G1 SCBA Radio Pairing Guide for

KENWOOD VIKING®

VIKING VP5000 Series

VIKING VP6000 Series

KENWOOD VIKING Configuration Settings

Step 1. Update Kenwood Radio Firmware to 8.24.13 and Armada Programming Software to 1.24.13.

Step 2. Open the **Armada® Client Application**

Step 3. Connect the programming cable to the portable radio:

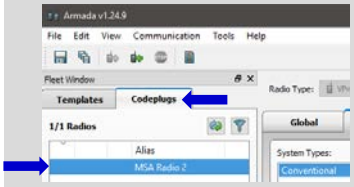
- Hook the pin end of the connector in the corresponding notch.
- Attach the connector with the UDC screw.
- Ensure the cable's selector switch for UART/USB is set to **USB**.

Step 4. Insert the USB end of the cable in the computer running Armada.

Step 5. Turn on the Kenwood Radio using the volume knob.

Wait a few seconds for it to complete its self-test.

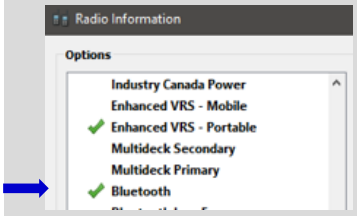
Step 6. The codeplug should automatically upload to the application and appear in list under the "Codeplugs" tab in the Fleet Management pane.



Step 7. Double click the radio on the "Codeplugs" tab to open the Radio Information dialog.

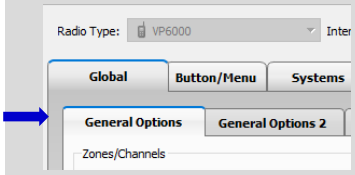
Ensure that the radio has the Bluetooth Option.

If it is not, contact 800.328.3911 x 3 or TechSupport@efji.com.
They will have to enable this feature with a separate utility.



Step 8. **General Options → Bluetooth**

Navigate to the "Global" tab and "**General Options**" sub-tab for the connected radio, set. In the bottom-right off the "General Options" screen is a "**Bluetooth**" group of settings:

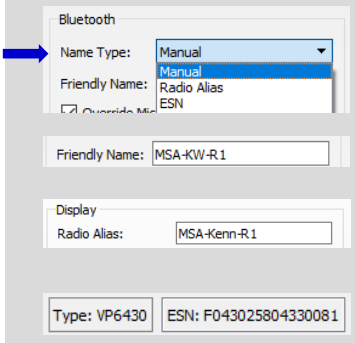


Step 9. Choose the source of the name which displays during pairing requests by using the "Name Type" option:

i. **Manual** – value entered into the "**Friendly Name**" field in "**Bluetooth**" group.

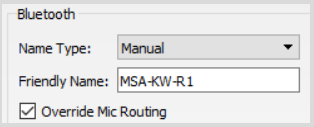
ii. **Radio Alias** – value entered into the "**Radio Alias**" field in the "**Display**" group. *(top middle of the same sub-tab)*

iii. **ESN** – Radio's ESN. *(the format displayed at the bottom of the application)*



Step 10. Check "**Override Mic Routing**" - to route microphone audio ONLY from the G1 SCBA's facepiece microphone.

(Overrides the Mic routing options on "Portable Options" sub-tab)



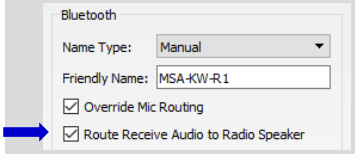
Step 11. **CHOICE** – Audio Output: "☐ Route Receive Audio to Radio Speaker":

- ☑ To route incoming audio to **Radio Speaker (or RSM, if attached)**
- ☐ To route Receive audio to the G1 SCBA's **Lapel Speaker**

Tip: A button (for instance: the ○/● Toggle switch), can be programmed to toggle between the Radio Speaker and G1 Lapel Speaker):

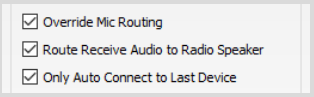
Requires Armada point release 8.24.12 and

Requires Radio Firmware 8.24.12



Under the "Button/Menu Tab" click the toggle switch in the image of the top of the radio (or use the Toggle dropdown) and set the value to Bluetooth Rx Audio.

(A) Check "**Only Auto Connect to Last Device**" so that the radio will Auto Connect to the last SCBA it is paired to.



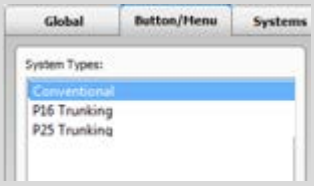
Button Options

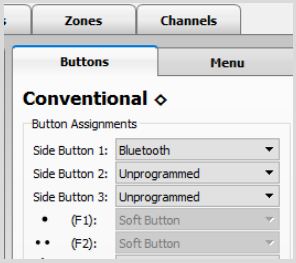
As described in the "**Tip**" above:

You can program various buttons to behave as desired, including the Bluetooth and Bluetooth Rx Audio functions.

Under the "Button/Menu" tab: Multi-select (highlight all) of the "System Types" to which you wish to apply these settings to.
(Only "Conventional" is selected in the image to the right.)

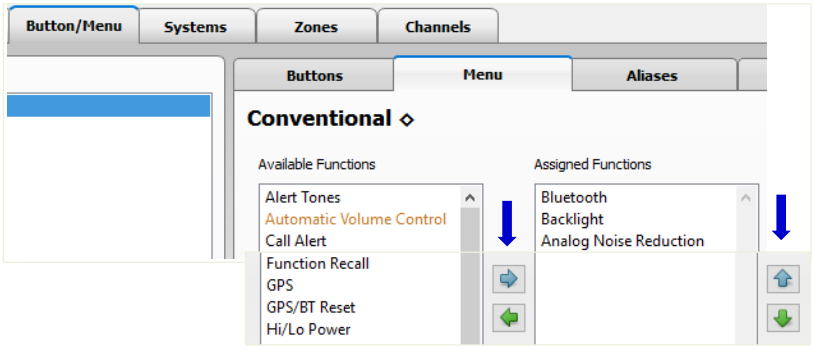
Then, in the "Buttons" sub-tab: Set Bluetooth and Bluetooth Rx Audio functions to the desired buttons.





Soft Menu Options

As described in the previous step, you can also configure the "Soft Menu Button" choices (such as "BT" and "BT RX") by **moving** items from "Available Functions" to "Assigned Functions" and **sorting** the order.



G1 Bluetooth Settings Tag

Creating a G1 SCBA Configuration Tag (for Bluetooth Pair Save Preferences)

The purpose of this section is to: (1) enable the Bluetooth radio on the G1 SCBA and
(2) to set Bluetooth Pair Save behavior based on the department's preference.

Step 1. Launch the MSA A2 Software.

Step 2. Select the "G1 Tags" Tile on the A2 Dashboard (Under the "G1 Devices" column).

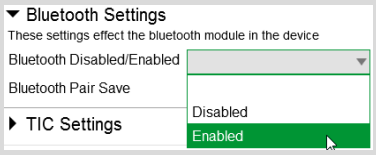
Step 3. Select tag type: "G1 Configurations"

Step 4. Select the Add (+) icon (top-right hand side of A2 application) to create the configuration template, which will be used to change these 2 settings.

Note: *Tag can be written without saving the template, but the template can be saved for future use if given a name:* Name BT Radio and Pair Save *The Save Icon (top-right) is enabled when the Name is filled in.*

Step 5. Enabling the G1 SCBA's Bluetooth Radio:

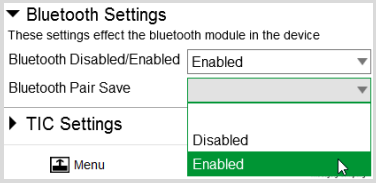
(A) Expand the "Bluetooth Settings" section.
(B) Change "Bluetooth Disabled/Enabled" setting to "Enabled".



Step 6. Preference Choice: "Bluetooth Pair Save" setting options:
(Generally, a department's operating procedures will determine its preference)

(A) To apply a Radio Pairing Tag every time SCBA is turned on, choose "Disabled"
(B) To retain the Radio Pairing on the SCBA until it's cleared *, choose "Enabled"

** - See "Clearing Radio Pairing Info from the G1 SCBA" page.*



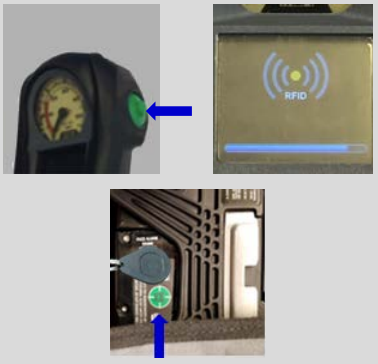
Step 7. Writing the G1 Configuration Tag:

(A) Place RFID Tag on the RFID Reader / Writer

(B) Select the Write G1 Tag icon (top-right hand side of A2 application)

Step 8. Applying the G1 Configuration Tag to the G1 SCBA(s):

(A) Power on the G1 SCBA
(B) **Press & hold** either of the **green** Control Module buttons to activate the RFID mode.
For iTIC Control modules: Press & Hold Both Green Buttons.
(C) Place Bluetooth Pairing Save Tag over G1 Power Module RFID Target.



The G1 SCBA is now configured with the settings:
- G1 Bluetooth is now enabled - G1 Bluetooth Pair Save (as chosen).

The G1 SCBA is now ready to accept a Radio Pairing tag.

Repeat this "Step 8" for each SCBA to apply these 2 settings.

Radio ID Pair Tag

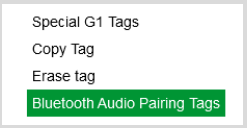
Creating a G1 SCBA KENWOOD VIKING Radio Pairing Tag

To pair the radio to the G1 SCBA, a “Bluetooth Audio Pairing Tag” needs to be created in the A2 Software. Once the Pairing Tag is created, it can be applied to the SCBA, which “programs” the SCBA to connect to that specific radio.

Step 1. Launch the MSA A2 Software

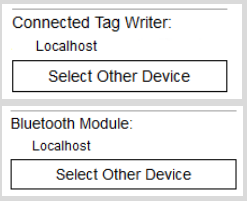
Step 2. Select the “G1 Tags” Tile on the A2 Dashboard (Under the “G1 Devices” column)

Step 3. Select tag type: “Bluetooth Audio Pairing Tags”



Step 4. Ensure that your PC's Bluetooth adapter is on, and selected for use in A2, and that your RFID Reader/Writer is connected and ready.

- Both modules appear in lower left of A2 display. Generally they will appear as the computer's name, or as "localhost".
- If either is not visible there or under "Select Other device": disconnect and reconnect the hardware;
- Restart the A2 service if necessary.



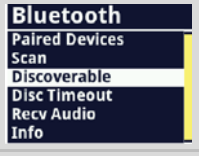
Step 5. Turn on the Kenwood Radio using the volume knob.

Step 6. Ensure Bluetooth is “ON” (enabled on the Radio) with either:

(A) The (Blue) Bluetooth Button
(B) If configured, the BT Soft Button (front Display)

Step 7. Make the Kenwood Radio Discoverable and setting Discoverability Timeout.

(A) Press and **hold** the Bluetooth button or soft button to enter the Bluetooth menu, and navigate to “**Discoverable**”.



(B) Set “Discoverable” to “**On**”.

(C) Return to the “Bluetooth” Menu using the “previous” button and select “**Disc Timeout**”.

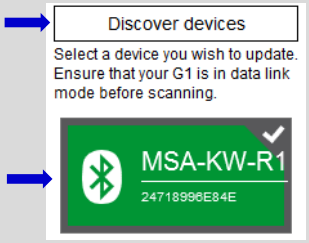
(D) Set the Discoverability Timeout.

Step 8. Discovering the Kenwood Radio in A2:

(A) Click “Discover Devices”

(B) Select the tile for the discovered Kenwood Radio in A2 to select it. The discovered device info will load on the screen:

Discovered Bluetooth Device	
Id	c5def139-c49b-42a0-925a-ab3c3b5e4e58
Display Name	MSA-KW-R1
Bluetooth Address	24718996E84E



Step 9. Writing the Bluetooth Audio Pairing Tag:

(A) Place RFID Tag on the RFID Reader / Writer

(B) Select the Write G1 Tag icon (top-right hand side of A2 application)

(C) Click “OK” on the “Tag was successfully written” dialog.

Note: Hovering over the icons will also show “Write Tag” or “Read Tag”.

Step 10. Verifying the Information Written to the Tag:

(A) Place RFID Tag on the RFID Reader / Writer

(B) Select the Read G1 Tag icon (top-right hand side of A2 application)

(C) The “Found Tag” screen will appear.

(D) Confirm the tag’s Bluetooth Address matches the Radio.

Found Tag	
UUID	1112
Display Name	MSA-KW-R1
Bluetooth Address	24:71:89:96:E8:4E
Pairing	SSPJustWorks
Pin	
Service	AudioGateway

The Radio Pairing tag is now created & can be used to pair this radio with a G1 SCBA.

Pairing G1 & Radio

Pairing a G1 SCBA and KENWOOD VIKING Radio

Ensure the Kenwood Radio is programmed correctly to connect with the G1 SCBA. Necessary and recommended settings are listed in the "KENWOOD VIKING Configuration Settings" page. Consult with your Radio Technician.

Step 1. Turn on the Kenwood Radio using volume knob.

Step 2. Verify that Bluetooth is turned-on on the radio Bluetooth icon is visible on radio display. (That Bluetooth capability is enabled)
If not visible, enable the radio's Bluetooth OR reconfigure radio.

Step 3. Verify the radio is Discoverable:

a) Open the Menu list.
b) Select the "Bluetooth" Menu
c) Select the "Discoverable" menu and select/verify "On"
d) Return to the Bluetooth Menu and select "Disc Timeout"
e) Choose "10 min" if you want discovery to disable after pairing, otherwise "Infinite".

Step 4. Power on the G1 SCBA.

Step 5. **Press & hold** either of the **green** Control Module buttons to activate the RFID mode.

For iTic Control modules: Press & Hold Both Green Buttons.

Step 6. **Register the Radio to the SCBA:** Place the Kenwood Radio **Pairing Tag** over the G1 Power Module **RFID Target**.

After the pairing tag is successfully read, a Bluetooth enabled G1 SCBA will search for a pairing partner for 8 minutes. The pairing process should be repeated if 8 minutes is exceeded.

Step 7. **Verifying** Pair.

a) Radio's Bluetooth Icon should now include Dots, and
b) The "Paired Devices" screen should display the G1 SCBA

The G1 SCBA & Kenwood Radio is now paired and ready for use.

- *After a successful pairing, if the regulator is shut off, the G1 SCBA will not remain connected to the radio, and the radio is available for non-Bluetooth use.*
- *The G1 SCBA will automatically reconnect to the radio when the end user turns on the G1 regulator & breathes.*

Using Paired G1 & Radio

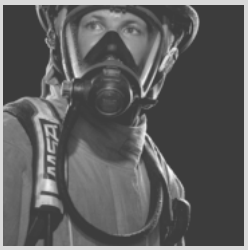
Using the G1 SCBA and KENWOOD VIKING Radio

Confirm that the G1 SCBA, and Radio, are paired together: Radio Tag has been applied (or applied previously and pair is saved)

Step 1. Turn on the Kenwood Radio using volume knob.

Step 2. Don the G1 SCBA and securely attach the G1 Facepiece to your face.

A poor facepiece seal can cause improper microphone performance, such as intermittent audio.

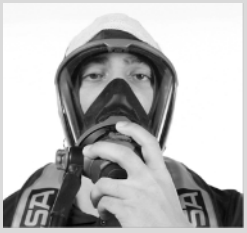


Step 3. Turn on the G1 SCBA via pressurization.

- The G1 SCBA will try to establish a Bluetooth connection to the **currently paired radio** for up to 8 minutes.
- When found, it will quickly connect and disconnect, (and is now ready to automatically activate when breathing.)

If the connection is not established, repeat the pairing process described in the previous section.

Step 4. Begin breathing (with the regulator attached).
The radio and SCBA will connect automatically (approx. 20 seconds).



All SCBA voice communication will now go from the SCBA through the portable radio.

Use Notes & Tips:

- Turn on the radio before you turn on the G1 SCBA.
- If the regulator is shut off, The G1 SCBA will not remain connected to the radio. The radio can be used by itself (no Bluetooth connection) when the regulator is shut off. The G1 SCBA will automatically reconnect to the Kenwood radio when breathing on the G1 regulator resumes.
- Verify both the incoming and outgoing audio functionality after you have established the Bluetooth wireless connection.

Best practice is to: Clear the pairing information **from both devices**—the radio & the G1 SCBA. This prevents the G1 SCBA from connecting to a previously-paired Bluetooth radio during the next start-up.

Clearing G1 SCBA Pair

Clearing Radio Pairing Info from the G1 SCBA

There are 3 methods for removing stored Radio pairing information from the G1 SCBA.

- All three methods are effective on G1 SCBAs configured with "Bluetooth Pair Save" being "Disabled"
- The "**Battery Removal Method**" is a popular method, however, note that this method is **NOT effective when the G1 SCBA is configured with the "Bluetooth Pair Save" setting set to "Enabled".**

Method 1 – Battery Removal *(Only effective when the G1 "Bluetooth Pair Save" setting is "Disabled")*

Step 1. Remove G1 SCBA Battery

Bluetooth audio pair info is cleared from the G1 SCBA.
Next → "Clearing Radio Pairing Info from the Kenwood Radio" in the next section.

Method 2 – Pair New Radio

Step 1. Pair a different Bluetooth Kenwood Radio with the G1 SCBA using the new radio's Bluetooth Audio Pairing Tag, as described in the "Pairing a G1 SCBA and Kenwood Radio" section.

Bluetooth audio pair info on the G1 SCBA is changed to the pair info for the new radio.
Next → "Clearing Radio Pairing Info from the Kenwood Radio" in the next section.

Method 3 – Use a "Reset Bluetooth Pairing" Tag

*If not yet created, create a **"Reset Bluetooth Pairing" Tag** in the A2 software, under "G1 Tags" tile → "Special G1 Tags" → expand "Reset Tags" list → Select "Reset Bluetooth Pairing"*

Step 1. **Press & hold** either of the **green** Control Module buttons to access the RFID mode display.

Step 2. Place the "Reset Bluetooth Pairing" Tag over the G1 Power Module RFID Target.

Bluetooth audio pair info is cleared from the G1 SCBA.
Next → "Clearing Radio Pairing Info from the Kenwood Radio" in the next section.

Clearing Radio Pair

Clearing Radio Pairing Info from the KENWOOD VIKING Radio

Step 1. Press and hold Bluetooth button  to enter the Bluetooth menu.

Step 2. Select **Paired Devices** sub-menu.

Step 3. Select the stored G1 SCBA device pair.

Step 4. Press UNPAIR soft button.

Bluetooth audio pair info is cleared from the Kenwood Radio.

If not done already: Clear the pairing info from the previously connected G1 SCBA's pair history using the process described in in the previous section: "Clearing Radio Pairing Info from the G1 SCBA".

Troubleshooting

Topic	Problem/Issue	Diagnosis	Possible Solution	Expected Result
Audio	Intermittent Audio	Facepiece may not be properly sealed	Adjust the facepiece until a proper seal is formed	Outgoing audio will function as expected
	Incoming and/or outgoing audio from G1 is not working	Bluetooth icon is visible on the Radio	Power the portable radio on and off to reset the auto connect.	Radio will automatically connect to G1 and emit an audible indication for success.
			If power cycling the radio does not result in a successful connect, clear the G1 & Radio pairing history and re-pair the G1 & Radio.	G1 & Radio will now connect and audio will function as expected
	Poor audio quality from G1 to Radio	G1 has Firmware SW 2.003 or prior SW version	Update G1 to Firmware SW 3.0 via A2 Software	Improved G1 outgoing audio quality
Pairing	Bluetooth pairing information lost from G1	Pairing information is cleared when the battery G1 battery is removed. (When G1 "Bluetooth Pair Save" is not set to enabled.)	G1 with SW 3.0 or higher is configurable to retain pairing information across battery removals. Review instructions for "G1 SCBA Configuration Tag" and Bluetooth Paring Save settings.	Bluetooth pairing information will no longer be cleared on every battery removal.
	Radio will not pair with G1	Bluetooth icon is NOT visible on the radio	Turn Bluetooth on, on the Radio.	Bluetooth icon is visible on Radio and pairing is now successful.
			Power the portable radio on and off to reset the auto connect.	
			If power cycling the radio does not result in a successful connect, clear the G1 & Radio pairing history. Re-pair the G1 & Radio.	
		G1 is not Bluetooth enabled, icon on control module is gray.	Enable Bluetooth on the G1 using a G1 Configuration tag that enables Bluetooth.	Bluetooth icon on the G1 control module will be: *Red* = enabled/unpaired OR enabled/paired, not connected *Green* = enabled/connected
		Radio is a not a Kenwood VIKING VP5000 or VP6000 Series (or Kenwood NEXEDGE NX-5000 Series) Bluetooth Radio	G1 is compatible with Kenwood VIKING VP5000 or VP6000 Series (or Kenwood NEXEDGE NX-5000 Series) Bluetooth Radios.	To use G1 Bluetooth audio, pair with a Kenwood VIKING VP5000 or VP6000 Series Bluetooth Radio. (Or Kenwood NEXEDGE NX-5000 Series radio, and Refer to the NEXEDGE Series Pairing Guide).
	Radio is paired to an incorrect G1	Radio and/or G1 was previously paired to a different radio or G1	Clear the pairing information on both the G1 & Radio. Pair desired G1 & Radio	Desired G1 and Radio will be paired together