



1 Applications

The Ti070 programmable wall switch can be used in a single-switch or 3-way installation with the following types of lighting:

- Incandescent
- Halogen
- Low-voltage halogen with transformer
- Fluorescent

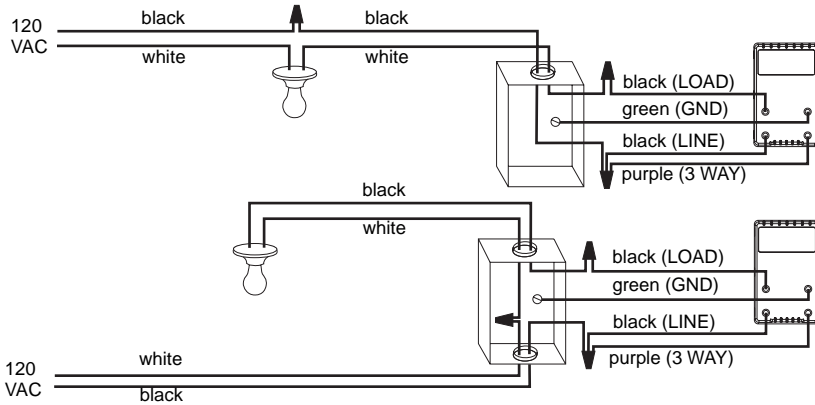
The Ti070 switch cannot be used with a load of less than 40 W or more than 500 W.

2 Installation

- 1 Cut power at the circuit breaker to avoid electric shock.
- 2 Remove the existing switch. (For a 3-way installation, identify and label the wire connected to the "common" screw.)
- 3 Install the new switch.
- 4 Apply power at the circuit breaker.

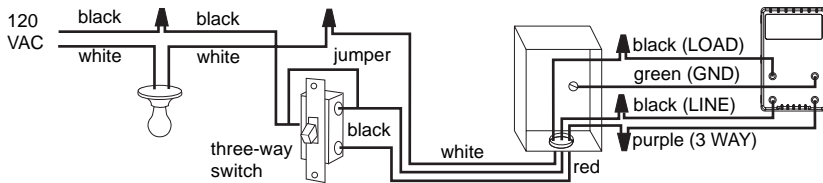
WARNING: Disconnect power to the switch when replacing a light bulb (see section 4).

SINGLE-SWITCH INSTALLATION



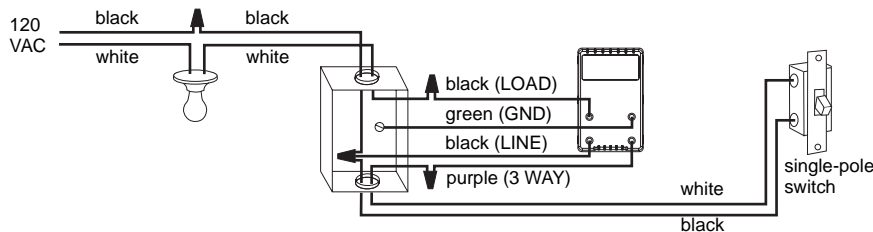
Connect the LINE and 3 WAY wires to the line (120 V) wire and LOAD wire to the load. Connect the GND wire to a ground screw inside the electrical box.

EXISTING 3-WAY INSTALLATION



Connect the LOAD wire on the Ti070 to the "common" wire, which you identified when removing the old switch. Connect the GND wire to a ground screw inside the electrical box. Connect the LINE and 3 WAY wires to the two remaining wires. At the other 3-way switch, connect the jumper wire between the "common" screw and the screw where the LINE wire of the Ti070 is connected.

NEW 3-WAY INSTALLATION



3 Quick Start-up

Set the time and date before using the switch for the first time.

The Ti070 will turn the lights on at sunset and turn them off at 11:00 pm by default. If these settings are appropriate for you, you only need to set the time and date (see shaded zone in programming flowchart). The switch is now ready to go.

4 Operation

-
- Indicates the mode of operation (see Section 5.1)
 - Indicates the time and day
 - Indicates the current program
 - Indicates the load on/off state
 - Briefly press this button to turn the lights on or off. See "Temporary Override" in Section 5.1.4.
 - The LED illuminates when the load state is on.

Safety switch

Before replacing a light bulb, pull out to disconnect power to the switch. This prevents, while the bulb is out, any possible short circuit which will damage the switch. Push back in after the light bulb is replaced.

5 Programming

Refer to the programming flowchart.

5.1 Mode Menu

You can use the Mode menu to select one of the three modes of operation (see sections 5.1.1 to 5.1.3).

5.1.1 Manual Mode

In Manual mode, the Ti070 operates like a regular switch. To turn the lights on or off, briefly press the main button. The icon appears when the switch is in Manual mode.



5.1.2 Automatic Mode

In Automatic mode, the Ti070 turns the lights on or off according to the set programs (see Section 5.4). The icon as well as the current program number are displayed.



5.1.3 Random Mode

In Random mode, the Ti070 has no specific times to turn the lights on or off. This mode is designed to give the impression the house is occupied during your absence. It is similar to the Automatic mode except there is no fixed program. The programs are automatically set to different times by the Ti070 every day. The icon appears when the switch is in Random mode.



The first "On" program occurs at sunset. Each "On" program lasts between 1 hour and 1 hour and 30 minutes; each "Off" program lasts between 15 and 30 minutes. The last "Off" program occurs between 10:30 pm and midnight.

5.1.4 Temporary Override

When the Ti070 is in Automatic or Random mode, you can press the main button at any time to override the default state for the current program. The light will turn off if they are on and vice versa. The icon (On or Off) of the new state flashes to indicate that the state is temporary. The new state is maintained until you press the main button again or till the next "On" or "Off" program.

5.2 Time Menu

The time display flashes on the screen when the time has not yet been set or after a 4-hour power outage. Use the Time menu to select the time format (12-hour or 24-hour) and to set the clock and date.

NOTE: The date is used to determine the sunset and sunrise times.

5.3 Configuration Menu

Use the Configuration menu to set the following parameters (see sections 5.3.1 to 5.3.4).

5.3.1 Backlight mode (SCRN)

The screen is lit at high intensity for 8 seconds when you press any button. The rest of the time, depending on the backlight mode selected, the screen behaves as follows:

Scrn Off: The screen is not lit.

Scrn On HI: The screen is lit at high intensity.

Scrn On LO: The screen is lit at low intensity (default mode).

5.3.2 Automatic Daylight Savings Time Changeover (DLS)

When automatic daylight savings time changeover is on (DLS On), the Ti070 changes to daylight savings time (summer time) at 2:00 on the second Sunday of March and changes back to normal time (winter time) at 2:00 on the first Sunday of November. This function is enabled (DLS On) by default.

5.3.3 Longitude and Latitude Coordinates (LONG and LAT)

The coordinates are used to turn the lights on at sunset and off at sunrise. The longitude is set to -75 and the latitude to +45 by default. These settings provide approximate sunset and sunrise times for most North American cities. To obtain your city's coordinates (or those of a nearby city), see the coordinates table. You can also obtain this information at www.aubetech.com/timer or with a Global Positioning System (GPS) device. The accuracy of the sunset and sunrise times depends on the accuracy of the coordinates you enter for your city.

NOTE: Enter a negative value for a south latitude or a west longitude.

5.3.4 Correction Factor (ADJ)

If your city's time zone is based on political or economic boundaries instead of its coordinates, your lights might switch on or off too early or too late with respect to sunrise and sunset. In this case, apply a correction factor (+1 or -1 hour; refer to addendum). Otherwise, leave it at 0 (default value).

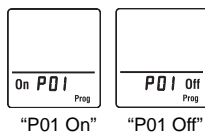
5.4 Program Menu

Use the Program menu to set the programs; i.e. the times you want the lights to turn On or Off when the switch is in Automatic mode. To set a program, proceed as follows:

- 1 Select a program number (see section 5.4.1)
- 2 Set the day(s) of the program (see section 5.4.2)
- 3 Set the program start time (see section 5.4.3)

5.4.1 Selecting a program number

You can set up to 7 "On" programs ("P01 On" to "P07 On") and 7 "Off" programs ("P01 Off" to "P07 Off"). Select an "On" program to set when to turn the lights on. Select an "Off" program to set when to turn the lights off.



5.4.2 Setting the day(s) of the program

After selecting a program, set the day(s) of the program. You can select a specific day, all 7 days or "none". Choose "none" for any unused program.

5.4.3 Setting the program start time

After setting the day(s) of the program, set its start time. You can select either a specific time, the sunset time or the sunrise time:

- To select a specific time:
 - (1) Advance to the hour setting and select the hour.
 - (2) Advance to the minutes setting and select the minutes.

- To select sunset or sunrise time:
 - (1) Advance to the hour setting and select the sunset or sunrise time. (When you scroll, the sunset time and sunrise time appear between 11 pm and 12 am.)
 - (2) To enter an offset (from -70 to +70 minutes in 10-minute increments) between the sunset or sunrise time and the program start time, advance to the minutes setting and change the minutes.
 - **EXAMPLE:** If the sunset time is 6:13 pm and you change the minutes to display 6:43 pm, you have entered a delay of 30 minutes. If, later in the year, the sunset time is 4:01 pm, the program will start at 4:31 pm.
 - **NOTE:** When you enter an offset, appears along with or when you display the sunset or sunrise time. To remove the offset, display the sunset or sunrise time and change the minutes until disappears.

5.4.4 Examples

Example 1: The lights turn on at sunset and off at 11:00 pm every day (default setting).

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	11:00 pm
P02 On to P07 On	None	—	P02 Off to P07 Off	None	—

Example 2: The lights turn on at sunset and off at sunrise every day.

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	sunrise
P02 On to P07 On	None	—	P02 Off to P07 Off	None	—

Example 3: The lights turn on at 8:00 pm every day and turn off at 10:00 pm every day except on Saturday night when they turn off at 1:00 am.

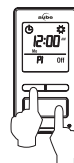
Program	Days	Time	Program	Days	Time
P01 On	All 7 days	8:00 pm	P01 Off	Sunday (Su)	10:00 pm
P02 On	None	—	P02 Off	Monday (Mo)	10:00 pm
P03 On	None	—	P03 Off	Tuesday (Tu)	10:00 pm
P04 On	None	—	P04 Off	Wednesday (We)	10:00 pm
P05 On	None	—	P05 Off	Thursday (Th)	10:00 pm
P06 On	None	—	P06 Off	Friday (Fr)	10:00 pm
P07 On	None	—	P07 Off	Sunday (Su)	1:00 am

Be careful about overlapping!

If you set "P01 Off" at 10:00 pm for all 7 days and set "P02 Off" to 11:00 pm for Saturday. On Saturday, the lights will turn off at 10:00 pm, not 11:00 pm since "P01 Off" is set to an earlier time than "P02 Off".

6 Reset to Factory Settings

To erase all programs and return to factory settings, simultaneously press both main and left buttons and hold. The software version will appear for 5 seconds. RST will appear for the next 5 seconds. Release the buttons when all segments appear on the screen. The switch is now reset (see factory settings in programming flowchart).



7 Troubleshooting

The screen is blank.	<ul style="list-style-type: none">• A light bulb is burned out.• The safety switch is pulled out (see section 4).
The display is faded or irregular.	<ul style="list-style-type: none">• The load is less than 40 W.• The ambient temperature is either below or above switch's operating temperature.
The metal plate is hot.	This is normal with high loads (maximum of 500 W).

The sunset or sunrise time is inaccurate.	<ul style="list-style-type: none">• The date or time is wrong (see section 5.2).• The longitude or latitude is wrong (see section 5.3.3).• The correction factor is wrong (see section 5.3.4).• You have entered an offset (see section 5.4.3).
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8 Specifications

Supply: 120 VAC, 60 Hz

Minimum load: 40 watts

Maximum load: 500 watts

Operating temperature range: -15 °C to 50 °C (5 °F to 122 °F)

Storage temperature range: -40 °C to 60 °C (-40 °F to 140 °F)

Power outage: The screen is blank. Only the time must be set if the outage lasts more than 4 hours; all other settings and programs are permanently saved

Latitude range: from -65° to +65°

Solar table precision: +/- 11 min. (within ±60° latitude)

Certification: UL (c UL us)

Warranty

AUBE warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, AUBE shall repair or replace it (at AUBE's option).

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact AUBE. AUBE will make the determination whether the product should be returned, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by AUBE that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

AUBE's sole responsibility shall be to repair or replace the product within the terms stated above. AUBE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces, states or regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY AUBE MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY. Some provinces, states or regions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary according to the province, state or region.

Technical Assistance

If you have any questions on the product installation or operation, contact us at:

705 Monrillard Avenue
Saint-Jean-sur-Richelieu, Quebec
J2X 5K8

Canada

Tel.: (450) 358-4600

Toll-free: 1-800-831-AUBE

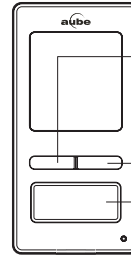
Fax: (450) 358-4650

Email: aube.service@honeywell.com

For more information on our products, go to
www.aubetech.com

Flowchart below shows factory settings.
Le diagramme ci-dessous contient les réglages en usine.
El diagrama siguiente contiene los ajustes de fábrica.

Legend / Legende / Leyenda



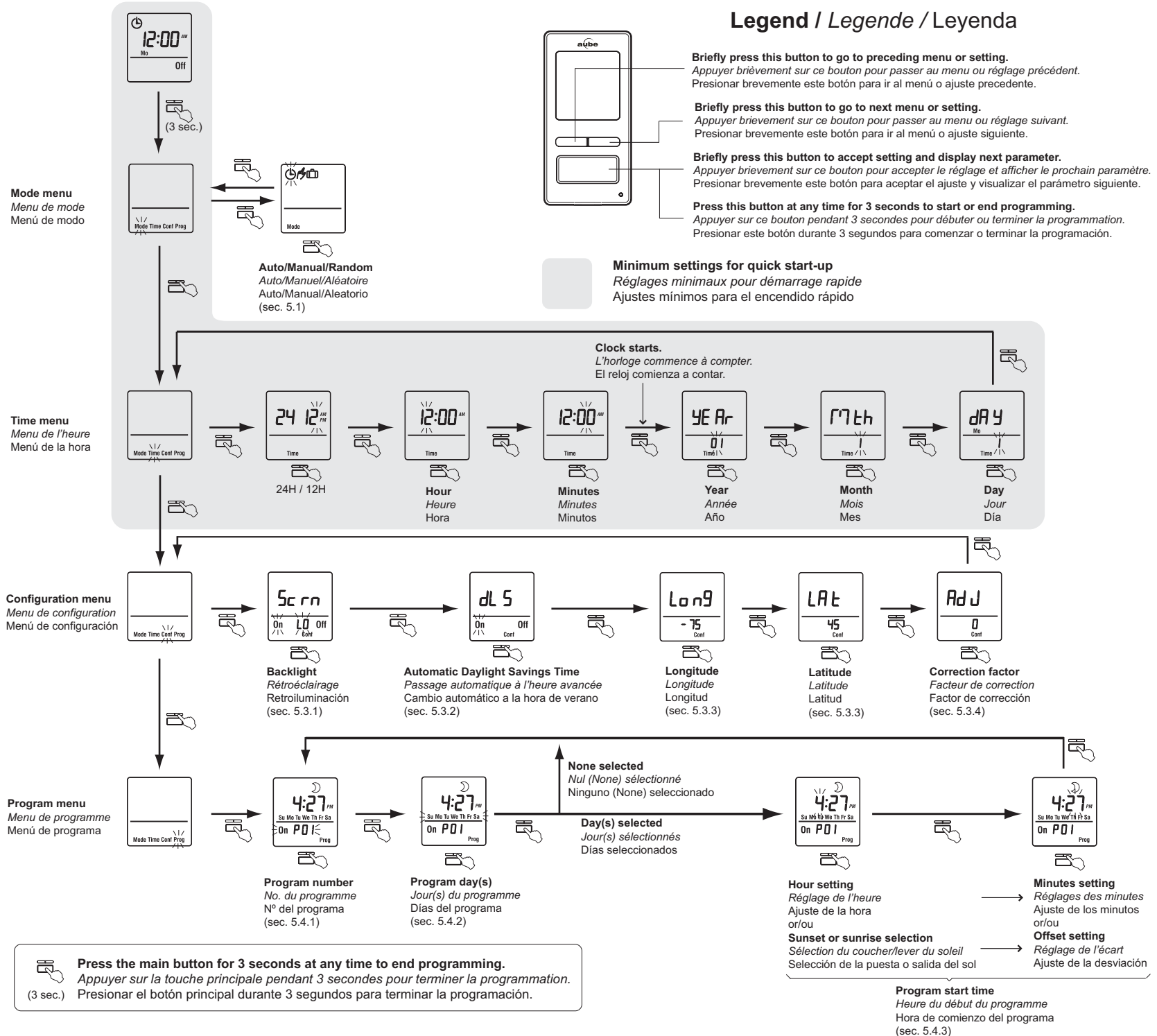
Briefly press this button to go to preceding menu or setting.
Appuyer brièvement sur ce bouton pour passer au menu ou réglage précédent.
Presionar brevemente este botón para ir al menú o ajuste precedente.

Briefly press this button to go to next menu or setting.
Appuyer brièvement sur ce bouton pour passer au menu ou réglage suivant.
Presionar brevemente este botón para ir al menú o ajuste siguiente.

Briefly press this button to accept setting and display next parameter.
Appuyer brièvement sur ce bouton pour accepter le réglage et afficher le prochain paramètre.
Presionar brevemente este botón para aceptar el ajuste y visualizar el parámetro siguiente.

Press this button at any time for 3 seconds to start or end programming.
Appuyer sur ce bouton pendant 3 secondes pour débiter ou terminer la programmation.
Presionar este botón durante 3 segundos para comenzar o terminar la programación.

Minimum settings for quick start-up
Réglages minimaux pour démarrage rapide
Ajustes mínimos para el encendido rápido



Longitude/Latitude/Correction factor
Longitude/Latitude/Facteur de correction
Longitud/Latitud/Factor de corrección

If your city is not listed below, use a nearby city or refer to the website "www.aubetech.com/timer".
 Si votre ville n'est pas dans la liste, utiliser une ville avoisinante ou consulter le site web «www.aubetech.com/minuterie».
 Si su ciudad no figura en la lista, buscar una ciudad vecina o consultar el sitio web "www.aubetech.com/timer".

CANADA			
City / Ville	Long.	Lat.	Adj.
ABBOTSFORD	-122	49	0
BANFF	-115	51	1
BARRIE	-80	44	0
BURNABY	-122	49	0
CALGARY	-114	51	1
CAPE BRETON	-60	46	0
CHICOUTIMI	-71	48	0
DAWSON	-139	64	1
EASTMAIN	-78	52	0
EDMONTON	-113	53	1
FORT SEVERN	-87	56	1
HALIFAX	-63	44	0
HAMILTON	-112	49	0
IQUALUIT	-68	63	0
INUKJUAK	-78	58	0
KELOWNA	-119	50	0
KITCHENER	-80	43	0
LONDON	-81	42	0
MISTASSINI	-73	50	0
MONTREAL	-73	45	0
NIAGARA	-79	43	0
OSHAWA	-78	43	0
OTTAWA - GATINEAU	-75	45	0
QUEBEC	-71	46	0
REGINA	-104	50	1
RICHMOND	-123	49	0
ROUYN-NORANDA	-79	48	0
SASKATOON	-106	52	1
SEPT-ILES	-66	50	-1
SHERBROOKE	-71	45	0
ST. ANTHONY	-55	51	0
ST CATHARINES	-79	43	0
SAINT JOHN (NB)	-66	45	0
ST. JOHN'S (NFLD)	-52	47	0
SUDBURY	-81	46	0
THUNDER BAY	-89	48	1
TORONTO	-79	43	0
TROIS-RIVIÈRES	-72	46	0
VANCOUVER	-123	49	0
VICTORIA	-123	49	0
WHITEHORSE	-135	60	1
WINDSOR	-83	42	1
WINNIPEG	-97	49	0
YELLOWKNIFE	-114	62	1

USA			
City	Long.	Lat.	Adj.
ABILENE	-99	32	1
ALBUQUERQUE	-106	35	0
ALLENTOWN	-75	40	0
AMARILLO	-101	35	1
ANCHORAGE	-149	61	1
ATLANTA	-84	33	1
AUSTIN	-97	30	0
BAKERSFIELD	-119	35	0
BALTIMORE	-76	39	0
BATON ROUGE	-91	30	0
BEAUMONT	-94	30	0
BILLINGS	-108	45	0
BIRMINGHAM	-86	33	0
BOISE	-116	43	1
BOISE CITY	-102	36	1
BOSTON	-71	42	0
BROWNSVILLE	-97	25	0
BUFFALO	-78	42	0
CEDAR RAPIDS	-91	41	0
CHARLOTTE	-80	35	0
CHATTANOOGA	-85	35	1
CHEYENNE	-104	41	0
CHICAGO	-87	41	0
CINCINNATI	-84	39	1
CLEVELAND	-81	41	0
COLOMBUS	-82	39	0
COLORADO SPRINGS	-104	38	0
CORPUS CHRISTI	-97	27	0
DALLAS	-96	32	0
DENVER	-104	39	0
DES MOINES	-93	41	0
DETROIT	-83	42	1
DULUTH	-92	46	0
EL PASO	-106	31	0
ERIE	-80	42	0
EUGENE	-123	44	0
EVANSVILLE	-87	37	0
FLINT	-83	43	1
FORT LAUDERDALE	-80	26	0
FORT WAYNE	-85	41	1
FRESNO	-119	36	0
GRAND RAPIDS	-85	42	1
GREAT FALLS	-111	47	0
GREENSBORO	-79	36	0
HAMPTON	-76	37	0
HARTFORD	-72	41	0
HONOLULU	-157	21	0
HOUSTON	-95	29	0
HUNTSVILLE	-86	34	0
INDIANAPOLIS	-86	39	1
JACKSON	-90	32	0
JACKSONVILLE	-81	30	0
KANSAS CITY	-94	39	0
KNOXVILLE	-83	35	1
LAKEWOOD	-105	39	0

USA			
City	Long.	Lat.	Adj.
LANSING	-84	42	1
LAREDO	-99	27	1
LAS VEGAS	-115	36	0
LEXINGTON	-84	38	1
LINCOLN	-96	40	0
LITTLE ROCK	-92	34	0
LONG BEACH	-118	33	0
LOS ANGELES	-118	34	0
LOUISVILLE	-85	38	1
LUBBOCK	-101	33	1
MACON	-83	32	1
MADISON	-89	43	0
MEMPHIS	-90	35	0
MIAMI	-80	25	0
MILWAUKEE	-87	43	0
MINNEAPOLIS	-93	44	0
MOBILE	-88	30	0
MODESTO	-120	37	0
MONTGOMERY	-86	32	0
NASHVILLE	-86	36	0
NEW ORLEANS	-90	29	0
NEW YORK	-74	40	0
NORFOLK	-76	36	0
OKLAHOMA CITY	-97	35	0
OMAHA	-95	41	0
ORLANDO	-81	28	0
OVERLAND PARK	-94	38	0
OXNARD	-119	34	0
PEORIA	-89	40	0
PHILADELPHIA	-75	40	0
PHOENIX	-112	33	0
PITTSBURG	-79	40	0
PLANO	-96	33	0
PORTLAND	-122	45	0
PROVIDENCE	-71	41	0
RALEIGH	-78	35	0
RAPID CITY	-103	44	1
RENO	-119	39	0
RICHMOND	-77	37	0
ROANOKE	-79	37	0
ROCHESTER	-77	43	0
ROCKFORD	-89	42	0
SACRAMENTO	-121	38	0
SALT LAKE CITY	-111	40	0
SAN ANTONIO	-98	29	1
SAN DIEGO	-117	32	0
SAN FRANCISCO	-122	37	0
SANTA ROSA	-122	38	0
SAVANNAH	-81	32	0
SEATTLE	-122	47	0
SHREVEPORT	-93	32	0
SOUTH BEND	-86	41	0
SPOKANE	-117	47	0
SPRINGFIELD (IL)	-89	39	0
SPRINGFIELD (MA)	-72	42	0

USA			
City	Long.	Lat.	Adj.
SPRINGFIELD (MO)	-93	37	0
ST. LOUIS	-90	38	0
SYRACUSE	-76	43	0
TALLAHASSEE	-84	30	1
TAMPA	-82	27	0
TOLEDO	-83	41	1
TOPEKA	-95	39	0
TUCSON	-110	32	0
TULSA	-95	36	0
VIRGINIA BEACH	-75	36	0
WACO	-97	31	0
WASHINGTON DC	-77	38	0
WICHITA	-97	37	0
WINSTON-SALEM	-80	36	0
YONKERS	-73	40	0
YOUNGSTOWN	-80	41	0

MÉXICO			
Ciudad	Long.	Lat.	Adj.
TIJUANA	-117	32	0
NOGALES	-111	31	0
CIUDAD JUAREZ	-106	31	0
MATAMOROS	-97	26	0
NUEVO LAREDO	-99	27	1
MONTERREY	-100	25	1
CHIHUAHUA	-106	28	0
MAZATLÁN	-106	23	0
TAMPICO	-98	22	1
ZACATECAS	-102	22	1
LÉON	-101	21	1
LA PAZ	-110	24	0
MEXICO CITY	-99	19	1
PUEBLA	-98	19	1
GUADALAJARA	-103	20	1
OAXACA	-96	17	0
ACAPULCO	-100	16	1
CANCUN	-86	21	0
MERIDA	-89	21	0

PUERTO RICO			
Ciudad	Long.	Lat.	Adj.
SAN JUAN	-66	18	0

REPÚBLICA DOMINICANA			
Ciudad	Long.	Lat.	Adj.
SANTO DOMINGO	-70	18	1