



KRISTOPHER DUSEK
WELKER INC
13839 W BELLFORT ST
SUGAR LAND TX 77498-1671

Date: 2019/09/20
Subscriber: 419121002
PartySite: 576001
File No: E122722
Project No: 4789142020
PD No: 19M28218
Type: R
PO Number: 54641

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
1997/05/13	1	3	Revised Description Page(s) 2	2019/09/17
1997/05/13	1	3	Revised Illustration(s) 4,9	2019/09/17
1997/05/13	1	3	New Test Record 5	2019/09/17

Inspections at your plant will be conducted under the supervision of LOUIS D BERTSCHY, UL INSPECTION CENTER SOUTHWEST/TEXAS AREA OFFICE, UL LLC, PHONE: 1-817-689-4059, EMAIL: Louis.Bertschy@ul.com

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

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NBK File

UL INSPECTION CENTER 835

ASSEMBLY AND CONSTRUCTION DETAILS:

The assembly and construction details are shown and described in connection with the following figures and illustrations. All dimensions are approximate unless otherwise indicated.

<u>Description</u>	<u>Drawing No.</u>	<u>Fig.</u>	<u>ILL.</u>	<u>REV</u>
Model 6Tc timer, complete assembly		1		
Model 6T timer, internal assembly		2		
Battery assembly		3		
Clippard solenoid valve interface		4		
Spartan solenoid valve interface		5		
Versa solenoid valve interface		6		
Wiring diagram	EL-530		1	-
Timer board, schematic	EL-508		2	-
Timer board, component layout	EL-092		3	C
Parts list	EPCWE6T		4	D
Battery assembly	EBPL072125		5	-
Clippard valve circuit diagram	EL-456-3		6	-
Spartan valve circuit diagram	EL-456-1	-	7	-
Versa valve circuit diagram	EL-456-2	-	8	-
Nameplate drawing	-	-	9	-

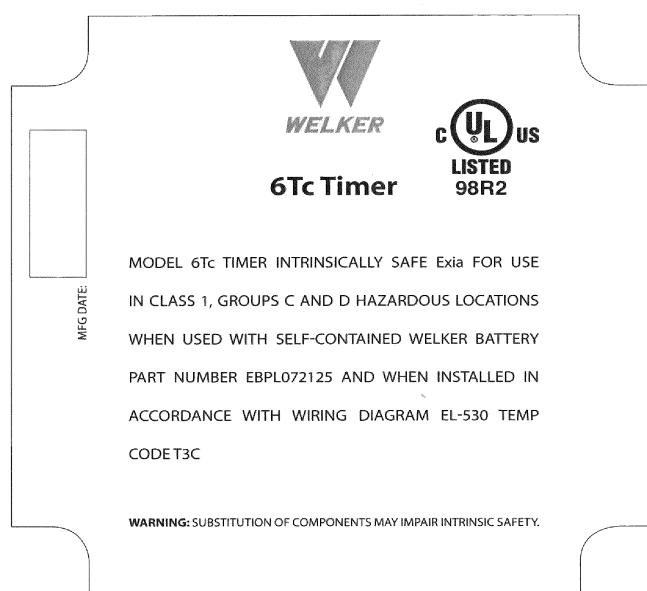
INSTALLATION INSTRUCTIONS:

Each unit is to be supplied with a copy of wiring diagram EL-530. The diagram is included in this Report as ILL. 1.

Welker Inc. Part# EPCWE6T Rev D 6TC Timer Board Assembly

ITEM #	Qty	EU	Description	Part #	Manuf	RoHS	Mnt Style	Ref Designator	Distr Part #	Alter Part #	Manuf
1	4	ea	CAPACITOR, CERAMIC, 15PF, 200VDC	SR212A150JAATR	AVX	Y	THR	C1, C2, C3, C4	80-C137C150J2G		
			CAPACITOR, CERAMIC, 15PF, 200VDC	NCM16NP0150J200	NIC	N					
			CAPACITOR, CERAMIC, 15PF, 1000VDC	CD-150	PHILLIPS	N					
			CAPACITOR, CERAMIC, 15PF, 3000VDC	303AQ15	SPRAGUE	N					
2	2	ea	CAPACITOR, TANTALUM, 10UF, 25VDC	T350E106K025AS	KEMET	N	THR	C5, C6	TB10/25K1		
				ND1M106K25	NIC	N					
				T99D106X0025CA1	SPRAGUE	N					
				T350A104K035AS	KEMET	N					
3	2	ea	CAPACITOR, TANTALUM, 1UF, 35VDC	ND1M104K35	NIC	N	THR	C7, C8	TB1/35K1		
				T99D104X0035AA1	SPRAGUE	N					
				LP49-SR-20MHZ	PLETRONICS	Y					
				D200-S	KDS	Y			D200-S	C35-S-20.000MHZ	Core
4	1	ea	CRYSTAL, 4MHz	AS-20.000-15	REAL TRON		THR	CR1			
				MX1VON32.768K12.5PF	MICRO CRYSTAL						
5	1	ea	CRYSTAL, 32KHz	1N4001-T	Diodes Inc.	Y	THR	CR2			
				1N4001	Motorola						
6	1	ea	DIODE, 1N4001	LTL-30EFJ	LITE-ON	Y	THR	D2		LTL052RG	LITE-ON
				LT1120ACN8	LINEAR	N				LT1120ACN8PBF (ROHS)	Linear Tech
7	1	ea	DUAL LED, LTL-52RG	PIC16C74A-20/P	MICROCHIP	Y	THR	MC1			
				MSPS-103C0	ALCO	Y				8532MZGE2 (ROHS)	C&K
8	1	ea	LINEAR REGULATOR	22-12-2024	MOLEX	Y	THR	PL1			
					DIODES INC						
9	1	ea	MICROCHIP		MOTOROLA (On Semi)	N	THR	Q1		MPSA13G (Rohs Comp.)	On Semi
10	1	ea	PUSH BUTTON, SPST, NO, BLACK CAP	291-10K/AP-RC	XICON	Y	THR	R1		291-10K-RC	XICON
				291-470K/AP-RC	XICON	Y				291-470K-RC	XICON
11	1	ea	MOLEX PIN HEADER, RIGHT ANGLE 2-PIN	291-1M-RC	XICON	Y	THR	R3, R4			
				291-1K-RC	XICON	Y					
12	1	ea	TRANSISTOR	291-6.8K/AP-RC	XICON	Y	THR	R7		291-6.8K-RC	XICON
13	1	ea	RESISTOR, CARBON, 10K, 1/4W, 5%	4608X-101-474LF	BOURNS	Y	THR	RN1, RN2			
				CSC08A01-474G	DALE						
14	1	ea	RESISTOR, CARBON, 470K, 1/4W, 5%	NFRN08C474G	NIC		THR				
15	2	ea	RESISTOR, CARBON, 1M, 1/4W, 5%	78B12S	GRAYHILL	N	THR	SW1		78B12ST (RoHs)	
16	2	ea	RESISTOR, CARBON, 1K, 1/4W, 5%	STL2955/4-W (37.204)	ALTECH	Y	THR	TB1-a	ALTECH (#37.204)		
				AK2950/2 (37.002)	ALTECH	Y			ALTECH (#37.002)		
17	1	ea	RESISTOR, CARBON, 1K, 1/4W, 5%	ELM 3-150	BIVAR INC		THR	D2			
18	2	ea	RESISTOR, NETWORK, 470K	EPCWE6T							
19	1	ea	SWITCH BANK, 12-POS, NO, TAPE SEAL								
20	1	ea	VERTICAL HEADER, 4 CIRCUIT								
21	2	ea	TERMINAL BLOCK, 2-POINT								
22	1	ea	LED MOUNT SR VERT 0.150" 5MM 3LD								
23	1	ea	Printed Circuit Board, 6T								
24	1	ea	Assembly Labor								

6Tc UL MARKED STICKER



C192169079

ASSEMBLY AND CONSTRUCTION DETAILS:

The assembly and construction details are shown and described in connection with the following figures and illustrations. All dimensions are approximate unless otherwise indicated.

<u>Description</u>	<u>Drawing No.</u>	<u>Fig.</u>	<u>ILL.</u>	<u>REV</u>
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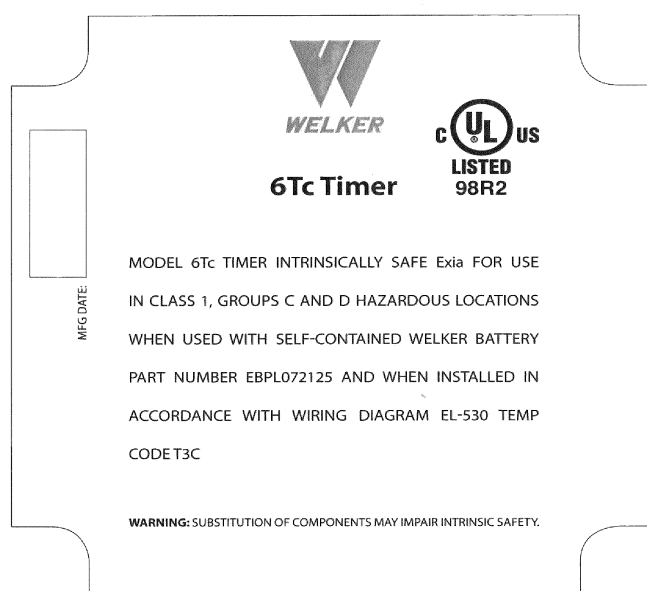
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Welker Inc. Part# EPCWE6T Rev D 6TC Timer Board Assembly

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1	4	ea	CAPACITOR, CERAMIC, 15PF, 200VDC	SR212A150JAATR	AVX	Y	THR	C1, C2, C3, C4	80-C137C150J2G		
			CAPACITOR, CERAMIC, 15PF, 200VDC	NCM16NPO150J200	NIC	N					
			CAPACITOR, CERAMIC, 15PF, 1000VDC	CD-150	PHILLIPS	N					
			CAPACITOR, CERAMIC, 15PF, 3000VDC	303AQ15	SPRAGUE	N					
2	2	ea	CAPACITOR, TANTALUM, 10UF, 25VDC	T350E106K025AS	KEMET	N	THR	C5, C6	TB10/25K1		
				ND1M106K25	NIC	N					
				T99D106X0025CA1	SPRAGUE	N					
				T350A104K035AS	KEMET	N					
3	2	ea	CAPACITOR, TANTALUM, 1UF, 35VDC	ND1M104K35	NIC	N	THR	C7, C8	TB1/35K1		
				T99D104X0035AA1	SPRAGUE	N					
				LP49-SR-20MHZ	PLETRONICS	Y					
				D200-S	KDS	Y			D200-S	C35-S-20.000MHZ	Core
4	1	ea	CRYSTAL, 4MHz	AS-20.000-15	REAL TRON		THR	CR1			
				MX1VON32.768K12.5PF	MICRO CRYSTAL						
5	1	ea	CRYSTAL, 32KHz	1N4001-T	Diodes Inc.	Y	THR	CR2			
				1N4001	Motorola						
6	1	ea	DIODE, 1N4001	LTL-30EFJ	LITE-ON	Y	THR	D2		LTL052RG	LITE-ON
				LT1120ACN8	LINEAR	N				LT1120ACN8PBF (ROHS)	Linear Tech
7	1	ea	DUAL LED, LTL-52RG	PIC16C74A-20/P	MICROCHIP	Y	THR	MC1			
				MSPS-103C0	ALCO	Y				8532MZGE2 (ROHS)	C&K
8	1	ea	LINEAR REGULATOR	22-12-2024	MOLEX	Y	THR	PL1			
					DIODES INC						
9	1	ea	MICROCHIP		MOTOROLA (On Semi)	N	THR	Q1		MPSA13G (Rohs Comp.)	On Semi
10	1	ea	PUSH BUTTON, SPST, NO, BLACK CAP	291-10K/AP-RC	XICON	Y	THR	R1		291-10K-RC	XICON
				291-470K/AP-RC	XICON	Y				291-470K-RC	XICON
11	1	ea	MOLEX PIN HEADER, RIGHT ANGLE 2-PIN	291-1M-RC	XICON	Y	THR	R3, R4			
				291-1K-RC	XICON	Y					
12	1	ea	TRANSISTOR	291-6.8K/AP-RC	XICON	Y	THR	R7		291-6.8K-RC	XICON
13	1	ea	RESISTOR, CARBON, 10K, 1/4W, 5%	4608X-101-474LF	BOURNS	Y	THR	RN1, RN2			
				CSC08A01-474G	DALE						
14	1	ea	RESISTOR, CARBON, 470K, 1/4W, 5%	NFRN08C474G	NIC		THR				
15	2	ea	RESISTOR, CARBON, 1M, 1/4W, 5%	78B12S	GRAYHILL	N	THR	SW1		78B12ST (RoHs)	
16	2	ea	RESISTOR, CARBON, 1K, 1/4W, 5%	STL2955/4-W (37.204)	ALTECH	Y	THR	TB1-a	ALTECH (#37.204)		
				AK2950/2 (37.002)	ALTECH	Y			ALTECH (#37.002)		
17	1	ea	RESISTOR, CARBON, 1K, 1/4W, 5%	ELM 3-150	BIVAR INC		THR	D2			
18	2	ea	RESISTOR, NETWORK, 470K	EPCWE6T							
19	1	ea	SWITCH BANK, 12-POS, NO, TAPE SEAL								
20	1	ea	VERTICAL HEADER, 4 CIRCUIT								
21	2	ea	TERMINAL BLOCK, 2-POINT								
22	1	ea	LED MOUNT SR VERT 0.150" 5MM 3LD								
23	1	ea	Printed Circuit Board, 6T								
24	1	ea	Assembly Labor								

6Tc UL MARKED STICKER



C192169079

TEST RECORD NO. 5

SAMPLES:

The manufacturer submitted updated drawings for Model 6Tc timer.

GENERAL:

The minor corrections that were made to the drawings for the Model 6Tc timer do not affect the ratings and protection methods utilized, and no CRDS were determined to be necessary.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

UL 913 INTRINSICALLY SAFE APPARATUS AND ASSOCIATED APPARATUS FOR USE IN CLASS I, II, AND III, DIVISION 1, HAZARDOUS (CLASSIFIED) LOCATIONS- Edition 5 - Issue Date 1997/02/21
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CSA C22.2 NO. 157-92 INTRINSICALLY SAFE AND NON-INCENDIVE EQUIPMENT FOR USE IN HAZARDOUS LOCATIONS- Edition 3 - Revision Date 2003/06/01
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Test Record by:
Diane Poirier
Engineering Associate

Reviewed by:
Benjamin Schaefer
Senior Staff Engineer