

PC12 Alert Monitor instructions

Hardware requirements:

Pentium 3, 400mhz and 512mb ram. (1) Enberg BA12CTLpc controller and RS485/232 interface (included).

Software requirements:

Any Windows OD that will support the dotnet 3.5 framework and Enberg PC12 installation CD. Download dotnet 3.5 from Microsoft (if not already installed). You'll need the redistributable version if the PC is not connected to the internet. Windows 7 contains the dotnet framework.

BA12CTL installation: (Install before software)

Install controller at your preferred location, a terminal room or otherwise. The opto-isolated **controller inputs** require a contact closure, (switch relay etc) or an open collector. Inputs will trigger in any resistance range of 0 to 1000 ohms but strive for the lowest resistance possible. Connect all of your sources to these 12 inputs and the common terminal.

You may want to provide outboard barrier strips etc. to connect your sources and have one nice neat cable going to the controller.

The opto-isolated **manual reset** inputs will reset any input 1 -12, with a momentary connection to common.

The serial output of the controller is fed to comport1 of the PC. It is an **RS485 connection at 2400 baud** for increased reliability in any environment. The RS485 connection is rated for over 2000' at 2400 baud. Use twisted pair for your connection and if you have a shield on your cable connect it to ground on the controller end only.

Insure that PIN A on the controller is connected to PINA on the PC and PINB is connected to PINB.

BA12CTL operation:

Each channel of the controller can be set up in either **AUTO** or **MANUAL reset** by either shorting the appropriate header on the PCB with the shorting block or leaving it open. (**AUTO reset = closed** **MANUAL reset = open**).

This option was included, for example, if you want the operator to actually take action and reset the alert. Someone at the back door? Go find out and press the reset switch, located at the door. Go look at the news bulletin and reset the monitor.

To **display telephone calls**, use the included **FN2 phone module** to connect between ringing voltage and the controller. Put the desired channel in AUTO reset mode and turn the trim pot fully CCW. The FN2 can detect ring on 2 separate lines. For **latching closures**, set the controller channel to AUTO and trimmer to fully CCW.

PC12 PC and software installation:

After the controller is installed and connected to the PC via the included RS485 adapter, make sure your **display is set to 1024 x 768 (full screen) or 1280 x 768 (widescreen)** (control panel>display>

settings) and your **comport 1 is set to 2400 baud, 8N1** (system>hardware>device manager>ports>properties>com1 settings). Set monitor to low brightness, around 25% or so and contrast to around 50%.

Create a folder on your hard drive **C:\EnbergPC12** (**must** have this name).

Copy all of the downloaded PC12 files into that directory except the Denmark font file which should be installed in **C:\program files\windows\fonts** (the other 3 fonts used are part of the standard windows installation, Impact, Verdana and Times new roman). The PC12 folder should contain -- ch1 thru ch12 wav, logo.jpg, PC12 instructions and Denmark font. Again, make sure you have dotnet 3.5 installed.

Make sure no alert is active on the controller, run SETUP and you will see the Enberg logo* screen saver.

Press the **ESC button** on the keyboard to either run the **PC12 SETUP**. We chose to use the ESC button in order to not disrupt the program (like a mouse movement would). You may also want to keep it to yourself that it's the way to access the setup. (You know the saying about chiefs and indians, right?)

SETUP gives you **complete control of color options, screen size, fonts, audio alerts, no flashing, etc.** to make your own screens. You can also save your screens, the file extension ebg will automatically be assigned. (**myscreen.ebg**)

Having these options of course makes the software more versatile but as far as a quality basic screen display is concerned, we urge you to look at the **default screen** and consider it for your use. (It's a real timesaver as well).

The default screen (main template) was created for best performance --

* It has bright, vivid colors and each color is different -- important when you get a new alert. The black background screen color provides more contrast than the white and is less visible when idle. ALWAYS start with this default screen when designing your own.

* The Denmark font is really the most pleasing. (Use Impact if you need more room for characters, it is a condensed font and our 2nd choice).

* You'll find that using white text on a dark background is softer to the eye but dark text on a light background can be seen at a greater distance.

The setup choices available are --

2 background colors (black or white).

12 label background colors (do not use the screen background color, white or black, on any of the labels).

1 of 4 fonts (Denmark, Impact, Verdana bold and Times new roman bold).

1 font color (white or black are preferred), 1 color is applied to all the 12 labels text.

Audio alerts for all 12 channels or "any" channel.

Control outputs for all 12 channels and "any" (via 2nd serial port, com3, 2400 baud, 8n1). For Enberg S2P module.

Email alert for all 12 channels and "any" channel.

Alert flash on or off.

Share ON/OFF (Program is standalone or shares with other applications) (Program will minimize if NO alert present).

Using the **audio alerts** is left to your imagination. Obviously, you can't have an audio alert in a studio but if you're OFF AIR, for example, it's possible you may want to utilize it. Feed the PA system, a telephone call, etc?

The **audio alerts function as follows**, let's say there are 3 active alerts, all with the audio option assigned to them --

(All 3 labels are flashing on/off in sequence)

First flash-- ch1 audio, second flash -- ch2 audio, third flash -- ch3 audio and so on.

There are a number of different sounds and synthesized voice alerts included on the CD that you can assign to each channel. You must, however rename the file you want to use as to which channel it will be assigned to.

For example, let's say CH1 is OFF AIR.

Whatever sound file you choose, it must be renamed CH1.wav

All wav files (ch1 through ch12 & any) MUST be in the PC12 folder if an audio alert is selected or the program will not function. To create your own synthesized audio alerts, try this program -- "Speech synthesizer 5.0" available online. (Caltrox). Of course you can use any wav file to your liking.

Finish installation:

After you've made your setup choices, EXIT the program.

Options: You can replace the **Enberg logo** (and we suggest that you do) -- with your own logo. Just replace the **C:\EnbergPC12\logo.jpg** file with your own. **You will need to size your Jpeg at 500 x 300** for it to display properly. Anytime you don't have an alert, your station's logo is shown as a slow, (non-annoying) screen saver.

Go to **windows explorer>programs>PC12>right click** and send (2) shortcuts to the desktop -- Go to **windows explorer>documents and settings>"your user name">start menu>programs>startup** -- Drag one of the shortcuts to the startup folder, leave the other one on the desktop. Now, if your PC reboots for any reason the **PC12 program will automatically start**.

Notes:

Control panel>power options>schemes : Assuming PC12 is the only application running on the PC and once the program loads in memory, it's ok to turn off hard drive. (Turn off after 10 minutes, etc). Be sure also to leave monitor ON and disable any Windows screen saver. (Display > properties).

You could easily have the PC12 call a telephone number, using a readily available voice dialer. Just connect the dialer to the desired input(s) on the BA12CTL controller. Using the email alert can give you text messaging ability also.

RS485/Ethernet adapters are also available giving you the ability to have the BA12CTL controller accessible via internet.

([NLITE a free program -- nilteos.com](http://nilteos.com)) can reduce your Windows installation considerably by eliminating unnecessary items during the installation process. We're running the PC12 on an XP sp1 install that is less than 200mb).