



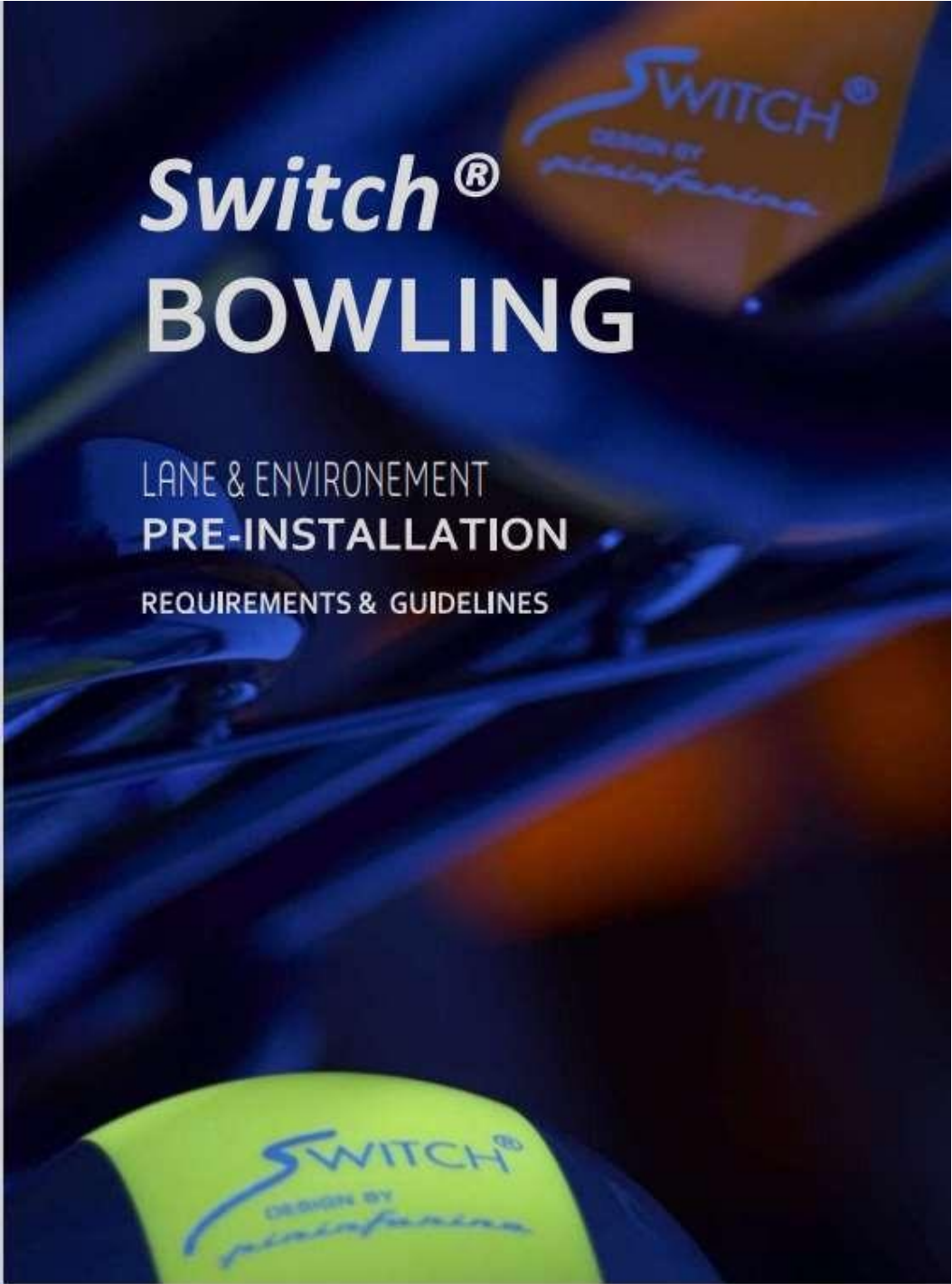
PRE-INSTALLATION REQUIREMENTS & GUIDELINES WITH READINESS CHECK LIST

Project Name	
Project No	
Location	
Date	

SWITCH's mission is to create high-quality, aesthetically pleasing, reasonably priced products that satisfy the upscale expectations of an increasingly diverse and younger clientele. Founded on outstanding design, innovative products and advanced technology, Switch® continues to reinvent the bowling and entertainment experience while delivering a fast return on investment with greater.

This pre-installation and installation requirements guide are intended to ensure that you and end user will enjoy many years of use from the purchase. It is highly important and critical to understand that any activity waiving and requirement superseding for any reason will directly impact product quality and its future warranty period of lane and equipment.

This document intends to identify Switch's pre-installation requirements. Switch Technical Responsible or Installation / Commissioning Expert will validate the requirement clauses after customer declaration and will officialize by signature.

The background of the cover is a photograph of a bowling lane. A yellow bowling ball with the Switch logo is in the foreground, and a wooden bowling pin with the Switch logo is in the background. The text is overlaid on this image.

Switch® BOWLING

LANE & ENVIRONNEMENT
PRE-INSTALLATION
REQUIREMENTS & GUIDELINES



INSTALLATION PLAN

1st Stage; Installation of all wooden and mechanical accessories and equipment.

Estimated time: 2-3 days per lane.

2nd Stage; Installation and configuration of all electronic equipment.

Estimated time: 1 day per lane.

3rd Stage; Technical personnel, operation staff training and commissioning. Switch training session to how to perform all the maintenance, handle the operation and daily routine check.

Estimated time: 2 days

4th Stage Test Play; Switch highly recommends performing “test play” in all lanes before official opening in order to simulate normal operational conditions

Estimated time: minimum 2 games per lane

5th Stage Opening, If the opening is scheduled to occur within 48 hours after installation completion, at least one member of the Switch team will be present on the opening day to provide support. For openings scheduled after 48 hours, a service fee of USD 720 per day plus travel, accommodation, and meal expenses will be charged to the customer.

The floor loading values are approximately as follows

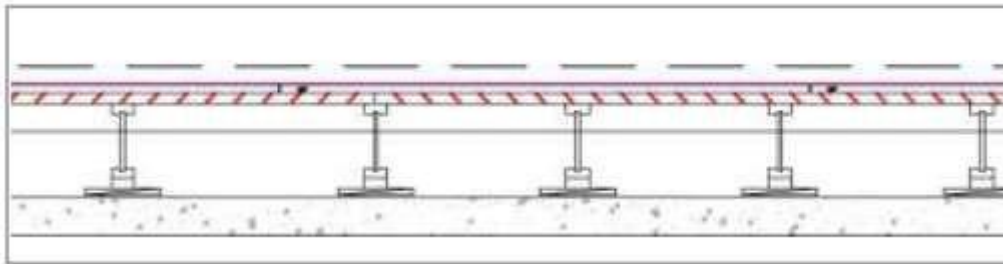
- Approach Area- 2KN/m² (up to 4.90 meters from the start of the approach)
- Lane Area – 1 KN/m² (from 4.50 meters to the Curtain Wall)
- Machinery Area – Includes all the remaining area behind the Curtain Wall.
- The Back End of the Pinsetters rest on 4 x 25 mm jack screws. The floor must be able to support a load of 175 kg per sq. m in this area.

NOTE: It is recommended that the floor shall be “Float Finished” in this area and a suitable concrete sealer, paint or linoleum covered to prevent the dust accumulation, and to maintain the cleanliness throughout the servicing of this important part of bowling center.



I-BEAM (TRUSS I-JOINT)

The foundation uses I-BEAM technology. The I-Beams run at 90° to the lanes. The underlayment for the synthetic lanes is 30 mm OSB.



POWER REQUIREMENTS

- The Switch® pinsetters machine features 3-phase connections on all motors. Local Voltage and Frequency (380V/50Hz, 415V/50Hz, 208V/60Hz, 400V/50Hz etc.) must be established.
- The Electrical Installation of Switch® pinsetters is greatly simplified, since one 5-core cable (L1-L2-L3-N-G) per pair of lanes is all that is required for the Pinsetter and Ball Return setup. The required main cables to be wired up to machinery area by customer.
- The Ball Return power is provided by the Switch® pinsetters Control Box / Chassis.
- The Foul Detector (*subject to the purchased package) is a part of the Switch® pinsetters Control Box, so no further power supply circuits are required.
- Required Communication and Scoring wiring are supplied by Switch
- UPS (Uninterruptible Power Supply) device is strictly recommended by Switch for securing front desk data and preventing any data loss. UPS device to be supplied by customer with minimum 650VA specification. Any other additional UPS requirement for all equipment, to be calculated and provided by customer electrical expert. The recommended UPS capacity for pinsetters is 2 KVA per lane.

The Switch® pinsetters Control Box is fitted with the following safety features:

- Overload Protection. Each Pinsetter has its own circuit breaker incorporated.
- Residual Current Device (RCD) is mostly used for earth leakage protection. Each Pinsetter circuit breaker is controlled by RCD to ensure that the risk of electric shock is kept to a minimum.
- Minimum Voltage Monitor / Voltage Regulators.



Since the 3-Phase motors are used in the String Pinsetter, a special circuit has been provided to protect against the damage, imbalance between the 3phases or any other irregular voltage fluctuations.

NOTE: *It is strongly recommended to monitor/test the voltage prior to installation and ensure the needful equipment (ex. Voltage regulators) is supplied to avoid the damage (as the warranty does not cover such a damage).*

One 5-core (5 x 2.5 mm² cable, 3 phase + neutral + ground) is all that is required per Lane/Pinsetter. The 5-pole connector is supplied by Switch®. The cable should be installed above each Switch® Pinsetters at approximately 3 meters behind the Curtain Wall. Refer to electrical drawings supplied by Switch.

POWER CONSUMPTION

The power consumption of a pair of lanes is a maximum of 3.2 KW, assuming that all motors are running at the same time. Based on this calculation, a 48-lane facility would theoretically require the provision of 77 KW, but in practice it would be less due to the intermittent operation of the motors.

The fact that all motors are 3-phase also means that the phases are perfectly always balanced during the operation of the Bowling Centre. This means improved energy efficiency, and therefore reduced costs compared to other Bowling equipment that requires the provision of a single-phase supply. The wiring of the Main Distribution Panel is also greatly simplified, again reducing costs.

OTHER

2 x 50 mm diameter plastic pipes to be provided by customers for under lane cabling and wiring for each pair of lanes. (Scoring, signal and Ball Return power cables). The pipes will be approximately 20 meters long and be placed one on each side of the ball track. The pipes will be installed by the Switch® technicians during installation. (Effectively 1 x 20-meter pipe per lane).

LANES

All overhead work above the Bowling installation must have been completed. For example, Lighting, False ceilings, Sprinkler systems, Alarm systems, Air Conditioning, Supports for Switch® Scoring Monitors and Electrical installation.

No “Wet Trades” (plasterers, bricklayers, etc.) to be working in the Bowling area installation.

Temperature and humidity controls must be in place, either by the completion of the permanent air conditioning system, or by the provision of temporary equipment.

Temperature and Humidity levels must be consistently maintained as close as possible to those of the conditions foreseen for the future operation of the Bowling Centre.



Temperature and humidity levels during Lane installation must be within the following limits:

Temperature – between 19 and 23 degrees Celsius

Humidity – between 40% and 60% Relative Humidity.

NOTE: Switch® declines any responsibility for any movement and/or distortion of synthetic lane panels subjected to ambient temperatures and humidity levels out with the above limits.

If lane panels must be stored for a long period onsite or elsewhere, it is important that prior to installation the panels are given sufficient time to re-stabilize to the ambient conditions at site.

If other construction work must be carried out in the Bowling area, then the area should be sealed off by polythene sheeting so that ambient temperature and humidity can be kept constant.

A reliable power supply should be made available to the Switch® installation crew for power tools at no charge.

SCORING

Structural: Suitable support for the overhead monitors should be installed in a position (to be decided by the customer and his architect engineer / designer). This work should be carried out prior to the arrival of Switch® installation crew.

Cable conduits should be prepared below the finished floor for the “Bowlers’ Consoles” at the bowlers’ seating area. If monitors are foreseen as an option, then a dedicated power supply cable should also be provided at this position. High speed internet connection and Wi-Fi mandatory for installation

RECEPTION / FRONT DESK

The location where the Switch will set up Front Desk PC to be completed before equipment installation. Power cables and communication cables need to be wired as per requested specification. Any civil work should not be conducted after wiring completion to prevent cable damage.

IN HOUSE TECHNICIAN & MANPOWER

Assign at least two laborers to assist during the entire installation from start to finish aside from your in-house technician. In-house bowling technician operation personnel should be present during installation in order to acquire onsite training.



QUALIFICATION FOR IN-HOUSE BOWLING TECHNICIAN

The technician must have a minimum of 2 years of experience with **Switch® Pinsetters** or similar machinery. Additionally, the technician should have knowledge in the following areas:

- Electronics
- Electrical systems
- Mechanical systems
- Mechatronics
- Basic IT skills

SWITCH ENGINEERS SERVICE REQUIREMENTS

For the SWITCH engineers to perform the field service efficiently and in accordance with professional standards, the following conditions must be ensured by the customer:

1. Pre-Service Requirements

- The service or installation site must be fully prepared in advance, in compliance with the specifications mutually agreed upon by both parties.
- The customer is responsible for ensuring that the SWITCH engineers have appropriate **travel insurance** coverage for the duration of the service, including coverage for medical emergencies, accidents, and any unforeseen events that may arise during travel or while working on-site.

2. Travel, Transportation and Accommodation

- Flight and accommodation details should be shared with SWITCH® **before booking**.
- To optimize time, the **accommodation location** and **installation site** should be as close as possible to each other.
- Flight tickets must be for a **direct route** and booked exclusively. WORLD TRAVEL AIRLINES EXCEPT CHARTER FLIGHTS.
- The customer is responsible for ensuring that all local transportation, including transfers between **the airport, accommodation, and customer site**, is arranged and provided safely.
- The accommodation must meet high standards of comfort, cleanliness, and safety, equivalent to min. a 3-star hotel, ensuring the well-being and comfort of the SWITCH engineers. Each engineer must have a private room with clean and well-maintained sanitary facilities to guarantee privacy and comfort.

3. Site Requirements

The service or installation site must be fully accessible and free of safety hazards. It must be equipped with appropriate safety measures, all necessary materials for the service, and essential working conditions including **high-speed internet**, a **functioning air conditioning** system, **adequate lighting** and clean, well-maintained **sanitary facilities** for the SWITCH engineers.

4. On-Site Support and Basic Provisions

The customer is responsible for ensuring the comfort and support of the SWITCH engineers during the service period, including providing **daily meals**, ensuring **security and protection**, and addressing any other basic needs to maintain comfort and productivity.



5. Working Hours

The standard working hours for the SWITCH engineers are eight (8) hours per day, including a break time of 1 hour and 15 minutes.

6. Additional Services

If the customer requests services from SWITCH engineers beyond the agreement or if the length of stay needs to be extended, the customer must contact SWITCH® to clarify additional arrangements.

POST INSTALLATION

Technician training will occur and the technician will learn how to properly operate and maintain your equipment. Estimated time for training program: 2 days.

Switch® installation team will deliver all necessary user manuals to the assigned technician person in charge of your equipment.

The Switch® installation team will hand over the Spare Parts Kit (if ordered) to whoever is responsible for your equipment. To avoid damage to the Spare Parts Kit, we recommend storing this kit in a clean and dry place, free from dust.

The customer or authorized entity must accept and sign the Acceptance Term provided to you, certifying that all the equipment is in working order and properly installed.

GUIDELINES FOR INSTALLATION

Floor leveling at the installation site of the bowling lanes. Tolerance less than 2 cm is acceptable in this area. Location as described on the installation project.

A raised floor must be constructed in the seating area according to the lanes to be installed. This area should be built after the installation project is completed and is under the responsibility of the customer.

The building should be enclosed with a roof, with permanent windows and doors.

The surface for installation of the lanes must be clean, free of rubbish and building materials. The parts and equipment should be placed near but not in the space the bowling lanes will be installed. At the customer's request, the lanes may be covered with protective material (provided by the customer) after installation to keep them clean until the opening.

Allocate a room that can be locked with restricted access for the installation team to safely keep a storage of tools and equipment used during the installation.

NOTE: We recommend providing a big skip for the disposal of trash or allocating space our installers can place all trash during installation (Mostly for cardboard and bubble wrap). We recommend recycling cardboard material and taking all bubble wraps to your local plastic bag collection program.



HEIGHT

Minimum recommended height: 400cm (without ceiling) concrete floor to slab. The installation of the ceiling must be completed before starting the installation of the lanes.

FLOOR

Floor leveling at the installation site of the bowling lanes. Tolerance of 2 cm is acceptable in the entire bowling area.

FINISHING

Since the equipment's electronic equipment cannot be exposed to excessive dust or high humidity, any painting of the walls on the sides and end of the lane must be completed before beginning the installation.

Electrical. Dedicated Power supplies should be provided in line with the center of the Ball Return tracks; in the ceiling for the overhead monitors and, at the Bowlers' Consoles in the seating area (if optional monitors are to be installed)

Note: The details are specified in the electrical and data project attached.

Switch®	Customer
Date:	Date:
Name:	Name:
Signature	Signature



No	Task	Status	Expected Finish Date	Switch Expert Validation
1	Provide appropriate access to buildings for all bowling equipment.			
2	Provide a minimum access opening of 2.20 mt x 2.20 mt for bringing in bowling equipment and working materials. This opening will be used throughout the duration of the bowling installation.			
3	Provide all special permits required to offload and install the bowling equipment into the facility.			
4	Provide all materials and labor for fire blocking, draft stops, fire-retardant insulation, intumescent paint, or any other fireproofing materials and labor as required to comply with local codes and regulations. Compliance of the bowling facility with fire safety codes and regulations shall be the responsibility of the customer.			
5	Provide a leveled concrete surface with maximum 2 cm disturbance over the entire bowling lane installation area. Any additional material and labor required for excess shimming will be the responsibility of the proprietor.			
6	Provide any and all additional foundation and flooring materials for sidewall walkways, posts, ramps, steps and any other lane separation materials in the bowling area by Proprietor.			
8	Curtain wall to be built as per drawing			



11	All ceiling work above bowling lanes, approaches, seating area and pinsetters such as painting, electrical, HVAC, sprinkler, drop ceilings, lighting and any other work over bowling area must be completed prior to Switch® starting the bowling installation.			
12	Re-plumbing for sprinklers (if required)			
13	-Permanent power for bowling equipment must be available at time pinsetters are set in place.			
14	Provide all high voltage material, connections and labor required to hook up and operate all bowling equipment.			
15	Electrical cables & sockets for monitors and score viewers installed in ceiling.			
16	Provide adequate lighting and power for working in bowling area and running all necessary power tools.			
17	Electrical installation completed as drawing provided by Switch: a. Required main supply for each pair of bowling machines b. Required supply of overhead monitors and other communication equipment c. Required grounding wire for bowling machine e. Easy access to main supply for technician tools in the lane area			
18	Counter to be ready for bowling management system & 2 sets of cat6 data cable to be installed from the center point of monitors to the counter.			
19	High Speed Internet Connection and Wi-Fi is provided and active			
20	HVAC must be turned on in the building and a moderate temperature and humidity level must be maintained before OSB and lanes are installed. Any movement to the foundation and lanes caused by a delay in the operation of the HVAC system will be the sole responsibility of the proprietor. The HVAC system must be turned on within approximately 3-4 days before the installation begins.			



21	Air conditioning completed. (Alternatively, temporary temperature and humidity controls in place, including plastic partition)			
22	Monitor supports installed as per drawing (20 cm above finished false ceiling level).			
24	A monitor support beam must be provided by the proprietor at a sufficient height above the drop ceiling in the approach area to allow for the suspension of the scoring monitor.			
25	The entire bowling area must be clear of all debris, dirt, dust, construction materials and scaffolds prior to Switch® arriving at the job site. All “wet” trades out of immediate area. Any clean up and delays caused to Switch® will be charged back to the proprietor.			
27	Provide on-site dumpsters for all debris, packing and or shipping materials, generated by construction of the bowling lanes, and related equipment by Proprietor.			
28	Provide a secure and safe facility for Switch® employees and their tools. Proprietor will be responsible for any theft after hours			
29	Provide appropriate restroom facilities and access to drinking Water			
30	Provide access to building 24 hours a day, 7 days a week.			
31	Provide any and all forklifts, boom lifts, cranes and special labor required to offload and move equipment into building.			
32	Provide the insurance with the Proprietor for all bowling equipment and the maintenance of such insurance from the time it is shipped and leaves the factory.			
33	Applying for any and all construction permits for bowling equipment if required by local code by Proprietor.			
34	Complete required painting of under and behind pinsetters to rear wall prior to Switch® installing pinsetters by Proprietor. A good quality epoxy porch and floor paint should be used for this purpose			
35	Provide any and all unitruss, all wiring and any other support system for projectors, black lights and intelligent lighting and sound system by Proprietor.			



36	Provide Black fluorescent black lights tubes by Proprietor if needed.			
----	---	--	--	--

Seller	Buyer
Date :	Date :
Where :	Where :
Name :	Name :



Delivery Conditions

SWITCH delivers goods to customers on an EXWORKS basis, meaning deliveries are made at the SWITCH warehouse.

In cases where the shipment of products to the customer's site is organized by SWITCH upon the customer's request, the relevant control checklist must be stamped and signed by the customer and submitted to SWITCH within three (3) business days following delivery.

Any missing or damaged items identified during installation are the responsibility of the customer.

Additional services requested at the time of delivery are subject to extra charges.

Signature	Signature
-----------	-----------

Conditional Acceptance, Warranty Waiving Conditions

This declared reference document that initiates the warranty period only after signature of seller and buyer has all the information necessary to prepare the Bowling Centers for operation.

In order for the warranties to be valid, it is very important that the site complies to the specifications and requirements mentioned in this document.

In order for the warranties to be valid, all check list items to be completed and validated by Switch authorized technical team.

Deviating from these specifications may cause problems to the equipment and its environment operation, that can cause uncorrectable failures including health and safety issues.

In case of buyer will ask to waive one or multiple requirements of the pre-installation & installation for any reason, buyer accepts to cover all damages and warranty void for affected goods.

Details of Switch Warranty Terms and Conditions are attached.



Pre-Installation Site Inspection

For projects deemed necessary by the Switch Bowling technical team, a pre-installation site inspection may be scheduled at the bowling installation site.

If, during the visit, the site is found to be fully prepared and compliant with the installation requirements, the installation services may commence immediately.

However, if the site is not ready, the customer will be formally informed, and a new installation date will be scheduled.

In such cases, all expenses related to the inspection visit (including travel, accommodation, meals, and service fee) will be invoiced to the customer.

Requested Activity by Buyer / Owner	Switch Declaration



Date & Signature	Date & Signature