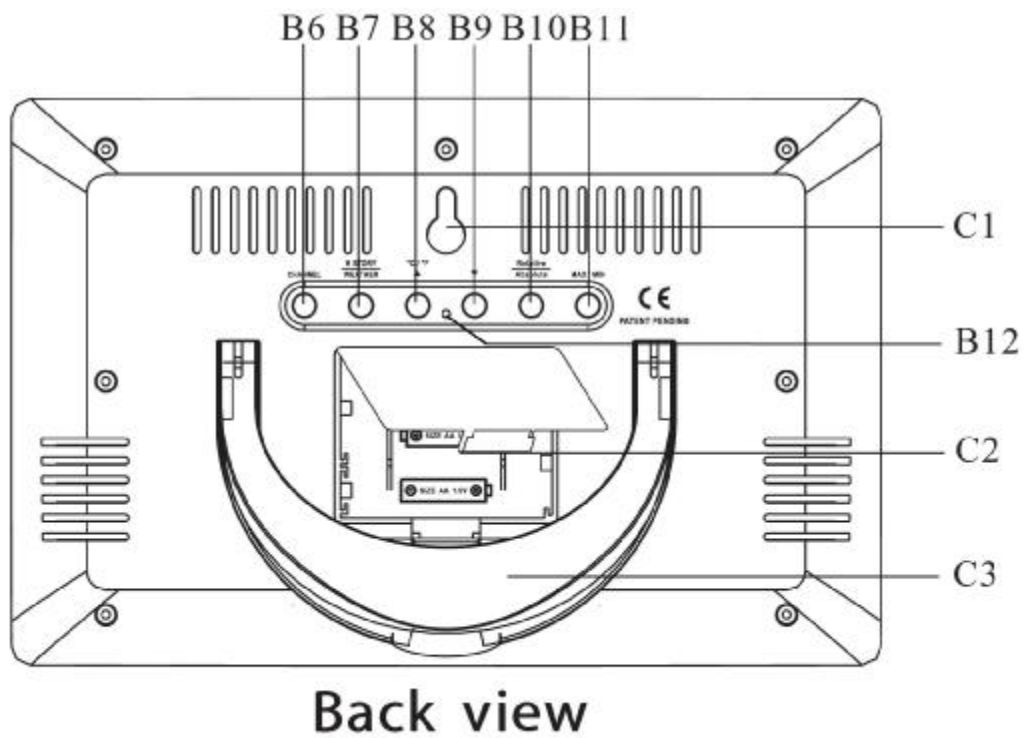
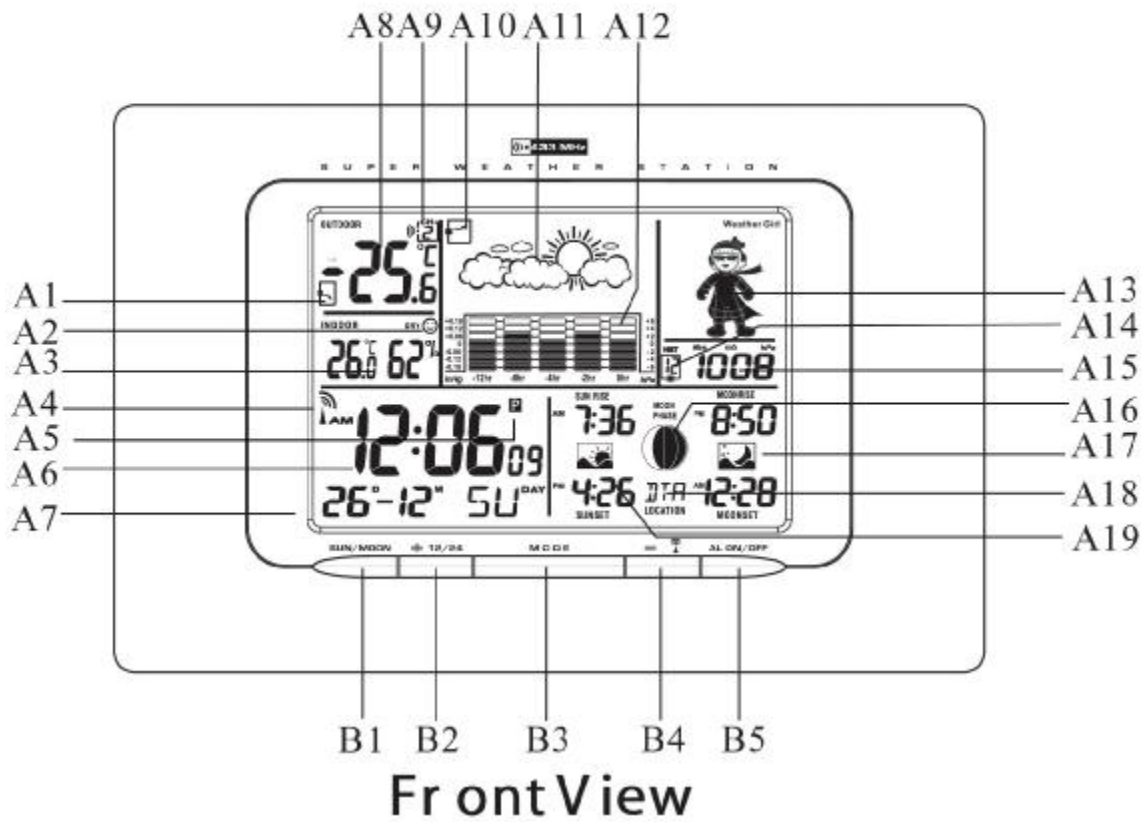


## Features:

- Radio controlled time with Manual Time Setting option
- Daily Sunrise/Sunset and Moonrise/Moonset Time Display for 244 city in USA, Canada, and Mexico.
- Weather Forecast
  - Weather Forecast with Sunny, Slightly Cloudy, Cloudy, Rainy and Cloud Burst animation
  - Weather Girl with suitable clothing in outdoor condition
- Barometric Pressure Measurement.
  - Current and past 12hr Absolute and Relative Barometric Pressure reading
  - Barometric Pressure Bar Chart.
  - Display in mb/hPa or inHg selectable.
- 433MHz RF Transmitting frequency.
- Maximum three selectable RF channels with wireless Thermo Sensor.  
(One Wireless Thermo Sensor Included)
- Transmission range: 30 meters ( open area ).
- Measurable range:
  - Indoor temperature : 0°C ~ +50°C
  - Humidity : 20% ~ 99%
  - Outdoor temperature : -20°C ~ +50°C
- Max/Min Memory for Humidity, Indoor and Outdoor Temperature.
- Low-battery indicator for Outdoor Thermo Sensor.
- Perpetual Calendar Up to Year 2099.
- 12/24Hour time display selectable.
- 2 Alarm Function
- Moon Phase Display
- Wall Mount or Table Stand Selectable.
- Battery:
  - Main Unit : DC 1.5 V 2A size x 3 pcs
  - Thermo Sensor Unit : DC 1.5 V 3A size x 2 pcs
- Size :
  - Main Unit : 151 x 232 x 31 mm
  - Thermo Sensor Unit : 95 x 60 x 28 mm

## Main Unit Appearance



### Part A- LCD

A1: Outdoor Temperature Trend

A2: Comfort Icon

A3: Indoor Temperature/Humidity

A5: Time Zone

A7: Date, Month & Week

A9: Selected Channel

A11: Weather Forecast

A13: Weather Girl

A15: Absolute/ Relative Barometric Pressure Reading

A17: Moonrise/Moonset

A19 : Sunrise/Sunset Time

A4: Radio Control Icon

A6: Radio Controlled Time

A8: Outdoor Temperature Moonrise Time

A10: Barometric Pressure Trend

A12: Barometric Pressure Bar Graph

A14: Past Hour(Pressure History)

A16: Moon phase

A18: Time Selected Country

### **Part B- Button**

B1: "SUN/MOON" Button

B3: "MODE" Button

B5: "ALARM ON/OFF" Button

B7: "HISTORY/ WEATHER" Button

B9: "▼(DOWN)" Button

B11: "MAX/MIN " Button

B2: "+/(12/24)" Button

B4: "- /  " Button

B6: "CHANNEL" Button

B8: "▲(UP) / °C/ °F" Button

B10: "Relative /Absolute" Button

B12:"RESET" Button

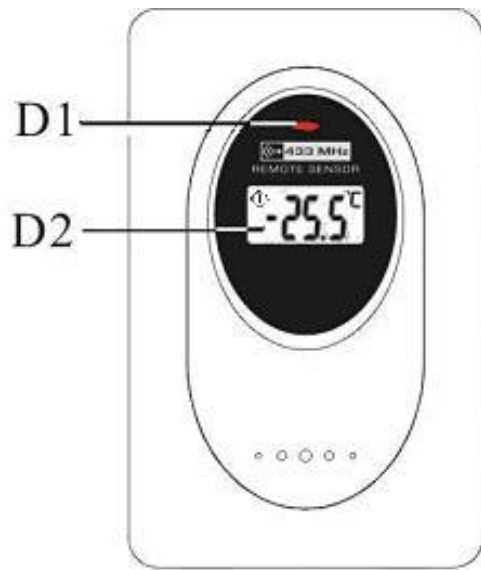
### **Part C- Structure**

C1: Wall Mount Hole

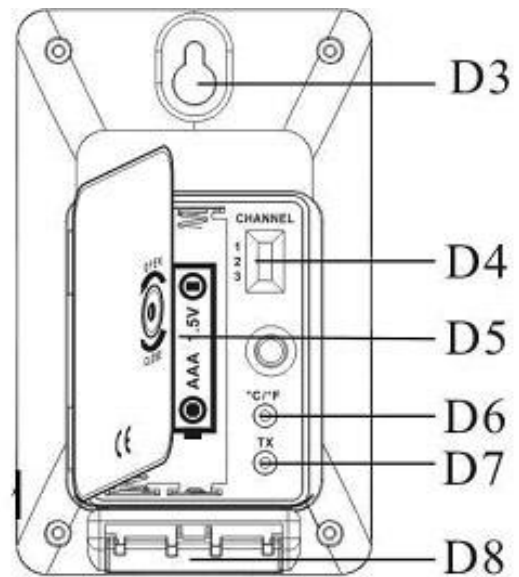
C3: Stand

C2: Battery Compartment

**Thermo Sensor Unit Appearance.**



**Front View**



**Back View**

D1: Transmission Indication LED

D3: Wall Mount Hole

D5: Battery Compartment

D7: “TX” button

D2: Outdoor Temperature

D4: Channel Select Switch

D6: °C/°F” button

D8: Stand


**Set Up:**

- Insert batteries.
- Use a pin to press the RESET (B12) button

**Weather Forecast Function:**

- After Batteries inserted, or holding “WEATHER” button (B7) for 3 seconds, Weather Icon (A11) blinks. Enter the current weather condition by pressing “▲“ (B8) or “▼“ (B9) buttons. Press “WEATHER” button (B7) to confirm the setting. The weather forecast may not be accurate if the current weather condition entered is not correct.
- The current weather status should be entered again if the altitude of the weather station is changed. ( Barometric pressure is lower at higher altitude location. Therefore, altitude change will affect the weather forecast) The weather station will start the first forecast at 6 hours after the current weather status is entered
- Totally 5 different weather condition in the weather forecast.


“  ” means **Sunny** .

 ” means **Slightly Cloudy**.


 ” means **Cloudy**.

 ” means **Rainy**

 ” means **Cloudburst**.

 ” is shown if the weather forecast is Rainy or Cloudburst and outdoor temperature (any channel) is under 0°C.

- If there is any inconsistency of weather forecast between Local Weather Station and this unit, the Local Weather Station's forecast should prevail. We will not held responsible for any trouble that may come up due to wrong forecasting from this unit.
- The trend pointer (LCD A10) indicates the trend of the barometric pressure.

 ” indicates the barometric pressure trend is increasing.

 ” indicates the barometric pressure trend is steady.

 ” indicates the barometric pressure trend is decreasing.

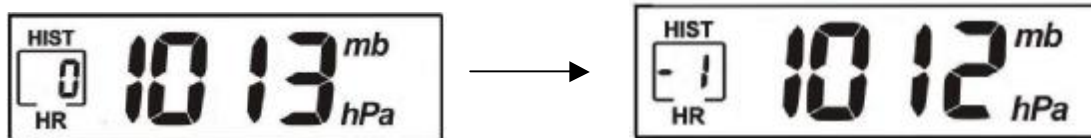
### **Barometric Pressure Reading**

- Press “Absolute/Relative” button (B10) for three seconds to select Absolute or Relative pressure display. “Abs” is shown for Absolute pressure, “Rel” is shown for Relative pressure.
- Absolute pressure is the actual pressure measured by the Main Unit.
- Relative pressure can be adjusted to sea level’s pressure by holding “Absolute/Relative” button

(B10) for 3 seconds. Press “ ▲ “ (B8) or “ ▼ “ (B9) key to adjust, press “Absolute/Relative” button (B8) to confirm. Check the Local Weather Station for Sea Level pressure.

- Press “ HISTORY ” button (B7) to view the past 12 hours Barometric Pressure history. The hour is indicated on LCD (A14).

Press “HISTORY” button (B7)



- Press “ HISTORY ” button (B7) to view the past 12 hour Barometric Pressure history. The hour is indicated on the LCD.  
0 HR = Current Barometric Pressure Reading  
-1HR = Barometric Pressure Reading in 1 hour ago  
-2HR = Barometric Pressure Reading in 2 hour ago .....etc
- Hold “ ▲ ” button (B8) for three seconds to select the unit for Barometric Pressure Meter in inHg or mb / hPa.

### Barometric Pressure Trend Bar graph.

- The Barometric Pressure Reading at -2hr, -4hr, -8hr and -12hr is recorded and shown on Barometric Pressure Bar Graph (A12). The Graph is displayed in both hPa and inHg.

### Weather Girl.

- Weather Girl (A13) shows different clothing under different weather condition and Outdoor temperature (according to the lowest channel). This is to remind you to wear suitable clothes or take an umbrella with you before go to outdoor area.
- If there is no Thermo Sensor is registered in the main unit, LCD shows :



### Thermometer:

- Press “ °C / °F ” button (B8) to select Temperature to be displayed in Celsius mode or Fahrenheit mode.

- If the temperature is out of the measurable range, LL.L ( beyond the minimum temperature) or HH.H (beyond the maximum temperature) will be shown on the LCD.

### Maximum/Minimum Temperature/Humidity recording function:

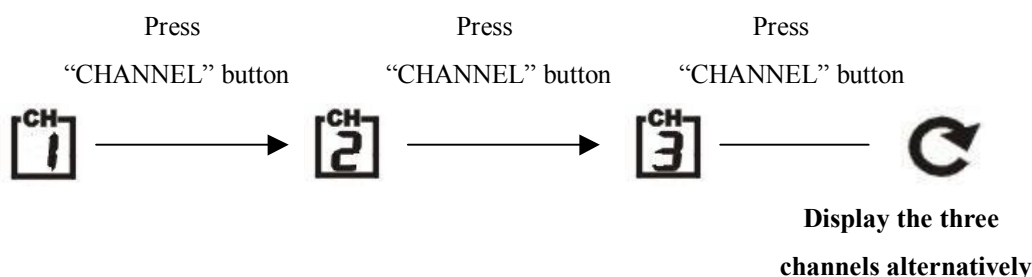
- Press “MAX/MIN” button (B11) to show the maximum or minimum of indoor/outdoor Temperature/Humidity.  
 “MAX” is shown on the LCD if maximum Temperature/Humidity is shown.  
 “MIN” is shown on the LCD if minimum Temperature/Humidity is shown.
- Hold “MAX/MIN” button (B11) for 3 seconds to clear the recorded maximum and minimum reading.

### Outdoor Thermo Sensor Unit Registration Procedure:

- The main unit automatically starts receiving transmission from Outdoor Thermo Sensor after Weather condition setting. Outdoor temperature digits (A8) blinks.
- Insert the batteries in the Thermo Sensor Unit. The sensor unit automatically transmit temperature to the main unit. ( Battery compartment (D5) of thermo sensor is located behind the back cover, unscrews to open.)
- For having more than one external transmitter (Maximum3), select the Channel, CH1, CH2 or CH3 to ensure each sensor is transmitting at difference channel before inserting batteries. The channel select switch (D4) is at the back of the thermo sensor unit.
- Press “TX“ button (D7) on the thermo sensor unit to transmit temperature to the main unit manually. The main unit gives a “beep” sound if it received the temperature.

### Display Outdoor Temperature :

- Press “CHANNEL” button (B6) to view the 3 Channels’ temperature. The sequence is shown as follow:



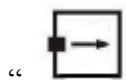
- Hold “ CHANNEL” (B6) button for 3 seconds to cancel unused channel. It will automatically register a new channel again if a new channel is received.  
 If there is no temperature displayed in existing channel ( “ - - . -“ is displayed on the LCD ), hold “CHANNEL” button (B6) for 3 seconds to cancel that channel and receive the channel again (“Beep” sound can be heard.) Then, press “ TX “ button (D7) on the thermo sensor unit

to transmit signal to the main unit manually

- The trend pointer displayed (A1) indicates the trend of the outdoor temperature.



“ ” indicates the outdoor temperature is increasing.










“ ” indicates the outdoor temperature is steady.



“ ” indicates the outdoor temperature is decreasing.

- Press “ °C /°F” button (D6), on the Thermo Sensor unit, to select Temperature to be displayed in Celsius mode or Fahrenheit mode.

### Radio Controlled Clock:

- At 2 minutes after batteries inserted, the clock automatically starts scanning the WWVB time signal.
  - “” flashes indicate now is receiving WWVB signal
  - “” turns on indicate signal received successfullyIf reception fail, scanning stops ( “” disappear on the LCD ) and repeats again at next hour. Totally four reception will be tried after starting. Each reception takes about 10 minutes.
- The clock automatically scans the time signal at 2.00 a.m. everyday to maintain accurate timing. If reception fail,, scanning stops ( “” on the LCD disappear ) and repeats again at 3.00 a.m. 4.00a.m. and 5.00a.m.
- The clock can be set to scans the time signal manually by holding “” button (B4) for 3 seconds. If receptions fail, scanning stops. ( “” on the LCD disappear ).
- Hold “” button (B4) for 3 seconds or enter Time Setting to stop scanning WWVB time signal.
- Buttons will not function while scanning for WWVB time signal unless they are well received or stopped manually.
- “DST” shown on the LCD if it is in Daylight Saving Time Mode

### Manual Time Setting:

- Hold “ MODE” button (B3) for 3 seconds to enter Clock/Calendar setting Mode .
- Press “+” (B2) or “-” (B4) buttons to adjust the setting and press “MODE” button (B3) to confirm each setting.
- The setting sequence is shown as follow:





Hour, Minutes, Second, Year, Month, Day, Country and City.

### 12/24 Hour Display mode:

- Press “12/24” button (B2) to select 12 or 24 hours mode.


### 2 Daily Alarm Function:

- Press “MODE” button (B3) to select to view:

Time — Alarm Time 1 (“ “ Shown) → Alarm Time 2 (“ “ Shown)

- When viewing Alarm Time 1 or Alarm Time 2, hold “MODE” button (B3) for 3 seconds to enter that Alarm Time setting. Press “+” (B2) or “-” (B4) buttons to adjust the alarm time. Press “MODE” button (B3) to confirm each setting.
- When viewing Alarm Time 1 or Alarm Time 2, press “ALARM ON/OFF” button (B5) to switch that alarm ON or OFF.
- Press “MODE”(B3), “+”(B2), “-”(B4) or “SUN/MOON” (B4) button to stop the alarm.

### Sunrise/Sunset and Moonrise/Moonset Time Display Function:

- After setting the Calendar, Local Country and City in the Time Setting Mode, the Main Unit calculates the Sunrise/Sunset and Moonrise/Moonset. The Sunrise/Sunset and Moonrise/Moonset time digits blinks during the calculation.
- Press “SUN/MOON” button (B1) to display the Sun Hours of the selected day.
- Hold “SUN/MOON” button for (B1) 3 seconds to enter Sunrise/Sunset and Moonrise/Moonset Time Quick Checking Mode. Location digits (A18) blinks
- Enter “Country”, “City”, “Year”, “Month” and “Day” which you would like to check
- Press “+” (B2) and “-” (B4) button to adjust and press “SUN/MOON” button (B1) to confirm setting.
- The Sunrise/Sunset and Moonrise/Moonset time digits blinks during the calculation. After Calculation, Sunrise/Sunset and Moonrise/Moonset time is shown. The location digits (A18) keep blinking to indicate the Main Unit is still in Quick Checking Mode. Press “SUN/MOON” button (B4), or after 15 seconds, to return to normal mode.
- If moonrise or moonset occur at next day, then “MOONRISE +1” or “MOONSET +1” will be displayed
- If there is no moonrise or moonset occur on someday, “ “ will be displayed on the LCD
- The Sunrise/Sunset and Moonrise/Moonset time display is just for reference only. For exact Sunrise/Sunset and Moonrise/Moonset time, please refer to your Local Weather Station.

## Moon Phase Display

The Moon Phase (A16) of each day is shown on the LCD.



A: New Moon

B: Waxing Crescent

C: First Quarter

D: Waxing Gibbous


E: Full Moon

F: Waning Gibbous

G: Last Quarter

H: Waning Crescent

### Low batteries indicator:

Low battery icon “” appear at particular channel indicating that Thermal Sensor Unit of the channel is in low battery status. The batteries should be replaced.

### Note:

- Use a pin to press the reset button(B12) if the Unit does not work properly.
- Avoid placing the clock near interference sources/metal frames such as computer or TV sets.
- The clock loses its time information when the battery is removed.
- Buttons will not function while scanning for WWVB time signal or thermo sensor's signal unless they are well received or stopped manually.
- All Setting Mode will automatically exit in 15 seconds without any adjustment.

## FCC Disclaimer

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The users manual or instruction manual for an unintentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed

and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Countries and Cities

There are USA, Canada and Mexico countries can be chosen from the Time Setting Mode. They are listed in the following table.

<b>USA</b>	<b>USA</b>	Iowa	IA	Mississippi	MS
Alaska	AK	Waterloo	ALO	Greenwood	GWO
Anchorage	ANC	Des Moines	DSM	Huntsville	HUV
Fairbanks	FAI	Davenport	DVN	Jackson	JAN
Juneau	JNU	Sioux City	SUX	Tupelo	TUP
Nome	OME	<b>Idaho</b>	<b>ID</b>	<b>Montana</b>	<b>MT</b>
<b>Alabama</b>	<b>AL</b>	Boise	BOI	Billings	BIL
Birmingham	BHM	Gibbonsville	GIB	Ft. Peck	FTP
Gadsden	GAD	Pocatello	PIH	Great Falls	GFT
Montgomery	MGM	Sandpoint	SZT	Helena	HLN
Mobile	MOB	<b>Illinois</b>	<b>IL</b>	Sidney	SDY
<b>Arkansas</b>	<b>AR</b>	Champaign	CMI	Whitefish	WTF
Fort Smith	FSM	Chicago	ORD	<b>North Carolina</b>	<b>NC</b>
Little Rock	LIT	Springfield	SPI	Asheville	AVL
Texarkana	TXK	<b>Indiana</b>	<b>IN</b>	Charlotte	CLT
<b>Arizona</b>	<b>AZ</b>	Evansville	EVV	Fayetteville	FAY
Flagstaff	FLG	Terre Haute	HUF	Wilmington	ILM
Phoenix	PHX	Indianapolis	IND	Winston-Salem	INT
Tucson	TUS	South Bend	SBN	Williamston	MCZ
Yuma	YUM	<b>Kansas</b>	<b>KS</b>	Raleigh	RDU
<b>California</b>	<b>CA</b>	Dodge City	DDC	<b>North Dakota</b>	<b>ND</b>

Bakersfield	BFL	Wichita	K32	Bismarck	BIS
Blythe	BLH	Kansas City	KCK	Bowbells	BWB
Eureka	EKA	Wakeeney	OH1	Fargo	FAR
Fresno	FAT	Topeka	TOP	Grand Forks	GFK
Fort Bragg	FTB	Kentucky	KY	Nebraska	NE
Los Angeles	LAX	Frankfort	FFT	Grand Island	GRI
Redding	ROD	Lexington	LEX	Lincoln	LNK
Sacramento	SAC	Louisville	LOU	Omaha	OMA
San Diego	SAN	Louisiana	LA	Sidney	SNY
San Bernardino	SBD	Baton Rouge	BTR	Valentine	VTN
San Francisco	SFO	Lake Charles	CWF	New Hampshire	NH
Colorado	CO	Natchitoches	IER	Concord	CON
Denver	DEN	New Orleans	NEW	New Jersey	NJ
Durango	DRO	Shreveport	SHV	Newark	EWR
Fort Collins	FNL	Massachusetts	MA	Trenton	TTN
Grand Junction	GJT	Boston	BOS	New Mexico	NM
Burlington	ITR	Maryland	MD	Albuquerque	ABQ
Pueblo	PUB	Baltimore	BWI	Magdalene	MAG
Connecticut	CT	Maine	ME	Roswell	ROW
Hartford	HFD	Augusta	AUG	Raton	RTN
District of Columbia	DC	Bangor	BGR	Santa Fe	SAF
Washington	DCA	Caribou	CAR	Nevada	NV
Delaware	DE	Portland	PWM	Austin	AIN
Dover	ON5	Michigan	MIA	Carson City	CXP
Florida	FLG	Kalamazoo	AZO	Ely	ELY
Key West	EYW	Detroit	DET	Las Vegas	LAS
Jacksonville	JAX	Flint	FNT	Wells	LWL
Miami	MIA	Lansing	LAN	Reno	RNO
Orlando	ORL	Rogers City	PZQ	New York	NY
Pensacola	PNS	Marquette	SAW	Albany	ALB
Tallahassee	TLH	Traverse City	TVC	Buffalo	BUF
Tampa	TPA	Minnesota	MN	New York City	JFK
Georgia	GA	Albert Lea	AEL	Lake Placid	LKP
Albany	ABY	Bemidji	BJI	Syracuse	SYR
Augusta	AGS	Duluth	DLH	Ohio	OH
Atlanta	ATL	Grand Protage	GPO	Cleveland	CLE
Columbus	CSG	International Falls	INL	Columbus	CMH
Macon	MAC	St. Paul	STP	Cincinnati	ISZ
Savanna	SAV	Missouri	MO	Toledo	TOL
Hawaii	HI	Jefferson City	JEF	Youngstown	YNG

Honolulu	HNL	Kansas City	MKC	Oklahoma	OK
Hilo	ITO	Memphis	MPH	Boise City	17K
Kahului	OGC	Poplar Bluff	POF	Lawton	LAW
Waimea	WAI	Springfield	SGF	Oklahoma City	OKC
		St. Louis	STL	Tulsa	TUL

<b>Oregon</b>	<b>OR</b>	<b>Utah</b>	<b>UT</b>	<b>West Virginia</b>	<b>WV</b>
Burns	BNO	Saline	SAL	Charleston	CRW
Eugene	EUG	St. George	SGU	Wheeling	HLG
Medford	MFR	Salt Lake City	SLC	<b>Wyoming</b>	<b>WY</b>
Portland	PDX	Thompson	TSN	Buffalo	BYG
Salem	SLE	<b>Virginia</b>	<b>VA</b>	Casper	CPR
<b>Pennsylvania</b>	<b>PA</b>	Vienna	DON	Cheyenne	CYS
Harrisburg	CXY	Lynchburg	LYH	Little America	LAA
Philadelphia	PHL	Norfolk	ORF	West Yellowstone	WYE
Pittsburgh	PIT	Richmond	RIC	<b>Canada</b>	<b>CAN</b>
Scranton	SCR	Roanoke	ROA	Calgary	CAL
<b>Puerto Rico</b>	<b>PR</b>	<b>Vermont</b>	<b>VT</b>	Charlotte Town	CHT
San Juan	SJU	Burlington	BTV	Edmonton	EDM
<b>Rhode Island</b>	<b>RI</b>	Montpelier	MPR	Fredericton	FRE
Providence	PVD	<b>Washington</b>	<b>WA</b>	Halifax	HAL
<b>South Carolina</b>	<b>SCR</b>	Aberdeen	ABE	Montreal	MON
Charleston	CHS	Walla Walla	ALW	Ottawa	OTT
Columbia	CUB	Kettle Falls	KTF	Quebec	QUE
Greenville	GMU	Mount Vernon	MVN	Regina	REG
<b>South Dakota</b>	<b>SD</b>	Olympia	OLM	Sudbury	SUD
Sioux Falls	FSD	Seattle	SEA	Thunder Bay	THU
Pierre	PIR	Spokane	SFF	Toronto	TOR
Rapid City	RAP	Tonasket	TON	Vancouver	VAN
<b>Tennessee</b>	<b>TN</b>	Yakima	YKM	Whitehorse	WHI
Nashville	BNA	<b>Wisconsin</b>	<b>WI</b>	Winnipeg	WIN
Chattanooga	CHA	Wausau	AUW	Yellowknife	YEL
Knoxville	DKX	Green Bay	GRB	<b>Mexico</b>	<b>MEX</b>
Memphis	MFR	La Crosse	LSE	Chihuahua	CHH
<b>Texas</b>	<b>TX</b>	Madison	MSN	Durango	DUR
Abilene	ABI	Milwaukee	MWC	Guadalupe	GUA
Amarillo	AMA	Spooner	SSQ	Hermosillo	HER
Austin	AUS			Mexico City	MEC
Brownsville	BRO				

Dallas/Ft. Worth	DFW	
El Paso	ELP	
Houston	HOU	
Laredo	LRD	
Odessa	ODO	
San Antonio	SAT	