

## Fiber Optic Technician

The South Hadley Electric Light Department (SHELD), a municipal electric utility company with 8,000 customers and over a century of service to the people of South Hadley, is seeking a **Fiber Optic Technician** who will be responsible for the physical construction, installation, splicing, and testing of fiber optic networks. This position will also support installation, service deployment, and trouble resolution for a wide range of telecommunications, data, internet, and voice services deployed by SHELD. This is a union position

### Position Responsibilities:

- Installing and removing aerial cable, including installation of messenger strand and transfer of cable and equipment from old poles to new poles.
- Installing underground cables through conduit systems, handholes, and manholes.
- Installation of underground infrastructure including but not limited to conduit, manholes and handholes using plowing, digging, and/or trenching equipment.
- Interpret engineering designs, splice prints, schematics, and OSP maps to execute precise cable placement.
- Prepare construction pathways, clear blockages in conduits, and ensure proper slack is left at designated storage points.
- Perform single-fusion splicing on loose-tube fiber optic cables.
- Prep, build, and seal OSP splice enclosures and mount them to poles or place them in underground vaults.
- Terminate fiber cables inside cabinets, hubs, and optical distribution frames (ODFs) using various connector types.
- Perform bi-directional testing using OTDRs (Optical Time-Domain Reflectometers), Power Meters, and Light Sources.
- Review trace data to identify macro-bends, bad splices, or connector issues, ensuring loss budgets meet engineering specifications.
- Troubleshoot and locate fiber breaks or degradation in the field, executing rapid emergency restoration services.
- Fiber to The Home (FTTH) installation of internet and voice services, including troubleshooting and repair.
- Copper voice and data line installation, repair, troubleshooting.
- Installing Central Office feeder and distribution cable.
- Conducting customer site surveys and network assessments.
- Completing fiber optic Outside Plant (OSP) and Inside Plant (ISP) related forms and reports with Telecom Network Engineer.
- Performing all OSP/dig safe related duties as assigned by Management, as time and training permits.
- Safely operate bucket trucks, cable pullers, lashers, and hand tools required for utility infrastructure construction.

**Job Knowledge/Skills Required:**

- Must have a minimum of 5 years' experience with HFC (hybrid fiber-coaxial)/Fiber Optic cable plants.
- Proficiency using related splicing equipment including fusion splicers, OTDR, fiber identifiers, all related splicing tools, documents and industry safety procedures.
- Familiar with broadband standards, applications, processes, and procedures.
- Experience in aspects of fiber optic & communications construction.
- Installation of coax, twisted pair cabling and troubleshooting customer's equipment a plus.
- Familiar with OSHA safety standards and requirements for work site applications
- Knowledgeable of bucket truck operation, safety procedures and proper traffic safety set up.
- Demonstrate an understanding of Customer Premise Equipment (i.e., Routers, TV's, Streaming Devices, etc.)
- Must be able to problem solve with customers
- Exceptional organizational skills, detail oriented
- Perform all other ancillary assignments or duties as directed by Management and/or Lead Telecom Technician.
- Provide support during storms or emergency restoration, providing assistance as directed.
- Participation in on-call rotation.

**Reporting Relationships:**

- Fiber Optic Technicians report directly to the Manager of Marketing, Customer Service and Technical Support Compliance, or designee.

**Qualifications and Physical Requirements:**

- High school diploma or GED
- Must possess a valid Massachusetts driver's license.
- Ability to obtain a Massachusetts 1C Hoisting License
- Safe driving record accepted by SHELDs insurance company.
- Able to lift 80 pounds.
- Able to work in confined spaces and heights of at least 40 feet.
- Dependable and accountable.
- Ability to distinguish between colors.
- Must live within a reasonable driving distance and be able to report to work within 30 minutes as defined in the union contract.

This is a full-time position with excellent benefits including a Massachusetts Public Employee Pension Plan and excellent benefit package.

Qualified candidates can apply for this position by submitting a cover letter and resume via email to [hmerchant@sheld.org](mailto:hmerchant@sheld.org), Holly Merchant at South Hadley Electric Light Department.

SHELD, South Hadley Electric Light Dept is an Equal Opportunity Employer conforming to all OSHA safety standards, federal and state regulations pertaining to the states and jurisdictions work is performed. Safety is of the utmost priority for the public and employees.

Starting pay range per the IBEW 455 CBA is \$40.74-\$44.27 effective 7/1/2026 and will be based on experience.

## FIBER OPTIC TECHNICIAN - JOB TASK ANALYSIS – PHYSICAL DEMANDS CHECKLIST

**\_Never (N)** = Not at all • **Occasionally (O)** = 1 - 33% (1-4 reps/hr) • **Frequently (F)** = 34 – 66% (5-24reps/hr) • **Constant (C)** = 67 – 100% (25+ reps/hr)

Posture, Movement:	N 0%	O 1 - 33%	F 34 – 66%	C 67 – 100%	Comments
Sitting		✓			Driving to specific locations
Standing			✓		To shovel, make repairs, make attachments, stand in bucket, operate machinery
Walking		✓			From truck to work location, around work area, in operations center
Climbing - Ladder		✓			Using ladders for hard-to-reach locations, entering and exiting manholes
Climbing- Stairs		✓			Climbing in and out of truck, within operations center
Crawling		✓			May be required in and around vehicles
Crouching		✓			Manhole work may necessitate
Balancing		✓			Standing within the bucket, on ladders, or when working in potentially wet/muddy/icy condition
Bending & Stooping		✓			Picking up objects, applying lubricants, to assemble parts, if in bucket - receiving objects from ground man
Pushing & Pulling		✓			Pushing items up to person in bucket, pushing/pulling wires/cables from/to conjunction box
Kneeling & Squatting		✓			Read labels/tie rope to conjunction box to hold up cables, potentially done in wet, muddy, or wet conditions
Reaching -Forward			✓		While working within the bucket
Reaching - Overhead			✓		While working within the bucket, working in a manhole, reaching to hand objects to employee in bucket
Lifting & Carrying		✓			Lifting objects/tools from the ground or off the truck. Carrying tools and other objects to work location from truck, in bucket, or to other work sites
Operating Controls		✓			Truck driving or operating bucket movements
Object Handling			✓		Handling tools and a variety of equipment when completing various tasks
Fingering			✓		Screwing/unscrewing nuts/bolts/screws - gloves are thick and cause fingers and wrists to fatigue quickly
Feeling		✓			Feeling for objects in hard to reach or dimly lit areas
Simple Hand Grasping			✓		Fastening screws, nuts, bolts, etc. Handling various tools, working in bucket - protective gloves
Firm Hand Grasping			✓		Using larger tools, handling heavier objects, tripod rescue assembly, pulling cables/wires
Twisting		✓			While doing work within the bucket (above ground) or using their body to apply their body to apply appropriate torque/force into removing old cable parts (underground)
Sensory:	N 0%	O 1 - 33%	F 34 – 66%	C 67 – 100%	Comments
Vision -Far:			✓		Driving/walking to different locations, operate bucket truck
Vision -Near:			✓		Using tools, making attachments,securing adaptors, working in bucket, operating bucket truck, reading labels, etc.
Depth Perception:			✓		Walking and driving over changing terrains to different locations around various obstacles, aligning, telephone wire repair/replacement, doing work while elevated in bucket-truck, operating bucket
Color Discrimination:		✓			Traffic signs and signals, types of wiring, splicing

<b>Sensory cont.</b>	<b>N 0%</b>	<b>O 1 - 33%</b>	<b>F 34 - 66%</b>	<b>C 67 - 100%</b>	<b>Comments</b>
<b>Field:</b>			✓		Walking and driving over changing terrains to different locations around various obstacles, wire repair/replacement, doing work while elevated in bucket-truck, operating bucket
<b>Accommodation:</b>			✓		Walking and driving over changing terrains to different locations around various obstacles, aligning load break elbow connectors for assembly, telephone wire repair/replacement, doing work while elevated in bucket-truck, operating bucket
<b>Perception-Spatial:</b>			✓		Driving/walking to different locations, working in the bucket at high heights, operating bucket truck, working down in the manhole
<b>Perception-Form:</b>			✓		Tool use, chain hoists, grips, working in the bucket, identify various terrain types, operating controls of bucket
<b>Feeling:</b>		✓			Feeling for the controls of the bucket truck, to locate smaller tools or supplies in dimly lit areas
<b>Speaking:</b>			✓		To other co-workers, customers, possibly other workers at the repair site (other company personnel, traffic control officers, city officials, etc.)
<b>Environment:</b>	<b>N 0%</b>	<b>O 1 - 33%</b>	<b>F 34 - 66%</b>	<b>C 67 - 100%</b>	<b>Comments</b>
<b>Inside Environment:</b>			✓		Shop time at the beginning and the end of every workday spent inside the temperature-controlled Operations center. Customer premise equipment install.
<b>Weather Conditions:</b>			✓		Possible daily exposure to temperature extremes and/or precipitation
<b>Temperature:</b>				✓	New England weather climate: temperatures change daily
<b>Cold:</b>				✓	Fall/Winter: Temperature ranges from sub-zero to 50 degrees. October-May
<b>Heat:</b>				✓	Spring/Summer: Temperature ranges from 50-100 degrees. May-September
<b>Wet/ Humidity:</b>				✓	Rain or snow conditions possible. Summer months are quite humid
<b>Biological Agents:</b>	✓				
<b>Human Body Fluids:</b>	✓				
<b>Chemicals:</b>		✓			Paints/Equipment cleaning agents
<b>Hazardous Materials:</b>			✓		Electrical wiring - possibility of getting electrocuted or burned, Laser/Eye hazard
<b>Floor Surface:</b>				✓	Asphalt, grass/dirt, or concrete flooring of the operations center
<b>Lighting:</b>				✓	Sunlight or building lighting
<b>Vibration:</b>		✓			Driving or working in bucket truck
<b>Unprotected Heights:</b>		✓			Working in bucket trucks during telephone pole repair or other jobs, working on ladders to repair electrical wiring, etc.
<b>Confined / Cluttered:</b>		✓			Working down in a manhole or up in a bucket
<b>Moving Equipment:</b>		✓			Various tools or objects handled daily
<b>Insect / Animal Contact</b>		✓			Potential for disturbing a hornet's/wasp nest within a streetlamp or telephone pole. Animals such as birds and/or squirrels may come in contact while working up in the bucket
<p>*Frequency performed per shift:                      N = Not Present (0%)                      O = Occasional (1 – 33%)                      F = Frequent (34 – 66%)                      C = Constant (67 – 100%)  Repetition Based Determination (multiply reps. by #-hrs. worked)                      1 - 4 reps./ hr.                      5 – 24 reps./ hr.                      &gt;= 25 reps./hr.</p>					

## OBJECT HANDLING

### LIFT

Description of Object: Chain hoist, grips, chain saw, ratchet cutters, bolt cutters, shot-gun stick, utility stick, shovels, tool kit, load break, drill, hydraulic hose, come-a-longs and slack, grounds, wire shields, ladders, climbing gear, cross arms, cutouts, wires and cables, anchors, rubber gloves, cones, battery operated lug compressor, load break elbow connectors, underground wire/cable, air flow fan, spool of rope, tripod rescue assembly, pliers, wire cutters, tape measure, razor cutter, safety harnesses. Max weight: 50 pounds. Height To / From: Ground to Overhead.

Weight (lbs.)	Frequency*	Repetitions/ Time	Height To/ From	Description of Objects
0 – 10	Frequent	5-30x/day	Ground to overhead	Chain hoist, grips, ratchet cutters, bolt cutters, non-weighted shovels, come-a-longs, cones, pliers, wire cutters, tape measure, grounds, wire shields, razor cutter, rubber gloves, various wires and cables
11 – 20	Occasional	5-15x/day	Ground to shoulder	Chain saw, hydraulic drill, various wires/cables, grounds, weighted shovels
21 – 35	Occasional	3-10x/day	Ground to shoulder	Various wires/cables, air flow fan, tripod rescue assembly -crank, grounds, shovel w/ dirt (depends on type of job-underground/above ground)
36 – 50	Occasional	5-10x/day	Ground to waist	Underground cables
51 – 75	Occasional	5-10x/day	Ground to waist	Lasher-When doing OSP Construction
76 – 100	Never			
> 100	Never			

<b>CARRY</b>	Max Weight Carried (1RM): 50lbs	Distance: 0-30'	Description of Object: Same as above	
Weight (lbs.)	Frequency*	Repetitions/Time	Distance	Description of Objects
0 – 10	Frequent	5-30x/day	Ground to overhead	Chain hoist, grips, ratchet cutters, bolt cutters, non-weighted shovels, come-a-longs, cones, pliers, wire cutters, tape measure, grounds, wire shields, razor cutter, rubber gloves, various wires and cable
11 – 20	Occasional	5-15x/day	Ground to shoulder	Chain saw, hydraulic drill, various wires/cables, grounds, weighted shovels, battery operated lug compressor
21 – 35	Occasional	3-10x/day	Ground to shoulder	Various wires/cables, air flow fan, tripod rescue assembly - crank, shovel w/ dirt
36 – 50	Occasional	5-10x/day	Ground to waist	Underground cables
51 – 75	Occasional	5-10x/day	Ground to waist	Lasher, when doing OSP Construction
76 – 100	Never			
> 100	Never			

\*Frequency performed per shift: N = Never (0%) 0 = Occasional (1 - 33%) F = Frequent (34 - 66%) C = Constant (67 - 100%)

<b>OBJECT HANDLING</b>				
<b>PUSH</b>				
Description of Object: Hydraulic drill, chain saw, underground wires (in manhole), (Various other objects are passed from the ground to the "bucket man" via overhead transfer/push press). Max Force Pushed (1RM): 50lbs. Distance 0-5'				
Weight (lbs.)	Frequency*	Repetitions/ Time	Distance	Description of Objects
0 – 10	Frequent	30x/day	1-12"	Torque application to various tools (wrenches, bolt / wire / ratchet cutters)
11 – 20	Occasional	20x/day	1-12"	Torque application to various tools (wrenches, bolt / wire / ratchet cutters), chain saw, hydraulic drill, drill
21 – 35	Occasional	5-15x/day	0-5'	Various cables/wiring, underground cables
36 – 50	Occasional	5-15x/day	0-5'	Various cables/wiring
51 – 75	Never			
76 – 100	Never			
> 100	Never			
<b>PULL</b>				
	Max Force Pulled (1RM): 50lbs		Distance: 0-5'	Description of Object: Same as above
Weight (lbs.)	Frequency*	Repetitions/ Time	Distance	Description of Objects
0 – 10	Frequent	30x/day	1-12"	Torque application to various tools (wrenches, bolt / wire / ratchet cutters)
11 – 20	Occasional	20x/day	1-12"	Torque application to various tools (wrenches, bolt / wire / ratchet cutters), chain saw, hydraulic drill, drill
21 – 35	Occasional	5-15x/day	0-5'	Various cables/wiring, underground cables
36 – 50	Occasional	5-15x/day	0-5'	Various cables/wiring, underground cables
51 – 75	Occasional	5-15x/day	0-5'	Pulling Lasher along. Messenger when conducting OSP construction
76 – 100	Never			
> 100	Never			
*Frequency performed per shift: N = Never (0%) 0 = Occasional (1 - 33%) F = Frequent (34 - 66%) C = Constant (67 - 100%)				

<b>OBJECT HANDLING</b>				
Item	Weight	Distance	Method	Duration
<b>Come-a-long w/ slack</b>	75 lbs.	0-15'	Lift / Carry	1-15x/shift
<b>Chain saw/Hydraulic drill</b>	17 lbs.	0-15'	Push / Pull	1-5x/shift
<b>Wireshields</b>	2 lbs.	0-15'	Lift / Carry	5-15x/shift
<b>Grip</b>	2.5 lbs.	0-15'	Lift / Carry	5-15x/shift
<b>Tripod Rescue Assembly</b>	Stand- 45 lbs, Crank- 25 lbs.	0-20'	Lift / Carry	1-5x/week
<b>Underground wire rolled up</b>	50 lbs.	0-10'	Push / Pull	5-10x/day
<b>Air Flow Fan</b>	25 lbs.	0-20'	Lift / Carry	1-5x/week (weather depending)