Main Menu

The Main Menu can be accessed at any time by pressing the "M" button on the Programmer. By using the Up and Down keys, the user can scroll through the following menu options:
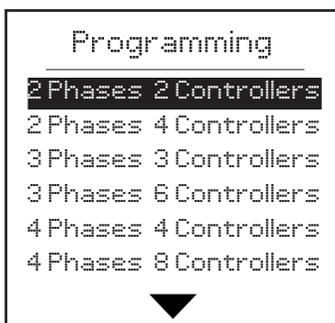
Programming	Create new signal programs
Edit Program	Revise programs stored in the Programmer's memory
Download Program	Download and store the currently running program into the Programmer's memory
Upload Program	Upload a stored program and start it
Delete Program	Erase a program from the Programmer's memory
Set The Clock	Change the system date and time
Options	Access the Options Menu
Configure Radio	Set radio network parameters

Basic Programming

Programs can be edited or changed at any time while the Horizon Signal system is running. By plugging in the Programmer, the user can create new programs without any effect on the current program. A new program that is created will be loaded during the next Red Clearance time, and will be undetectable by motorists.

The Programmer has several program templates for you to choose from. These simple templates represent the most common types of workzones. To pick the correct template, you will need to know how many phases of traffic will be in your workzone and how many Horizon controllers are in the system. When necessary, basic programs will automatically group Lights numerically based on their controller identities.

For more advanced programming, or programs that do not fall into any of the templates, SPECIAL programming should be used.

```
       Programming
──────────────────────────
2 Phases  2 Controllers
2 Phases  4 Controllers
3 Phases  3 Controllers
3 Phases  6 Controllers
4 Phases  4 Controllers
4 Phases  8 Controllers
           ▼
```

1. Select the appropriate rogramming type and press E.

```
 2 Phases 2 Contr.
──────────────────────
Speed:        20 mph
Distance:    1000 ft
All Red:       35 s
```
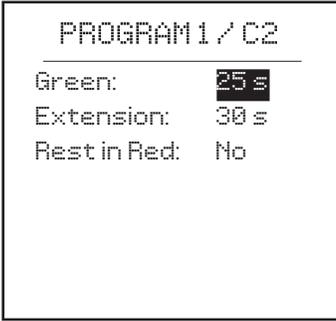
2. The speed of the work zone gets entered first, followed by the distance. The programmer uses these values to calculate a recommended All Red interval. This interval can still be adjusted using the Plus and Minus buttons.

```
PROGRAM 1 / C1
───────────────
Green:        10 s
Extension:    45 s
Rest in Red:  No
```

3. Set the green times for Phase 1. The first number on the screen is the base green. This is the minimum amount of green time a given phase will allow without detection. The second number is the extension time. The extension will only be applied if the system is using some form of vehicle detection. If you are not using detection, the extension will be ignored. Base green plus extension equlas your maximum green time.
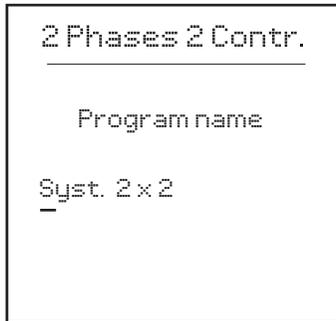
   When set to "Yes," Rest in Red means that the given phase will only go green in the event of a vehicle detection. When set to "No," the signal will cycle as normally.
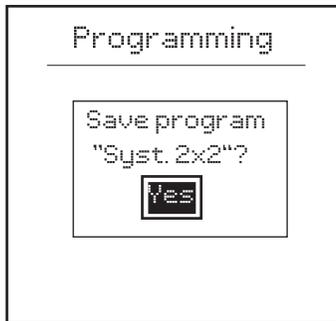
```
PROGRAM 1 / C2
───────────────
Green:        25 s
Extension:    30 s
Rest in Red:  No
```

4. Set the green times for Phase 2. These values can differ from those set for Phase 1.

```
PARAMETER
───────────────
Quartz sub.: Disabled
```

5. Quartz substitution allows the signal system to continue to operate following a communications loss. It utilizes quartz clock timing for synchronization between signals. Signals are not in communication when this mode is enabled.

```
2 Phases 2 Contr.
───────────────

    Program name

Syst. 2 x 2
─
```

6. Your program can be given a custon name to help identify it. Use the Plus and Minus buttons to change each character, and press E to advance the cursor.

```
Programming
───────────────

  ┌─────────────┐
  │ Save program│
  │  "Syst.2x2"?│
  │    Yes      │
  └─────────────┘
```

7. Finally, the Programmer gives you the option to save the program you created. While it is not a requirement, it may be helpful in the future to have a stored copy of the program for future use/edits.