### 1. GENERAL

1.01 Channels are leased to business customers only for the transmission C of sound (voice) and/or electrical impulses (signals) between two or more service points of the lessee. The service points may be in one Exchange or in different Exchanges.

For the purpose of this section, a service point is a demarcation point, on a customer's premise, at a mutually agreed point.

- 1.02 The apparatus, equipment or devices connected to the channel may be provided by the lessee or may be leased from the company.
- 1.03 The attachment or connection of lessee-provided equipment to a channel shall be in accordance with the requirements stated in N850, where the word "customer" shall be deemed to include a "lessee".
- 1.04 The Company provides a suitable termination at the service point.
- 1.05 When the Company determines that it is necessary to install special equipment or to incur any unusual expense in order to establish channel service, the customer shall pay to the Company an additional charge based on the cost of the special equipment installed and the unusual expense incurred.
- 1.06 Notwithstanding Item 1.03, the customer may connect non-certified modems to Company's network, provided the customer has obtained prior written approval of the Company. For such non-certified connections, the customer shall pay the Company in addition to any rates and charges, the costs incurred by the Company for: a) the inspection and testing of customer provided modems to
  - determine whether the modems are compatible with the Company's network,
  - b) the installation of additional interface equipment required by the Company to protect the Company's network.

# 1.07 Channels are leased as follows:

- (a) Channels for signal transmission see Sub-section 2.
- (b) Channels for remote operation of a private mobile transmittersee Sub-section 3.
- (c) Channels for wired-music transmission see Sub-section 4.
- (d) Channels for voice without signaling or conditioning see Subsection 5.
- (e) Channels for program transmission see Sub-section 6.
- (f) Channels for television transmission see Sub-section 7.
- (g) Channels for data transmission see N910-2.

### 2. CHANNELS FOR SIGNAL TRANSMISSION

- 2.01 Channels are leased for the transmission of signal pulses between items of equipment of the lessee that are connected with the channels.
- 2.02 Transmission may be in one direction, or in both directions simultaneously, or alternately in either direction. Duplex operation is provided as specified in N260 3.01 (d). See Item 2.05 (c) for alternate use arrangements.
- 2.03 For a lessee who provides protective alarm service to his customers, a bunching arrangement may be installed without additional charge in the Wire Centre in which he has a number of service points to connect channels between these service points and a channel terminating at his premises. The number of connections to the bunching arrangement is determined by the Company's equipment limitations.
- 2.04 Three classes of channels are leased as follows:
  - Class A channels suitable for the transmission of signal pulses up to 30 bauds
  - Class B channels suitable for the transmission of signal pulses up to 55 bauds; similar in transmission characteristics to those provided for 45 baud or 55 baud teletype service.
  - Class C channels similar in transmission characteristics to those provided for voice-grade service.
- 2.05 Monthly channel rentals including channel measurement and rate distance and the service charges applicable are as follows:
  - (a) Monthly rentals of channels
    - (1) Local channel Classes A, B and C - see N260-3
    - (2) Interexchange channel Classes A and B - see N690-2 & 3.04 Class C - see N690-2 & 3.01
    - (3) Local channel with interexchange channel Classes A and B - see N690-3.05 Class C - see N690-3.05
  - (b) Multi-element service charges apply for each service point connected on a signal channel, unless otherwise specified.

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#### NORTHERN TELEPHONE LIMITED

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#### LEASE OF CHANNELS

## 2. CHANNELS FOR SIGNAL TRANSMISSION (Cont'd)

- 2.05 (c) Alternate-use Arrangement
  - (1) A Class C signal channel may be used alternately as a voice-grade channel of a different type; i.e., an intercommunicating channel or a Schedule 4 data channel. When used as a Schedule 4 data channel, a key is required for each data station connected except that the charge does not apply when the channel is provided with facsimile equipment.
  - (2) A Class B signal channel may be used alternatively as a teletype-grade channel of a different type with the same or a narrower band-width; i.e., a Class A signal channel, a Schedule 1 or 2 data channel or a teletype channel.
    - (3) For monthly rates and service charges, see Item 1.07.

#### 3. CHANNELS FOR REMOTE OPERATION OF A PRIVATE MOBILE TRANSMITTER

- 3.01 Channels are leased between specified locations for remote operations of a lessee-provided mobile transmitter that is used for communication with radio-equipped vehicles. The lessee is to provide his own input and control arrangements.
- 3.02 The channels may be used by the lessee, in accordance with their transmission characteristics, for the purpose of voice transmission and, where specified, to transmit more than one tone or signal alternately or simultaneously, or to derive additional channels for purposes of remote control as follows:
  - (a) The channel is provided for alternate or simultaneous voice transmission and tone-signalling control.
  - (b) The channel is similar to that referred to in (a) but specially adapted in one or both directions of transmission for operation and tone signal control between approximately 300 and 3,000 Hertz (cycles a second).
- 3.03 Rates and Charges

The monthly rentals for the channel and the service charges applicable are those for inter-communicating channels (N810) and, where provided, for signal channels.

## 4. CHANNELS FOR WIRED-MUSIC TRANSMISSION

- 4.01 Channels are leased for the transmission of program material provided by the lessee to loudspeakers on the premises of others. They are leased for continuous or occasional use between points in one or more Exchanges. Transmission in one direction is provided for.
- 4.02 Equalization of Channels
  - (a) Local channels
    - (1) Approximate equalization of local channels to 5,000 Hertz (cycles a second) is provided without additional charge. Precise equalization to 5,000 or 8,000 Hertz, or to 15,000 Hertz, when facilities permit, is done by frequency runs at the request of the lessee at the charge specified in Item 4.05(e).

#### 4. CHANNELS FOR WIRED-MUSIC TRANSMISSION (Cont'd)

- 4.02 Equalization of Channels (Cont'd)
  - (a) Local channels (Cont'd)
    - (2) Approximate equalization is required for a channel between Wire Centres or for a channel between Wire Centres with distributing amplifiers at both ends.
    - (3) No equalization is required for a channel between a Wire Centre and a service point, between premises of the lessee and those of his customers, or between two Wire Centres when the channel is terminated on a bunching arrangement at one of the Wire Centres. Non-equalized channels must be terminated in repeating coils, which may be provided by the lessee on his premises.
  - (b) Interexchange channels
    - (1) Rentals for interexchange channels provide for approximate C equalization of the channels within the following frequency ranges:
      - a. Between 100 and 5,000 Hertz or 50 and 8,000 Hertz at the lessee's option.
      - b. Between 50 and 15,000 Hertz when facilities permit.
- 4.03 Amplifiers and Bunching Arrangements
  - (a) Distribution Amplifier
    - (1) A distributing amplifier is required when three or more legs of a multi-point channel are connected in a Wire Centre or Rate Centre as follows:
      - a. In a Wire Centre, for any combination of three of more local circuits from other Wire Centres and for any combination of three or more channels connecting service points.
      - b. In a Rate Centre between an interexchange channel and **c** two or more local channels.

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# 4. CHANNELS FOR WIRED-MUSIC TRANSMISSION (Cont'd)

- 4.03 Amplifiers and Bunching Arrangements (Cont'd)
  - (b) Bunching Arrangement
    - (1) As an alternative to the use of a distributing amplifier, an arrangement known as a bunching arrangement may be provided without additional charge, (USOC 67R) at the lessee's option, at any Wire Centre from which no other Wire Centre on the same network is fed. A maximum of 10 channels may be connected with one bunching arrangement. The Company does not guarantee the quality of transmission when a bunching arrangement is used.
- 4.04 Distance measurement and rate distance are as follows:
  - (a) Local channel N260-3
  - (b) Interexchange channel N690-3
- 4.05 Rates and Charges
  - (a) The channel rentals in (b) provide for connection with the first service point on the premises of the lessee and of each of his customers. When a channel is extended to connect one or more additional service points on any such premises, additional rentals and charges apply as in (d).
  - (b) Local channels are leased at the rentals specified in N260-3.03(a).
  - (c) Interexchange channels are leased at the rentals specified in N690-3.

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#### 4. CHANNELS FOR WIRED-MUSIC TRANSMISSION (Cont'd)

- 4.05 Rates and Charges (Cont'd)
  - (d) The parts of the channels between the initial amplifier and other service points on one property are normally provided by the lessee. However the Company will provide these parts at the lessee's request at a monthly rental of \$6.00 (USOC 1L1BB) for each channel in one building. Additional distance charges (N260-3) apply to extend the channel to service points outside the building.
  - (e) A non-recurring charge of \$156.70 (USOC VTCHP) applies for equalizing each channel or for equalizing at the same time two channels of the lessee between the same service points. For the simultaneous equalization of more than two channels, each multiple of two channels is charged for as described. The equalizing charge is in addition to the rental and any other charges applicable.
  - (f) A monthly rental of \$71.05 (USOC 67Q) applies for each distributing amplifier. A service charge of \$178.05 applies.
  - (g) Service charges are as follows:

Multi-element service charge applies for each of the following: Changing the Central Office termination of a channel between distributing amplifier and the premises of a lessee's customer from one distributing amplifier to another in the same Central Office for the same lessee.

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Moving the termination of a channel between a distributing amplifier (or lessee's studio) and the premises of his customer from one location to another in the same building.

Termination of a local channel at each service point.

#### 5. CHANNEL FOR VOICE WITHOUT SIGNALLING OR CONDITIONING

- 5.01 General
  - (a) This channel is leased for voice communication only. It is furnished between terminations of lessee-provided voice-type communication equipment.

# 5. CHANNEL FOR VOICE WITHOUT SIGNALLING OR CONDITIONING (Cont'd)

- 5.01 General (Cont'd)
  - (b) The channel is only provided as follows:
    - (1) Between terminations on the premises of the lessee.
    - (2) Between a termination on the premises of the lessee and a termination on another premises as designated by the lessee.
  - (c) The channel is furnished without conditioning or Company-provided signalling. The Company does not provide any direct current (DC) or low-frequency ringing current on the channel nor does it provide DC continuity.
  - (d) A channel-terminating device is required at each termination of each circuit.
- 5.02 Rates and Charges
  - (a) The rentals and charges stated provide for a two-point channel between terminations in one Exchange or in different Exchanges. A charge applies when a channel is provided between more than two terminations or when the lessee requests tandem operation of two or more channels.
  - (b) The following monthly rentals and service charges apply:
    - (1) For a channel provided within one Exchange, see N260-3.
    - (2) For a channel provided between Exchanges, see N690-2.01 and C 3.01. The monthly distance charge shown in N690-3.01(a) does not include the charge for the channel-terminating device.

## LEASE OF CHANNELS

#### 6. CHANNELS FOR PROGRAM TRANSMISSION

- 6.01 General
  - (a) Channels are leased for the transmission of sound for radio and television broadcasting, for reproduction by loudspeakers (other than "wired music" which is covered in Sub-section 4) or for recording by equipment of lessee.
  - (b) Channels are leased for continuous or occasional use between points in one or more Exchanges, Transmission in one direction is normally provided for. Reversal in the direction of transmission is provided as specified in Item 6.06.
  - (c) Channels with 3 different types of use are provided as follows:
    - (1) Studio-to-transmitter channel leased for daily use between these points.
    - (2) Studio-to-service point channel leased for daily or occasional use between the lessee's studio and a service point (including another studio) at which a program originates.
    - (3) Telephone co-ordinating channels Leased for daily or occasional use between the lessee's studio and service points at which a program originates or between service points. They are leased to enable the lessee to pass information about the handling of a program.
  - (d) Inter-connection of program channels
    - (1) A program channel provided by the Company for a lessee may be connected by him, with a program channel not provided by the Company if this does not interfere with any of the Company's services.
    - (2) Connection between an interexchange program channel provided C by the Company and a program channel of the lessee is to be made through a local channel provided by the Company.
    - (3) Inter-connection is to be made at the following locations:
      - a. For a broadcaster, at the studio or transmitter.
      - b. For others, at the lessee's premises if the location is satisfactory to the Company.
    - (4) For the purpose of inter-connecting, a studio-to-transmitter channel is considered a local program channel.

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## LEASE OF CHANNELS

#### 6. CHANNELS FOR PROGRAM TRANSMISSION (Cont'd)

- 6.01 General (Cont'd)
  - (e) Telephone co-ordinating channels
    - Facilities may consist of channels and terminating equipment or of channels only; in the latter case, the terminating equipment is provided by the lessee, subject to the Company's approval.
    - (2) Channels are provided on a monthly basis.
    - (3) A spare studio-to-service point channel may be used, when practible, as a telephone co-ordinating channel.
- 6.02 The channel distance measurement and rate for all program transmission channels are as follows:

Local channel - N260-3.02 Interexchange channel - N690-2.01.

6.03 Distance charges for studio-to-transmitter channels are as follows:

Local channel - N260-3.02 Interexchange channel - N690-3.

6.04 Rates and charges for studio-to-service point channel are as follows:

Local channel - N260-3.03 Interexchange channel - N690-3.

6.05 Rates and charges for telephone co-ordinating channel are as follows:

Local channels - N260-3.03. Interexchange channels - N690-3.01.

## LEASE OF CHANNELS

## 6. CHANNELS FOR PROGRAM TRANSMISSION (Cont'd)

- 6.06 Reversal of Channels
  - (a) Reversal in the direction of transmission over interexchange C channels is provided, if practicable. The charges provide for the necessary reversal of local channels, and restoration of interexchange and local channels. They provide also for the Switches required for the reversal and restoration of station connections, if used. Where reversal is not practicable, transmission in the opposite direction is provided by additional facilities at the appropriate rentals and charges.
  - (b) Reversals are made only by the Company, which requires the release of the network by the lessee for the time required.
  - (c) Reversal of IX Channels. (Refer to Bell Canada Tariff).
- 6.07 Multi-element Service Charges apply for the following:
  - (a) Studio-to-transmitter channel.
  - (b) Studio-to-service point channel.
  - (c) Telephone co-ordinating channel that for an intercommunicating circuit (N810-4.03).
- 6.08 Attendant Provided by Company
  - (a) When the Company provides an attendant at a pick-up or receiving point at the request of a lessee, a charge applies for each occasion, depending on the actual time and cost incurred.
- 6.09 Equalization of Channels
  - (a) Approximate equalization of local channels to 5,000 Hertz (cycles a second) is provided without additional charge. Precise equalization to 5,000 or 8,000 Hertz or to 15,000 Hertz when facilities permit, is done by frequency runs at the request of the lessee. A non-recurring charge of \$156.70 (USOC VTCHP) applies for equalizing each channel or for equalizing at the same time two channels of the lessee between the same service points. For the simultaneous equalization of more than two channels, each multiple of two channels is charged for as described. The equalizing charge is in addition to the rental and any other charges applicable.
    - (b) Rentals and charges for interexchange channels provide for approximate equalization of the channels within the frequency ranges specified in Item 6.04(b).

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## LEASE OF CHANNELS

#### 6. CHANNELS FOR PROGRAM TRANSMISSION (Cont'd)

6.10 Stereo Feature

A stereo feature provides the precise phase equalization to balance the delay encountered in the program of two channels to 15,000 Hertz.

The monthly recurring charge of \$49.80 (USOC VTCSF) and a non-recurring service charge of \$312.30 apply for each feature required to equalize two program channels.

The charges are in addition to the rental and any other charges applicable to providing equalized program channels.

#### 7. CHANNELS FOR TELEVISION TRANSMISSION

### 7.01 General

- (a) Television channels are provided to transmit a combination of video and audio signals. They are leased for broadcasting or recording by television stations and for closed circuit television (television viewing) as defined in N90.
  - (1) Video channels are for the transmission of signals to be converted to visual images whereas audio channels are those for the transmission of signals to be converted to sound.
  - (2) Program transmission channels (P.T.C.), where associated with a television channel, may be furnished for transmission in one or both directions. When two or more channels are provided, transmission may be in opposite directions.
  - (3) Telephone co-ordinating channels associated with a telephone channel are charged for as program transmission channels.
- 7.02 Television channels require the use of coaxial cable or microwave facilities and the Company will provide them only when these facilities are available. For occasional use they may be provided using portable microwave facilities including towers.
- 7.03 Channels provided for continuous use in Exchange or between Exchanges are provided under the terms of a special agreement or lease with rentals and charges based on the expense incurred.
- 7.04 The rentals and charges specified herein are for channels leased for occasional use between studios or between a studio and a point where a television program originates. They may be in one Exchange or between two or more Exchanges.

# 7. CHANNELS FOR TELEVISION TRANSMISSION (Cont'd)

- 7.05 Rentals and charges herein apply to television channels for the transmission of signals to produce images in black and white. Channels are arranged for the transmission of signals to produce images in colour, upon request by the lessee, for which an additional charge may be applied based on the additional expense incurred.
- 7.06 Local Television Channel

Because of the special facilities required, television channels will be provided as special assemblies.

- 7.07 Interexchange Television Channel
  - (a) Interexchange channels are provided between two or more pointsc in different Exchanges and when facilities are available.
  - (b) The circuit measurement and rate distances are determined as specified in N690-2.01(a).
  - (c) A local channel is required in each Exchange in which there is a C service point connected to the interexchange channel. Rentals and charges are in Item 7.06.
  - (d) The channel rentals apply for two-point channels and provided for one video channel and P.T.C. The rental for each additional P.T.C. is the difference in rental for the channel provided between that for 1 P.T.C. and that for 2 P.T.C. Multi-point channels are provided when possible, upon request by applicants; additional charges apply based on the additional expense incurred.
- 7.08 Additional Video Channels for Television Broadcast Purposes
  - (a) These channels are provided in association with a channel for television transmission, as Special Assemblies.
- 7.10 Reversal of Television Channels
  - (a) When reversal in the direction of transmission of a local channel between service points in the same Exchange is practicable, the charge is based on the expense incurred. Reversal is not provided for interexchange channels.

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## 7. CHANNELS FOR TELEVISION TRANSMISSION (Cont'd)

- 7.12 Switching
  - (a) Switching is done by the Company on its premises to divide a network or combine two or more networks, or to connect a service point to or disconnect it from a network. A switch may affect video or audio channels or both.
  - (b) When switching is done during the period of use upon request by the lessee, the channel is charged for during the time required for switching.
  - (c) The service charge applies for connecting or disconnecting each television channel.
- 7.13 Monitoring

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- (a) The Company normally monitors a program for three minutes before the time at which a cue is to be received from a lessee to perform a switch. This is done without additional charge. When the lessee does not specify the exact time for the cue, the Company monitors for longer than three minutes, a charge based on cost applies for monitoring time, for each place at which monitoring is done.
- 7.14 Equalization of Local Channels
  - (a) Approximate equalization of local channels to 5,000 cycles per second is provided without additional charge. Precise equalization to 5,000 or 8,000 cycles per second, or to 15,000 cycles per second when facilities permit, is done by frequency-runs at the request of the lessee. A non-recurring charge of \$156.70 (USOC-VTCHP) applies for equalizing each channel. The equalizing charge is in addition to the rental and any other charges applicable.