

Genuine Accessories

Confidential

Vehicle Model: **TBD**

Model Year 2020~

Part No. TBD

Language English

Rev. Date 2019-04-19

PMN Foglamp Transceiver System

Accessory: **Wireless fog lamp Assy'**

Difficulty: (B)

Note: Difficulty stated above reflects the minimum level of expertise required to install the accessory.

- (A) Customer
(B) Dealer Technician
(C) Master Technician or Specialist

Application Notes

This Kit applies to 2020~ Model Year (TBD) Vehicle Models.

Vehicle should be equipped with automatic transmission, power door locks, and power windows. If these features are not equipped on the vehicle, do not proceed with install.

Instructional Symbols / Definitions



Denotes warnings that may lead to serious physical injury or vehicle damage



Denotes quality processes to be checked prior to moving to the next step

Denotes personal protective equipment (PPEs) that may be required for a step. Examples of safety equipment icons noted below:



Denotes cautions to be taken to avoid physical injury or electronic component damage



Denotes specific tools that are necessary to complete a step



Glasses



Gloves



Denotes cautions to be taken to avoid vehicle and component damage

N
O
T
E

Denotes important information to be reviewed during the step



Mask

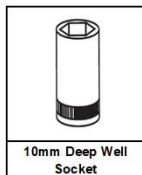


Hearing Protection

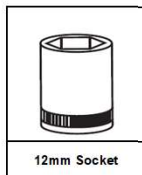
Basic Required Tools



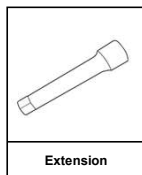
Ratchet



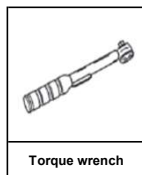
10mm Deep Well Socket



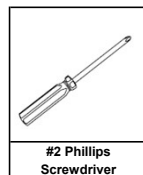
12mm Socket



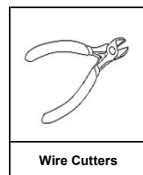
Extension



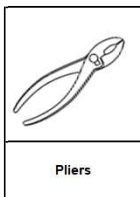
Torque wrench



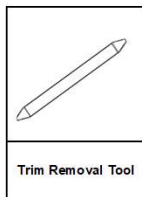
#2 Phillips Screwdriver



Wire Cutters



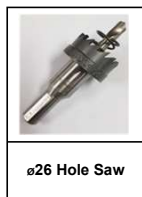
Pliers



Trim Removal Tool



Electric Screwdriver



ø26 Hole Saw



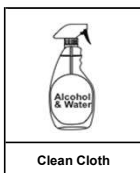
Clip Remover



보호 매트



50/50 Isopropyl Alcohol (70%) and Water Mix



Clean Cloth

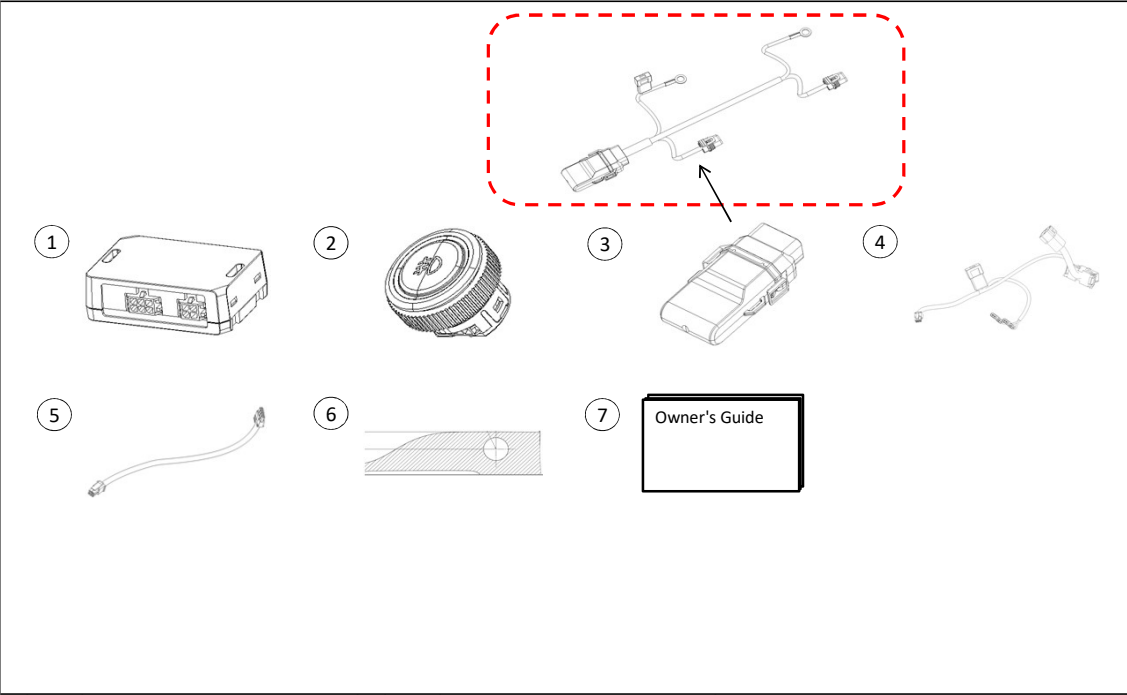
Technical Support

Notes to the installer:

- 1) Read the entire Installation Instructions prior to beginning the installation of the part.
- 2) Make sure the vehicle is completely clean and dry in the area(s) the part is to be installed.
- 3) Ensure the vehicle is properly protected in the area(s) that the accessory is to be installed.
- 4) NEVER place tools on painted surfaces, seating surfaces, dash pad, console or floor carpet/mats.
- 5) Always wear appropriate personal protective equipment, including gloves, safety glasses, etc., when required.
- 6) Record radio presets prior to disconnecting battery power, if needed.
- 7) Roll down the driver's window and adjust the power seats (if applicable) prior to disconnecting battery power, if needed.
- 8) Vehicle should be at room temperature.
- 9) Factory wire harness colors are subject to change, please use the specified pin # in the connector to identify the correct wires for the two T-Tap installations.

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Kit Overview



No.	Qty	Description	No.	Qty	Description
1	1	ECU Module	6	1	Mylar Jig
2	1	BUTTON Module	7	1	Owner's Guide
3	1	TRANSCIEIVER Module	8		
4	1	ECU Harness	9		
5	1	BUTTON Harness	10		

Hardware Kit Contents

A		B		C	
7	Wire Tie(Inside)*	13	Wire Tie(Outside)*	3	T-Tap (White)*

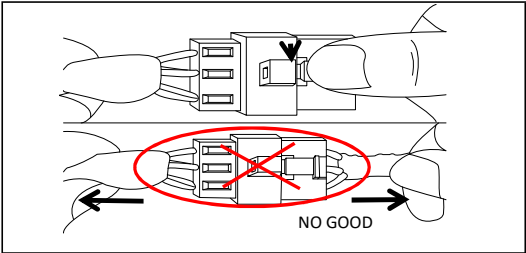
* Indicates extra components intentionally included in kit as spares.
Follow instructions for proper placement of each component.

Hardware Total
23

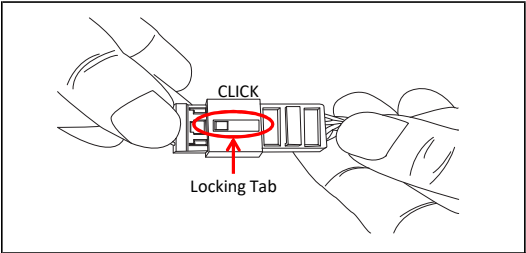
Radio Presets - record customer preset frequencies if disconnecting battery power

FM1 _____	FM2 _____	FM3 _____	FM4 _____	FM5 _____
FM6 _____	FM7 _____	FM8 _____	FM9 _____	FM10 _____
AM1 _____	AM2 _____	AM3 _____	AM4 _____	AM5 _____
SAT1 _____	SAT2 _____	SAT3 _____	SAT4 _____	SAT5 _____

Special Instructions



Disconnecting Connectors
When disconnecting connectors, grasp the connectors, not the wire.



Locking Connectors
When locking connectors, listen for a click indicating they are securely locked.

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T-Tap Installation Procedure
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1		
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NOTE		A. Open the Driver's Door Window. B. Move the Driver's Seat to the rearmost position. C. Record all pre-set radio stations, if applicable. D. Pull the Hood Lever to open the Hood.
2		Ratchet, Extension and 10mm Deep Well Socket
		Confidential
NOTE		A. Remove Negative (-) Battery Terminal Cover and store in a safe location for reinstallation, if applicable. B. Disconnect and isolate the vehicle's Negative (-) Battery Cable.
		WARNING! Shock Hazard. Do not touch vehicle's negative battery terminal to vehicle's positive battery terminal. Serious physical injury or electronic component damage may occur.
3		Trim Removal Tool
		Confidential
NOTE		A. Remove the fuse panel cover. B. Gently pull the weatherstrip back from the dash area. C. Using a trim removal tool, remove the driver's side dash end cap panel by prying outward to disengage the four (4) pressure clips. D. Store the removed parts in a safe location for reinstallation.
		Caution: Do not damage the Dash Panel, Fuse Panel Cover or Dash End Cap. Make sure no pressure clips remain in the dash board.
4		#2 Phillips Screwdriver
		Confidential
NOTE		A. Remove the three (3) Phillips Screws shown. B. Store the three (3) Phillips Screws in a safe location for reinstallation.
		Caution: Do not damage the Lower Dash Panel

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5		Trim Removal Tool	Confidential			
NOTE						
	A. Using a Trim Removal Tool, release the Retaining Tab shown. B. By hand, gently dislodge the Lower Dash Panel. C. Disconnect OBDII Connector and any Electrical Connectors from the Lower Dash Panel, if applicable. D. Store the removed part in a safe location for reinstallation.					
		Caution! Do not damage the Lower Dash Panel, OBDII Connector or Electrical Connectors.				
6		Ratchet, Extension and 10mm Deep Well Socket	Confidential			
NOTE						
	A. Remove the four (4) 10mm Bolts securing the Knee Bolster Plate. B. Remove the Knee Bolster Plate. C. Store the removed parts in a safe location for reinstallation.					
		Warning! The Knee Bolster Plate may have sharp edges. Take necessary precautions.				

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7		
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NOTE	A. Connect the 6-Pin Fog lamp ECU Connector (black) to the Control Module. B. Connect the 4-Pin Fog lamp ECU Connector (black) to the Control Module.	

8		Wire Cutters
Confidential		
NOTE	A. Using two (2) Wire Ties, secure the Fog ECU harness(ECU+BUTTON Module) to the (ICU_FRNT_A, ICU_FRNT_B) Factory Harness as shown. B. Trim excess Wire Tie material.	

9		
Confidential		
NOTE	A.Connect the corresponding Fog lamp ECU ODB II Connector to the ODB II Connector Disconnect from Lower Dash Panel. B. Locate the Fog lamp ECU ODB II Connector to the Lower Dash Panel, as shown above.	
		

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10		Pliers and Wire Cutters
Confidential		
NOTE		
	A. Disconnect the 32-Pin CAN Connector from the Fuse Box as shown. B. Peel back insulation tape from the end of the connector harness, as needed, to make room for T-Taps. C. Using Pliers, crimp the small end of the T-Tap onto the White Wire of ECU Harness and repeat procedure for Brown Wire of ECU Harness. D. Match the T-Taped White of ECU Harness to Blue Wire (Pin #15) of Vehicle 32-Pin CAN Connector and using pliers, crimp the large end of the T-Tap onto Blue Wire (Pin #15) of Vehicle 32-Pin CAN Connector. - Refer to the T-Tap Installation Procedure on page 3. E. Match the T-Taped Brown Wire of ECU Harness to Red Wire (Pin #16) of Vehicle 32-Pin CAN Connector and using pliers, crimp the large end of the T-Tap onto Red Wire (Pin #16) of Vehicle 32-Pin CAN Connector. - Refer to the T-Tap Installation Procedure on page 3. F. Secure the ECU CAN harness to the factory harness with one (1) Wire Tie, as shown above, and trim excess wire tie material. G. Reinstall the 32-Pin CAN connector into the fuse box. <u>Ensure it is locked in place.</u>	
	Make sure to check the Correct wire Pin location for both T-Tap installations.	
11		Wire Cutters
Confidential		
NOTE		
	A. Locate ECU Module on Factory harness as shown above. B. Using two (2) Wire Ties, secure the ECU Module to the Factory Harness as shown. C. Using one (1) Wire Tie, secure the Fog lamp ECU harness(ECU+Button Module) to the Factory Harness as shown. D. Trim excess Wire Tie material.	

12		Ratchet, Extension and 10mm Deep Well Socket	Confidential
N O T E	A. Reinstall all removed Knee Bolster Plate in reverse order of disassembly.		
	Warning! The Knee Bolster Plate may have sharp edges. Take necessary precautions.		
13		ø26 Hole SAW, Electric Screwdriver	Confidential
N O T E	A. Attach the sheet paper. B. Hole machining at the position indicated on the sheet paper. C. Remove the sheet paper. D. Install the button. E. Reinstall Lower Dash Panel. F. Reinstall fuse panel cover side dash end cap panel.		
	Be careful that the buttons are mounted in the correct orientation as shown.		

14			Confidential
15			Confidential
16		Ratchet, Extension and 10mm Deep Well Socket	Confidential
N O T E	A. Open the Cap In middle of Engine room.		
N O T E	A. Remove the a bolt inside of Cap.		

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17		Clip Remover
Confidential		
N O T E	A. Remove the six(6) Clips on lower bumper.	

18		Clip Remover, Screw driver
Confidential		
N O T E	A. Remove the three(3) Clips in Front left of tire B. Remove the one (1) Phillips Screw in Front left of tire as shown.	

19		Clip Remover, Screw driver
Confidential		
NOTE	A. Remove the three(3) Clips in Front right of tire B. Remove the one (1) Phillips Screw in Front left of tire as shown.	

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20		
Confidential		
N O T E	A. Install a protective mat on the floor. B. Gently pull the left and right bumper back and dislodge the bumper by hand. C. Unplug the Factory connector from bumper when pull bumper back, if application. D. Place the bumper on the protective mat.	
	 To prevent damage to the bumper, two people are recommended.	

21		
Confidential		
N O T E		

22		Wire Cutters
Confidential		
N O T E	A. Locate TRANSCIEVER Module to Left above of front bumper beam as shown. B. Using three (3) Wire Ties, secure the Reciever Module to the factory harness to front bumper beam as shown. C. Trim excess Wire Tie material.	

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23		Wire Cutters
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NOTE	A. Using two (2) Wire Ties, secure TRANSCIEVER Harness to Factory harness. B. Make sure theTRANSCIEVER Harness which be connected from right of vehicle is routed on back of front bumper beam. C. Trim excess Wire Tie material.	

24		Wire Cutters
Confidential		
NOTE	A. Secure the TRANSCIEVER Harness to Factory Harness using one(1) wire Tie. B. Follow Factory Harness and connect TRANSCIEVER Harness to Fuse Box. C. Trim excess Wire Tie material.	

25		Wire Cutters, Ratchet, Extension and 10mm Deep Well Socket
Confidential		
NOTE	A. Open the fuse box cover. B. Remove the 10mm alternator Bolt. C. Insert the 10mm alternator Bolt into the +12V Ring Terminal, and reinstall. D. Using two (2) Wire Ties, secure TRANSCIEVER Harness to Factory harness. E. Locate TRANSCIEVER Fuse in the Fuse box and TRANSCIEVER harness passes through the gap of Pannel. F. Trim excess Wire Tie material. G. Close the fuse box cover.	
	Be careful that the wires come out through the cover hole.	

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26		Wire Cutters
Confidential		
N O T E	A. Using one (1) Wire Ties, secure TRANSCEIVER Harness to Factory Harness. B. Using one (1) Wire Ties, secure TRANSCEIVER Harness to Factory Metal bracket in below front lamp. C. Trim excess Wire Tie material.	

27		Wire Cutters, Ratchet, Extension and 12mm Deep Well Socket
Confidential		
N O T E	A. Remove 12mm Bolt. B. Insert the 12mm Bolt into the GND Ring Terminal, and reinstall. C. Using One (1) Wire Tie, Secure TRANSCEIVER Harness to Factory Harness. D. Trim excess Wire Tie material.	

28			Confidential
N O T E	A. Remove the front bumper energy absorber.		
	Be careful not to damage the radiator grill when replacing the grill.		

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29		Electric Screwdriver
Confidential		
N O T E	A. Remove twelve pieces of screws.	
30		Wire Cutters
Confidential		
N O T E	A. Remove the lower hook (5ea)	
	Be sure to check the hook shape and position.	

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31		Wire Cutters
Confidential		
N O T E	A. Remove the top hook (9ea)	
		Be sure to check the hook shape and position.

32		Wire Cutters
Confidential		
N O T E	A. Remove the garnish hook (small hook) (4ea)	
	B. Be careful not to remove the bumper hook.	
		Be sure to check the hook shape and position.

33		
Confidential		
N O T E	A. Remove the grill. B. Be careful not to damage the bumper.	

34		Wire Cutters
Confidential		
N O T E	A. Remove the garnish hook. B. Be careful not to remove the bumper hook.	
	Be sure to check the hook shape and position.	

35		
Confidential		
N O T E	A. Remove the garnish. B. Fit the grill assembly.	

36		Electric Screwdriver
Confidential		
N O T E	A. Tighten 4 pieces of screws.	

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37		Electric Screwdriver
Confidential		
NOTE	A. After mounting the lamp, tighten the screws. (Left and right, each 3EA)	

38		
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NOTE	A. Install the front bumper energy absorber.	

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39		
Confidential		
N O T E	A. Connect TRANSCIVER HARNESS to Genuine fog lamp in Bumper. (Left, Right)	

40		Clip Remover, Screw driver, Ratchet, Extension and 10mm Deep Well Socket
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N O T E	A. Reinstall all removed front bumper in reverse order of disassembly.	
To prevent damage to the bumper, two people are recommended.		

41		Ratchet, 10mm Deep Well Socket, Extension, and Torque Wrench
Confidential		
N O T E	A. Reconnect the Negative (-) Battery Cable. Torque to: 5.0 ~ 6.0 N.m (0.5 ~ 0.6 kgf.m, 45 ~ 52 lb-in). B. Reinstall the vehicle's Negative (-) Battery Terminal Cover, if applicable. C. Temporarily reinstall the weatherstrip at dash area to allow Driver's Door to close properly. D. Close the Hood, Tailgate and all Doors. E. Test the LOCK / UNLOCK function using Factory Key Fob.	
NOTE: If vehicle is not responding, carefully re-check all wiring connections. If the vehicle is still not responding, follow the Troubleshooting at the end of the instructions.		

42		
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N O T E	A. Perform the Function Check at the end of the Instructions.	

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Fog Lamp Operation Check. • If the battery would be disconnected, some functions will no longer operate. • Turn the ignition switch to ON and check the operation of the fog lamps. • Set the lighting control lever on the low beam position and turn the fog light switch on, then check if the fog lights are on. • Turn the fog light switch on, and check if the fog light indicator light in the instrument cluster is illuminated. • Turn the fog light switch off, and check if the fog light indicator light turns off. • If the fog light does not work properly, the indicator flashes 3 times.																										
Light and Fog Lamp condition table. <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;">Fog Lamp Switch</th> <th style="width: 25%;">Low Beam</th> <th style="width: 25%;">High Beam</th> <th style="width: 25%;">Fog Lamp</th> </tr> </thead> <tbody> <tr> <td>On</td> <td>Off</td> <td>Off</td> <td>Off</td> </tr> <tr> <td>On</td> <td>On</td> <td>Off</td> <td>On</td> </tr> <tr> <td>On</td> <td>On</td> <td>On</td> <td>Off</td> </tr> <tr> <td>On</td> <td>Off</td> <td>On</td> <td>Off</td> </tr> <tr> <td>Off</td> <td colspan="2">Don't care</td> <td>Off</td> </tr> </tbody> </table>			Fog Lamp Switch	Low Beam	High Beam	Fog Lamp	On	Off	Off	Off	On	On	Off	On	On	On	On	Off	On	Off	On	Off	Off	Don't care		Off
Fog Lamp Switch	Low Beam	High Beam	Fog Lamp																							
On	Off	Off	Off																							
On	On	Off	On																							
On	On	On	Off																							
On	Off	On	Off																							
Off	Don't care		Off																							
N O T E																										

45		
FCC COMPLIANCE Part 15.19 This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Part 15.105 This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help. Part 15.21 Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. RF exposuree (20 cm over) This device should be installed and operated with minimum 20 cm between the radiator and your body.		
N O T E		

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CAUTION Heed the following cautions when handling (maintenance) the wireless fog lamp kit. • If gasoline, dissel, oil, engine coolant, or battery fluid adheres to the hard plastic parts, it will cause discoloration, stains, or damage. Wipe off immediately with a soft cloth. • Depending on the type of high pressure car washer used, the water for washing may be high temperature and/or under high pressure. Be careful when using pressurized water from a car washer nozzle. If the nozzle is too close or water pressure is applied for long periods, it may cause deformation or damage to the hard plastic parts. • Do not use electric or air tools to apply wax or compound (polishing powder). Otherwise, friction heat will be generated causing deformation or damage to the hard plastic parts.		
N O T E		

46		
IC COMPLIANCE GEN 8.4 This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. RF exposuree (20Cm over) This equipment should be installed and operated with minimum 20 cm between the radiator and your body. Cet appareil doit être installé et utilisé avec un minimum de 20 cm entre le radiateur et votre corps.		
N O T E		