

**SASKTEL
PRE-WIRING GUIDE
AND
WIRING STANDARDS
FOR
SASKATCHEWAN RESIDENTIAL HOMES**



SaskTel 

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GENERAL INFORMATION

Purpose of Guide

This guide is intended to assist you in pre-wiring your new home for communications service. This guide applies only to single-family residences. For other dwellings or business applications, please contact SaskTel.

Disclaimer

Please note that in no circumstances will SaskTel be responsible to you or any other party for any loss of service or material or personal injury or property damage of any kind or nature resulting from either directly or indirectly work performed either by yourself or others on your behalf on inside wiring.

Description of Pre-wiring

Pre-wiring is a method of installing communications wiring so it is concealed within the walls of your home. This is done at the framing stage, when the electrical wiring is placed, before the application of insulation, drywall, and vapor barrier. Once the walls have been surfaced, wiring cannot be removed or replaced without disturbing the wall.

Customer Wiring Options

The customer has the following options to complete the pre-wiring by hiring:

- an electrician or general contractor,
- yourself,
- SaskTel.

Note: *The customer is responsible for all costs associated with the installation and repair of all wiring (inside or out) and associated hardware past the SaskTel Network Interface Device (NID) sometimes referred to as the Demarcation Point.*

OWNER/DEVELOPER RESPONSIBILITIES

The owner/developer is responsible to:

- Ensure all communications wiring and jacks are **CSA** (Canadian Standards Association) **approved** and placement of all wire conforms to the **Canadian Electrical Code**.
- Provide an **access hole, preferably 1 3/8" (34mm)** from the inside of the premise to the area near the outside power meter (6" to 8" left or right of power conduit)(see Figure 1). SaskTel will be mounting their Network Interface Device (NID) at this location.
- Provide a #10 insulated ground wire (stranded, not solid core) from the main building grounding system, through the access hole, to the NID location. This ground wire should be long enough to reach the SaskTel NID with about 3' (1m) of excess wire for terminations.
Note: In rural (non city or town) applications a #6 stranded insulated ground wire is required from the main building ground system, through the access hole, to the NID location with about 10' (3m) to reach the SaskTel ground rod.
- Provide inside wire from the communication locations in the home, through the access hole, to the NID location. This inside wire should also be long enough to reach the SaskTel NID with about 3' (1m) of excess wire for terminations.
- At the customer's option, a 12" x 48" wooden backboard may be placed immediately adjacent to the power backboard. This will be used for securing the SaskTel NID. If the customer does not have a backboard in place, or does not wish to install one, SaskTel will mount the NID directly to the side of the building (see Figure 1).

If the above owner/developer responsibilities are not met when SaskTel arrives to install service, the customer may choose to either:

- delay service until complete
- hire SaskTel, at tariff rates, to complete the required work

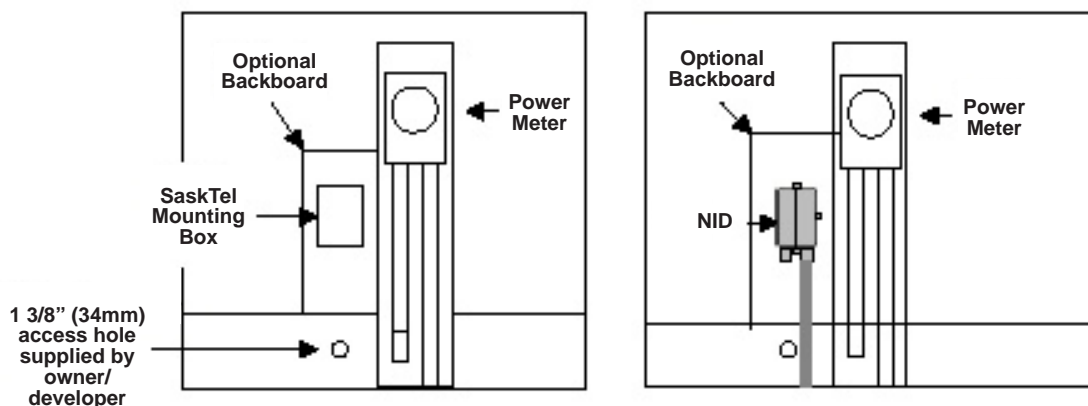
SASKTEL RESPONSIBILITIES

For new service installations, SaskTel is responsible to:

- Provide and install the mounting box and/or mounting bracket (where applicable), the NID and associated PVC 3/4" (19mm) conduit on the exterior of the premise. (Refer to Figure 1). SaskTel typically installs the mounting box and/or mounting bracket 48" - 54" (120cm - 140cm) above the ground level. This height may vary according to building type and service entry location.
- Terminate, activate, and test the SaskTel main service residing in the NID.

Note: SaskTel will connect the inside wire to the main service in the NID if provided at the time of main service installation. If this termination or connection causes a trouble, SaskTel will provide repair service at Tariff Rates. (Refer to Customer Wiring Options.)

Figure 1: Approximate location of access hole

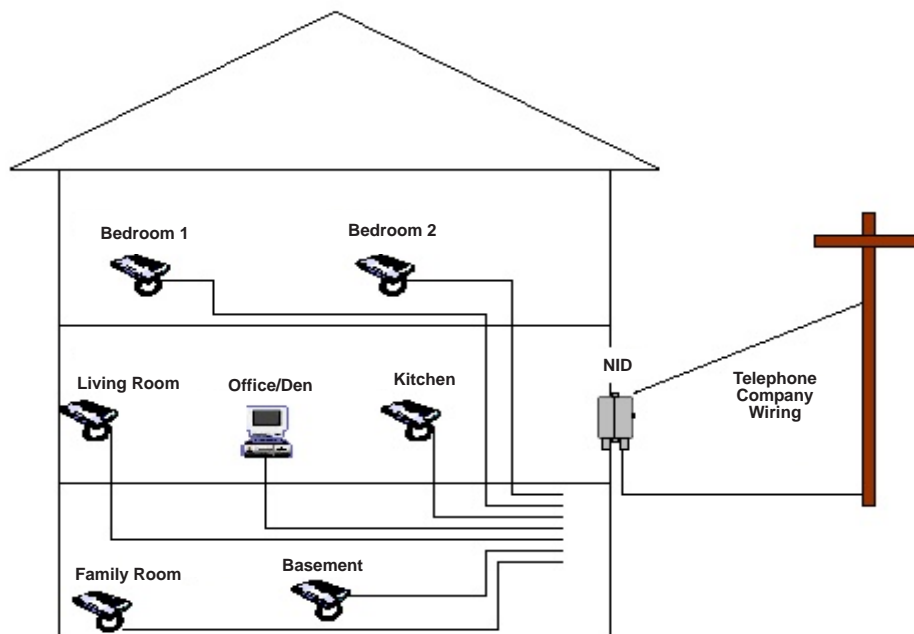


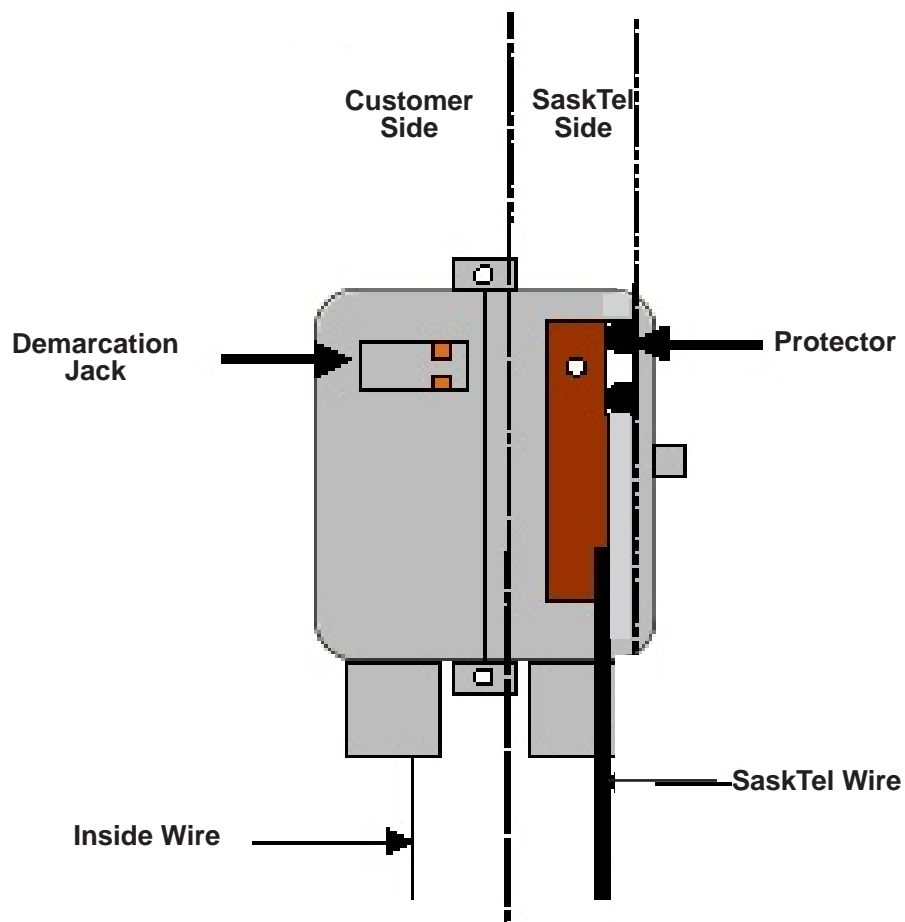
Locations

- Take into consideration present and future needs (e.g. second line, children's line, computer modem, fax machine, television, security system) (see Figure 2). This may save extra wiring charges or surface wire runs at a later date.
- Recommended locations for communication service are master bedroom, spare bedroom/den, living room, kitchen and family room.
- It is recommended that a communication jack be installed near any coax outlet. This will allow for future television requirements such as movie ordering.
- Take into consideration ease of accessibility, traffic and furniture placement. Jack locations should be accessible and in areas where they won't be damaged from furniture or normal activities.

Figure2: Potential Jack Locations

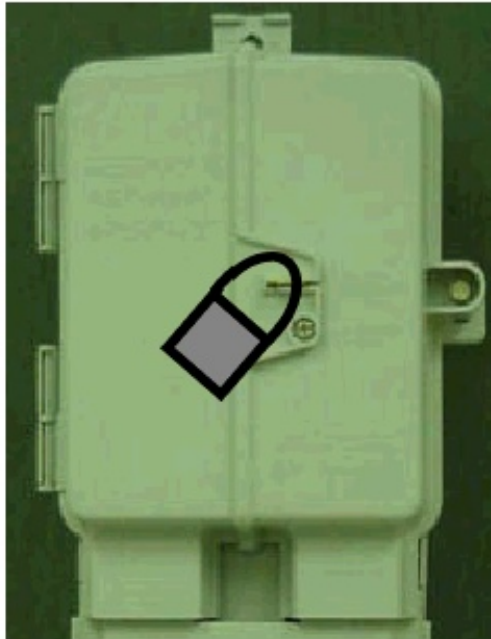
Figure 3: SaskTel Network Interface Device





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- The customer can provide a lock to secure the customer side of the NID.
- The lock can be placed on the cover of the NID, above the customer access point, to secure the customer's demarcation jack and wiring.



Wire Standards

- The standard wire used and recommended by SaskTel is category 5, four twisted pairs of 24AWG solid copper wire. All wire used must be CSA (Canadian Standards Association) **approved** and placement of all wire must conform to the **Canadian Electrical Code**.
- Do not use flat telephone set line cord, lamp wire or bell wire for communications wiring.
- SaskTel does not sell to the customer, contractor or electricians, standalone items such as bonding packages, buried service wire, inside wire or any associated material (e.g. pedestals, jacks, etc.) required to extend the customer's service from the SaskTel NID or the customer connecting point to external buildings. SaskTel will provide these items with an end-to-end service (i.e. sale and install) at the applicable rates. For more information, contact your local SaskTel office.

Wire Installation

A standard electrical box should be placed at each location a communications jack may be required. The boxes should be mounted approximately 12" (30cm) (normal electrical outlet height) above the floor. Wall mounted phone locations will be approximately the same height as electrical switches.

- Wiring will extend from the jack locations to the customer connection point which is located at the SaskTel NID. SaskTel recommends the use of a separate wire run from each jack location to the customer connection point. This is called home running and is a recommended wiring method for future installs and repairs.

Note: in some instances it may be beneficial to run wiring to a common location at the electrical panel and then take a single wire run, through the access hole, to the SaskTel NID. If this method is used it is recommended that all wires be terminated at the common location to allow continuity of all wire pairs for future installs and repairs.

- Leave about 3' (1m) of wire at the SaskTel NID location. This allows enough wire for connection at the customer connection point.
- Do not splice pieces of wire together for wire runs. This could cause future troubles that may not be accessible for repair.
- Secure the wire as needed by placing a round staple designed for wire at approximately every 24" (60cm). Avoid kinks and sharp bends in the wire. Care is needed not to place staples or clips through the wire. If this should happen, replace the entire section of affected wire.
- When pre-wiring through rafters do not run communication wire in the same drilled holes as electrical wire.
- Do not run wire within 2" of any electrical wiring, in heating ducts or vents, or near hot water pipes or chimneys. Damp or wet areas (basement floors, bathrooms and some outside walls) should be avoided. Note: The CSA has specific regulations regarding bathroom locations.

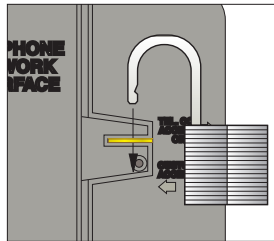
Let SaskTel provide a skilled technician for your wiring needs.

NID INSTRUCTIONS

SaskTel has installed a plastic housing called a Telephone Network Interface. This outdoor unit is located where your telephone wire enters your premises. This location is usually near your electric meter.

Purpose of this Housing

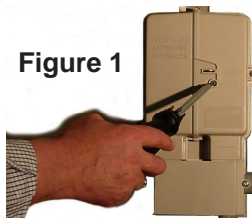
- Provides you a place to connect your premises telephone wires.
- Provides a convenient test jack, which will help you isolate telephone line troubles. This will assist you when reporting troubles to SaskTel
- Your telephone service may be further protected by the addition of a standard padlock (customer provided) as indicated below.



Testing

To test your telephone line:

1. Locate the housing marked Telephone Network Interface.
2. Using a screwdriver unscrew the fastener marked "Customer Access". (Figure 1)



3. Swing the cover open.
4. Open the customer line module as shown in Figure 2 & 3. Squeeze the orange tabs and lift the cover open.
5. Plug the telephone into the interface jack.
6. If the telephone set works, the trouble is with your inside wiring or equipment. You have the option of calling SaskTel to repair at Tariff rates.
7. If the telephone does not work, close the Customer Line Module cover and contact SaskTel Repair Service (611).

Changing or Adding To Your Wiring

- Open the Telephone Network Interface as shown on the overleaf.
- Open the Customer Line Module as shown in Figure 2 & 3. Squeeze the orange tabs and lift the cover open.

Figure 2

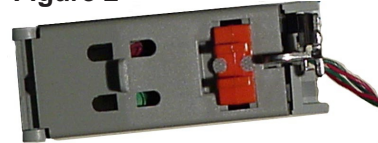
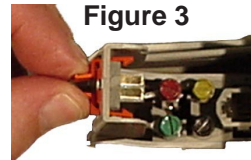


Figure 3



Squeeze the orange tabs and lift the cover open.

- Route your new telephone wire, following the existing path through the telephone network interface.
- In some cases an additional lower housing cover may need to be removed with two screws.
- Connect the new telephone wire to the red and green colored screw terminals
- Close the module covers, and tighten the cover screw.

NOTE: If in doubt, you can have a skilled SaskTel Technician change or add to your wiring needs at Tariff rates.

IMPORTANT: If you have an alarm circuit or a special line, you may want to contact your vendor for assistance prior to equipment connections.

For information on current rates or to book an appointment,
contact:

SaskTel1-800-SaskTel (1-800-727-5835)
Residential Sales310-Sale (7253)
Business Sales310-4287