ON? 	Yes No	GO to A25. REPLACE module. REPEAT Quick Test

DIAGNOSIS (Continued)

QUICK TEST (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A25	VERIFY DOOR LOCK USING TRANSMITTER <ul style="list-style-type: none"> Remove shorting plug from program connector (J4). Key OFF. Close all doors, doors should be unlocked. Press the LOCK button on the transmitter twice, the second depression MUST be within five seconds of the first. Does horn sound and parklamps flash? 	Yes No	GO to A26. REPLACE module. REPEAT Quick Test.
A26	NO TRANSMISSIONS RECEIVED WITH IGNITION ON <ul style="list-style-type: none"> Ignition switch ON. <ul style="list-style-type: none"> All doors closed and unlocked Luggage compartment closed and latched Press the UNLOCK button on any transmitter which has been programmed into the module. Do any doors unlock? 	No Yes	End of Quick Test. Remote / keyless entry system is OK. REPLACE module. REPEAT Quick Test.

TN9656A

Pinpoint Tests

Do NOT run any of the following Pinpoint Tests unless so instructed by the Quick Test. Doing so may produce incorrect results and services. After completing any Pinpoint Test Service, return to the Quick Test. Do NOT continue with other Pinpoint Tests.

CAUTION: Do not replace parts unless test results say they should be replaced.

PINPOINT TEST	SUBJECT
H	ANTI-THEFT SYSTEM
I	REMOTE ENTRY SYSTEM
J	PANIC ALARM

TN9657A

PINPOINT TEST	SUBJECT
B	AUTOMATIC LOCKING SYSTEM
C	KEYPAD ILLUMINATION
D	KEYPAD INPUTS
E	ILLUMINATED ENTRY
F	POWER LOCKS
G	LUGGAGE COMPARTMENT UNLOCK

(Continued)

**PINPOINT TEST B
AUTOMATIC LOCKING SYSTEM**

Perform Test ONLY if Instructed To Do So By Quick Test

This Pinpoint Test Checks:

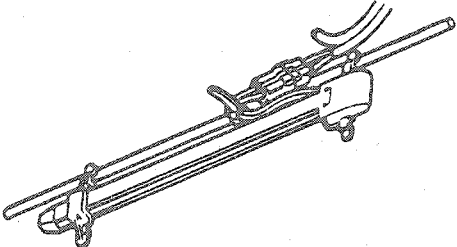
- Driver's Seat Switch
- Backup Lamp Switch (transmission lever)
- Remote Keyless Entry Module
- Ignition Switch Input
- Circuits 177, 57, 54, 53, 298, 140, 397, 517

**PINPOINT TEST B
AUTOMATIC LOCKING SYSTEM**

TEST STEP		RESULT	ACTION TO TAKE
B1	CHECK MODULE GROUND <ul style="list-style-type: none"> Disconnect module connectors (J1) and (J2). Check for continuity between Ground and Pin 5 of connector (J2) and between chassis ground and Pins 1 and 15 of connector (J1). 	Continuity No continuity at connector (J1) No continuity at connector (J2) (resistance greater than 500,000 ohms)	GO to B2. SERVICE Circuit 57 to module. SERVICE circuit 397 to module.
B2	SEAT SWITCH OPEN WHEN DRIVER'S SEAT EMPTY <ul style="list-style-type: none"> Key off. Disconnect connector (J2) from the module. Check for continuity between Pin 14 of the connector (J2) and ground. <ul style="list-style-type: none"> —driver seat unoccupied. 	No continuity Continuity (resistance less than 100 ohms)	GO to B4. GO to B3.

DIAGNOSIS (Continued)

PINPOINT TEST B
AUTOMATIC LOCKING SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
B3	CHECK SEAT SWITCH CIRCUIT FOR SHORT		
	<ul style="list-style-type: none"> ● Disconnect driver seat switch. ● Test for short between Pin 14 of the connector (J2) and ground. ● Is there a short? 	No	▶ SERVICE driver seat switch (Section 01-10). REPEAT Quick Test.
		Yes	▶ SERVICE Circuit 177. REPEAT Quick Test.
B4	SEAT SWITCH CLOSED WHEN DRIVER IS IN SEAT		
	<ul style="list-style-type: none"> ● Sit in driver seat. ● Check for continuity between Pin 14 of the disconnected connector (J2) and ground (with someone in driver's seat). ● Is resistance less than 100 ohms? 	Yes	▶ GO to B6.
		No	▶ GO to B5.
B5	CHECK CONTINUITY IN SEAT SWITCH CIRCUITS		
	<ul style="list-style-type: none"> ● Check for continuity between Pin 14 of the connector (J2) and Circuit 177. ● With driver's seat occupied, check continuity between seat switch connector of driver seat switch and Circuit 177. ● Is there continuity? 	Yes	▶ SERVICE driver seat switch (Section 01-10). REPEAT Quick Test.
		No	▶ SERVICE open in Circuit 177. Switch to ground or switch to module. REPEAT Quick Test.
	 N8802-A		
B6	MODULE VOLTAGE OK		
	<ul style="list-style-type: none"> ● Disconnect module connectors (J1 and J2). ● Check the Voltage between Pins 5 and 1 of connector (J2) and between Pins 14, 25 and 1, 15 of connector (J1). 	VOM Reading: 10 volts or more	▶ GO to B7.
		Under 10 volts on connector (J2)	▶ SERVICE open or short in Circuit 54. REPEAT Quick Test.
		Under 10 volts on connector (J1)	▶ SERVICE open or short in Circuit 517. REPEAT Quick Test.
B7	OPERATE COURTESY LAMP SWITCHES		
	<ul style="list-style-type: none"> ● Check that each courtesy lamp switch turns on the corresponding courtesy lamps. ● Do courtesy lamps come on? 	Yes	▶ GO to B8.
		No	▶ SERVICE Switch or wire or Circuit 705. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST B
AUTOMATIC LOCKING SYSTEM (Continued)

TEST STEP	RESULT	ACTION TO TAKE
B8 VERIFY NO INPUT TO MODULE WHEN ALL DOORS ARE CLOSED (DOOR JAMB SWITCHES)		
<ul style="list-style-type: none"> ● For each door (with all other doors closed): <ul style="list-style-type: none"> — Disconnect module connector (J1). — Measure the continuity between B+ (Circuit 54) and Pin 17 of connector (J1) with door open then closed. <p style="margin-left: 20px;">NOTE: Dimmer switch must be off for this test.</p>	Continuity with door open and no continuity with door closed (for all doors) No continuity with door open (for one or more doors) Continuity with door closed (for one or more doors)	GO to B9. REPLACE damaged switch(es). REPEAT Quick Test. SERVICE short in door switch or circuitry. REPEAT Quick Test.
B9 VERIFY NO INPUT TO MODULE WHEN ALL DOORS ARE CLOSED (DOOR AJAR SWITCHES)		
<ul style="list-style-type: none"> ● Disconnect anti-theft module, if equipped, and connector (J2). ● With ALL doors closed, measure continuity between Pin 9 (J2) and ground. ● Is there continuity? 	Yes No	GO to B10. SERVICE short in Circuit 627 and/or damaged/worn door ajar switch. REPEAT Quick Test.
B10 VERIFY NO INPUT TO MODULE WHEN DOORS ARE OPEN (DOOR AJAR SWITCHES)		
<ul style="list-style-type: none"> ● Disconnect anti-theft module, if equipped, and connector (J2). ● For each door: <ul style="list-style-type: none"> — Open door, measure continuity between Pin 9 (J2) and ground. ● Is there continuity for each door open and no continuity for doors closed? 	Yes No	GO to B11. SERVICE damaged/worn door ajar switch and/or open in Circuit 627. REPEAT Quick Test.
B11 VERIFY NO INPUT TO MODULE WHEN IGNITION OFF		
<ul style="list-style-type: none"> ● Key Off. ● Check voltage at Pin 6 of connector (J2) to ground. ● Is reading greater than zero volts? 	No Yes	GO to B12. SERVICE or REPLACE ignition switch. REPEAT Quick Test.
B12 INPUT TO MODULE WHEN IGNITION ON		
<ul style="list-style-type: none"> ● Key to Run. ● Check voltage at Pin 6 of connector (J2) to ground. ● Is reading 10 volts or greater? 	Yes No	GO to B14. GO to B13.
B13 BREAK OR SHORT IN IGNITION SWITCH CIRCUIT		
<ul style="list-style-type: none"> ● Key to Off. ● Check for a short between Pin 6 of connector (J2) and ground. ● Check continuity between Pin 6 of connector (J2) and Circuit 298 of the ignition switch. 	Continuity and no short-to-ground Short-to-ground or open in Circuit 298	GO to B14. SERVICE Circuit 298 or CHECK ignition switch. REPEAT Quick Test.
B14 CHECK TRANSMISSION SENSOR INPUT		
<ul style="list-style-type: none"> ● Key to Run. ● Check voltage at Pin 16 of connector (J2) to ground. ● Transmission lever in REVERSE. <ul style="list-style-type: none"> — Then try all other positions. 	VOM Reading: 10 volts or more in Reverse. Zero volts in all other gears Less than 10 volts in Reverse or more than zero volts in other gears	REPLACE module. REPEAT Quick Test. GO to B15.

DIAGNOSIS (Continued)

PINPOINT TEST B
AUTOMATIC LOCKING SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
B15	CHECK BACKUP LAMP SWITCH		
	<ul style="list-style-type: none"> ● Test Switch function. — Refer to Group 17. ● Is backup lamp switch operational? 	Yes	<ul style="list-style-type: none"> ▶ SERVICE open or short in Circuit 140. REPEAT Quick Test.
		No	<ul style="list-style-type: none"> ▶ REPLACE or SERVICE backup lamp switch. REPEAT Quick Test.

TN8248B

PINPOINT TEST C
KEYPAD ILLUMINATION

Perform Test ONLY If Instructed To Do So By Quick Test

This Pinpoint Test Checks:

- Remote Keyless Entry Module
- Keypad Assembly
- Circuits 54, 57, 66, 124, 517, 397

PINPOINT TEST C
KEYPAD ILLUMINATION

TEST STEP		RESULT	ACTION TO TAKE
C1	CHECK POWER INPUTS TO MODULE		
	<ul style="list-style-type: none"> ● Disconnect J1, J2 from module. ● Check the voltage levels (to ground) at the following pins: <ul style="list-style-type: none"> — Pin 1 of connector (J2) (Circuits 54 Town Car, 54 Crown Victoria / Grand Marquis fuse No. 8) — Pin 14, 25 of connector (J1) (Circuit 517 Town Car, 171 Crown Victoria / Grand Marquis) ● Is reading 10 volts or greater? 	Yes No	<ul style="list-style-type: none"> ▶ GO to C2. ▶ SERVICE open or short in corresponding circuit(s). REPLACE burned fuse(s). REPEAT Quick Test.
C2	CHECK MODULE GROUND PINS		
	<ul style="list-style-type: none"> ● Check for continuity to Ground at the following pins: <ul style="list-style-type: none"> — Pin 5, connector (J2) (Circuit 57 Town Car, 397 Crown Victoria / Grand Marquis) — Pin 1, connector (J1) (Circuit 57) — Pin 15, connector (J1) (Circuit 57) ● Is there continuity? 	Yes No	<ul style="list-style-type: none"> ▶ GO to C3. ▶ SERVICE open in corresponding circuit(s). REPEAT Quick Test.
C3	CHECK FOR SHORT IN KEYPAD LAMP CIRCUIT		
	<ul style="list-style-type: none"> ● Disconnect the keypad connector and module connector (J2). ● Check for short between Pin 8 of connector (J2) and ground. ● Is there a short? 	Yes No	<ul style="list-style-type: none"> ▶ SERVICE short in Circuit 66. REPEAT Quick Test. ▶ GO to C4.
C4	CHECK KEYPAD LAMP CIRCUIT RESISTANCE		
	<ul style="list-style-type: none"> ● Connect keypad. ● Disconnect connector (J2). ● Apply +12 volts between Pin 8 of connector (J2) and ground. ● Does keypad illuminate? 	Yes No	<ul style="list-style-type: none"> ▶ PERFORM Pinpoint Test D. ▶ GO to C5.
C5	CHECK KEYPAD LIGHTING		
	<ul style="list-style-type: none"> ● Disconnect the keypad. ● Apply +12 volts between Pin 7 of the keypad connector (driver's door) and ground (Pin 3 of keypad connector). ● Does keypad illuminate? 	Yes No	<ul style="list-style-type: none"> ▶ GO to C6. ▶ REPLACE keypad. REPEAT Quick Test.
C6	CHECK KEYPAD LAMP CIRCUIT FOR OPEN		
	<ul style="list-style-type: none"> ● Disconnect connector (J2) and keypad connector. ● Check for continuity from Pin 8 of connector (J2) and Pin 7 of the harness connector. ● Is there continuity? 	Yes No	<ul style="list-style-type: none"> ▶ GO to C7. ▶ SERVICE open in Circuit 66. REPEAT Quick Test.

DIAGNOSIS (Continued)

**PINPOINT TEST C
KEYPAD ILLUMINATION (Continued)**

TEST STEP		RESULT	ACTION TO TAKE
C7	CHECK FOR GROUND AT KEYPAD		
	<ul style="list-style-type: none"> ● Disconnect the keypad connector. ● Check for continuity between Pin 3 of the harness connector and ground. ● Is there continuity? 	Yes No	GO to C8. SERVICE open in ground circuit to keypad. REPEAT Quick Test.
C8	CHECK CIRCUIT 124 CONTINUITY		
	<ul style="list-style-type: none"> ● Disconnect connector (J2) and keypad connector. ● Check continuity between Pin 4 of connector (J2) and Pin 8 of the harness connector. ● Is there continuity? 	Yes No	GO to C9. SERVICE Circuit 124. REPEAT Quick Test.
C9	CHECK KEYPAD COMMON FOR GROUND CONNECTION		
	<ul style="list-style-type: none"> ● Check for continuity between Pin 4 (J2) of module and ground. ● Is there continuity? 	Yes No	GO to C10. REPLACE module. REPEAT Quick Test.
C10	CONNECTORS		
	<ul style="list-style-type: none"> ● Inspect keypad connector for loose or corroded pins. ● Are pins loose or corroded? 	Yes No	SERVICE as required. REPEAT Quick Test. SERVICE complete. System is good.

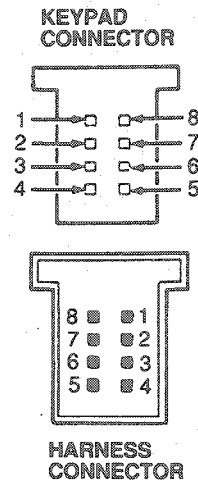
TN8426B

**PINPOINT TEST D
KEYPAD INPUT**

Perform Test ONLY If Instructed To Do So By Quick Test

This Pinpoint Test Checks:

- Keypad Assembly
- Remote Keyless Entry Module
- Circuits 121, 122, 123, 78, 79



N9456-B

**PINPOINT TEST D
KEYPAD INPUT**

TEST STEP		RESULT	ACTION TO TAKE
D1	CHECK KEYPAD FAILING BUTTON CIRCUIT AT MODULE CONNECTOR		
	<ul style="list-style-type: none"> ● Disconnect module connector (J2). ● Using chart above, check circuit that corresponds to the failing button, for short-to-ground (100K ohms or less) between module connector (J2) and ground. ● Is there a short? 	Yes No	GO to D2. GO to D3.

DIAGNOSIS (Continued)

PINPOINT TEST D
KEYPAD INPUT (Continued)

TEST STEP		RESULT	ACTION TO TAKE
D2	CHECK KEYPAD FAILING BUTTON CIRCUIT AT KEYPAD CONNECTOR		
	<ul style="list-style-type: none"> ● Remove door trim panel (Section 01-05). ● Disconnect keypad connector. ● Using above chart, check circuits that correspond to the failing button for resistance less than 100 k ohms between keypad connector and ground or Circuit 124. ● Is resistance low? 	Yes No	REPLACE switch. SERVICE harness between module connector and keypad connector for short. REPEAT Quick Test.
D3	CHECK SWITCH INPUT		
	<ul style="list-style-type: none"> ● Verify Circuit 124 continuity from Pin 13 to Pin 4 of connector (J2) with 1/2 button depressed. ● Is there continuity? 	Yes No	GO to D4. SERVICE open or shorted wire. REPEAT Quick Test.
D4	CHECK MODULE OUTPUT WITH SIMULATED INPUT		
	<ul style="list-style-type: none"> ● Connect meter between Pin 8 connector (J2) and ground. <ul style="list-style-type: none"> — Do not disconnect the connector from the module. ● For each button that failed to light the keypad: <ul style="list-style-type: none"> — Watch the meter as you momentarily connect a jumper between Pin 4 of connector (J2) and Pins 13, 2, 12, 11 and 2. (Wait at least 5 seconds between jumper connections.) 	VOM Reading: 5 volts or more for five seconds for each test Below 5 volts or less than five seconds for any test	GO to D5. REPLACE module. REPEAT Quick Test.
D5	CHECK FOR SHORTS BETWEEN ALL REMAINING PINS		
	<ul style="list-style-type: none"> ● Keypad disconnected ● Check for continuity between Pin 8 and every pin of the keypad at the connector. <ul style="list-style-type: none"> — then between Pin 4 and every pin, etc., until all pin pairs have been checked. 	All open circuits (except between Pins 3 and 7) Short found	GO to D6. REPLACE keypad. REPEAT Quick Test.
D6	CHECK CONTINUITY TO KEYPAD WITH KEY PRESSED		
	<ul style="list-style-type: none"> ● Check for Continuity between Pin 5 and Pin 8 of keypad connector. ● Repeat for each key in turn with key pressed, checking continuity between the corresponding pin in the table at the start of Pinpoint Test D, and Pin 8 of keypad connector. ● Is there continuity? 	Yes No	SERVICE open or short in circuit of non-functional buttons. REPEAT Quick Test. REPLACE keypad. REPEAT Quick Test.

TN7188B

PINPOINT TEST E
ILLUMINATED ENTRY

Perform Test ONLY If Instructed To Do So By Quick Test

This Pinpoint Test Checks:

- Lock Cylinder LED's
- Door Handle Switches

- Remote Keyless Entry Module
- Circuit 54, 298, 465, 53, 57, 397, 517, 707
- Battery Saver I/O
- Instrument Panel Dimmer Switch
- Door Jamb Switches
- Ignition Switch Input

DIAGNOSIS (Continued)

PINPOINT TEST E
ILLUMINATED ENTRY

TEST STEP		RESULT	ACTION TO TAKE
E1	CHECK MODULE GROUND		
	<ul style="list-style-type: none"> Disconnect module connectors (J1), (J2). Check continuity to ground at Pin 5 of connector (J2), and at Pins 1 and 15 of connector (J1). Is there continuity? 	Yes No continuity at connector (J1) No continuity at connector (J2)	GO to E2. SERVICE open in Circuit 57. REPEAT Quick Test. SERVICE open in Circuit 397. REPEAT Quick Test.
E2	CHECK POWER TO MODULE		
	<ul style="list-style-type: none"> Disconnect module connectors (J1), (J2). Check voltage at Pin 1 of connector (J2) to ground. Check voltage at Pins 14 and 25 of connector (J1) to ground. 	VOM Reading: 10 volts or more Under 10 volts at connector (J2) Under 10 volts at connector (J1)	GO to E3. CHECK and REPLACE fuse. SERVICE open or short in Circuit 54. REPEAT Quick Test. CHECK and REPLACE fuse. SERVICE open or short in Circuit 517. REPEAT Quick Test.
E3	CHECK CONTINUITY TO BATTERY SAVER INPUT		
	<ul style="list-style-type: none"> Disconnect module connector (J1). Check continuity to Circuit 54 at Pins 10 and 23 of connector (J1). Is there continuity? 	Yes No	GO to E4. SERVICE open in Circuit 54. REPEAT Quick Test.
E4	CHECK BATTERY SAVER INPUT		
	<ul style="list-style-type: none"> Reconnect module connector (J1). Measure the voltage between ground and Pins 10 and 23 of connectors (J1). Is voltage greater than 10 volts? 	Yes No	GO to E5. SERVICE short in Circuit 54. REPEAT Quick Test.
E5	CHECK BATTERY SAVER OUTPUT		
	<ul style="list-style-type: none"> With module connector (J1) connected, measure the voltage between ground and Pins 11 and 12 of connector (J1). Is voltage greater than 10 volts? 	Yes No	GO to E6. REPLACE module. REPEAT Quick Test.
E6	CHECK IGNITION SWITCH INPUT TO MODULE		
	<ul style="list-style-type: none"> Check voltage at Pin 6 of connector (J2) with ignition key switch at RUN and OFF positions. 	VOM Reading: 10 volts or more at Run Above zero volts at OFF or below 10 volts at RUN	GO to E7. SERVICE break or short in Circuit 298. REPEAT Quick Test.
E7	CHECK DIMMER SWITCH "ON"		
	<ul style="list-style-type: none"> With (J1), (J2) connected measure voltage between Pin 17 (J1) and ground while the dimmer switch is in the ON position (switch closed). 	VOM Reading: 10 volts or more Less than 10 volts	GO to E8. SERVICE open switch Circuit 706. REPEAT Quick Test.
E8	CHECK DIMMER SWITCH "OFF"		
	<ul style="list-style-type: none"> With module connector (J1), (J2) connected, measure the continuity between Circuit 54 and Pin 7 of connector (J1) while the dimmer switch is in the OFF position (switch open). Is there continuity? 	Yes No	SERVICE shorted switch. REPEAT Quick Test. GO to E9.
E9	CHECK INTERIOR LAMP OUTPUT		
	<ul style="list-style-type: none"> With (J1) (J2) connected, turn on dimmer switch. Measure voltage between Pins 7 and 19 of connector (J1) and ground. 	VOM Reading: 10 volts or more Less than 10 volts	GO to E10. REPLACE module. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST E
ILLUMINATED ENTRY (Continued)

TEST STEP		RESULT	ACTION TO TAKE
E10	CHECK LUGGAGE COMPARTMENT LAMP OUTPUT		
	<ul style="list-style-type: none"> With (J1) (J2) connected, measure voltage between Pin 20 of connector (J1) and ground. 	VOM Reading: 9 volts or more Less than 9 volts	GO to E11. REPLACE module. REPEAT Quick Test
E11	CHECK LUGGAGE COMPARTMENT LAMP		
	<ul style="list-style-type: none"> With (J1)(J2) connected, open luggage compartment. Does lamp illuminate? 	Yes No	GO to E13. GO to E12.
E12	CHECK LUGGAGE COMPARTMENT SWITCH		
	<ul style="list-style-type: none"> Remove connectors from switch and check for continuity with switch closed (luggage compartment open). Is there continuity? 	Yes No	SERVICE Short / Open in Circuit 707. REPEAT Quick Test. REPLACE switch. REPEAT Quick Test.
E13	CHECK LUGGAGE COMPARTMENT SWITCH		
	<ul style="list-style-type: none"> Remove connectors from switch and check for continuity with switch open (luggage compartment closed) Is there continuity? 	Yes No	REPLACE switch. REPEAT Quick Test. SERVICE open or short in wiring. REPEAT Quick Test.
E14	TURN ON KEYHOLE LAMPS FROM KEYPAD		
	<ul style="list-style-type: none"> Key OFF. Press any of the buttons on the keypad. 	Both keyholes light up One or both keyholes do not light	GO to E17. GO to E15.
E15	CHECK LOCK CYLINDER FOR CONTINUITY AND SHORT		
	<ul style="list-style-type: none"> Disconnect connector (J1) from module. Check for short between Pins 7 and 19 and Pins 1 and 15 of connector (J1). Check for continuity between Pins 7 and 19 of connector (J1) and the suspect lock cylinders connector in door. 	No short between Pins 7, 19 and Pins 1, 15. Continuity between Pins 7, 19 and lock connectors Short between Pins 7, 19 and Pins 1, 15. No continuity between Pins 7, 19 and lock connectors	GO to E16. SERVICE open in Circuit 53 or short to ground. REPEAT Quick Test.
E16	CHECK MODULE OUTPUT TO LOCK CYLINDER WHEN KEYPAD IS PRESSED		
	<ul style="list-style-type: none"> Reconnect connector (J1) to module. Attach voltmeter between Pins 7 and 19 of connector (J1) and ground. Press any of the buttons on the keypad 	VOM Reading: 10 volts or more within 15 seconds of actuating handle, for each handle Under 10 volts	GO to E17. REPLACE non-functional lock cylinder. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST E
ILLUMINATED ENTRY (Continued)

TEST STEP		RESULT	ACTION TO TAKE
E17	CHECK INPUT TO MODULE FROM DOOR HANDLE SWITCH		
	<ul style="list-style-type: none"> For each front door handle: Check continuity between Pin 7 of connector (J2) and ground when door handle is lifted up and when handle is in normal position. 	Continuity with handles lifted and no continuity when handle is in normal position No continuity when either handle lifted up Continuity with both handles in normal position	GO to E20. GO to E19. GO to E18.
E18	CHECK DOOR HANDLE CIRCUIT FOR SHORT-TO-GROUND		
	<ul style="list-style-type: none"> Disconnect module connector (J2) and both door handle switches. Check for short-to-ground between Pin 7 of connector (J2) and ground. Is there continuity? 	No Yes	REPLACE door handle switch. REPEAT Quick Test. SERVICE Short-to-Ground in Circuit 465. REPEAT Quick Test.
E19	CHECK DOOR HANDLE CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> Check continuity between Pin 7 of connector (J2) and Circuit 465 connection to door handle switch of the handle(s) which failed Step E12. Is there continuity? 	Yes No	SERVICE door handle switch. REPEAT Quick Test. SERVICE break in Circuit 465. REPEAT Quick Test.
E20	CHECK MODULE RESPONSE TO DOOR HANDLES		
	<ul style="list-style-type: none"> Reconnect module connectors (J1, J2). Key to OFF. Check voltage between Pins 7 and 19 of connector (J1) and ground when you lift up the door handle. 	VOM Reading: 10 volts or more (may be delayed up to 15-30 seconds) Under 10 volts	GO to E21. REPLACE module. REPEAT Quick Test.
E21	CHECK DOOR JAMB SWITCHES		
	<ul style="list-style-type: none"> For each door with all other doors closed: <ul style="list-style-type: none"> Disconnect module connector (J1). Measure the continuity between Circuit 54 and Pin 7 of connector (J1) with the door open and then closed. (Dimmer switch off in both cases.) 	Continuity with door open and not continuity with door closed (for all doors) No continuity with door open (for one or more doors) Continuity with door closed (for one or more doors)	GO to E22. REPLACE damaged/worn door jamb switch(es). REPEAT Quick Test. SERVICE short in door jamb switch or circuitry. REPEAT Quick Test.
E22	TURN ON INTERIOR LAMPS WITH A JUMPER WIRE		
	<ul style="list-style-type: none"> Disconnect connector (J1). Momentarily connect a jumper between Pins 10 and 23 and Pins 7 and 19 of connector (J1). Do lamps come on? 	Yes No	GO to E23. SERVICE short or open in Circuits 53 or 54. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST E
ILLUMINATED ENTRY (Continued)

TEST STEP		RESULT	ACTION TO TAKE
E23	CONNECTORS OK		
	<ul style="list-style-type: none"> ● Inspect both connectors for loose or corroded pins. ● Are pins loose or corroded? 	No	REPLACE module. REPEAT Quick Test.
		Yes	SERVICE as required. REPEAT Quick Test.

TN8427B

PINPOINT TEST F
POWER LOCKS

Perform Test ONLY If Instructed To Do So By Quick Test

This section contains a number of sub-sections, for handling different types of concerns found with the power locks as reported by the customer.

For further information on the power lock system, refer to Section 01-14A.

BEFORE PERFORMING ANY OF THE TESTS IN THIS SECTION, THE BATTERY MUST BE FULLY CHARGED.

Find the specific concern in the following list and go to the Step specified.

STEP	CONDITION
F1	NONE OF THE DOOR LOCKS WORK
F9	ONE OR MORE LOCKS DO NOT WORK

(Continued)

STEP	CONDITION
F13	ONE OR MORE SWITCHES DO NOT WORK
F14	LOCKS WILL ONLY LOCK OR UNLOCK
F17	LOCKS WORK INTERMITTENTLY
F18	LOCKS DO NOT WORK IN FREEZING WEATHER
F19	LOCKS ONLY WORK WITH ENGINE RUNNING

TN9292A

- To lubricate linkage, use Multi-Purpose Grease Spray D7AZ-19584-AA (ESR-M1C159-A and ESB-M1C106-B) or equivalent
- Spray into latch opening
 - It may be necessary to remove the door trim panel to lubricate the entire latch and linkage system.
- Manually cycle the lock 10 times.
 - Check for interference around right latch and all linkages.

PINPOINT TEST F
POWER LOCKS

TEST STEP		RESULT	ACTION TO TAKE
F1	NONE OF THE DOOR LOCKS WORK		
	<ul style="list-style-type: none"> ● Check fuse No. 5 and fuse No. 8. ● Are fuses OK? 	Yes	GO to F2.
		No	REPLACE fuse. REPEAT Quick Test
F2	POWER TO MODULE		
	<ul style="list-style-type: none"> ● Disconnect module connectors (J1, J2) from the module. ● Check voltage between Pins 14 and 25 of connector (J1) and ground. ● Check voltage between Pin 1 of connector (J2) and ground. ● VOM reading: 	10 or more volts	GO to F3.
		Less than 10 volts at connector (J1)	SERVICE open or short in Circuit 517 or charge battery. REPEAT Quick Test.
		Less than 10 volts at connector (J2)	SERVICE open or short in Circuit 54 or charge battery. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST F
POWER LOCKS (Continued)

TEST STEP		RESULT	ACTION TO TAKE
F3	CHECK MODULE GROUNDS		
	<ul style="list-style-type: none"> ● Disconnect module connectors (J1, J2). ● Check continuity between Pins 1 and 15 of connector (J1) and ground. ● Check continuity between Pin 5 of connector (J2) and ground. 	Continuity No continuity at connector (J1) No continuity at connector (J2)	GO to F4. SERVICE open in Circuit 57. REPEAT Quick Test. SERVICE open in Circuit 397. REPEAT Quick Test.
F4	DOES CIRCUIT BREAKER BLOW WHEN SWITCH ACTIVATES?		
	<ul style="list-style-type: none"> ● Reconnect module connectors (J1, J2). ● Activate the lock and unlock switches. ● Check fuse No. K, located in power distribution box. ● Is fuse blown? 	No Yes	GO to F5. CHECK for short to ground in Circuits 163, 118 and 117 or shorted lock actuator. SERVICE then REPLACE fuse. REPEAT Quick Test.
F5	CHECK LOCK ACTUATORS		
	<ul style="list-style-type: none"> ● Manually lock all doors. ● Connect a jumper between ground and Pins 2 and 16 of module connector (J1) with connector (J1) disconnected. ● With a second jumper, momentarily connect together Pins 14 and 25 of connector (J1) and Pins 6 and 18 of connector (J1). (Only passenger doors should unlock.) ● Momentarily connect together Pins 14 and 25 of connector (J1) and Pin 3 of connector (J1). (Driver's door should now unlock.) 	All doors unlocked Only driver's door unlocked Only passenger doors unlocked	GO to F6. SERVICE Circuit(s) 117 or 118 or passenger lock motor(s). REPEAT Quick Test. SERVICE Circuit(s) 163 or 117 or driver's lock motor. REPEAT Quick Test.
F6	CHECK LOCK SWITCHES		
	<ul style="list-style-type: none"> ● Test for lock switch stuck in LOCK or UNLOCK position. NOTE: May be mechanically stuck, check switch using meter.	No Yes	REPLACE switch. REPEAT Quick Test. GO to F7.
F7	SHORT BETWEEN LOCK AND UNLOCK CIRCUITS		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Measure continuity between Pin 4 of connector (J1) and Pin 5 of connector (J1). ● Is there continuity? 	No Yes	GO to F8. SERVICE the short between Circuits 119 and 120. REPEAT Quick Test
F8	CHECK LOCK SWITCHES FOR SHORT TO GROUND		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Check for short to ground between Pin 4 of connector (J1) and ground. ● Check for short to ground between Pin 5 of connector (J1) and ground. ● Is there a short? 	No Yes	REPLACE module. REPEAT Quick Test. SERVICE short to ground in Circuit 119 or 120. REPEAT Quick Test.
F9	ONE OR MORE LOCKS DO NOT WORK		
	<ul style="list-style-type: none"> ● Manually cycle the lock several times to check for latch or linkage binding. ● Is latch or linkage binding? 	No Yes	GO to F10. LUBRICATE lock and linkage.
F10	POWER TO ACTUATOR WITH DOOR SWITCH LOCK		
	<ul style="list-style-type: none"> ● Remove trim panel on the door. ● Check voltage between the suspect lock actuator and ground while pressing the lock of a door switch. ● Is voltage 10 volts or greater? 	Yes No	GO to F12. GO to F11.

DIAGNOSIS (Continued)

PINPOINT TEST F
POWER LOCKS (Continued)

TEST STEP		RESULT	ACTION TO TAKE
F11	CHECK MODULE OUTPUT		
	<ul style="list-style-type: none"> With both connectors (J1, J2) connected, depress lock button and measure voltage at Pins 2 and 16 of connector (J1) to ground. Also measure the voltage at Pin 3, 6 and 18 of connector (J1) to ground while unlock button is depressed. VOM reading: 	10 or more volts when depressed Less than 10 volts when depressed More than 10 volts when not depressed	SERVICE Circuit 163, 117, 118, 119 or 120 for open or short. REPEAT Quick Test. REPLACE module. REPEAT Quick Test. REPLACE module. REPEAT Quick Test.
F12	POWER TO ACTUATOR WITH DOOR SWITCH UNLOCK		
	<ul style="list-style-type: none"> Check voltage between the suspect lock actuator Circuit 118 and ground while pressing the UNLOCK position of the door switch. Is voltage 10 volts or greater? 	Yes No	REPLACE actuator. Refer to Section 01-14A. REPEAT Quick Test. SERVICE open or short in Circuit 120, 119, 118 or 117. REPEAT Quick Test.
F13	ONE OR MORE SWITCHES DO NOT WORK		
	<ul style="list-style-type: none"> Key OFF. Disconnect module connector (J1). Remove trim panel of the door with the faulty switch. Check continuity between Pin 4 of connector (J1) and lock position terminal of the door switch (locking Circuit 119). Check continuity between Pin 5 of connector (J1) and unlock position terminal of the door switch (unlocking Circuit 120). Check continuity between ground terminal of the door switch and ground (Circuit 57). Is there continuity? 	Yes No	REPLACE door switch. REFER to Section 01-14A. REPEAT Quick Test. SERVICE open in Circuit(s) 119, 120 and / or 57. REPEAT Quick Test.
F14	LOCKS WILL ONLY LOCK OR UNLOCK		
	<ul style="list-style-type: none"> Key OFF. Disconnect module connector (J1). Check Circuit 57, ground to switches. Check continuity between Pin 4 (Pin 5 if doors will not unlock) of connector (J1) and ground while pressing the lock (unlock) position of one of the door switches. 	Continuity Open circuit from Pin 4 or 5 to ground only Open Circuit 57	GO to F15. GO to F16. SERVICE open in Circuit 57. REPEAT Quick Test.
F15	CHECK OUTPUT FROM MODULE		
	<ul style="list-style-type: none"> With both connectors (J1),(J2) connected check voltage between Pins 2 and 16 of connector (J1) (Pins 3, 6 and 18 for unlock) and ground while pressing the lock (unlock) position of one of the door switches. Is voltage 10 volts or greater? 	Yes No	SERVICE open or short in Circuit 117 (118 or 163 for unlock). REPEAT Quick Test. REPLACE module. REPEAT Quick Test.
F16	CHECK DOOR SWITCH FUNCTION		
	<ul style="list-style-type: none"> Check continuity between ground and Circuit 119 for lock (120 for unlock) connection to door locking switch while pressing the lock (unlock) position of the switch. Is there continuity? 	Yes No	SERVICE break in Circuit 119 (120 for unlock). REPEAT Quick Test. SERVICE door switch. REFER to Section 01-14A. REPEAT Quick Test.
F17	LOCKS WORK INTERMITTENTLY		
	<ul style="list-style-type: none"> Key OFF. Disconnect connectors (J1, J2). Check continuity to ground at Pins 1 and 15 of connector (J1) and at Pin 5 of connector (J2). 	Continuity No continuity at connector (J1)	CHECK and SERVICE loose connections. REPEAT Quick Test. SERVICE Circuit 57. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST F
POWER LOCKS (Continued)

TEST STEP		RESULT	ACTION TO TAKE
F18	LOCKS DO NOT WORK IN FREEZING WEATHER		
	<ul style="list-style-type: none"> ● Bring vehicle into heated garage to thaw. ● Lubricate locks as outlined. ● Do locks operate? 	Yes No	GO to F19. Go to Quick Test to identify further concerns.
F19	LOCKS ONLY WORK WITH ENGINE RUNNING		
	<ul style="list-style-type: none"> ● Double check the following: <ul style="list-style-type: none"> — Battery fully charged. — Any latch or linkage binding (See Quick Test). — Loose or corroded connections to actuators, switches, remote / keyless entry module connector. ● Do components operate properly? 	Yes No	SERVICE complete. Vehicle Check OK. Go to Quick Test to check for other concerns.

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PINPOINT TEST G
LUGGAGE COMPARTMENT UNLOCK

Perform Test ONLY if Instructed To Do So By Quick Test

This Pinpoint Test Checks:

- Remote Keyless Entry Module
- Luggage Compartment Release Solenoid
- Circuit 84

PINPOINT TEST G
LUGGAGE COMPARTMENT UNLOCK

TEST STEP		RESULT	ACTION TO TAKE
G1	UNLOCK LUGGAGE COMPARTMENT WITH GLOVE COMPARTMENT RELEASE		
	<ul style="list-style-type: none"> ● Key on. ● Press the luggage compartment release switch in the glove compartment. 	Luggage compartment unlocks Luggage compartment does not unlock Luggage compartment always unlocked	GO to G2. GO to G3. GO to G5.
G2	CHECK LUGGAGE COMPARTMENT RELEASE CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Test for continuity between Pins 9 and 22 of connector (J1) and the luggage compartment release solenoid. ● Is there continuity? 	Yes No	REPLACE module. REPEAT Quick Test. SERVICE Circuit 84. REPEAT Quick Test.
G3	CHECK LUGGAGE COMPARTMENT RELEASE SOLENOID		
	<ul style="list-style-type: none"> ● Check luggage compartment release solenoid. —Refer to Group Section 01-14A. ● Is solenoid operational? 	Yes No	GO to G4. REPLACE solenoid. REPEAT Quick Test.
G4	CHECK CIRCUIT BREAKER		
	<ul style="list-style-type: none"> ● Examine fuse 6. ● Is fuse operational? 	Yes No	SERVICE open or short in Circuit 84. REPEAT Quick Test. REPLACE circuit breaker. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST G
LUGGAGE COMPARTMENT UNLOCK (Continued)

TEST STEP		RESULT	ACTION TO TAKE
G5	CHECK FOR SHORTED MODULE		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Does luggage compartment lock? 	Yes	▶ REPLACE module. ▶ REPEAT Quick Test.
		No	▶ GO to G6.
G6	CHECK LUGGAGE COMPARTMENT SWITCH IN GLOVE COMPARTMENT		
	<ul style="list-style-type: none"> ● Disconnect glove compartment switch and module connector. ● Does luggage compartment lock? 	Yes	▶ REPLACE glove compartment switch. ▶ REPEAT Quick Test.
		No	▶ SERVICE short to battery in Circuit 84. ▶ REPEAT Quick Test.

TN8434B

PINPOINT TEST H
REMOTE ENTRY SYSTEM

Perform Test ONLY If Instructed To Do So By Quick Test

BEFORE PERFORMING ANY OF THE TESTS IN THIS SECTION, THE BATTERY MUST BE FULLY CHARGED.

Find the specific concern in the following list and go to the Step specified.

STEP	CONDITION
H1	CHECK ANTENNA / POOR RANGE
H3	CHECK FOR SHORTING PLUG / TRANSMITTER PROGRAM MODE
H2	REPROGRAM TRANSMITTER
H5	REMOTE FUNCTIONS DO NOT WORK IN EXTREME WEATHER

PINPOINT TEST H
REMOTE ENTRY SYSTEM

TEST STEP		RESULT	ACTION TO TAKE
H1	CHECK ANTENNA / POOR RANGE		
	<ul style="list-style-type: none"> ● Open luggage compartment. ● Ensure that antenna has been installed properly. ● Disconnect antenna from the module's antenna plug (connector J3). ● Inspect antenna jack for damage, especially to the center pin. ● Re-connect antenna to module (ensure antenna jack is fully seated into module's antenna plug). 	OK	▶ GO to H2.
		Antenna is not installed properly or is missing	▶ INSTALL missing antenna, or reroute antenna to proper location. REPEAT Quick Test.
		Antenna jack is damaged	▶ REPLACE antenna. REPEAT Quick Test.
H2	TRY ANOTHER TRANSMITTER		
	<ul style="list-style-type: none"> ● If more than one transmitter is available, test the response of all transmitters for the vehicle. ● If no other transmitters are available, go to Step I3. ● Do other transmitters operate properly? 	Yes	▶ REPLACE damaged / worn transmitter. REPEAT Quick Test.
		No	▶ GO to H12.
H3	CHECK FOR SHORTING PLUG / TRANSMITTER PROGRAM MODE		
	<ul style="list-style-type: none"> ● Check that shorting plug is not inserted into connector (J4). ● Is shorting plug in connector (J4)? 	No	▶ GO to H5.
		Yes	▶ REMOVE shorting plug from connector (J4). REPEAT Quick Test.
H4	CHECK FOR INOPERATIVE SHORTING PLUG (J4)		
	<ul style="list-style-type: none"> ● Disconnect connector (J2) from module. ● Measure continuity between Pin 1 (J4) and Pin 2 (J4) Is there continuity? 	Yes	▶ REPLACE J4 shorting plug. REPEAT Quick Test.
		No	▶ Go to H5

DIAGNOSIS (Continued)

PINPOINT TEST H
REMOTE ENTRY SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
H5	CHECK PROGRAM "A" SHORT TO GROUND		
	<ul style="list-style-type: none"> ● Disconnect module connector (J2). ● Test for continuity between Pin 1 of (J4) and ground. ● Is there continuity? 	Yes	SERVICE short to ground in Circuit 808. REPEAT Quick Test.
		No	GO to H6.
H6	CHECK PROGRAM "A" SHORT TO BATTERY		
	<ul style="list-style-type: none"> ● Test for continuity between Pin 1 of connector (J4) and battery (module connector (J2) disconnected). ● Is there continuity? 	Yes	SERVICE short to battery in Circuit 808. REPEAT Quick Test.
		No	GO to H7.
H7	CHECK PROGRAM "B" SHORT TO GROUND		
	<ul style="list-style-type: none"> ● Test for continuity between Pin 2 of connector (J4) and ground (module connector (J2) disconnected). ● Is there continuity? 	Yes	SERVICE short to ground in Circuit 809. REPEAT Quick Test.
		No	GO to H8.
H8	CHECK PROGRAM "B" SHORT TO BATTERY		
	<ul style="list-style-type: none"> ● Test for continuity between Pin 2 of connector (J4) and battery (module connector (J2) disconnected). ● Is there continuity? 	Yes	SERVICE short in battery in Circuit 809. REPEAT Quick Test.
		No	GO to H9.
H9	CHECK MODULE PROGRAM "A" INPUT		
	<ul style="list-style-type: none"> ● Disconnect module connector (J2). ● Measure the voltage between Pin 15 of connector (J2) and ground. 	Between 4 volts and 6 volts	GO to H10.
		Less than 4 volts or more than 6 volts	REPLACE module. REPEAT Quick Test.
H10	CHECK MODULE PROGRAM "B" INPUT		
	<ul style="list-style-type: none"> ● Disconnect module connector (J2). ● Measure the continuity between Pin 10 of connector (J2) and ground. ● Is there continuity? 	Yes	GO to H11.
		No	REPLACE module. REPEAT Quick Test.
H11	CHECK CONTINUITY OF PROGRAM "A" CIRCUIT		
	<ul style="list-style-type: none"> ● Reconnect module connector (J2). ● Measure the voltage between Pin 1 of connector (J4) and ground. 	Between 4 volts and 6 volts	GO to H12.
		Less than 4 volts	SERVICE open in Circuit 808. REPEAT Quick Test.
H12	CHECK CONTINUITY OF PROGRAM "B" CIRCUIT		
	<ul style="list-style-type: none"> ● Reconnect module connector (J2). ● Measure the continuity between Pin 2 of connector (J4) and ground. ● Is there continuity? 	Yes	GO to H13.
		No	SERVICE open in Circuit 809. REPEAT Quick Test.
H13	RE-PROGRAM TRANSMITTER		
	<p>NOTE: Perform this step ONLY after trying Steps I1 and I2.</p> <ul style="list-style-type: none"> ● Key on. ● Insert a shorting plug into program connector (J4) (located behind glove compartment, taped to the harness). <ul style="list-style-type: none"> — This shorting plug connects Program "A" input to Program "b" on the module. ● Do doors lock and unlock? 	Yes	GO to H14.
		No	GO to H13.

DIAGNOSIS (Continued)

PINPOINT TEST H
REMOTE ENTRY SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
H14	STORE TRANSMITTER(S) INTO MODULE MEMORY		
	<ul style="list-style-type: none"> ● Key on. ● Press any button on the transmitter. <p>NOTE: May have to push the button more than once.</p> <ul style="list-style-type: none"> ● Repeat this sequence for each of the transmitters (up to four total). ● For each transmitter stored: 	<ul style="list-style-type: none"> ▶ All doors lock then unlock ▶ No response from the door locks (even after 3 button presses) 	<ul style="list-style-type: none"> ▶ GO to H15. ▶ GO to H1. If Step H1 has already been performed, REPLACE transmitter batteries and REPEAT Step H14. If still no response, REPLACE module. REPEAT Quick Test.
H15	EXIT TRANSMITTER PROGRAM MODE		
	<ul style="list-style-type: none"> ● Key off. ● Check that shorting plug has been removed from program connector (J4). ● Do doors lock and unlock? 	<ul style="list-style-type: none"> ▶ Yes ▶ No 	<ul style="list-style-type: none"> ▶ REPEAT Quick Test, only Step A16 through A26. ▶ REPLACE module. REPEAT Quick Test.
H16	REMOTE FUNCTIONS DO NOT WORK IN EXTREME WEATHER		
	<ul style="list-style-type: none"> ● Bring vehicle to room temperature and perform the Quick Test. ● Does module pass Quick Test? 	<ul style="list-style-type: none"> ▶ Yes ▶ No 	<ul style="list-style-type: none"> ▶ REPLACE module. REPEAT Quick Test. ▶ SERVICE the remote / keyless entry system as required. REPEAT Quick Test.

TN9663A

Pinpoint Test I

Panic Alarm

BEFORE PERFORMING ANY OF THE TESTS IN THIS SECTION, THE BATTERY MUST BE FULLY CHARGED.

Find the specific concern in the following list and go to the Step specified.

STEP	CONDITION
11	ACTIVATE PARKLAMPS WITH SWITCH
19	ACTIVATE HORN WITH SWITCH

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PINPOINT TEST I
PANIC ALARM

TEST STEP		RESULT	ACTION TO TAKE
11	ACTIVATE PARKLAMPS WITH SWITCH		
	<ul style="list-style-type: none"> ● Turn ON the parklamps with the lamp switch located on instrument panel. 	<ul style="list-style-type: none"> ▶ Parklamps ON ▶ Parklamps do not turn ON ▶ Parklamps always ON 	<ul style="list-style-type: none"> ▶ GO to 12. ▶ GO to 15. ▶ GO to 17.
12	CHECK PARKLAMP OUTPUT CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Test for continuity between Pin 24 of connector (J1) and Circuit 14 (the Auto Lamp Relay). ● Is there continuity? 	<ul style="list-style-type: none"> ▶ Yes ▶ No 	<ul style="list-style-type: none"> ▶ GO to 13. ▶ SERVICE Circuit 14. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST I
PANIC ALARM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
13	CHECK PARKLAMP INPUT CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Test for continuity between Pin 13 of connector (J1) and Circuit 517. ● Is there continuity? 	Yes No	<ul style="list-style-type: none"> ▶ GO to 14. ▶ SERVICE Circuit 517. REPEAT Quick Test.
14	CHECK INPUT CIRCUIT BREAKER		
	<ul style="list-style-type: none"> ● Measure the voltage between Pin 13 of connector (J1) and ground (module connector (J1) disconnected). ● Is voltage greater than 10 volts? 	Yes No	<ul style="list-style-type: none"> ▶ REPLACE module. REPEAT Quick Test. ▶ SERVICE open or short in Circuit 517. REPEAT Quick Test.
15	CHECK PARKLAMPS AND AUTO LAMP RELAY		
	<ul style="list-style-type: none"> ● Check the parklamps and auto lamp relay — Refer to Group 17. ● Do parklamps and auto lamp relay check OK? 	Yes No	<ul style="list-style-type: none"> ▶ GO to 16. ▶ REPLACE or SERVICE the parklamp or auto lamp relay. REPEAT Quick Test.
16	CHECK OUTPUT CIRCUIT BREAKER		
	<ul style="list-style-type: none"> ● Examine fuse 4. ● Is fuse OK? 	Yes No	<ul style="list-style-type: none"> ▶ SERVICE open or short in Circuit 14. REPEAT Quick Test. ▶ REPLACE circuit breaker. REPEAT Quick Test.
17	CHECK FOR DAMAGED / WORN MODULE		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Do the parklamps shut off? 	Yes No	<ul style="list-style-type: none"> ▶ REPLACE module. REPEAT Quick Test. ▶ GO to 18.
18	CHECK LAMP SWITCH ON INSTRUMENT PANEL		
	<ul style="list-style-type: none"> ● Disconnect the lamp switch and module connector (J1). ● Do the parklamps shut off? 	Yes No	<ul style="list-style-type: none"> ▶ REPLACE the lamp switch. REPEAT Quick Test. ▶ SERVICE short to battery in Circuit 14 or SERVICE the auto lamp relay circuitry (Section 17-01). REPEAT Quick Test.
19	ACTIVATE HORN WITH SWITCH		
	<ul style="list-style-type: none"> ● Press the horn switch located on the steering wheel. 	Horn sounds Horn does not sound Horn always on	<ul style="list-style-type: none"> ▶ GO to I10. ▶ GO to I11. ▶ GO to I13.
110	CHECK HORN CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Test for continuity between Pin 26 of connector (J1) and Circuit 6 (the horn relay). ● Is there continuity? 	Yes No	<ul style="list-style-type: none"> ▶ REPLACE module. REPEAT Quick Test. ▶ SERVICE Circuit 6. REPEAT Quick Test.
111	CHECK HORN AND HORN RELAY		
	<ul style="list-style-type: none"> ● Check the horn and horn relay. — Refer to Section 13-06. ● Does horn and horn relay work? 	Yes No	<ul style="list-style-type: none"> ▶ GO to I12. ▶ REPLACE or SERVICE the horn or horn relay. REPEAT Quick Test.

DIAGNOSIS (Continued)

PINPOINT TEST I
PANIC ALARM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
I12	CHECK OUTPUT CIRCUIT BREAKER		
	<ul style="list-style-type: none"> ● Examine fuse 10. ● Is fuse OK? 	Yes	SERVICE open or short in Circuit 6. REPEAT Quick Test.
		No	REPLACE circuit breaker. REPEAT Quick Test.
I13	CHECK FOR DAMAGED / WORN MODULE		
	<ul style="list-style-type: none"> ● Disconnect module connector (J1). ● Does the horn shut off? 	Yes	REPLACE module. REPEAT Quick Test.
		No	GO to I14.
I14	CHECK HORN SWITCH ON STEERING WHEEL		
	<ul style="list-style-type: none"> ● Disconnect the horn switch and module connector (J1). ● Does the horn shut off? 	Yes	REPLACE horn switch. REPEAT Quick Test.
		No	SERVICE short to ground in Circuit 6 or SERVICE the horn relay circuitry (Section 13-06). REPEAT Quick Test.

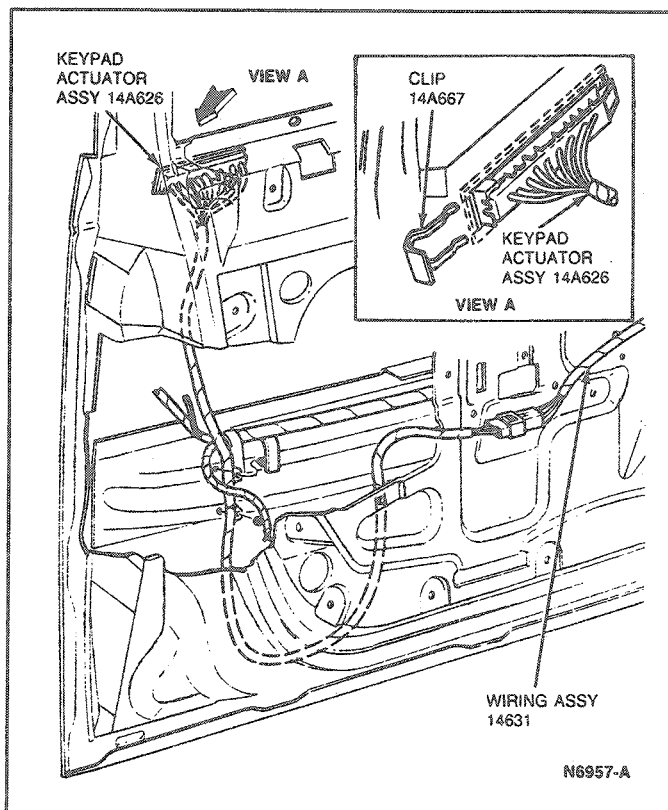
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REMOVAL AND INSTALLATION

Keypad Actuator Assembly

Removal

1. Remove interior door trim panel. Refer to Section 01-05.
2. Disconnect actuator wiring harness electrical connector.
3. Remove retaining clip.
4. Remove wiring harness locators from retaining holes.
5. Remove actuator and wiring harness assembly.
6. To install, reverse Removal procedure.



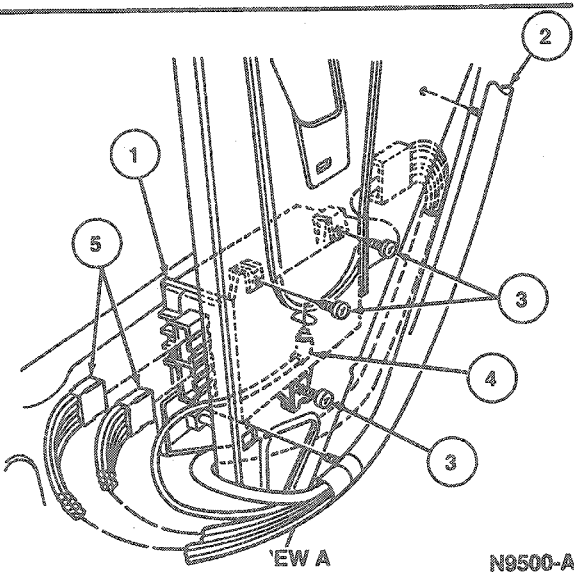
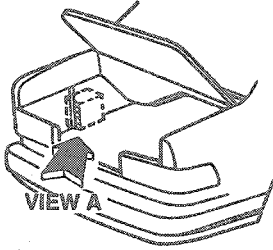
Microprocessor / Relay Module

Removal and Installation

1. Remove three retaining screws and lower module.

REMOVAL AND INSTALLATION (Continued)

2. Disconnect two connectors and antenna connector.
3. To install, reverse Removal procedure.



Item	Part Number	Description
1	15K602	Remote Keyless Entry Module
2	14A488	Wiring Harness Assembly
3	56903-S2	Screw (3 Req'd)
4	—	Antenna Connector (part of 14A488 Wiring Harness Assembly)
5	—	J1, J2 Connectors (part of 14A488 Wiring Harness Assembly)

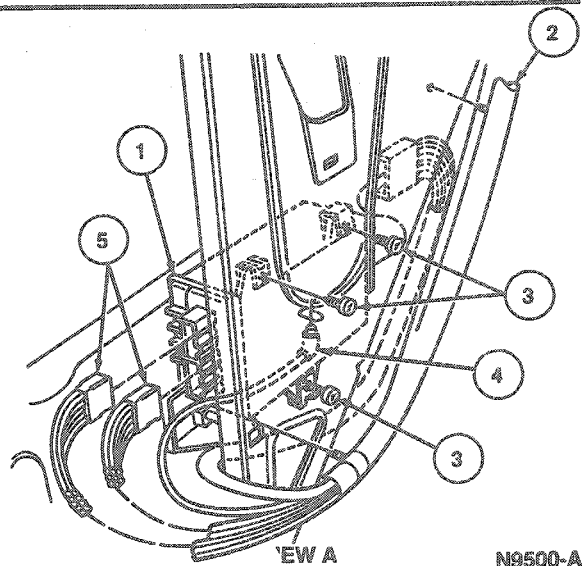
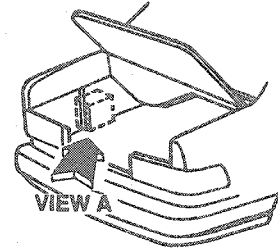
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Antenna

Removal and Installation

NOTE: This vehicle uses an antenna that is part of a wiring harness. DO NOT remove existing antenna from wire harness.

1. Disconnect antenna connector from module and tape securely out of way.
2. Connect new antenna connector to module.
3. Install new antenna into vehicle, taping along wire harness path followed by old (unconnected) antenna. Secure using tie-wrap or tape.



Item	Part Number	Description
1	15K602	Remote Keyless Entry Module
2	14A488	Wiring Harness Assembly
3	56903-S2	Screw (3 Req'd)
4	—	Antenna Connector (part of 14A488 Wiring Harness Assembly)
5	—	J1, J2 Connectors (part of 14A488 Wiring Harness Assembly)

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REMOVAL AND INSTALLATION (Continued)

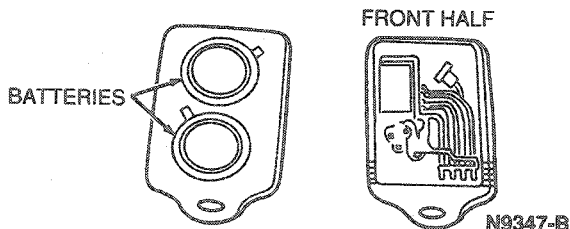
Transmitter Battery

Replacement

The remote entry transmitter is powered by two coin-type 3-volt lithium batteries. To replace the batteries, the transmitter comes apart by twisting a thin coin between the two halves of the transmitter.

CAUTION: Do not take the front half of the transmitter apart.

Carefully swing the contacts off the batteries and remove the old batteries. When installing the new batteries, be sure to place the positive side down as marked. Carefully swing the contacts back onto the top of the batteries. Snap the two halves back together.



SPECIAL SERVICE TOOLS

ROTUNDA EQUIPMENT

Model	Description
014-00407	Digital Volt-Ohmmeter
059-00010	Dwell-Tach-Volt-Ohms Tester