Electrician Wiring Guide

Hot Spring® Limelight® Collection

East Texas Hot Tub Company
Tyler & Longview, Texas
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230V Models: Prism, Pulse, Flair, Flash (50A standard) • **Beam** (230V, 50A) • **Prism Converted** (70A — see page 2)
115V Model: Beam (entry-level plug-in option — see page 2)

> **Important:** Limelight spas use the same **dual-GFCI-breaker subpanel** as the Highlife Collection. The subpanel is **included with your 230V spa**. Do not discard or replace it.

1. Main Electrical Panel — Standard 50-Amp Configuration

Applies to: Prism, Pulse, Flair, Flash, and Beam at 230V.

Specification	Requirement
Voltage	**230 VAC**, single phase, 60 Hz
Main breaker	**50 amp, 2-pole, NON-GFCI**
Circuit type	Dedicated — no other loads on this circuit

2. Wire Sizes — Main Panel to Subpanel (50A)

For wire runs **under 100 feet**. Longer runs require larger gauge per NEC voltage drop tables (3% max drop).

Wire	Gauge (AWG)	Color
Line 1 (L1)	**#8 AWG** copper	**Blue**
Line 2 (L2)	**#8 AWG** copper	**Red**
Neutral	**#8 AWG** copper	White
Ground	**#10 AWG** copper	**Green**

ALL WIRING MUST BE COPPER. Aluminum wire is not permitted.

3. Subpanel Placement

Requirement	Detail
Minimum distance from spa	**5 feet** from water's edge (NEC 680-38 to 41-A-3)
Maximum distance from spa	**50 feet**
Line of sight	Must be visible from the spa — **required by code**

4. Subpanel — Dual GFCI Breaker Configuration (50A)

Prism, Pulse, Flair & Flash

Breaker	Wire	Gauge	Color	Connects to
30A GFCI (Heater)	L1	#10 AWG	**Blue**	TB-1 Terminal 1
	L2	#10 AWG	**Red**	TB-1 Terminal 3

	Neutral	#10 AWG	White	**Load neutral on 30A breaker**
20A GFCI (Pump/Controls)	L1	#12 AWG	**Blue**	TB-1 Terminal 2
	L2	#12 AWG	**Red**	TB-1 Terminal 4
Ground	Ground	#10 AWG	**Green**	GRD terminal

Beam (230V)

Breaker	Wire	Gauge	Color	Connects to
30A GFCI (Heater)	L1	#10 AWG	**Blue**	TB-1 Terminal 1
	L2	#10 AWG	**Red**	TB-1 Terminal 3
20A GFCI (Pump/Controls)	L1	#12 AWG	**Blue**	TB-1 Terminal 2
	L2	#12 AWG	**Red**	TB-1 Terminal 4
	Neutral	#12 AWG	White	**Load neutral on 20A breaker**
Ground	Ground	#10 AWG	**Green**	GRD terminal

Note: Beam routes neutral through the 20A breaker; Prism/Pulse/Flair/Flash route neutral through the 30A breaker.

⚠ CRITICAL WARNINGS

- The **white neutral wire** MUST connect to the **load neutral terminal on the GFCI breaker** — NOT the neutral bus bar.
- **Connecting a hot wire to the neutral terminal will cause IRREVERSIBLE DAMAGE** to the IQ 2020 control box.
- Do not remove or bypass GFCI breakers — voids warranty.
- **Fill the spa with water BEFORE turning on power.**

5. Prism — 70-Amp Converted Configuration

The Prism can be upgraded to **70-amp service**, allowing the heater (6,000W) and jet pump to run simultaneously. This conversion requires an authorized Hot Spring service technician to reconfigure internal soft jumpers, plus a licensed electrician for the panel work.

Main Panel (70A Prism)

Specification	Requirement
Main breaker	**70 amp, 2-pole, NON-GFCI**
Rated load	230 VAC, 56A, 60 Hz

Wire Sizes — Main Panel to Subpanel (70A Prism)

Wire	Gauge (AWG)	Color
Line 1 (L1)	**#6 AWG** copper	**Blue**
Line 2 (L2)	**#6 AWG** copper	**Red**
Neutral	**#6 AWG** copper	White
Ground	**#6 AWG** copper	**Green**

Subpanel Breakers (70A Prism)

The 70A converted Prism uses **three GFCI breakers** (two 20A + one 30A). The additional 20A GFCI breakers must be purchased from East Texas Hot Tub — they are not included with the spa.

Breaker	Wire	Gauge	Color
30A GFCI (Heater)	L1	#10 AWG	**Blue**
	L2	#10 AWG	**Red**
	Neutral	#10 AWG	White
20A GFCI (Pump 1)	L1	#12 AWG	**Blue**
	L2	#12 AWG	**Red**
20A GFCI (Pump 2)	L1	#12 AWG	**Blue**
	L2	#12 AWG	**Red**
Ground	Ground	#10 AWG	**Green**

6. Beam — 115V Plug-In Option

The entry-level Beam can operate as a 115V plug-in model:

Specification	Requirement
Circuit	Dedicated **20 amp, 115V, GFCI-protected**
Wire	**#12 AWG** copper minimum

Outlet	20 amp single receptacle with **outdoor-rated weatherproof cover**
Outlet distance	**6–10 feet** from spa water's edge
Power cord	~15 feet included — GFCI built into cord end
Limitation	Heater (1,500W) and jet pump **cannot run simultaneously**

Never use an extension cord. The Beam can be converted to 230V by an authorized Hot Spring service tech + licensed electrician.

7. Bonding Requirements (NEC Article 680)

- Minimum **#8 AWG solid copper bonding conductor** to all metal within 5 feet of the spa.
- Bonding terminal is on the outside of the IQ 2020 control box.
- No electrical appliances within 5 feet of the spa.
- A **120V receptacle** is required within 10–20 feet (not closer than 5 feet).

8. Control Box Connections

Access the IQ 2020 control box via the **3/4" threaded opening** on the side of the spa. Use **3/4" liquid-tight flex conduit**. Terminal block (TB-1) uses **cage-clamp connectors** — strip wire 1/2 inch.

9. GFCI Testing Procedure

1. Press **TEST** on each GFCI breaker — it should click to OFF.
2. Wait **30 seconds**.
3. Push breaker fully **OFF**, then back to **ON**.

10. Permit & Inspection

Most Texas cities and counties require an electrical permit for 230V dedicated circuits. Check with your local building department.

> **Questions?** Call East Texas Hot Tub at **(903) 561-7727** or email **tuckerg@ilovemyspa.com**. We can recommend licensed electricians in the Tyler and Longview area.