

Solar Pack

EN Installation instructions

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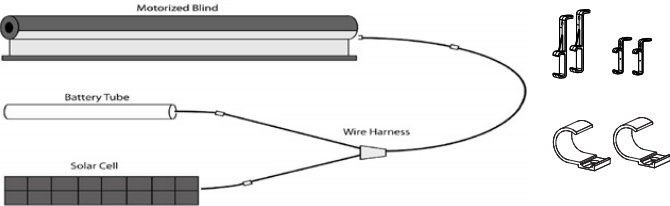
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1. INTRODUCTION

The Solar Pack is a group of components that work in unison as a long life energy source for Somfy 12 Volt WireFree™ motors. **This Product is designed for indoor use only.**

Contents of the Pack include:

- (1) Solar Panel in Bezel
- (1) Empty Battery Tube (for 10AA NiMH batteries #9018621)
- (1) Wire Harness
- (1) Glass-Mount Adhesive
- (1) Alcohol wipe
- (1) Instructions
- (1) Solar Panel Mounting Brackets (2" & 4")
- (1) Wall Mount Clips For Battery Tube



Note: This product is designed to meet the energy requirements of Somfy 12 Volt WireFree™ Motor applications. DO NOT exceed the following:

A. Maximum Torque and blind dimensions. (contact your Somfy retailer).

B. Solar Pack Performance Tables (see Section 8).

2. SAFETY

2.1 Safety and Responsibility

Before installing and using this product, please read the installation guide carefully.

It is recommended that Solar Pack be installed by a professional motor installer, for whom these instructions are intended.

Care must be taken for both new and existing installations due to the physical mounting location of the motorized window covering - likely at the top of an interior window.

Consequently, pay attention to your personal safety in regards to proper use of ladders.

Care must also be taken to not drop hand tools or Solar Pack components from an extended height.

Any usage outside of applications defined by Somfy constitutes noncompliance, and is therefore not covered by the warranty. In this event, as for all usage not consistent with the instructions given herein, Somfy accepts no responsibility for harm or damage.

Never begin installing without first checking the compatibility of this product with the associated equipment and accessories.

Power Sources for 12 Volt WireFree™ Motors			
WireFree™ Motor	12 Volt	Battery Tube	Solar Pack
Roll Up 28 RTS		√	√
Cord Lift 32 RTS		√	√
Tilt RTS		√	√
Tilt&Lift 25 RTS		√	√

2.2 Specific Safety Advice

- 1) Never pierce the solar panel or its bezel frame.
- 2) Never put anything onto the solar panel (risk of scratching or breakage), especially during installation.
- 3) Once installed, never subject the wire harness or other components to strain, pinching, or cutting caused by moving objects.
- 4) Dispose of electronic components and batteries in accordance with local laws. Do not incinerate.
- 5) Never immerse this product in liquid (s).
- 6) Avoid Impacts
- 7) Do Not Recharge the battery with any charger other than a Somfy Solar Pack Charger.



The solar panel is a fragile part. Do not drop it. If Dropped, do not install as damage may not be visibly detectable and reduced performance may occur.

Refer to the Instruction Manual or Contact your Somfy Representative.

3. INSTALLATION

3.1 Determine Location of Solar Panel

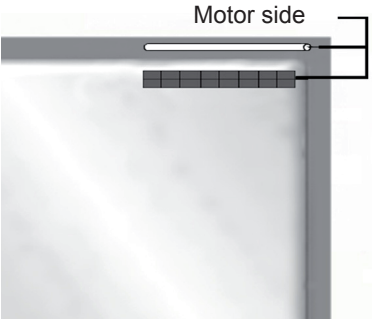
The solar panel must always be installed indoors, directly against the window glass so as to allow as much natural light as possible to reach the panel.

Caution! Never install the solar panel on any window glass allowing less than 65% light transmission (including Low E glass and/or window tinting), or obstructed by a window pane or bug screen. Always leave the photovoltaic cells unobstructed, do not put anything in front of them.

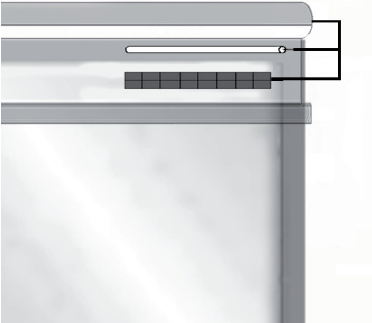
The three components which make up the Solar Pack must be installed on the same side as the WireFree™ motor.

Somfy recommends that all components be fitted systematically in order that all components may be connected to the wire harness easily, and that the wire harness does not interfere with the free movement of the interior window covering.

Please Refer to the Solar Pack Performance Tables Section 8.0 to confirm proper usage per blind and window orientation.



Battery Tube:
Located near the top of the window frame and near the motor side. May be hidden from view.



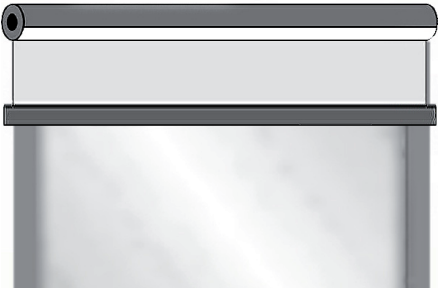
Panel:
Located near the top of the window frame and near the motor side. When fully open, shade or fascia may help conceal panel from inside view.

3.2 Mounting the Solar Panel.

Caution! It is imperative that window hardware or framing does not collide with the solar panel!

Careful! Do not damage the wire harness cables during installation.

Determined the position of the solar panel (against window, within reach of wire harness) prior to application of 2-sided tape to insure proper adhesion the first time.



Installed:
When fully open, shade or fascia may help conceal Solar Pack from inside view. Wire Harness is tucked away.

3.2.1 Glass Mounting

Caution! To insure a secure adhesive hold over a long period, prepare the inside window glass prior to mounting the solar panel.

Important! The adhesive tape should never be touched directly with fingers (or other contaminants) prior to adhesion.

- 1) Clean solar panel bezel corners and window area with alcohol prep pad. Let dry for two minutes.
- 2) On a table, with the solar panel facing up, apply the 2-sided adhesive to four corners of the solar panel bezel.

Note: The tape is precut for your convenience in between the top (facer) and bottom (backer) liners. With your fingers, lift off each precut adhesive piece so that it remains attached to the “facer” material and the opposite side of the tape should then be released from the back liner. See Photo in Figure 1 and Figure 2.

- 3) Remove the “facers” of the applied adhesive. Position the bezel with solar panel facing to outdoors , then press entire panel with firm, even pressure into the glass for 10- 15 seconds. The panel is now supported by the adhesive to glass bond but will require 24 hours of cure time to allow full strength characteristics. Do not disturb during this period.

Figure 1.
Glass Mount Adhesive

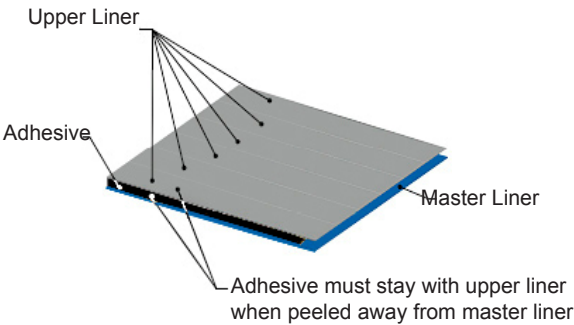
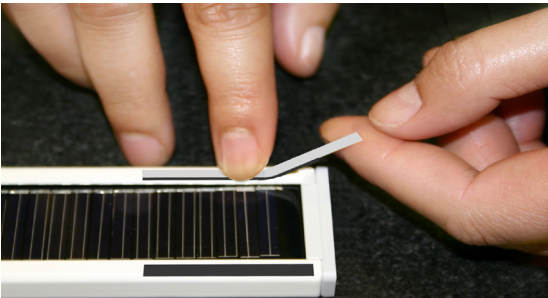


Figure 2.
Apply to all 4 corners



3.3 Battery Tube

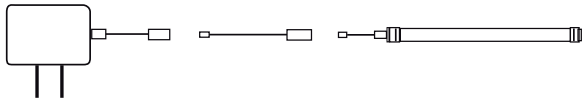
The battery tube is shipped empty. Required batteries (10 AA NiMH #9018621) are sold separately.

3.3.1 Battery Preparation

Have a service professional fully charge the battery using the compatible Somfy Solar Pack Rapid Charger (Ref #9018620 - Solar Pack Charger).

Solar Pack Charger (Ref #9018620)
-sold separately.

Open battery tube and install 10 AA NiMH batteries inside as shown on the battery tube label.



 Battery must be fully charged prior to installation. Do not exceed 5 days from time of 100% charge to installation or performance may not be met.

3.4 Battery Tube Install Location

Once the batteries installed in the tube, the battery tube assembly can be secured and hidden from view either behind, inside or next to the window covering product hardware. The battery tube is compatible with Somfy Mounting Clips designed for Shangri-La (REF# 9013266) & Silhouette (REF#9013264) window covering products. For outside of headrail mounting, battery tube wall mounting clips (#9013263) are included in the pack, for either vertical or horizontal positioning. For blinds with box head rails, room may exist to place the battery inside the rail without interference.

SOLAR PACK BATTERY TUBE MOUNTING CLIPS (OPTIONAL)	
Shangri La Mount Clips REF# 9013266	Silhouette Mounting Clips REF# 9013264
	
Headrail Mounting	Headrail Mounting

 **Caution!** If installing the battery vertically, always position it with the cable output upwards to reduce unrestrained wire from catching the shade.

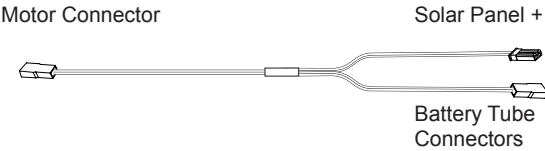


Vertical Battery Tube connector orientation

4. CONNECTIONS

 **Caution!** The wiring harness connecting the Solar Pack components must be protected from the movement of the motorized window covering.

Caution! Do not change the configuration of this system to include different connectors.



- 1) Connect the wire harness to the motor.
- 2) Connect the solar panel to the wire harness
- 3) Connect the battery tube to the wire harness

5. COMMISSIONING

5.1 Activation of Motor

If the Solar Pack is being installed as an upgrade to an existing Somfy WireFree™ motorized shade installation, there is no need to reprogram the motor.

If the Solar Pack is being installed with a new Somfy WireFree™ motor, follow the motor installation guide.



Standard Installation Plan of Roll-Up Shade.

6. PRODUCT IN USE

6.1 Normal Operation

After commissioning, the battery is trickle-charged by electrical energy generated by the solar panel. The energy is stored in the high capacity NiMH battery (acting like a reservoir) and the system provides uninterrupted service through many climatic seasons. It is normal for the battery to gain more energy in summer as compared to winter – the Solar Panel converts the intensity of light to energy upon availability.

6.2 Excessive Energy Use



Caution! If daily motor activations exceed recommended cycles per day as stated in the Solar Pack Performance Chart, the solar panel will not be able to “replenish” the battery as designed.

If the motorized shade does not operate due to an excessively diminished battery, the battery may require a full recharge. This may be done with a Somfy Solar Pack Charger (#9018620). If the battery no longer provides adequate power to operate your motor, new NiMH batteries should be installed in the battery tube. There is no need to replace any other Solar Pack components.

7 WINDOW APPLICATION TABLES & GUIDELINES

Window Type					Avoid		
	SINGLE OR DOUBLE PANE OK	LIGHT TRANSMISSION 65% OR GREATER	WINDOW TINTING	INSIDE WINDOW ONLY		AWNINGS OR DEEP ROOF EVES	WINDOW DIVIDERS OVERLAPPING SOLAR PANEL
Moving Window					Avoid		
	FIXED WINDOW	DOUBLE HUNG	SLIDING	CASEMENT		VEGETATION BLOCKING LIGHT	BUG SCREENS
Concern	Clean Install	Caution: Avoid Panel Collision	Caution: Avoid Panel Collision	Caution: Panel Movement Will tug or tear Harness			
Suggestions		Limit Screw in track	Limit Screw in Track	Cable tie near corner			

8 SOLAR PACK PERFORMANCE TABLES & SOLAR ZONES (P22)

The Solar Pack Performance Table is a reference chart only and is based on Minimum Peak Sun Hours provided by data accumulated by NASA's Atmospheric Science Data Center.

Steps to determine Solar Zone:

- 1a. Choose city or region on map based on map color.
- 1b. Choose closest city from tables provided.
2. Identify corresponding solar zone in the chart.
3. Determine window orientation (facing out north,south, east or west).
4. Determine shade drop.
5. Apply data to chart. Cross reference for answer.

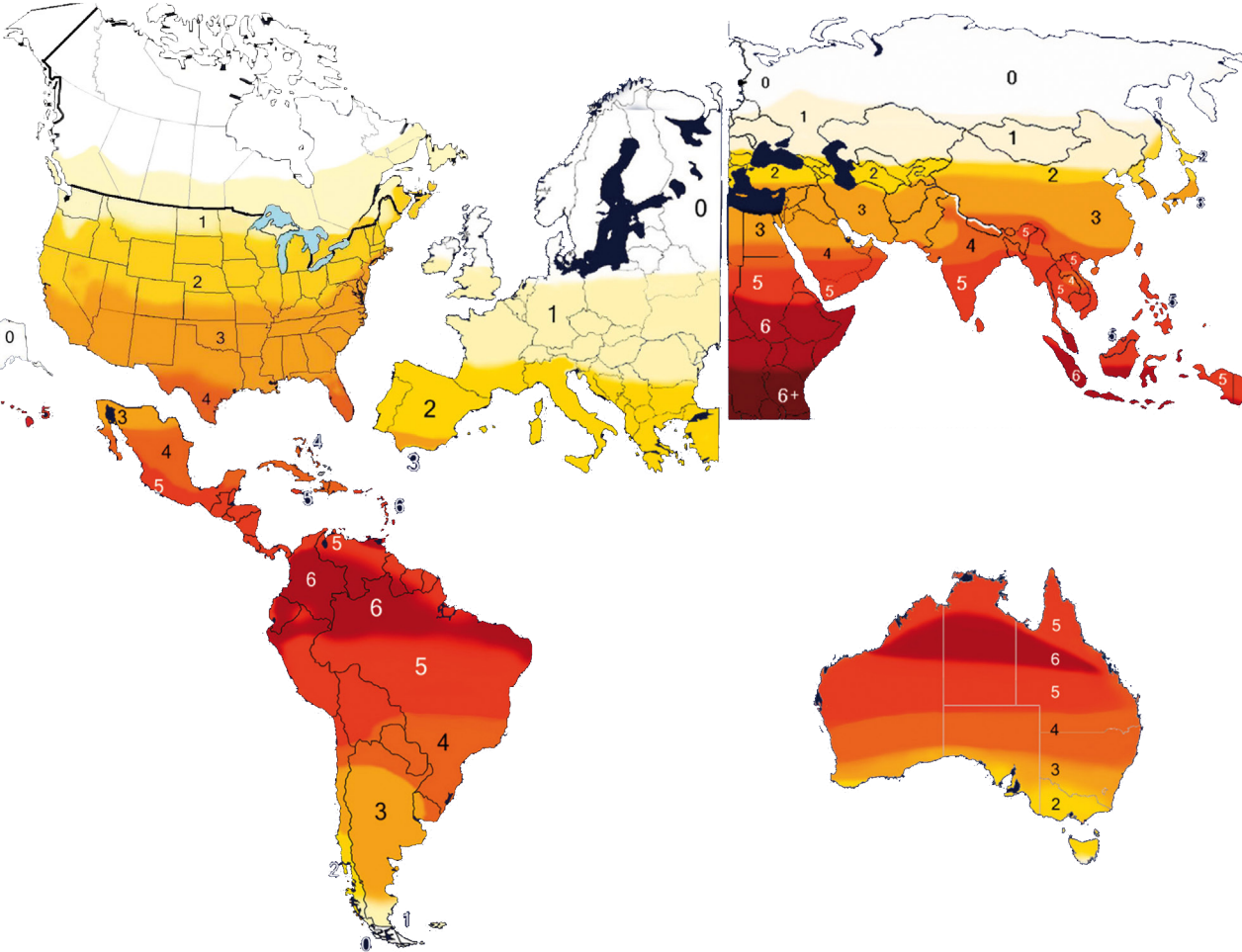
NOTE: 1 cycle = 1 Up / 1 Down movement. Do not exceed listed specification.

SOLAR PACK TROUBLESHOOTING		
During Installation	The motor does not work	1. Verify wires have secure connection, and that wires are not cut. 2. Verify battery has been charged to 100%. 3. See Troubleshooting Section of Specific Motor (Roll-Up,Cord-Lift, or Tilt User Manual).
	Solar Panel does not adhere to glass after initial application.	1. Remove panel and adhesive. Clean glass with glass prep pad. Dry. Apply new adhesive as directed.
	Sliding window collides with solar panel after mounting.	1. Install a window bumper to prevent collision. 2. Install optional solar panel mounting bracket.
	Solar Pack loses charge BEFORE 3-5 years of use.	1. Contact Service provider to recharge battery to 100%. 2. Review Solar Pack Performance Chart & Section 7.0 Window Application Tables & Guidelines.
After Installation	Solar Pack loses charge AFTER 3-5 years.	Purchase new 10AA NiMH batteries and install them in the battery tube.

Solar Pack Performance Tables & Solar Zones
Tableau de performance du Solar Pack & Zones de Soleil
Solar Pack-Leistungstabellen und Strahlungszonen
Tablas de rendimiento y zonas solares del Solar Pack
Πίνακες επιδόσεων & ηλιακές ζώνες Solar Pack

EN Cycles per day for this orientation and shade size FR Nombre de cycles par jour selon l'orientation et la taille du store
DE Zyklen pro Tag für diese Ausrichtung und Schatten Größe- ES Ciclos por día para esta orientación y el tamaño de la sombra
EL Κύκλοι λειτουργίας ανα ημέρα με αυτόν τον προσανατολισμό και μέγεθος σκιαδίου

		Shade Length Hauteur store Shade Länge Longitud persiana Μήκος σκιαδίου		Façade position - Orientation de la façade - Fassaden-Position - Posición de la fachada - Θέση πρόσοψης				Southern hemisphere / Hémisphère sud / Südhemisphäre / Hemisferio Sur / Νότιο ημισφαίριο	Northern hemisphere /Hémisphère Nord / Nordhemisphäre / Hemisferio Norte / Βόρειο ημισφαίριο
				North - Nord - Norden - Norte - O Βορράς	West - Ouest - Westen - Oeste - Δύση	East - Est - Osten - Este - Ανατολή	South - Sud - Süden - Sur - Nóτος		
				South - Sud - Süden - Sur - Nóτος	West - Ouest - Westen - Oeste - Δύση	East - Est - Osten - Este - Ανατολή	North - Nord - Norden - Norte - O Βορράς		
Solar Zones Zones de Soleil Strahlungszonen zonas solares ηλιακές ζώνες	0	0' → 5'	0m → 1,5m	1	1	1	1		
		5' → 8'	1,5m → 2,4m	0	0	0	0		
	1	0' → 5'	0m → 1,5m	1	1	1	2		
		5' → 8'	1,5m → 2,4m	0	1	0	1		
	2	0' → 5'	0m → 1,5m	1	2	2	3		
		5' → 8'	1,5m → 2,4m	0	1	1	1		
	3	0' → 5'	0m → 1,5m	2	2	2	3		
		5' → 8'	1,5m → 2,4m	1	1	1	2		
	4	0' → 5'	0m → 1,5m	2	3	3	4		
		5' → 8'	1,5m → 2,4m	1	2	1	2		
	5	0' → 5'	0m → 1,5m	2	3	3	4		
		5' → 8'	1,5m → 2,4m	1	2	1	2		
	6	0' → 5'	0m → 1,5m	2	3	3	4		
		5' → 8'	1,5m → 2,4m	1	2	2	3		



United States & Canada P. 2

MINNESOTA			MISSOURI			NEW JERSEY			NORTH CAROLINA			OREGON			SOUTH DAKOTA			UTAH			WEST VIRGINIA		
Albert Lea,MN	2		Lewiston,MT	1		Cranberry/Dayton,N	2		Fayetteville,NC	3		Cascade,OR	1		Rapid City,SD	2		Dugway Pngr,UT	2		Bluefield,WV	3	
Alexandria,MN	2		Livingston,MT	2		Fairfield,NJ	2		Fort Bragg,NC	3		Conavlis,OR	2		Redig,SD	2		Eagle Range,UT	2		Charleston,WV	2	
Bemidji,MN	1		Malmstrom,MT	1		Lakehurst,NJ	2		Greensboro,NC	3		Eugene,OR	2		Sioux Falls,SD	2		Green River,UT	2		Elkins,WV	2	
Brown-Craw, MN	1		Miles City,MT	1		Mcguire AFB,NJ	2		Hickory,NC	3		Hillsboro,OR	1		Watertown,SD	2		Hanksville,UT	3		Huntington,WV	2	
Detroit Laks, MN	1		Missoula,MT	1		Millville,NJ	2		Hot Springs,NC	3		Klamath Fall,OR	2		Yankton,SD	2		Hill AFB,UT	2		Lewisburg,WV	3	
Duluth,MN	1		Monida,MT	2		Morristown,NJ	2		Jacksonville,NC	3		La Grande,OR	2					Logan,UT	2		Martinsburg,WV	2	
Ely,MN	1		Sidney,MT	1		Newark Intl,NJ	2		Kinston,NC	2		Lake View,OR	2		TENNESSEE			Millford,UT	3		Morgantown,WV	2	
Fairmont,MN	2		Thompson Fal,MT	1		Teterboro,NJ	2		Mackall Aaf,NC	3		Meacham,OR	2					Moab,UT	3		Parkersburg,WV	2	
Fergus Falls,MN	1		W Yellowstone,MT	2		Trenton,NJ	2		Manteo Arpt,NC	3		Medford,OR	2		Bristol,TN	3		Ogden,UT	2		Wheeling,WV	2	
Grand Rapids,MN	1		Wolf Point,MT	1					New Bern,NC	3		Newport,OR	2		Chattanooga,TN	3		Price/Carbon,UT	2		White Sulph,WV	3	
Hibbing,MN	1				NEW MEXICO				New River,NC	3		North Bend,OR	2		Clarksville,TN	3		Provo,UT	2				
Int'l Falls,MN	1		NEBRASKA						Pope AFB,NC	3		Ontario,OR	2		Crossville,TN	3		Roosevelt,UT	2		WISCONSIN		
Litchfield,MN	2				Albuquerque,NM	3			Raleigh-Durh,NC	3		Pendleton,OR	2		Dyersburg,TN	3		Saint George,UT	3				
Mankato,MN	2		Ainsworth,NE	2		Cannon,MN	3		Rocky Mt,NC	3		Portland,OR	2		Jackson,TN	2		Salt Lake Cl,UT	2		Appleton,WI	2	
Marshall Arpt,MN	2		Alliance,NE	2		Carlsbad,NM	3		Seymour-John,NC	3		Redmond,OR	2		Knoxville,TN	3		Tooele,UT	2		Eau Claire,WI	2	
Minneapolis,MN	2		Beatrice,NE	2		Clayton Arpt,MN	3		Southern Pin,NC	3		Roseburg,OR	2		Memphis Intl,TN	3		Vernal,UT	2		Green Bay,WI	2	
Park Rapids,MN	1		Broken Bow,NE	2		Corona,NM	3		Wilmington,NC	3		Salem,OR	2		Memphis NAS,TN	3		Wendover,UT	2		Janesville,WI	2	
Pequot Lake,MN	1		Burwell,NE	2		Cuba Awsr,NM	3		Winston-Salem,NC	3		Sexton,OR	2		Monteagle,TN	3					La Crosse,WI	2	
Redwood Falls,MN	2		Chadron,NE	2		Deming,NM	3					The Dalles,OR	1		Nashville,TN	3					Lone Rock,WI	2	
Rochester,MN	2		Columbus,NE	2		Farmington,NM	3		NORTH DAKOTA			Troutdale,OR	1		Smyrna,TN	3		VERMONT					
Saint Paul,MN	2		Cozad,NE	2		Gallup/Clark,NM	3											Burlington,VT	2		Mantowac,WI	2	
St Cloud,MN	2		Falls City,NE	2		Grants,NM	3		Bismarck,ND	2					TEXAS			Montpelier,VT	2		Milwaukee,WI	2	
Thief River,MN	1		Grand Island,NE	2		Hobbs,NM	3		Dew's Lake,ND	2								Newport,VT	2		Milwaukee,WI	2	
Tofte,MN	1		Hastings,NE	2		Holloman AFB,NM	3		Dickenson,ND	2		Allentown,PA	2		Abilene,TX	3		Rutland,VT	2		Mosinee,WI	2	
Warroad,MN	1		Imperial,NE	2		Las Cruces,NM	3		Fargo,ND	2		Alttoona,PA	2		Alice,TX	2		St Johnsbury,VT	2		Neenah,WI	2	
Worthington,MN	2		Kearney,NE	2		Las Vegas,NM	3		Grand Forks,ND	2		Beaver Falls,PA	2		Amarillo,TX	3		Wilmingon,VT	2		Oshkosh,WI	2	
			Lincoln Muni,																				

Europe. Australia & New Zealand

ANDORRA			DENMARK			GERMANY			NETHERLANDS			SPAIN			AUSTRALIA		
Andorra la Vella	2		Odense	1		Dortmund	1		Almere Stad	1		Santa Cruz de Tenerife	4		Sydney	3	
			Tonder	1		Dresden	1		Amsterdam	1		Sevilla	3		Melbourne	2	
BRITISH ISLES			Sonderborg	1		Duisburg	1		Arnhem	1		Terrassa	2		Perth	3	
England / Scotland / Ireland			Egernsund	1		Düsseldorf	1		Breda	1		Toledo	3		Adelaide	3	
Aberdeen	0					Erfurt	1		Den Haag	1					Brisbane	4	
Belfast	1		FRANCE			Essen	1		Enschedeet	1		SPAIN			Gold Coast	4	
Birmingham	1		Aix-en-Provence	2		Frankfurt am Main	1		Groningen	1					Newcastle	4	
Bradford	1		Amiens	1		Freiburg	2		Haarlem	1		Valencia	3		Canberra	3	
Bristol	1		Angers	2		Gelsenkirchen-Alt	1		Nijmegen	1		Valladolid	2		Wollongong	3	
Cardiff	1		Annecy	2		Göttingen	1		Rotterdam	1		Vigo	2		Cairns	4	
Cork IRL	1		Argenteuil	2		Hagen	1		Tilburg	1		Vitoria-Gasteitz	2		Geelong West	2	
Coventry	1		Asnières-sur-Seine	1		Halle-Neustadt	1		Utrecht	1		Zaragoza	3		Townsville	4	
Derby	1		Avignon	2		Hamburg	1								Albury	3	
Dublin, IRL	1					Hamm	1		NORWAY			Pala, Mallorca	3		Nowra	3	
Dublin, Engl.	1		Besancon	2		Hannover	1								Darwin	5	
Dudley	1		Bordeaux	2		Heidelberg	1								Toowoomba	4	
Edinburgh	1		Boulogne-Billancourt	1		Ingolstadt	2		Oslo	0		SWEDEN			Ballarat	2	
Glasgow	1		Brest	1		Karlsruhe	1		Bergen	0					Bendigo	2	
Gloucester	1		Caen	1		Kiel	1		Stavanger	0		Malmö	1		Mackay	4	
Isle of Man	1		Calais	1		Koblenz	1		Trondheim	0		Helsingborg	1		Mandurah	3	
Kingston, Scotland	1		Clermont-Ferrand	2		Köln (Cologne)	1		Kristiansand	0		Göteborg	1		Ayers Rock	4	
Leeds	1		Cluses	2		Krefeld	1		Drammen	0		Linköping	0		Surfer's Paradise	3	
Leicester	1		Dijon	2		Leipzig	1		Tromsø	0		Stockholm	0		NEW ZEALAND		
Limerick	1		Grenoble	2		Lübeck	1		Tønsberg	0		Uppsala	0				
Liverpool	1		Le Havre	1		Ludwigshafen am Rhein	1					Kista	0		Auckland	2	
London	1		Le Mans	1		Magdeburg	1		PORTUGAL			Västerås	0		Wellington	2	
Londonderry/ Derry	1		Lille	1		Mainz	1					Örebro	0		Christchurch	2	
Luton	1		Limoges	2		Mannheim	1		Amadora	3		Karlstad	0				
Manchester	1		Lyon	2		Mönchengladbach	1		Aveiro	3		Täby	0				
Milton Keynes	1		Marseille	2		Mülheim an der Ruhr	1		Beja	3							
Newcastle	1		Metz	1		München	2		Braga	2							
Newport	1		Montpellier	2		Münster	1		Cacém	3							
Northampton	1		Montreuil	1		Neustadt	1		Cascais	3							
Norwich	1		Mulhose	2		Nürnberg	1		Coimbra	3							
Nottingham	1		Nancy	2		Oberhausen	1		Corroios	3							
Plymouth	1		Nanterre	1		Recklinghausen	1		Évora	3							
Portsmouth	1		Nantes	2		Regensburg	1		Faro	3							
Preston	1		Nice	2		Rostock	1		Fatima	3							
Reading	1		Nîmes	2		Stuttgart	2		Funchal (Isle, Madeira)	4							
Sheffield	1		Orléans	2		Ulm	2		Lisbon	3							
Southampton	1		Paris	1		Wiesbaden	1		Loures	3							
Southend-on-Sea	1		Perpignan	2		Wolfsburg	1		Porto	2							
Stoke-on-Trent	1		Poitiers	2		Wuppertal	1		Queluz	3							
Sunderland	1		Reims	1		Würzburg	1		Setúbal	3							
Wolverhampton	1		Rennes	1					Vila Nova de Gaia	2							
			Roubaix	1		GREECE											
			Rouen	1					Basel	2							
BELGIUM			Saint-Denis	1		Athens	2		Bern	2							
			Saint-Etienne	2		Thessaloniki	2		Biel	2							
Brussels	1		Strasbourg	2		Piraeus	2		Genève	2							
Aalst	1		Toulon	2		Pátrai	2		Lasanne	2							
Antwerp	1		Toulouse	2		Peristérior	2		Luzern	2							
Brugge	1		Tourcoing	1		Irakleion	3		Zürich	2							
Charleroi	1		Tours	2													
Gent	1		Versailles	1		ITALY			SPAIN								
Hasselt	1		Villeurbanne	2													
Kortrijk	1					Bari	2		Alcala de Henares	3							
La Louvière	1		FINLAND			Bologna	2		Alcant	3							
Leuven	1					Catania (Sicillia)	3		Alhambra	3							
Liège	1		Helsinki	0		Florence	2		Badalona	2							
Mechelen	1		Espoo	0		Genova	2		Barcelona	2							
Mons	1		Tampere	0		Messina	3		Bibao	2							
Namur	1		Vantaa	0		Milano	2		Cadiz	3							
Oostende	1		Turku	0		Monza	2		Cartagena	3							
Sint-Niklaas	1		Oulu	0		Naples	3		Cordoba	3							
Tournai	1		Lahti	0		Napoli	3		Eix	3							
			Kuopio	0		Padova	2		Eixample	2							
DENMARK			Jyväskylä	0		Palermo (Sicillia)	3		Fuenlabrada	3							
			Pori	0		Pisa	2		Gijon	2							
Hjorring	1					Rome	2		Granada, Andalusia	3							
Fredrikshavn			GERMANY			San Marino	2		Jerez de la Frontera	3							
Aalborg	1					Siracusa (Sicillia)	3		Las Palmas de Gran Canaria	4							
Stuer	1		Aachen	1		Torino	2		L'Hospitalet de Llobregat	2							
Randers	1		Augsburg	2		Trieste	2		Madrid	3							
Århus	1		Berlin	1		Venice	2		Malaga	3							
Horsens	1		Bielefeld	1		Verona	2		Mostoles	3							
Vejle	1		Bochum	1					Murcia	3							
Frederiksberg	1		Bonn	1		LUXENBOURG			Oviedo	2							
Copenhagen	1		Braunschweig	1					Palma	3							
Hvidovre	1		Bremen	1		Luxembourg	1		Sabadell	2							
Kolding	1		Chemnitz	1					San Sebastian	2							
Esbjerg	1		Darmstadt	1		MONACO			Sant Martí	2							
						Monte-Carlo	2										

Eastern Europe, Middle East. Asia

City	Zone	City	Zone	City	Zone	City	Zone	City	Zone	City	Zone
AFGHANISTAN		CHINA		CHINA		KAZAKSTAN		PHILIPPINES		SRI LANKA	5
Kabul	3	Taiyuan	3	Peristérion	2	Almaty	2	Manila	5	SYRIA	
Kandahar	3	Yunfu	4	Írákeion	3	Qaraghandy	1	Davao	5	Aleppo	3
ALBANIA		Changchun	2	HUNGARY		Karagandy	1	Cebu City	5	Damascus	3
		Jinan	3					POLAND		TAJIKSTAN	
Tirana	2	Dalian	2	Budapest	1	KUWAIT	3	Warsaw	1	Dushanbe	3
Durrës	2	Zhengzhou	3	Debrecen	1			Łódź	1	Khujaud	2
Elbasan	2	Shijazhuang	3	Miskolc	1	KYRGYSTAN		Kraków	1	TAIWAN	
ARMENIA		Jilin	2	Szeged	1			Wrocław	1		
		Hangzhou	3	Pécs	1	Bishkek	2	Poznań	1		
Yerevan	2	Nanchang	3	Győr	1	Osh	2	Gdańsk	0	Taipei	4
Gyumr	2	Qingdao	3	Nyíregyháza	1	LATVIA		PAPUA NEW GUINEA		THAILAND	
AZERBAAJAN		Xinyang	3	INDIA				Port Moresby	5	Bangkok	5
		Urumq	2			Riga	0			Samut Prakan	5
Baku	2	Fushun	2	Mumbai	5	Daugavpils	0	QUATAR		Udon Thani	4
Elisavetpol	2	Hefei	3	Delhi	3	LAOS		Doha	3	Chon Buri	5
BAHRAIN	3	Handan	3	Bengaluru	4	Vientiane	4	ROMANIA		Nakhon Ratchasima	5
BANGLADESH		Suzhou	3	Calcutta	4	Lebanaon		Bucharest	2	Chiang Mai	5
		Shantou	3	Chennai	5	Beirut	3	Iasi	1	TURKMENISTAN	
Dhaka	5	Baotou	2	Ahmadábád	4	LITHUANIA		Cluj-Napoca	1	Ashgabat	2
Chittagong	4	Anshan	2	Hyderábád	5			Timişoara	1	Türkmenabat	2
Khulna	4	Xuzhou	3	Pune	4	MACEDONIA				Mary	2
BELARUS		Fuzhou	3	Súrát	4			RUSSIAN FEDERATION		TURKEY	
		Guiyang	3	Kánpur	3	Vilnius	0	Moscow	0	Istanbul	2
Minsk	0	Dayan	4	Jaipur	3	Kaunas	0	Saint Petersburg	0	Ankara	2
Homyel'	1	Watong	3	Lucknow	3	Klaipėda	0	Novosibirsk	0	Izmir	2
Mahilyow	0	Datong	2	Nágpur	4	Šiauliai	0	Yekaterinburg	0	Bursa	2
		Xianyang	3	Indore	4	Dainava (Kaunas)	0	Nizhniy Novgorod	0	Adana	3
		Huainan	3	Patna	3	INDONESIA		Samara	0	Gaziantep	3
		Kunming	4	Bhógal	4	Jakarta	5	Omsk	0	UKRAINE	
		Ludhiána	4	Ludhiána	4	Surabaya	5	Kazan'	0	Kiev	1
						Medan	6	Rostov-na-Donu	1	Kharkiv	1
BOZNIA HERZEGOVINA		Baoding	2	IRAN		Bandung	6	Chelyabinsk	0	Dnipropetrov'sk	1
		Benxi	2			Sumatra	5	Ufa	0	Donets'k	1
Sarajevo	2	Changzhou	3	Tehrán	3	MALAYSIA		Volgograd	0	Odesa	1
Banja Luka	2	Huaibei	3	Mashhad	3	Kuala Lumpur	6	Perrn	0		
Zenica	2	CROATIA		Esfahán	3	Klang	6	Krasnoyarsk	0	UNITED ARAB EMIRATES	
Tuzla	2			Karaj	3	Kampung Baru Subang	6	Saratov	1	Dubai	4
		Zagreb - Centar	1	Tabriz	3	Singapore	6	Voronez	1	Abu Dhabi	4
BRUNEI		Zagreb	1	IRAQ		MOLDOVA		Tolyatti	0		
		Split	2	Baghdad	3	Chisinau	1	Krasnodar	1	SOUTH KOREA	
Bandar Seri Begawan	6	Rijeka	1	Al Baqrah	3	Tiraspol	1	Ulyanovsk	0	Seoul	3
BULGARIA				Al Mawshi al Jadidáh	3	MONGOLIA		Pusan	3	Taegu	3
		CZECH REPUBLIC						Taejon	3	Kwangju	3
Sofia	2	Praha	1					Suwon	3	SAUDI ARABIA	
Plovdiv, Bulgaria	2	Brno	1							Riyadh	4
Varna, Bulgaria	2	Ostrava	1							Jiddah	4
BURMA (MYANMAR)		Pizeň	1							Mecca	4
		Prague	1	IRAQ						Medina	4
				Baghdad	3					Sultánah	4
Rangoon	5	CYPRUS	3	Al Baqrah	3					SERBIA	
Mandalay	4			Al Mawshi al Jadidáh	3					Belgrade	2
CAMBODIA		CRETE	3							SLOVAKIA	
		EGYPT	3	ISRAEL						Bratislava	1
Phnom Penh	5									Košice	1
Kámpóng Saom	5			Tel Aviv-Yafo	3					SLOVENIA	
CHINA											
Shanghai	3										
Beijing	2										
Nanchong	3.5										
Tai'an	3										
Kaifeng	3										
Wuhan	3										
Chongqing	3										
Chengdu	3										
Tianjin	2										
Puyang	4										
Shenyang	2										
Shiyang	3										
Harbin	2										
Xian	3										
Lanzhou	3										
Guangzhou	4										
Nanjing	3										

Mexico, Central & South America

MEXICO			SOUTH AMERICA			SOUTH AMERICA		
Cabo San Lucas	4		ARGENTINA			PERU		
Cancún	4							
Ciudad Juárez	3		Buenos Aires	3		Lima	5	
Ciudad Nezahualcóyotl	4		Córdoba	3		Arequipa	5	
Cozumel	4		Rosario	3		Callao	5	
Ecatepec	4		Mendoza	3		Trujillo	6	
Guadalajara	5		San Miguel de Tucuman	4		Chiclayo	5	
Guadalupe	4		La Plata	3		Iquitos	5	
La Paz	4					Huancayo	5	
Manzanillo	5		BOLIVIA			Plura	6	
Mexico City	4					Chimbote	5	
Monterrey	4		Santa Cruz de la Sierra	5		Cusco	5	
Puebla de Zaragoza	4		Cochabama	5				
Puerto Vallarta	5		La Paz	5		VENEZUELA		
Tijuana	3		Sucre	5				
Veracruz	4		Oruro	5		Maracaibo	5	
			Tarija	5		Caracas	5	
CENTRAL AMERICA			Potosí	5		Valencia	5	
			Montero	4		Barquisimeto	5	
BELIZE						Ciudad Guayana	5	
			BRAZIL			Barcelona	6	
Belize City	4							
			São Paulo	4		SURINAME		
COSTA RICA			Rio de Janeiro	4				
			Salvador	5		Paramaribo	5	
San José	5		Fortaleza	6				
			Belo Horizonte	5		URAGUAY		
EL SALVADOR			Brasília	5				
			Curitiba	4		Montevideo	3	
San Salvador	5		Manaus	5		Salto	2	
			Recife	6				
HONDURAS			Belém	5				
			Porto Alegre	3				
Tegucigalpa	5		Goiânia	5				
			Guarulhos	4				
GUATEMALA			Campinas	4				
			Nova Iguaçu	4				
Guatemala City	5							
			CHILE					
NICARAGUA								
			Santiago	3				
Managua	5		Viña del Mar	3				
			Antofagasta	4				
PANAMA			Viña del Mar	3				
			Valparaíso	3				
Ciudad de Panamá	5		Talcahuano	3				
			San Bernardo	3				
THE BAHAMAS			Temuco	2				
			Iquique	5				
Nassau	4		Concepción	3				
			Rancagua	3				
BARBADOS								
			COLUMBIA					
Bridgetown	5							
			Bogotá	6				
BERMUDA			Calí	6				
			Medellín	6				
Saint George	3		Barranquilla	5				
			Cartagena	6				
CUBA			Cúcuta	6				
Havana	4							
			ECUADOR					
DOMINICAN REPUBLIC								
			Guayaquil	6				
Juan Dolio	4		Quito	6				
			Cuenca	6				
			Santo Domingo de los Colorados	6				
HAITI			Machala	6				
			Manta	6				
Port-au-Prince	4		Portoviejo	6				
			Durán	5				
JAMAICA								
			GUYANA					
Kingston	5							
			Georgetown	5				
PUERTO RICO								
			PARAGUAY					
San Juan	5							
VIRGIN ISLANDS			Asunción	4				
			San Lorenzo	4				
			Capiatá	4				
British V.I.	5		Lambaré	4				
U.S. V.I.	5		Fernando de la Mora	4				

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