



# National Marine Electronics Association

International Marine Electronics Association

## Technical Bulletin

Technical Corrigendum TC# 2000 20160725

NMEA 2000 Edition 3.101 March 2016

NMEA Network Message Database Version 2.100 February 2015

PGNs 130569 Version 2

### Introduction:

This Technical Corrigendum fixes a Field omitted in the Technical Corrigenda TC # 2000 2010715 of PGN 130569. The total number of fields should be 17 not 16. Field 16 was added. The developer should utilize this Corrigenda when developing and implementing PGN 130569. This PGN will be published in the next version of the NMEA Message Database. The new 130569 is below.

### Change summary

#### PGN 130569:

- In Technical Corrigenda TC # 2000 2010715
- Field 16 = "Total Number of Tracks"
  
- In Technical Corrigenda TC # 2000 2010725.
- Field 16 was added "Delete Favorite Number"
- Field 17 is now "Total Number of Tracks" (previously Field 16)



Details the current file being played and the current play status by Audio/Video zone.

Sent on start up, upon any change, upon request and periodically while a Audio/Video device is playing a file. Fields can be commanded by a client using the NMEA Command Group Function ( PGN 126208 ) to change the currently playing audio/video source, current file, adjust volume, change the playing status, save a favorite or tune a radio source. A device receiving an ISO Request ( PGN 059904 ) for this PGN, shall respond by providing as many of these PGNs as necessary for every Audio/Video zone.

If a Request Group Function ( PGN 126208 ) requesting this PGN is received, the receiving device shall respond in the following manner :

- If no requested fields have been included with the Request Group Function then the response is to return one or more PGNs, just like responding to the ISO Request ( PGN 059904 ).

- If the Request Group Function ( PGN 126208 ) includes the Zone Number, Audio/Video Source Type, Audio/Video Source Number or File ID fields, then the response shall be filtered by these fields contained within this request resulting in one or more responses. If the fields requested are not valid then the appropriate response would be the Acknowledge Group Function ( PGN 126208 ), containing the error state for PGN error code ( Field 3 ) of "0x3 = Access denied". If an individual field is invalid the field parameter error code for that field shall be "0x3 = Requested or command parameter out-of-range". If the individual fields are valid but the combination of fields together are invalid then just the error state for PGN error code ( Field 3 ) of "0x3 = Access denied" would be in the Acknowledge Group Function ( PGN 126208 ) response.

PGN Transmit Frequency is 1 cycle per second per Audio/Video Zone.

Note 1:

When commanding Fields 6, 8, 9, 11, and 12: valid values for Fields 1, 2 ,and 3 shall be provided in the NMEA Command Group Function.

Note 2:

When commanding Fields 10, 14, 15, 16, 17: Valid values for Fields 1, 2, and 3 shall be provided and Field 1 shall be set to "zero" in the NMEA Command Group Function.

Some "Audio / Video Source Types", (Field 2), may not support playing different "File IDs", (Field 4) in different zones simultaneously. A change to Fields 4, 5, 6, 8, 9, 11, 14 and 15 in any zone will result in the same change in all zones from the same source.

Further details can be found in the NMEA2000 Entertainment Application Notes in Appendix D.

Single Frame: **N**      Priority Default: **6**      Default Update Rate: **500** milliseconds      Frequency: **2.** cycles per second  
 Destination: **Global**      Query Support: **Required**      Command Support: **Required**      ACK Rqmnts: **Yes**

Field #    Field Name Original Reference ID # 234

<b>1</b>	<b>Zone Number</b>	<i>Byte Field Size:</i>	<i>Request Parameter</i>	<b>Required</b>
		<i>Bit Field Size:</i> <b>8</b>	<i>Command Parameter:</i>	<b>Required</b>
	<b>DD396</b> Entertainment Zones	0 = All Zones 1 = Zone 1 2 = Zone 2 3 = Zone 3 4 = Zone 4 5 - 252 = User Defined 253 = Reserved 254 = Error 255 = Data Not Available		
	<b>DF52</b> Bit field	<b>bit(n)</b> <i>Range:</i> <b>Variable</b> <i>Resolution:</i> <b>1</b>		Used to construct bit fields

An Audio/Video zone is a room or area of the vessel in which sound will be distributed. Each zone can be separately controlled and could play a different source of audio or video.

<b>2</b>	<b>Audio/Video Source Type</b>	<i>Byte Field Size:</i>	<i>Request Parameter</i> Required
		<i>Bit Field Size:</i> <span style="border: 1px solid black; padding: 0 5px;">8</span>	<i>Command Parameter:</i> Required
	<b>DD389</b> Audio/Video Source Type	0 = Vessel Alarm 1 = AM 2 = FM 3 = Weather 4 = DAB 5 = Aux 6 = USB 7 = CD 8 = MP3 9 = Apple iOS 10 = Android 11 = Bluetooth 12 = Sirius XM 13 = Pandora 14 = Spotify 15 = Slacker 16 = Songza 17 = Apple Radio 18 = Last FM 19 = Ethernet 20 = Video MP4 21 = Video DVD 22 = Video BlueRay 23 = HDMI 24 = Video 25 - 252 = User Defined 253 = Reserved 254 = Error 255 = Not available	
	<b>DF52</b> Bit field	<b>bit(n)</b> <i>Range:</i> Variable	<i>Resolution:</i> 1 Used to construct bit fields

<b>3</b>	<b>Audio/Video Source Number</b>	<i>Byte Field Size:</i> <span style="border: 1px solid black; padding: 0 5px;">1</span>	<i>Request Parameter</i> Required
		<i>Bit Field Size:</i>	<i>Command Parameter:</i> Required
	<b>DD005</b> Generic numeric ID, short	Number of route, waypoint, event, mark, etc.	
	<b>DF53</b> Integer, 8 bit unsigned	<b>uint8</b> <i>Range:</i> 0 to 252	<i>Resolution:</i> 1 bit Unit-less number
	Audio/Video Source Number per Type. There can be more than one of each type of audio source available on a A/V Device (e.g. 3 USB Sources).		

<b>4</b>	<b>File ID</b>	<i>Byte Field Size:</i> <span style="border: 1px solid black; padding: 0 5px;">4</span>	<i>Request Parameter</i> Required
		<i>Bit Field Size:</i>	<i>Command Parameter:</i> Required
	<b>DD010</b> Generic numeric ID, large	Number of route, waypoint, event, mark, etc.	
	<b>DF55</b> Integer, 32 bit unsigned	<b>uint32</b> <i>Range:</i> 0 to 4,294,967,292	<i>Resolution:</i> 1 bit Unit-less number
	ID of a file, song, station which is unique per Audio/Video source.		

5	<b>Play Status</b>	<i>Byte Field Size:</i>	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i> <input type="text" value="8"/>	<i>Command Parameter:</i>	Required
	<b>DD390</b> Play Status			
		0 = Play (Normal functionality) 1 = Pause 2 = Stop 3 = FF (1x) 4 = FF (2x) 5 = FF (3x) 6 = FF (4x) 7 = RW (1x) 8 = RW (2x) 9 = RW (3x) 10 = RW (4x) 11 = Skip Ahead 12 = Skip Back 13 = Jog Ahead 14 = Jog Back 15 = Seek Up 16 = Seek Down 17 = Scan Up 18 = Scan Down 19 = Tune Up 20 = Tune Down 21 = Slow Motion (.75x) 22 = Slow Motion (.5x) 23 = Slow Motion (.25x) 24 = Slow Motion (.125x) 25 - 252 = User Defined 253 = Reserved 254 = Error 255 = Not available		
	<b>DF52</b> Bit field	<b>bit(n)</b>	<i>Range:</i> Variable	<i>Resolution:</i> 1 Used to construct bit fields
6	<b>Elapsed Track/Chapter Time</b>	<i>Byte Field Size:</i> <input type="text" value="2"/>	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i>	<i>Command Parameter:</i>	Note 1
	<b>DD391</b> Time, Standard			
		Time, 1 Second Resolution		
	<b>DF80</b> Time, 1sec	<b>uint16</b>	<i>Range:</i> 0 to 65532 seconds	<i>Resolution:</i> 1 second
7	<b>Track/Chapter Time</b>	<i>Byte Field Size:</i> <input type="text" value="2"/>	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i>	<i>Command Parameter:</i>	Optional
	<b>DD391</b> Time, Standard			
		Time, 1 Second Resolution		
	<b>DF80</b> Time, 1sec	<b>uint16</b>	<i>Range:</i> 0 to 65532 seconds	<i>Resolution:</i> 1 second
8	<b>Repeat Status</b>	<i>Byte Field Size:</i>	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i> <input type="text" value="4"/>	<i>Command Parameter:</i>	Note 1
	<b>DD392</b> Repeat			
		0 = Off 1 = One ( Current File ) 2 = All ( Play Queue ) 3 - 14 = Reserved 15 = Data Not Available / Do Not Change		
	<b>DF52</b> Bit field	<b>bit(n)</b>	<i>Range:</i> Variable	<i>Resolution:</i> 1 Used to construct bit fields

**9 Shuffle Status** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:*  *Command Parameter:* Note 1

**DD393** Shuffle

- 0 = Off
- 1 = Play Queue
- 2 = All
- 3 - 14 = Reserved
- 15 = Data Not Available / Do Not Change

**DF52** Bit field **bit(n)** *Range:* Variable *Resolution:* 1 Used to construct bit fields

If the shuffle status is set to Play Queue the A/V device will play all the files in the Play Queue in random order.

If the shuffle status is set to all the A/V device will play all files from a source in a random order. The A/V Device will no longer play files in the Play Queue.

**10 Save Favorite Number (write only)** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 2

**DD005** Generic numeric ID, short

Number of route, waypoint, event, mark, etc.

**DF53** Integer, 8 bit unsigned **uint8** *Range:* 0 to 252 *Resolution:* 1 bit Unit-less number

Used to save current station as favorite. Tuner based sources only: AM/FM/DAB/SiriusXM.  
 When this PGN is generated as a status or report, this field is set to not available (0xFF).

**11 Play Favorite Number** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 1

**DD005** Generic numeric ID, short

Number of route, waypoint, event, mark, etc.

**DF53** Integer, 8 bit unsigned **uint8** *Range:* 0 to 252 *Resolution:* 1 bit Unit-less number

Used to command AV to play indicated favorite station

**12 Thumbs Up/Thumbs Down** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:*  *Command Parameter:* Note 1

**DD394** Thumbs Up / Thumbs Down

- 0 = None
- 1 = Thumbs Up
- 2 = Thumbs Down
- 3 - 253 = Reserved
- 254 = Error
- 255 = Data Not Available

**DF52** Bit field **bit(n)** *Range:* Variable *Resolution:* 1 Used to construct bit fields

**13 Signal Strength** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Optional

**DD263** Generic Absolute Percentage 0-252%

**DF93** Percent, Absolute **uint8** *Range:* 0 - 252% *Resolution:* 1%

Generic Absolute Percentage 0-252%

**14 Radio Frequency** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 2

**DD016** Radio Tx or Rx Frequency

**DF21** Frequency **uint32** *Range:* 0 to ~4.295x10E+10 Hz *Resolution:* 10 Hz

**15 HD Frequency Multicast** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 2

**DD005** Generic numeric ID, short Number of route, waypoint, event, mark, etc.

**DF53** Integer, 8 bit unsigned **uint8** *Range:* 0 to 252 *Resolution:* 1 bit Unit-less number

Digital sub channel used for multicasting digital radio or television stations on a single frequency.

**16 Delete Favorite Number** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 2

**DD005** Generic numeric ID, short Number of route, waypoint, event, mark, etc.

**DF53** Integer, 8 bit unsigned **uint8** *Range:* 0 to 252 *Resolution:* 1 bit Unit-less number

Used to delete a station as favorite. Tuner based sources only: AM/FM/DAB/SiriusXM. When this PGN is generated as a status or report, this field is set to not available ( 0xFF ).

**17 Total Number of Tracks** *Byte Field Size:*  *Request Parameter:* Optional  
*Bit Field Size:* *Command Parameter:* Note 2

**DD007** Generic numeric ID, medium Number of route, waypoint, event, mark, etc.

**DF54** Integer, 16 bit unsigned **uint16** *Range:* 0 to 65,532 *Resolution:* 1 bit Unit-less number

Number of Tracks/files in current album, playlist or folder