SECTION BF

CONTENTS

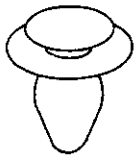
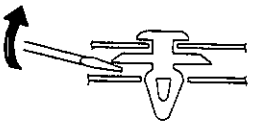
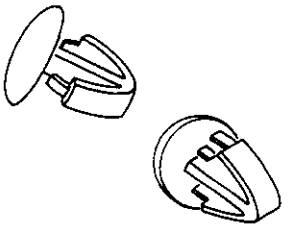
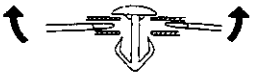
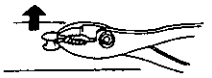
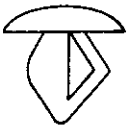
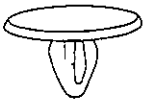
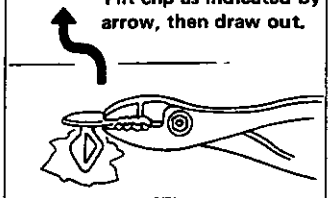
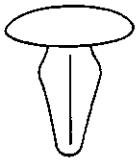
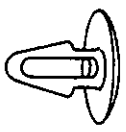
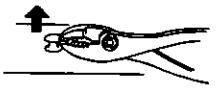
GENERAL SERVICING

Precautions

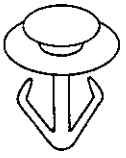
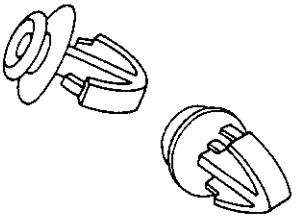
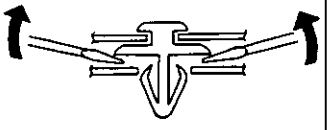
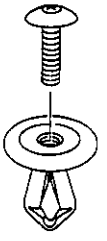
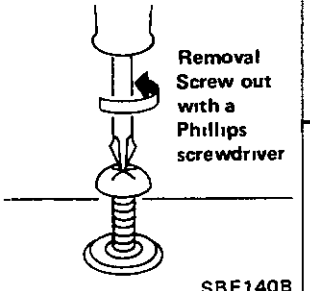
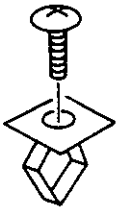
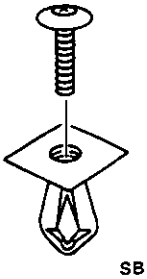
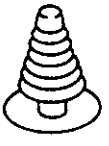
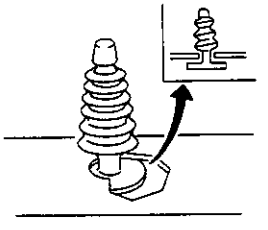
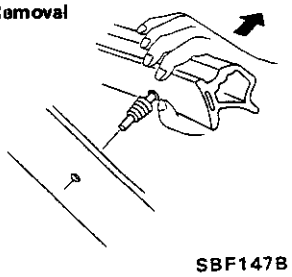
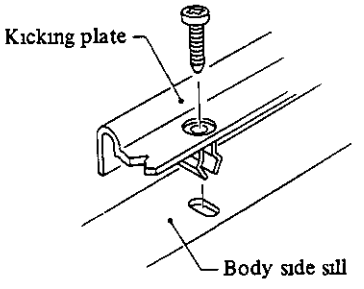
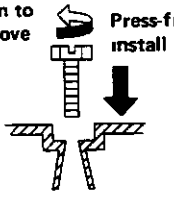
- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc carefully during removing or installation Be careful not to soil or damage them.
- Apply sealing compound where necessary while installing parts
- When applying sealing compound, be careful that the sealing compound does not protrude from parts

Clip and Fastener

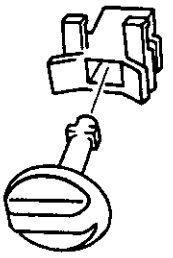
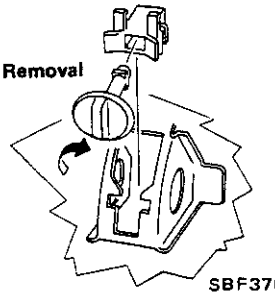
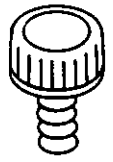
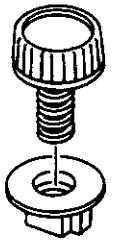
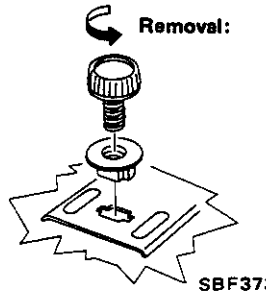
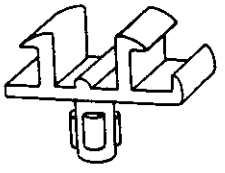
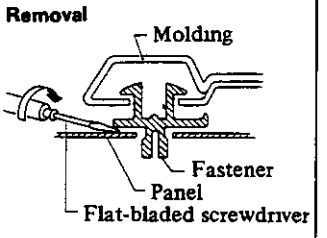
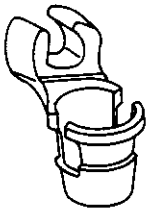
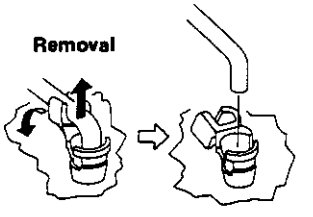
- Clips and fasteners in BF section correspond to the following numbers and symbols

No	Symbol	Shape	Removal & Installation	Location
C101	 SBF092B	 SBF109B	**Removal** **Remove by bending up with a flat-bladed screwdriver**  SBF094B	• Front door trim • Back door trim • L H rear side trim • Side window rear corner molding
C103	 SBF110B	 SBF111B	**Removal** **Remove with a flat-bladed screwdrivers or plier**   SBF112B	• Front bumper • Rear bumper • Dash side finisher • Front pillar outer garnish • Front floor carpet
C105	 SBF141B	 SBF142B	**Removal** **Tilt clip as indicated by arrow, then draw out.**  SBF143B	• Luggage floor mat
C106	 SBF089B	  SBF090B	**Removal** **Remove with a flat-bladed screwdrivers or plier**   SBF091B	• Door weatherstrip • Body side weatherstrip

Clip and Fastener (Cont'd)

No	Symbol	Shape	Removal & Installation	Location
C107	 SBF365B	 SBF366B	Removal Remove by bending up with flat-bladed screwdrivers.  SBF367B	• Rear upper side trim • Rear lower side trim (2+2 seater) • Rear wheelhouse trim (2 seater) • Front seat back finisher
CS102	 SBF138B	 SBF139B	 Removal Screw out with a Phillips screwdriver SBF140B	• Fender Protector
CS105	 SBF374B	 SBF375B		• Air inlet grille (Dash upper) • Center pillar garnish
CE103	 SBF103B	 SBF104B	Removal  SBF147B	• Door weatherstrip • Body side weatherstrip
CF103	 Kicking plate Body side sill SBF365B		Turn to remove Press-fit to install  SBF795A	• Kicking plate

Clip and Fastener (Cont'd)

No	Symbol	Shape	Removal & Installation	Location
CF104	 SBF368B	 SBF369B	 SBF370B	• Rear trim
CF105	 SBF371B	 SBF372B	 SBF373B	• Spare tire cover
CF106	 SBF411B		 SBF412B	• Back door upper molding
CR101	 SBF106B		 SEF146B	• Front door lock system • Back door lock system

Note:

- When removing and installing hood or back door, place a cloth or other padding on hood or back door corners to avoid scratching vehicle body
- When removing clip or fastener, refer to CLIP & FASTENER.
- Apply sealing compound where necessary when installing parts

Front End

- Hood adjustment Adjust at hinge portion
- Hood lock adjustment After adjusting, check hood lock control operation Apply a coat of grease to hood locks engaging mechanism
- Hood opener Do not attempt to bend cable forcibly. Doing so increases effort required to unlock hood.
- Bumper fascia. It is made of plastic, so do not use excessive force and take care to keep oil away from it
- When adjusting or removing/installing hood or removing/installing hood switch, check theft warning system operation

WARNING:

a. Be careful not to scratch hood stay when installing hood. A scratched stay may cause gas leakage.

b. The contents of the hood stay are under pressure. Do not take apart, puncture, apply heat or allow fire near it.

Bumper shock absorber inspection

1. Check shock absorber for oil leakage, cracks or deformation
2. Function of shock absorber,

(1) Place vehicle in front of a wall
Apply parking brake and place tire stoppers securely.

(2) Place a jack between bumper and wall, jack is positioned squarely with bumper directly in line with shock absorber to be checked

(3) Apply pressure to compress shock absorber at least 10.0 mm (0.394 in).

Use a jack with capacity of more than 600 kg (1,323 lb).

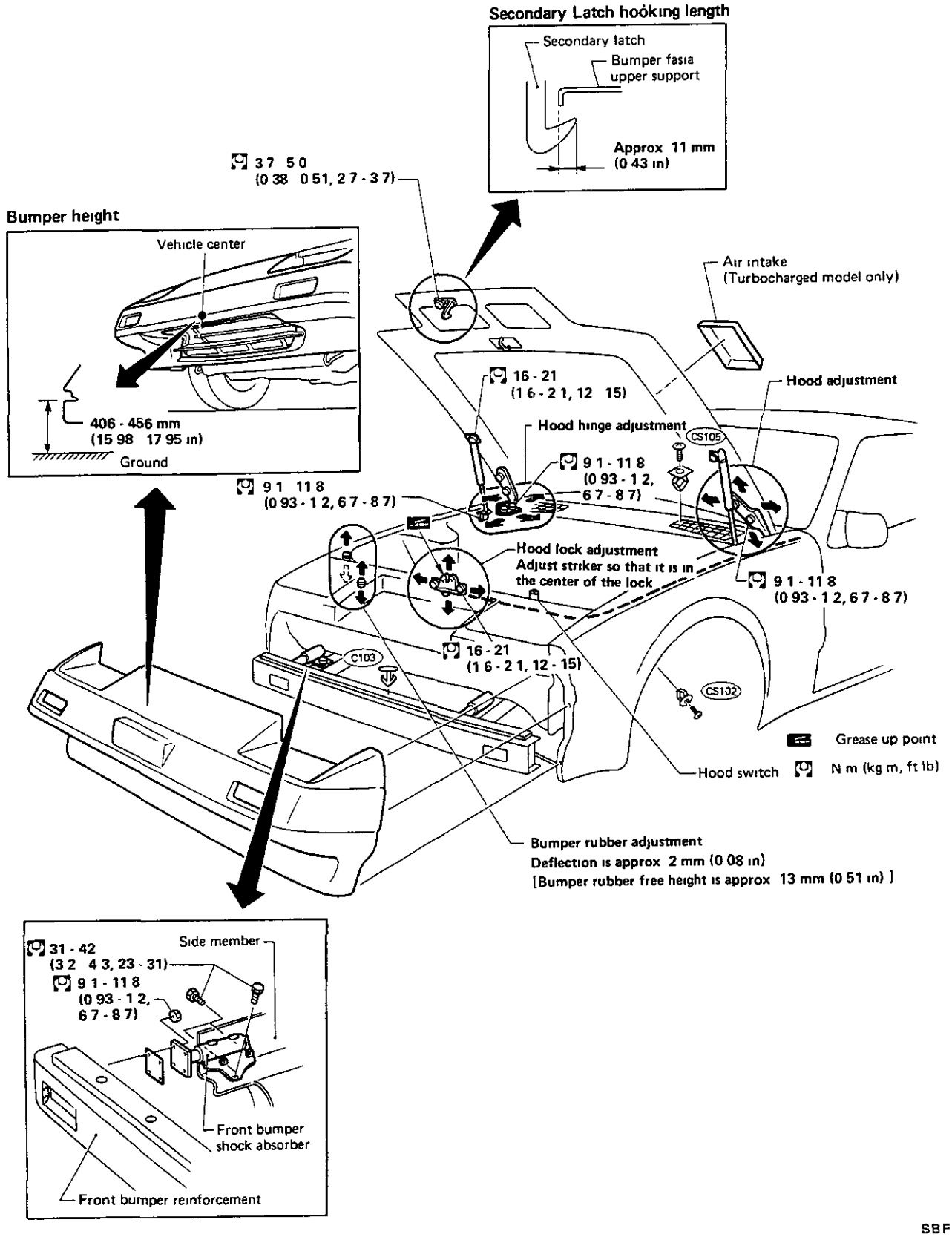
(4) Make sure bumper returns to its original position when jack is retracted Replace if necessary

CAUTION:

***It is not recommended to confirm proper installation by driving into walls or other barriers as this could* cause personal injury or damage to the vehicle.**

When replacing shock absorbers, make sure they are of the same type and rating, and manufactured by the same maker

Front End (Cont'd)



SBF380B

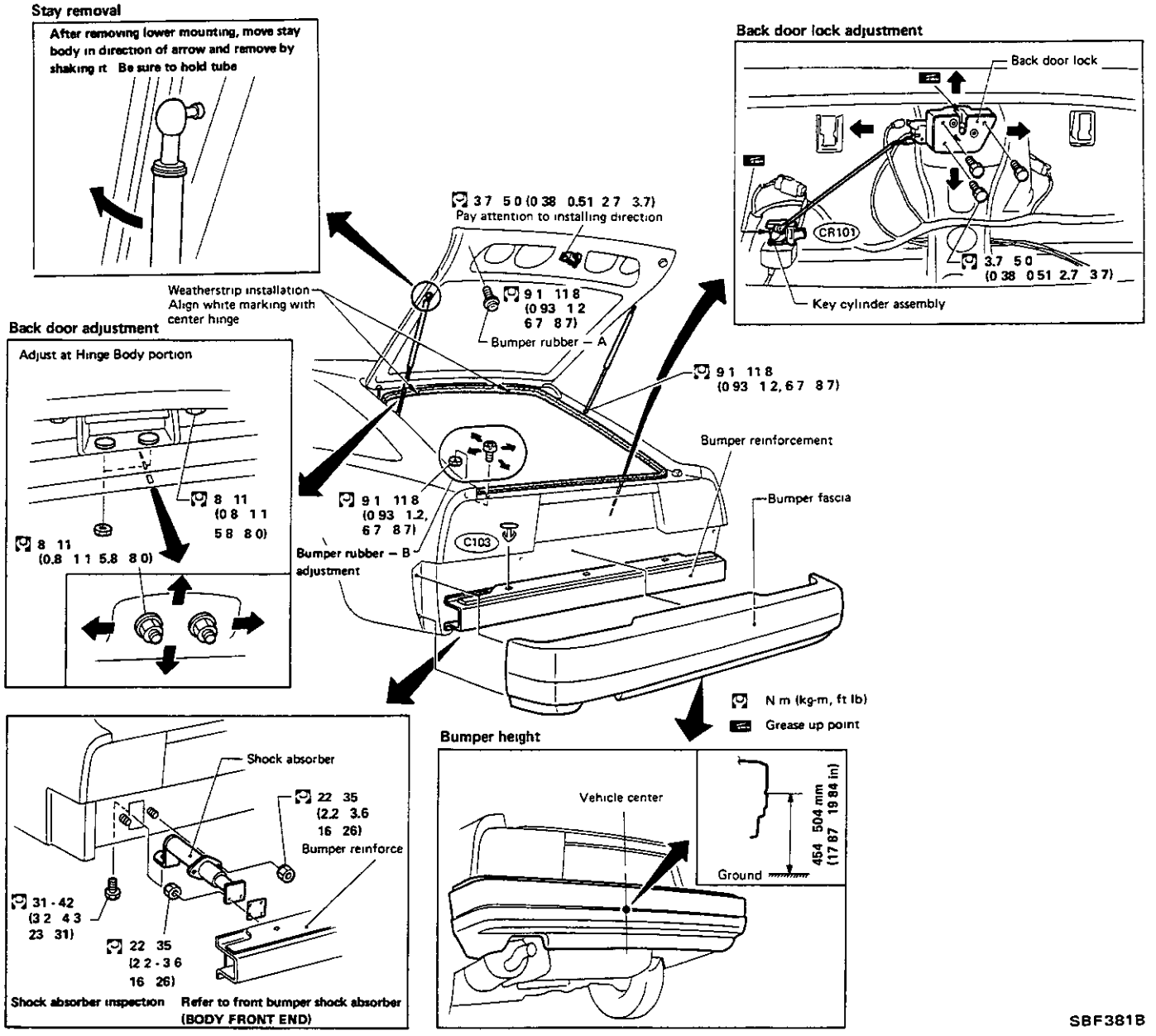
Rear End

- Back door adjustment· Adjust at hinge for proper back door fit
- Lock Adjust lock so that it is in the center of the striker. After adjusting, check back door lock operation
- Bumper fascia It is made of plastic, so do not use excessive force and take care to keep oil away from it.
- When adjusting or removing/installing back door or removing/installing back door lock system, check theft warning system operation.

WARNING:

a. **Be careful not to scratch back door stay when installing back door. A scratched stay may cause gas leakage.**

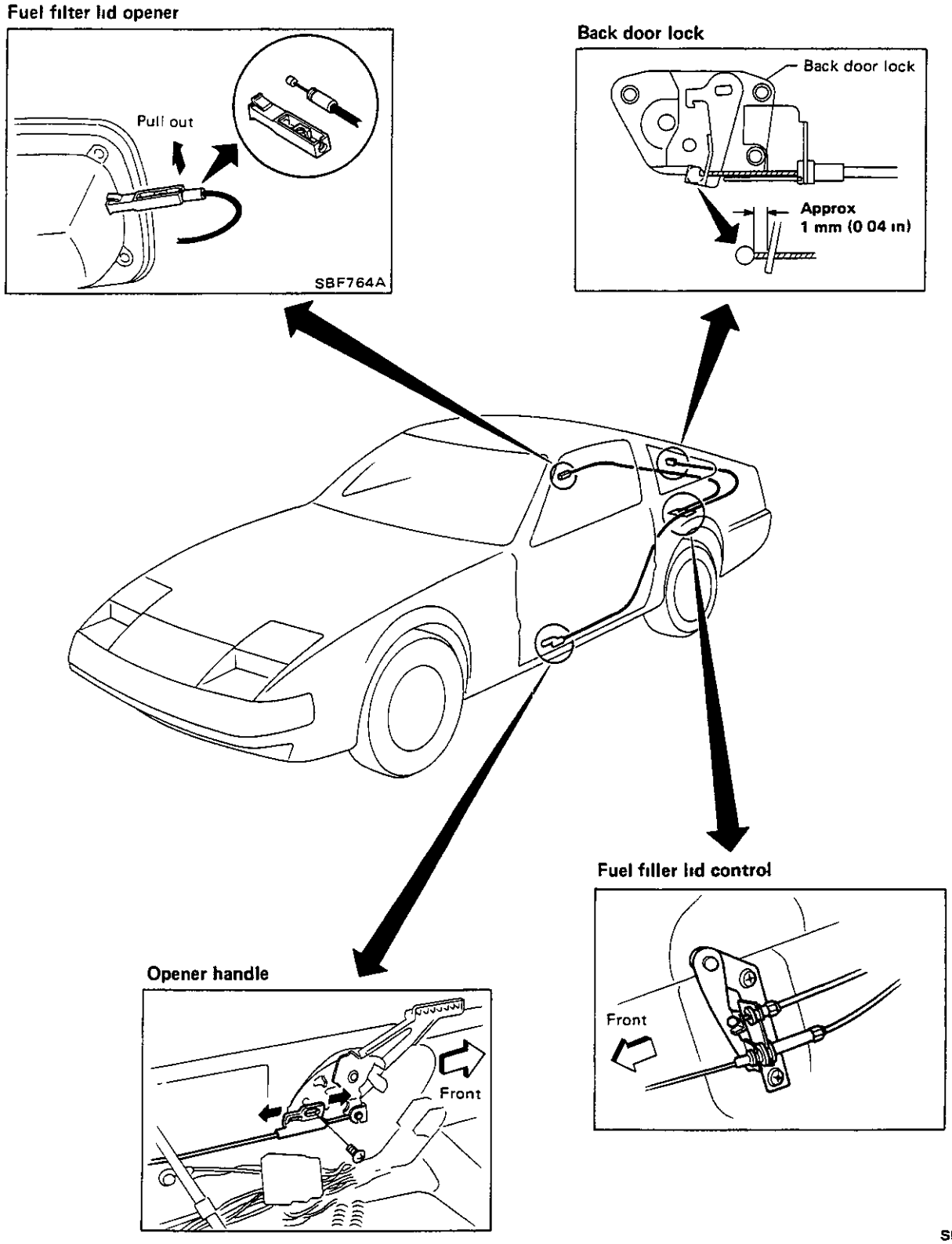
b. **The contents of the back door stay are under pressure. Do not take apart, puncture, apply heat or allow fire near it.**



SBF381B

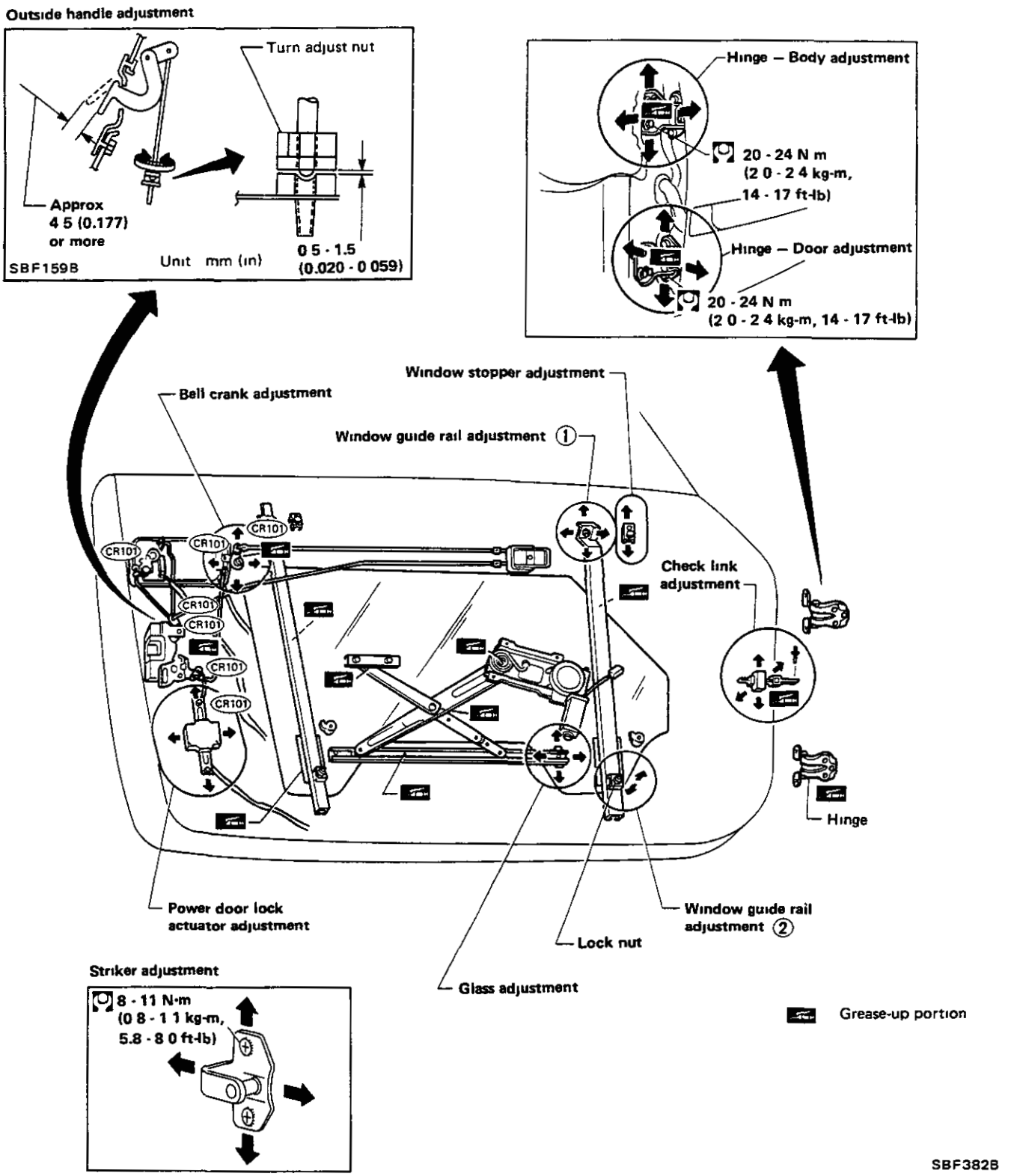
Back Door and Fuel Filler Lid Opener

- Opener cable Do not attempt to bend cable using excessive force.
- After installation, make sure that back door and fuel filler lid open smoothly



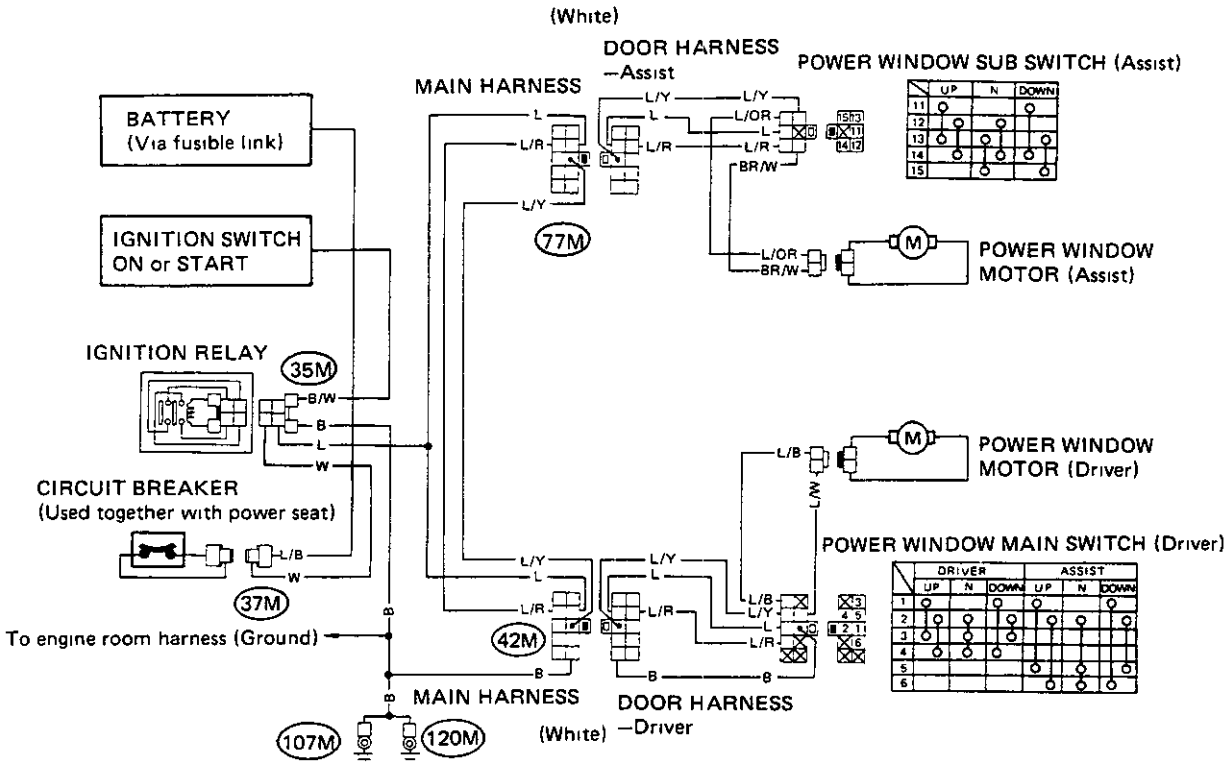
Front Door

- After adjusting door or door lock, check door lock operation.
- When adjusting or removing/installing door or removing/installing door lock system or door switch, check theft warning system operation.



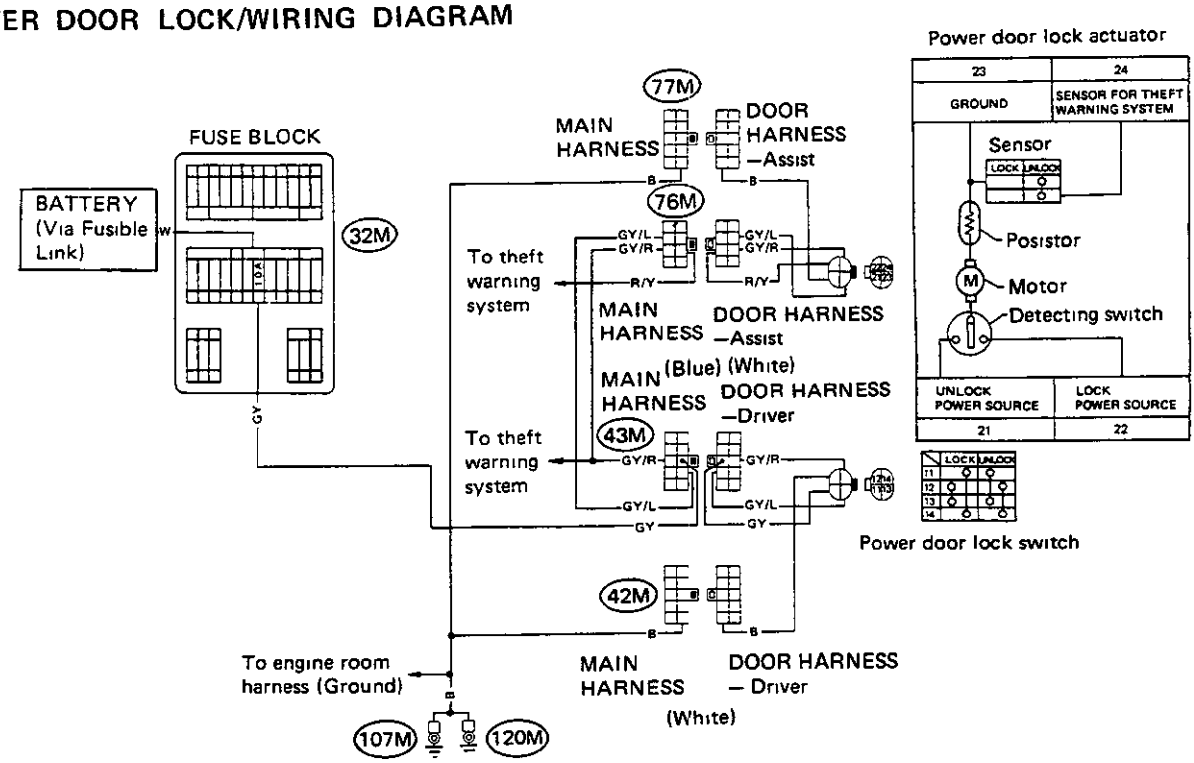
Front Door (Cont'd)

POWER WINDOW/WIRING DIAGRAM



SBF408B

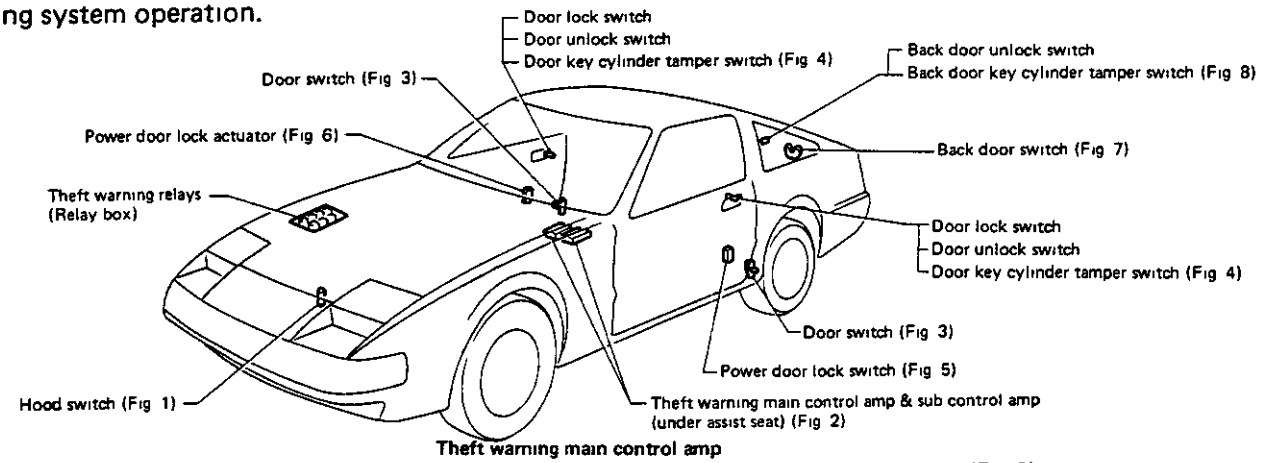
POWER DOOR LOCK/WIRING DIAGRAM



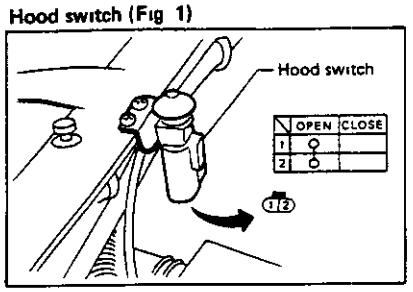
SBF409B

Theft Warning System

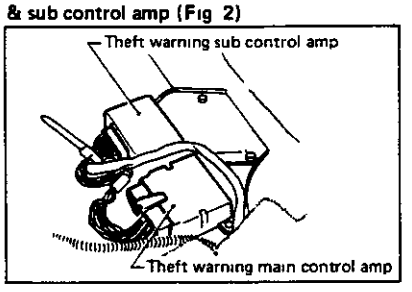
- When adjusting hood, front door, back door or removing & installing them or switches, check theft warning system operation.



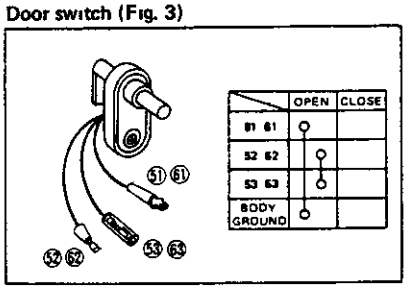
Hood switch (Fig 1)



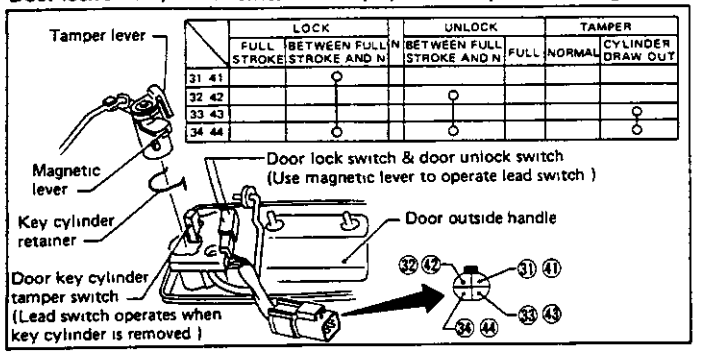
Theft warning main control amp & sub control amp (Fig 2)



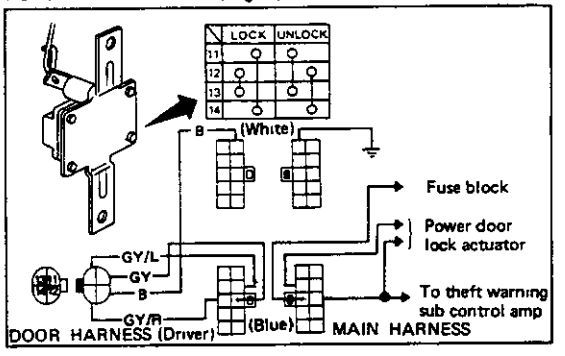
Door switch (Fig. 3)



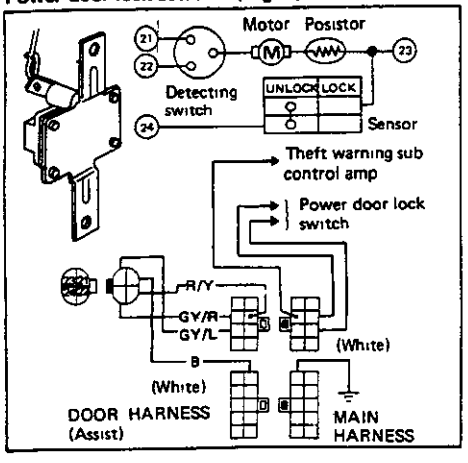
Door lock switch, unlock switch and key cylinder tamper switch (Fig 4)



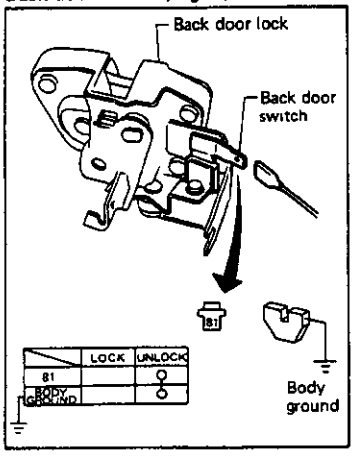
Power door lock switch (Fig 5)



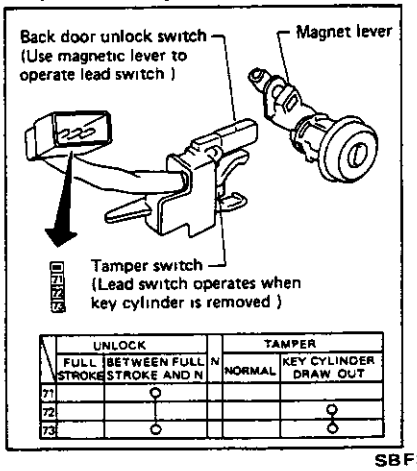
Power door lock actuator (Fig. 6)



Back door switch (Fig. 7)



Back door unlock switch & key cylinder tamper switch (Fig 8)

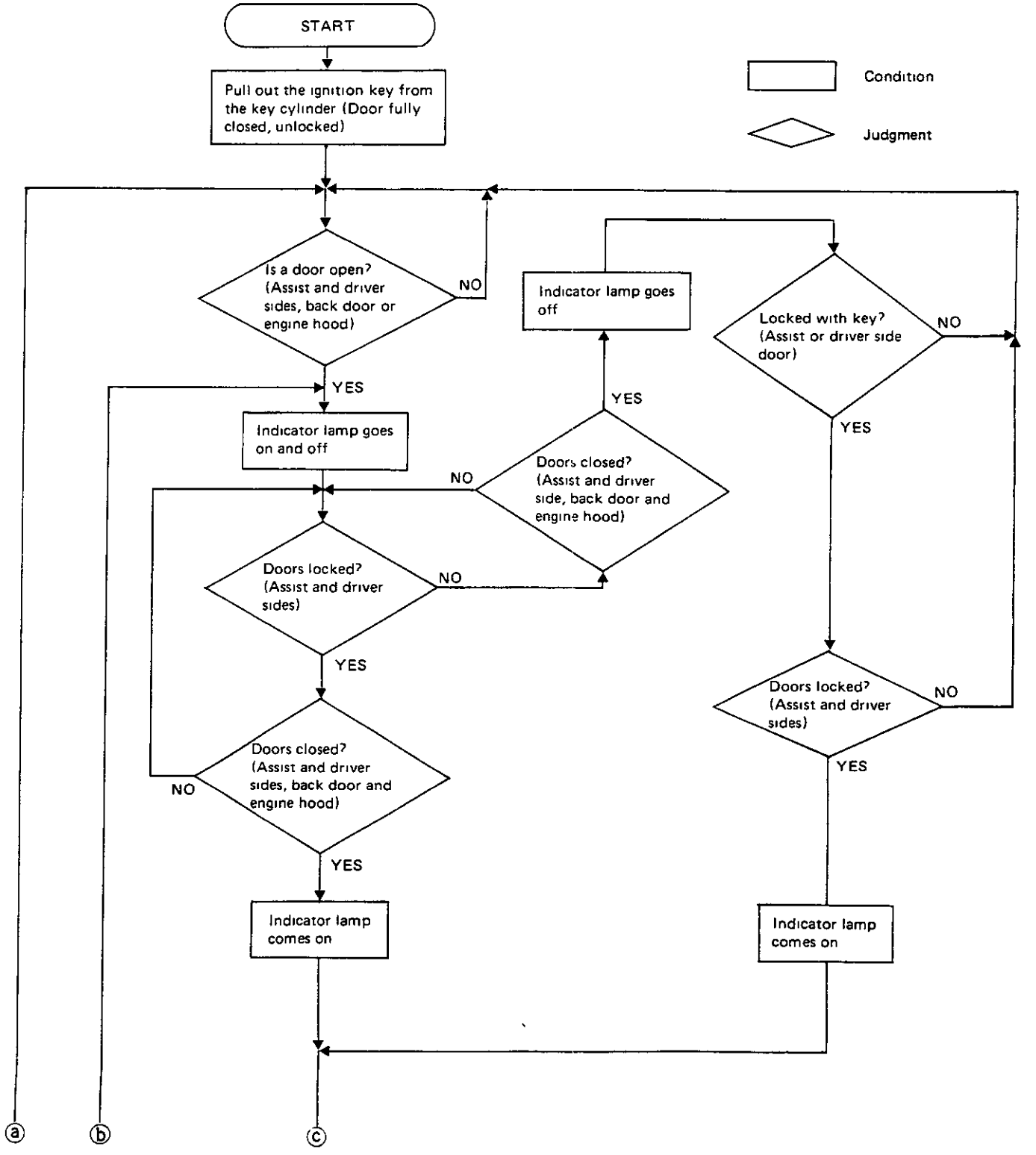


SBF390B

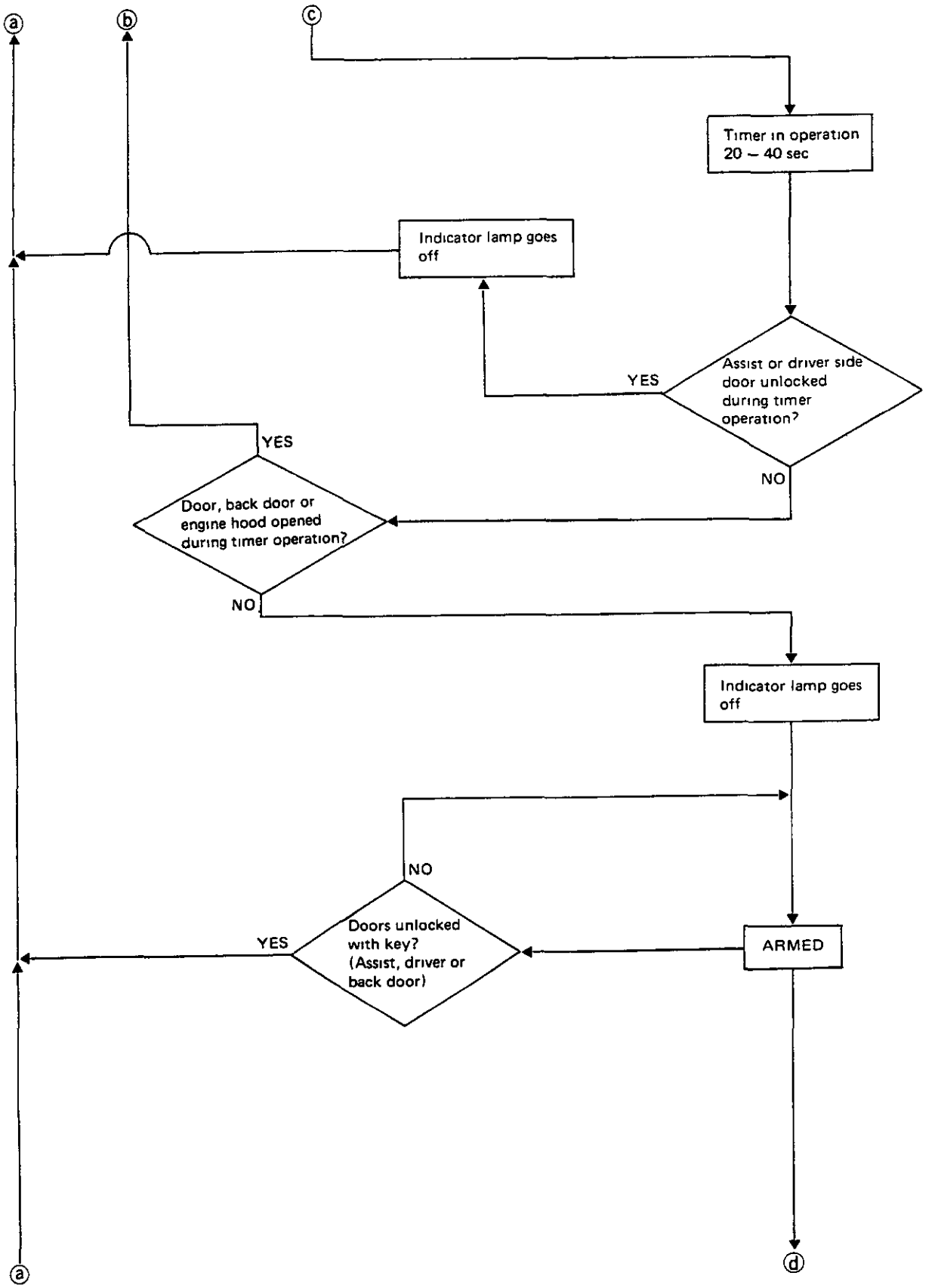
Theft Warning System (Cont'd)

SYSTEM OPERATION

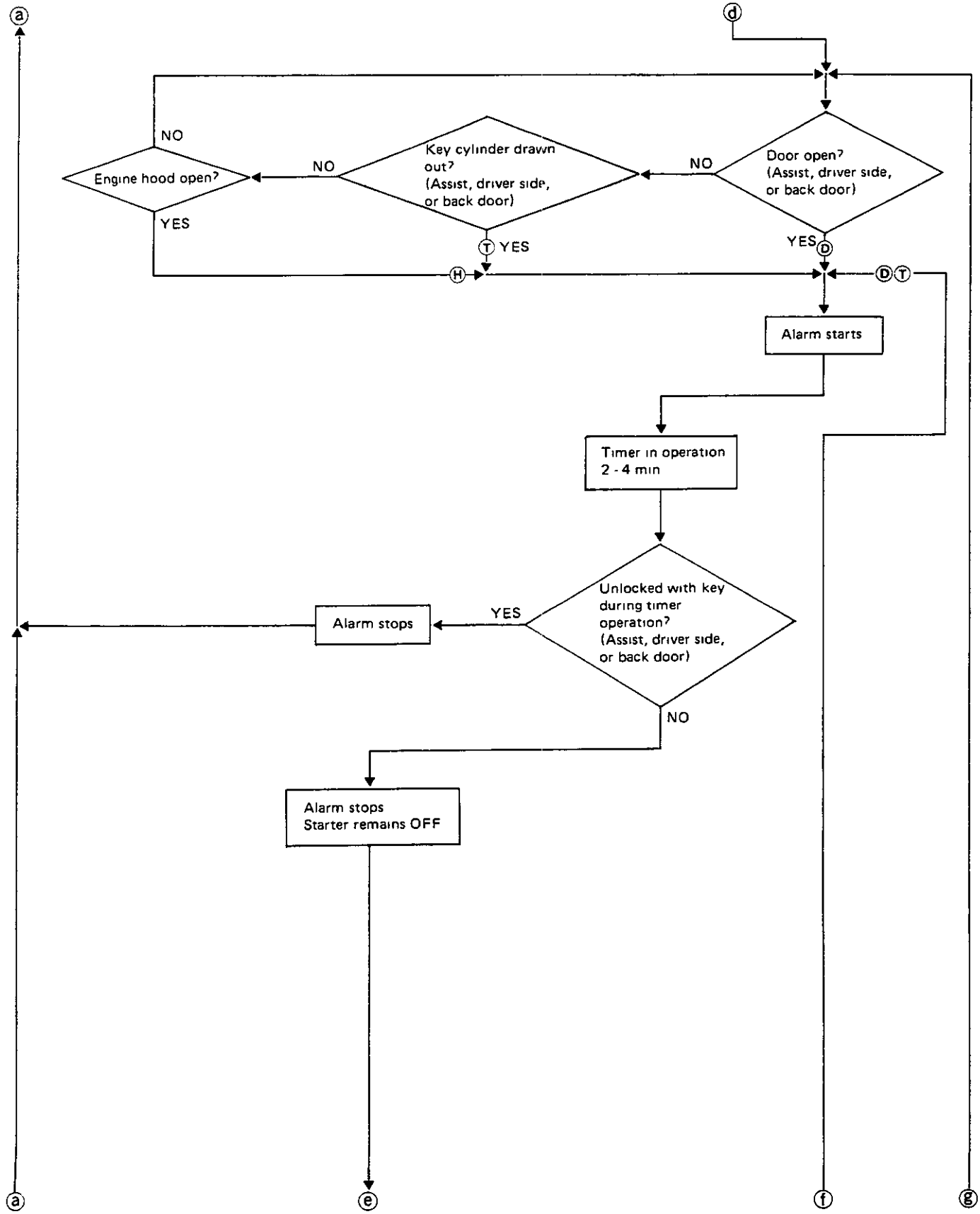
If the ignition key is set in the "ACC" position in the course of START to ARMED or in the ARMED state shown in this flow chart, the system operation is cancelled



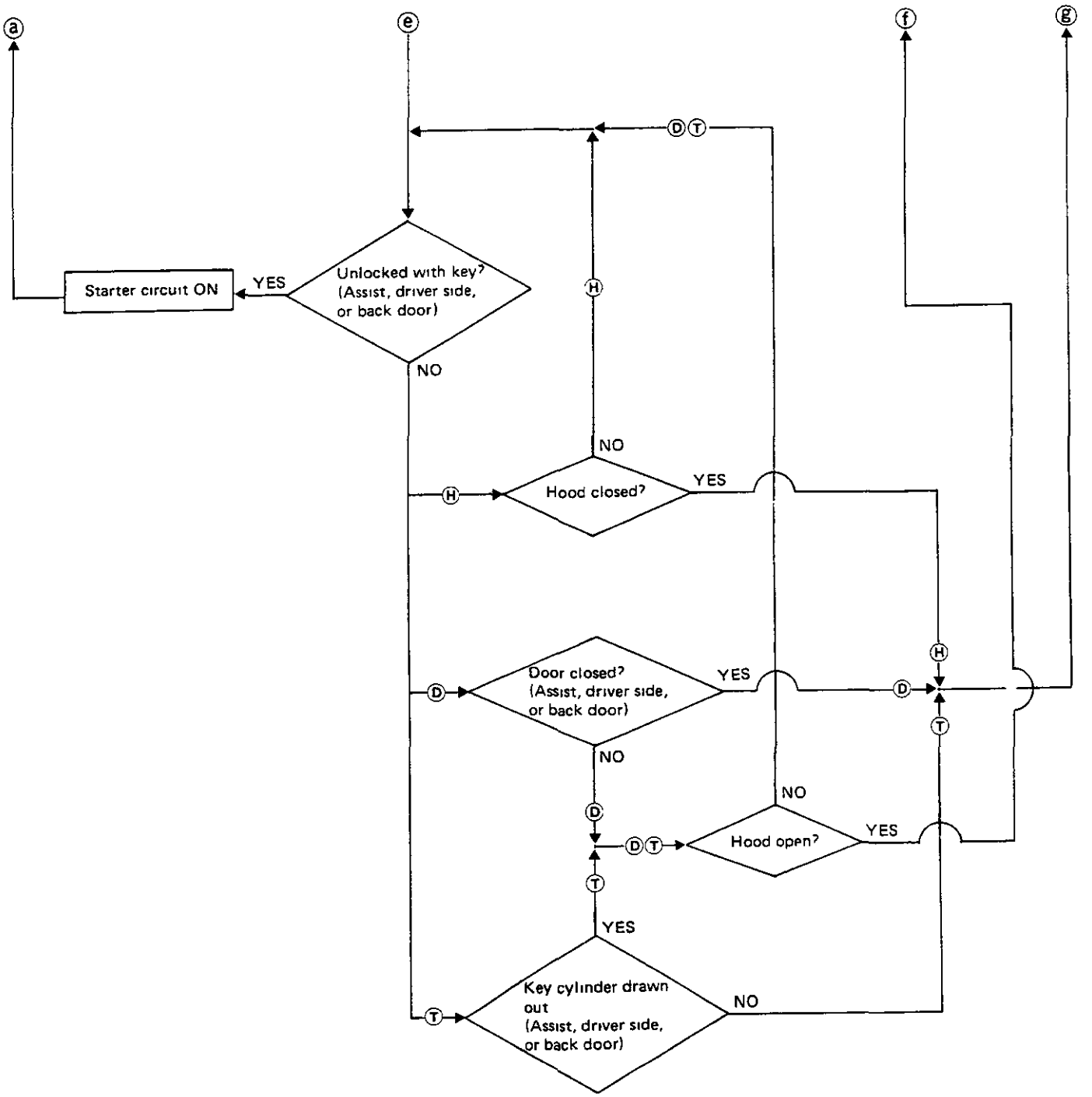
Theft Warning System (Cont'd)



Theft Warning System (Cont'd)



Theft Warning System (Cont'd)



Ⓗ Alarm actuated by opening hood

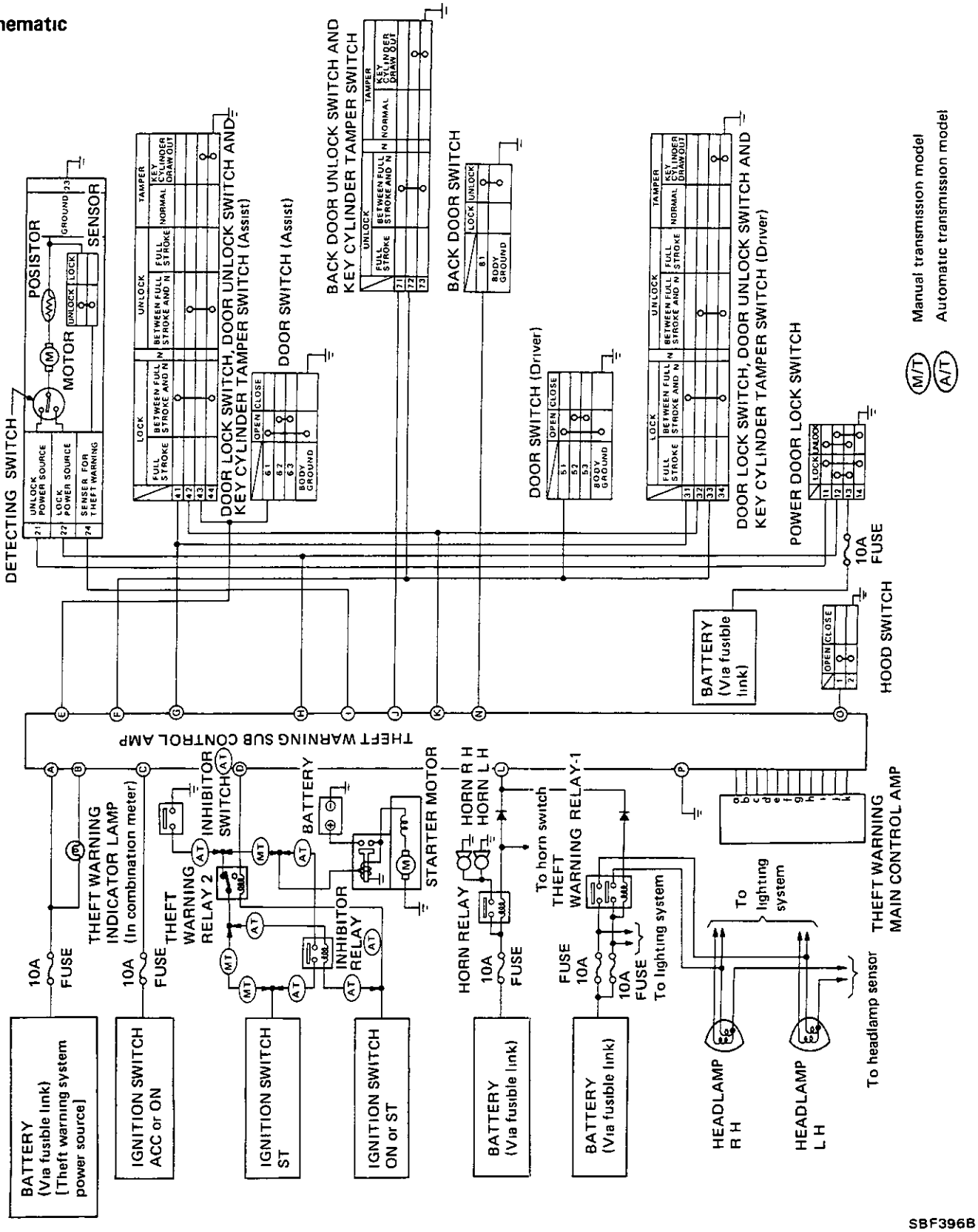
Ⓓ Alarm actuated by opening any door
(Driver, assist side, or back door)

Ⓣ Alarm actuated by drawing out any key cylinder
(Driver, assist side, or back door)

Theft Warning System (Cont'd)

SCHEMATIC AND OPERATION CHART

Schematic



SBF396B

Operation chart

Ⓐ – Ⓟ are the theft warning sub control AMP terminals (Refer to Wiring Diagram)

Step	System operation	Condition (The items for each step must all be fulfilled)	Sensor operation (O operates X does not operate – not affected)								
			Ignition SW OFF	Driver side door SW		Assist side door SW		Back door SW		Hood SW	
				ON (Door open)	OFF (Door close)	ON (Door open)	OFF (Door close)	ON (Back door open)	OFF (Back door close)	ON (Hood open)	OFF (Hood close)
				Ⓕ – Grounded	Ⓕ – Not grounded	Ⓔ – Grounded	Ⓔ – Not grounded	Ⓝ – Grounded	Ⓝ – Not grounded	Ⓞ – Grounded	Ⓞ – Not grounded
①	Disarmed phase • Indicator lamp OFF	• Ignition SW OFF	O	X	O	X	O	X	O	X	O
②	Disarmed phase • Indicator lamp goes ON and OFF (Ⓑ terminal voltage is changed to approx 1.5V and 12V alternately)	• Ignition SW OFF • Open door, hood or back door	O	(O)	(X)	(O)	(X)	(O)	(X)	(O)	(X)
				At least one of the switches for driver side door, assist side door, back door or hood turns ON							
③	Ready phase (Theft warning set) • Indicator lamp goes ON for 20 – 40 sec. (If a door, hood or back door is opened in this phase, the time of the phase is extended accordingly.) ↓ Armed phase • Indicator lamp goes OFF [Ⓑ terminal voltage is approx. 1.5V for 20 – 40 sec. and then approx. 12V by a timer operation.]	• Ignition SW OFF • Type 1: Close doors, hood and back door, and then lock doors with key	O	X	O	X	O	X	O	X	O
		Type 2: Close & lock hood, back door and assist door, and then lock & close driver door without key	O	X	O	X	O	X	O	X	O
				The door switches turn OFF after locking without key							
		Type 3: Close & lock hood, back door and driver door, and then close & lock assist door without key	O	X	O	X	O	X	O	X	O
						The door switches turn OFF after locking without key					
		Type 4: Close & lock doors and hood (or back door) and then close back door (or hood)	O	X	O	X	O	(X)	(O)	(X)	(O)
								After locking & closing doors and hood (or back door), close back door (or hood)			

Theft Warning System (Cont'd)

Sensor operation (O operates X does not operate – not affected)

Driver side door lock SW	Assist side door lock SW	Power door lock SW		Power door lock actuator		Driver side door unlock SW	Assist side door unlock SW	Back door unlock SW	Driver door key cylinder tamper SW	Assist door key cylinder tamper SW	Back door key cylinder tamper SW
OFF→ON→OFF (Lock with key)	OFF→ON→OFF (Lock with key)	Lock	Unlock	Sensor OFF (Lock)	Sensor ON (Unlock)	OFF→ON→OFF (Unlock with key)	OFF→ON→OFF (Unlock with key)	OFF→ON→OFF (Unlock with key)	ON (Key cylinder draw out)	ON (Key cylinder draw out)	ON (Key cylinder draw out)
Ⓖ – Not grounded→Grounded→Not grounded	←	Ⓗ – 12V current flows	Ⓗ – Grounded	Ⓘ – Not grounded	Ⓘ – Grounded	Ⓚ – Not grounded→Grounded→Not grounded	←	Ⓙ – Not grounded→Grounded→Not grounded	Ⓕ – Grounded	Ⓔ – Grounded	Ⓕ – Grounded
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–		–	–	–	–	–	–	–	–
(O)	(O)	O	X	O	X	X					
After the doors hood and back door are closed one or both door lock switches operates to lock the doors		*Operates after the doors are locked*					X	X	X	X	X
X	–	O	X	O	X	X	X	X	X	X	X
		After assist door SW, hood SW and back door SW turn OFF lock driver door with out key									
–	X	O	X	O	X	X	X	X	X	X	X
				After driver door SW hood SW & back door SW turn OFF and power door lock SW is in the lock position lock assist door with out key							
–	–	O	X	O	X	X	X	X	X	X	X

Theft Warning System (Cont'd)

Ⓐ – Ⓟ are the theft warning sub control AMP terminals (Refer to Wiring Diagram)

Step	System operation	Condition (The items for each step must all be fulfilled)	Ignition SW OFF	Sensor operation (O operates X does not operate – not affected)							
				Driver side door SW		Assist side door SW		Back door SW		Hood SW	
				ON (Door open)	OFF (Door close)	ON (Door open)	OFF (Door close)	ON (Back door open)	OFF (Back door close)	ON (Hood open)	OFF (Hood close)
				Ⓕ – Grounded	Ⓕ – Not grounded	Ⓔ – Grounded	Ⓔ – Not grounded	Ⓝ – Grounded	Ⓝ – Not grounded	Ⓞ – Grounded	Ⓞ – Not grounded
④	Alarm phase • Horn sounds intermittently (Ⓛ is grounded intermittently in the sub control AMP) • Head lamp (Dimmer) flashes ON and OFF (Ⓛ is grounded intermittently in the sub control AMP) • Starter motor can not operate (Ⓓ is grounded in the main control AMP via the sub control AMP) [Warning by the horn and head lamps is given for 2 4 min and is then stopped by a timer If the same input signal is received again the same warning is given again Also, the starter motor can not operate until a signal from the key cylinder unlock SW is received]	• Ignition SW OFF • Type 1 Open doors or back door without key	O	(O)	(X)	(O)	(X)	(O)	(X)	X	O
				At least one of the switches for the driver side door assist side door or back door turns ON							
		Type 2 Open hood	O	X	O	X	O	X	O	O	X
		Type 3 Draw out key cylinder at doors or back door	O	X	O	X	O	X	O	X	O
⑤	Reset	• Type 1 – Ready phase to Reset	(X)	(O)	(X)	(O)	(X)	(O)	(X)	(O)	(X)
			→	→		→		→		→	
		• Type 2 – Armed phase to Reset	(X)	X	O	X	O	X	O	X	O
			→	→							
		• Type 3 – Alarm phase to Reset	–	–	–	–	–	–	–	–	–

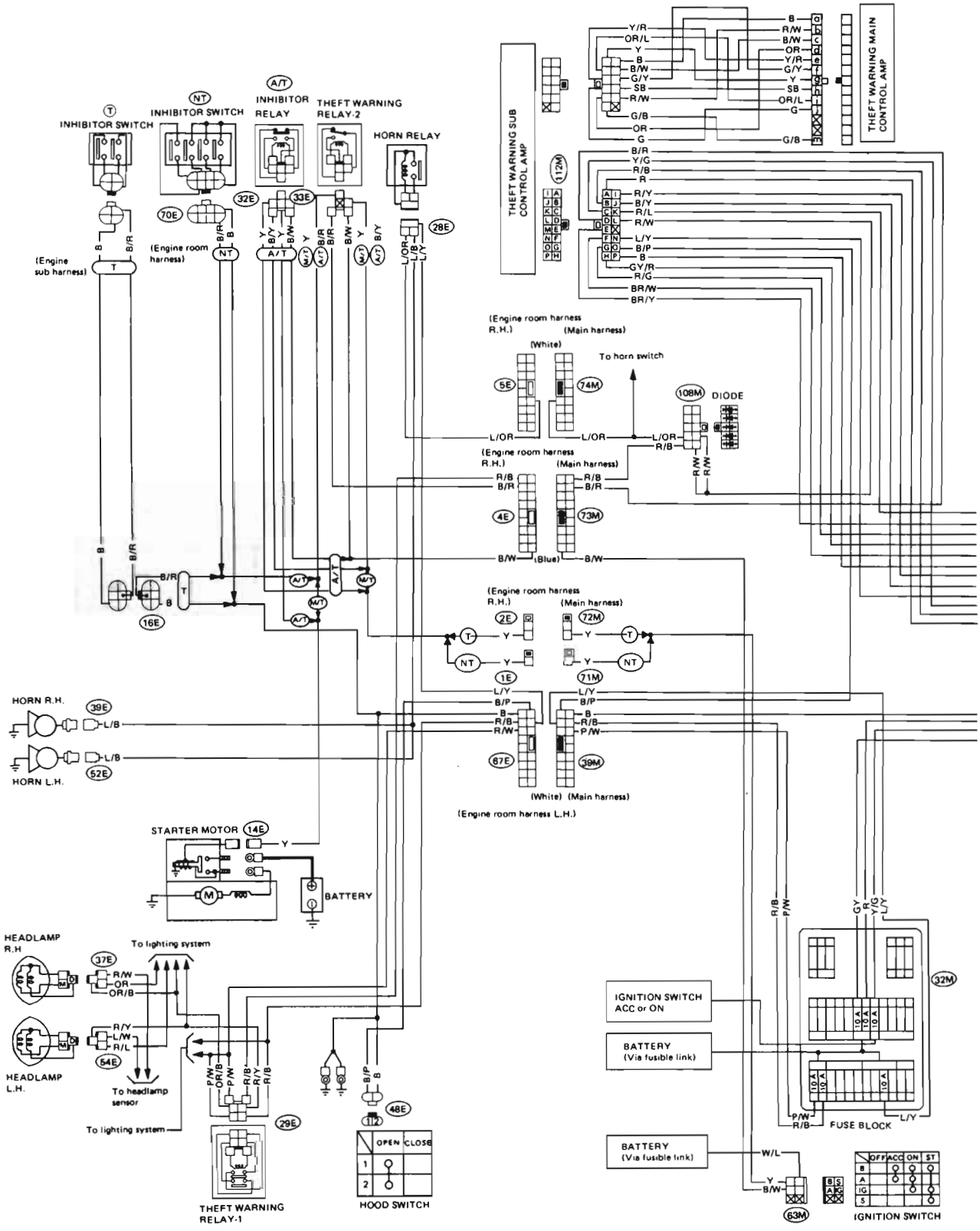
Theft Warning System (Cont'd)

Sensor operation (O operates X does not operate – not affected)

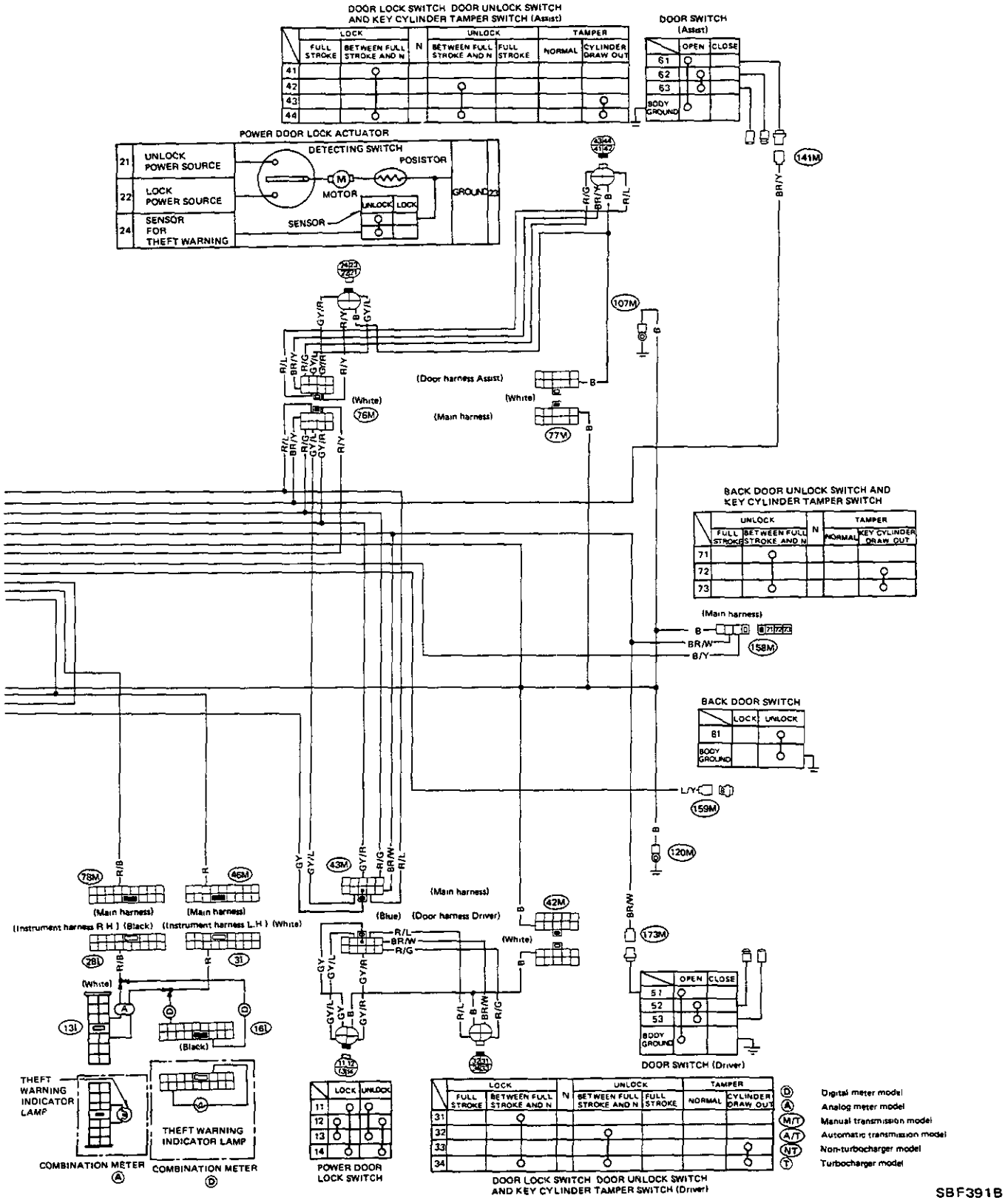
Driver side door lock SW	Assist side door lock SW	Power door lock SW		Power door lock actuator		Driver side door unlock SW	Assist side door unlock SW	Back door unlock SW	Driver door key cylinder tamper SW	Assist door key cylinder tamper SW	Back door key cylinder tamper SW
OFF→ON→OFF (Lock with key)	OFF→ON→OFF (Lock with key)	Lock	Unlock	Sensor OFF (Lock)	Sensor ON (Unlock)	OFF→ON→OFF (Unlock with key)	OFF→ON→OFF (Unlock with key)	OFF→ON→OFF (Unlock with key)	ON (Key cylinder draw out)	ON (Key cylinder draw out)	ON (Key cylinder draw out)
Ⓖ – Not grounded→Grounded→Not grounded	←	Ⓗ – 12V current flows	Ⓗ – Grounded	Ⓘ – Not grounded	Ⓘ – Grounded	Ⓚ – Not grounded→Grounded→Not grounded	←	Ⓙ – Not grounded→Grounded→Not grounded	Ⓕ – Grounded	Ⓔ – Grounded	Ⓕ – Grounded
–	–	(X)	(O)	(X)	(O)	X	X	X	X	X	X
		Either one or both the power door lock switch and power door lock actuator turns to the unlocked position									
–	–	O	X	O	X	X	X	X	X	X	X
–	–	O	X	O	X	X	X	X	(O)	(O)	(O)
									At least one of the key cylinder tamper switches turns ON		
–	–	(X)	(O)	(X)	(O)	(O)	(O)	(O)	X	X	X
→		At least one of the signals for the ignition switch ACC power door lock switch unlock, power door lock actuator unlock door unlock switch ON back door unlock switch ON door switches ON back door switch ON or hood switch ON is given									
–	–	O	X	O	X	(O)	(O)	(O)	X	X	X
→						At least one of the signals for the ignition SW ACC door unlock SW ON or back door unlock SW ON is given					
–	–	–	–	–	–	(O)	(O)	(O)	–	–	–
						At least one of the switches for the door unlock and back door unlock turns ON					

Theft Warning System (Cont'd)

WIRING DIAGRAM



Theft Warning System (Cont'd)



Theft Warning System (Cont'd)

TROUBLE-SHOOTING

- When disconnecting the main harness connector, as instructed in this trouble-shooting, always be sure to remove the battery ground cable first
- In trouble-shooting, if the cause of trouble is found to be due to the "Faulty sub-control AMP" or "Faulty main control AMP", be sure to refer to "Controller inspection"
- Ⓐ through Ⓟ indicate the respective terminals of the main harness connector (refer to Wiring Diagram)
- The term "door" indicates the driver door, assist side door, back door, and hood, unless otherwise specified.
- The term "alarm" means that the horn sounds intermittently and the headlamps blink

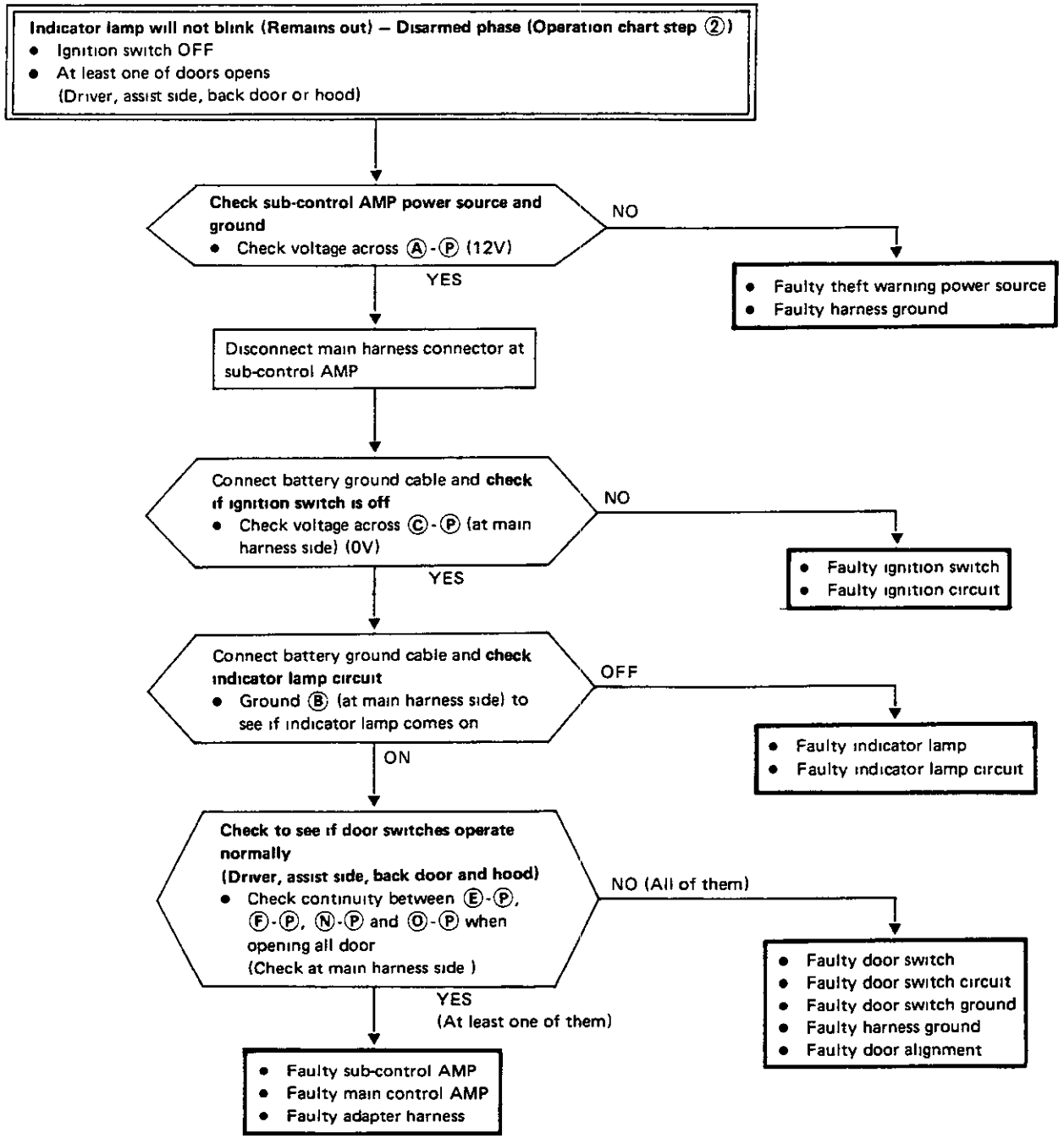
- **Contents**

Indicator lamp	• Will not blink (Remains out)	— Disarmed phase	IND-①
	• Remains blinking	— Disarmed phase	IND-②
	• Will not come on	— Ready phase with key lock	IND-③
	• Will not come on	— Ready phase with keyless lock and closing hood (or back door) after closing & locking doors	IND-④
	• Remains lighted	— Disarmed phase and resetting from ready phase	IND-⑤
	• Will not go out (Comes on)	— Disarmed phase	IND-⑥
	• Will not go out (Remains lighted)	— Armed phase	IND-⑦
Armed	• Is set	— Disarmed phase	ARM-①
	• Is not set	— Ready & armed phase	ARM-②
Alarm	• Is given without any cause	— Armed phase	ALR-①
	• Will not operate	— Alarm phase	ALR-②
	• Will not stop (Alarm continues over 4 minutes)	— Alarm phase	ALR-③
	• Stops too soon (Will not continue 2 to 4 minutes)	— Alarm phase	ALR-④
	• Continues (is not intermittent)	— Alarm phase	ALR-⑤
Starter motor	• Cannot operate	— Except alarm phase	ST-①
	• Can operate	— Alarm phase	ST-②
Reset	• Cannot be performed	— Reset by unlocking power door lock — Reset by opening door — Reset by ignition switch — Reset by unlocking key cylinder with key	RES

- **Symbol.** Condition, Action, Judgment, Probable cause

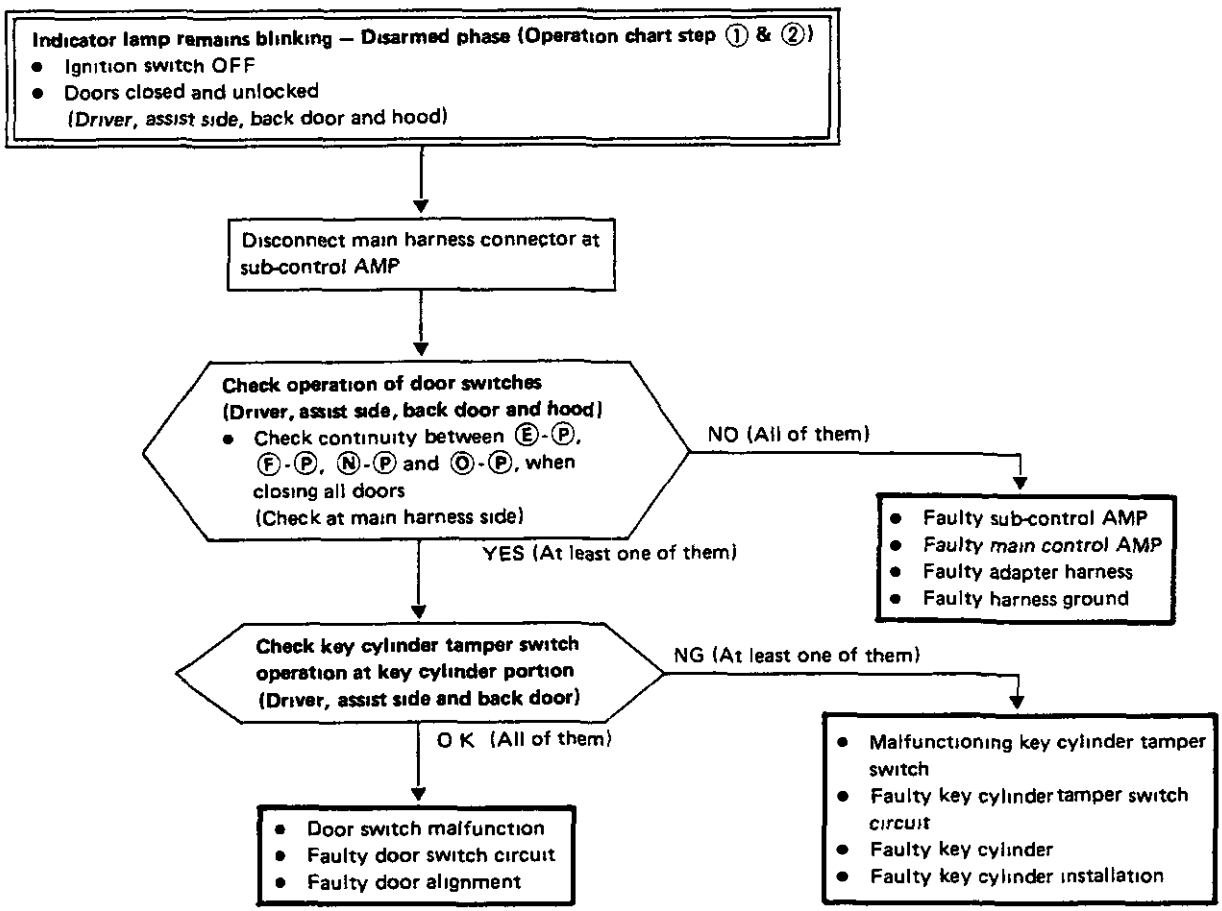
Theft Warning System (Cont'd)

IND-①



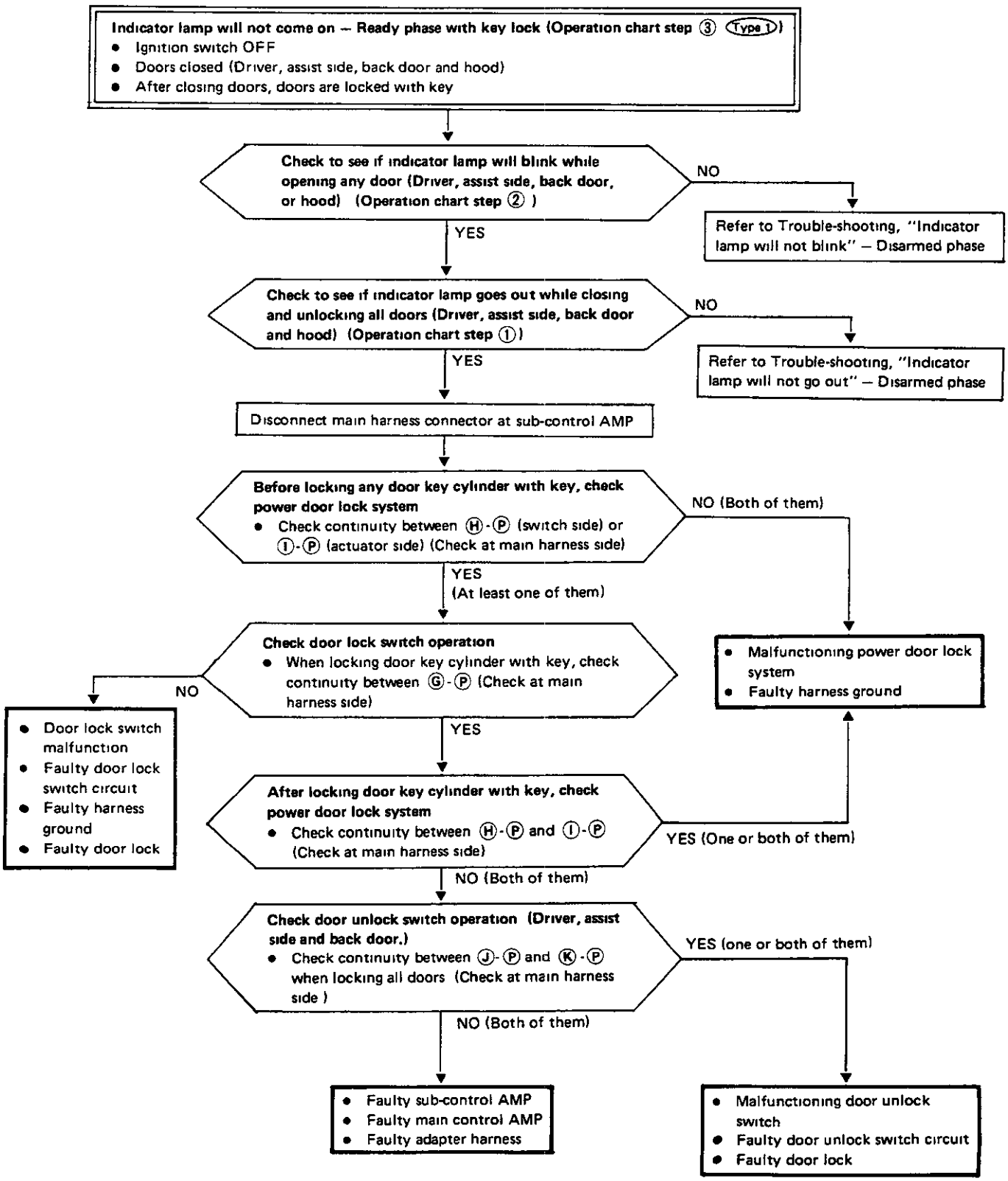
Theft Warning System (Cont'd)

IND-②

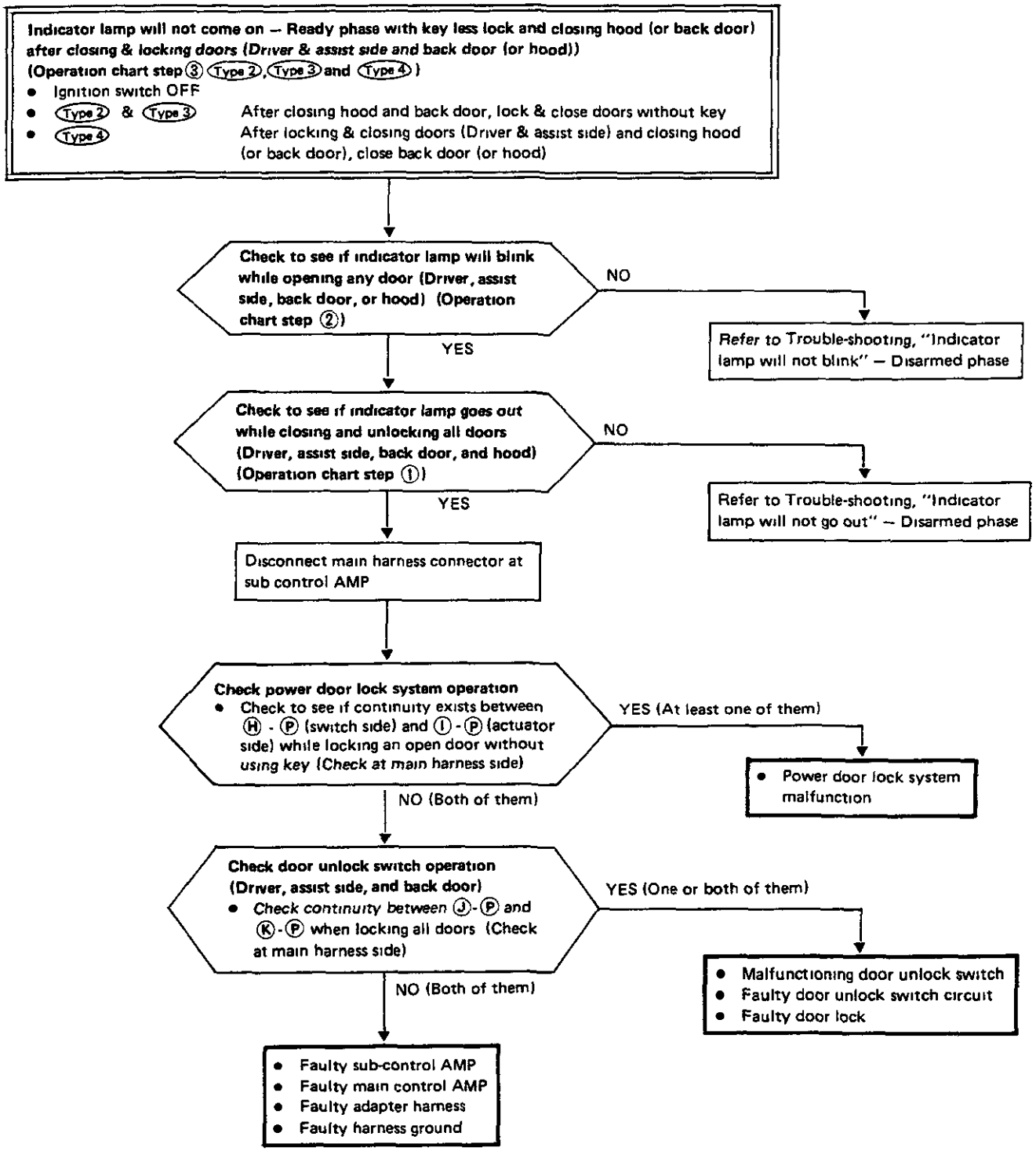


Theft Warning System (Cont'd)

IND-③

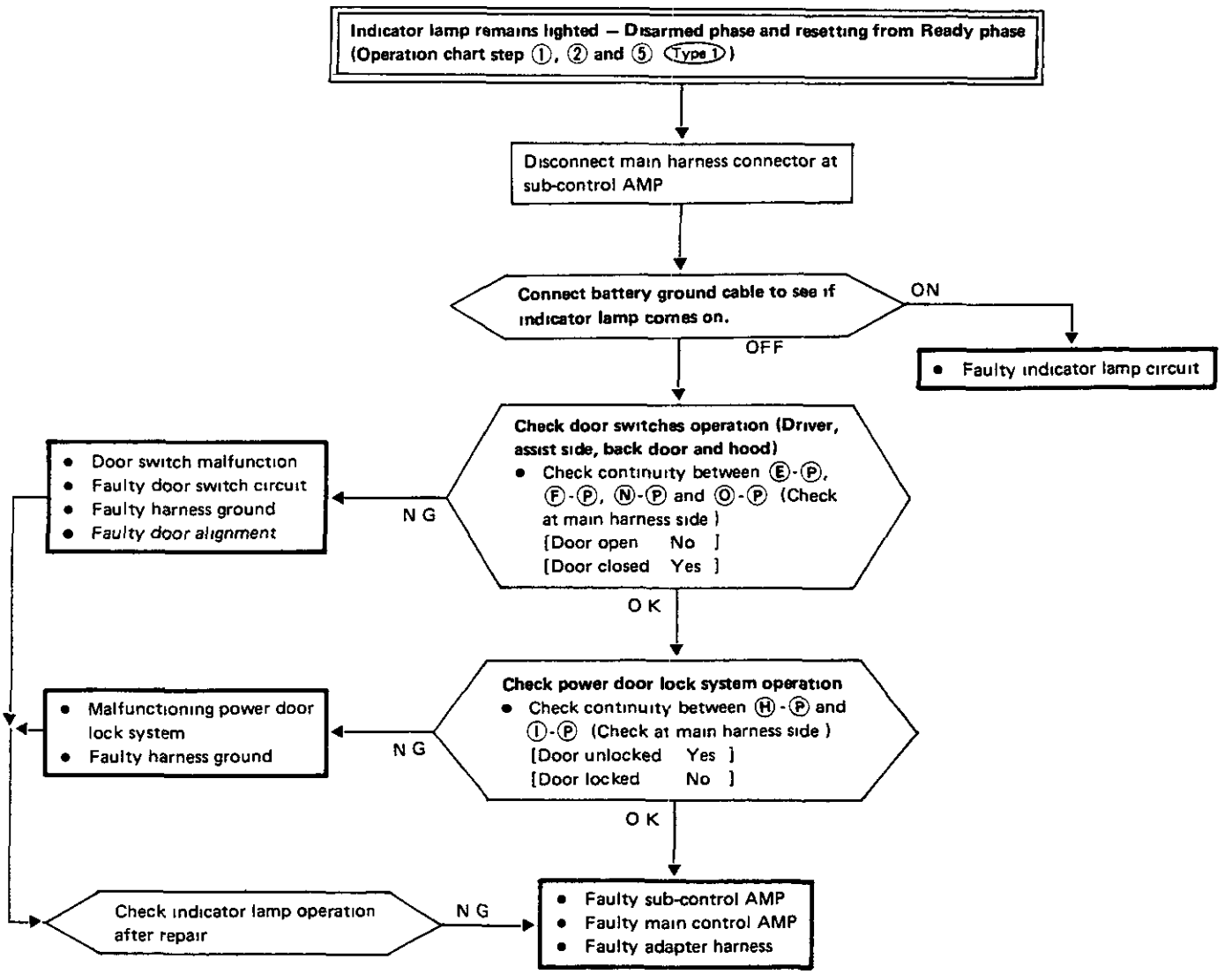


IND-④


Indicator lamp will not come on – Ready phase with key less lock and closing hood (or back door) after closing & locking doors (Driver & assist side and back door (or hood))
(Operation chart step ③ Type 2, Type 3 and Type 4)
• Ignition switch OFF
• Type 2 & Type 3
• Type 4
After closing hood and back door, lock & close doors without key
After locking & closing doors (Driver & assist side) and closing hood (or back door), close back door (or hood)
Check to see if indicator lamp will blink while opening any door (Driver, assist side, back door, or hood) (Operation chart step ②)
NO
Refer to Trouble-shooting, "Indicator lamp will not blink" – Disarmed phase
YES
Check to see if indicator lamp goes out while closing and unlocking all doors (Driver, assist side, back door, and hood) (Operation chart step ①)
NO
Refer to Trouble-shooting, "Indicator lamp will not go out" – Disarmed phase
YES
Disconnect main harness connector at sub control AMP
Check power door lock system operation
• Check to see if continuity exists between Ⓗ - Ⓟ (switch side) and Ⓘ - Ⓟ (actuator side) while locking an open door without using key (Check at main harness side)
YES (At least one of them)
• Power door lock system malfunction
NO (Both of them)
Check door unlock switch operation (Driver, assist side, and back door)
• Check continuity between Ⓙ - Ⓟ and Ⓚ - Ⓟ when locking all doors (Check at main harness side)
YES (One or both of them)
• Malfunctioning door unlock switch
• Faulty door unlock switch circuit
• Faulty door lock
NO (Both of them)
• Faulty sub-control AMP
• Faulty main control AMP
• Faulty adapter harness
• Faulty harness ground

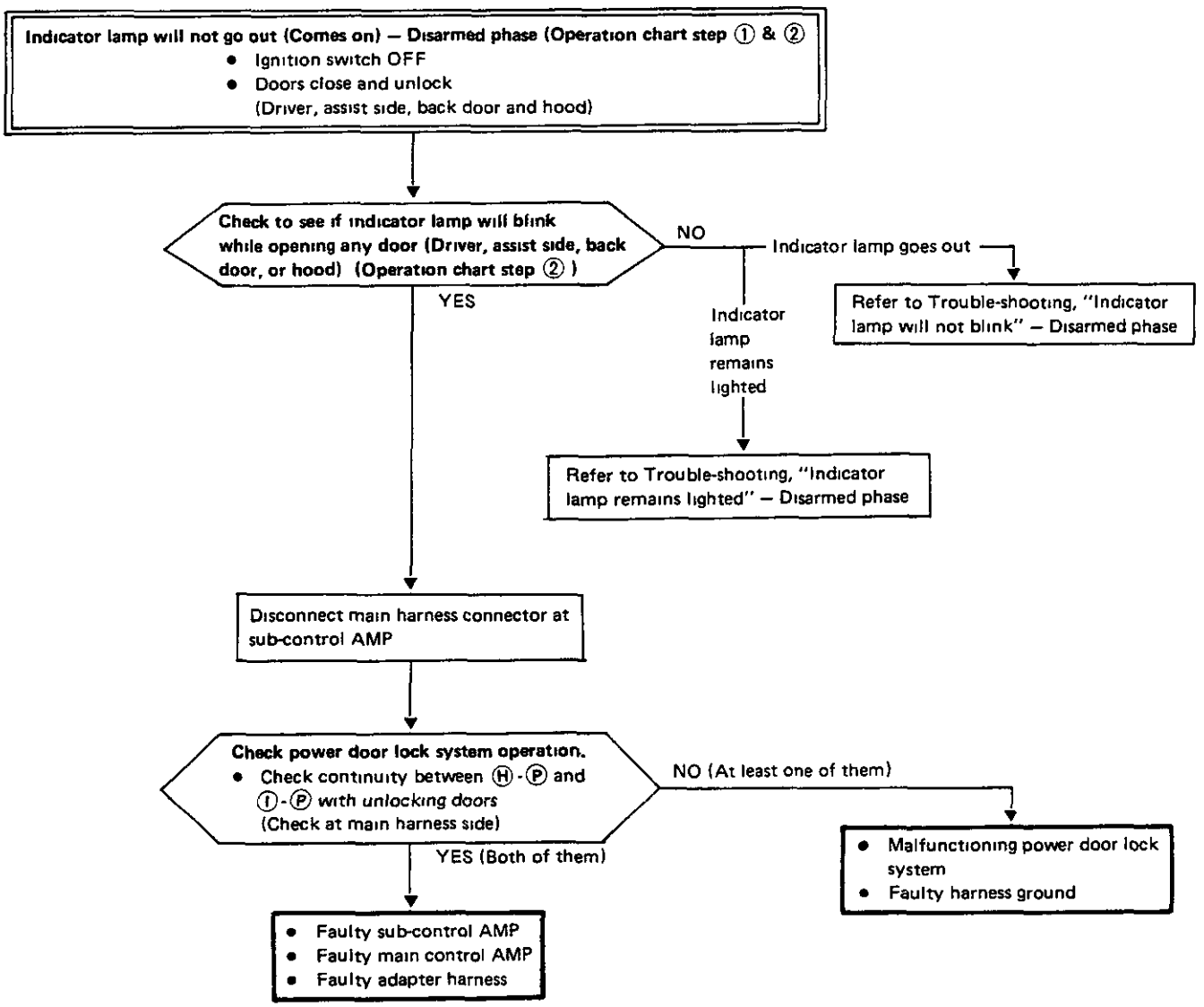
Theft Warning System (Cont'd)

IND-⑤



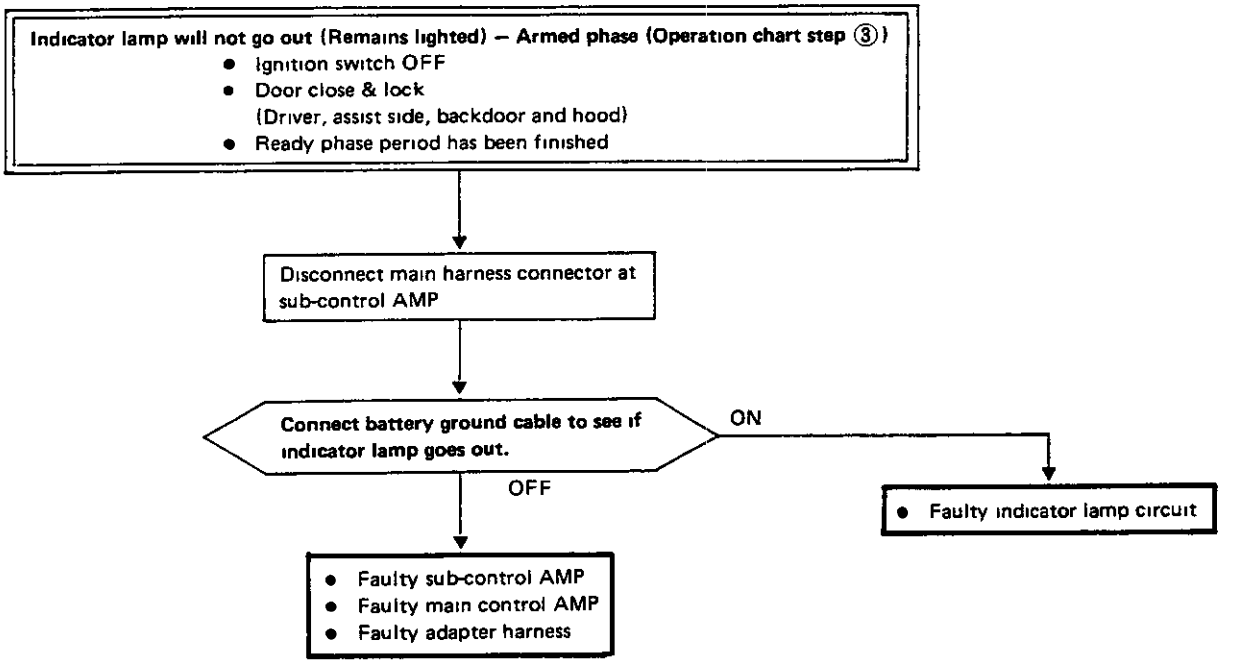
Theft Warning System (Cont'd)

IND-⑥



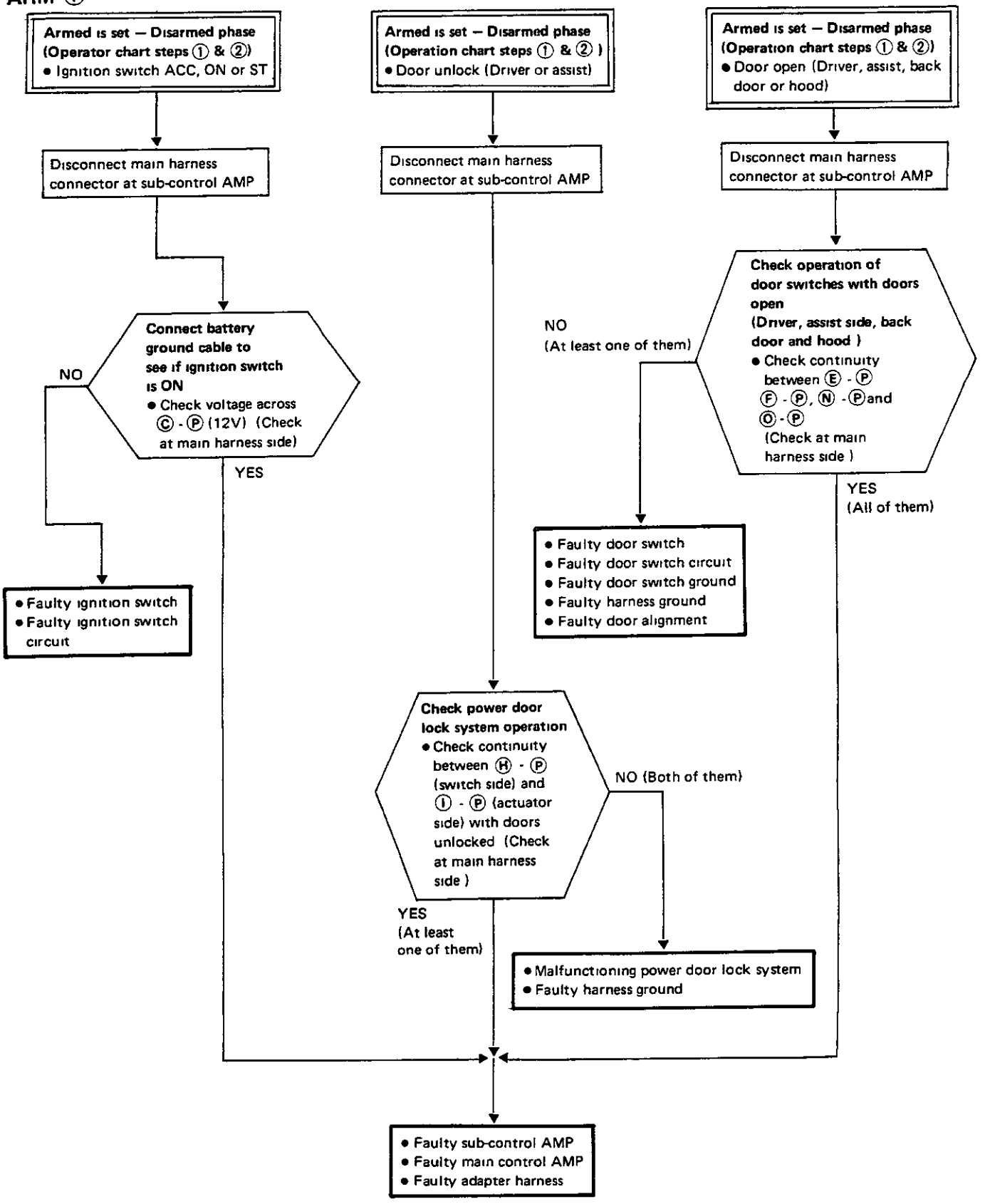
Theft Warning System (Cont'd)

IND-⑦



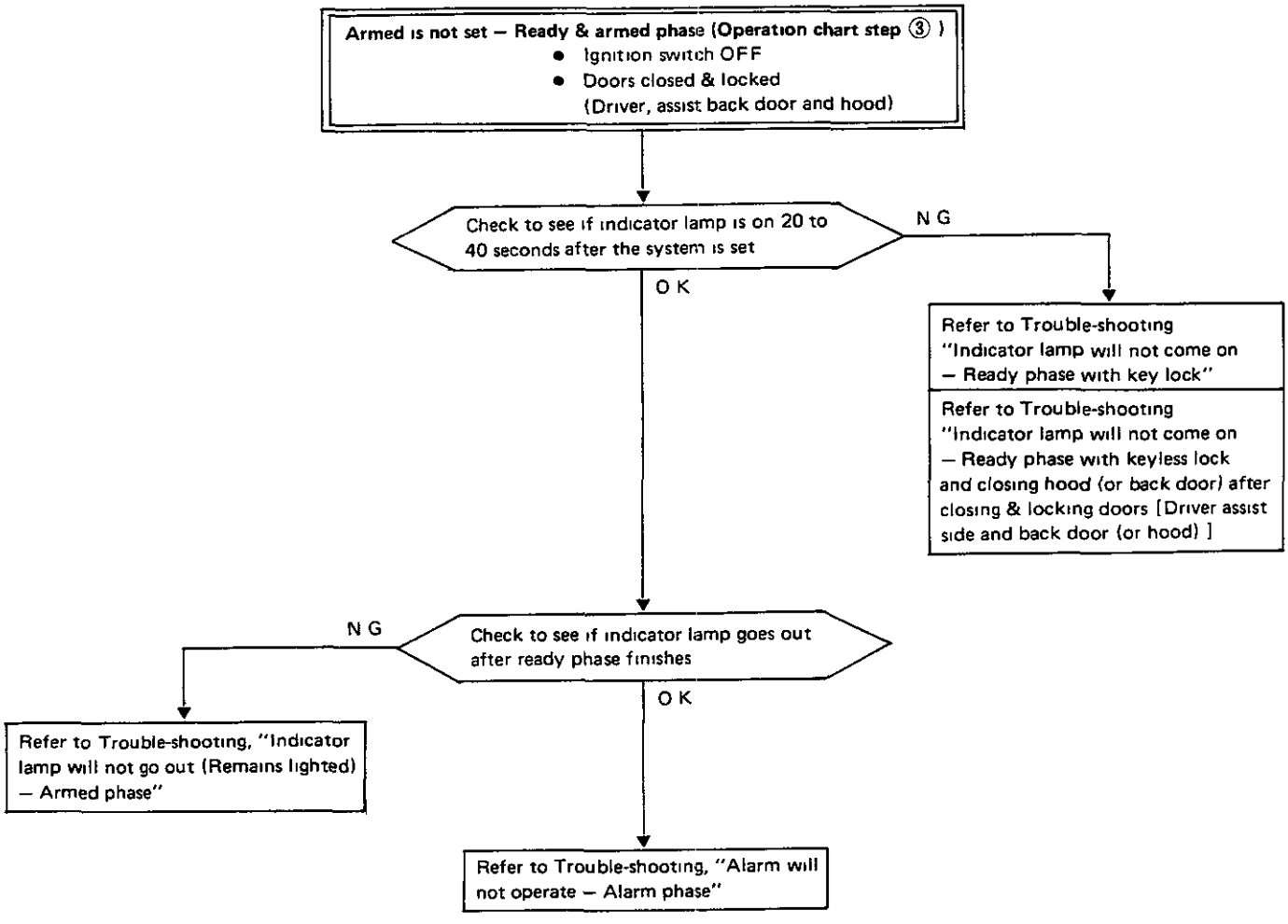
Theft Warning System (Cont'd)

ARM-①



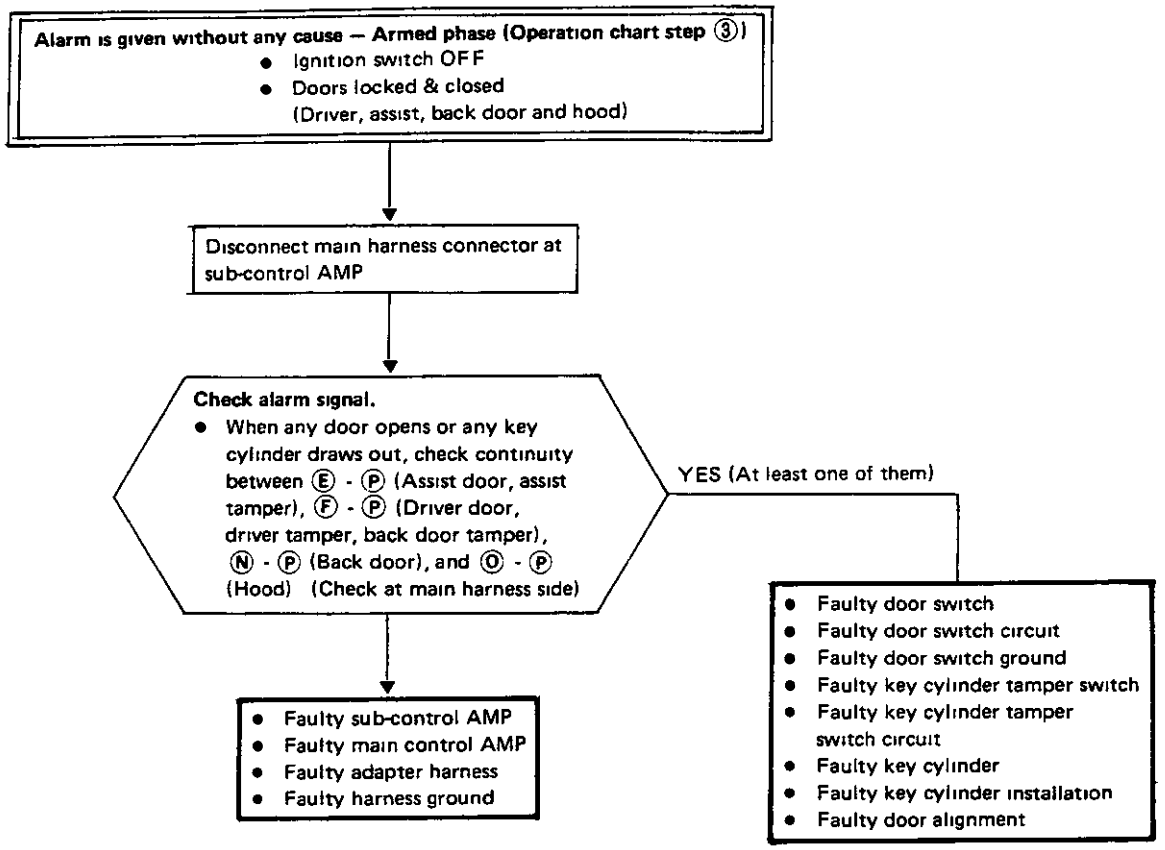
Theft Warning System (Cont'd)

ARM-②



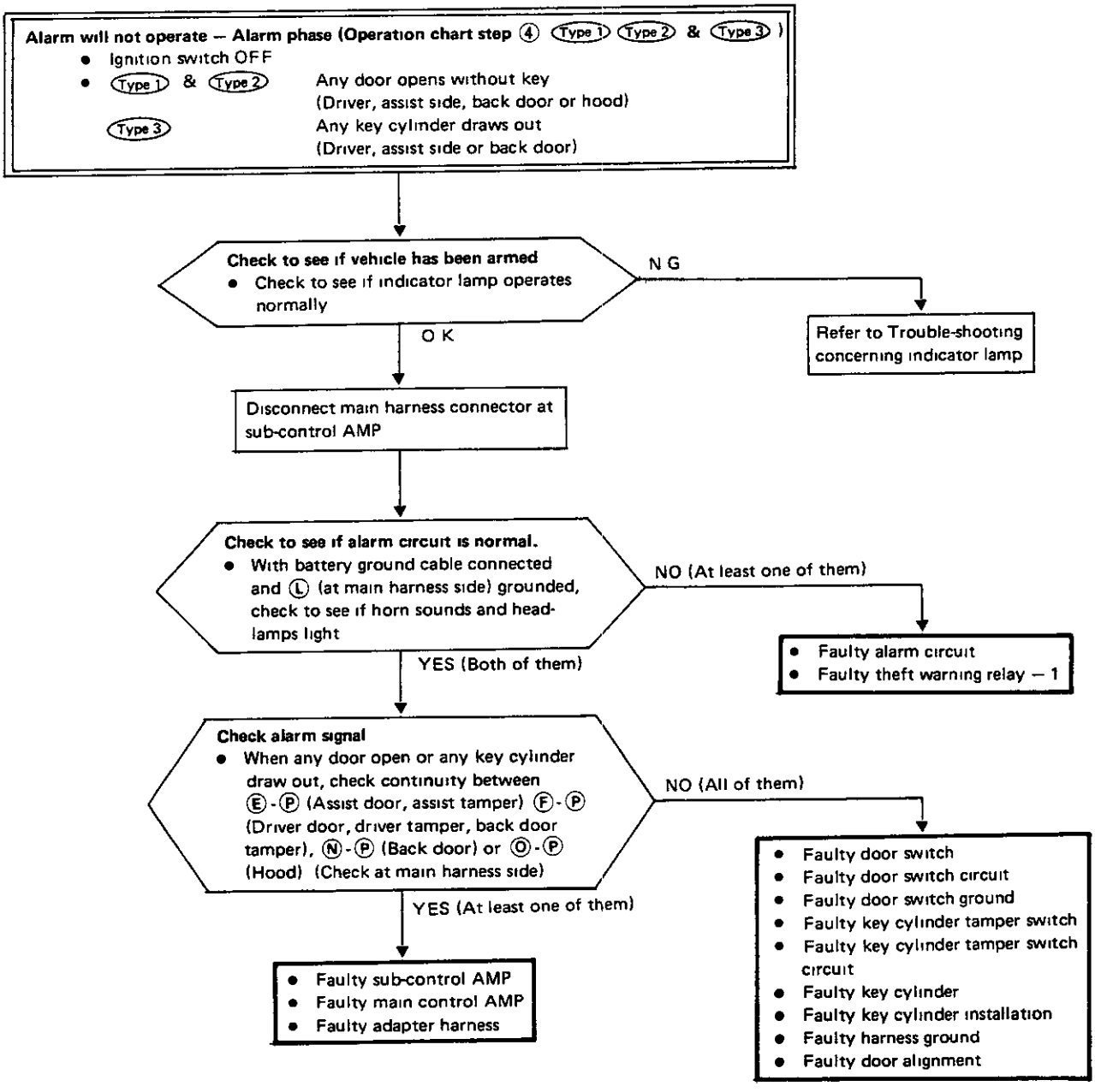
Theft Warning System (Cont'd)

ALR-①

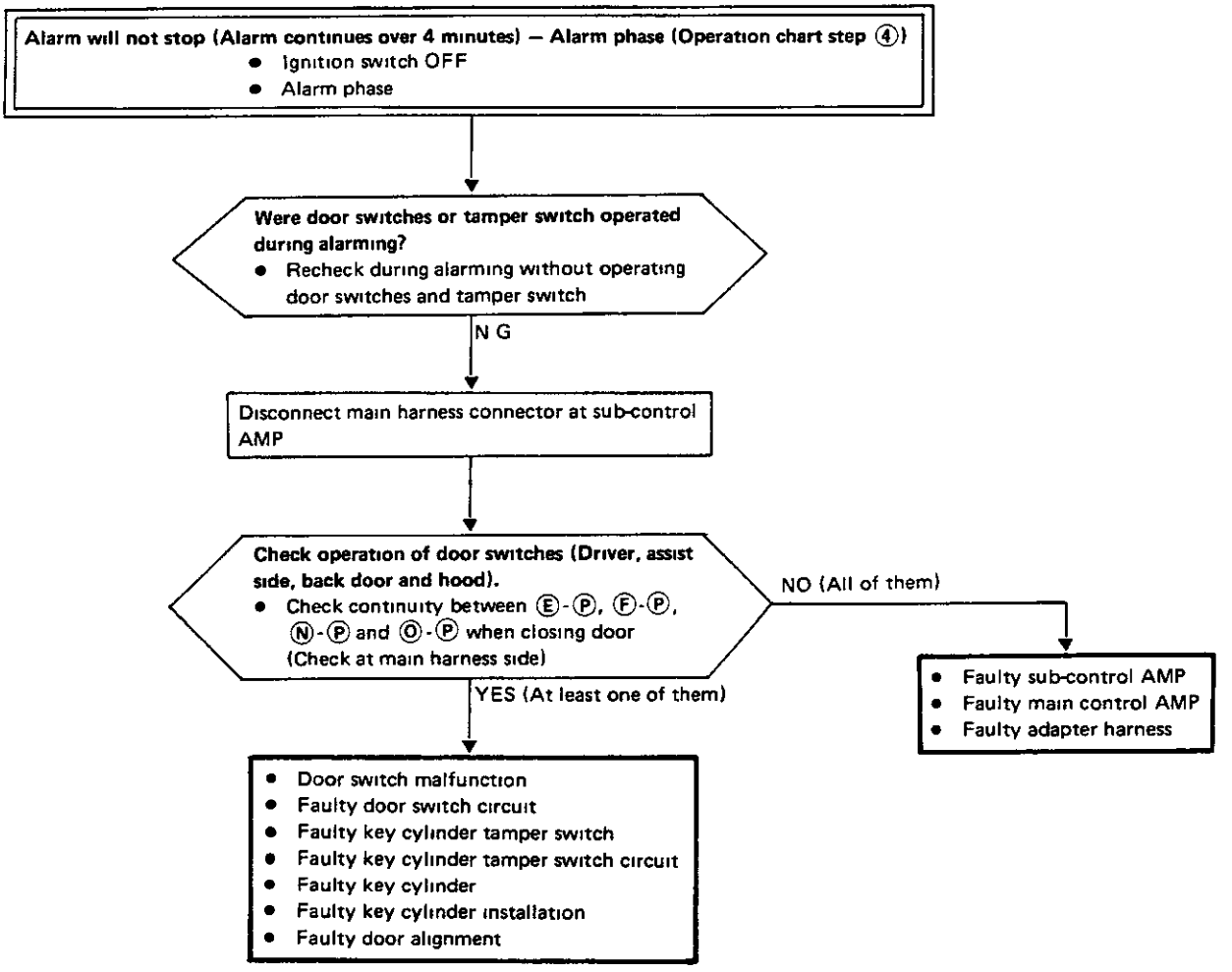


Theft Warning System (Cont'd)

ALR-②

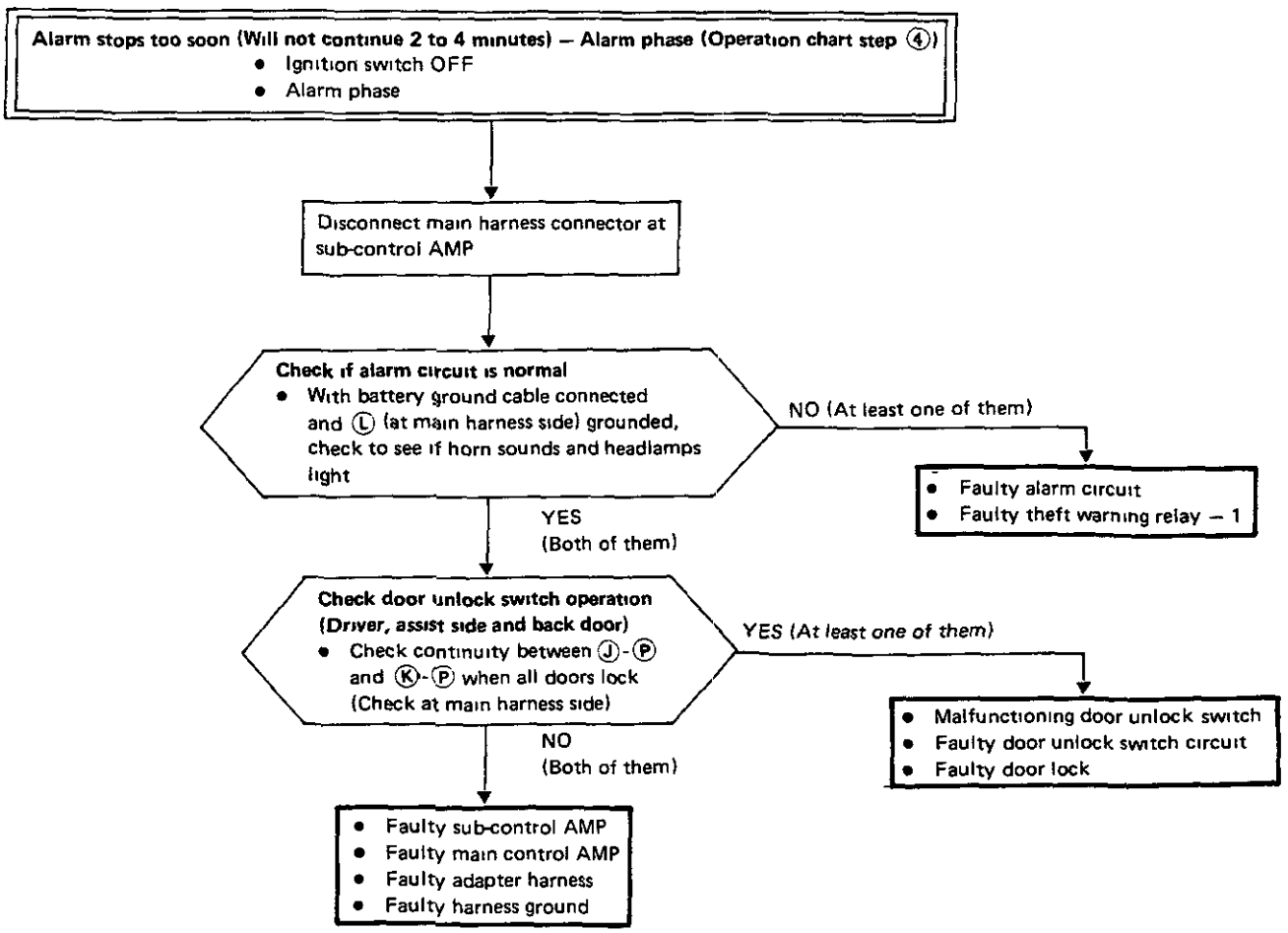


ALR-③


Alarm will not stop (Alarm continues over 4 minutes) – Alarm phase (Operation chart step ④)
• Ignition switch OFF
• Alarm phase
Were door switches or tamper switch operated during alarming?
• Recheck during alarming without operating door switches and tamper switch
N G
Disconnect main harness connector at sub-control AMP
Check operation of door switches (Driver, assist side, back door and hood).
• Check continuity between Ⓔ-Ⓟ, Ⓕ-Ⓟ, Ⓝ-Ⓟ and Ⓞ-Ⓟ when closing door (Check at main harness side)
NO (All of them)
• Faulty sub-control AMP
• Faulty main control AMP
• Faulty adapter harness
YES (At least one of them)
• Door switch malfunction
• Faulty door switch circuit
• Faulty key cylinder tamper switch
• Faulty key cylinder tamper switch circuit
• Faulty key cylinder
• Faulty key cylinder installation
• Faulty door alignment

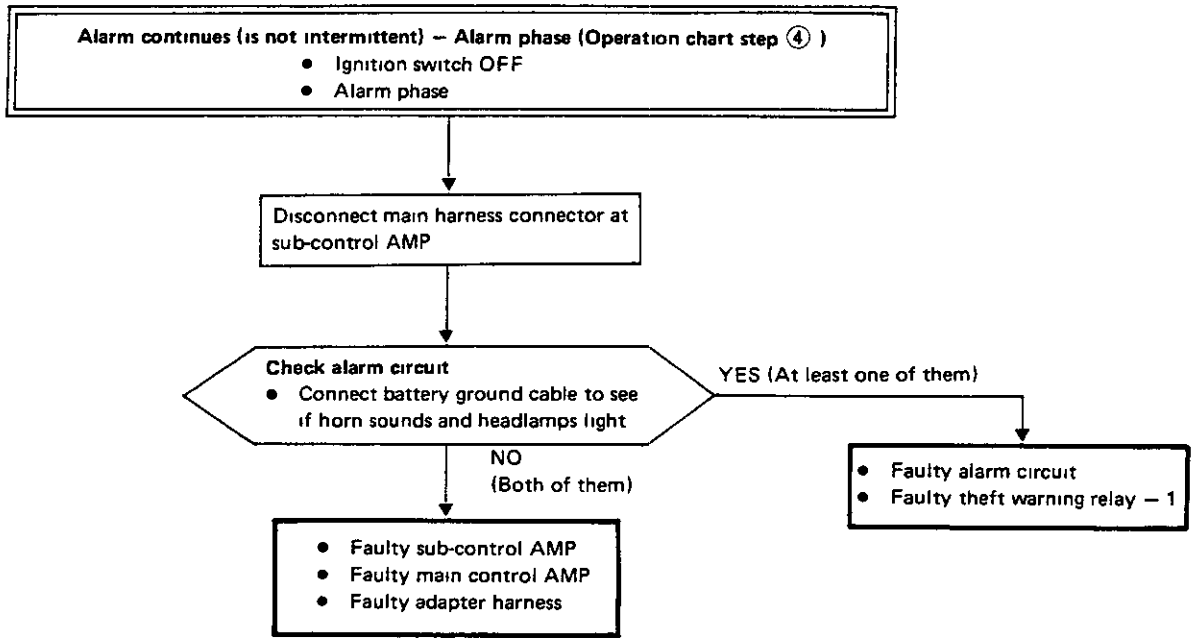
Theft Warning System (Cont'd)

ALR-④



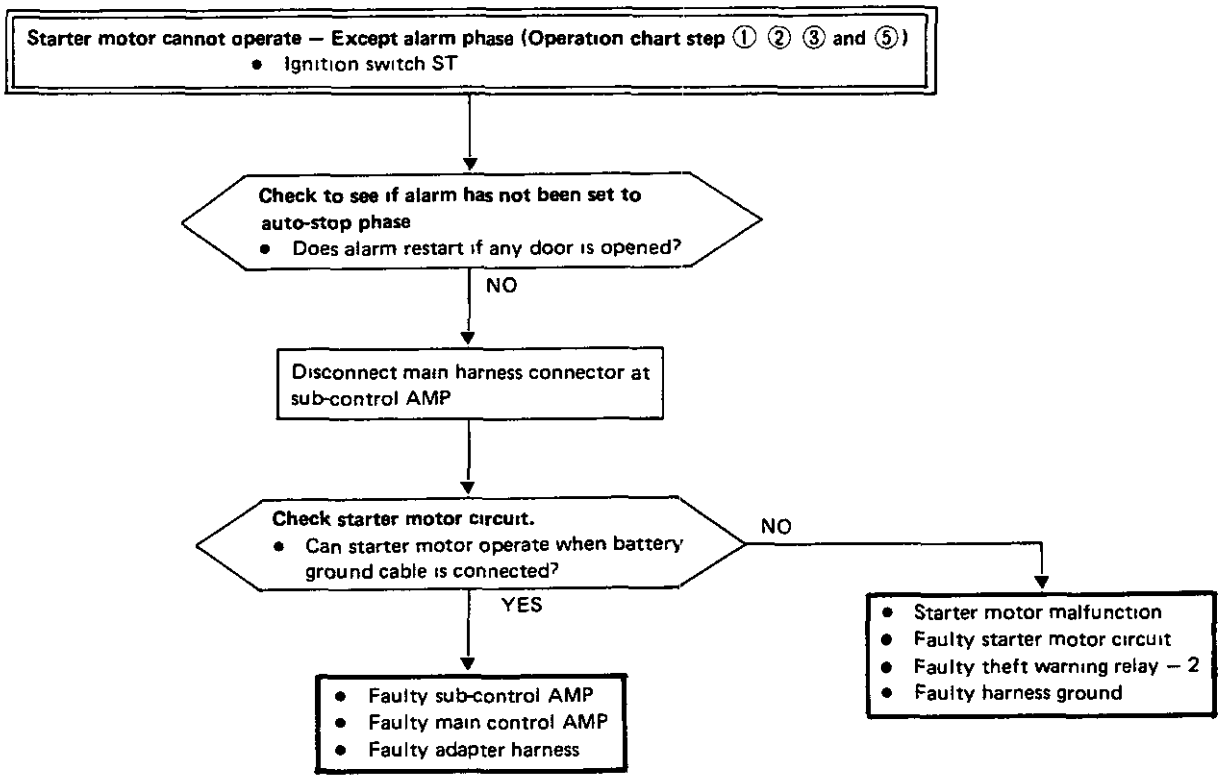
Theft Warning System (Cont'd)

ALR-⑤

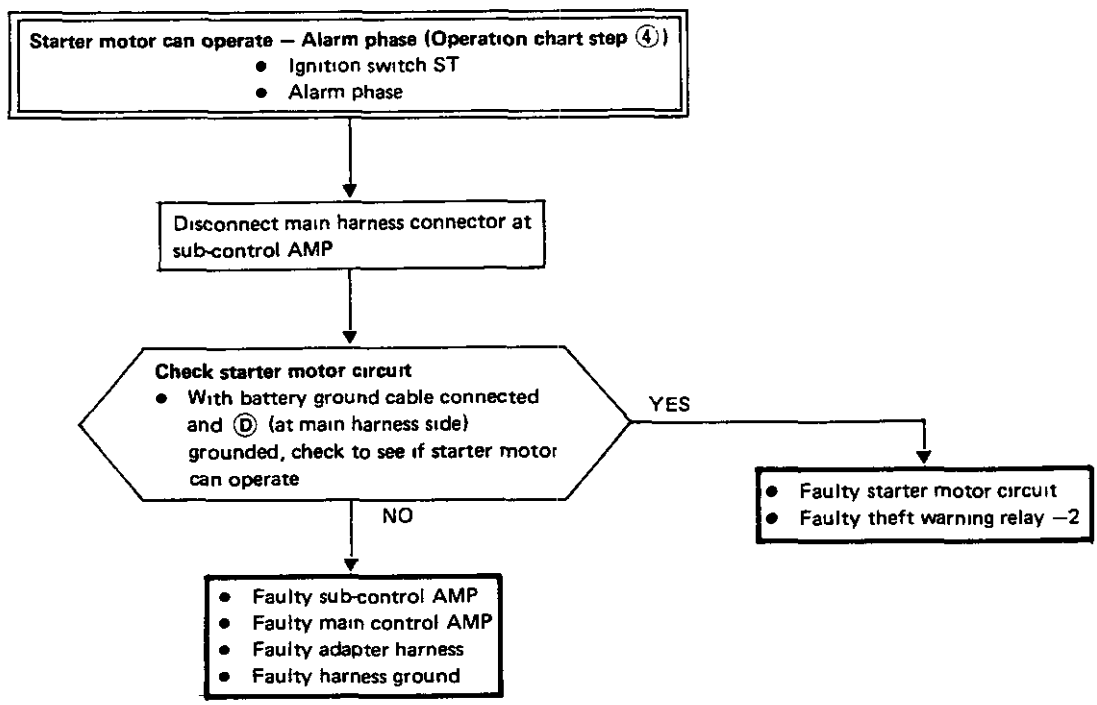


Theft Warning System (Cont'd)

ST-①

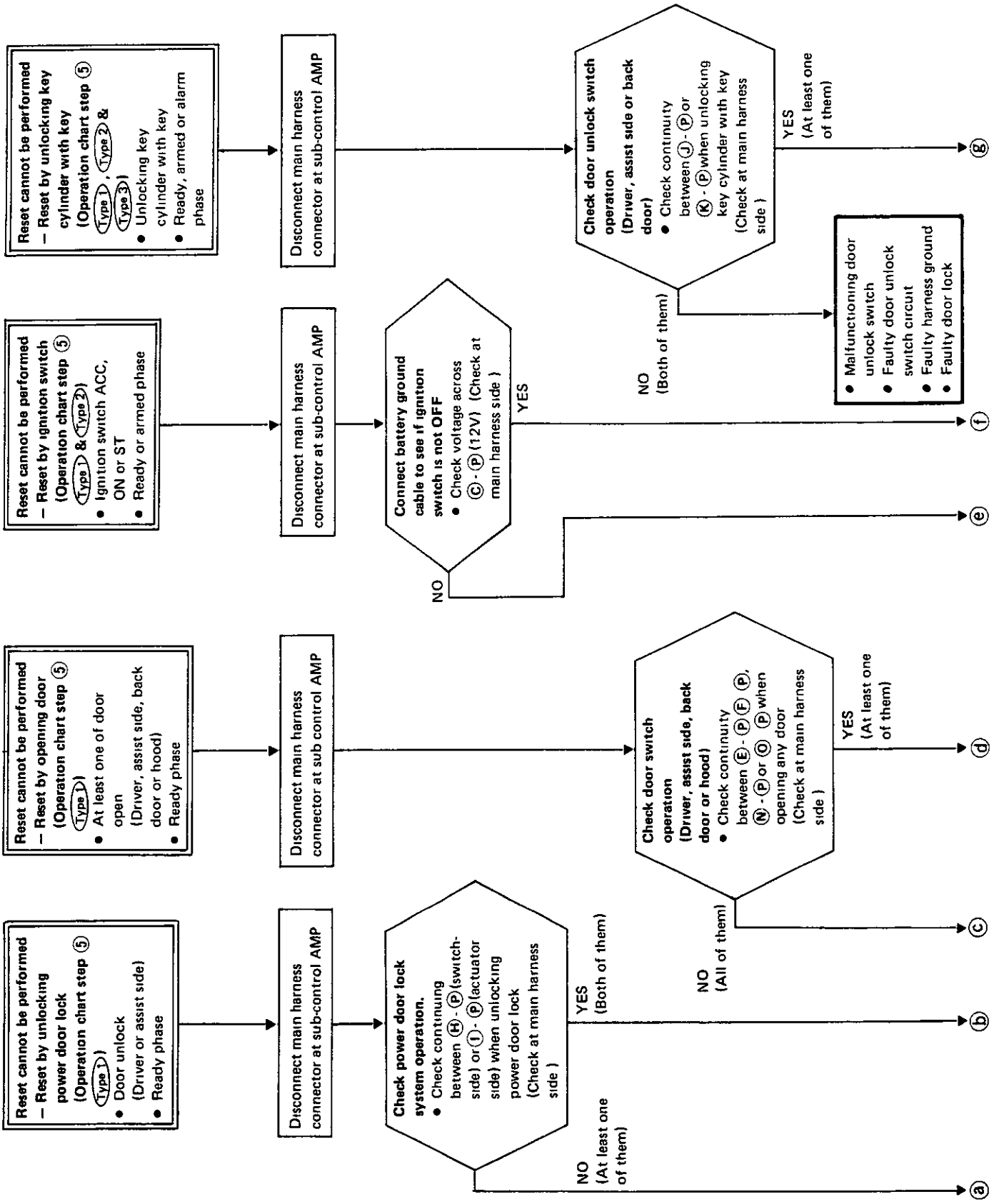


ST-②

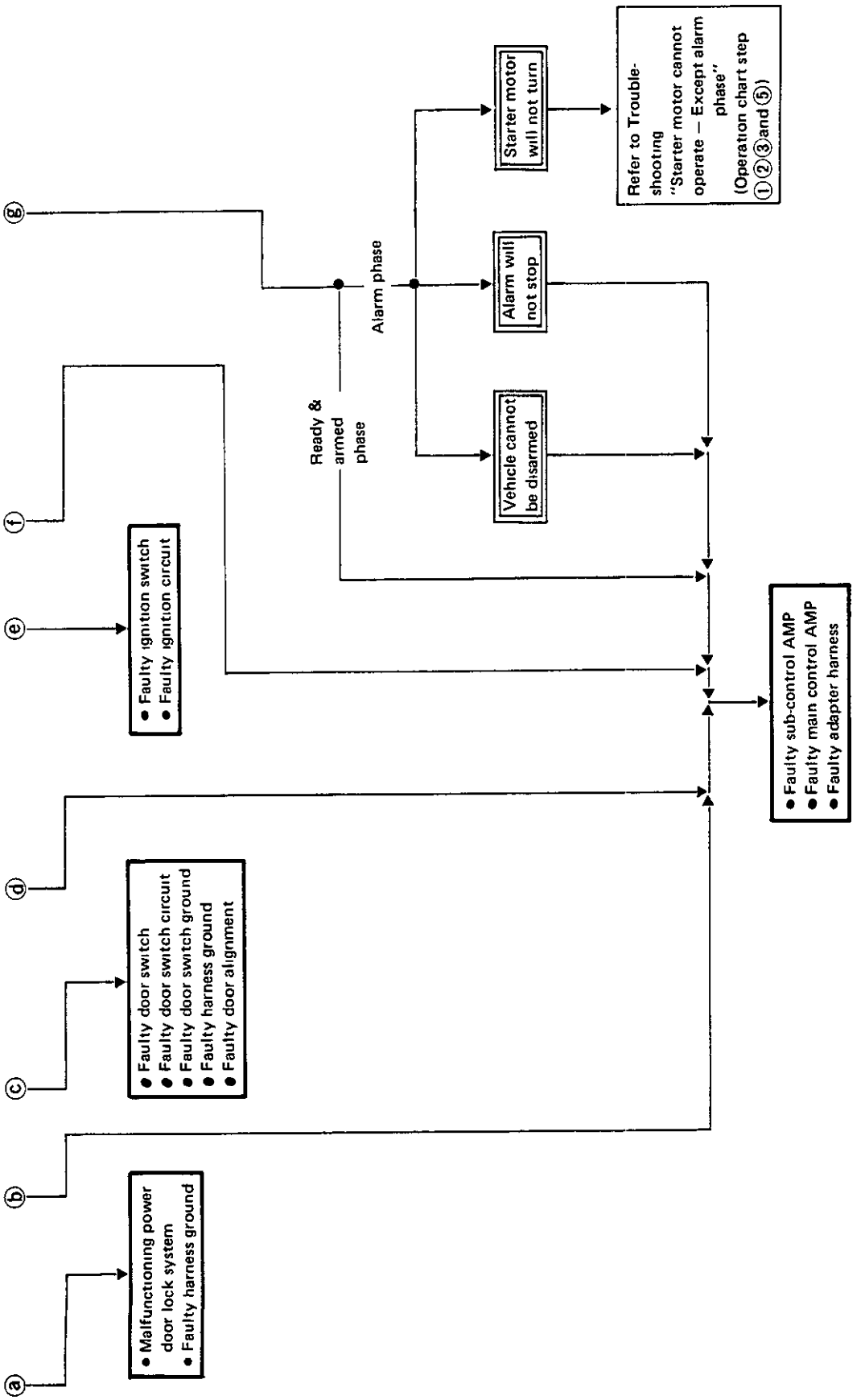


Theft Warning System (Cont'd)

RES



Theft Warning System (Cont'd)



CONTROLLER INSPECTION

- This inspection is available only when the cause of trouble in "Trouble-shooting" is due to a "faulty sub-control AMP" or "faulty main control AMP". Therefore, the entire system needs to be inspected in advance, according to the "Trouble-shooting procedures"
- This inspection should be carried out with the adapter harness disconnected at the main control AMP When disconnecting the adapter harness, first disconnect the battery ground cable Be sure to reconnect battery ground cable afterwards
- ⓐ through ⓚ indicate the respective terminals of the adapter harness connector at the main control AMP.
- This inspection is based on the premise that the adapter harness is free from abnormalities Therefore, the adapter harness must be inspected before inspecting the controller

Trouble diagnosis

- Carry out the terminal inspection in this diagnosis chart from left to right.
- Symbols: O: Execute, X: Not required, H. Approx 12V, L. Less than 1V.
- The term "door" indicates the driver door, assist door, back door, and hood, unless otherwise specified.
- The term "alarm" means that the horn sounds intermittently and the headlamps blink.

Trouble shooting No	Trouble condition	*Power source* terminal inspection	*Ground* terminal inspection	Output terminal inspection			Input terminal inspection						Result	
													O K (All of them)	N G (At least one of them)
		ⓚ	ⓐ	ⓓ	ⓔ	ⓕ	ⓒ	ⓘ	ⓗ	ⓑ	ⓖ	ⓙ		
IND-①	**Indicator lamp will not blink (Remains out)** **–Disarmed phase** **(Operation chart step ②)** • Ignition switch OFF • At least one of door open (Driver, assist, back door or hood)	H	O	O	X	X	X	L	X	H	L	L	Faulty main control AMP	Faulty sub-control AMP
IND-②	**Indicator lamp remains blinking** **–Disarmed phase** **(Operation chart step ① & ②)** • Ignition switch OFF • Doors close and unlock (Driver, assist, back door and hood)	H	X	X	X	X	X	H	X	H	L	L		
IND-③	***Indicator lamp will not come on*** **–Ready phase with keylock** **(Operation chart step ③ (Type 1))** • Ignition switch OFF • Doors closed (Driver, assist, back door and hood) • After closing doors, doors lock with key	H	O	X	X	X	X	H *1	O	L	L	L		
IND-④	**Indicator lamp will not come on** **–Ready phase with keyless lock and closing hood (or back door) after closing & locking doors (Driver & assist, and back door (or hood))** **(Operation chart step ③ (Type 2), (Type 3), and (Type 4))** • Ignition switch OFF • (Type 2) & (Type 3) After closing hood & back door, lock & close doors without key • (Type 4) After locking & closing doors (driver & assist) and closing hood (or back door), close back (or hood)	H	O	X	X	X	X	H *2	O	L	L	L		

*1 Measure within 20 seconds after locking door
*2 Measure within 20 seconds after locking & closing door

Trouble-shooting No	Trouble condition	Power source terminal inspection	Ground terminal inspection	Output terminal inspection			Input terminal inspection						Result	
													OK (All of them)	NG (At least one of them)
		ⓚ	ⓐ	ⓓ	ⓔ	ⓕ	ⓒ	ⓘ	ⓗ	ⓑ	ⓖ	ⓙ		
IND-⑤	**Indicator lamp remains lighted** **—Disarmed phase and resetting from ready phase** **(Operation chart step ①, ② and ⑤ (Type 1))**	H	O	O	X	X	X	H *3 L *4	O *5	H	L	L *6 H *7	Faulty main control AMP	Faulty sub-control AMP
IND-⑥	**Indicator lamp will not go out (Comes on)** **—Disarmed phase** **(Operation chart step ① & ②)** • Ignition switch OFF • Doors close and unlock (Driver, assist, back door and hood)	H	O	X	X	X	X	X	X	H	L	L		
IND-⑦	**Indicator lamp will not go out (Remains lighted)** **—Armed phase** **(Operation chart step ③)** • Ignition switch OFF • Door close & lock (Driver, assist, back door and hood) • Ready phase period has been finished	H	O	O	X	X	X	H *8	X	X	L	L		
ARM-①	**Arming is set — Disarmed phase** **(Operation chart step ① & ②)** • Ignition switch ACC, ON or ST or Door unlocked (Driver & assist) or Door open (Driver, assist, back door or hood)	H	O	X	X	X	X	L *4	O *9	H *9	X	H *7		

*3 When door is closed Disarmed phase and reset phase
*4 When door is opened
*5 Only for resetting from ready phase
*6 Ignition switch OFF
*7 Ignition switch ACC, ON or ST
*8 After closing & locking door, wait over 40 seconds and then measure
*9 When door is unlocked

Theft Warning System (Cont'd)

Trouble shooting No	Trouble condition	Power source terminal inspection	Ground terminal inspection	Output terminal inspection			Input terminal inspection					Result	
		ⓚ	ⓐ	ⓓ	ⓔ	ⓕ	ⓒ	ⓘ	ⓗ	ⓑ	ⓖ	ⓙ	O K (All of them)	N G (At least one of them)
ALR-①	**Alarm is given without any cause—Armed phase (Operation chart step ③)** • Ignition switch OFF • Doors locked & closed (Driver, assist, back door and hood)	H	O	X	X	O	O	H *10	X	L	X	L	Faulty main control AMP	Faulty sub-control AMP
ALR-②	**Alarm will not operate—Alarm phase (Operation chart step ④ Type ① , Type ② & Type ③)** • Ignition switch OFF • Type ① & Type ② Any door opens without key (Driver, assist, back door or hood) Type ③ Any key cylinder draws out (Driver, assist or back door)	H	O	X	X	O	O	L	O	L	X	L		
ALR-③	***Alarm will not stop (Alarm continues over 4 minutes)*** **—Alarm phase** ***(Operation chart step ④)*** • Ignition switch OFF • Alarm phase	H	O	X	X	O	O	H *10	X	X	X	X		
ALR-④	**Alarm stops too soon (Will not continue 2 to 4 minutes)** ***—Alarm phase*** **(Operation chart step ④)** • Ignition switch OFF • *Alarm phase*	H	O	X	X	O	X	X	O	X	X	X		
ALR-⑤	**Alarm continues** ***(Is not intermittent)*** **—Alarm phase** **(Operation chart step ④)** • Ignition switch OFF • Alarm phase	H	O	X	X	O	X	X	X	X	X	X		

*10 After locking & closing door, wait over 40 seconds and then measure

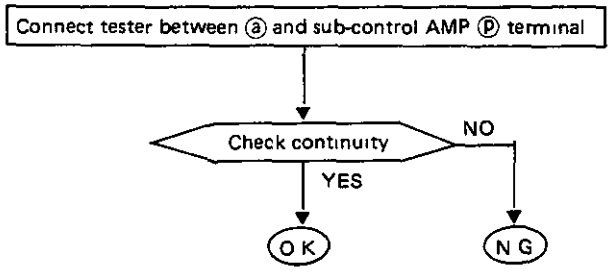
Theft Warning System (Cont'd)

Trouble-shooting No	Trouble condition	Power source terminal inspection	Ground terminal inspection	Output terminal inspection			Input terminal inspection						Result	
		ⓚ	ⓐ	ⓓ	ⓔ	ⓕ	ⓒ	ⓘ	ⓗ	ⓑ	ⓖ	ⓙ	O K (All of them)	N G (At least one of them)
ST-①	**Starter motor cannot operate —Except alarm phase (Operation chart step ①②③ & ⑤)** • Ignition switch ST	H	O	X	O	X	O	H *11 L *12	O	H	L	H	Faulty main control AMP	Faulty sub-control AMP
ST-②	**Starter motor can operate —Alarm phase (Operation chart step ④)** • Ignition switch ST • Alarm phase	H	O	X	O	X	O	H *13	O	L	L	H		
RES	**Reset cannot be performed —Reset**	H	O	O	O	O	O	L *14	O	H *15	L	H *16		

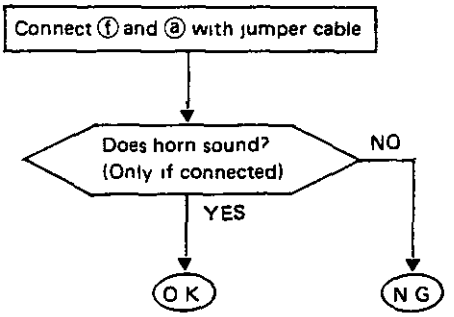
*11 When door is closed—Disarmed phase and reset phase
*12 When door is opened or ready phase
*13 After closing & locking door, wait over 40 seconds and then measure
*14 When door is opened
*15 When power door lock system unlocks
*16 Ignition switch ACC, ON or ST

Theft Warning System (Cont'd)

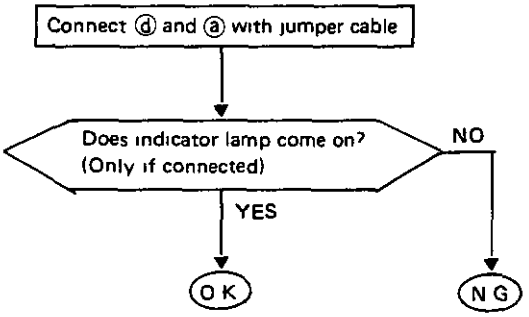
• ⓐ terminal inspection



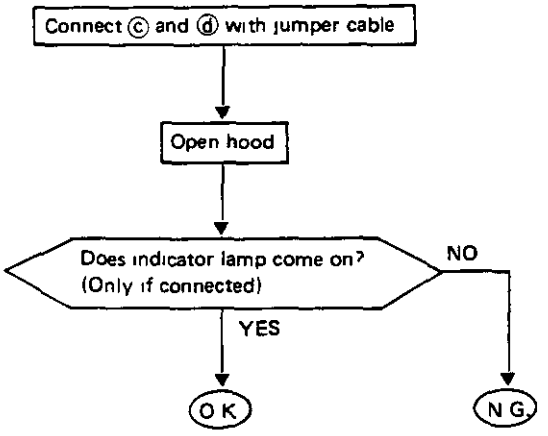
• ⓕ terminal inspection



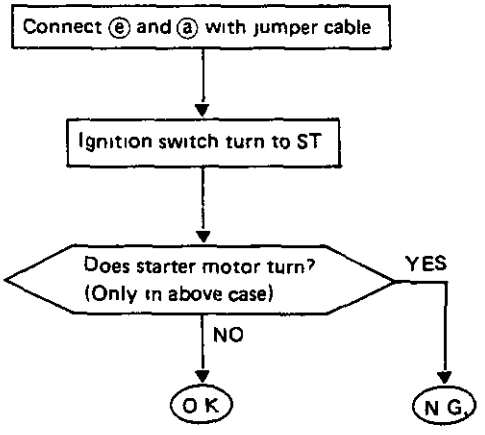
• ⓓ terminal inspection



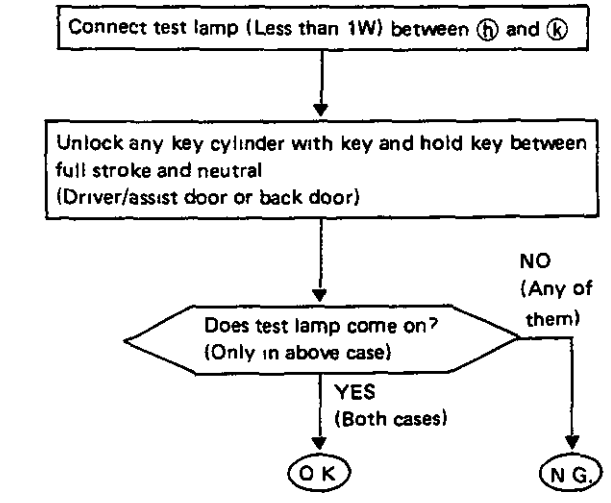
• ⓒ terminal inspection



• ⓔ terminal inspection

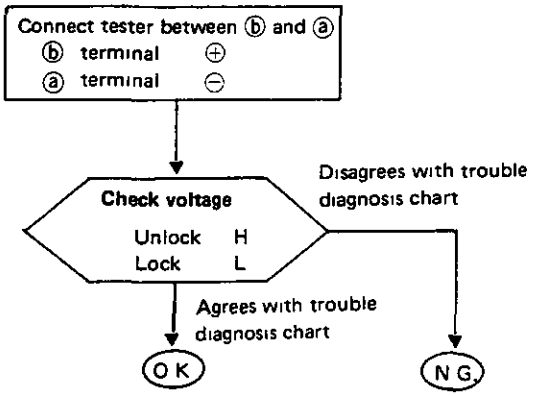


• ⓗ terminal inspection

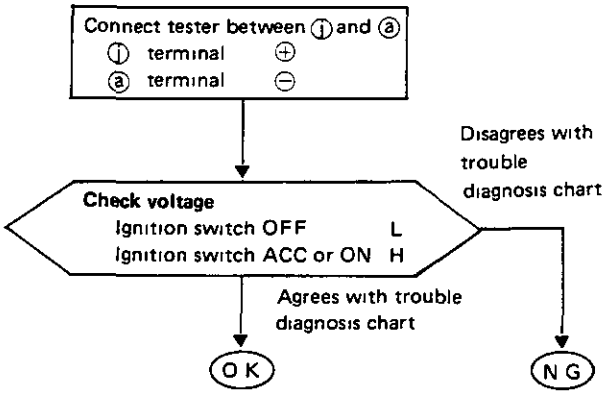


Theft Warning System (Cont'd)

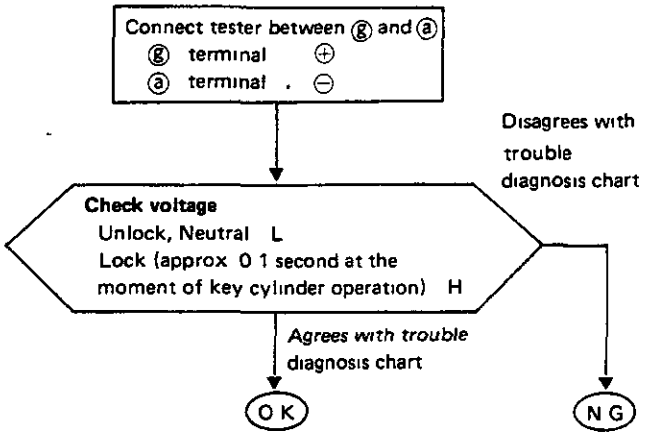
ⓑ terminal inspection



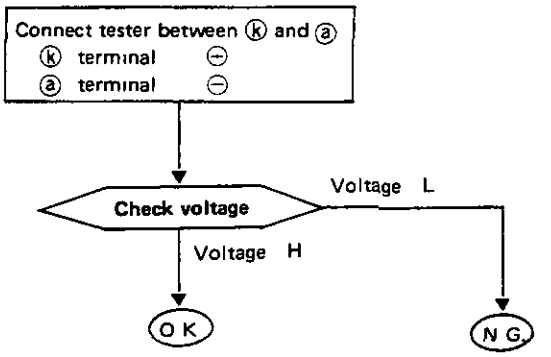
ⓙ terminal inspection



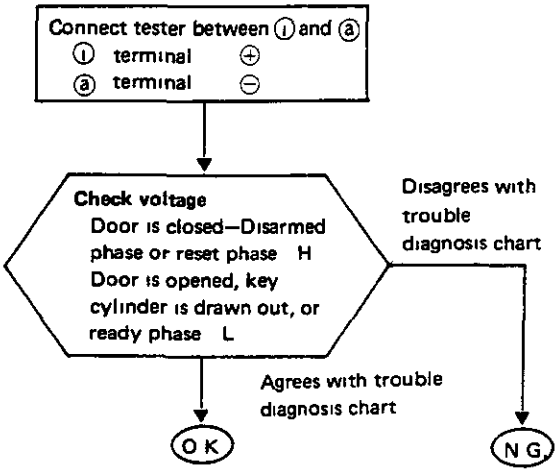
ⓖ terminal inspection



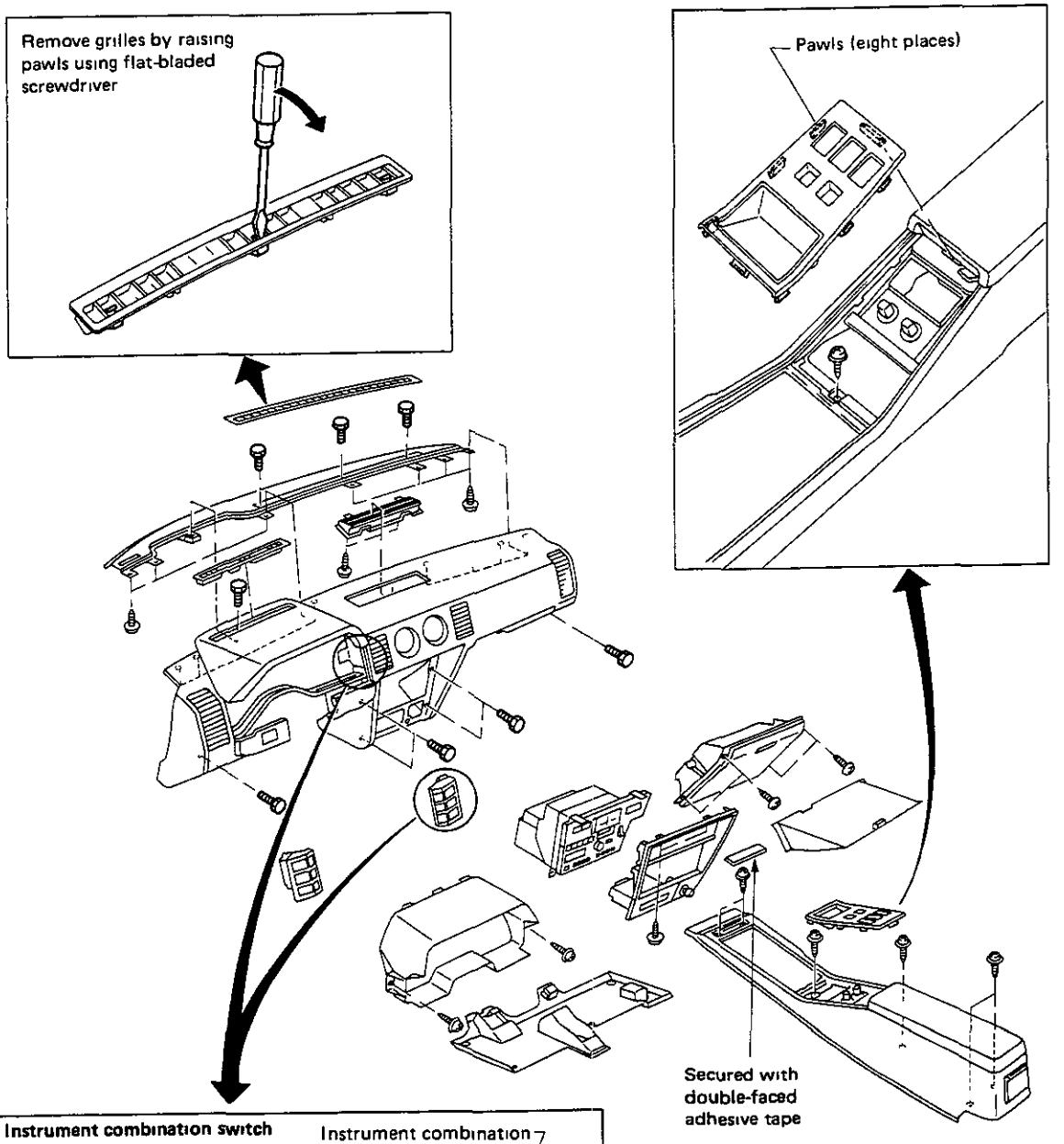
ⓚ terminal inspection

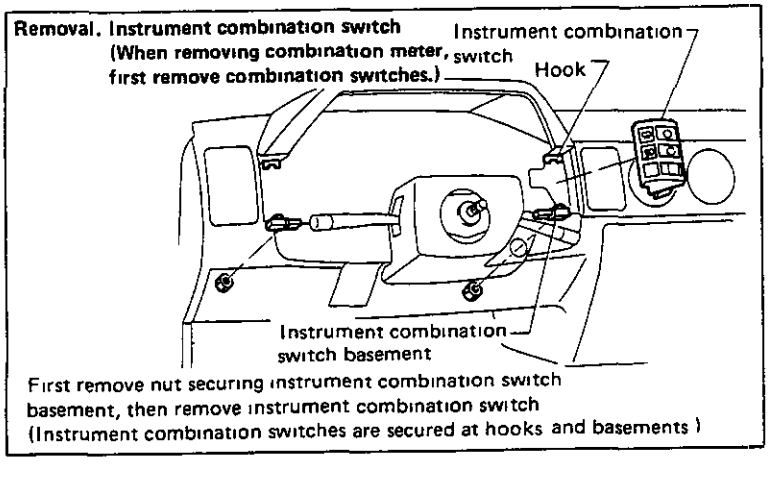


ⓘ terminal inspection



- These parts are made of plastic, so do not use excessive force and be careful not to damage them





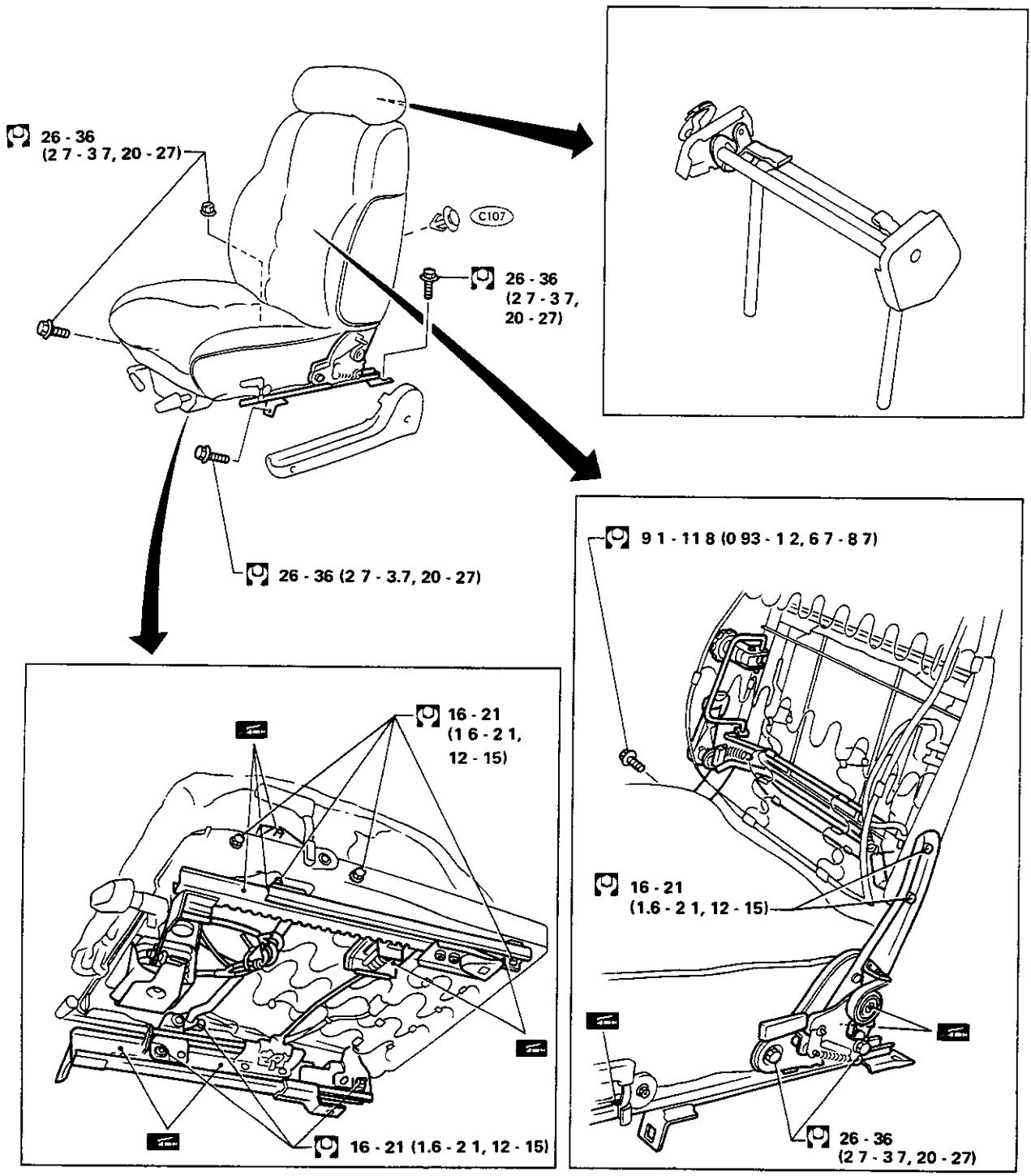
SBF385B

SEAT

- When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage

Front Driver Seat

MANUAL SEAT



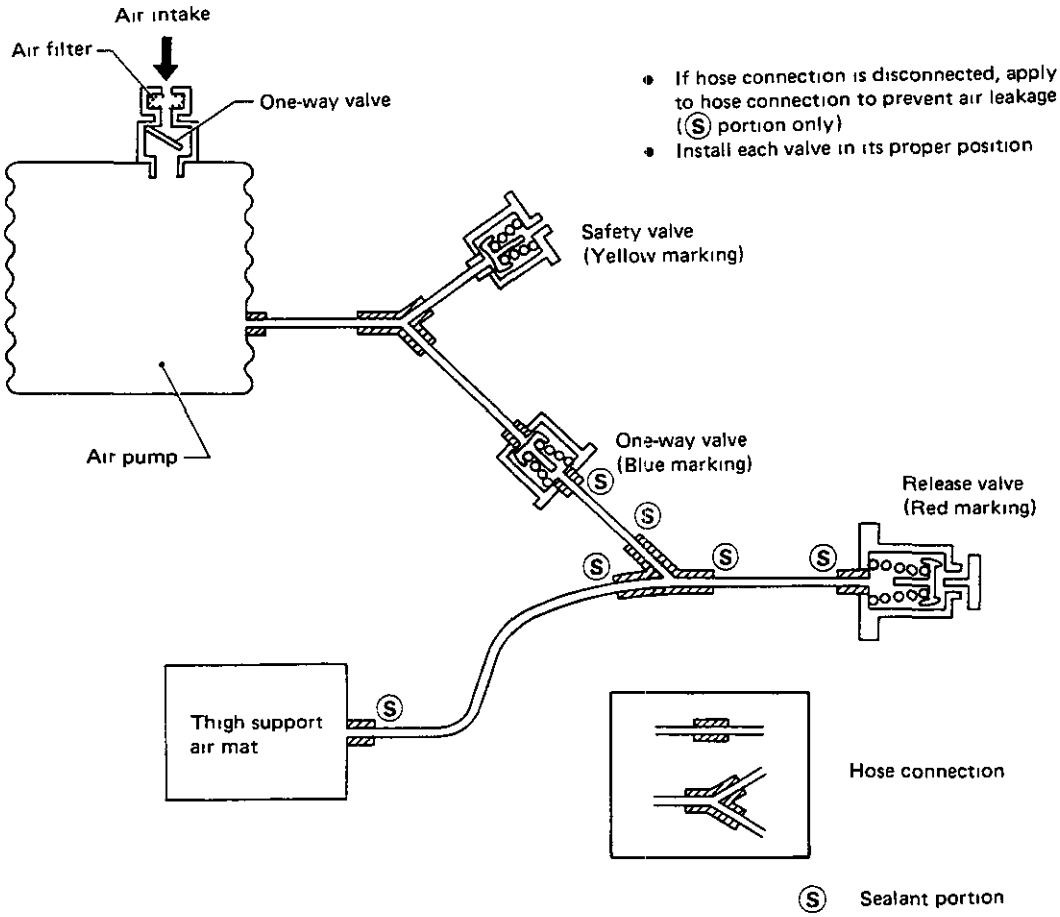
N m (kg-m, ft-lb)

Grease up points (Do not apply too much grease as it will drip)

SBF388B

Front Driver Seat (Cont'd)

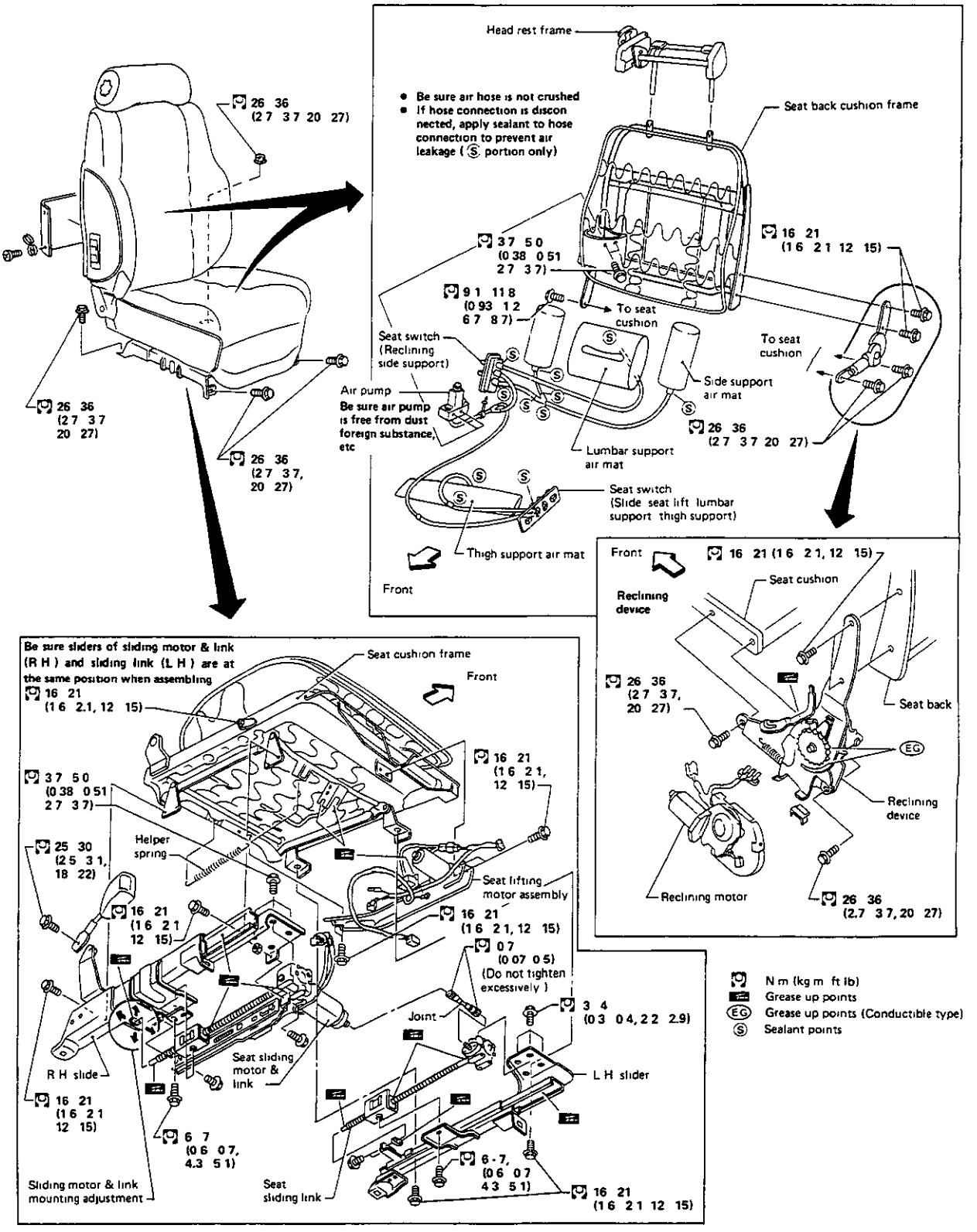
Air diagram



SBF392B

Front Driver Seat (Cont'd)

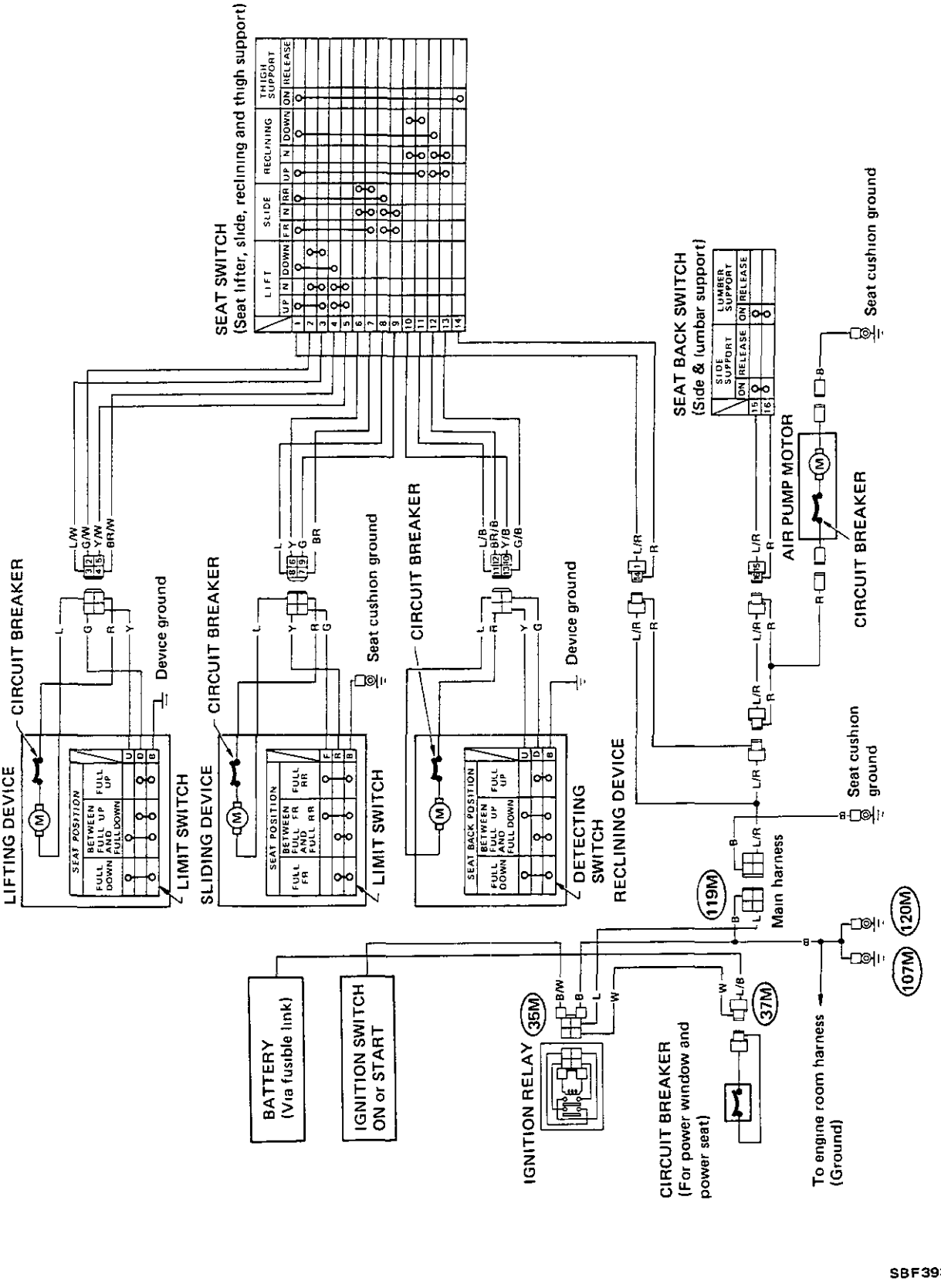
POWER SEAT



SBF387B

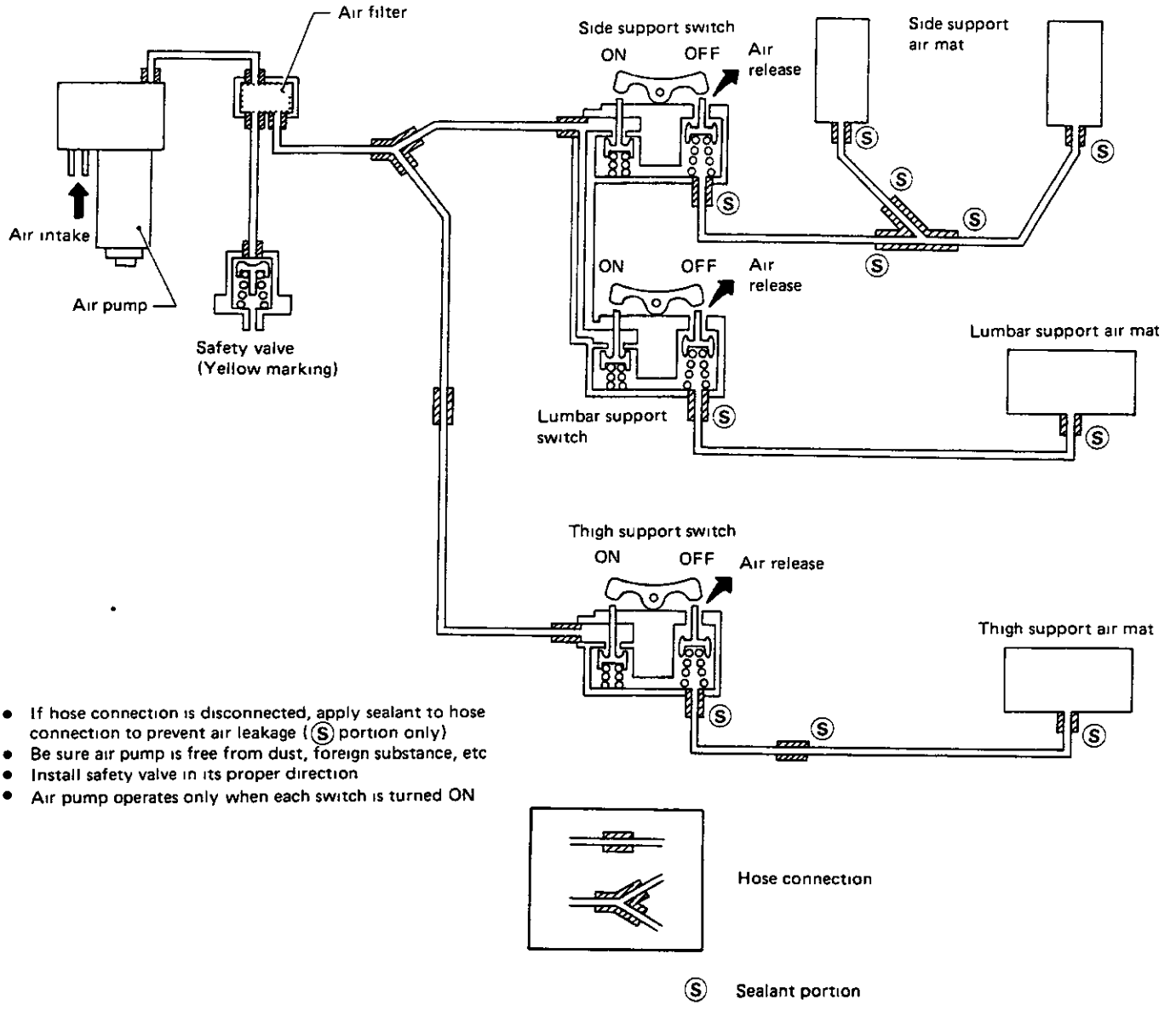
Front Driver Seat (Cont'd)

Wiring diagram



Front Driver Seat (Cont'd)

Air diagram



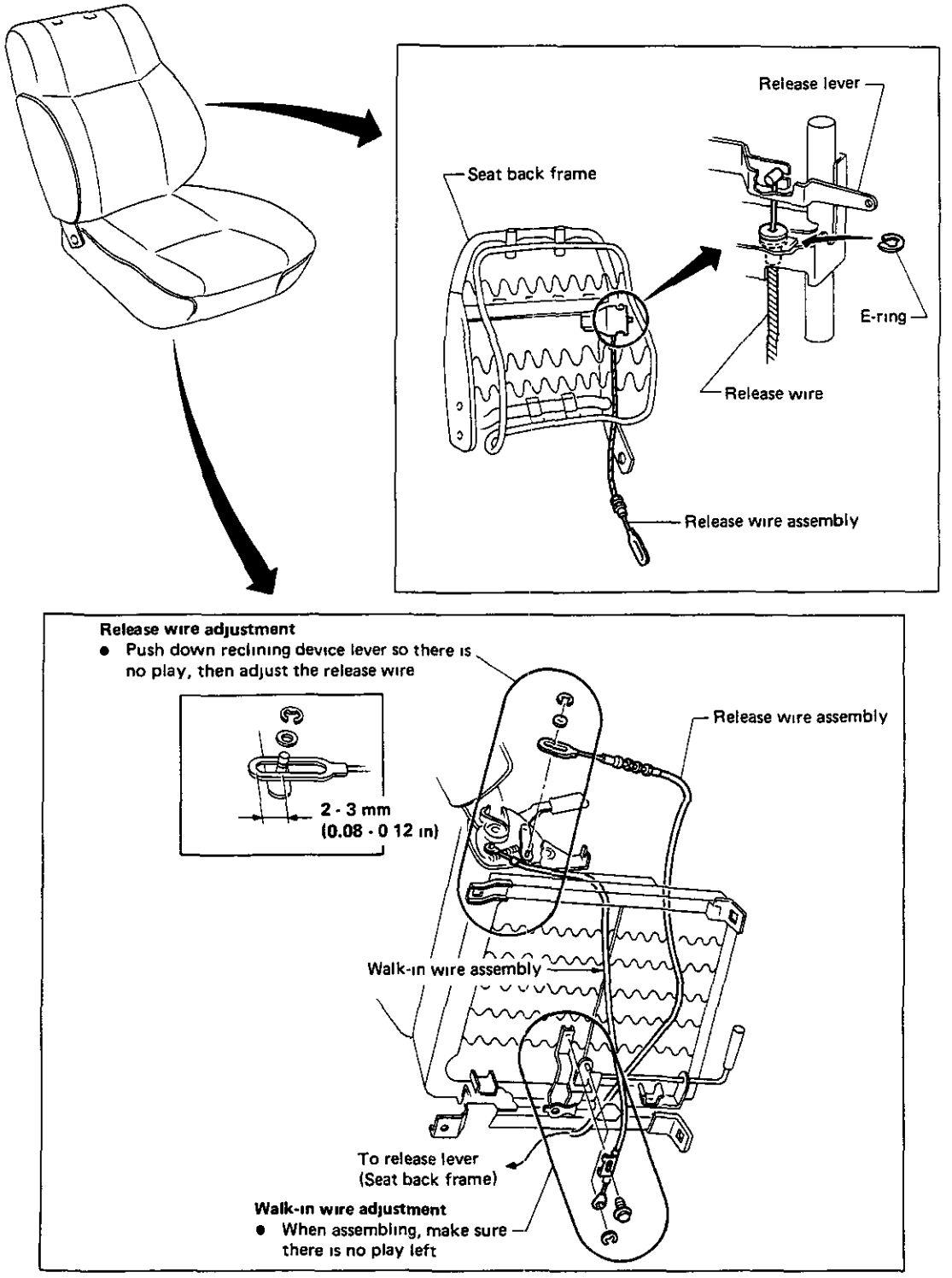
- If hose connection is disconnected, apply sealant to hose connection to prevent air leakage (Ⓢ portion only)
- Be sure air pump is free from dust, foreign substance, etc
- Install safety valve in its proper direction
- Air pump operates only when each switch is turned ON

SBF394B

Front Assist Seat

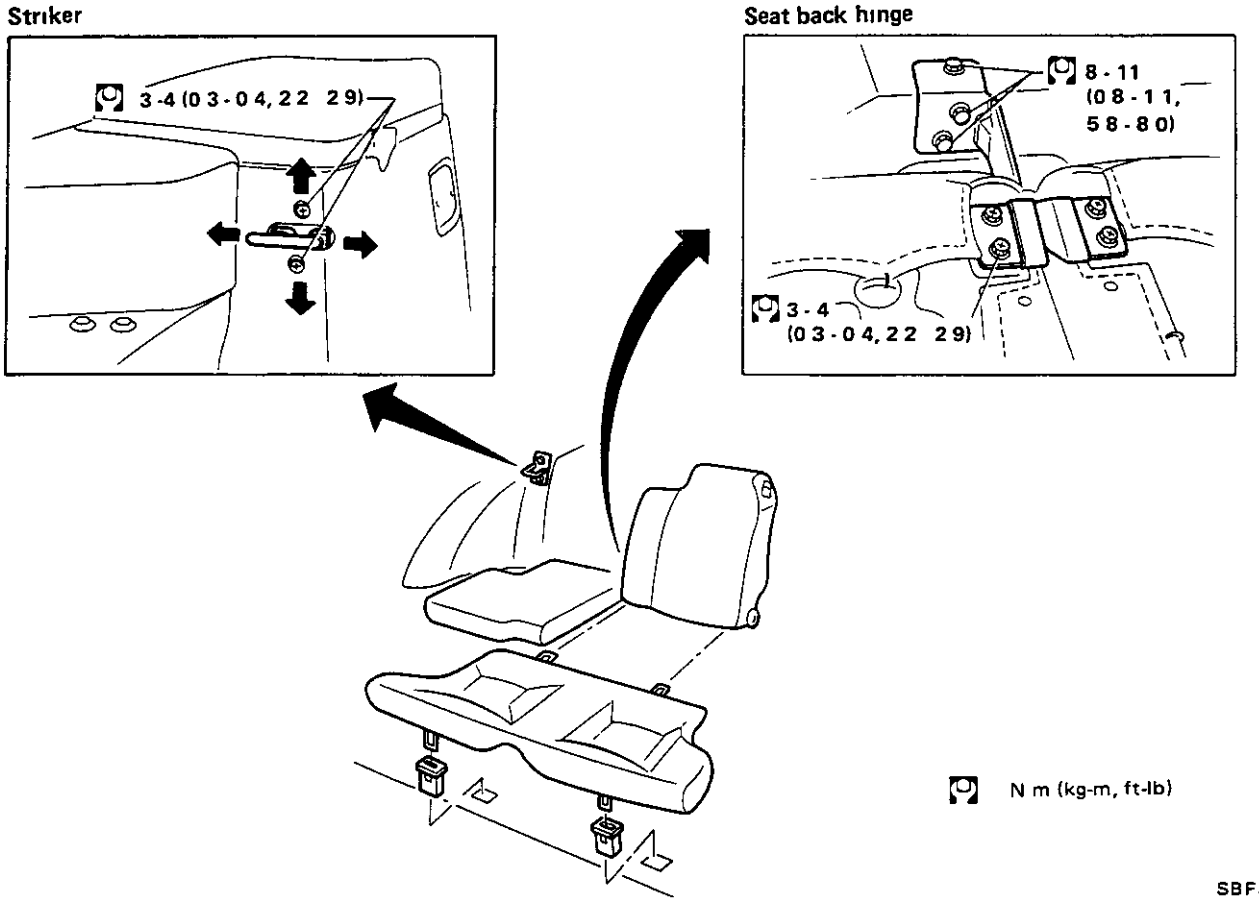
- Basically, this seat is the same as manual type front driver seat 2 + 2 seater model differs from manual type front seat in that walk-in mechanism has been added to it Refer to the description on manual type driver seat except for walk-in mechanism

WALK-IN MECHANISM



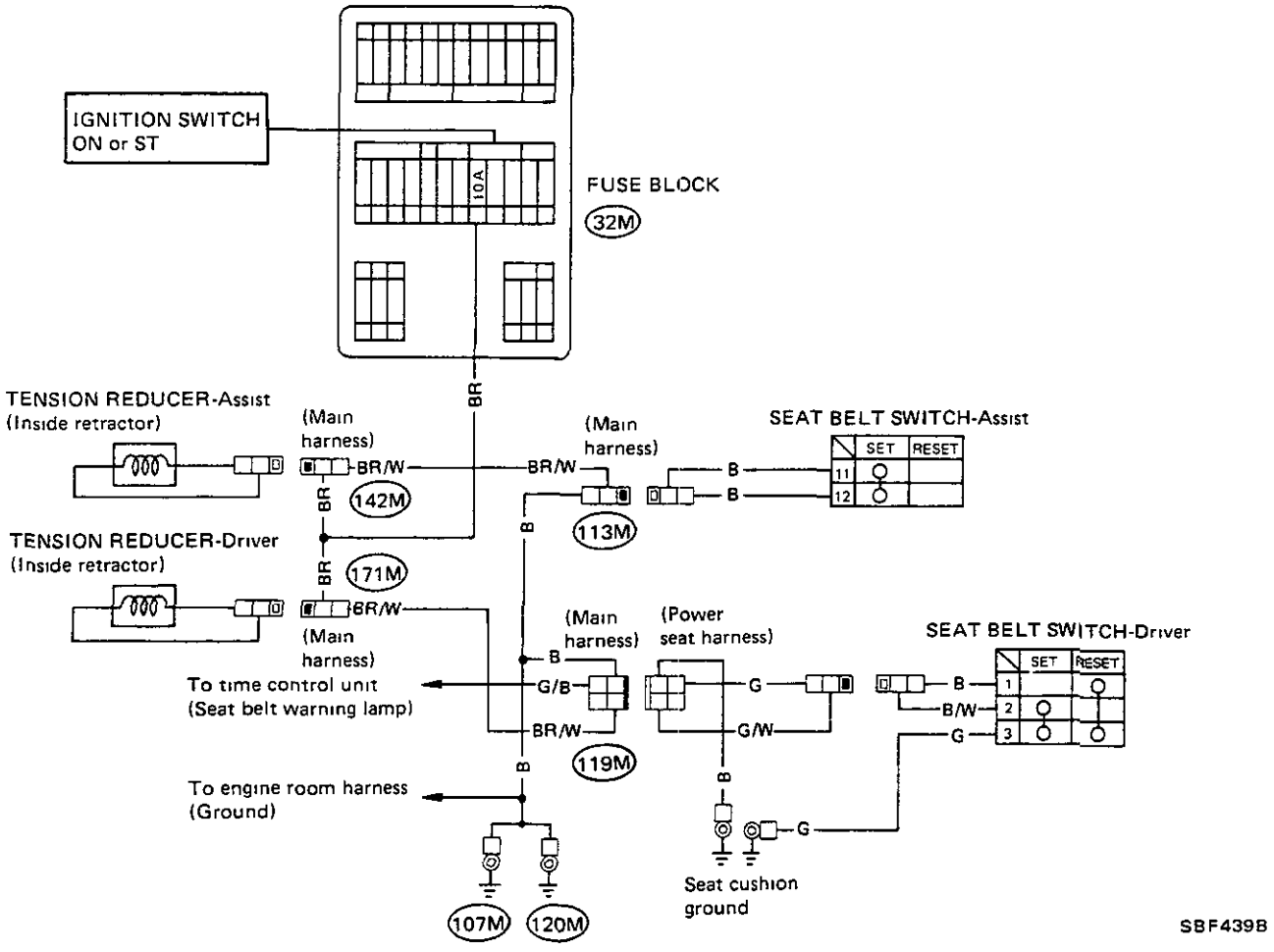
SBF470B

Rear Seat

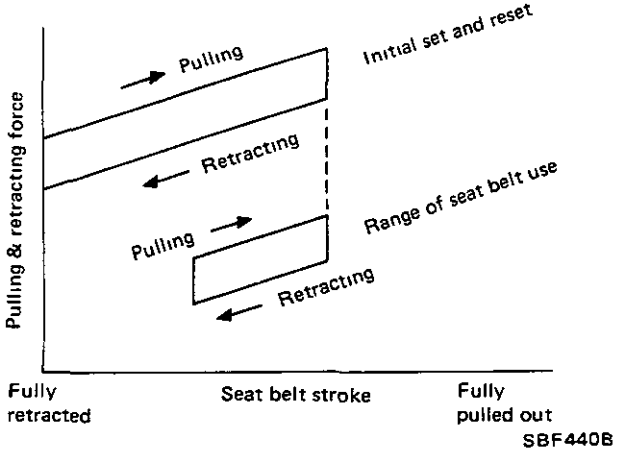

Striker
3-4 (0.3-0.4, 2.2 2.9)
Seat back hinge
8 - 11
(0.8 - 1.1,
5.8 - 8.0)
3 - 4
(0.3 - 0.4, 2.2 2.9)
N m (kg-m, ft-lb)
SBF395B

- Refer to MA section for installation of seat belts.
- GLL model has been equipped with seat belts with tension reducer This unit reduces the force required to pull out seat belt while in use, and lessens pressure on the shoulder and hips for greater comfort

TENSION REDUCER WIRING DIAGRAM



TENSION REDUCE OPERATION

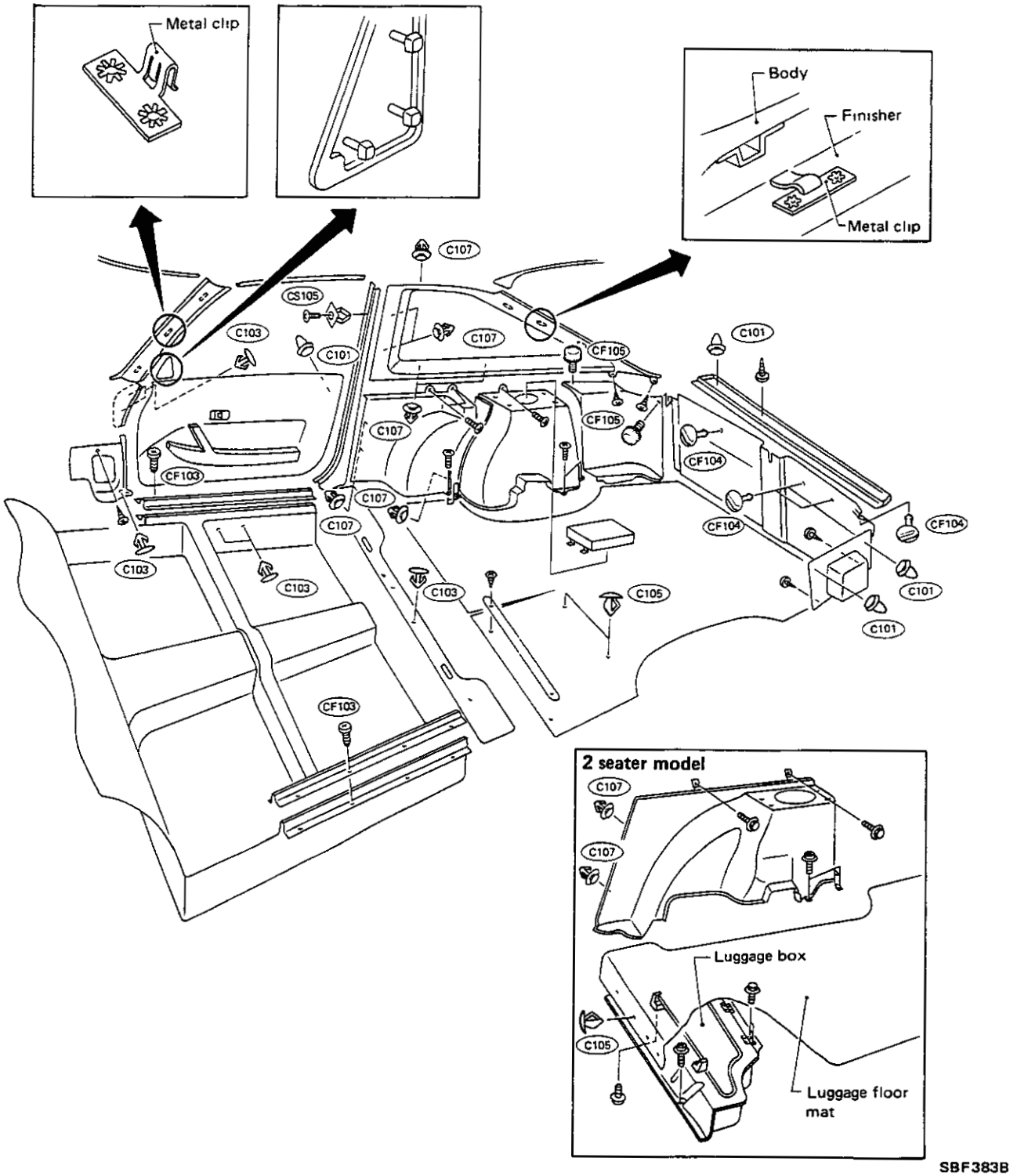


TRIM AND MOLDING

- When removing clip or fastener, refer to CLIP & FASTENER
- When handling trim or molding, do not use excessive force and take care not to damage them.

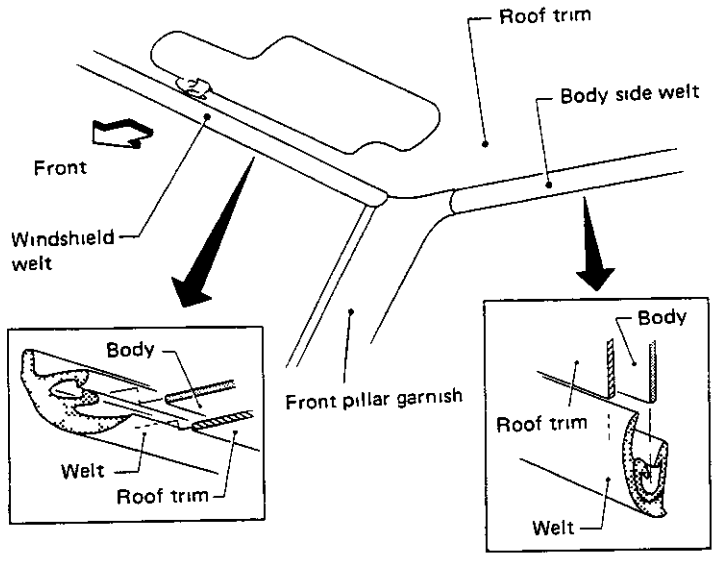
Inside Trim

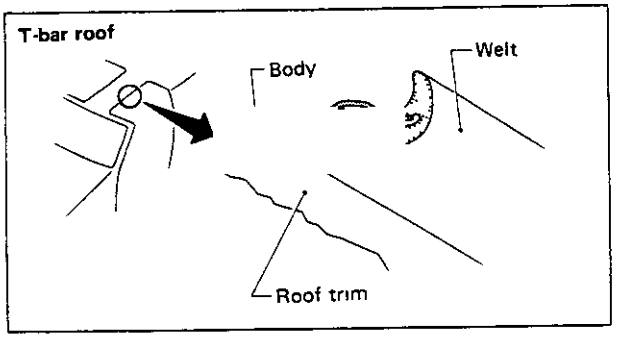
SIDE, LUGGAGE AND FLOOR TRIM



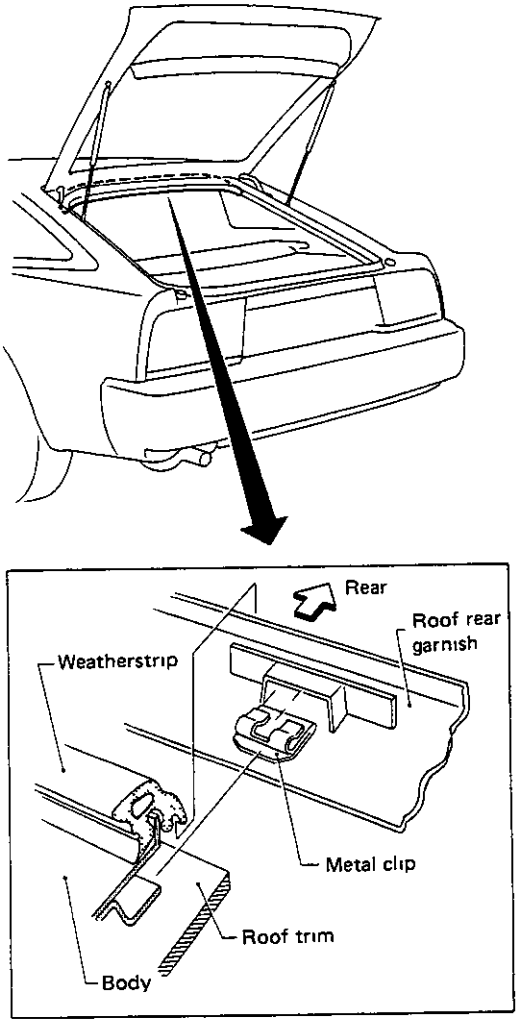
ROOF TRIM

Front portion





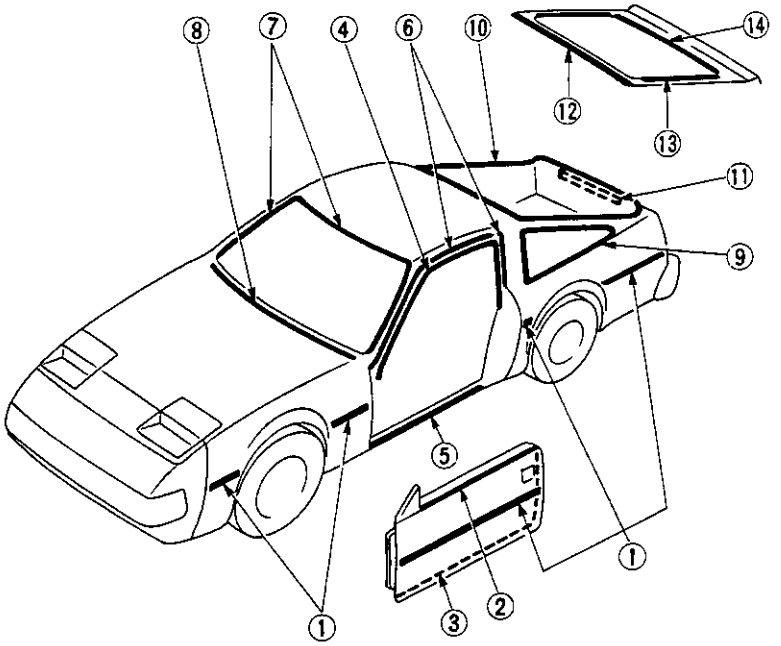
Rear portion

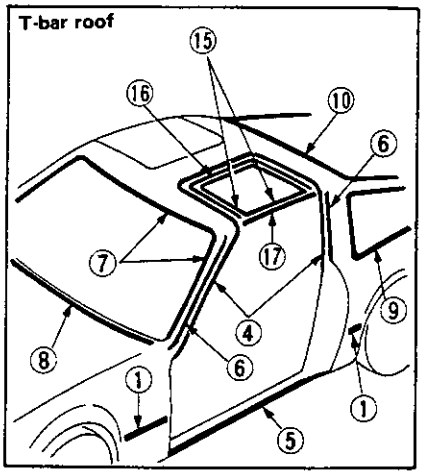


SBF384B

Exterior

- Apply sealing compound where necessary while installing parts
- When applying sealing compound, be careful that the sealing compound does not protrude from parts



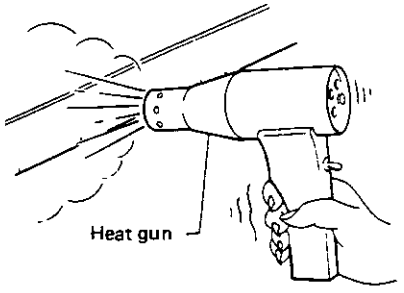


SBF386B

① Side guard molding

- **Side guard molding is affixed to body panel with sealant. And the repair part is affixed with double-faced adhesive tape.**
- **Remove it only if it is necessary to do so.**
- **Removal:**

1 Heat molding portion to 30 to 40°C (86 to 104°F) with a heat gun



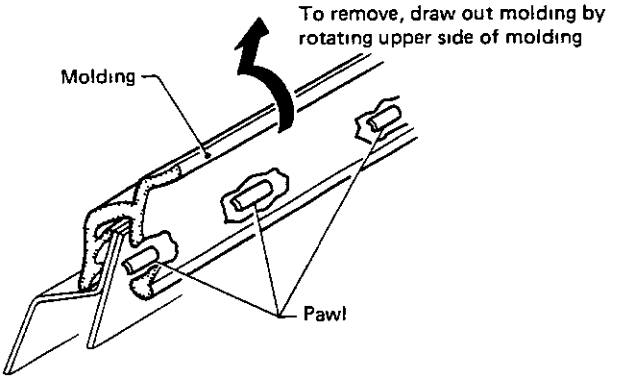
SBF455A

2 Raise end of molding and, while cutting off bonding agent, detach molding.

- **Installation**

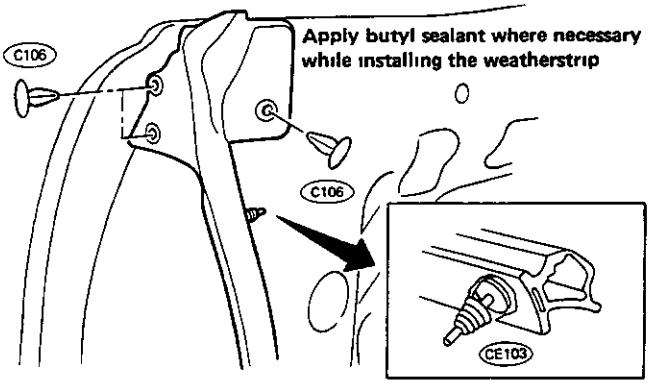
1 Remove all traces of bonding agent from body panel. Then clean contact face of body.
2 Heat body panel and molding to 30 to 40°C (86 to 104°F) with a heat gun Then install molding

② Door molding



SBF397B

③, ④ Door weatherstrip and body side weatherstrip

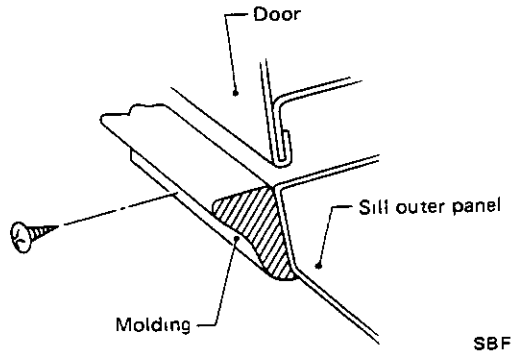


SBF398B

Exterior (Cont'd)

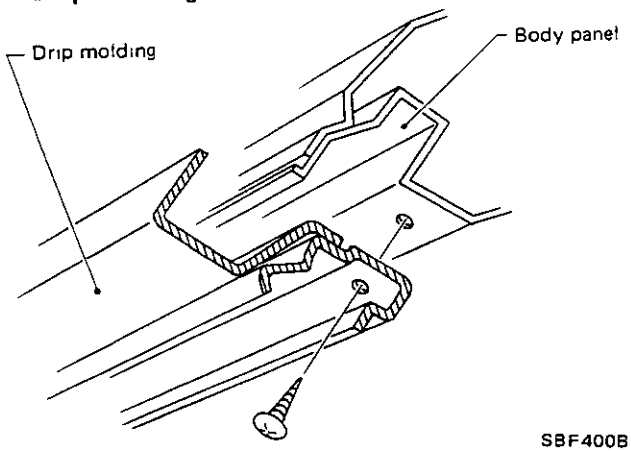
⑤ Sill molding

- Front and rear ends of molding are fixed with double-faced adhesive tape
- When affixing the portion, heat body panel and molding to 30 to 40°C (86 to 104°F) with a heat gun, and then install it



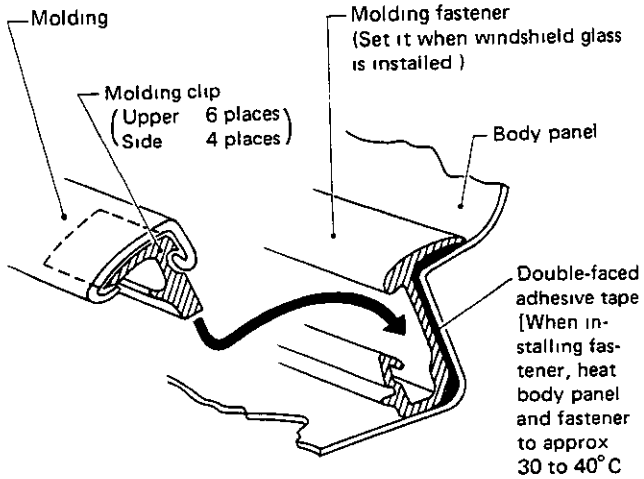
SBF399B

⑥ Drip molding



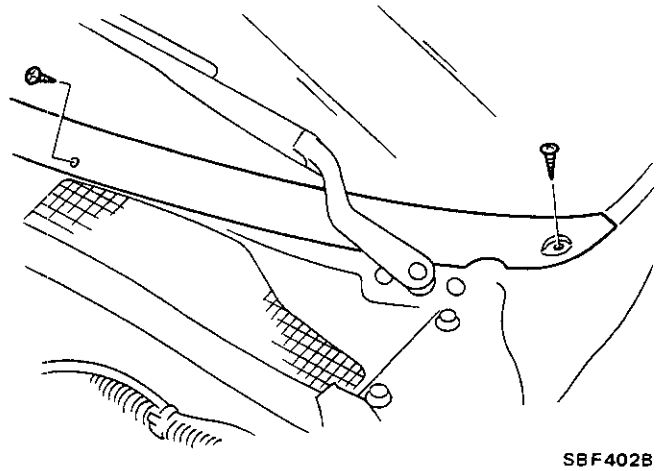
SBF400B

⑦ Windshield upper & side molding



SBF401B

⑧ Windshield lower molding



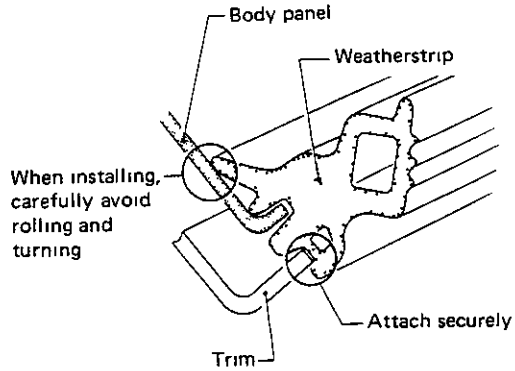
SBF402B

⑨ Side window molding

Refer to Side Window

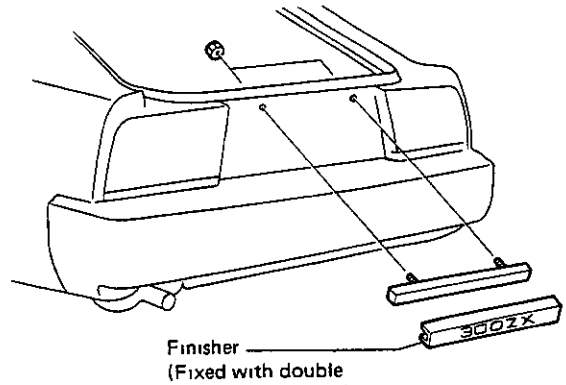
⑩ Back door weatherstrip

- Attach the weatherstrip by aligning each white marking with the center of each back door hinge



SBF403B

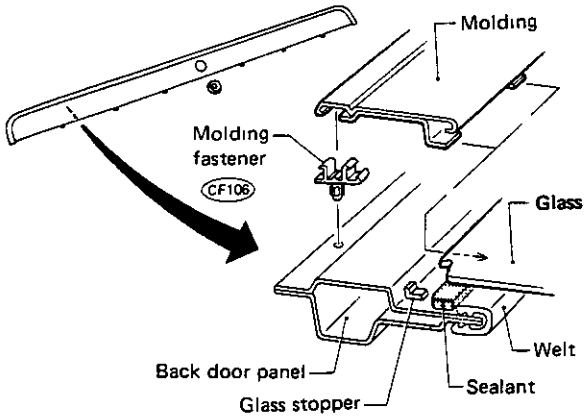
⑪ Rear panel outer finisher



SBF404B

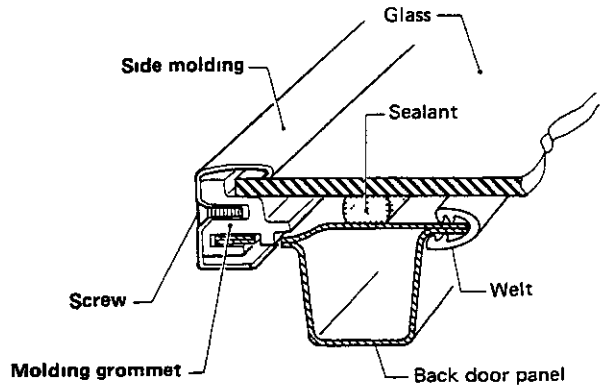
Exterior (Cont'd)

⑫ Back door upper molding



SBF405B

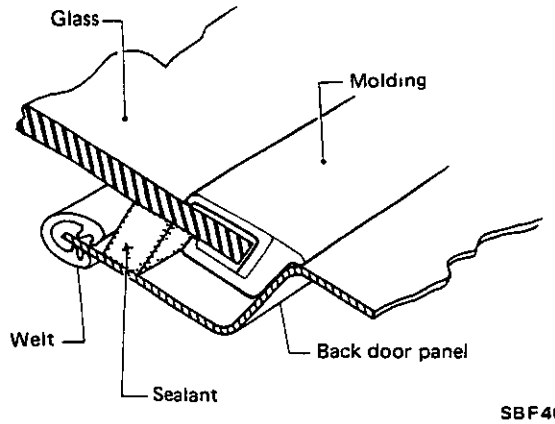
⑬ Back door side molding



SBF406B

⑭ Back door lower molding

- Attach the molding to the glass before installing the glass.

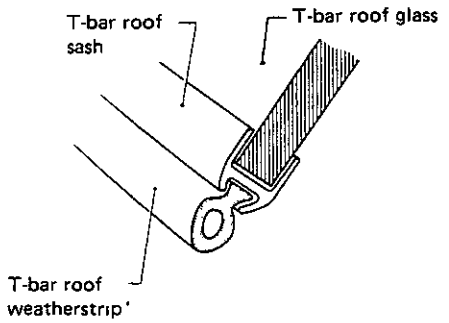


SBF407B

⑮ T-bar roof sash and T-bar roof side molding

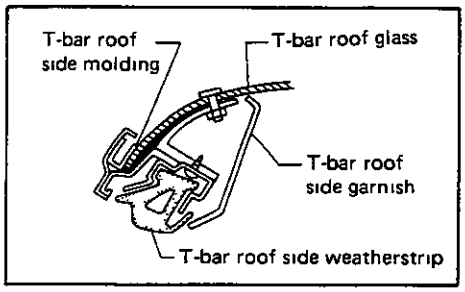
They are part of the T-bar roof glass and cannot be removed (Refer to T-bar Roof)
If they are damaged, you should replace entire T-bar roof glass assembly

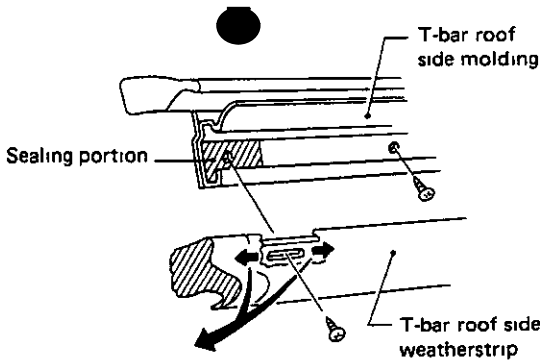
⑯ T-bar roof weatherstrip



SBF435B

⑰ T-bar roof side weatherstrip





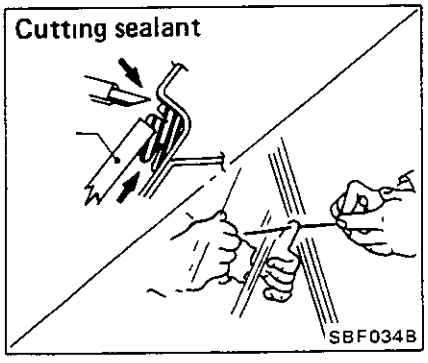
Always adjust if it is not sufficiently watertight

SBF436B

Windshield

REMOVAL

After removing moldings, remove glass

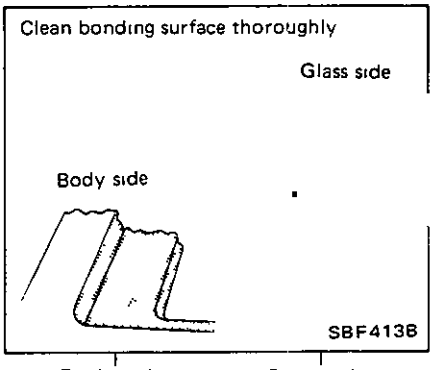


CAUTION
Be careful not to scratch glass when removing

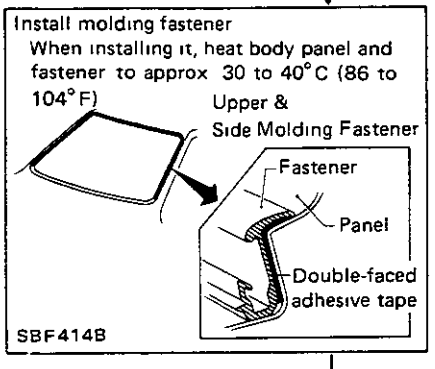
INSTALLATION

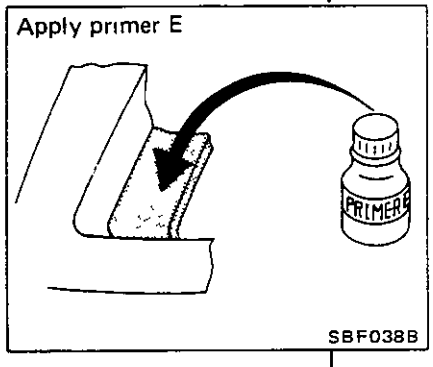
- **Use genuine Nissan Sealant kit or equivalent Follow instructions furnished with it**
- **After installation, the vehicle should remain stationary for about 24 hours**
- **Do not use sealant which is more than 12 months past its production date**
- **Do not leave cartridge unattended with its cap open**
- **Keep Primers and sealant in a cool, dry place Ideally, sealant should be stored in a refrigerator**

WARNING
Keep heat or open flames away as Primers are flammable



Body side

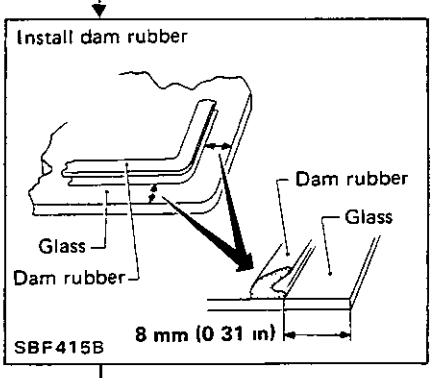


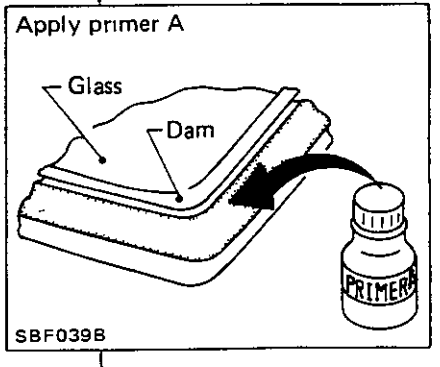


CAUTION
Allow Primers to dry for 10 to 15 minutes before proceeding to the next step

Ⓐ

Glass side

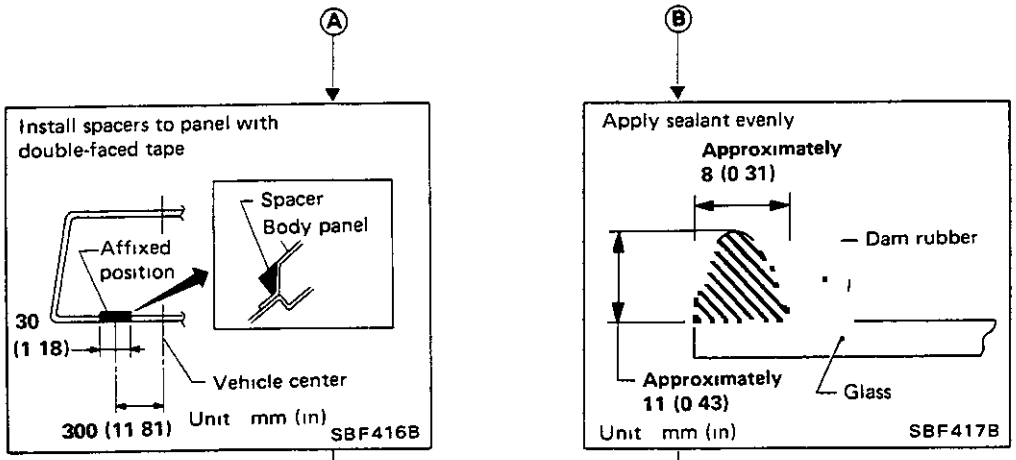




CAUTION.
Do not apply Primer A to windshield opening flanges

Ⓑ

Windshield (Cont'd)



Set glass in position and press glass lightly and evenly

Set moldings

Check for water leakage

Install molding

CAUTION

Windshield glass should be installed within 15 minutes of applying sealnt sealant starts to harden 15 minutes after it is applied

Reference Period required for sealant to dry to desired hardness

Unit days

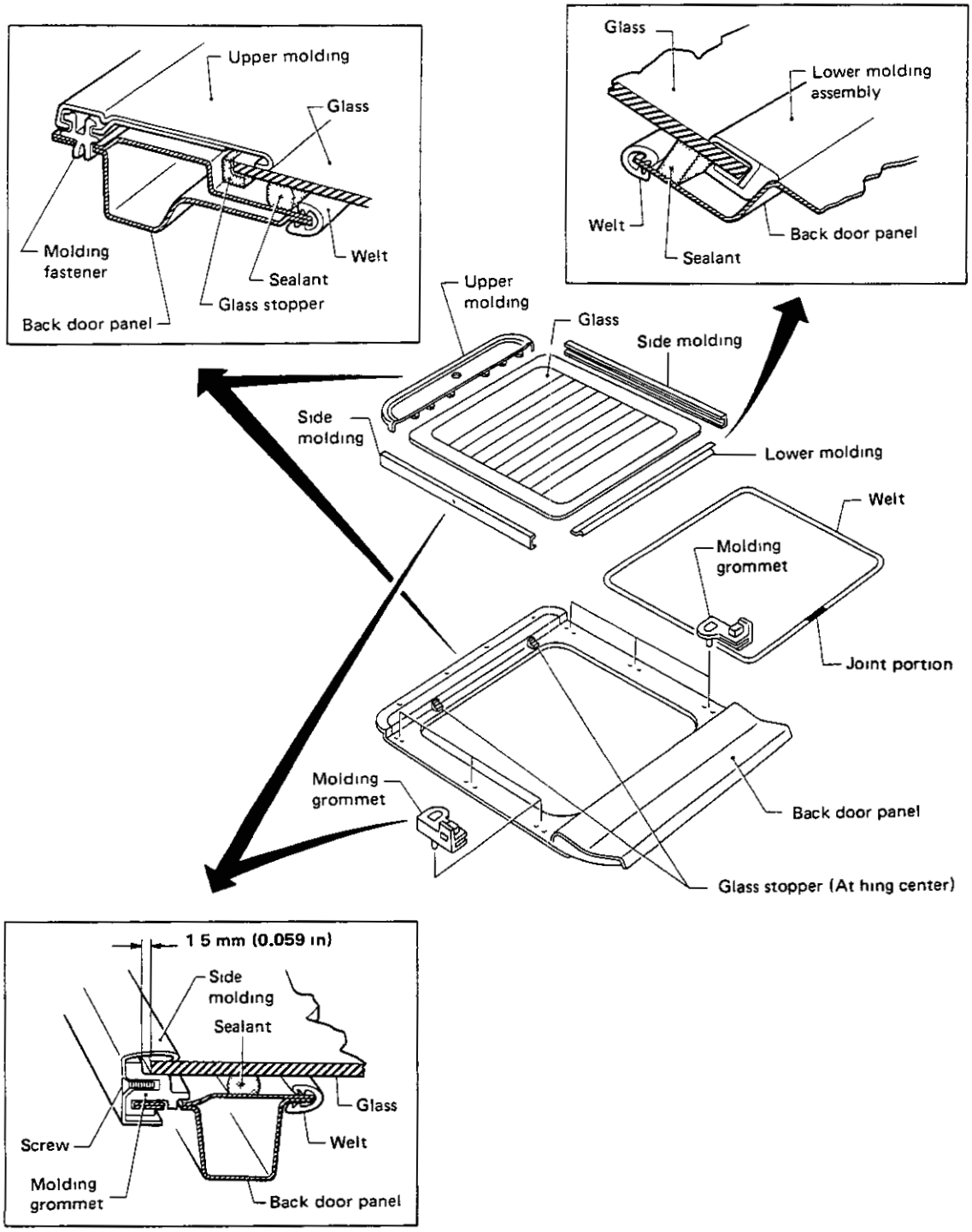
Relative humidity % / Temperature °C (°F)	90	50	25
25 (77)	1 6	2 9	6 1
5 (41)	3 5	9 1	15 0

CAUTION:

Advise the user of the fact that vehicle should not be driven on rough roads or surfaces until sealant has properly vulcanized

Back Door Window

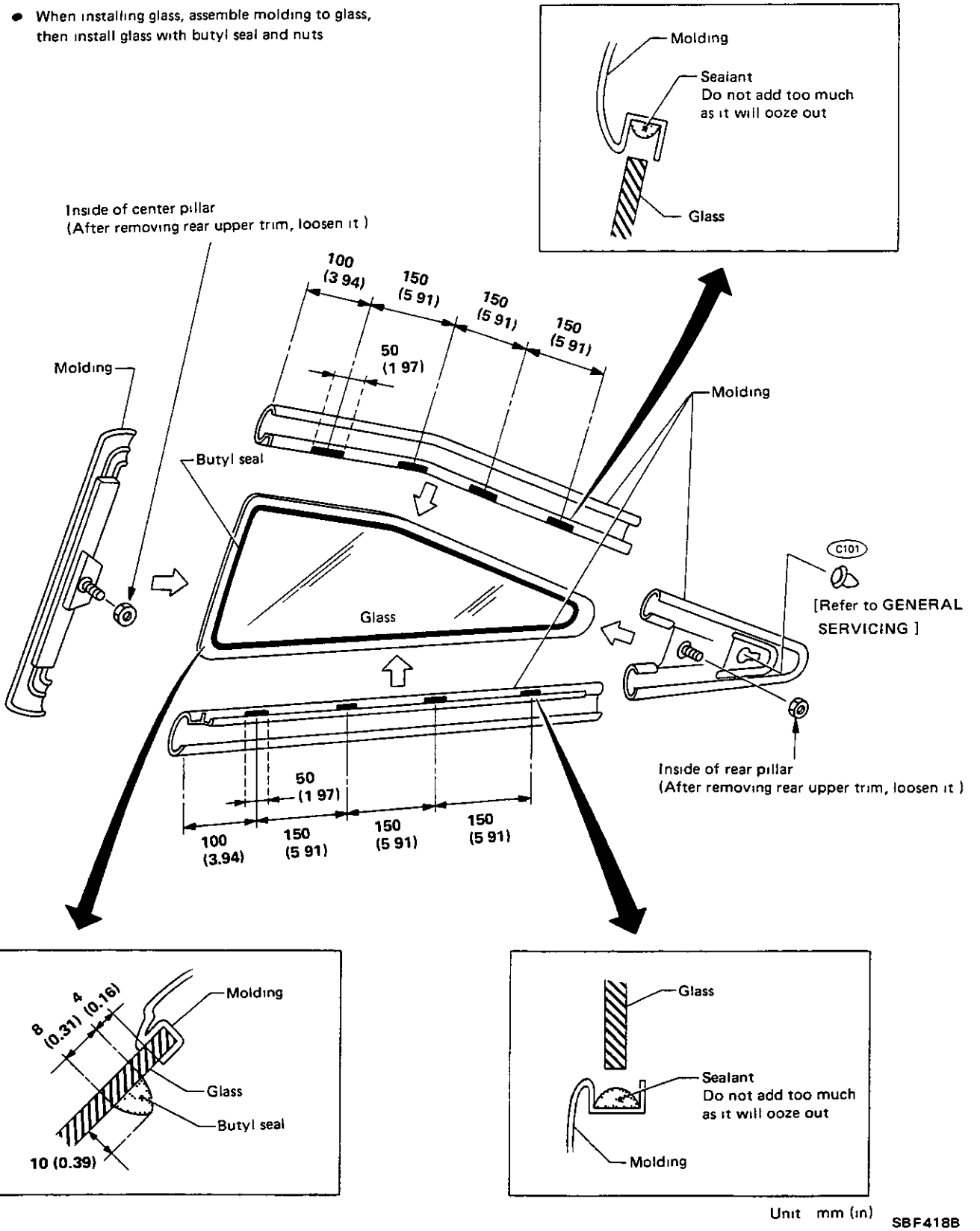
- Attach the lower molding to the glass before installing the glass.
- Attach the glass stopper (glass upper portion) and the side molding grommet to the panel before installing the glass
- The remaining procedure for removal and installation is the same as that for the windshield.



SBF419B

Side Window

- When installing glass, assemble molding to glass, then install glass with butyl seal and nuts



Unit mm (in)

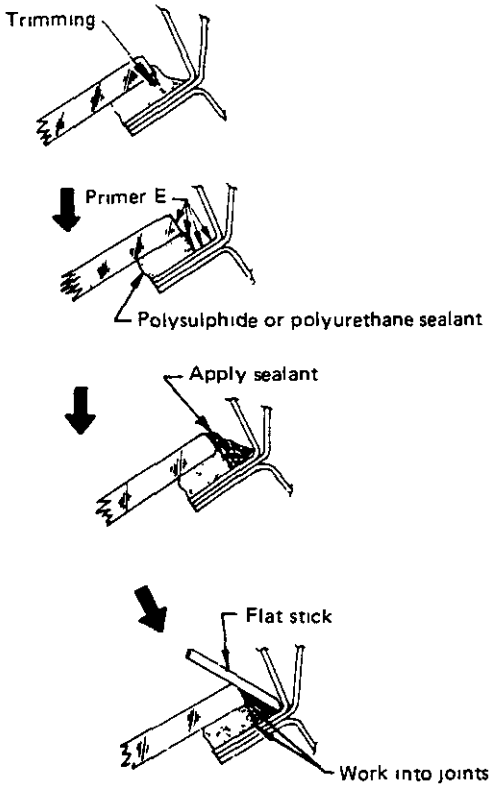
SBF418B

Repairing Leaks

Leaks can be repaired without removing and reinstalling glass

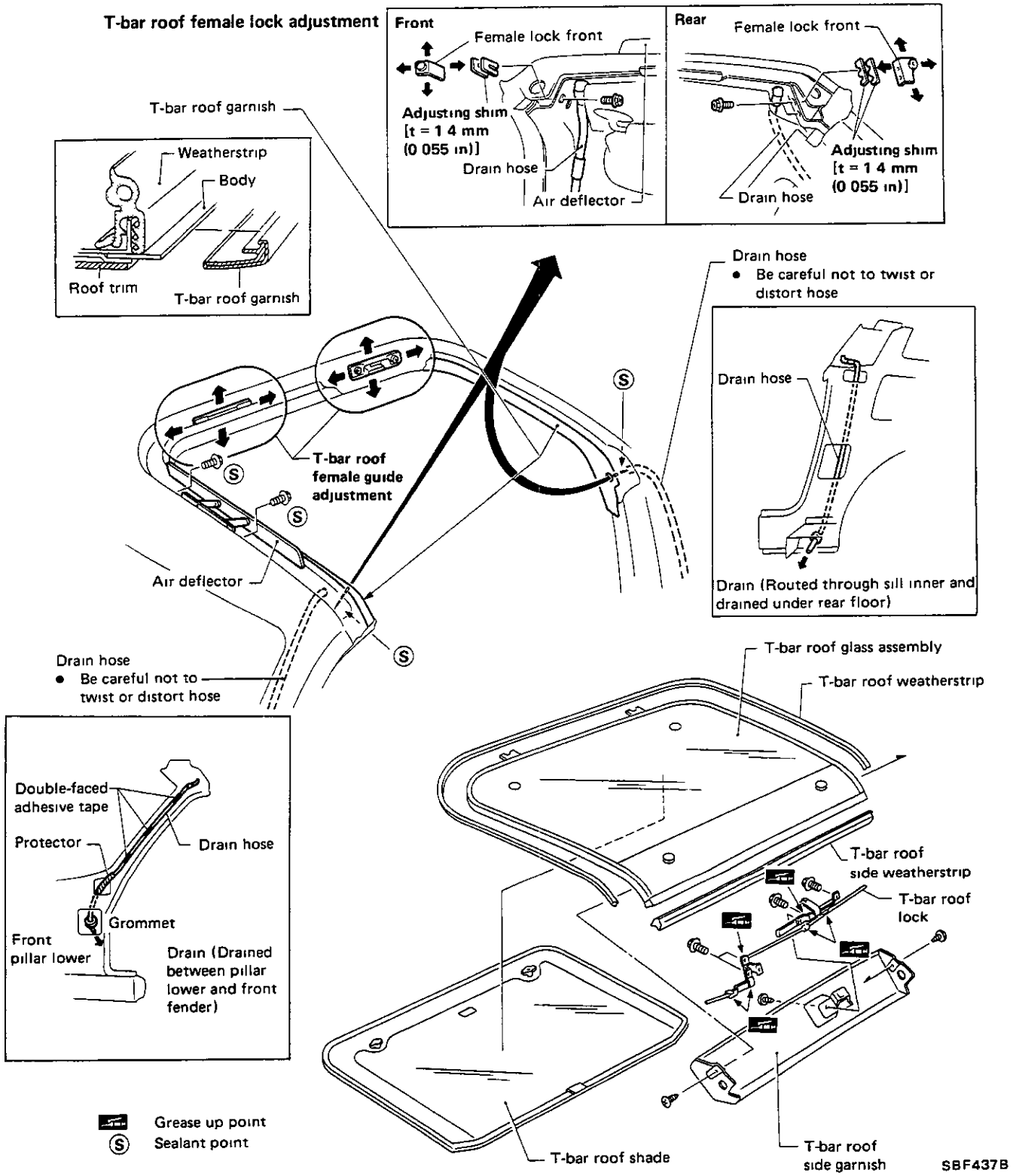
If water is leaking between caulking material and body or between glass and caulking material, determine extent of leak by applying water while pushing glass outward.

To stop the leak apply Primer and then sealant to the leak point

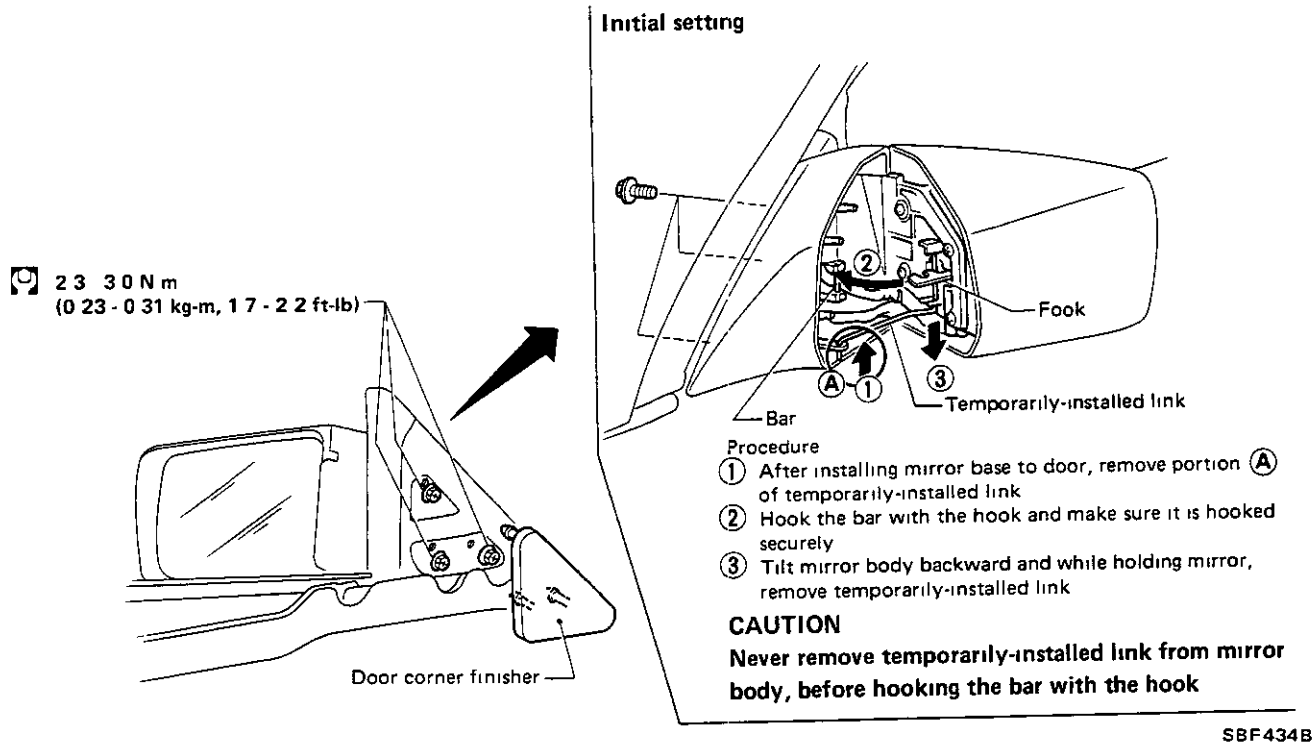


SBF182B

- Handle T-bar roof glass with care so not to damage it.
- Apply sealant to portions susceptible to water leakage if necessary
- Side molding, sash, lock basement and glass of T-bar roof constitute one unit and cannot be disassembled.

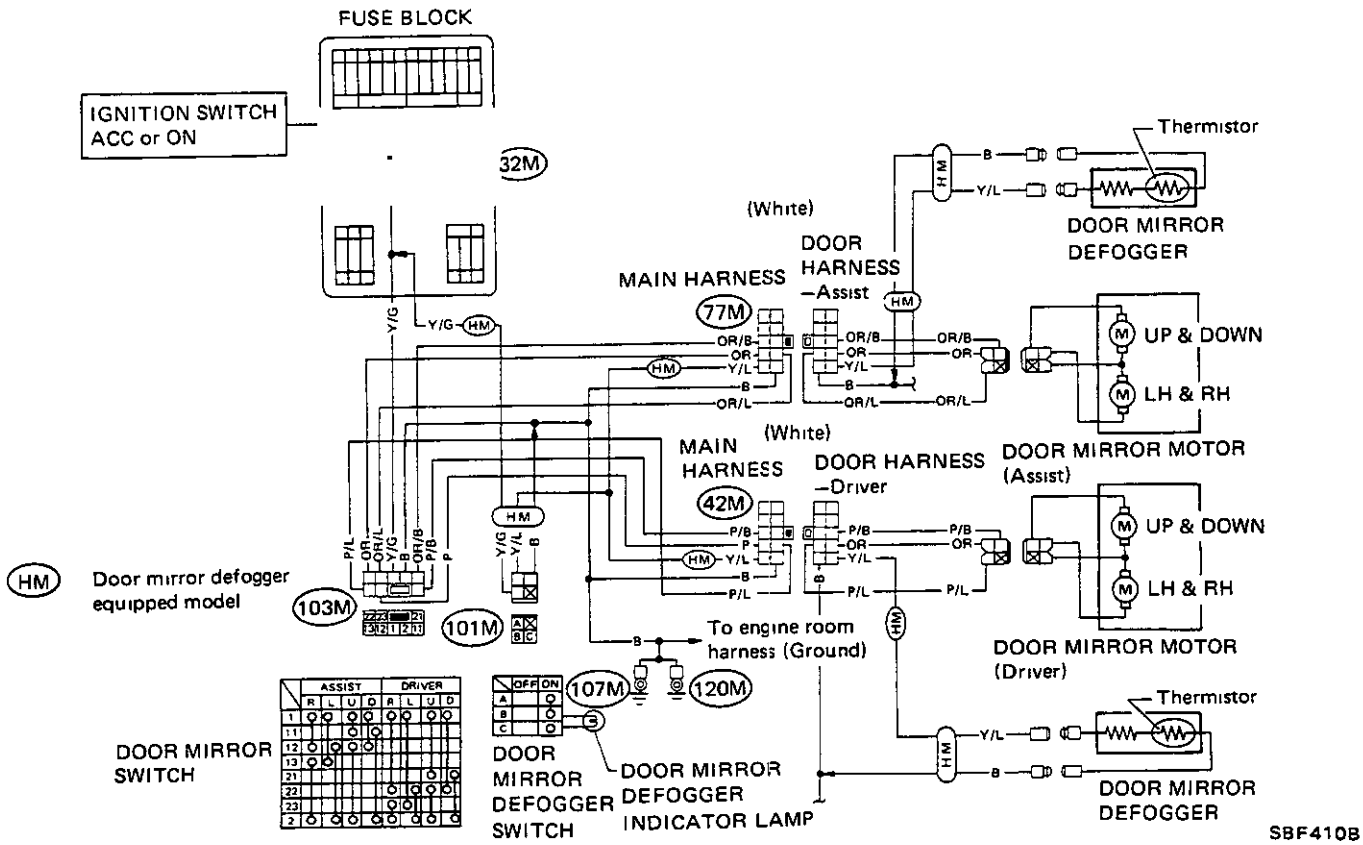


Door Mirror



SBF434B

ELECTRICAL REMOTE CONTROL DOOR MIRROR/WIRING DIAGRAM

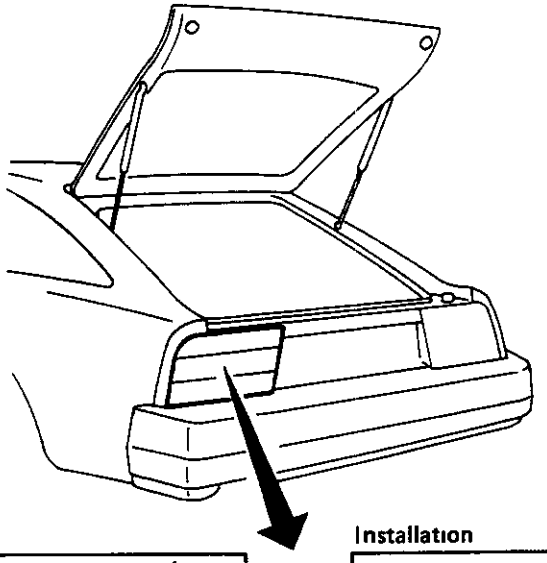


SBF410B

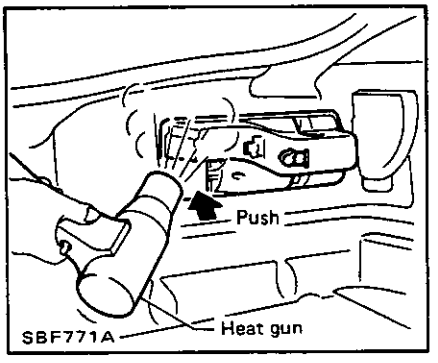
REAR COMBINATION LAMP

Removal and Installation

- Rear combination lamps are installed with nuts and butyl sealant.

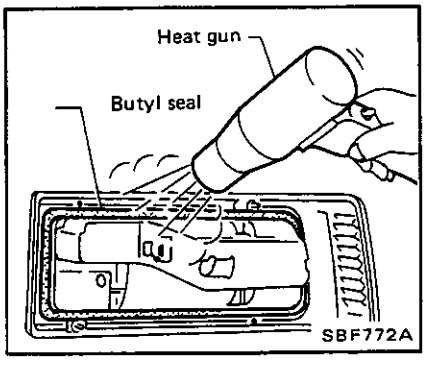


Removal



- **Warm up lamp assembly area to a temperature of a little below 60°C (140°F)**

Installation



- **Warm up lamp assembly area to a temperature of a little below 60°C (140°F)**
- **Apply butyl seal evenly as it tends to become thin in the corners**

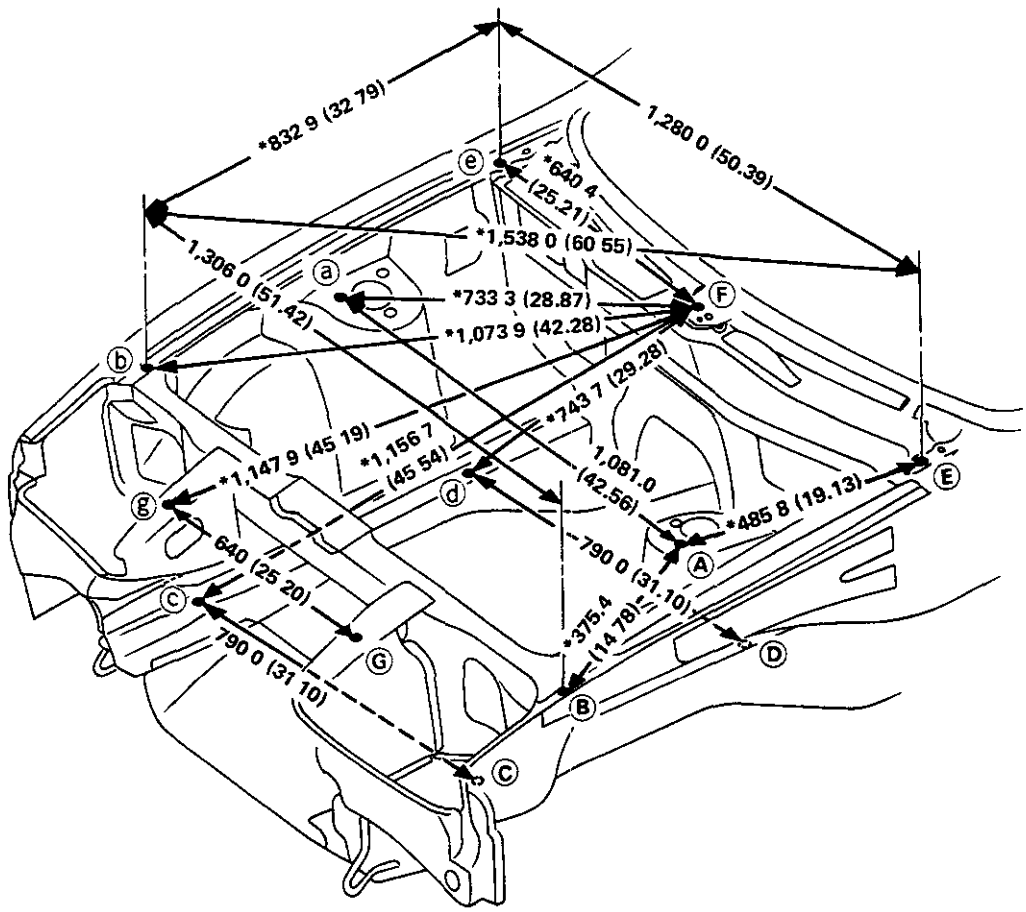
SBF472B

BODY ALIGNMENT

- All dimensions indicated in figures are actual ones.
- When a tram tracking gauge is used, adjust both pointers to equal length and check the pointers and gauge itself to make sure there is no free play.
- When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
- Measurements should be taken at the center of the mounting holes.
- An asterisk (*) following the value at the measuring point indicates that the measuring point on the other side is symmetrically the same value.
- Measurement points
  The coordinates of the measurement points are the distances measured from the respective dimension lines in the directions of "x", "y" and "z".
  Dimension lines: "x" line – Center line of vehicle
  "y" line – Center line of front axle (Any measurement point in front of the dimension line refers to a minus "–" value.)
  "z" line – Datum line (Any measurement point under the dimension line refers to a minus "–" value.)

Engine Compartment

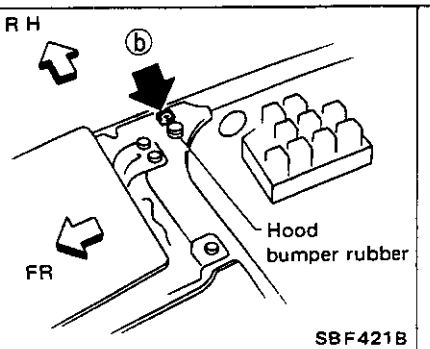
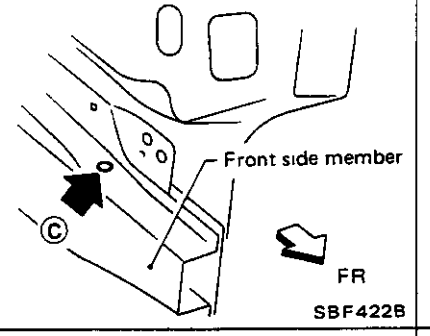
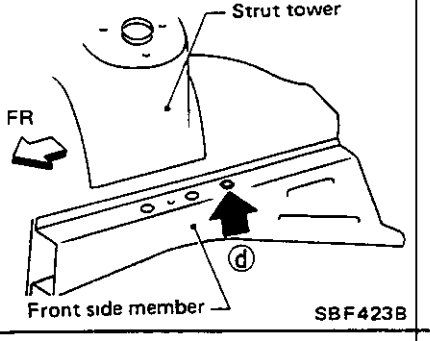
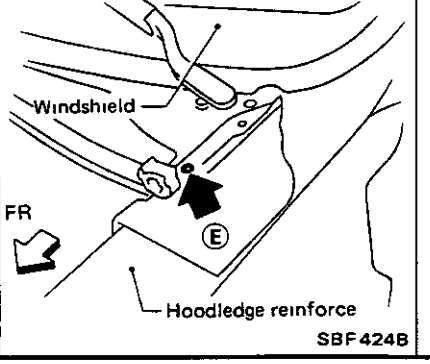
MEASUREMENT



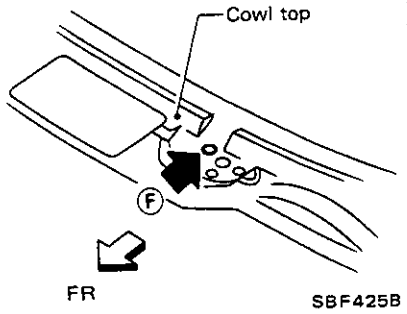
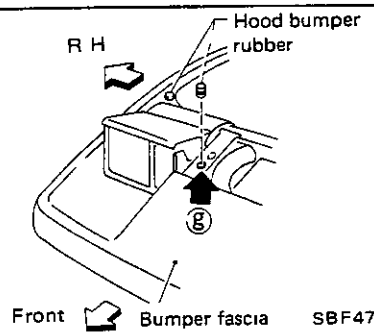
Unit mm (in)

SBF420B

MEASUREMENT POINTS

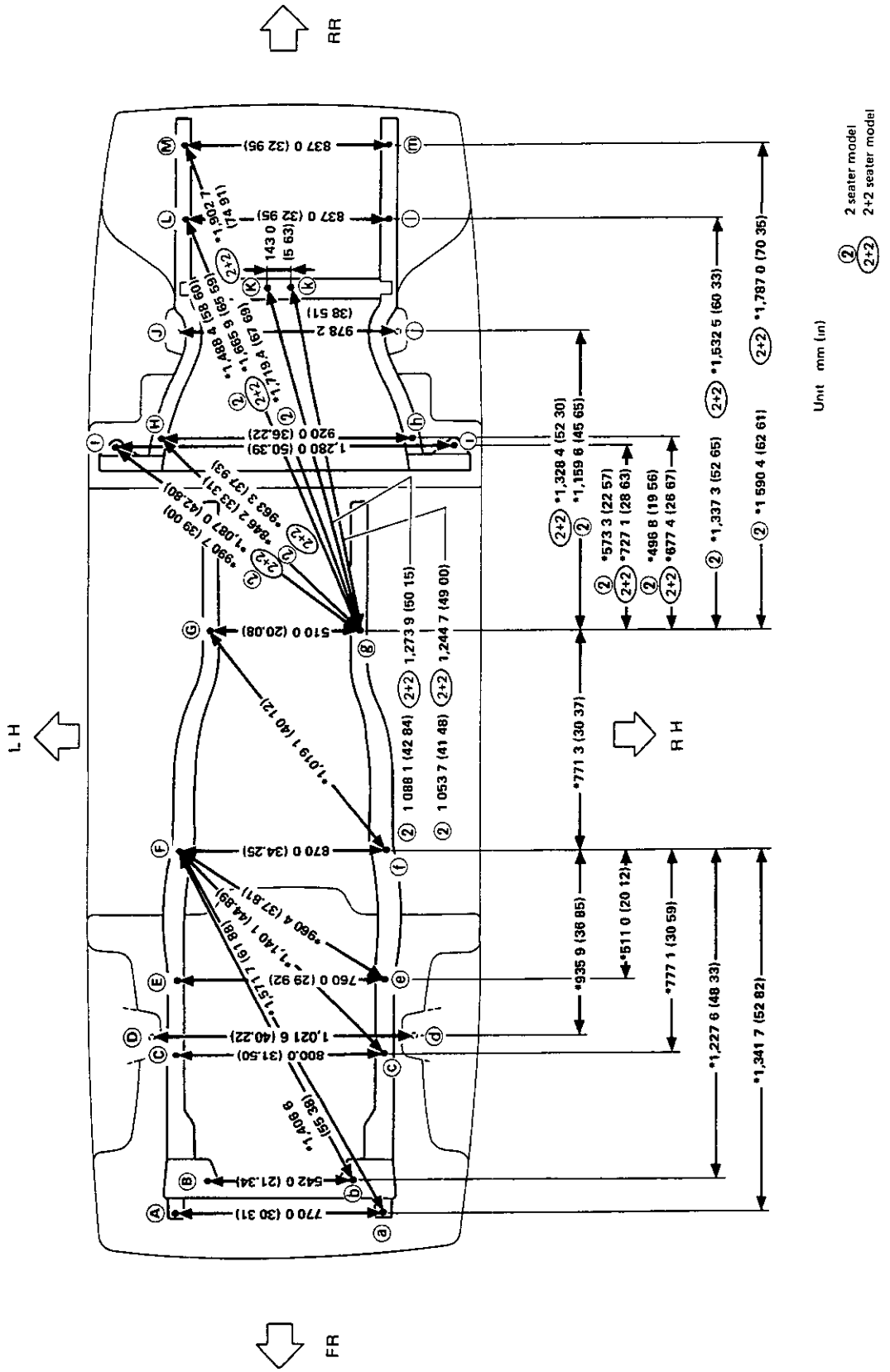
Points	Hole dia mm (in)	Detailed points		Coordinates mm (in) "x"	"y"	"z"
Ⓐ ⓐ	12 (0 47)	Hole for front suspension upper mounting (Outside front hole)		540 5 (21 28)	26 8 (1 055)	919 0 (36 18)
Ⓑ ⓑ	9 (0 35)		Hole for fixing front fender	653 0 (25 71)	−325 0 (−12 80)	852 0 (33 54)
Ⓒ ⓒ	5 4 (0 213)		Hole for fixing harness clip at upperside of front side member	395 0 (15 55)	−460 0 (−18 11)	490 0 (19 29)
Ⓓ ⓓ	8 (0 31)		Hole for fixing harness clip at upperside of front side member	395 0 (15 55)	100 0 (3 94)	490 0 (19 29)
Ⓔ ⓔ	11 (0 43)		Hole for mounting hood hinge	640 0 (25 20)	500 0 (19 69)	966 0 (38 03)

Engine Compartment (Cont'd)

Points	Hole dia mm (in)	Detailed points		Coordinates mm (in)		
				"x"	"y"	"z"
Ⓕ	7 (0 28)		Hole for mounting wiper pivot	0 0 (0)	520 8 (20 50)	959 0 (37 76)
Ⓖ ⓖ	16 (0 63)		Hole for mounting hood bumper rubber on headlamp side housing	320 0 (12 60)	−566 1 (−22 29)	774 8 (30 50)

Underbody

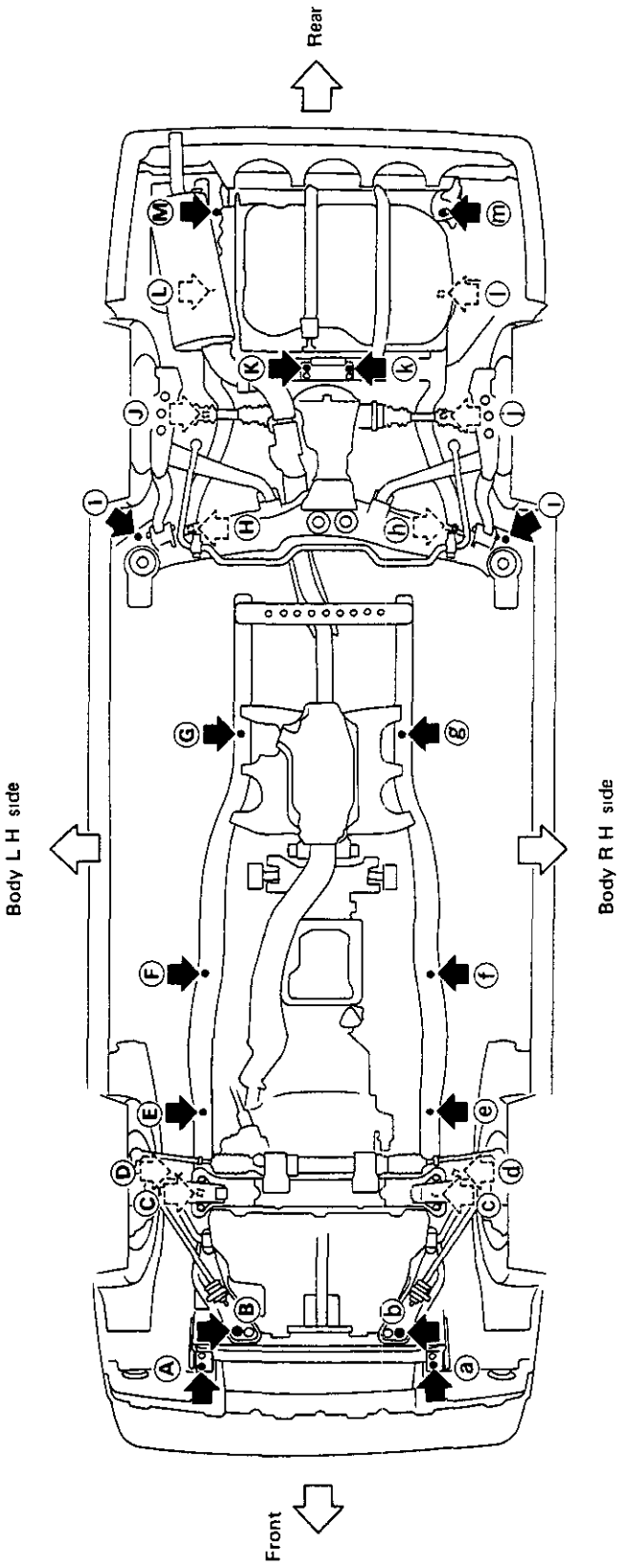
MEASUREMENT



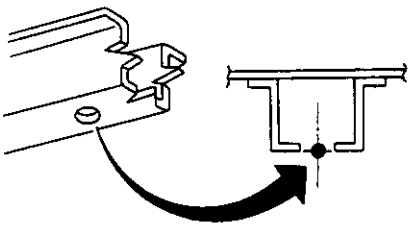
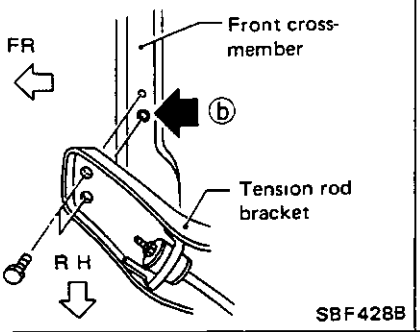
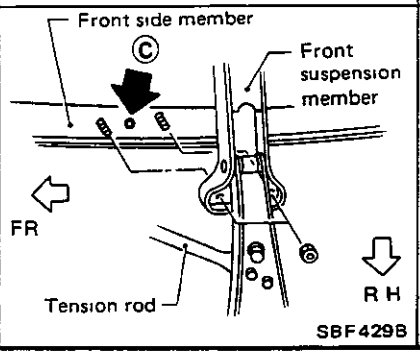
SBF426B

Underbody (Cont'd)

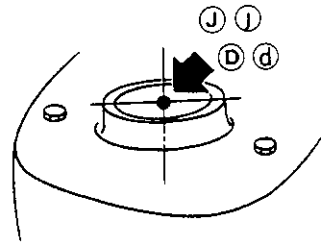
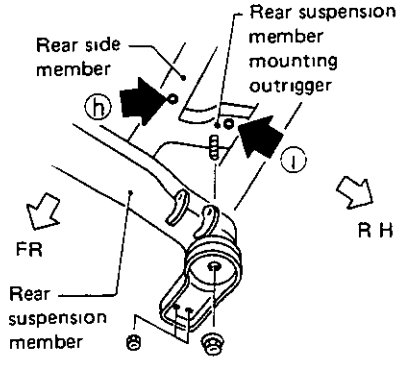
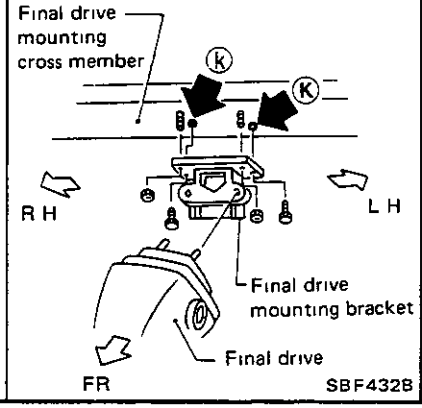
MEASUREMENT POINTS



Underbody (Cont'd)

Points	Hole dia mm (in)	Detailed points		Coordinates mm (in) "x"	"y"	"z"
Ⓐ ⓐ	13 (0 51)		Hole for front air spoiler mounting	385 0 (15 16)	−585 0 (−23 03)	388 0 (15 28)
Ⓔ ⓔ	15 (0 59)		Hole for water drainage	380 0 (14 96)	251 5 (9 90)	361 6 (14 24)
Ⓕ ⓕ	18 (0 71)		Hole for locating	435 0 (17 13)	750 0 (29 53)	263 6 (10 38)
Ⓖ ⓖ	13 (0 51)			255 0 (10 04)	1,500 0 (59 06)	261 0 (10 28)
Ⓛ ⓛ	13 (0 51)	At under side of member (Ⓐⓐ, Ⓔⓔ, Ⓕⓕ, Ⓖⓖ, Ⓛⓛ, Ⓜⓜ)		418 5 (16 48)	2 seater model 2,800 0 (110 24) 2+2 seater model 3,000 0 (118 11)	528 8 (20 82)
Ⓜ ⓜ	15 (0 59)	 SBF427B	Hole for rear bumper mounting	418 5 (16 48)	2 seater model 3,060 0 (120 47) 2+2 seater model 3,260 0 (128 35)	523 8 (20 62)
Ⓑ ⓑ	13 (0 51)	 SBF428B	Hole for mounting tension rod bracket on underside of front crossmember	271 0 (10 67)	−465.0 (−18 31)	325 5 (12 81)
Ⓒ ⓒ	16 (0 63)	 SBF429B	Hole for locating on front suspension member mounting portion (Underside of front side member)	400 0 (15 75)	−10 0 (−0 394)	422 0 (16.61)

Underbody (Cont'd)

Points	Hole dia mm (in)	Detailed points		Coordinates mm (in) "x"	"y"	"z"
Ⓓ ⓓ	82 3 (3 240)	 SBF430B	Front suspension upper mounting	510 8 (20 11)	80 0 (3 150)	912 6 (35 93)
Ⓙ Ⓙ	54 (2 13)		Rear suspension shock absorber upper mounting	489 1 (19 26)	2 seater model 2,450 2 (96 46) 2+2 seater model 2,650 2 (104 34)	883 0 (34 76)
Ⓗ ⓗ	15 (0 59)	 SBF431B	Hole for locating on underside of member	460 0 (18 11)	2 seater model 1,930 0 (75 98) 2+2 seater model 2,130 0 (83 86)	402 0 (15 83)
Ⓘ Ⓘ	13 (0 51)			640 0 (25 20)	2 seater model 1,900 0 (74 80) 2+2 seater model 2,100 0 (82 68)	404 0 (15 91)
Ⓚ	15 (0 59)	 SBF432B	Hole for mounting final drive on underside of final drive mounting crossmember	74 0 (2 913)	2 seater model 2,497 5 (98 33) 2+2 seater model 2,697 5 (106 20)	545 0 (21 46)
ⓚ				69 0 (2 717)	2 seater model 2,497 5 (98 33) 2+2 seater model 2,697 5 (106 20)	545 0 (21 46)