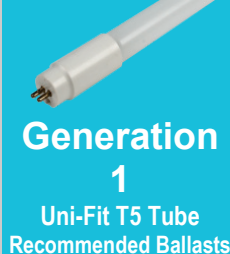



## Ballast Compatibility List and Guide – Uni-Fit T5 Tube Lamps

This list provides the known and tested compatible ballasts for Revolution Lighting Uni-Fit LED T5 Tube Lamps. Please read all notes and information after each table and at the end of this document.

**IMPORTANT!** Please verify that your ballast is on the most recent version of this list at [www.rvlti.com](http://www.rvlti.com) **BEFORE** installation.

### Ballast Compatibility for Uni-Fit T5 Tube Lamps – Recommended Ballasts (Subject to Change)

 <b>Generation 1</b> Uni-Fit T5 Tube Recommended Ballasts	Uni-Fit Tube	Ballast Manufacturer	Ballast Model No.	Correct Number of Tube Lamps	Start Type	Power Level
	27W T5 HO Applicable SKU Family: <b>204321-11X</b>	Philips Advance	ICN-2S54-N	2	PSE	Normal
		Philips Advance	ICN-4S54-90C-2LS-G	4	PSE	Normal
	13W T5 HE Applicable SKU Family: <b>204320-11X</b>	Philips Advance	ICN-2S28-T	2	PSE	Normal
		Keystone	KTEB-228HE-UV-PS-SC	2	PSE	Normal

 <b>Generation 2</b> All-PC Uni-Fit T5 Tube Recommended Ballasts	Uni-Fit Tube	Ballast Manufacturer	Ballast Model No.	Correct Number of Tube Lamps	Start Type	Power Level
	27W G2 T5 HO Applicable SKU Family: <b>204321-21X</b>	Sylvania	QHE 2x54T5HO/UNV PSN HT	2	PSE	Normal
		Sylvania	QHE 4x54T5HO/UNV PSN HT SCL	4	PSE	Normal
	14W G2 T5 HE Applicable SKU Family: <b>204320-21X</b>	Sylvania	QHE 2x28T5/UNV PSN	2	PSE	Normal
		Sylvania	QTP 2x28T5/UNV PSN	2	PSE	Normal

### Ballast Compatibilities for Uni-Fit T5 Tube Lamps – Complete List (Subject to Change)

Ballast Model No.	Correct Number of Tube Lamps	Start Type	Power Level	Generation 1 Uni-Fit T5 Tube Compatibility		Generation 2 All-PC Uni-Fit T5 Tube Compatibility	
				27W T5 Applicable SKU Family: 204321-11X	13W T5 Applicable SKU Family: 204320-11X	27W G2 T5 Applicable SKU Family: 204321-21X	14W G2 T5 Applicable SKU Family: 204320-21X
				HO	HE	HO	HE
<b>AC Electronics</b>							
ESD-A54T5S	2	PSE	Normal	NO	NO	YES	NO
<b>BallastWise Duropower</b>							
DXE224HO51 <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO
DXE424HO51 <sup>2</sup>	4	PSE	Normal	NO	NO	YES	NO

Ballast Model No.	Correct Number of Tube Lamps	Start Type	Power Level	Generation 1 Uni-Fit T5 Tube Compatibility		Generation 2 All-PC Uni-Fit T5 Tube Compatibility		
				27W T5 <i>Applicable SKU Family: 204321-11X</i>	13W T5 <i>Applicable SKU Family: 204320-11X</i>	27W G2 T5 <i>Applicable SKU Family: 204321-21X</i>	14W G2 T5 <i>Applicable SKU Family: 204320-21X</i>	
				HO	HE	HO	HE	
<b>Fulham</b>								
WH3-120-L <sup>2</sup>	2	ISE	Normal	YES	NO	NO	NO	
RHA-UNV-254-LT5	2	PSE	Normal	NO	NO	YES	NO	
RHA-UNV-224-LT5 <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO	
SC-120-213-LT5 <sup>2</sup>	2	PSE	Normal	NO	NO	NO	YES	
<b>Fusion</b>								
FB254T5MVE	2	PSE	Normal	YES	NO	NO	NO	
FB254347T5E	2	PSE	Normal	YES	NO	NO	NO	
FB454347T5MVE	4	PSE	Normal	YES	NO	NO	NO	
FB454T5MVE	4	PSE	Normal	YES	NO	NO	NO	
<b>General Electric</b>								
GE254MVPS90-A	2	PSE	Normal	NO	NO	YES	NO	
GE454MVPS90-F	4	PSE	Normal	NO	NO	YES	NO	
GE454MVPS90-E-S	4	PSE	Normal	NO	NO	YES	NO	
GE254PS347/480-F	2	PSE – HiVolt	Normal	NO	NO	YES	NO	
GE454PS347/480-E	4	PSE – HiVolt	Normal	NO	NO	YES	NO	
GE28T5/2-120-RES	2	PSE	Normal	NO	NO	NO	YES	
GE28T5-120-RES	1	PSE	Normal	NO	NO	NO	YES	
GE21T5-120-RES <sup>2</sup>	1	PSE	Normal	NO	NO	NO	YES	
GE228MVPS-MC	2	PSE	Normal	NO	NO	NO	YES	
GE228MVPS-MC-H	2	PSE	Normal	NO	NO	NO	YES	
<b>Halco</b>								
EP254HO/PS/MV/MC	2	PSE	Normal	YES	NO	NO	NO	
EP454HO/PS/MV	4	PSE	Normal	YES	NO	NO	NO	
<b>Howard</b>								
EP254HO/PS/MV	2	PSE	Normal	YES	NO	NO	NO	
<b>Keystone</b>								
KTEB-254HO-UV-PS-SL	2	PSE	Normal	YES	NO	NO	NO	
KTEB-254HO-UV-PS-SC	2	PSE	Normal	YES	NO	NO	NO	
KTEB-254HO-UV-PS/A	2	PSE	Normal	YES	NO	NO	NO	
KTEB-454HO-UV-PS	4	PSE	Normal	YES	NO	NO	NO	
KTEB-228HE-UV-PS-SL	2	PSE	Normal	NO	YES	NO	NO	
KTEB-228HE-UV-PS-SC	2	PSE	Normal	NO	YES	NO	NO	
<b>Philips Advance</b>								
ICN-2S54	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S54-N	2	PSE	Normal	YES	NO	YES	NO	
ICN-2S54-T	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S54-90C	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S54-90C-T	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S54-90C-N	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S39-T <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO	
ICN-2S24-T <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO	
EL1/254A26	2	PSE	Normal	YES	NO	NO	NO	
ICN-4S54-90C-2LS-G <sup>3</sup>	4	PSE	Normal	YES	NO	YES <sup>3</sup>	NO	
HCN-4S54-90C-2LS-G	4	PSE – HiVolt	Normal	YES	NO	NO	NO	
HCN-2S54-90C-WL	2	PSE – HiVolt	Normal	YES	NO	NO	NO	



Ballast Model No.	Correct Number of Tube Lamps	Start Type	Power Level	Generation 1 Uni-Fit T5 Tube Compatibility		Generation 2 All-PC Uni-Fit T5 Tube Compatibility	
				27W T5 <i>Applicable SKU Family: 204321-11X</i>	13W T5 <i>Applicable SKU Family: 204320-11X</i>	27W G2 T5 <i>Applicable SKU Family: 204321-21X</i>	14W G2 T5 <i>Applicable SKU Family: 204320-21X</i>
				HO	HE	HO	HE
REZ-2S54 <sup>1</sup>	2	PSE – Dim.	Normal	NO	NO	YES	NO
ICN-2S24-N <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO
ICN-2S28	2	PSE	Normal	NO	YES	NO	NO
ICN-2S28-T	2	PSE	Normal	NO	YES	NO	NO
IZT-2S28-D <sup>1</sup>	2	PSE – Dim.	Normal	NO	NO	NO	YES
<b>Robertson</b>							
PSA228T5MV	2	PSE	Normal	NO	NO	NO	YES
<b>Sunpark</b>							
U-2/54T5HO	2	PSE	Normal	YES	NO	YES	NO
<b>Sylvania</b>							
QHE 2x54T5HO/UNV PSN	2	PSE	Normal	NO	NO	YES	NO
QHE 2x54T5HO/UNV PSN HT	2	PSE	Normal	NO	NO	YES	NO
QHE 2x39-24T5HO/UNV PSN <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO
QTP 4x54T5HO/UNV PSN HT W	4	PSE	Normal	NO	NO	YES	NO
QHE 4x54T5HO/UNV PSN HT SCL	4	PSE	Normal	NO	NO	YES	NO
QTP 2x54T5HO/347-480 PSN HT	2	PSE – HiVolt	Normal	NO	NO	YES	NO
QTP 2x28T5/UNV PSN	2	PSE	Normal	NO	NO	NO	YES
QHE 2x28T5/UNV PSN	2	PSE	Normal	NO	NO	NO	YES
QTP 1x28T5/UNV PSN	1	PSE	Normal	NO	NO	NO	YES
<b>Universal</b>							
B254PUNVHB-D	2	PSE	Normal	NO	NO	YES	NO
B254PUNV-D	2	PSE	Normal	NO	NO	YES	NO
B239PUNV-D <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO
B224PUNV-C <sup>2</sup>	2	PSE	Normal	NO	NO	YES	NO
B454PUNV-E	4	PSE	Normal	NO	NO	YES	NO
B454PUNVHB-E	4	PSE	Normal	NO	NO	YES	NO
B228PUNV-N	2	PSE	Normal	NO	YES	NO	YES

**NOTES:**

ISE = Instant-Start Electronic Ballast  
PSE = Programmed-Start Electronic Ballast  
**YES** = Tested and Compatible  
**NO** = Not Compatible

<sup>1</sup> Dimmable ballast product: special dimmers, such as "0-10V" or "Mk.10 Powerline" units may be required for proper functionality. It is the end user's responsibility to determine the correct dimmer type for use with their particular ballast. As always, Revolution Lighting products should be installed in their actual intended fixture/area for final verification of operation and performance.

<sup>2</sup> Low power ballast product: the tubes will work safely, but they will output much less light than when used with standard 54W T5HO or 28W T5HE ballasts, as these low-power ballasts are not intended for 4ft T5 tube lamps. It is the end user's responsibility to assess how much light they need in their situation to comply with all life-safety, building, and work codes. As always, Revolution Lighting products should be installed in their actual intended fixture/area for final verification of operation and performance.

<sup>3</sup> Several versions of this ballast model exist. While most function as designed, a small number are not compatible with the Revolution Lighting T5 tube lamps. It is the end user's responsibility to test their particular ballast with Revolution Lighting T5 tube lamps to confirm performance before completing a full install. Revolution Lighting will not be responsible for any damages caused from incompatibilities with these particular ballasts.

Several factors can adversely affect actual ballast performance, including ballast condition, wiring/socket condition, power-supply instability, power switch type, installation situation, ambient temperature, and vibration. The quality of the main power supplied to

the region/facility/room/area, existing wiring and installation, and varying production versions of the above listed ballasts may affect ballast/lamp performance. As always, Revolution Lighting products should be installed in their actual intended fixture/area for final verification and approval of operation and performance.

When checking ballasts on this compatibility list, ensure that the EXACT model number on the ballast matches the listed Ballast Model No. **EXACTLY**. A single different letter or digit can signify completely different functionality and compatibility. The presence of a ballast in these tables is not a guarantee or warranty of the compatibility of the LED lamp/luminaire in any particular installation. Incompatibility of ballasts not listed in these tables should not be assumed. If an intended ballast is not listed in the tables above, contact your Revolution Lighting representative to request specific ballast compatibility testing.

Please refer to the ballast manufacturer's specifications and installation instructions for additional information.

**Please refer to the "Important Safeguards for Pre-Installation, Installation, and Post-Installation of All Revolution Lighting Ballast-Ready Tube Lamps" section below for additional information about system safety and performance.**

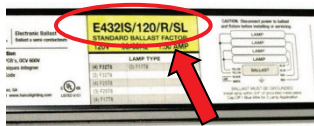
#### TESTING NOTE:

Revolution Lighting's in-house compatibility testing is conducted in a controlled laboratory environment utilizing basic on/off switching and 24- to 72-hour longevity tests. During this time we collect electrical and thermal measurements to determine the overall stress on the ballast and on our tube lamps. From these data, we determine whether the ballast-lamp relationship is efficient, reliable, and safe. Several factors can adversely affect actual ballast performance, including ballast condition, wiring/socket condition, power-supply instability, power switch type, installation situation, ambient temperature, and vibration.

## Important Safeguards for Pre-Installation, Installation, and Post-Installation of All Revolution Lighting Ballast-Ready Tube Lamps

***Please read the following important safeguards to be taken before, during, and after installation.***

### CHECK BALLAST COMPATIBILITY



Before installing any Uni-Fit Tube Lamps, Revolution Lighting strongly suggests replacing all ballasts with new ballasts that have been tested and listed on the Revolution Lighting Ballast Compatibility List. The latest compatibility list can be found here: <http://rvlti.com/support.php#Uni-Fit-Ballast-Compatibility-List>.

If full ballast replacement is not possible, EACH AND EVERY ballast at the job site must be checked to ensure that it has been tested and is listed on the Revolution Lighting Ballast Compatibility List prior to the installation of the Uni-Fit Tube Lamps. Therefore, ballasts ideally should be checked during the initial sales audit/quoting phase or during the installation phase of the project. Ballasts that are three (3) years old or older should be replaced with new compatible ballasts.

### TURN POWER OFF WHEN INSTALLING LED TUBES



Before installing Uni-Fit Tube Lamps, **ALWAYS ENSURE THAT THE POWER TO THE FIXTURE (BALLAST) IS OFF BEFORE AND DURING THE INSTALLATION** of any Revolution Lighting Uni-Fit Tube Lamps or other products. Remove and replace ALL tubes in the fixture before turning power to the fixture (ballast) back ON. **NO HOT SWAPPING!** Failure to have the power OFF will void the Uni-Fit Tube Lamp warranty.

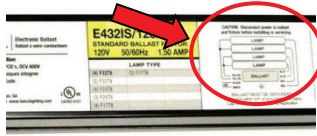
### USE CORRECT NUMBER OF TUBES



Before installing Uni-Fit Tube Lamps, ensure that the number of tubes installed in the fixture matches the allowable number of tubes as printed on the ballast. **DO NOT DE-LAMP THE FIXTURE AND INSTALL FEWER THAN THE NUMBER OF LED TUBES INTENDED.**

For example, if the ballast is made to handle 4 tubes, ensure that 4 LED tubes are installed. If fewer than 4 tubes are needed, install an appropriate ballast for that number of tubes.

### FOLLOW WIRING DIAGRAM EXACTLY



Before buying and installing Revolution Lighting Uni-Fit Tube Lamps, check the configuration and condition of the fixture wiring. Ensure that the wiring configuration used matches the appropriate wiring diagram printed on the ballast to be used **EXACTLY**. Revolution Lighting strongly suggests replacing ALL of the wiring in the fixture if any wires are damaged or in poor condition.

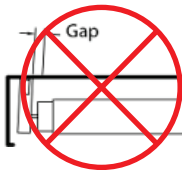
### REPLACE SOCKETS



Revolution Lighting strongly suggests replacing ALL of the sockets in the fixture using the appropriate size and style to match the fixture and ballast type in order to avoid any complications or failures due to damaged or fatigued sockets.

If full replacement of all sockets is not possible, check the condition of the fixture sockets (tombstones) BEFORE buying and installing Revolution Lighting Uni-Fit Tube Lamps. Any damaged or defective sockets MUST be replaced prior to installing Revolution Lighting Uni-Fit Tube Lamps.

### ENSURE GOOD FIT AND CONTACT IN SOCKETS



When installing Uni-Fit Tube Lamps, install the lamp properly so that it is fully seated in its proper orientation (see diagram below). Ensure that there is no gap between the tube lamp and the socket and that the sockets are not pushed outward after the tube is installed.

Failure to ensure proper installation and contact may lead to poor contact, which may generate high-voltage arcing between the tube's bi-pins and the copper contacts inside the socket.



**WARNING – High-voltage arcing from poor contact can generate high heat that could potentially lead to melting and charring of the socket or tube damage! Always ensure that the tubes fit properly in the fixture and sockets before restoring power to the fixture!**



**CORRECT**



**WRONG**



**WRONG**