



Remote assessments Electrical Guideline

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TECHNICAL SAFETY BC

Contents

1.	Scope of guideline	3
	Types of evidence as per inspection type	
	2.1 Rough-wire inspection	
	2.2 Final inspection	4
	2.3 Electrical service connection checklist	5



1. Scope of guideline

The information provided within this document has been developed to assist duty holders in the collection of remote inspection evidence in the field. This document does not contain an exhaustive list of all documentation/media that may be required to support a remote inspection and not all items will be required for all equipment or inspection types. It is the responsibility of the duty holder to prove compliance with requirements of the Act, regulations, and adopted codes. For additional guidance on what may be required specific to your installation please contact your local safety officer.

Upon receipt of a <u>declaration or request for inspection</u> from a permit holder, the safety officer will determine whether a remote or physical inspection is required. If it is determined that a remote inspection is required, the permit holder will be requested to provide documentation and/or media to support the remote inspection process.

Types of evidence that may be requested include, but are not limited to:

- Documentation (PDFs, Word, etc.)
- Photo or videos logs
 - Photo or video evidence must be of sufficient quality that the inspecting safety officer can clearly make out the required details. If submitted photos are not of sufficient quality (blurry, taken at excessive distance, etc.) additional evidence will be requested.
 - Photo or video provided must clearly identify the installation location (this can be done through GPS, taking a photo of the address, etc.)
 - When it is necessary to note elapsed time for the purposes of inspection the photo or video evidence should be time stamped or provide an alternative method of demonstrating that the appropriate timeframe has elapsed
 - Where distance indication is required the use of a tape measure with the distance shown in the photo
 - Where slope indication is required the use of a graded level shown in the photo
- Live video conferencing

2. Types of evidence as per inspection type

The following section is a list of evidence, specific to inspection types, that could be asked by safety officers during a remote assessment.

2.1 Rough-wire inspection

The rough-wire must be done before any part of the electrical installation is covered or concealed. This inspection is required in all cases where any raceways or wiring are to be covered or concealed in any way. It includes underground as well as structure raceways and wiring. During a remote assessment, safety officers may ask for evidence as proof of compliance that includes, but is not limited to the following:

- Electrical panel location showing routing of home runs into the each panel, disconnect, transfer switch, etc. Photo needs to indicate height of panel
- Electrical panel with panel cover removed showing internal wiring, including conductor sizes and terminations of service conductors
- Ground and Bond conductor size and locations (main panel, gas line, communications, etc.)
- Image of truss area showing cable routing



- Image of floor joists showing cable routing
- Building interior corners showing cable set back and protection method
- All boxes larger than 100 mm showing fastening/support method
- Range box height above floor
- Wide view of each room to show outlet count
- Image of counter receptacle locations
- Recessed Lighting detail showing IC rating if applicable
- Detail of cable stapling throughout building
- Detail image of splicing in single, two and three gang boxes to show box fill
- Receptacle, switch, thermostat and heater locations in bathrooms. Show conduit for in floor heat leads
- Smoke/carbon monoxide detector locations if required by the BC Building Code
- Outside light fixture and receptacle(s) locations
- Image of feeds for future heat pumps/air conditioner, hot tubs, septic systems, out buildings, etc.
- Underground wiring detail for all underground installations (images of underground conduit to confirm depth, sand above and below, burial tape)
- Detail images of wiring and bonding of any in ground swimming pools
- Any images not listed that are relevant to your site work
- Images of 3 and 4 way switches showing identified conductor, and 3 way switch requirements for stairwells
- Image of ceiling fan rated box(es)

2.2 Final inspection

For the final inspection, all electrical work must be completed. The following is a list of evidence for this compliance that could be asked by the safety officer during the remote assessment process.

- Image of electrical panel showing completed directory and breaker ratings
- Wide view for each room/area showing completed receptacles and light fixtures
- Exterior view showing GFCI receptacles with weatherproof and "in-use" receptacle covers where required
- Close up of counter receptacles showing rating and GFCI protection where required
- Images of all specialty lighting such as under-counter or valance lighting, and associated equipment



- Sample photos showing correct polarity of receptacles, and that required "TR" rated receptacles are used
- Detail image of connections to equipment i.e. furnace, water heater, air-conditioner/heat pump etc. including nameplate ratings, including associated disconnect switches
- Any exterior or remote work such as outdoor lighting, entrance gates or out buildings
- Supply any addition images that are relevant to the site or project

2.3 Electrical service connection checklist

Service Connection refers to the installation of all electrical service equipment. This includes work involving consumer's service cables and/or raceways and fittings, meter base, main service box, and grounding and bonding systems. The following is a list of evidence for this compliance that could be asked by the safety officer during the remote assessment process. **Images:**

- Overall images of the exterior showing meter enclosure location with 3 inch utility duct connection for underground installation
- Overall image(s) of the exterior showing the overhead service raceway or mast installation, point of attachment, and the service head for overhead installation
- Pole, if installed. Image needs to show gain mark, guying, points of attachment and any mounting means required for equipment
- Underground installation showing depth, bedding material, marking and raceway type
- Service mast, or point of attachment support method
- Interior of the meter enclosure showing terminations
- Interior of dwelling showing consumer service raceway length
- Overall image of the main panel, cover removed, with a mark on the stud showing height
- Service entry section of the panel
- Ground plate location

This a recommended list to supply to Technical Safety BC for the purpose of virtual assessment, a safety officer will determine if and what additional information is required.