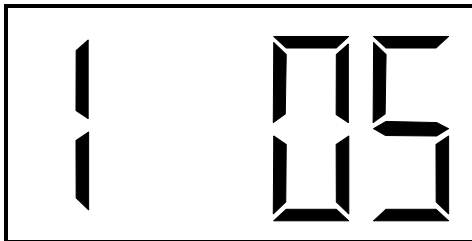


V-D11025A/V-D11040A Digital Master Clock Programming Manual (Rev. 1.01)

The V-D11025A/V-D11040A digital clock is a four (4) digit display, with each digit made of seven (7) bars. There are two (2) buttons on the right side of the display for programming.

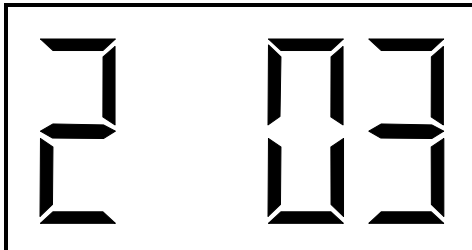
The top button, when pressed alone, sets the hours (the first two (2) digits). The bottom button, when pressed alone, sets the minutes (the last two (2) digits). When setting the hours and minutes, the display will scroll through the numbers at a rate of one (1) per second. If the set hour or set minute button is depressed for a length of time, the numbers will scroll faster. When both buttons are pressed together, the clock enters programming mode.

When the LED located in the top left corner is lit, the time is in the P.M. hours.



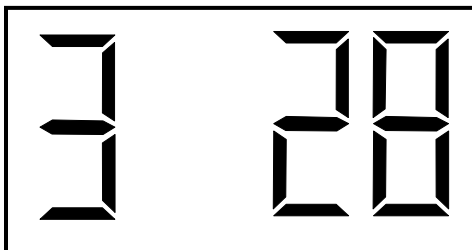
Set the Year

Once programming mode has been entered, the number "1" will appear in the far left position. Option 1 will set the year. Using the "Set Minute" button, the user can scroll from 00-99 on the display of the last two (2) digits and set the correct year (e.g. 01).



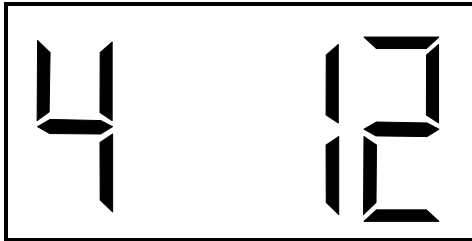
Set the Month

Pressing the "Set Hour" button will move into option two (2). Option 2 will set the month. Pressing the "Set Minute" button, the user can set the correct month, from 01-12.



Set the Day

Pressing the "Set Hour" button will move into option three (3). Option 3 will set the day. Pressing the "Set Minute" button, the user can set the correct day, from 01-31.



Set 12 or 24 Hour Mode

Pressing the “Set Hour” button will move into option four (4). Option 4 allows the user to select between 12 hour (standard) mode or 24 hour (military) display mode. Pressing the “Set Minute” button allows the user to select between “12” and “24”.



Set Daylight Savings Time

Pressing the “Set Hour” button will move into option five (5). Option 5 allows the user to enable pre 2007 daylight savings (1), post 2007 daylight savings (2) or Disable (d) automatic daylight savings time. Pressing the “Set Minute” button allows the user to select between “d”, “1” or “2”.



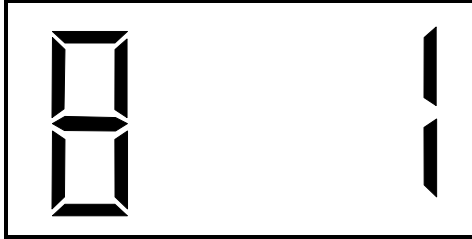
Set the Alternating Time Display

Pressing the “Set Hour” button will move into option six (6). Option six (6) enables (E) or disables (d) the alternating display function. When enabled, the display will switch between showing the time (HH:MM:SS) and the date (MM:DD:YY). When disabled, the display will show the time only. Pressing the “Set Minute” button allows the user to select between “E” and “d”.



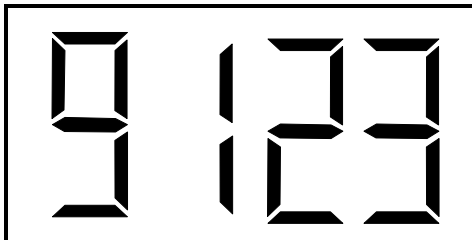
Set the Display to American or European Style

Pressing the “Set Hour” button again will move into option seven (7). This option allows the user to choose between American (A) and European (E) styles of date display. American style shows the month, day and year (ex. 10 28 08). European style shows day, month and the year (ex. 28 10 08). The date will be displayed during normal operation only if the "Alternating Time Display" option has been enabled in option six (6).

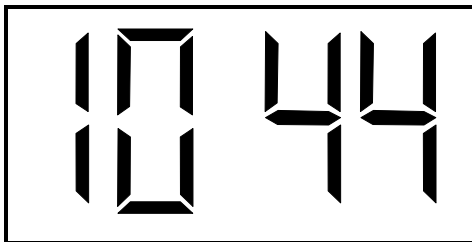


Set the Brightness

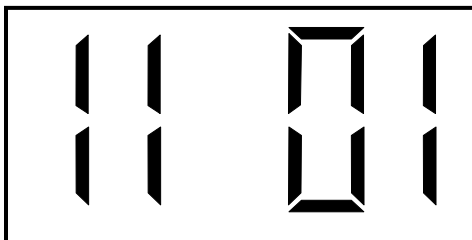
Pressing the “Set Hour” button will move into to option eight (8). This option allows the user to adjust the brightness of the digital display. Level 0 is the normal brightness and 1 is the brightest setting.



Pressing the “Set Hour” button will move into option nine (9) appearing in the far left digit. This option is not applicable.



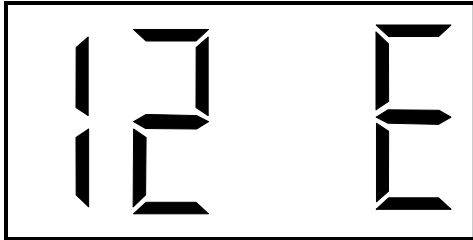
Pressing the “Set Hour” button will move into option ten (10). This option is not applicable.



Set the Data Rate

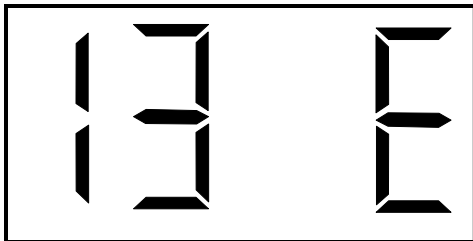
Press the “Set Hour” button to move into option eleven (11). This option allows the user to set the data transmission. Press the “Set Minute” button to scroll between “01-12”.

- | | |
|---|---|
| 01 - Data is transmitted every second | 07 - Data is transmitted every 2 minutes |
| 02 - Data is transmitted every 5 seconds | 08 - Data is transmitted every 5 minutes |
| 03 - Data is transmitted every 10 seconds | 09 - Data is transmitted every 10 minutes |
| 04 - Data is transmitted every 15 seconds | 10 - Data is transmitted every 15 minutes |
| 05 - Data is transmitted every 30 seconds | 11 - Data is transmitted every 30 minutes |
| 06 - Data is transmitted every minute | 12 - Data is transmitted every hour |



Set the Time Base

Press the “Set Hour” button to move into option twelve (12). This option allows the user to select an Electric Time Base (E) of 60 Hz or a Quartz Time Base (q). If a 60 Hz signal is not available, the clock will automatically revert to a quartz time base.



Activating/Deactivating the Loss of Communication Alert

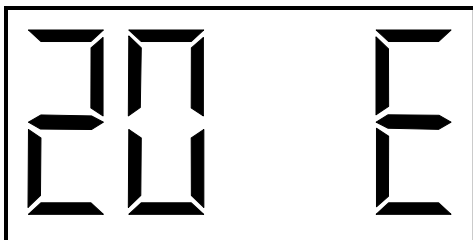
Press the “Set Hour” button to move into option 13. This option allows the user to enable or disable the loss of communication alert. Enabling (E) this option will allow the user to activate the loss of communication alert. Disabling (d) this option will not show a loss of communication and will keep the colons solid. Disabling should also be used when the clock is in an independent mode.



Set the Loss of Communication Alert

Press the “Set Hour” button to move into option 14. This option allows the user to set when the colons will flash after the clock loses data to indicate loss of communication. Press the “Set Minute” button to scroll between “01-10”.

01 - Data is lost after 5 minutes	06 - Data is lost after 60 minutes
02 - Data is lost after 10 minutes	07 - Data is lost after 90 minutes
03 - Data is lost after 15 minutes	08 - Data is lost after 120 minutes
04 - Data is lost after 30 minutes	09 - Data is lost after 180 minutes
05 - Data is lost after 45 minutes	10 - Data is lost after 240 minutes



Set the Programmable Output Relay

Press the “Set Hour” button to move into option 20. This option allows the user to enter a programmable relay output mode. Press the “Set Minute” button to scroll through “d”, “1”, “2”, “3”, “4”, “5”, “6”, “7”, “8” and “9”. Please see page 5 to choose the desired setting. If option “9” is selected, then the user will proceed to option 21. If not, then the user will proceed to option 30.

Relay Output Selection Mode

“d” = Disables the relay output selection mode.

“1” = 58th minute (1) - The hourly correction for 55 seconds every hour from XX:58:05 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is ten correction cycles sent to the relay (each for 95 seconds) beginning at 5:05:00, 5:07:00, 5:09:00, 5:11:00, 5:13:00, 5:15:00, 5:17:00, 5:19:00, 5:21:00, and 5:23:00.

“2” = 58th minute (2) - The hourly correction for 60 seconds every hour from XX:58:00 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is twelve correction cycles sent to the relay (each for 65 seconds on and 25 seconds off) beginning at 5:05:00 to 5:22:35.

“3” = 58th minute (3) - The hourly correction for 60 seconds every hour from XX:58:00 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is twelve correction cycles sent to the relay (each for one minute on and two minutes off) beginning at 5:06:00.

“4” = 58th minute (4) - The hourly correction for 55 seconds every hour from xx:58:05 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is 12 correction cycles for 55 seconds. The timings will be 05:03:05, 05:07:05, 05:11:05, 05:15:05, 05:19:05, 05:23:05, 05:27:05, 05:31:05, 05:35:05, 05:39:05, 05:43:05 and 05:47:05.

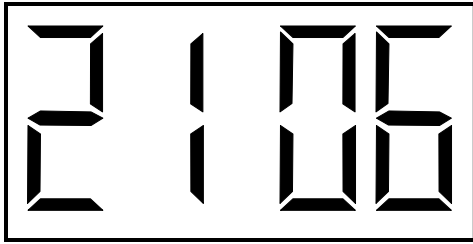
“5” = 59th minute - The hourly correction for 8 seconds every hour from XX:57:54 to XX:58:02. The daily correction (5 a.m. & 5 p.m.) is a 14 second pulse from 5:57:54 to 5:58:58.

“6” = National Time & Rauland – The hourly correction is for 25 seconds every hour from XX:00:00 to XX:00:25. This option only has hourly corrections.

7 - National Time & Rauland – The hourly correction is for 25 seconds every hour from XX:00:00 to XX:00:25. The daily correction (6 a.m. & 6 p.m.) is 25 seconds on, 35 seconds off every minute for 24 minutes.

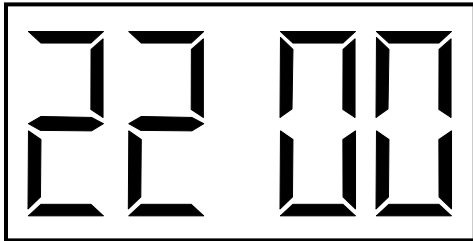
8– N/A

9 - Once a Day Pulse - If selected, the next option will be 21 allowing the user to set the hours, minutes and seconds at which they want the relay to close.



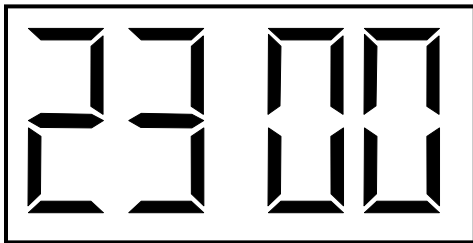
Set the Hour for Once a Day Closure

This option is only available if “9” is selected in option 20. Press the “Set Hour” button to move into option 21. This option allows the user to set the hour at which they want the relay to close. Press the “Set Minute” button to scroll through “00-23”.



Set the Minutes for Once a Day Closure

Press the “Set Hour” button to move into option 22. This option allows the user to set the minute(s) at which they want the relay to close. Press the “Set Minute” button to scroll between “00-59”.



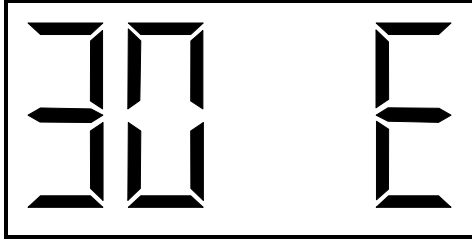
Set the Seconds for Once a Day Closure

Press the “Set Hour” button to move into option 23. This option allows the user to set the second(s) at which they want the relay to close. Press the “Set Minute” button to scroll between “00-59”.



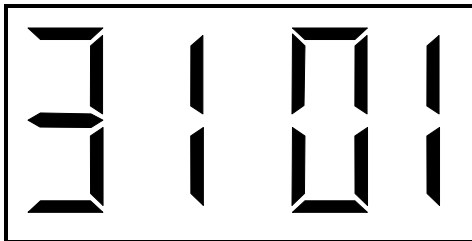
Set the Duration of the Once a Day Closure

Press the “Set Hour” button to move into option 24. This option allows the user to set the duration of the relay closure. Press the “Set Minute” button to scroll between “00-99” (seconds).



Setting the Auxiliary Input Control

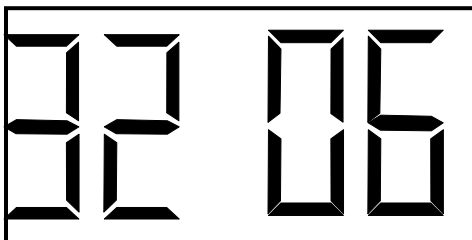
Press the “Set Hour” button to move into option 30. This option allows the user to accept an auxiliary input. Press the “Set Minute” button to scroll between “E - d”. Setting the option to “E” will enter an input control mode. If this option is set to “d”, the next option will be 40.



Selection of the Auxiliary Input Control

Pressing the “Set Hour” button will move into option 31. This option allows the user select the input. Pressing the “Set Minute” button will allow the user to scroll between “01-09”. See page 8 for information on each input.

01 - 58 Minute Correction (1)	06 - National Time/Rauland
02 - 58 Minute Correction (2)	07 - Dukane Digital
03 - 58 Minute Correction (3)	08 - Rauland Digital
04 - 58 Minute Correction (4)	09 - Once A Day Pulse
05 - 59 Minute Correction	



Set the Hour for Once a Day Closure Input

Pressing the “Set Hour” button when option 31 is set to “09”, will enter option 32. This option allows the user to set the hour they want the time to go to when Once A Day Pulse is selected. Press the “Set Minute” button to scroll through “00-23”.



Set the Minutes for Once a Day Closure Input

Pressing the “Set Hour” button will move into option 33. This option allows the user to set the minutes they want the time to go to when Once A Day Pulse is selected. Press the “Set Minute” button to scroll through “00-59”.

Available Input Selection

“d” = Disables the input selection mode.

“1” = 58th minute (1) - The hourly correction for 55 seconds every hour from XX:58:05 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is ten correction cycles sent to the relay (each for 95 seconds) beginning at 5:05:00, 5:07:00, 5:09:00, 5:11:00, 5:13:00, 5:15:00, 5:17:00, 5:19:00, 5:21:00, and 5:23:00.

“2” = 58th minute (2) - The hourly correction for 60 seconds every hour from XX:58:00 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is twelve correction cycles sent to the relay (each for 65 seconds on and 25 seconds off) beginning at 5:05:00 to 5:22:35.

“3” = 58th minute (3) - The hourly correction for 60 seconds every hour from XX:58:00 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is twelve correction cycles sent to the relay (each for one minute on and two minutes off) beginning at 5:06:00.

“4” = 58th minute (4) - The hourly correction for 55 seconds every hour from xx:58:05 to XX:59:00. The daily correction (5 a.m. & 5 p.m.) is 12 correction cycles for 55 seconds. The timings will be 05:03:05, 05:07:05, 05:11:05, 05:15:05, 05:19:05, 05:23:05, 05:27:05, 05:31:05, 05:35:05, 05:39:05, 05:43:05 and 05:47:05.

“5” = 59th minute - The hourly correction for 8 seconds every hour from XX:57:54 to XX:58:02. The daily correction (5 a.m. & 5 p.m.) is a 14 second pulse from 5:57:54 to 5:58:58.

“6” = National Time & Rauland – The hourly correction is for 25 seconds every hour from XX:00:00 to XX:00:25. The daily correction (6 a.m. & 6 p.m.) is 25 seconds on, 35 seconds off every minute for 24 minutes.

7 - Dukane Digital

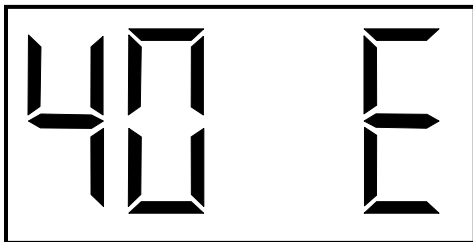
8– Rauland Digital

9 - Once a Day Pulse - If selected, users must define the desired set time "hours, minutes and seconds" through programming steps 32, 33 and 34."



Set the Seconds for Once a Day Closure Input

Pressing the “Set Hour” button will move into option 34. This option allows the user to set the seconds they want the time to go to when Once A Day Pulse is selected. Press the “Set Minute” button to scroll through “00-59”.



Activating/Deactivating Diagnostic Mode

Press the “Set Hour” button to move into option 40. This option allows the user to enter diagnostic mode. Press the “Set Minute” button scroll between “E - d”. Setting the option to “E” will enable the option and will enter diagnostic mode. Setting the option to “d” will disable the option. If “d” is selected, press the “Set Hour” button to revert back to the time.

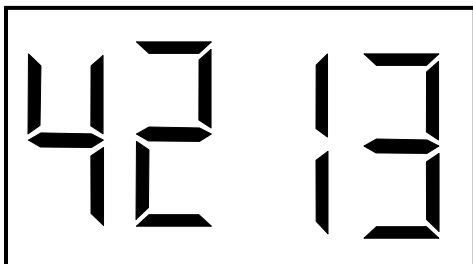


Setting the Diagnostic

Pressing the “Set Hour” button will move into option 41. This option allows the user to send diagnostics to the Valcom analog clocks. Use the “Set Minute” button to scroll from 01 - 05, as well as 09. Refer to the specific analog clock manuals for diagnostic information.

01 = Diagnostic 1 04 = Diagnostic 4
02 = Diagnostic 2 05 = Diagnostic 5
03 = Diagnostic 3

09 = Overrides diagnostic to go to the master clock time



Duration for the Clocks to Resume Normal Operation

Pressing the “Set Hour” button will move into option 42. This option shows how much time the information on the clock from diagnostics 1 or 2 will be displayed before going back to normal operation. Use the “Set Minute” button to scroll from 01 - 99.