On September 25, 1924, an organ recital was given at the Mission Hills Congregational Church to open the new organ that had been installed by the Austin Organ Company. The organ was given to the church by Alice Cowles Doane and Mary Flager Cowles as memorial to their mother, Louise Mary Cowles (1839-1903). The organ was designed and dedicated by her grandson, John Doane who was the first minister of Mission Hills Congregational Church.

Major modifications were made to the organ in 1956 by the California Organ Company. In 1963, Leonard Dowling, pipe organ builder, made extensive repairs and modifications in all divisions of the organ. In July, 1976, a contract was signed with the Möller Organ Company to replace the console which was installed in March, 1977 by William E. Ginder, representing the Möller Organ Company. The purchase of the new console was made possible by funds which had been raised through the efforts of members of the First Congregational Church.

In 1980, the First Congregational Corporation donated funds for the organ as a tribute to Margueritte B. Nobles, who was organist/choirmaster for the First Congregational Church for 42 years. This fund made it possible to make revisions and additions to the organ which were completed in November, 1981. The installation and voicing were completed by William E. Ginder Pipe Organs.

Beginning in early 2007, the church conducted a study to see what could be done to improve the organ console. It was decided by the Worship and Music Commission, after meeting with several local organ companies and builders, that a new solid-state, electronic action console should replace the current one.

A generous matching gift from the John Brownell estate was given as a memorial by his family members, Anne Sarsfield and Joan Anderson, thus making it possible to begin the year-long project. A contract was signed with L. W. Blackinton and Associates, Inc. of El Cajon, to design and build a new three manual all electric console and install it on the main floor of the sanctuary. The addition of the third manual provides new versatility and accessibility for the organist to control our thirty-three rank organ. A new Festival Trumpet was also added to enhance the reed division of the organ. The project was completed in May 2008. Lyle Blackinton was assisted by associates Dale Sorenson and Jesus Zepeda.