

LG 3219

RDS DATA EDITOR

INSTRUCTION MANUAL



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CHAPTER 1

CHAPTER 1 GENERAL

1-1 INTRODUCTION -

This instruction manual contains the following sections:

CHAPTER 1 GENERAL

Provides the general description of the software.

CHAPTER 2 INSTALLATION

Provides the installation requirements of the software. Be sure to read this section before using the software.

CHAPTER 3 OPERATION

Explains the operation procedures for each function of the software.

1-2 GENERAL

This software consists of the "RDS data editor soft" to create and edit RDS signal data and the "RDS loader soft" to download data created by the RDS data editor in the internal memory of the VP-8194D.

For further operation procedure of the software, see CHAPTER 3 OPERATION.

1-3 RDS SIGNAL -

This software can create and edit RDS signals that are defined in CENELEC EN 50067 and broadcasted in European countries, and RBDS signals that are defined in NRSC / NAB and broadcasted in the United States.

Except for a little difference in usage because of different broadcasting areas, the RDS signals and RBDS signals are same in modulation method, transmission method, and data structure. Thus in the rest of this instruction manual, it is assumed that the RDS signals include the RBDS signals unless otherwise specified.

Listed below are the general specifications of RDS signals.

Item	Specification		
Sub carrier frequency	57 kHz		
FM deviation	±2 kHz		
Modulation method	BPSK (Bi-Phase Shift Keying)		
Coding method	Differential coding		
Data rate	1 187.5 bps		
Bandwidth	57 kHz \pm 2.4 kHz (100% cosign roll-off)		

Table 1-1 Outline of RDS signals



Figure 1-1 RDS data structure

1-4 RDS DATA EDITOR -------

The RDS data editor automatically creates RDS data from entered code data. The created RDS data can be downloaded in the internal memory of the VP-8194D via the RDS loader and used as its modulation output signals.

For further information on the operation procedure, see CHAPTER 3 OPERATION.

1-5 RDS LOADER ------

The RDS loader assigns pattern numbers to data created by the RDS data editor to download them in the internal memory of the VP-8194D.

For further information on the operation procedure, see CHAPTER 3 OPERATION.

1-6 FLOW OF DATA DOWNLOADING PROCEDURE ------

The RDS data editor creates an RDS data.			
The RDS loader assigns a pattern number to the created RDS data.			
The RDS loader creates a table file.			
The RDS loader downloads the RDS data in the internal memory of the VP-8194D.			

CHAPTER 2

CHAPTER 2 INSTALLATION

2-1 INSTALLATION REQUIREMENTS —

This software runs on Microsoft Windows for creating, editing, and downloading RDS signal data. Before operating the RDS data editor soft and the RDS loader, it is necessary to install required software in the hard disk of a personal computer. Following paragraphs describe the computer environment required to run the RDS data editor soft and the RDS loader, connection method between the VP-8194D and the personal computer, and installation method of the software in order.

2-1-1 Operational environment

The supplied editor is software that runs on Microsoft Windows. Therefore the editor can run on any personal computer providing environment where Microsoft Windows can be used. Listed below are environmental requirements, which personal computers must satisfy in order to run the editor.

Item	Requirements		
OS	Windows 98 / 2000 / XP		
Personal computer	Must be able to run above OS. 100 % AT compatible machines are recommended.		
Main memory	16 M bytes or more (Windows 95/98)* 32 M bytes or more (Windows NT4.0)*		
CD drive	Applicable to CD-R reading.		
Hard disk	Free spaces of 5 MB or more are needed at the time of installation.		
Display	640 × 480 dots (VGA) is required. 800 × 600 dots is recommended.		
Keyboard	Must be adaptable to above OS.		
Serial port	One or more RS-232-C communication port must be able to be used.		

Table 2-1 Operational environment

* Windows 98, Windows 2000, and Windows XP are the registered trademarks of Microsoft Corp.

2-1-2 Connection

To download the table file created by the RDS loader in the internal memory of the VP-8194D, it is required to connect the VP-8194D with a personal computer via the RS-232-C interface.

Use the following cable for connection.

D-sub 9 pin female, - D-sub 9 pin female, reverse connection cable

2-1-3 Installing the editor

- ① Run the personal computer.
- ② Insert the attached CD "RDS Data Editor" in the CD drive.
- ③ Select [Start] [Run...].
- ④ Enter "<Drive name> : ¥setup" in the [Open :] box and select the <OK> button. Assuming that the CD is inserted in the CD drive D, enter "D:¥setup" and select the <OK> button.
- (5) The installation screen starts up.
- (6) Follow the instructions on the installation screen to install the program.

CHAPTER 3

CHAPTER 3 OPERATION

3-1 GENERAL

This chapter describes the operation procedures for the "RDS data editor soft" and the "RDS loader" on a personal computer in the following order.

- 3-2 INSTALLATION
- 3-3 BASIC OPERATIONS OF THE RDS DATA EDITOR
- 3-4 CREATING RDS DATA
- 3-5 BASIC OPERATIONS OF THE RDS LOADER
- 3-6 CREATING THE RDS DATA TABLE
- 3-7 DOWNLOADING / UPLOADING RDS DATA

3-2 INSTALLATION —

For the operational environment and connection of the personal computer when installing in the computer, see paragraph 2-1. Be sure to read the paragraph before starting installation.

Installation procedure is as follows:

- ① Run the personal computer.
- ② Insert the attached CD "RDS Data Editor" in the CD drive.
- ③ Select [Start] [Run...].
- ④ Enter "<Drive name> : ¥setup" in the [Open :] box and select the <OK> button. Assuming that the CD is inserted in the CD drive D, enter "D:¥setup" and select the <OK> button.
- (5) The installation screen starts up.
- (6) Follow the instructions on the installation screen to install the file.

3-3 BASIC OPERATIONS OF THE RDS DATA EDITOR

3-3-1 Starting and ending the RDS data editor

(1) Starting the RDS data editor

Double click the mouse button on the icon of the editor installed in paragraph 3-2, and the following initial screen of the editor appears.



Menu bar

Displays required functions in the tree style.

· Group sequence data display area

Used to create a group sequence.

Code data display area

Used to create a code data.

Required input items are displayed according to the group type pointed with the cursor on the group sequence display area.

· HEX data display area

Display contents on the code data display area are converted into hexadecimal data depending on specifications and displayed.

(2) Ending the RDS data editor

To end the RDS data editor, click the 🔟 button or select [File] - [Exit] on the menu bar.

3-3-2 Creating new RDS data

Selecting [File] - [New] on the menu bar clears data on the group sequence data display area to invoke the initial screen shown in paragraph 3-3-1. New RDS data can be edited.

3-3-3 Opening existing file

Open an existing RDS data file. Procedure is as follows:

① Select [File] - [Open] on the menu bar to open the following dialogue.

Load RDS Fi	e Select			? ×
Look jn: 🔁	RdsEditor	- 1	1	
irdsdata1.rc	ls			
📄 rdsdata2.ro	ls			
, File weeks				
File <u>n</u> ame:	I			<u>U</u> pen
Files of type:	Rds pattern file (*.rds)		-	Cancel

② Select a file to be opened and click the [Open] button to open the selected RDS data file.

3-3-4 Saving RDS data

(1) Saving under a new name

Save the presently opened RDS data file under a new file name. Procedure is as follows:

① Select [File] - [Save As...] on the menu bar to open the following dialogue.

Save RDS Fil	e Select					? ×
Save jn: 🔁	RdsEditor		-] 🗹	<u> </u>	
rdsdata1.rd	ls					
	12					
File <u>n</u> ame:					<u>S</u> av	е
Save as <u>t</u> ype:	Rds pattern I	file (*.rds)		•	Cano	:el

② Enter a new file name in the [File name] box and click the [Save] button to save the RDS data file. The filename extension ".rds" is supplied.

(2) Overwriting

Overwrite the presently opened RDS data file and saved it.

Select [File] - [Save] on the menu bar to overwrite the file and save it.

NOTE

If you attempt to overwrite a newly created data having no file name, the dialogue shown in (1) above appears. Make sure to save the data under a new file name.

3-3-5 Importing text data file

The RDS data editor can read an RDS data file described in text format to open it for editing on the editor.

Given below is the text data format that can be imported.

- One line corresponds to one-group data.
- Each line is composed of four-block data.
- For each block data, 16-bit Information Word (see Fig. 1-1 of the paragraph 1-3) is described in hexadecimal notation.
- Spaces are used to separate each block.
- Group data after Number 2 048 group data in the file are ignored.



① Select [File]-[Import...] on the menu bar to open the file dialogue.

Convert NDS PI	le Select	
ファイルの場所(1):	C SampleData	- 🗧 🕂 🗊 -
Sample_Export	txt txt	

② Select a desired file and click the <Open> button to open the selected text data file on the RDS data editor.

3-3-6 Exporting text data file

The RDS data editor can save edited RDS data as RDS data file in text format.

The export function can be used to save the edited data as text data in the following format.

- One line corresponds to one-group data.
- Each line is composed of group numbers and four-block data.
- For each block data, 16-bit Information Word and 10-bit Check Word (see Fig. 1-1 of the paragraph 1-3) are described in hexadecimal notation.
- Spaces are used to separate each block.
- Error data, burst data, and local time data are not saved.



① Select [File]-[Export...] on the menu bar to open the file dialogue.

xport KDS File	Select	?
(保存する場所(I):	C SampleData	💽 🗧 🖻 🖝 💽
Sample_Export	txt txt	
ファイル名(<u>N</u>):	<u>[</u>	(保存(<u>S</u>)

② Input a desired file name in the [File name] box and click <Save> button to save the RDS data as a text data file. The extension of the file Is ".txt".

3-4 CREATING RDS DATA

3-4-1 Inputting group sequence

Create a group sequence of an RDS data to be outputted. Up to 2 048 groups can be inputted.

(1) Operation procedure

- ① Click the mouse on the group sequence data display area.
- 2 Double click the mouse on the position where data is entered.
- ③ Select a group type.

Double click the mouse on the position where data is entered

Eile E	Editor dit Option Sy	step			_ 🗆 ×
- Group) Sequence (ENELEC] [REP	2]	- Code Data [(CENELEC]
Adrs	+0 +1 +2 +3	+4 +5 +6 +7 +8	3 +9 +A +B +C +D +E +F -	Block 1 :	*****
0000	0A 0A			Block 2 :	*****
0010	GROUP TYPE	(CENELEC)			× ******
0020					
0030	00 0A	Basic t	uning and switching in	formation	
0040	01 0B	Basic t	uning and switching in	formation	
0050	02 1A	Program	me Item Number and slo	w labeling codes	; =
0060	03 1B	Program	me Item Number		
0070	04 2A	RadioTe	xt		
0080	05 2B	RadioTe	xt		
0090	06 3A 🔍	Applica	tions Identification f	or ODA	
OOAO	07 3B	Open Da	ta Applications		▼
00B0	i				

Select a group type

Instead of steps ② and ③ above, there is a way to enter a group type directly from the keyboard.

Example) To enter type "0A"

Enter "0" from the keyboard to open the setting dialogue. Then enter "A" \rightarrow "return", and the type "0A" appears on the current cursor position.

GROUP TYP	E 🗵
GROUP	OA
Ok	Cancel

It is possible to select whether the specified data is inserted or overwritten before inputting the data.

To switch modes, press the <Insert> key.

Currently selected mode is displayed above the frame of the group sequence data display area.

[REP] : Overwrite mode

[INS] : Insertion mode

(2) Edit function

The following edit operations are available on the group sequence data display area.

(a) Copy

①Drag data to be copied with the mouse. [Select] appears above the frame of the group sequence data display area.

	🔍 RD	S E	Edito	or															
	<u>F</u> ile	<u>E</u> d	lit	Qpi	tion	3	/ste	m											
F	Gro	up	Se	eque	enc	e ()	CEN	ELE	C]	[]	REP	1[SE	LEC	T]	-			
	Adrs	5	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	
	0000)	4A	0A	2A	0A	ЗA	7A	ΟA	2A	0A	7A	7A	7A					
	0010)																	
	0020	D																	
	0030)																	

②Select [Edit] - [Copy] on the menu bar.

(3) Move the cursor to a position to insert the data.



④Select [Edit] - [Paste] on the menu bar to paste the copied data.

	🗏 RDS I	Edito	or															
	<u>F</u> ile <u>E</u> o	dit	Op	tion	<u>S</u>	yste	m											
F	Group) Se	eque	enc	e ()	CEN	ELE	C1	[]	REP	1 -							
	Adrs	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	
	0000	4A	OA	2A	0A	ЗA	7A	OA	2A	2A	OA	ЗA	7A	0A	7A	7A	7A	
	0010																	
	0020																	
	0030																	

(b) Cut

① Drag data to be cut with the mouse. [Select] appears above the frame of the group sequence data display area.

8	🕄 RD	S E	dite	or															
	<u>F</u> ile	<u>E</u> di	t	Opt	tion	3	/ste	m											
F	Gro	up	Se	que	ence	∍ [(CEN	ELE	C1	[]	REP	1[SE	LEC	T]	-			_
	Adrs	5 -	ł٥	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	
	0000) 4	4A	0A	2A	0A	ЗĂ	7A	OA	2A	0A	7A	7A	7A					
	0010)																	
	0020)																	
L	0030)																	

② Select [Edit] - [Cut] on the menu bar.

📇 RI	DS E	dito	r															
<u>F</u> ile	<u>E</u> d	lit	Opt	tion	<u>S</u>	/ste	m											
Gr	oup	Se	que	ence	∍ [(CEN	ELE	C1	[]	REP	1 -							
Adr	s:	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	
000	0	4A	ΟA	0A	2A	ΟA	7A	7A	7A									
001	.0																	
002	20																	
003	80																	

③ Specify a position to paste the data and select [Edit] - [Paste] on the menu bar to paste the deleted data.

ł	🖺 RDS	Edit	or															
	<u>F</u> ile <u>B</u>	dit	Op	tion	<u>S</u>	yste	m											
r	- Grou	p S(eque	enc	e ()	CEN	ELE	C1	[]	REP	1 -							
l	Adrs	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	
l	0000	4A	0A	OA	2A	0A	7A	7A	7A	2A	0A	ЗA	7A					
l	0010																	
l	0020																	
I	0030																	

④ To delete one group, press the key to delete the group the cursor is sitting.

- (c) Find group
- ① Select [Edit]-[Find] on the menu bar to open the find dialogue.

	📲 RI)S Ed	litor		FILE	>>	San	nple	•_T	мс	r ds	¥					
	<u>F</u> ile	Edit	<u>O</u> pt	ion	Sys	stem											
r	Gre	<u>S</u> el	ect	(Dtrl+I	R	EC]	[]	EP	1 -							
I	Adr	Cut	ł	5	trl+)		+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	~
I	000	Cor	50		Stel+(÷	. 8A	0A	2A	8A	OA	ZA	88	OA	2A	88	
I	001	Pas	ete -	1	Strl+)	1	. OA	2A	8A	0A	2A	8A	OA	ZA	8A	FB	
I	002	7356	510		241153		. 8A	0A	2A	8A	OA	ZA	8A	0A	2A	8A	
I	003	<u> </u>	d	(Dtrl+I	21	. OA	ZA	8A	0A	2A	8A	OA	ZA	8A	FB	
I	004	Fin	d <u>N</u> e	xt I	-3		. 8A	0A	2A	8A	OA	ZA	8A	0A	2A	8A	
	0050	AO CA	ZA	8A	0A 2	A 84	OA .	2A	8A	OA	2A	8A	OA	ZA	8A	FB	
I	0060) 3A	0A	2A	8A 0	A ZA	. 8A	0A	2A	8A	OA	2A	8A	0A	2A	8A	5

② Set a group type to be found and the direction (Forward or Back).



- ③ Click the <OK> button to perform finding. If the specified group type is founded, the cursor moves on it.
- ④ When continuing the next finding, press the <F3> key on the keyboard.

RDS	Ed	ito	r	FIL	.E>	> (Sar	nple	•_T	мс	.rds	8					
<u>F</u> ile <u>E</u>	dit	Qp	tion	<u>S</u>	yste	m											
- Grou	p Se	eque	enc	e (CEN	ELE	(C]	[]	REP	1 -							
Adrs	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F	^
0000	ЗA	OA	2A	88	OA	ZA	8A	OA	2A	8A	OA	ZA	8A	OA	2A	88	
0010	OA	2A	8A	OA	2A	8A	OA	2A	8A	OA	2A	8A	OA	ZA	8A	FB	
0020	3A	0A	2A	8A	OA	2A	8A	0A	2A	8A	OA	2A	8A	0A	2A	88	
0030	OA	2A	8A	0A	2A	8A	OA	2A	8A	0A	2A	8A	OA	2A	8A	FB	
0040	3A	0A	2A	8A	OA	2A	8A	0A	2A	8A	OA	2A	8A	OA	2A	8A	
0050	OA	2A	8A	OA	2A	8A	OA	2A	8A	OA	2A	8A	OA	2A	8A	FB	
0060	3A	0A	2A	8A	OA	2A	8A	0A	2A	8A	OA	2A	8A	OA	2A	8A	

3-4-2 Inputting code data

Create data for each group type.

① Click the mouse on the code data display area.



The content of "0A" is displayed

② Double click the mouse on the code to enter data, and the setting dialogue appears according to the code.

Code Data	[C]	ENELEC]			PI	×
PI	-	0000	(hex)			_
TP	:	OFF			0000	(O-FFFF)
PTY	:	NONE			012	Cancal
TA	:	OFF				Cancer
M/S	:	SPEECH		Double click		
DI	:	0	(hex)			
Segment	:	0	(hex)			
AF1	:	00	(hex)			
AF2	:	00	(hex)			
PS1	:	00	(C (2)			
PS2	:	00	0.0			

③ Select items or enter numerals depending on the data to be entered.

To change a group for data inputting without exiting the code data display area, press the cursor move key ($\leftarrow \rightarrow$).

The cursor moves from the currently selected group to a newly selected group to display the items corresponding to the newly selected group on the code data display area.

3-4-3 Edit mode

The RDS data editor can create data to be entered in the following two modes.

- Auto edit mode...... The PI, PTY, TP, TA, and M / S codes handle the entire RDS data pattern as one for automatic generation. The automatic generation applies to addresses requiring address management; for instance, DI segment address, paging segment address, PSN code address and radio text segment address.
- Manual edit mode No automatic generation is performed, and the data entered from the code data display area is valid for one group which is currently displayed.
- ① Select [Option] [Edit Mode] on the menu bar. The mark appears at the left side of the currently selected mode.

l RD	S Ed	litor								
<u>F</u> ile	<u>E</u> dit	Option	System			-				
Gro	up S	<u>E</u> dit I	Mode		• <u>A</u> UTO					
Adrs	+0	Speci	fication	Þ	MANUAL	c	+D	+ E	+F	~
0000		29		-						
0010	E Citters	BT								1
0020	6	<u>15</u> 1	1000000 COLONO 12 100							
0030	8	TMC	(Multi Group)							
0040	18 - 14 A			_						

2 Select either of "AUTO" or "MANUAL".

When the manual edit mode is set, select [Option] on the menu bar to change the display as follows:



3-4-4 Selecting specifications

The RDS data editor can select either of CENELEC specification of European countries or NAB specification of the United States to enter data from the code data display area.

① Select [Option] - [Specification]. The ● mark appears at the left side of the currently selected specification.



② Select either of "CENELEC" or "RBDS". The selected specification "CENELEC" or "NAB" is displayed above each frame of the group sequence display area, code data display area, and HEX data display area.

3-4-5 Creating PS data

The auto edit mode of the RDS data editor can edit PS (Program Service name) code data as a single unit.

Set the auto edit mode (3-4-3 Edit mode) of the RDS data editor and enter an 8-character PS code in the PS code entry dialogue to automatically assign the PS code to the group 0A and 0B placed on the group sequence display area. At this time, segment addresses of 0A or 0B are set to 0 to 3 automatically and successively.

① Select [Option]-[PS] on the menu bar to open the PS code entry dialogue.

Enter an 8-character PS code and click the <OK> button.

Pros	ram Service	Name 🛛 🔀
PS	TEST_TMC	Ok
	·	Cancel

3-4-6 Creating RT data

The auto edit mode of the RDS data editor can edit RT (Radio Text) code data as a single unit.

Set the auto edit mode (3-4-3 Edit mode) of the RDS data editor and enter up to 64-character RT code in the RT code entry dialogue to automatically assign the RT code to the group 2A and 2B placed on the group sequence display area. At this time, segment addresses of 2A or 2B are set to $0_{\rm H}$ to $F_{\rm H}$ automatically and successively. RT of the group type 2B is limited up to 32 characters.

① Select [Option]-[RT] on the menu bar to open the RT code entry dialogue.

Enter RT code for each 2A and 2B and click the <OK> button.

Radiote	xt	
Text A	*** leader AM/FM Signal Generator LG 3219 ***	Ok
Text B	*** leader RDS-TMC Editor for LG 3219 ***	Cancel

3-4-7 Creating TMC data

The auto edit mode of the RDS data editor can edit multi group messages of TMC (Traffic Message Channel: ENV 12313-1:1998) codes as a single unit.

Set the auto edit mode (3-4-3 Edit mode) of the RDS data editor and enter codes for each Direction, Extent, Event, Location, Option, and Message corresponding to CI codes 1 to 6 respectively in the multi group message edit dialogue to automatically assign each TMC code to the group 8A placed on the group sequence display area.

At this time, in the group type 8A, only "GROUP" that is specified to "MULTI" can be automatically edited. FI (First group Indicator), SG (Second group Indicator), and GSI (Group Sequence Indicator) of 8A are set automatically and successively.

Moreover, setting the number of repetitions (Repetition) of the multi group message sets the transmission repetition of the group type 8A automatically.

① Select [Option]-[TMC (Multi Group) on the menu bar to open the multi group message edit dialogue.

CI1 2	CI2 2	CI3 👩	CI4 0	C15 0	CI6
First Gr	oup	. <u> </u>		.055	
Directio Event (D	n Posit ec) 121	ive 💌	Extent Locatio	1 n (Hex) 12	_ _ :34
Option M [Labe]	essage		[Data]	[Group]
1 Speed	limit (5bi	.t)	t	.0 (Dec	:) 2
2 Explic	it start t:	ime (8bit	.) 6	i4 (Dec	:) 2
3 Explic	it stop t	ime (8bit) 8	0 (Dec	:) 2-3
Add	Del				

(2) Click a desired CI code tab to set each code. The "Location" code should be entered in hexadecimal notation.

③ Double click the "Event" code to display a list. Enter a finding character string at the upper left of the list or a finding code (decimal number) at the upper right of the list to display a candidate list. Select a desired event and press the <OK> button to reflect the set value on the multi group message edit dialogue in hexadecimal notation.

Event Edit Dialog	
[Find Text]	[Find Code]
slow	
[Text List]	[Code List]
slow traffic (with average speeds Q)	115 🔺
Slow traffic due to (Q)earlier accident(s)	383
slow traffic expected	121
slow traffic for 10km (with average speeds Q)	120
slow traffic for 1km (with average speeds Q)	116
slow traffic for 2km (with average speeds Q)	117
slow traffic for 3km (with average speeds Q)	134
slow traffic for 4km (with average speeds Q)	118
slow traffic for 6km (with average speeds Q)	119
slow vehicle lane blocked	645
slow vehicle lane closed	640
slush(above Q hundred metres)	1011
smog alert ended	40
smog alert	1332
	-
OK	Cancel

④ Up to 16 "Option Message" codes can be set. They can be added with the <Add> button and deleted with the button. Double click the label display area to display the label select dialogue. Click a desired label to determine it.

Labe	I Select 🛛 🔀
01	Duration (3bit)
11	Control code (3bit)
21	Length (5bit)
31	Speed limit (5bit)
41	Quantifier (5bit)
51	Quantifier (8bit)
61	Supplementary (8bit)
71	Explicit start time (8bit)
81	Explicit stop time (8bit)
91	Additional event (11bit)
101	Detailed (16bit)
111	Destination (16bit)
121	Reserved (16bit)
131	Cross linkage (l6bit)
141	Separator (Obit)
151	Reservrd2 (16bit)

(5) Double click the data display area of "Option Message" to display the parameter setting dialogue according to the item. On this dialogue, set data to each label.



- (6) As in the case of above, set each code to other CIs as required.
- ⑦ If the number of repetitions "Repetition" is set to 2 or more, each code specified on the multi group edit dialogue is assigned to the group 8A placed on the group sequence display area automatically and repeatedly by the number of times specified with "Repetition."
- ⑧ Finally, just a click of the <OK> button determines all edited TMC multi group messages.

3-5 BASIC OPERATIONS OF THE RDS LOADER

3-5-1 Starting and ending the RDS loader

(1) Starting the RDS loader

Double click the mouse on the RDS loader icon installed simultaneously with the RDS data editor in paragraph 3-2 to invoke the following initial screen of the RDS loader.

	Eile Edit Communication System								
Menu bar						Madal			
	📂		1	1 20	🖆 🏦	LG3219	-	selection	box
Tool bar	Pattern	No	Group		No	te			
	Pattern	0	0						
	Pattern	1	0						
	Pattern	2	0						
Pattern data table	Pattern	3	0						
display, area	Pattern	4	0						
uispiay area	Pattern	5	0						
	Pattern	6	0						
	Pattern	7	0						
	Pattern	8	0						
	Pattern	9	0						
	Pattern	10	0						
	Pattern	11	0						
	Pattern	12	0						
	Pattern	13	0						
	Pattern	14	0						
	Pattern	15	0						

Menu bar

Displays function menus required for operation in the tree style.

Tool bar

Displays some of frequently used functions with icons.

· Pattern data table display area

Used to register data created by the RDS editor with a specified pattern number.

Model selection box

Selects a model which RDS data are downloaded in. Data can be downloaded in the presently selected model.

(2) Ending the RDS loader

To end the RDS loader, click the 🛛 button or select [File] - [Exit] on the menu bar.

3-5-2 Selecting model

Select a model which RDS data are downloaded in.

Click the 🔽 button of the model selection box to open the following menu. Select LG3219.



3-5-3 Creating new RDS data table

Select [File] - [New] on the menu bar or click on the tool bar to clear the data on the pattern data table display area, and the initial screen shown in paragraph 3-5-1 appears to allow a new RDS data table to be edited.

3-5-4 Opening existing file

Open an existing RDS data table file. Procedure is as follows:

① Select [File] - [Open] on the menu bar or click

he tool bar to open the following dialogue.

Open			? ×
Look in: 🔁	RdsEditor	- 🗈 💆	
Rdstable.F	RDP		
File <u>n</u> ame:			<u>O</u> pen
Files of <u>type</u> :	TABLE FILE (*.RDP)	•	Cancel

② Select a file to be opened and click the [open] button to open the selected RDS data table file.

3-5-5 Saving the RDS data table

(1) Saving under a new file name

Save the presently opened RDS data table file under a new file name. Procedure is as follows:

① Select [File] - [Save As...] on the menu bar to open the following dialogue.

Save As				l l	? ×
Save jn: 🔁	RdsEditor	•	🖻 💆	<u> </u>	=
Rdstable.R	DP				
, File <u>n</u> ame:				<u>S</u> ave	
Save as <u>t</u> ype:	TABLE FILE (*.RDP)		•	Cancel	

② Enter a new file name in the [File name] box and click the [Save] button to save the RDS data table file. The filename extension ".RDP" is supplied.

(2) Overwriting

Overwrite the presently opened RDS data table file and save it.

Select [File] - [Save] on the menu bar or click how the tool bar to overwrite the file and save it.

NOTE

If no change is performed on the data table file after performing overwriting, overwriting operation cannot be performed on the data table file.

3-6 CREATING THE RDS DATA TABLE -

3-6-1 Import

Register an RDS data file to be downloaded with a specified pattern number. Up to 2 048 groups can be registered.

① Click a pattern number for registration.

🚰 RDS L	.OAI	DER				
<u>File</u> <u>E</u> dit	: <u>O</u>	ommunicat	tion <u>S</u> yste	em —		
<u>)</u>		1	148 L	治 🚖	LG3219	•
Pattern	No	Group		No	te	
Pattern	0	Ö				
Pattern	1.	0				K
Pattern	2	0				\sim
Pattern	3	0				
Pattern	4	0				
Pattern	5	0				
Pattern	6	0				
Pattern	7	0				

② Select [Edit] - [Import] on the menu bar or click dialogue.

Open			? ×
Look jn: 🔁	RdsEditor	💌 🗈 🗹	
rdsdata1.ro	ds to		
	22		
File <u>n</u> ame:			<u>O</u> pen
Files of <u>type</u> :	RDS Data File (*.RDS)	•	Cancel

③ Select a file to be imported and click the [Open] button to import the selected RDS data file.

The file name excluding the extension and the number of groups are displayed on the pattern data table. Up to 30 half-sized alphanumerics can be used for displaying file names.

Files can be imported until the number of groups of the registered pattern data reaches 2 048 groups.

🔚 RDS I				
<u>File E</u> dir	t 🤉	Zommuni	cation <u>S</u> ystem	
👌 💆			🚹 🌬 😭	LG3219 💌
Pattern	No	Group		Note
Pattern	0	0		
Pattern	1.	240	rdsdatal	
Pattern	2	0	$\left(\right)$	
Pattern	3	0	$\langle \rangle$	\backslash
Pattern	4	0	\setminus	\mathbf{i}
Pattern	5	0	The number	The file name
Pattern	6	0	of groups	excluding the extension
Pattern	7	0	or groups	

3-6-2 Editing file name

File names registered in the RDS data table can be edited to another file names. It is impossible to change original file names. (As for import, see paragraph 3-6-1.) Up to 30 half-sized alphanumerics can be used for displaying file names.

- RDS LOADER File Edit Communication System 148 LG3219 -Pattern No Group Note Ö Pattern 0 240 rdsdatal Pattern Pattern 0 2 Pattern 3 0 0 4 Pattern 0 5 Pattern Pattern 6 0 Pattern 7 0
- ① Click a pattern number of a file name to be edited.

② Select [Edit] - [Note] on the menu bar or click dialogue.





③ Enter a file name and click the [OK] button to make the setting valid. Click the [Cancel] button to make the setting invalid.

3-6-3 Removing from registration

Registered pattern numbers can be removed.

① Click a pattern number to be removed from registration.

🔚 RDS L				
<u>File E</u> dit	ç	Zommunic	cation System	
ğ 💆			📤 🍡 😩 🏦 🛯 💽	T.
Pattern 1	No	Group	Note	
Pattern	0	0		-
Pattern	1	240	rdsdatal	
Pattern	2	240	rdsdata2	
Pattern	3	0		
Pattern	4	0		
Pattern	5	0		
Pattern	6	0		
Pattern	7	0		

② Select [Edit] - [Remove] on the menu bar to remove the registration.

RDS LOADER						
<u>File E</u> dit	Q	≥ommunic	cation <u>S</u> ystem			
ŭ 📁			📤 🦣 🖆 🏦 🔓 🔒	•		
Pattern	No	Group	Note			
Pattern	0	0				
Pattern	1	240	rdsdatal			
Pattern	2	0				
Pattern	3	0				
Pattern	4	0				
Pattern	5	0				
Pattern	6	0				
Pattern	7	0				

3-7 DOWNLOADING / UPLOADING RDS DATA

RDS pattern data table created by the RDS loader can be downloaded in the internal memory of the VP-8194D via the RS-232-C interface. Besides, the RDS pattern data table downloaded in the VP-8194D can be uploaded to a personal computer.

Given below are procedures for downloading and uploading.

3-7-1 Downloading RDS data

Download the RDS data table edited by the RDS loader in the internal memory of the VP-8194D.

- ① Select [Communication] [Download...] on the menu bar or click is button on the tool bar to open the setting dialogue of communication ports of a personal computer to be used for connection.
- ② Select a communication port of the personal computer to be used for connection and click the [OK] button to start downloading the RDS data in the internal memory of the VP-8194D.

3-7-2 Uploading RDS data

Upload the RDS data from the VP-8194D to the personal computer for displaying and editing them.

- ① Select [Communication] [Upload] on the menu bar or click button on the tool bar to display the setting dialogue of communication ports of the personal computer to be used for connection.
- ② Select a communication port of the personal computer and click the [OK] button to start uploading data on the pattern data table of the personal computer.

🔚 RDS LO	ADER	
<u>F</u> ile <u>E</u> dit	Communi	cation <u>S</u> ystem
👌 📁 🛛	J 🗐 🗮	🛓 🏊 😤 🔒 🔓
Pattern No	Group	Note
Pattern () 240	rdsdata0
Pattern 1	. 240	rdsdatal
Pattern 2	240	rdsdata2
Pattern 3	3 240	rdsdata3
Pattern 4	1 240	rdsdata4
Pattern S	5 240	rdsdata5
Pattern 6	5 240	rdsdata6
Pattern 7	240	rdsdata7
Pattern 8	3 0	
Pattern 9) O	
Pattern 10) 0	
Pattern 11	. 0	
Pattern 12	: 0	
Pattern 13	8 0	
Pattern 14	1 O	
Pattern 15	5 0	

3-7-3 Exporting RDS data

The RDS data which is up-loaded to PC from VP-8194D can be served as a file.

① Click a pattern number to be exported.

🛃 RDS LOADER							
<u>Eile E</u> di	t⊈	ommunic	cation <u>S</u> ysti	em			
3 ~			14% 📥	🖀 🏦	LG3219	•	
Pattern No Group			Note				
Pattern	0	240	rdsdata0				
Pattern	1	240	rdsdatal				
Pattern	2	240	rdsdata2				
Pattern	3	240	rdsdata3				
Pattern	4	240	rdsdata4				
Pattern	5	240	rdsdata5				
Pattern	6	240	rdsdata6				
Pattern	7	240	rdsdata7				
Pattern	8	0					
Pattern	9	0					
Pattern	10	0					
Pattern	11	0					
Pattern	12	0					
Pattern	13	0					
Pattern	14	0					
Pattern	15	0					

② Select [Edit] - [Export] on the menu bar or click on the tool bar to open the following dialogue.

Save RDS File S	Select		?
保存する場所(]):	C RDS_Data	- + 1) 💣 🃰
📾 rdsdata1 rds			
ファイルタ(N):	Indediata) inde		- (목在(S)
ファイルの種類(T):	Bds pattern file (*rds)		1本1+(型) 本お`パヤル

③ Input the file name and click the [Save] button to save the exported RDS data in the file.

LEADER

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