Quick Start Guide
Digital Astronomical Timer
Model - DAT

FUNCTION

SimpleWorx products are designed to provide simple remote control for lighting and other electrical loads without running any new wiring. They connect or "link" to one another by communicating over the existing electrical power wires.

One transmitter can be linked to as many receivers as necessary. Each receiver has the ability to link to eight transmitters.

The SimpleWorx Digital Astronomical Timer (DAT) features four timers, each which can be set for:
- a specific time of day
- dusk, with an offset (before or after dusk)
- dawn, with an offset (before or after dawn)

Dusk/dawn calculations are made each day for your location.
- Enter your latitude and longitude (itouchmap.com/latlong.html) in the setup procedure.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. Do not use this product for other than its intended purpose.
2. Keep away from water. If the product comes in contact with water or other liquid, turn off the circuit breaker and remove the product immediately.
3. Never use products that have been dropped or damaged.
4. Do not use this product outdoors.
5. Do not cover this product with any material.

INSTALLATION

The setup procedure is simple and very straight forward.

Setup Steps:
- Set the current time and date
- Enter your time zone (Eastern, Central, etc)
- Select (if applicable) daylight saving time
- Enter your location (Latitude and Longitude)
- Create timer events
- Link to the SimpleWorx Receivers you want to control.

About the timers...Think of each timer as an event. For example,

Let's say each night you want your landscape lights to turn "ON" 15 minutes before dusk. This is one timer or event. Additionally, you want the lights to turn "OFF" at midnight. This is the second timer event, and so on. Most applications have a simple on and off time, but you can add a second set of on/off times if necessary.

BASIC OPERATION

The DAT has a display and three buttons "OFF / -", "ON / +", "SET" and a Link button.

- ❑ For manual operation, pressing the "OFF / -" button will turn the Linked Modules OFF. Pressing the "ON / +" button will turn the Linked Modules ON.

The "SET" button is used to enter programming and setting the values.

- ❑ To program your DAT, press and hold the "SET" button for 3 seconds.

The Link Button (located on the side of the unit) is used to Link the DAT to SimpleWorx Receivers.

- ❑ To enter Link Mode, press and hold the "Link" button for 6 sec. The LED will Blink RED

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SIMPLEWORX™

SETUP/PROGRAMMING

NOTE: Programming will be easier if the Digital Astronomical Timer (DAT) is plugged into an extension cord so it can be held for easier viewing. The DAT has a battery backup, so settings will not be lost when disconnected from the power.

To enter **"Programming Mode"**, press the SET button for up to 3 seconds until you see "Set Hour":

| SET HOUR: 16 | Use – and + buttons to select the HOUR (Hours are 24 hr. Military, not AM/PM) Press SET when finished. |

| SET MINUTE: 44 | Use – and + buttons to select the MINUTE. Press SET when finished |

| SET DAY: MONDAY | Use – and + buttons to select the current DAY. Press SET when finished |

| SET MONTH: 05 | Use - and + buttons to select the current MONTH. Press SET when finished |

| SET DATE: 01 | Use – and + buttons to select the current DATE. Press SET when finished |

| SET YEAR: 12 | Use – and + buttons to select the current YEAR. Press SET when finished |

| SET TIME ZONE: PACIFIC | Use the – and + buttons to select the TIME ZONE. Press SET when finished. |

| OBSERVE DST? YES | Use the – and + buttons to select the YES or NO to indicate if your area observes DAYLIGHT SAVING TIME. |

Next set the latitude and longitude of your location. You can find your exact coordinates on this website itouchmap.com/latlong/html
There is a major city lookup sheet in the back of this manual. Find the location that is closest to you and enter the coordinates.
Example: If you are a contractor in Northridge, CA the coordinates of 118 and 34 will work quite well anywhere within a 150 mile radius of Los Angeles.

| SET LONGITUDE: 118 | Use the – and + buttons to set the Longitude. Press SET when finished. |

| SET LATITUDE: 34 | Use the – and + buttons to set the Latitude. Press SET when finished. |

When ON is by real Time

| TURN ON AT: TIME | Use the – and + buttons to set the ON time as a real TIME. Press SET when finished. |

| SET ON HOUR: 18 | Use the – and + buttons to set ON Hour. Press SET when finished. |

| SET ON MINUTE: 00 | Use the – and + buttons to set the ON Minute. Press SET when finished. |

When ON is by Sunrise or Sunset

| TURN ON AT: SUNSET | Use the – and + buttons to set the ON time as, Sunrise, or Sunset. Press SET when finished. |

| SET ON OFFSET: +45 | Use the – and + buttons to set ON OFFSET in minutes. Press SET when finished. *The OFFSET may be =/- 127 minutes |

When OFF is by real Time

| TURN OFF AT: TIME | Use the – and + buttons to set the OFF time as a real TIME. Press SET when finished |

| SET OFF HOUR: 23 | Use the – and + buttons to set OFF Hour. Press SET when finished. |

| SET OFF MINUTE: 30 | Use the – and + buttons to set the OFF Minute. Press SET when finished. |

When OFF is by Sunrise or Sunset

| TURN OFF AT: SUNRISE | Use the – and + buttons to set the ON time as Sunrise, or Sunset. Press SET when finished. |

| SET OFF OFFSET: -15 | Use the – and + buttons to set ON Time OFFSET in minutes. Press SET when finished. *The OFFSET may be =/-127 minutes |

If there are Additional ON/OFF Times

| USE ADDITIONAL ON/OFF? YES | Should you require an additional set of ON/OFF times during a 24 hour period, select YES, otherwise select NO. Press SET when finished. |

If you select YES, program the second set of times in the same manner you did the first set.

If you select NO, you will be shown Today's Sunrise. Press Set. You will be shown Today's Sunset. Press Set. Programming is now complete and the Main screen will display the Day, Date, Time and last command sent.
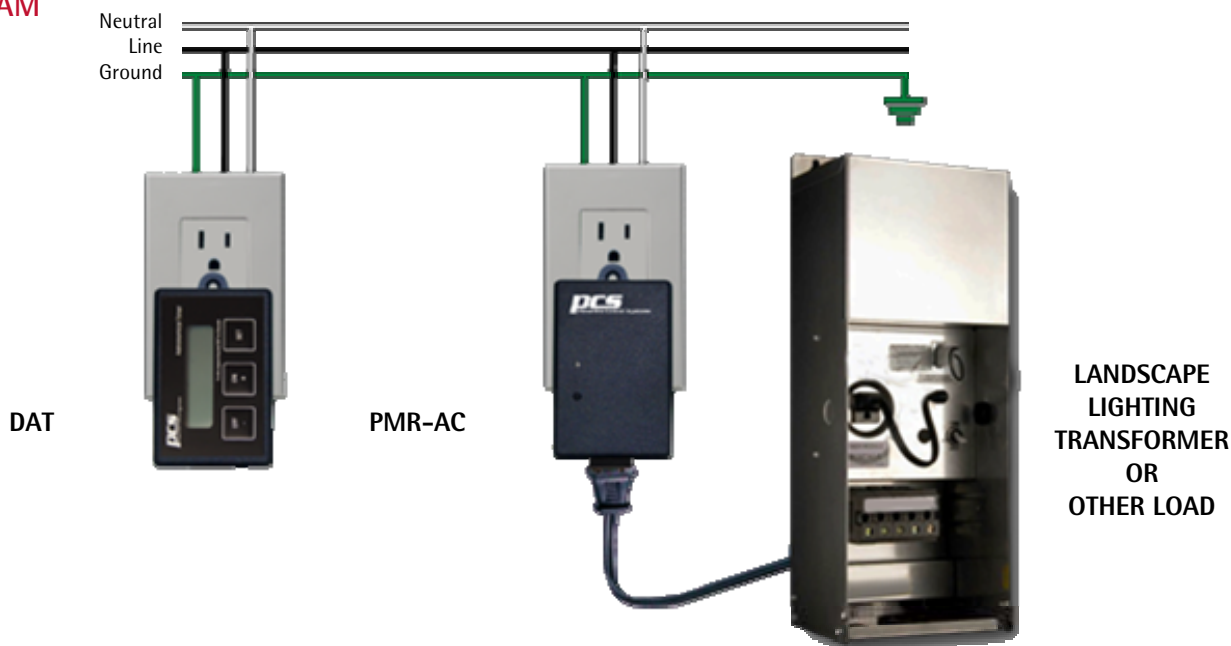
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SIMPLEWORX™

WIRING DIAGRAM

Neutral
Line
Ground

DAT

PMR–AC

**LANDSCAPE
LIGHTING
TRANSFORMER
OR
OTHER LOAD**

LINKING

Linking a Transmitter to a Receiver

All SimpleWorx transmitters can remotely control one or more SimpleWorx Receiver(s) by the following the steps below to "LINK" the two together:

1	At the SimpleWorx Transmitter; Press and hold its Link button for 6 seconds. The LED will then flash GREEN and flash its load (if a load is connected)
2	At the SimpleWorx Receiver; Press and hold the rocker switch or link button for 6 seconds. The LED will flash GREEN and flash its load (if a load is connected)
3	The Receiver will indicate (within 30 seconds) the two devices have automatically "LINKED" to one another when the LED stops flashing and then flashes its load once.
4	The Transmitter may be taken out of "LINK" mode by tapping its rocker switch or link button once. The LED will stop flashing and flashes its load (if a load is connected). **Note: The TX will automatically timeout after 5 minutes**

Status LED Indicator

The DAT are each equipped with a bi-color status LED that is normally lit to red. This LED indicator will flash different colors to indicate configuration status as outlined below:

LED Color	Status
Solid RED	Power applied to Module
Flashes GREEN	Device is in LINK MODE
Solid GREEN	Transmitting a SPC™ message

CERTIFICATION

This product has been thoroughly tested by Intertek Testing Services, a nationally recognized independent third-party laboratory. The North American ETL Listed mark signifies that the product has been tested to and has met the requirements of a widely recognized consensus of US and Canadian product safety standards, that the manufacturing site has been audited, and that the manufacturer has agreed to a program of quarterly factory follow-up inspections to verify continued conformance.

LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in materials and workmanship for a period of five years from the date of purchase. Refer to the warranty information on the PCS website (www.pcslighting.com) for exact details.

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SIMPLEWORX™

CITY	LON	LAT	CITY	LON	LAT
Albany, NY	73	42	Fort Worth, TX	97	32
Albuquerque, NM	106	35	Fresno, CA	119	36
Amarillo, TX	101	35	Grand Junction, CO	108	39
Anchorage, AK	149	61	Grand Rapids, MI	85	42
Atlanta, GA	84	33	Havre, MT	109	48
Austin, TX	97	30	Helena, MT	112	46
Baker, OR	117	44	Honolulu, HI	157	21
Baltimore, MD	76	39	Hot Springs, AK	93	34
Bangor, ME	68	44	Houston, TX	95	29
Birmingham, AL.	86	33	Idaho Falls, ID	112	43
Bismarck, ND	100	46	Indianapolis, IN.	86	39
Boise, ID	116	43	Jacksonville, FL	81	30
Boston, MA	71	42	Juneau, AK	134	58
Buffalo, NY	78	42	Kansas City, MO	94	39
Calgary, AB	114	51	Key West, FL	81	24
Carlsbad, NM	104	32	Kingston, ON	76	44
Charleston, SC	79	32	Klamath Falls, OR	121	42
Charleston, WV	81	38	Knoxville, TN	83	35
Charlotte, NC	80	35	Las Vegas, NV	115	36
Cheyenne, WY	104	41	Lewiston, ID	117	46
Chicago, IL	87	41	Long Beach, CA	118	33
Cincinnati, OH	84	39	Los Angeles, CA	118	34
Cleveland, OH	81	41	Louisville, KY	85	38
Columbia, SC	81	34	Manchester, NH	71	43
Columbus, OH	83	40	Memphis, TN	90	35
Dallas, TX	96	32	Miami, FL	80	25
Denver, CO	105	39	Milwaukee, WI	87	43
Des Moines, IA	93	41	Minneapolis, MN.	93	44
Detroit, MI	83	42	Mobile, AL	88	30
Dubuque, IA	90	42	Montgomery, AL.	86	32
Duluth, MN	92	46	Montpelier, VT	72	44
Eastport, ME	67	44	Montreal, QB	73	45
Edmonton, AB	113	53	Moose Jaw, SK	105	50
El Centro, CA	115	32	Nashville, TN	86	36
El Paso, TX	106	31	Nelson, BC	117	49
Eugene, OR	123	44	Newark, NJ	74	40
Fargo, ND	96	46	New Haven, CT	72	41
Flagstaff, AZ		35	New Orleans, LA	90	29

CITY	LON	LAT	CITY	LON	LAT
New York, NY	73	40	Portland, OR	122	45
Nome, AK	165	64	Providence, RI	71	41
Oakland, CA	122	37	Quebec, QB	71	46
Oklahoma City, OK	97	35	Raleigh, NC	78	35
Omaha, NB.	95	41	Reno, NV	119	39
Ottawa, ON.	75	45	Richfield, UT	112	38
Philadelphia, PA	75	39	Richmond, VA	77	37
Phoenix, AZ	112	33	Roanoke, VA	79	37
Pierre, SD	100	44	Sacramento, CA	121	38
Pittsburgh, PA	79	40	St. John, NB	66	45
Portland, ME	70	43	St. Louis, MO	90	38
Portland, OR	122	45	Salt Lake City, UT	111	40
Providence, RI	71	41	San Antonio, TX.	98	29
Quebec, QB	71	46	San Diego, CA	117	32
Raleigh, NC	78	35	San Francisco, CA	122	37
Reno, NV	119	39	San Jose, CA	121	37
Richfield, UT	112	38	San Juan, PR	66	18
Richmond, VA	77	37	Santa Fe, NM	105	35
Lincoln, NB	96	40	Savannah, GA	81	32
London, ON	81	43	Seattle, WA	122	47
Long Beach, CA	118	33	Shreveport, LA	93	32
Los Angeles, CA	118	34	Sioux Falls, SD	96	43
Louisville, KY	85	38	Sitka, AK	135	57
Manchester, NH	71	43	Spokane, WA	117	47
Memphis, TN	90	35	Springfield, IL	89	39
Miami, FL	80	25	Springfield, MA	72	42
Milwaukee, WI	87	43	Springfield, MO	93	37
Minneapolis, MN.	93	44	Syracuse, NY	76	43
Mobile, AL	88	30	Tampa, FL	82	27
Nashville, TN	86	36	Toledo, OH	83	41
Nelson, BC	117	49	Toronto, ON	79	43
Newark, NJ	74	40	Tulsa, OK	95	36
New Haven, CT	72	41	Vancouver, BC	123	49
New Orleans, LA	90	29	Victoria, BC	123	48
Phoenix, AZ	112	33	Virginia Beach, VA	75	36
Pierre, SD	100	44	Washington, DC	77	38
Pittsburgh, PA	79	40	Wichita, KS	97	37
Portland, ME	70	43	Wilmington, NC	77	34
			Winnipeg, MB	97	49

CITY	LON	LAT	CITY	LON	LAT

pcs
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