34.   Voice Data Frame

name [Voice Data Frame]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	B1		Voice Distribution Header		a
2	O1	BR		(Boundary Adjustment Area)	(1)	c
3	O2	B3		A Sequence of General-purpose Voice Real Data		c
4	O3	B4		A Sequence of Proper Voice Real Data	(2)	c

(1)   Area used to adjust the start position of general-purpose voice real data to a boundary conforming to the voice reproduction method, using the general-purpose voice distribution header as the reference.

(2)   Proper voices represent proper names such as place names, and point to real data directly from route guidance data, etc.

34.1   Voice Distribution Header

name [Voice Distribution Header]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	,S	SWS	Voice Distribution Header Size		a
2	4	2	N	Number of General-purpose Voice Languages		a
3	6	B1		A Sequence of General-purpose Voice Offset Management Tables	(1)	c
4	O1	B2		General-purpose Voice Offset Information		c
5	O2	4	LWS	Proper Voice Real Data Size	(2)	a

(1)   A Sequence of General-purpose Voice Offset Management Tables

As many tables as the "number of general-purpose voice languages" are created.

(2)   Proper Voice Real Data Size

The size of the entire proper voice real data sequence, from the beginning of the proper voice real data sequence to the end of the voice data frame, is indicated.

name [General-purpose Voice Offset Management Table]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	2	N	Number of General-purpose Voice Offset Management Records		a
2	1	B1		A Sequence of General-purpose Voice Offset Management Records	(1)	c

(1)   A Sequence of General Voice Offset Management Records

As many records as the "number of general-purpose voice offset management records" are created.

name [General-purpose Voice Offset Management Record]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	12	N	Manufacturer Identification		a
2	12	2	N	Usage Identification	(1)	a
3	14	2	B:B	Speaker Code + Reproduction Method Identification	(2)	a
4	16	2	N	Number of Voices		a
5	18	4	D	Offset to the General-purpose Voice Offset Table	(3)	b
6	22	4	SWS	General-purpose Voice Offset Table Size		b

(1)   Usage Identification

Value	Meaning
10h	Voice Guidance A (minimum set. It is recommended that it be resident.)
11h	Voice Guidance B (other than A)
20h to 2Fh	Point Memory Tone (Alert Sound)
30h to 3Fh	Voice Guidance for Operation
E0h to FFh	Manufacturer-specific Voice (dependent on the manufacturer Identification)
Other	(RESERVED)

(2)   Speaker Code + Reproduction Method Identification

No.	Bit	Description
1	15 to 8	Speaker Code
2	7 to 0	Reproduction Method Identification

Speaker Code

The identification codes used to maintain speaker consistency when multiple natural voices are to be uttered in succession are given below.

Reproduction Method Identification

Value	Meaning
01h	CD-DA
02h to 0Fh	Reserved
10h	CD-I ADPCM Class A Mono
11h	CD-I ADPCM Class A Stereo
12h	CD-I ADPCM Class B Mono
13h	CD-I ADPCM Class B Stereo
14h	CD-I ADPCM Class C Mono
15h	CD-I ADPCM Class C Stereo
16h	2.2S Full-rate ADPCM Mono (recommended by Navigation Research)
17h	2.2S Full-rate ADPCM Stereo (recommended by Navigation Research)
18h	2.2S Half-rate ADPCM Mono (recommended by Navigation Research)
19h	2.2S Half-rate ADPCM Stereo (recommended by Navigation Research)
1Ah to 1Fh	Reserved
20h	MPEG Audio
21h to 2Fh	Reserved
30h	Dolby-AC-3
31h to 3Fh	Reserved
40h	Linear PCM Full-rate
41h	Reserved
42h	Linear PCM Half-rate
43h to FFh	Reserved

(3) Offset to the General Voice Offset Table

    Offset from the beginning of a general-purpose voice data frame

name [General-purpose voce Offset information]

As many instances of this information as the total "number of voices in general-purpose voice offset management records" are created.

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	B1		A Sequence of General-purpose Voice Offset Tables		

name [General-purpose Offset Table]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	4	N	Voice Data ID		a
2	4	2	N	Number of Composition Phrases	(1)	a
3	6	B1		A Sequence of General-purpose Voice Offset Records	(2)	c

Arranged in the ascending order of voice data IDs.

(1) Number of Composition Phrases

    The number of phrases corresponding to the voice ID is set. A number of 2 or greater indicates a complex voice.

(2) A Sequence of General-purpose Voice Offset Records

    As many records as the "the number of composition phrases" are created.

name [General-purpose Voice Offset Record]

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0	4	D	Offset to the General-purpose Voice Real Data	(1)	a
2	4	2	SWS	General-purpose Voice Real Data Size		a

(1) Offset to General-purpose Voice Real Data

    Offset from the beginning of a general-purpose voice data frame

34.2   General-purpose Voice Real Data

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0			Voice Data		a
2				Padding required to adjust the general-purpose voice real data to the byte length dependent on the reproduced voice identification		c

34.3   Proper Voice Real Data

No.	Offset	Data length	Data type	Item name	Remarks	Classification
1	0			Voice Data		a
2				Padding required to adjust the proper voice real data to the byte length dependent on the reproduced voice identification		c