

Recreation Center

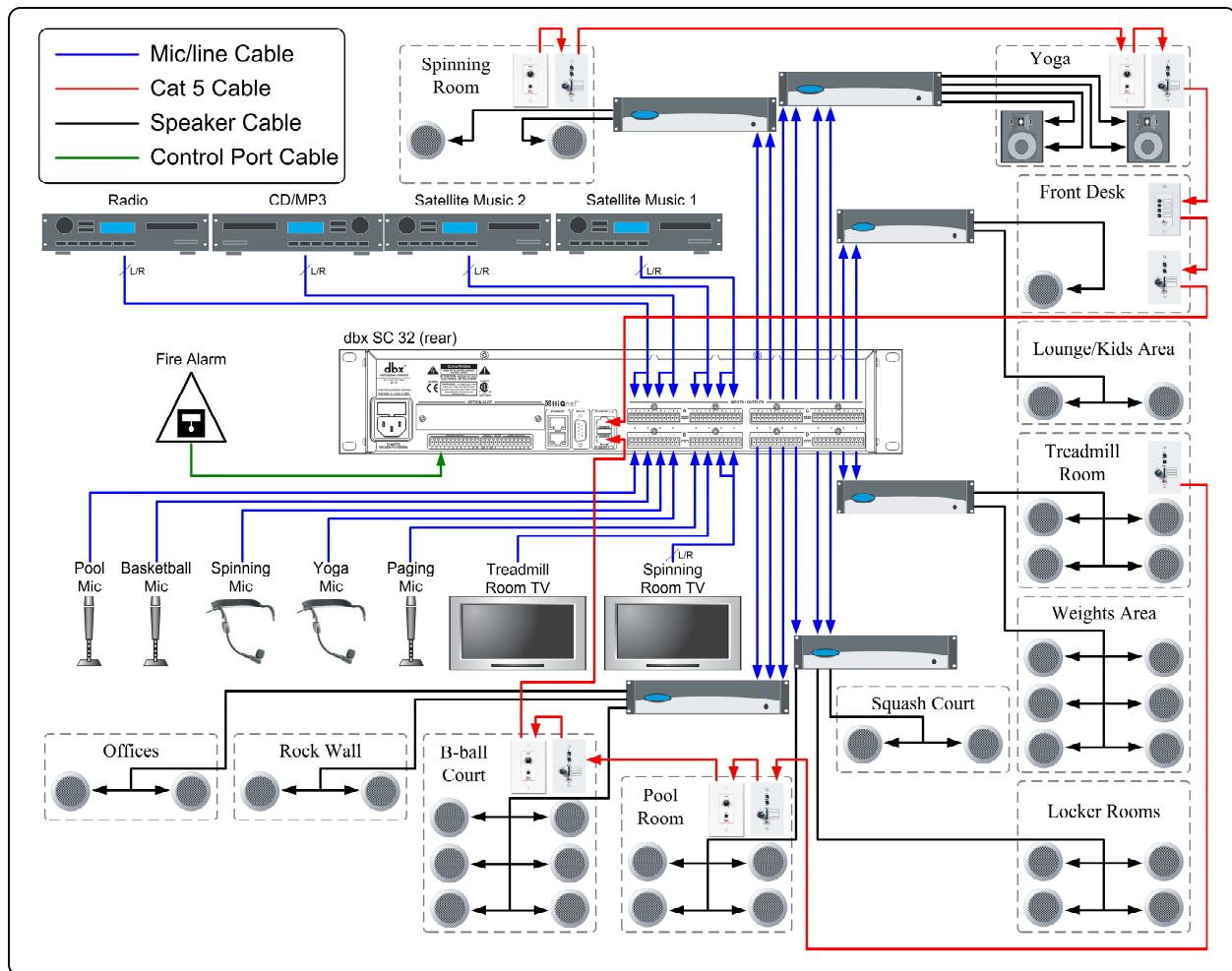
SC 32 / SC 64

The audio system for a recreation center has a number of unique requirements, including:

- A flexible paging system
- The ability provide different exercise areas with appropriate music
- Local source selection and volume control from within certain zones
- Local control of wireless microphones for class instructors
- Integration with the building's emergency alarm system



A single SC 32 device with a 16 x 16 input/output configuration is used to meet these requirements. The utility room contains the SC 32, all audio sources (except mics and TVs), all power amplifiers, and the emergency alarm system (see next page). In order to provide each zone with mono-summed music and zone-specific priority ducking, a dedicated mixer is routed to each output zone (with the exception of the squash court, rock wall, and weights area, which share a common mixer). For even more precise control, each mixer is given a corresponding Custom Control Panel whose Panel Presets control the routers for given channels within the mixer. These Panel Presets can then be recalled by ZC controllers that have "Actions Select" functionality (ZC-3, ZC-4, ZC-7, ZC-8 and ZC-9).



With a mic and a ZC-7 installed at the front desk, staff can direct pages to different combinations of zones throughout the building. Using Priority Mix Controls, live pages duck local music by a predetermined amount. Pressing and holding button "A" routes pages to the squash court, rock wall, and weights area. Button "B" routes pages to the offices and lounge. Button "C" routes pages to all zones except those that hold classes (the yoga/aerobics room and spinning room). And button "D" routes pages to all zones. Upon releasing each button the page mic is removed from all zones' mixers, and the music in the affected zones steadily returns to its previous level.

The yoga/aerobics room is used for teaching classes. It contains a ZC-8, a ZC-2, and an instructor mic. The ZC-8 allows source selection and volume control for four discrete music sources, while the ZC-2 allows volume control for the instructor mic. In order to create a more immersive atmosphere for class participants, a stereo bi-amped signal is sent to the room's 2-way speakers. All crossover processing occurs within the SC 32, eliminating the need for external crossover devices. Selection of duckable, stereo sources via the ZC-8 is made possible by assigning discrete "left" and "right" mixers to the dual-mono output zone, and then using Panel Presets from a single Custom Control Panel to control the mixers' routers. The Panel Presets are then assigned to the four positions on the ZC-8's rotary select control. Position "A" routes music from satellite receiver 1, which continuously plays relaxing music, ideal for yoga. Position "B" routes music from satellite receiver 2, which continuously plays high-energy music, ideal for intense aerobics classes. Positions "C" and "D" route music from the CD/MP3 player and radio, respectively. In all cases, the yoga instructor mic is configured to duck the room's music by a small amount. Since yoga music is often played quietly, AutoWarmth® is added as an Output Insert to automatically preserve the perceived fullness of sound at lower levels.

The spinning room is where customers use stationary bikes or attend occasional spinning classes. This room's setup is virtually identical to that of the yoga/aerobics room, but with two main differences. First, audio from the room's TV is available as a selectable source in position "A" of the ZC-8. Second, the room's speakers are full range, and therefore no crossover is necessary.

A single ZC-8 installed at the front desk allows source selection and volume control for multiple zones: the front desk, offices, lounge/kids area, weights area, squash court, locker rooms, and rock wall. Although all seven zones are controlled by the same ZC-8, each zone's output signal is custom tailored with PEQ and gain so that intelligibility and richness of sound is maximized throughout.

Since tournaments and competitions occasionally take place in the pool room and on the basketball court, both rooms have their own ZC-8's installed. Both rooms also have announcer mics controlled by ZC-2's.

The building's emergency alarm system interfaces with the SC 32 via one of the eight Control Inputs. When the alarm activates, its contact closure enters an open state, triggering the SC 32 to load the "EMERGENCY" Device Preset. Within this Preset, the paging mic alone is routed to all zones. Any necessary announcements can then be made into the mic. When the alarm deactivates, the contact closure enters a closed state, and the system resumes normal operation by loading the "Normal Operation" Device Preset.

The rules of interaction between the emergency alarm system and the SC 32 are easily defined in the GPIO Wizard. In this case, the installer chooses “Actions Select” for Control Input 1 (which was named “Fire Alarm” in the Peripheral Configuration window), and then defines which Device Presets to load when the contact closure enters open and closed states (after having already created the Device Presets, of course).

