Come into the Garden – Siemens!

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Top people will already know that the Royal Opera House has recently installed a new lighting control system. Adverts in the Times and other upper-crust newspapers placed by Siemens, the massive German electrical manufacturing organisation, announced the successful introduction of the new board during November. In fact, the changeover had been made in early September so the board had had over three months use when I went to see it at the beginning of January.

SITRALUX B40

The new board is a Siemens Sitralux B40 controlling 240 dimmers at present, but with expansion capacity for at least double this number when the Royal Opera House is rebuilt in 1990. Some 16 other major theatres in Europe use the same system so nobody can accuse the Covent Garden staff of taking an unorthodox decision. Technical Director, Tom McArthur, explained their reasons for choosing Sitralux. First and foremost, an overriding need for reliability; second the need to retain all the excellent features provided by their earlier control, the Strand Lightboard, and third; to add new ideas and tailor made improvements that would help their special method of working. Only two or three rival designs were serious contenders, including 'Galaxy' from Strand and 'Viking' from AVAB. Siemens won because they were able to offer the best combination of track record, inherent suitability and willingness and ability to incorporate the special details that the ROH lighting staff wanted. That decision was taken in December 1985.

SIEMENS THEATRE LIGHTING

So far, the Siemens range of theatre lighting systems has had little or no publicity in Britain. Siemens are, however, internationally known as one of the world's leading manufacturers of electrical machinery and domestic products. Their theatre division, based in Erlangen in West Germany, has specialised in the needs of the German opera houses, television studios and state theatres; a market with high technical standards and generous sources of finance. As a result the rest of the world has usually concluded that Siemens lighting is too specialised and too costly. The B40 is the top of the Siemens theatre range and admittedly expensive.

CONTROL DESK

The picture opposite shows the control desk, laid out to suit the preferences of the ROH and two-man operation. The leading operator uses the left hand panel to run the show or rehearsal, while the assistant at the right-hand position keeps check on coming cues and changes introduced during rehearsals, using the identical panel on the right. Between the two panels are a set of control wheels for setting and controlling timed fades and to split manual control over separate groups when required. Keypads for digital access, cue control and setting memories are very similar to UK and American practice though ROH operators found that the apparent familiarity could sometimes disguise subtle differences that had to be learned during the familiarisation training. The language problem had also to be solved and controls relabelled and handbooks translated into English. ROH staff themselves contributed to this by suggesting their own preferences for button labels and abbreviations.

MIMIC

One obvious difference incorporated at the ROH and in most other B40 installations that is not easily available from other controls is the push-button geographic mimic. This is located alongside the operator and provides a rapid way of selecting lamps during rehearsal and to check circuits after refocussing. Both the mimic and the control panels are built up of squares of about 20mm side that can take push buttons or indicators or be left blank to exactly suit the layout and control facilities required. This means that custom changes both before and after delivery cause very little difficulty.

VDU DISPLAY

All the larger lighting control systems now rely on TV VDU screens to feed information back to the operator and lighting designer. The B40 at Covent Garden uses two screens in the control cabin, with most of the display area normally showing dimmers in use and levels. Like Lightboard, the screen only shows the circuits actually required for the performance so with each show in the repertoire rarely needing more than 150 dimmers, all can be on one screen together. This leaves room at the bottom of the screen for five lines showing the immediate past cue, the current cue and the next cue, giving cue number and type, time to completion and brief text messages. ROH staff find this quite sufficient for the well rehearsed performances that are their normal work. Much more information is available on demand. For example, unlike other controls, the B40 allows every dimmer to have its own fade time when necessary and this is displayed when needed in place of level information against dimmer number. There is also a method of introducing proportional cut or boost to any circuit that will modify already plotted levels throughout the performance without need to laboriously reset each lighting state. This also uses the VDU and is in addition to the temporary modify and substitute options provided on Lightboard. Colour VDUs are used, with 'earthy' restful reds and greens for routine information. Only alarms and special messages use bright colours.

COMPUTER

The B40 uses a Siemens R30 business/process control mini-computer instead of the microprocessors now normal for theatre lighting. Despite a price penalty Siemens finds this extra computing power well worth while to give individual channel fade times and other facilities not otherwise economically possible. Reliability should also be higher and maintenance can be provided by the engineering teams that are based in most cities to look after Siemens industrial and business customers. Despite this, the Royal Opera House has chosen to purchase a complete second computer which runs in parallel with the basic system and is able to take control immediately and without visible interruption if there is a fault. Past failures and maintenance problems with previous systems had a strong effect on the ROH management priorities. Linked to the computer are the usual pair of disc drives, again duplicated, and used to store plots for repertoire but also able to keep records of each and every plot change made during rehearsal. Obviously, only one version of each cue will be used for the final plot but there are many occasions when it is useful to see the balance used yesterday or even to retrieve cues accidentally deleted. A printer can list cues and levels in a variety of formats for analysis and archive.