

TECHNICAL SERVICE BULLETIN

NO. 73-A-11



Austin MG

NOVEMBER, 1973

SUBJECT:

SEAT BELT/STARTER INTERLOCK
SYSTEM

MODELS:

ALL 1974 MODELS

The seat belt/starter interlock system requires that a simple sequence be followed if the engine is to be started. It is the normal driver and passenger sequence and insures that the seat belts are in proper use before the engine will start. It also provides audible and visual warning should the belts be unfastened during driving.

The system sequence for starting is as follows:

Seat yourself in the car, adjust the seat and seat belt if necessary, buckle the shoulder-lap belt, and start the engine.

If, after the engine is started, a driver or front seat passenger disconnects a seat belt while the car is in forward gear, the "Fasten Belts" light will illuminate and a warning buzzer will sound. Audible and visual warning also occurs if an attempt is made to start the vehicle with the belt of an occupied front seat not connected. The engine will also fail to start under these conditions.

HCT/JP



QUESTIONS THAT MAY ARISE ABOUT THE SYSTEM --
AND THE ANSWERS TO THEM

- Q - What if one places a fairly heavy package on the passenger front seat?
 - A - The seat belt has to be fastened to start the engine or the package may be placed on the floor.
 - Q - Does the driver have to get in before the front seat passenger?
 - A - No. So long as the driver and passenger have observed the starting sequence and are both buckled in before the key is turned to start.
 - Q - If the engine stalls, will one have to go through the sequence again?
 - A - No. The engine can be restarted as long as the driver and front seat passenger remain seated.
 - Q - Suppose the driver or passenger raises himself off the seat in reaching for change at a toll booth. Will the engine stop?
 - A - No. Raising oneself off the seat will have no effect during all driving conditions.
 - Q - What happens if the seat belts are left fastened at all times?
 - A - The engine will not start unless the proper sequence, as previously explained, is followed.
- Damage to the seat belt switch could also occur causing complete failure of the system and engine starting capabilities.

Q - Suppose something goes wrong with the system; how can I start the car?

A - The chance of something going wrong with the system is remote; but if it should happen, the engine can be started by reaching into the car to turn the key -- without putting any weight on the front seat. Be sure, of course, that the transmission gear selector is out of gear and the hand brake is applied.

PEKTRON SEAT BELT/STARTER INTERLOCK SYSTEM

The Pektron seat belt/starter interlock system is designed to act as a seat belt warning and prevent engine start if the sit-buckle-start sequence is not followed. It will also give a visual and audible warning if the transmission is placed in a forward gear, or the handbrake released in a manual transmission equipped car, if the driver or passenger do not have their seat belts fastened.

START PREVENTION

The engine starting system will not operate if either:

- a) The seated driver does not have his seat belt in use.
- b) The seated passenger does not have his seat belt in use.

The engine starting system will operate ONLY if the following conditions have been met:

- a) The driver must sit and subsequently buckle his seat belt.
- b) A passenger must sit and subsequently buckle his seat belt.
- c) The stopped engine may be restarted without restriction from the seat belt interlock provided the driver has not left the driver's seat or in the event of an engine stall, the ignition switch has not been switched to OFF.

TESTING GUIDE FOR PETROBRAS SEAT BELT/STARTER INTERLOCK CONTROL UNIT

The seat belt interlock system will not affect the vehicle operation when the engine is running because it is part of the starting circuit only and does not influence engine ignition.

The start system will operate if both front seats are vacated.

Operation of the starting system is dependent on the seat belt module. Removal of the module from the system will prevent operation of the starting system.

IMPORTANT

Test Equipment

1. A six inch piece of insulated wire with bare ends
2. A six inch piece of insulated wire with bare ends
3. A six inch piece of insulated wire with bare ends

TESTING GUIDE FOR PEKTRON SEAT BELT/STARTER INTERLOCK

CONTROL UNIT

The seat belt/starter interlock system is made up of a control unit and associated switches. In the event of a malfunction, it will first be necessary to determine if the fault lies in the automobile wiring and switches or within the control unit.

The simplest method of determining a malfunction in the control unit is by substitution with a new one.

IMPORTANT -- Check switches and wiring first to avoid damaging a new control unit if circuit faults are present.

Test Equipment For Switches And Wiring

1. 12 volt 2.2 watt lamp with flying leads 6" long fitted with insulated 3 mm sockets for connection to the pins of the plug in the vehicle harness which connects with the control unit. (The specified lamp rating should not be exceeded to prevent overloading of the switches.)
2. A six inch piece of insulated wire with bare ends.

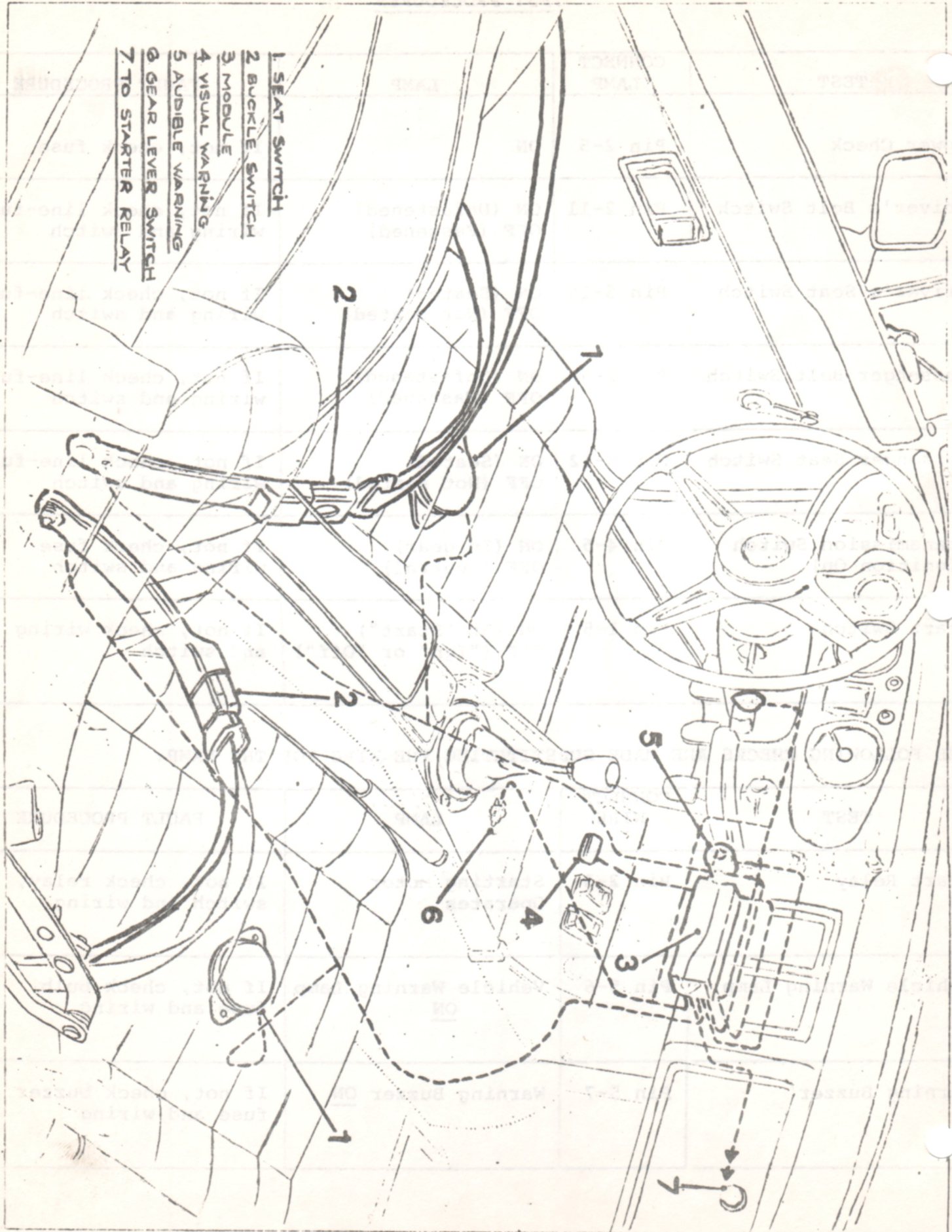
TEST PROCEDURES

TEST	CONNECT LAMP	LAMP	FAULT PROCEDURE
Power Check	Pin 2-5	ON	If not, check fuse
Driver's Belt Switch	Pin 2-11	ON (Unfastened) OFF (Fastened)	If not, check line-fuse wiring and switch
Driver's Seat Switch	Pin 5-10	ON (Seated) OFF (Not seated)	If not, check line-fuse wiring and switch
Passenger Belt Switch	Pin 2-9	ON (Unfastened) OFF (Fastened)	If not, check line-fuse wiring and switch
Passenger Seat Switch	Pin 5-12	ON (Seated) OFF (Not seated)	If not, check line-fuse wiring and switch
Transmission Switch (Ignition On)	Pin 4-5	ON (In gear) OFF (Neutral)	If not, check fuse wiring and switch
Start Switch	Pin 1-5	ON (At "Start") OFF ("Ign" or "Off")	If not, check wiring and switch

THE FOLLOWING CHECKS ARE MADE SUBSTITUTING THE WIRE FOR THE LAMP:

TEST	CONNECT WIRE	LAMP	FAULT PROCEDURE
Start Relay	Pin 2-3	Starting Motor Operates	If not, check relay, switch and wiring
Vehicle Warning Lamp	Pin 5-6	Vehicle Warning Lamp <u>ON</u>	If not, check bulb fuse and wiring
Warning Buzzer	Pin 5-7	Warning Buzzer <u>ON</u>	If not, check buzzer fuse and wiring

- 1. SEAT SWITCH
- 2. BUCKLE SWITCH
- 3. MODULE
- 4. VISUAL WARNING
- 5. AUDIBLE WARNING
- 6. GEAR LEVER SWITCH
- 7. TO STARTER RELAY

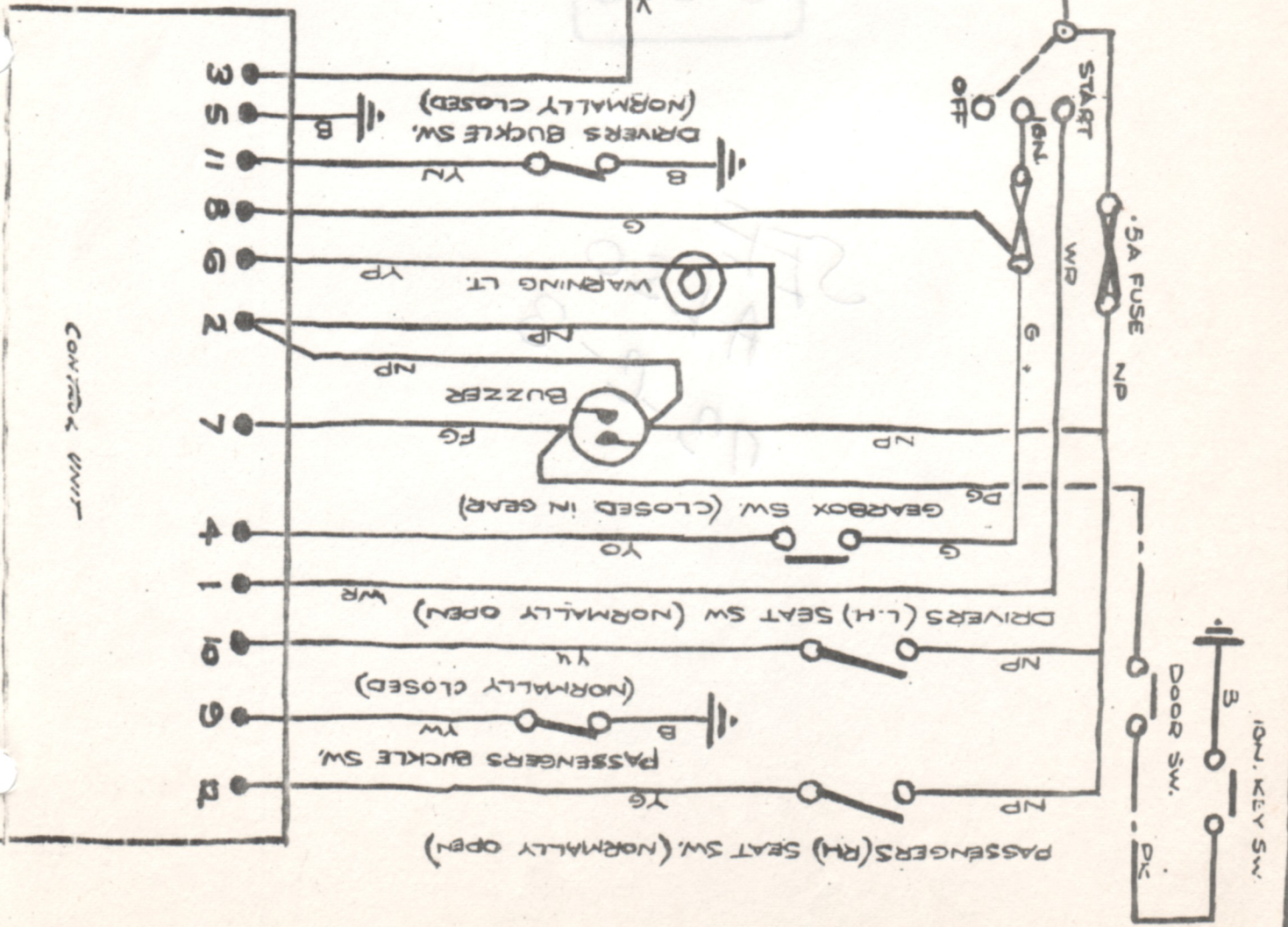
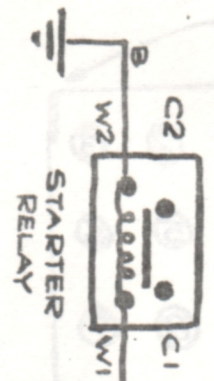
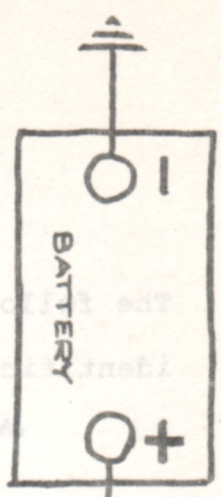


COMPONENT LOCATIONS

COLOR KEY

W	--	White
N	--	Brown
G	--	Green
Y	--	Yellow
B	--	Black
U	--	Blue
O	--	Orange
P	--	Purple
K	--	Pink
R	--	Red

TEST PROCEDURES FOR SWITCHES AND WIRING
 The following checks should be made with reference to
 identification numbers as shown in the sketch below:



WIRING DIAGRAM

PECTRON SYSTEM

AUSTIN/MG

TEST PROCEDURES FOR SWITCHES AND WIRING

The following checks should be made with reference to pin identification numbers as shown in the sketch below:

INDEXING KEYS



SEE
ALSO
AB-C-3

COLOR	RES.
Red	1
Blue	2
Yellow	3
Green	4
Brown	5
White	6

SECTION SYSTEM
XUNIT/MS

