MODULE SPECIFICATION

4 Daily Alarms Clock Module, with 3 Keys
Model No.: 20C-AXG-Z (12-Hr), 20E-AXG-Z (24-Hr)

General Description
This is a LCD 4 channels daily alarm clock module with 3 rubber keys. Each alarm channel has its individual output pole. Optionally all alarm channels may share the same output pole too. It operates with 1.5 VDC, with extremely low power consumption. A piece of button cell LR44 is installed at the rear side. Soldering pads for 4 output poles are available at rear side.
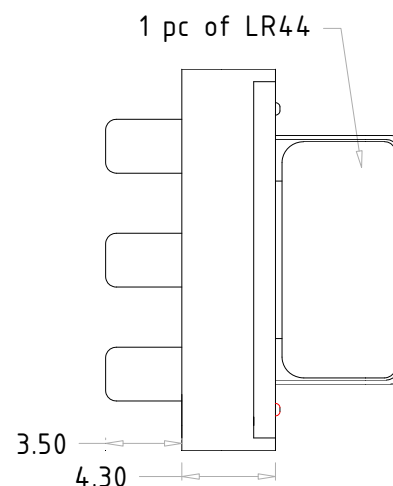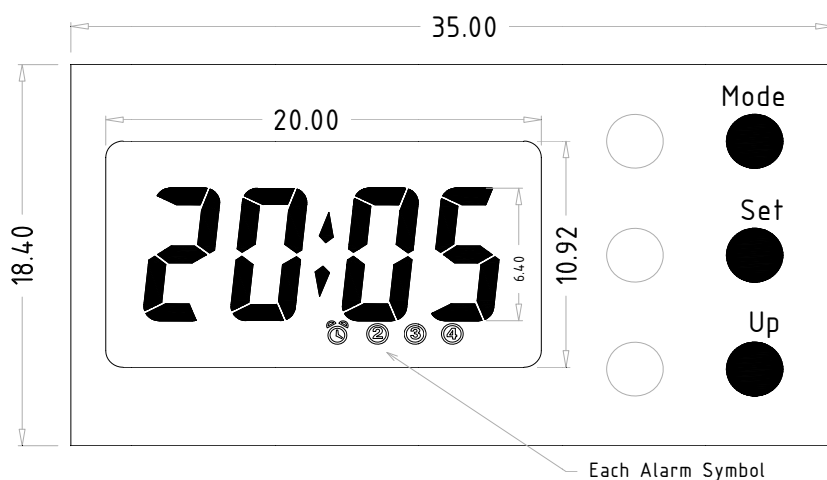
Main Features
- Real time clock, display hour and minute
- Low power consumption
- Available in 12 or 24 hour version
- 4 daily alarms
- Endless audible alarm available upon request
- 3 keys operation, mode, set, and up
- Power: 1.5V DC, 1 pc of LR44 mounted on the rear side
- 4 output poles for each alarm channel, or single pole with 2, 4, 8 seconds pulse

Specifications
- ✧ Physical Size: 35 x 18.4 mm
  Thickness: 4.3 mm (battery holder not included)
- ✧ LCD Display
  Screen Size: 20 x 10.92 mm
  Number of Digit: 4 digits
  Digit Height: about 6.40 mm
- ✧ Button: 3 x rubber, 3.5 mm height from plastic frame
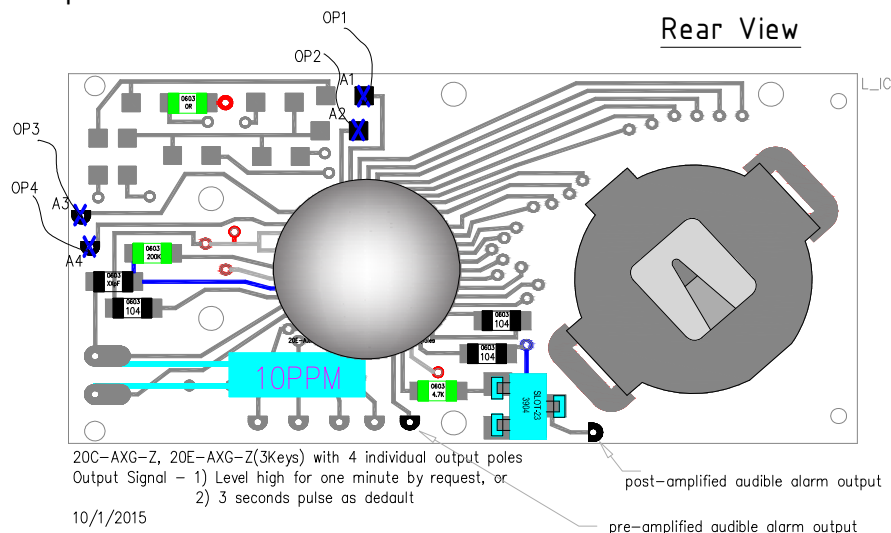- ✧ Power Source: +1.5VDC, using a piece of LR44

✧ Audible Alert Method:
  1. 4K Hz beep for 1 minute (by request)
  2. Endless Alarm as default: beep three time, then wait for 1 minute and repeat again
✧ Technical Data:
  Operating Voltage: +1.20 ~ + 1.70 volts
  Typical Current Drain: 3μA in normal condition; 400 μA when alarm activated
  Operation Temperature: -10 ~ +50 °C
  Storage Temperature: -20 ~ +60 °C

Output Poles
Two Types of Output Poles:
  1. Individual Output (default) – each channel has its own pole; the signal can be either a) deliver signal pulse with duration of 3 seconds level high as default, or b) (1.5V) for 1 minute
     OP1: for 1st output; OP2: for 2nd output; OP3: for 3rd output; OP4: for 4th output
  2. Single Output (upon request) – all channels share the same pole; 2 options of signal combination
     A. Option A
        i. OP1/OP2: pulse, 2 seconds
        ii. OP3/OP4: level high (1.5V) for 1 minute
     B. Option B
        i. OP1: pulse, 1 second
        ii. OP2: pulse, 2 seconds
        iii. OP3: pulse, 4 seconds
        iv. OP4: pulse 8 seconds

20C-AXG-Z, 20E-AXG-Z(3Keys) with 4 individual output poles
Output Signal – 1) Level high for one minute by request, or
              2) 3 seconds pulse as dedault
10/1/2015

post-amplified audible alarm output

pre-amplified audible alarm output

Key Operation
A. The Keys
  a. Mode – Press to enter each alarm channel or back to real time
  b. Set – Press to enter setting mode of real time or each channel of alarm
  c. Up- Press to adjust hour or minute of real time and each alarm time. It is used to set each alarm time On or Off also.

B. How to Set Real Time
  1. Along with beeping sound, full LCD screen is displayed for 3 seconds when power on, then shows clock mode 12:00 or 0:00.
  2. Press "SET" key to enter setting mode of hour. The hour reading on the screen will be flashing.
  3. Use "UP" key to adjust the hour.
  4. Press "SET" key again to enter setting mode of minute. The minute reading will be flashing. Use "UP" key to adjust minute.
  5. To return to normal clock display, press "SET" key or wait for 10 seconds without any depress of any key.

C. **How to Set Each Alarm Time**
  1. At real time mode, press "Mode" key to enter each alarm channel. The related alarm symbol appears with flashing.
  2. Press "SET" key to enter setting mode of hour.
  3. Use "UP" key to adjust the hour.
  4. Press "SET" key again to enter setting mode of minute.
  5. Use "UP" key to adjust the minute.
  6. Press "SET" key to complete setting of alarm time. Make sure the related alarm symbol is in flashing or not. The flashing symbol means the related alarm channel is not set ON yet.
  7. Press "UP" key to set it ON. At the meantime the symbol becomes steady.
  8. Press "MODE" key to return to real time.

D. **How to Set Alarm "ON" or "OFF"**
  1. At real time mode, if the alarm symbol appears steady, means the related channel is set ON. Use "MODE" key to enter the related channel, press "UP" key to turn OFF it. The symbol should be changed to flashing. This means the alarm channel is turned OFF.
  2. If the alarm symbol does not appears, means the related alarm channel is not set ON yet. Use "MODE" key to enter the related alarm channel. The symbol should be in flashing. Press "UP" key to turn it ON.
  3. Then press "SET" key, or wait for 10 seconds to return to real time.

List of Available Versions:

Model No.	12-Hr or 24-Hr	No. of Alarm/Output	No. of Keys	Audible Alarm Method	Type of Output Signal
20C-AXG	12-Hr	-	2	-	-
20E-ACG	24-Hr	-	2	-	-
20C-AXGA-3MI	12-Hr	1	3	M	I
20E-AXGA-3PI	24-Hr	1	3	P	I
20C-AXGB-3MI	12-Hr	2	3	M	I
20E-AXGB-3MS	24-Hr	2	3	M	S
20C-AXGY-3PI	12-Hr	3	3	P	I
20E-AXGY-3PI	24-Hr	3	3	P	I
20C-AXGZ-3MS	12-Hr	4	3	M	S
20E-AXGZ-3MI	24-Hr	4	3	M	I

Represent of Suffix Codes for Additional Features

Code	Description	Suffix Code	Represent of Feature
The 1st Code	No. of key	3	Three keys
		5	Five keys
The 2nd Code	Audible alarm method	M	1 minute alarm plus the related alarm symbol blinking
		P	PSEA, beep 3 times then wait for 1 minute and repeat, never stop unless "mode" button depressed, plus the related alarm symbol blinking

The 3rd Code	Type of output signal	I	Individual output pole for each alarm channel
		S	Single output pole for all alarm channels

Examples:

20E-AXGZ-3MI

means: 24 hour version, 4 alarm channels, 3 buttons, 1 minute audible alarm, individual output pole

20C-AXGZ-3PI

means: 12 hour version, 4 alarm channels, 3 buttons, PSEA audible alarm, individual output pole