



Direct CT Button To Receiver Set-up Instructions

Activation of Pre-Recorded Messages

To trigger a pre-recorded message stored on the speakers/receivers you will need to send a Generate Message command to an alphanumeric or alpha pager type device ID (usually #300, or #099 for all devices by default.)

The **GM** command format is: **GMTDVPR**

- **GM**: Generate Message. Needs to be in front of the command, this tells units what type of command it is.
- **TT**: This is the two-digit number of the audio file you wish to play. You can find the built-in audio files on our website in Resources> Audio Samples> Built-In Audio Files. For example, if you want to play the D2 tone, it would be "02".
- **D**: Duration, 1-9. This makes the audio file play again with no delay, and can make certain tones sound longer. I recommend just leaving this set to 1.
- **V**: Volume, 1-4. 1 is 25% volume, 2 = 50%, 3 = 75%, 4 = 100%.
- **P**: Pause, 1-9. How many seconds you would like to pause between repeating the message. 2 seconds is the most common.
- **R**: Repeats, 1-9. How many times you want it to play the message. You can also use the letter A for 20 repeats, B = 60, C = 120, and D = 240.

So, for example, you can use GM021323. It will play audio file #02, (the two-beep tone) with 1 duration, 75% volume. It will play it 3 times, with a 2 second pause between repeats.

Also, with the GM commands, there are two optional digits you can have on the end of that command making it an 8-digit command. Those are used to play a tone before the audio file. For example, if you wanted to play the "evacuation emergency" message, with a two-tone beep in front of the message you would add "21" to the end of the command. The first digit, #2 is the number of the tone it plays, the second digit #1 is for how many times to play the tone. So, the command would be GM04132321. This feature does not work on some older units.

Activation of Strobe Lights (No Controller)

For strobe lights, you can send a Strobe command. This will be used to activate lights on VNS2620s, VNS2640s, VNS2710s and VNS2720s.

The **ST** command for strobe lights is: **STMCBTTTTTA***

- **ST**: Strobe Command. Needs to be in front of the command, this tells units what type of command it is.
- **M**: Mode, 0-4, 0 is off, 1 = on, 2 = slow flash, 3 = fast flash, 4 = strobe.
- **C**: Color, 1-9. 1=amber, 2=green, 3=blue, 4=white, 5=red; 6-9 are custom colors that can be programmed with VPS.
- **B**: Brightness, 1-9.
- **TTTT**: Time. How many seconds the lights will stay on for, must be 5 digits.
- **A**: Alert, 0-9. 0 = no alert. Plays a tone when activating the lights.

For example, if you want the strobes to come on and flash red at high brightness, quickly for 2 minutes, the command would be ST258001200*

ST0* is the command to turn off the strobes.

Activation of Strobe Lights (Controller)

For the Strobes connected to the VNS22xx Controller units, they get a simple **CD** command that just toggles on or off, and for how long.

The **CD** command format is: **CDMTTTT***

- **CD**: Needs to be in front of the command, this tells units what type of command it is.
- **M**: Mode, 0 or 1. 0 is off, 1 is on.
- **TTTT**: Timeout. How many seconds the light stays on for. Must be 4 digits, if set to 0000 the strobe has no timeout.

For example, if you want the light to come on for a minute, the command is CD10060*.

To turn off the lights, the command is **CD00000***.

Activation of Corridor Lights

To activate older style Corridor Lights, you use the **VS** command.

The **VS** command format is: **VSSM***

- **VS:** Needs to be in front of the command, this tells units what type of command it is.
- **S:** Slot number 1-4. Which light is activating. Additionally, “A” for all lights, “B” for top two, “C” for bottom two.
- **M:** Mode, 0-4. 0 is off, 1 is on, 2 is slow flashing, 3 is fast flashing, 4 is strobe.

For example, to turn on the third light and have it flash slowly, the command would be **VS32***.

To turn off all the lights, the command is **VSA0***.

There is also an extended version of this command that works with the newer VNS2710 corridor lights, the **VSE** command. These newer units allow for different colors, adjustable brightness, a tone alert, and a timeout.

The **VSE** command format for this is **VSESMCBTTTTTA***

- **VSE:** Needs to be in front of the command, this tells units what type of command it is.
- **S:** Slot number 1-4. Which light is activating. Additionally, “A” for all lights, “B” for top two, “C” for bottom two.
- **M:** Mode, 0-4. 0 is off, 1 is on, 2 is slow flashing, 3 is fast flashing, 4 is strobe.
- **C:** Color, 1-9. 1=Amber, 2=Green, 3=blue, 4=white, 5=red; 6-9 are custom colors that can be programmed with VPS.
- **B:** Brightness, 1-9. 1 is min brightness, 9 is max brightness.
- **TTTTT:** Timeout in seconds. Must be 5 digits, how many seconds the light will be on.
- **A:** Alert, 0-3. 0 = none, 1 = tone, 2 = long tone, 3 = repeating beeps

Multimedia Commands

Unfortunately, there’s not a good way to do multiple commands at once due to the restriction of how many characters you can type in the message field. There are multimedia commands that can do more than one thing at a time, but once you add a text message into it, you start to run out of space. If you wanted a command to activate an audio message with a pre-tone, strobes, then text, the command format is **MMD-GMxxxxxxx*STxxxxxxx*SBxxxxxxx*Message**. The **SB** command is what goes with text when you send a message. You’ll notice in the view last messages screen after you send something to the signboards that it will have this command before the text.

The format for it is: **SBSSMFPTA***

- **SB:** Signboard Command. Needs to be in front of the command, this tells units what type of command it is.
- **SS:** Slot number, 00-99. 99 just writes to the next available slot. Default is 00.
- **M:** Mode
- **F:** Format
- **P:** Scroll speed
- **T:** Timeout, 0-9 or A-I. 1-9 is 2 minutes –60 minutes, A-I is 5 seconds – 90 seconds
- **A:** Font, 0-9 and A-Z.

After the * is whatever text you want it to display. To clear the displays, the command is **SB****.

If you want to do the GM and ST commands together, the format is **MM5-GMxxxxxxx*STxxxxxxx***.

For the GM and SB commands, it is **MM9-GMxxxxxxx*SBxxxxxx*Text message**.

To send clear multimedia commands which will stop audio, turn off strobes, and clear signboards, the command is **MM0***. This function may not be compatible with some older units.

It is possible to do multiple commands with the wireless CT devices if you get the receiver to go with them. The way that the panic buttons work is that one button press can be programmed to send out multiple commands. This is the easiest way to get several different types of devices to do everything that you want with the press of a button or the pull of a switch.

Programming the Timer/Counter

The format for the timer is: **STMAMETTTTTR***

- **STM:** Needs to be in front of the command, this tells units what type of command it is.
- **A** – Timer action (1-7). 1-Count down, 2-Count up, 3- Pause, 4-Resume down, 5- Resume up, 6-Restart, 7-stop
- **M** – Counter Display mode (0-9). 1-Bold Center, 2-Bold Center, 3-Square Center, 4-Small Center (HHMMSS), 5-Small Bold Center (HHMMSS), 6-Big Bold Round Center, 7-Big Square Center, 8-Double Line Timer, Counter Small on the Right, 9-Double Line Timer, Small Bold Counter on the Right
- **E** – Counter elapsed tone (0-9). 0-No Tone, 1-9 is tone length in seconds
- **TTTTT** – Time to count to/from HH:MM:SS format
- **R** – Repeat Mode (0-9) – 0- no repeat, 9- keep repeating until stop

For example, **STM1810000100*** would give you a 10 second count down, showing the time on the top and count down on the second line. There would be a 1 second tone at the end of the counter

To stop the counter, the command is **STM7***

Programming & Activation Commands Summary

1. GMDTTLPREN – Pre-Programmed Message/Tone playback where:

GM – Fixed Preamble

TT – two-digit tone/message ID from 01-94

D – Tone extended duration from 0-9 times

L – Playback volume level from 1-4

P – Length of pause time between tone playback repeats from 0-9 seconds

R – Number of playbacks repeat times from 0-9 and A-D (20, 60, 120 & 240)

E – Pre-Tone playback of existing tones 0-9

N – Pre-Tone playbacks repeats 0-9

2. GMTTOLOO – FM radio activation/deactivation:

GM – Fixed Preamble

TT – Activation codes: 96 – Stop FM Radio, 95 - Start FM Radio

L - FM Radio Volume level from 1-4

OOO – 3 digits of FM activation period from 001-999 minutes whew 999 will be active till midnight

3. VMLTERM – Live Voice message:

VM – Fixed Preamble

L – Playback volume level from 1-4

T – Activation Time-Out 0-9 where 0=20 minutes and others multiple of 30 seconds

E – Pre-Tone playback of existing tones 0-9

R – Pre-Tone playback repeats from 0-9

M – Live Voice playback mode from 0-9

4. STMCBTTTTA* – Strobe light activation where:

ST – Fixed Preamble

M – Strobe light activation mode from 0-9 where 0 is off.

C – Strobe light color from 1-9

B – Strobe light brightness from 1-9

TTTTT – five-digit activation time duration from 00001 – 99999 seconds

A – Tone Alert (0-9) 0 – no alert

* – Mandatory message verification character

5. ST0* – Strobe light deactivation command

6. VSESMCBTTTT* – Dome light VNS2710 activation where:

VSE – Fixed preamble

S – Light Slot (1-4) or A for all light slots

M – Strobe light activation mode from 0-9 where 0 is off.

C – Strobe light color from 1-9

B – Strobe light brightness from 1-9

TTTTT – five-digit activation time duration from 00001 – 99999 seconds

A – Tone Alert (0-9) 0- No alert

* – Mandatory message verification character

7. VSSM* – Dome light VNS2710 old format activation where:

VS – Fixed Preamble

S - Light Slot (1-4), A for all, B for top two and C for bottom two light slots

M – Strobe light activation mode from 0-9 where 0 is off.

* – Mandatory message verification character

8. PDLXRGBW* – Color code programming (VNS2710, VNS26xx and VNS2720) where:

PDLX – Fixed preamble (?DLCx will read back the current color value)

X – Color ID to program (1-9 but programming software can limit to program only colors 6-9)

R - Red value 0-5

G – Green value 0-5

B – Blue value 0-5

W – White value 0-5;

* – Mandatory message verification character

9. PLCxc* – Light Slot default color programming for VNS2710 old activation format where:

PLC – Fixed preamble (?LCx will read back the current default slot color value)

X -- Light Slot (1-4)

C – Default Color ID (1-9)

* – Mandatory message verification character

10. PLBx* – Default color brightness programming for VNS2710 old activation format where:

PLB – Fixed preamble (?LB will read back the current default color brightness value)

X – Default Light Brightness (1-9)

* – Mandatory message verification character

11. PLSx* – Default buzzer mode programming for VNS2710 old activation format where:

PLS – Fixed preamble (?LS will read back the current default buzzer mode value)

X – Default Buzzer mode (1-9)

* – Mandatory message verification character

12. PLTxxxxx* – Default activation timeout for VNS2710 old activation format where:

PLT – Fixed preamble (?LT will read back the current default timeout value)

XXXXX -- Light Brightness (00000-99999) in seconds

* – Mandatory message verification character

14. PFMPvmsssq – Program FM radio parameters when (?FMP will return the current setup)

PFMP – Fixed preamble

V – FM audio level 0-4 where 0 leaves the level setup to the GM96 command

M – FM playback mode 0-9 (Bass boost, station RDA, etc.)

SSSS – station 0700 – 1100 (70 MHz – 110 MHz)

Q – FM squelch level 0-9

15. PFMStttt – Instantly starts FM radio playback where tttt is the timeout in seconds (99999 no timeout)

16. PFME – Stops FM radio playback

Message Board Setup & Activation:

1. RST – Clear Display and Restart the unit
2. SBssmfpta* – Old format of writing to display with same parameters

SS – Slot number 01-99

M – Message display mode (1-9)

F – Message display format (0-9, A-Z)

P – Message display scrolling speed (0-9)

T – Message timeout (0-9, A-Z) // see old timeout below

A – Font & Align format (0-9, A-Z)

* – Mandatory message verification character

If slot 99 is selected, writes to next available slot.

SBss0* – Clear slot ss (00-99)

SB0* - Clear all slots

SB** - Clear all slots

3. WSsmxcblfaypdetttt* - New format message writing with all possible parameters

SS – Slot number 01-99

M – Message display mode (1-9, A-Z)

X – Message display format (0-9, A-Z)

C – Message display color (0-9)

B – Message display brightness (0-9)

L – Message display flash mode (0-9)

F – Message display font (0-9, A-Z)

A – Message display align (0-9)

Y – Message display row location (0-9)

P – Message display scrolling speed (0-9)

D – Message display start delay (0-9)

E – Message display end delay (0-9)

TTTTT – timeout in seconds, 00000 – no timeout

* – Mandatory message verification character

If slot 99 is selected, writes to next available slot.

WSss0* – Clear slot ss (00-99)

WS0* - Clear all slots

WS** - Clear all slots

4. ?DM – Read the default message mode, size and string
5. PDMmxxxxsssssss... – Program default message mode and string

PDM1* – Enable default message display

PDM0* – Disable default message display

SSSS..... – Default Message string

6. ?TM – Read the time display mode
7. PTMx* - Program the time display mode

X – Time mode (0-9) 0- no time display

* – Mandatory message verification character

8. PCEmxcbfaypdeztttt* – Programming the default display values

M – Default message On-Screen Time (1-9, A-Z) (during multi-message display only)

X - Default display format (0-9, A-Z)

C – Default display color (0-9) // (Future feature, not applicable for now)

B – Default display brightness (0-9)

L – Default display flash mode (0-9) // Flash at the beginning

F – Default display font (0-9, A-Z)

A – Default display align (0-9)

Y – Default display row location (0-9)

P – Default display scrolling speed (0-9)

D – Default display start delay (0-9)

E – Default display end delay (0-9)

Z – Default Clock Mode (0-9)

TTTTT – Default timeout in seconds, 99999 – no timeout

* – Mandatory message verification character

9. ?CE – Read default parameters

10. STMametttttr – Activate Timer in display

A – Timer action (1-7) 1-Count down, 2-Count up, 3- Pause, 4-Resume down, 5- Resume up, 6- Restart, 7-stop

M – Counter Display mode (0-9)

E – Counter elapsed tone (0-9)

TTTTTT – Time to count to/from HH:MM:SS format

R – Repeat Mode (0-9) – 0- no repeat, 9- keep repeating until stop

11. CDB - Clear all display buffers and slots

12. CDS – Clear/Refresh Display screen

Fonts (for now): 0- 6x7 CAPS, 1-6x7, 2- 6x7 COND, 3-6x8, 4-8x8 BOLD, 5-5x11, 6-8x11 BOLD, 7-8x11, 8-9x13, 9-9x14

On-Screen Time: 1-5sec, 2-6-sec, 3-7sec, 4-8sec, 5-9sec, 6-10sec, 7-15sec, 8-20sec, 9-255sec, 10-4sec

Old Format Timeouts: 1-2min, 2-5min, 3-8min, 4-10min, 5-15min, 6 -20min, 7-30min, 8- 45min, 9-60min,

A-5sec, B-10sec, C-15, D-20sec, E-25sec, F-30sec, G-45sec, H-60sec, I-90sec

Multi-Media Paging Command

1. There are 16 possible multimedia commands combinations that each defines what of the four type of devices/media are to be activated/deactivated. The command IDs are from 0-9 and A-F
2. Each command format is defining what devices/media is included in the string:
 - a. Command-0 clear all 4 alert types (visual, text, voice and tone)
 - b. Command -1 Tone Alert (GM command)
 - c. Command - 2 Voice Alert (VM command)
 - d. Command -3 Tone & Voice Alerts (GM +VM commands)
 - e. Command – 4 Strobe Alert (ST command)
 - f. Command - 5 Tone & Strobe Alerts (GM + ST commands)
 - g. Command – 6 Voice & Strobe Alerts (VM +ST commands)
 - h. Command -7 Tone & Voice & Strobe Alerts (GM+VM+ST commands)
 - i. Command – 8 Message Board Text (WS or SB command)
 - j. Command -9 Tone & Text Alerts (GM + WS or SB commands)
 - k. Command -A Voice & Text Alerts (VM + WS or SB commands)
 - l. Command – B Tone & Voice & Text Alerts (GM+VM+WS or SB commands)
 - m. Command – C Strobe & Text Alerts (ST+WS or SB commands)
 - n. Command – D Tone & Strobe & Text Alerts (GM+ST+WS or SB commands)
 - o. Command – E Voice & Strobe & Text Alerts (VM+ST+WS or SB commands)
 - p. Command – F Tone & Strobe & Voice & Text Alerts (GM+ST+VM + WS or SB commands)
3. Each part of the multimedia alerts needs to be entered as described in the previous pages (see GM, VM, ST & WS commands). The multimedia command always starts with the preamble **MMx-**, where x is the command format number 0-9 or A-F. That way, a device that see the MM preamble with a command that don't contain a function it can perform (for example, MM3-...., will be ignored by VNS227x as it don't have the ability to do voice, tone or text message alerts).

Few Examples:

1. **MM5**-GM03110000*ST115001000* - Will activate tone 03 by VNS26XX, VNS24XX and VNS22xx devices, and turn on the strobe on VNS27XX, VNS2620 & VNS2640 devices.
2. **MMD**-GM01120000*ST228000100*SB9911510*THIS IS A TEST... - Will activate VNS22xx, VNS26XX and VNS24xx to play Tone 01, VNS27xx, VNS2620 & VNS2640 to respond to the strobe command and VNS2640 and all other new alphanumeric message boards to show the text part.
3. **MM0*** Will clear all active alerts on all perspective devices.