Communications Environment
Hills and valleys—FRS range is limited to 1 mile or less. Good for local communications but not for extended interaction using *unlicensed* FRS channels 8-14. Limited radio range is good for neighborhood contacts; very little interference from other neighborhoods.

FRS/GMRS Radio Capabilities
Recommended radio: **Motorola MS350R or MS355R or Olympia R500**
FRS/GMRS with repeater capabilities.
22 channel capability, covering FRS and GMRS channels. The Motorola radios are the Lamorinda CERT standard.
FRS channels 1-7 are shared with GMRS and *unlicensed* users must use low power.
FRS channels 8-14 are exclusively FRS and should be used for neighborhood communication.
FRS channels 15-22 are exclusively *licensed* GMRS and are not to be used for normal CERT communication. It is o.k. to listen; don’t talk on these channels.
Channels 15R – 22R are *licensed* repeater channels and can be used for longer-distance communications.

Repeaters
Repeaters are radio systems located on high hills or on mountains. They act as reflectors for our radio signals to get over the short-range limitations of the standard FRS channels.
Lamorinda has three repeaters, each one serving one of the cities, as follows:
Moraga, channel 20R with an access code of “4”
Orinda, channel 21R, with an access code of “4”
Lafayette, channel 22R with an access code of “4”.

Programming your Motorola MR355R/MS350R for repeater capability
1. Turn on the radio
2. Press “Menu” repeatedly (10 times) until R appears
3. Press + or - to select “on” or “off” (We want “on”)
4. Press transmit button to save the setting.
5. Press “Menu” and + to move through the channels. You will find that after channel 22 you will see 15R, 16R, 17R ... 22R.
6. Select 20R
7. Press “Menu” 11 times. Now press + to get to “4”. The access code is now set.
8. Press the transmit button to leave the menu.

To know you have the repeater’s attention
Press the transmit button for about 1 second. If the repeater has heard you it will send a warble back to you. Try this with all 3 repeaters. You may be able to contact only 1 and not all three. That’s o.k. You have increased your communication distance substantially.

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Lamorinda CERT Default Values for MR355R Radios

1. Channels - Use channels 8-14 for normal use.
2. Repeater – At least one person needs to be licensed to use these channels.
3. Programming:
   Press Menu 3 times – 🎵 – 0 (Off) - Press PPT to set
   Press Menu 4 times – iVOX – Off (press + to toggle) – Press PPT to set
   Press Menu 5 times – VOX Sensitivity – any
   Press Menu 6 times – QT – ON (press + to toggle) – Press PPT to set
   Press Menu 7 times – 🔊 – OFF (press + to toggle) – Press PPT to set
   Press Menu 8 times – 🎵 – OFF (press + to toggle) – Press PPT to set
   Press Menu 9 times – 🎨 – OFF (press + to toggle)–Press PPT to set
   Press Menu 10 times – R – ON (press + to toggle) – Press PPT to set
4. Your default screen should show:
   Upper left – 🔋 to empty ➡️ battery condition
   Upper center – 📛 outline of radio = low power
   (⚠️ solid radio = high power – determined by channel)
   Left side - QT
   Center – 8 to 14
   Bottom Center – 0

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