

manufacturing, which is what we do best," claims Dale. "Now we will supply directly. This enables us to get better feedback from the different countries, and offer better technical support. Now we are of a size where we can stand on our own two feet."

While Dale claims that Celco has eliminated the middle man in order to be more directly involved with installations on a technical level, and interface with their users worldwide, there is clearly a financial advantage to the new arrangement. Celco will be able to increase its profit margin by approximately 15% by entering into a direct relationship with its distributors — certainly an appealing way to increase annual sales figures, which Dale says are increasing by 40% per year. "Our only competitor in the rock 'n' roll arena is Avolites," says Dale, "and by now we may have a bigger slice of the market." In June 89, Celco shipped board number 1000.

"We consider ourselves part of a worldwide community," says Dale, "and we are ready for 1992." The Celco products already wear a European community badge and the company philosophy is very pro-European. "The logical extension for us is a sales and distribution base on the continent, in order to centralize things," states Dale. "Perhaps Belgium would be the ideal location."

The Celco products adapt easily to the different international standards. Plugs are added in each country to match the wall socket, and the dimmers select the voltage necessary. Since the rock tours are international, the boards have a selector to choose the appropriate voltage. "1992 will be important in terms of meeting international standards," says Dale, who hopes that Eurodollars become a reality for the standardization of prices. "We encourage people to buy our products in the country where they live," Dale continues. "This eliminates parallel importing."

From 1978 through 1986, Dale, who learned lighting at the Ministry of Defence, continued to design Joe Jackson tours. But with Celco continuing to grow, Dale finds himself more and more occupied with the daily operations of the business and with less time to continue as a lighting designer. The 1989 summer Joe Jackson tour was the first to go on the road without Dale. "Maybe I'll go on another tour with Jackson in the future," says Dale wistfully, as he leans against the Celco Gold, the top of the line of equipment born out of Dale's collaboration with Jackson.

## CELCO CONTROLS — A TECHNICAL APPRAISAL

BY BOB ANDERSON

**T**here are two categories of professional memory lighting controls. The first, designed for repetitive performances, memorises the details of each scene and each transition between scenes so that the whole procession of cues can be repeated at every performance without variation, and without need for the operator to make any significant decisions, except to adjust the timing of each cue to suit the pace of each particular performance. A digital keypad with channel and memory call-up are usual, with one or two timed playbacks and only one channel controller. Added bells and whistles speed up rehearsal rather than ease performance operations. The second category memorises the look of each effect on separate masters, takes up a lot of space, but expects, even demands, that the operator will exercise judgement to choose and time each lighting change on the inspiration of the moment. Traditionally, theatre prefers the first category and concert music the second. But the distinctions are becoming blurred. Many theatres and television studios are seriously looking at the advantages available to rock 'n' roll-type lighting boards. Celco is amongst the foremost who have developed, perfected, and manufactured the latter type.

A Celco console has two control faders per channel and two presets. A lighting look can be composed on either preset, and preset masters allow the immediate choice of two different looks. Basic presetting, but too simple for modern dynamic lighting. The Celco system also provides ten or more masters with solid state memories to capture a sequence, so that ten looks are available at the movement of a fader, or many more if the outputs of more than one fader are used. But ten master faders are minimal. On all but the smaller boards, 20 or 30 master

faders are provided. In addition, to add a further dimension, the sequences on each fader can be changed up to 15 times on Celco Gold, giving a total of 450 different looks in memory, provided time and inspiration are available for setting up.

The larger Celco board has 30 preset faders each with ten to 15 "pages" of memory to provide up to 30 x 15 looks. For performance, these sequences can have fade-in and fade-out times memorised as well. Snap the new fader to full and the old fader to out, and the cue happens with the recorded times, not instantaneously. Dimmers not required to change, or not to move far from the existing level, must, of course, not dip, and dipless cross fade circuits have to be provided. But all this only happens once the memories have been set up. Balancing a memory needs manual adjustment of the 30 to 120 individual faders controlling the dimmers. If the first attempt is not good enough, corrections can be made. The Celco board allows single channels to be matched to the overall output and then the channel fader takes control automatically so that fine balance or major alteration can be a matter of a moment. LED pilots make clear what is happening. Re-memorise, and the improved effect is captured. Prefer the original, and it too is still available until decisively altered. Complex at first sight, but the top lighting designers of today in rock music will not settle for less.

Of course, there has to be help to keep track of all these effects. Pilot LEDs show the active channels or, if a fader is pressed on to its bottom stop, they show the channels which will be active once the fader is brought into use. Thirty master faders, each with 15 permutations must be labeled. Eight character alpha LEDs above each fader take descriptions from memory to keep track of events. BLUEBACK for