

Low Intensity Heater & Accessory Packing List

Heaters & Accessories

Effective 7-1-18

All orders are subject to acceptance by Detroit Radiant Products Company, Warren, Michigan at prices in effect at date of shipment. All prices are F.O.B. Warren, Michigan. All State, Federal, or Municipal taxes in effect at the time of shipment or imposed at any future time on our products shall be the responsibility of the customer. We reserve the right to change specifications on our products without prior notice to the customer.



**Commercial &
Industrial Heaters**



Residential Heaters



**Stainless Steel
Heaters**



**Negative Pressure
Vacuum Systems**



**Decorative Patio
Heaters**



**Quad Comfort
Heaters**

The key symbols below and found within designate the following:

SYMBOL	DESCRIPTION
†	UPS packages are charged dimensional, not physical weight.
Items in [****]	DRP product coding. For internal use only.

Gas-Fired, Low Intensity, Infrared Tube Heaters

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LPKTH-7/18(DRPC)

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LIMITED WARRANTY GUIDELINES AND OPTIONS²

All limited warranties, are defined in the product insert manual for the particular series of heaters.

Please contact the factory for further information on the terms and conditions. ¹Consult factory for stainless steel.

STANDARD WARRANTY	BURNER BOX COMPONENTS	TUBES/ EXCHANGERS	BURNER
MP, HL3, DX3L, -SB, -SS, HLV ² , SV	3 YEARS	5 YEARS	10 YEARS
LD3, LS3, DET3, DES3	1 YEAR	3 YEARS	5 YEARS

²Vacuum pump - 1 year.

EXTENDED WARRANTY OPTIONS ³	
CWO	Control Extended Warranty. (Max. 4 year extension). ____ (QTY) per year, per heater.
MPCWO	MP Series Control Extended Warranty. (Max. 4 year extension). ____ (QTY) per year, per heater.
EWO¹	Exchanger Extended Warranty Option. (Max. 10 year total or 5 year extension) ____ (QTY) per year, per tube.
VPWO:	HLV Vacuum Pump Extended Warranty Option. (Max. 5 year total or 4 year extension). ____ (QTY) per year, per pump.

³Prior approval from the factory is required when quoting extended warranties.

LOW INTENSITY TUBE HEATER MODELS

Commercial & Industrial Heaters

SERIES	20 FT.	25 FT.	30 FT.	40 FT. (A)	40 FT. (T)	50 FT. (A)	50 FT. (T)	60 FT.	70 FT.	80 FT.
MP	N/A									N/A
HL3		N/A								N/A
DX3L		N/A								
DET3^		N/A							N/A	N/A
DES3		N/A							N/A	N/A

^ Standard model requires a 24V external transformer.

NOTE: See Available Models chart on Page 4 for combustion chamber tube construction. (A) Aluminized or (T) Titanium.

Full Stainless Steel Commercial & Industrial Heaters

SERIES	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
HL2-SS					
DX2-SS					

Stainless Steel Control Box Upgrade Commercial & Industrial Heaters

SERIES	20 FT.	30 FT.	40 FT. (A)	40 FT. (T)	50 FT. (A)	50 FT. (T)	60 FT.	70 FT.	80 FT.
HL2-SB									N/A
DX2-SB									

*16" tube is also upgraded to stainless steel.

Low BTU/Select Residential Heaters

SERIES	10 FT.	15 FT.	20 FT.	30 FT.
LD3	N/A			
LS3				

Unitary Vacuum Heaters (Refer to page 17 for HLV Series Engineered Vacuum Heaters)

SERIES	20 FT.	30 FT.	40 FT. (A)	40 FT. (T)	50 FT. (A)	50 FT. (T)	60 FT.	70 FT.	80 FT.
SV									

Weights and Boxing Information

LENGTH	10 FT.	15 FT.	20 FT.	25 FT.	30 FT.	40 FT.	50 FT.	60 FT.	70 FT.	80 FT.
SHIP WT.	85#	100#	120#	145#	160#	190#	235#	265#	300#	330#
SS WT.	N/A	N/A	145#	180#	195#	235#	290#	330#	N/A	N/A
BOXING	B, S	B, S	B, S	B, L	B, L	B, L	B, L, S	B, L, S	B, L, L	B, L, L

BOXING KEY

B^{v2}	V2 Burner (45# - 36"L x 24"W x 9"H)	L	Large Tube (122"L x 17.5"W x 15"H)
B^{v3}	V3 Burner (47# - 37.5"L x 23"W x 12"H)	S	Small Tube (122"L x 17.5"W x 10"H)

SV Series heaters include an additional box for the exhaust assembly.

AVAILABLE MODELS																																															
MODEL FT-BTU-GAS	10-25 N or P	10-30 N or P	15-25 N or P	15-30 N or P	15-40 N or P	15-50 N or P	20-40 N or P	20-50 N or P	20-60 N or P	20-65 N or P	20-75 N or P	25-80 N or P	30-50 N or P	30-60 N or P	30-65 N or P	30-75 N or P	30-80 N or P	30-100 N or P	30-115 N or P	30-125 N or P	40-50 N or P	40-60 N or P	40-65 N or P	40-75 N or P	40-80 N or P	40-100 N or P	40-115 N or P	40-125 N or P	40-150 N or P	40-175 N or P	50-75 N or P	50-80 N or P	50-100 N or P	50-115 N or P	50-125 N or P	50-150 N or P	50-175 N or P	50-200 N or P	60-125 N or P	60-150 N or P	60-175 N or P	60-200 N or P	70-175 N or P	70-200 N or P	80-200 N or P		
Comb. Tube	T	T	T	T	T	T	T	A ¹	A	A	A	A	A ¹	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	A	A	A	A	A	A	T	T	T	A	T	T	T	T	T	T
MP																																															
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DET3																																															
DES3																																															
HL2(-SB)(-SS)																																															
DX2(-SB)(-SS)																																															
LD3*																																															
LS3*																																															
HLV	Refer to Page 18 for HLTV BTU Offering																																														
SV																																															

* Denotes CSA Residentially Certified LD3 and LS3 Series heaters. These series utilize a titanium(T) combustion chamber tube.

o Denotes models meeting NFPA-30A max. surface temperature requirements when ordered with CNG-AO for CNG/LNG applications.

^ Denotes only available for (-SB) series.

AVAILABLE ADD-ON/UPGRADE OPTIONS															
MODEL SERIES	SILSEAL	OD-KIT	IND-LT	24VAO	HLRB	HLRP	ERK	ERK-HE	LV3 5EA-SUB	2.5 5EA-SUB	ALUM-AO	CNG-AO	FC-24PVC-AO "PVC Flex"	FC-36-AO "36 in. Flex"	GC-50* "1/2 in. Valve"
MP	O	O	S	N	N	N	N	N	O	O	S	N	N	S	N
HL3	O	O	S	N	N	O ¹	O ¹	O ¹	O	O	S	O ²	O	O	O
DX3L	O	O	S	N	N	N	O ¹	O ¹	O	O	S	O ²	O	O	O
DET3	O	N	S	N	N	S	N	N	O	O	O	N	O	O	O
DES3	O	N	O	N	N	N	N	N	O	O	O	N	O	O	O
HL2-SS	S	O	S	N	O ¹	N	N	O ¹	O	O	N	N	S	N	S
HL2-SB	S	O	S	N	O ¹	N	N	O ¹	O	O	S	O	S	N	S
DX2-SS	S	O	S	O	N	N	N	N	O	O	N	N	S	N	S
DX2-SB	S	O	S	O	N	N	N	N	O	O	S	O	S	N	S
LD3	O	O	S	N	N	N	O ¹	O ¹	O	O	S	N	O	N	S
LS3	O	O	S	N	N	N	O ¹	O ¹	O	O	S	N	O	N	S
HLV	O	N	S	N	S	S	N	N	O	O	N	O ²	O	O	S
SV	O	N	S	N	N	N	N	N	O	O	S	N	O	O	S

*GC-50 can be found on page 8.

OPTIONS KEY	
O	Option Available.
N	Option Not Available.
1	Needed when controlling multiple heaters on the same thermostat. (Either ERK or HLRP/B, but not both).
2	Only available on 30'-40' models with inputs of 50-65MBH.



AVAILABLE UPGRADE OPTIONS

NOTE: Items on this page must be ordered at time of production. Be sure to tag appropriate heaters for add-ons.

PART NO.	DESCRIPTION	QTY.
[ACTB] SILSEAL	Silicone seal the inside of a control box of any low intensity tube heater. Done at the time of production, this seal will protect the internal components against contaminants that might otherwise penetrate the box. SILSEAL is ideal for high moisture areas such as a car wash. It is standard on all stainless steel heaters.	
[ACTB] OD-KIT	Outdoor approval kit for MP, HL, DX, LS3 and LD3 Series. For use when applying heaters outdoor. Includes: PC-60 and 24V control cord (when applicable), SILSEAL, 90° air inlet collar and with outdoor rating label.	
[ACTB] IND-LT	Indicator lights for DES3 Series heaters. First light indicates burner and differential switch operation. Second light indicates valve operation. Maximum one IND-LT set per heater.	
[ACTB] PC-60	Three prong, 60 inch power cord set. Can be added to the SV exhauster pump. This is an add-on option only.	
[ACTB] 24VAO	24V controls for DX2-SB & DX2-SS Series. Field supply 24V to control heater operation (one 24VAO req. per heater). Allows wiring onto separate circuits. Includes internal relay, power cord, indicator lights and terminal block. External transformer (40VA) required.	

Hi-Low Relay Panels / Boards

Relay panels or boards must be used anytime two or more HL3/HL2 Series heaters are operating on the same thermostat (or common vented). Relay panels are prewired and mounted inside one NEMA(1) enclosure. Available with 2, 4, 6 or 10 relays per NEMA(1) box. Each relay can accommodate one heater. Each panel has one 40 VA transformer internally mounted. Relay boards (HLRB/HLRP) are (at the time of production) internally mounted into the burner box. This must be specified at the time of order. One board is needed per heater. An external transformer (eg. 4000-01V) is needed to power the control. Relay boards (HLRB/HLRP) are preferred over panels. **NOTE: HLRP's are not necessary on DET3 Series. Specify the HLRP for HL3 models only. Specify the HLRB for HL2 models only. An external option would be the ERK or ERK-HE.**

[ACTB] HLRP	Optional internal dual relays for HL3 Series heaters. (TP-1325) for replacement parts ordering.	
[ACTB] HLRB	Optional internal dual relays for HL2 Series heaters. (TP-825) for replacement parts ordering.	
 [ACTB] ERK	The External Relay Kit accessory can be used on HL3, HL2, DX3L, LS3 & LD3 models that require multiple heaters on one thermostat. This can mount on or near the heater. One ERK is needed per heater. Used in standard environments. An external transformer (eg. 4000-01V, see page 10) is needed to power the control.	
 [ACTB] ERK-HE	Similar to ERK but utilizes a rugged NEMA 6P rated enclosure for use in wet and corrosive environments. An external transformer (eg. 4000-01V, see page 10) is needed to power the control.	

PART NO.	DESCRIPTION	QTY.						
[ACTB] FC-24PVC-AO	Upgrades standard FC-24 (24") flexible gas connector to a 24" PVC coated flexible gas connector.							
[ACTB] FC-36-AO	Upgrades FC-24 (24") flex connector to a FC-36 (36") flexible gas connector.							
For LD3 and LS3 30' models only [ACTB] LV3-5EA-SUB	Upgrades (1) 10' piece of radiant tubing & reflector with (2) 5' pieces. (1) clamp and (1) hanger included. This is ideal for making "U" heaters from 30' models. 'U' or 'L' fittings sold separately. Maximum one per heater. Add-on option only.							
For MP Series 25' models only [ACTB] 2.5EA-SUB	Upgrades (1) 5' piece of radiant tubing & reflector with (2) 2.5' pieces. (1) clamp and (1) hanger included. This is ideal for making "U" heaters from 25' models. 'U' or 'L' fittings sold separately. Maximum one per heater. Add-on option only.							
For 4" Models [ACTB] 5EA-SUB	Upgrades (1) 10' piece of radiant tubing & reflector with (2) 5' pieces. (1) clamp and (1) hanger included. This is ideal for making "U" heaters from 30', 50' & 70' models. Maximum one per heater. Add-on option only.							
[ACTB] ALUM-AO	Upgrade hot rolled steel radiant tubes to black coated 16ga. aluminized steel for maximum efficiency and longevity. Highly recommended in any contaminated or moisture laden environment. See below for quantities. 4" diameter only.							
Required ALUM-AO per Heater 150,000-200,000 BTU/h models require one less ALUM-AO.								
MODEL	10'	20'	30'	40'	50'	60'	70'	80'
STRAIGHT	N/A	1	2	3*	4*	5*	N/A	N/A
[ACTB] CNG-AO	Upgrades tube heater to be CNG designated. Includes one liner tube to be installed into each combustion tube. Only used on 30' and 40' models, 65MBH and under. One CNG-AO required per heater. Residential models excluded.							
Required CNG-AO per Heater								
MODEL	10'	20'	30'	40'	50'	60'	70'	80'
STRAIGHT	N/A	N/A	1	1	N/A	N/A	N/A	N/A

AVAILABLE ADD-ON/UPGRADE OPTIONS							
MODEL SERIES	SSTAO	SSRAO	SSTRAO	SSRAO-5	SSTRAO-5	SSC-##	SSB-##
MP	X	O	X	O	X	O	O
HL3	X	O	X	O	X	O	O
DX3L	X	O	X	O	X	O	O
DET3	N	O	N	O	N	O	O
DES3	N	O	N	O	N	O	O
HL2-SS^	S	S	S	S	S	S	S
HL2-SB^	X	O	X	O	X	O	O
DX2-SS^	S	S	S	S	S	S	S
DX2-SB^	X	O	X	O	X	O	O
LD3	N	O	N	O	N	N	N
LS3	N	O	N	O	N	N	N
HLV	X	O	X	O	X	O	O
SV	X	O	X	O	X	O	O

^ -SB heaters come with stainless steel control box and stainless steel 16" tube.

-SS heaters come with all stainless steel options.

OPTIONS KEY			
O	Option Available.	S	Standard Feature.
N	Option Not Available.	X	Only available on 75,000 -200,000 BTU/h models, with the exception of 30-125, 40-175, and 50-200 models.

STAINLESS STEEL ADD-ON OPTIONS & UPGRADES


NOTE: Items on this page must be ordered at time of production. Be sure to tag appropriate heaters for add-ons.


PART NO.	DESCRIPTION	QTY.
[ACTB] SSTAO	Stainless steel tube add-on upgrades existing tube exchangers from titanium/ aluminized to 304 grade stainless steel tubes. NOTE: Combustion chamber will be 409 grade stainless. One needed per 10 ft. of tube.	
[ACTB] SSRAO	Specifying the stainless steel reflector add-on to your order upgrades the existing aluminum reflectors to highly polished, 304 grade stainless steel reflectors. One SSRAO is needed per 10 ft. of reflector.	
[ACTB] SSRAO-5	Upgrade a 5 ft. aluminized reflector to 304 grade stainless steel.	
[ACTB] SSTRAO	Stainless steel tube & reflector add-on upgrades existing 10 ft. tube and reflector to stainless steel. One needed per 10 ft. of tube.	
[ACTB] SSTRAO-5	Upgrade a 5 ft. aluminized tube & reflector to 304 grade stainless steel.	

REQUIRED STAINLESS STEEL ADD-ONS PER HEATER								
MODEL	10'	20'	25-30'	40'	50'	60'	70'	80'
STRAIGHT	N/A	2	3	4	5	6	7	8










PART NO.		DESCRIPTION						QTY.	
[ACTB] SSC-##		Stainless steel tube clamps. Upgrade standard 4 in. galvanized steel tube clamps to 304 grade stainless steel. Prices shown below are per heater. NOTE: SSC-10 for use with TR60 or 10EA tube extension packages only.							
-10	-20	-25	-30	-40	-50	-60	-70	-80	
[ACTB] SSB-##		Stainless steel mounting brackets. Upgrade standard galvanized steel 4 in. wire hanger (TP-19B) and 4 in. RCS (TP-82) to stainless steel. Prices shown below are per heater. NOTE: SSB-10 for use with TR60 or 10EA tube extension packages only.							
-10	-20	-25	-30	-40	-50	-60	-70	-80	









STANDARD EXTENSION ACCESSORIES

PART NO.	DESCRIPTION	QTY.
Box ID [AA]  [ACTP] 10EA	Ten foot heater extension assembly includes ten foot, 4" diameter, 16 gauge, aluminized steel tube with high temperature black coating, ten foot reflector, 4" reflector center support, 4" tube clamp and one 4" hanger. This extension must be shipped via truck line.	
Box ID [AB] [ACTP] 20EA	2) 10EAs in one small box.	
Box ID [AC] [ACTP] 30EA	3) 10EAs in one large box.	
Box ID [AD] [ACTP] 40EA	4) 10EAs in one large box. \$LPQ Discount of 10%, min. qty. 5	
Box ID [AM] [ACTP] TR60	Five foot heater extension assembly. See 10 EA for contents and specs. Item can be shipped via UPS.	


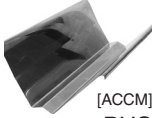
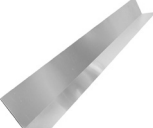
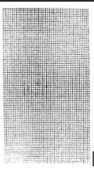
PART NO.	DESCRIPTION	QTY.
Box ID [AE]  [ACTP] 10HRE	Ten foot heater extension assembly includes ten foot, 4" diameter, 16 gauge, hot rolled steel tube with blackened appearance, ten foot reflector, 4" tube clamp and one 4" hanger. No RCS center support is included. This extension must be shipped via truck line.	
Box ID [AF] [ACTP] 20HRE	2) 10HREs in one small box.	
Box ID [AG] [ACTP] 30HRE	3) 10HREs in one large box.	
Box ID [AH] [ACTP] 40HRE	4) 10HREs in one large box. \$LPQ Discount of 10%, min. qty. 5	
Box ID [BD] [ACTP] HRE-60	Five foot heater extension assembly. See 10 HRE for contents and specs. Item can be shipped via UPS.	

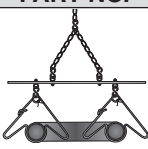
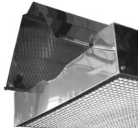

MISCELLANEOUS HARDWARE ACCESSORIES

 [ACTB] THCS	Five foot chain set with two (2) "S" hooks used for hanging heater. Bulldog coil chain, trade size #1, wire gauge 12, and a working load limit of 155 lbs. each.							
 [ACTB] RVA-CS	8" Chain mounting set with 2 - "S" hooks, 1 - chain, and 1 - 3" open eye screw to secure to structure. 12" structure spacing.							
REQUIRED CHAIN OR CABLE SETS PER HEATER (FOR 10' CENTERS)								
Model Length	10'	15-20'	25-30'	35-40'	45-50'	55-60'	65-70'	80'
STRAIGHT*	4	5	6	7	8	9	10	11
w/TF1B	N/A	6	8	8	10	10	12	12
 [ACCM] S-HOOK	*Straight refers to models in a straight configuration (10' centers). THCS for HLV series: Three (3) per burner box; one (1) for each 5 ft. or 10ft. tube section.							
 [ACTB] E6	Elbow - 6" radius, 90° bend, 4" diameter, 16 gauge aluminized steel with black coating, one tube clamp, one hanger, and two reflector end caps with 8 clips. Consult IOM for minimum distance from burner and dimensional data.							
 [ACTB] RE	Reflector Elbow - 90° bend, with polished, one side bright reflector elbow. Designed to fit atop one elbow (not included). Sq. dimension 27" x 27". Field assembly required.							
 [ACTB] REP	Reflector and elbow package - One RE and one E6. Consult IOM for minimum distance to burner. No end caps or clips included.							
 [ACTB] DB-E6	Elbow package - 90° bend, 3" diameter, 16 gauge aluminized steel elbow with high temperature black coating. Includes 1) 3" tube clamp, 1) 3" hanger, 2) end caps w/ clips.							
 [ACTB] DB-REP	Reflector and elbow package - One RE and one DB-E6. Consult IOM for minimum distance to burner. No end caps or clips included.							
 [ACTB] 45E	45° elbow assembly 4-1/2" radius, 16 gauge aluminized steel with high temperature black coating. 4" diameter, one tube clamp, one hanger, 2 end caps with 8 clips. Consult IOM for minimum distance from burner.							




 [ACTB] THGH10	Gripple tube heater hanging cables. 10 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.							
 [ACTB] THGH20	Gripple tube heater hanging cables. 20 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.							
 [ACTB] BK	"Brass Knuckles." Reflector mounting bracket that allows for mounting the reflector on specified angles. Attaches to TP-19B wire hanger. Preset bends allow for a 15, 30, or 45 degree mounting angle. See chart below for quantity needed. BK attaches to standard hangers.							
REQUIRED BK FITTINGS PER HEATER (FOR 10' CENTERS)								
Model Length	10'	15-20'	25-30'	35-40'	45-50'	55-60'	65-70'	80'
STRAIGHT*	2	3	4	5	6	7	8	9
w/TF1B	N/A	4	6	6	8	8	10	10
 [ACTB] TF1B	180° bend "U" shaped fitting, used to make a "U" shaped configuration. 16 gauge aluminized steel, 4" dia. fitting, with high temperature black coating. Also included: 1 tube clamp, 1 wire hanger, 2 reflector endcaps, and 8 clips. Consult IOM for minimum distance from burner and dimensional data.							
 [ACTB] RU	Reflector "U" to cover a TF1B "U" fitting (not included). 180° bend "U" reflector for attachment to standard reflectors covering the end of a "U" configuration. Polished, one side bright aluminum. Reflectors cannot be rotated after installation of this accessory. Field assembly required.							
 [ACTB] RUP	Reflector and "U" bend package - One TF1B and one RU. Consult IOM for minimum distance to burner. No end caps or clips included.							
 [ACTB] DB-TF1B	180° bend "U" shaped fitting, used to make the heater into a "U" shaped configuration. 16 gauge aluminized steel, 3" dia. fitting, with high temperature black coating. Also included: 1 tube clamp, 1 wire hanger, 2 reflector endcaps, and clips.							
 [ACTB] DB-RUP	Reflector and "U" bend package - One DB-TF1B and one RU. Consult IOM for minimum distance to burner. No end caps or clips included.							





MISCELLANEOUS HARDWARE ACCESSORIES

PART NO.	DESCRIPTION	QTY.
 [ACTB] SSE	62" long x 10-1/2" wide. Side shield extension polished one side bright, used to direct infrared rays downward - away from sidewalls and combustibles with two 0° mounting brackets, 8 screws and 1 RCS. NOTE: DET3 and DES3 models require the purchase of one extra 4" R.C.S (TP-82). NOTE: Two (2) SSE required to span each 10-ft reflector section. Maintain published clearances when using this accessory.	
 [ACCM] PHS	Protective Heat Shield. For use on 0° mounted reflectors only. 30" x 12" 304 grade stainless steel. For attachment below reflector in heat sensitive areas. Includes 2 stainless steel endcaps, 8 clips, 4) 5" bolts and 4 wing nuts.	
 [ACTB]	Drop ceiling side panels. Polished one side bright. Used to direct infrared rays away from ceiling tiles. 62" in length, mounts with 2 zip screws to the heaters reflector. Shipped in sets of 2 pieces.	
	DCSP	Used for V2 heaters.
	DCSP-V3	Used for V3 heaters.
REQUIRED DCSP-V3 PER HEATER (SETS)		
Model Length	10'	15'
STRAIGHT	2	3
	20'	25'
	4	5
	30'	40'
	6	8
	50'	60'
	10	12
	70'	80'
	14	16
 [ACTB] EC	Aluminum Egg Crate - 24" x 48". Designed to fit into a standard 2' x 4' ceiling tile opening. Crate has 1/2" x 1/2" openings and is 1/2" thick. See chart below for quantity needed. Used in conjunction with DCSP-V3 (see above).	
REQUIRED ALUMINUM EGG CRATES PER HEATER		
Model Length	10'	15'
STRAIGHT	3	5
	20'	25'
	6	9
	30'	40'
	12	15
	50'	60'
	18	21
	70'	80'
	24	

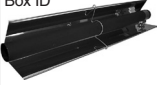
PART NO.	DESCRIPTION	QTY.
 [ACTB] SMB	Single mount bracket for use on U-shaped configured heaters. Bracket allows installation from one suspension point, as opposed to two. Bracket also assures uniform spacing between opposing tubes. See chart below for quantity needed. Included: (1) THCS chain set and (5) S-Hooks. NOTE: Two (2) THCS required to mount burner control box.	
REQUIRED SINGLE MOUNT BRACKET (SMB) PER HEATER		
Model Length	10'	20'
w/TF1B	N/A	2
	25-30'	40'
	3	3
	50'	60'
	4*	4
	70'	80'
	5*	5
* Model requires 5EA-SUB accessory package when installing in a U-shaped configuration.		
 [ACTB] BRDG	Decorative Grill designed to encase radiant tubes. Attaches to reflector - use side clearance data. Mounts at 0-45 degrees. Finished in a highly polished aluminum casing and eggcrate bottom surface. 60" x 18" x 4.5". Field assembly required. Use DCSP chart for quantity required. Not for 'U' tubes.	
 [ACTB] PG	Protective guard. Designed to attach to standard reflector to prevent debris or objects from becoming lodged between radiant tube and reflector. Galvanized wire with slip-on style mounting channels. 2 restraining cables and 1 reflector center support included. 5' long x 13-1/4" wide with 1-1/4" slots. Must be used when mounting heaters below 8 ft.	
	[ACTB] PG	For 4" tube heater models.
	[ACTB] DB-PG	Used on LS3 and LD3 Series.
REQUIRED GUARDS PER HEATER		
Model Length	10'	15'
STRAIGHT*	2	3
w/TF1B	N/A	3
	20'	25-30'
	4	6
	40'	50'
	8	10
	60'	70'
	12	14
	80'	
	16	
*Straight refers to models in a straight configuration. PG for HLV series: Two (2) for each 10 ft. tube section.		

OTHER ACCESSORIES

 [ACCM] 325-3	Maxitrol high pressure regulator, 2 PSI maximum inlet pressure on natural and propane gas. 12" W.C.P. outlet pressure setting, 1/2" x 1/2" NPT, 150,000 BTU/H flow capacity. CSA Design Certified and meets NFPA-54 requirements for vent limiting devices.	
 [ACCM] 325-5	Maxitrol regulator (see 325-3 above) with 300,000 BTU/H flow capacity. 3/4" x 3/4" NPT. CSA Design Certified and meets NFPA-54 requirements for vent limiting devices.	
 [ACCM] 325-3 OPD	Maxitrol regulator 1/2" x 1/2" NPT with vent limiting device. 2-5 PSI maximum inlet pressure on natural gas only. Meets ANSI Z21.80 Standard for line regulators.	



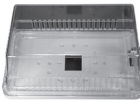
 [ACCM] GC-50	CSA Design Certified ball valve, 2 PSI maximum pressure, 1/2" x 1/2" FPT, with 1/8" NPT side pressure tap.	
 [ACCM] GC-75	CSA Design Certified ball valve, 2 PSI maximum pressure, 3/4" x 3/4" FPT, with 1/8" NPT side pressure tap.	
 [ACCM] PLQ	Clearance Safety Limit Sign. 24 gauge aluminum 10" x 7". Sign is designed to be hung or adhered at clearance to combustibles limit. Repeats clearance warnings.	
 [ACTB] TSP-L	Large spray can (12 ounces) of black touch-up, high temperature paint.	



STAINLESS STEEL ACCESSORIES

PART NO.	DESCRIPTION	QTY.						
<div>Box ID</div> <div></div> <div>[ACTP]</div> <div>10EA-SS</div>	Ten foot heater extension assembly includes ten foot, 4" diameter, 16 gauge, 304 grade stainless steel tube with high temperature black coating, ten foot 304 grade stainless steel reflector, 4" S.S. reflector center support, 4" S.S tube clamp and one 4" S.S hanger. This extension must be shipped via truck line.							
<div>Box ID</div> <div>[ACTP]</div> <div>20EA-SS</div>	2) 10EA-SSs in one small box.							
<div>Box ID</div> <div>[ACTP]</div> <div>30EA-SS</div>	3) 10EA-SSs in one large box.							
<div>Box ID</div> <div>[ACTP]</div> <div>40EA-SS</div>	4) 10EA-SSs in one large box. \$LPQ Discount of 10%, min. qty. 5							
<div>Box ID</div> <div>[ACTP]</div> <div>TR60-SS</div>	Five foot heater extension assembly. See 10EA-SS for contents and specs. Item can be shipped via UPS.							
<div>[ACTB]</div> <div>THCS-SS</div>	30 in. stainless steel chain set with two "S" hooks. Suitable for hanging heater in tight applications such as car washes. See THCS on page 6 for quantity required per heater.							
<div>[ACTB]</div> <div>THGH15-SS</div>	Stainless steel grapple tube heater hanging cables. 15 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.							
REQUIRED CHAIN OR CABLE SETS PER HEATER (FOR 10' CENTERS)								
Model Length	10'	15-20'	25-30'	35-40'	45-50'	55-60'	65-70'	80'
STRAIGHT*	4	5	6	7	8	9	10	11
w/TF1B-SS	N/A	6	8	8	10	10	12	12
<div>[ACTB]</div> <div>BK-SS</div>	Stainless steel "Brass Knuckles." Reflector mounting bracket attaches to wire hanger allowing the reflector to be mounted on a 15, 30 or 45° angle. See BK on page 6 for quantity required per heater.							
REQUIRED BK FITTINGS PER HEATER (FOR 10' CENTERS)								
Model Length	10'	15-20'	25-30'	35-40'	45-50'	55-60'	65-70'	80'
STRAIGHT*	2	3	4	5	6	7	8	9
w/TF1B-SS	N/A	4	6	6	8	8	10	10





PART NO.	DESCRIPTION	QTY.
<div>[ACTB] TF1B-SS</div>	4 in. 304 grade stainless steel 180° "U"-shaped fitting. See TF1B on page 6. Includes (1) stainless steel clamp, (1) stainless steel hanger, and (2) stainless steel reflector end caps with clips.	
<div>[ACTB] RU-SS</div>	304 grade stainless steel reflector "U" to cover a TF1B "U" fitting (not included). Field assembly required.	
<div>[ACTB] E6-SS</div>	304 grade stainless steel elbow. 6" radius, 90° bend, 4" diameter, 16 gauge stainless steel with black coating. Includes (1) stainless steel tube clamp, (1) stainless steel hanger and (2) stainless steel reflector end caps with 8 clips.	
<div>[ACTB] RE-SS</div>	304 grade stainless steel reflector elbow 90° bend to cover an elbow (E6) fitting (not included). Field assembly required. 27 in. x 27 in. square.	
<div>[ACTB] SSE-SS</div>	304 grade stainless steel side shield extension. Used to direct infrared rays downward away from sidewalls and combustibles with (2) 0° mounting brackets, (8) screws and (1) RCS. 62 in. long x 10.5 in. wide. NOTE: DET3 & DES3 models require an additional RCS (TP-82) not included.	





ELECTRICAL COMPONENTS

PART NO.	DESCRIPTION	QTY.
 [ACCM] 4000-01V	40 VA transformer 120-24VAC primary & secondary. Mounted on 4 x 4 base plate. Can be used for all 24V heaters or controls manufactured or provided by Detroit Radiant Products.	
 [ACCP] MTGRD	White Rodgers thermostat metal guard. Beige metal material with locking key. 3.8125"H x 6"W x 3.125"D. Mounts (vertical or horizontal) to exposed "J" box. Includes hardware.	
 [ACCP] F29GRD	White Rodgers thermostat guard. Clear plastic material with locking key. 5.375"H x 8.25"W x 3.5"D. Mounts (vertical or horizontal) to exposed "J" box. Includes hardware.	

PART NO.	DESCRIPTION	QTY.	
 [ACCM] R8285B	Combination relay transformer, dual pole 13.8 resistive amps each pole (Max. 5 heaters total). For controlling 120V units with 24V thermostats. 120V power in, 24V power out. U.L. Listed.		
 Relay Panels are intended for projects where an internal relay was forgotten on the HL2/HL3 series heater during production. Refer to page 5 for additional information.			
2 boards inside NEMA (1) box	4 boards inside NEMA (1) box	6 boards inside NEMA (1) box	10 boards inside NEMA (1) box
5 lbs. [ACCP] HLPNL-2	7 lbs. [ACCP] HLPNL-4	11 lbs. [ACCP] HLPNL-6	12 lbs. [ACCP] HLPNL-10








NON THERMOSTATIC CONTROLS

 [ACCP] TH-DSSS1	Single-zone, single-stage, low voltage infrared patio heater controller with illuminated control knob. Standard with faceplate and heavy duty junction box.	
 [ACCP] TH-DSSS2	Two-zone, single-stage, low voltage infrared patio heater controller with two illuminated control knobs. Standard with faceplate and heavy duty junction box.	
 [ACCP] WEP-TS	Weatherproof enclosure package with 4-hour timer and on-off control. Ideal for use in outdoor heating applications where timer control is desired. Package for two-stage scenarios. Can operate up to 120V-20 amp. Can also be used for 24V switching. Field assembly and wiring required.	
 [ACCP] MP-P	Potentiometer. Used to control MP Series heater(s) in outdoor or spot heating environments to allow the user to manually control the heater's firing rate based on the dial position.	






 [ACCP] TH-DSTS1	Single-zone, two-stage, low voltage infrared patio heater controller with illuminated control knob. Standard with faceplate and heavy duty junction box.	
 [ACCP] TH-DSTS2	Two-zone, two-stage, low voltage infrared patio heater controller with two illuminated control knobs. Standard with faceplate and heavy duty junction box.	
 [ACCP] SWPD60	Paragon Timer. Manually activated time control with white wall plate and knob. 120V - 20amp @ 120 Volts or 240 / 277 Volts - 10 amps. Also compatible with 24V systems.	
 [ACCP] SWPD-4H	60 minute twist timer with 5 minute increments.	
	4 hour twist timer.	

NOTE: Refer to heater manual on field wiring to determine if the use of a relay and external transformer will be required (eg. 4000-01V).


SINGLE-STAGE & TWO-STAGE CONTROLS




PART NO.	DESCRIPTION	QTY.
 [ACCP] TH-P721	LuxPro single-stage or two-stage programmable 7 day, 5/2 day, or non-programmable thermostat. 45°-90°F range. 1.5 Amps at 24VAC (15 heaters with HLRP and 4000-01V). Features include 2 or 4 selectable periods per day, °C/°F display, and keypad lock.	
 [ACCP] TH-BR52	Braeburn single-stage or two-stage control with flexible programming for residential and commercial applications. 7 Day, 5-2 Day or Non-Programmable. 45°-90°F control range. Indoor or outdoor remote sensing capable. Multi-Level keypad lockout. Bright blue backlight. Hardwire or battery powered. Meets California Title 24 guidelines.	
 [ACCP] RS-BR53	Indoor sensor for use with TH-BR52 thermostat. Mounts up to 200 ft. away. Sense range of 40°-99°F depending on thermostat. Contemporary design for any decor. NOTE: The PCOXS-ODRS can be used in place of this sensor for "indoor wet environments".	
 [ACCP] RS-BR54	Outdoor sensor for use with TH-BR52 thermostat. Mounts outdoors up to 200 ft. away. Sense range capability of -40°-99°F depending on thermostat. Contemporary design for any decor. NOTE: Cannot be used in place of the indoor sensor.	
 [ACCP] TH-1F86WF	Single-stage or two-stage control. 24V Wi-Fi programmable thermostat with remote access from smartphone, tablet or PC. Adjust the temperature with just a touch, from anywhere, when connected to a Wi-Fi network. Hardwire only. Temperature range 45°-99°.	
 [ACCP] ETD-5M1	Columbus Electric two-stage , double throw, low or line voltage thermostat. 35°F to 75°F range (24, 120 or 220V). Non-adjustable, preset 2° high/low fire differential. UL Listed and CSA Certified.	
 [ACCP] TH-109	Two-stage thermostat with rain tight, NEMA 4X enclosure. 40° to 100°F range. Rugged weatherproof control for use in agricultural, industrial, and commercial environments with heavy moisture atmospheres. Consult amp rating of unit for proper sizing. Can be used with 24-277 VAC.	

NOTE: When using a single-stage thermostat on an MP Series heater it is highly recommended to use the MP-T Remote Temperature Sensor (see below) for better performance.










PART NO.	DESCRIPTION	QTY.
 [ACCP] TH-PSPLV	Single-stage LuxPro 120V programmable line voltage thermostat. No relay transformer required. 5/2-day(4-period) operation. 45°-90°F range. 16 amp @ 120V, single pull. Features include °C/°F display, easy programming, wall plate included and more. 120V only. **Compatible with MP heaters.**	
 [ACCP] TH-ET5	Single-stage , Columbus Electric thermostat. 35°-75°F range. White plastic cover, 120-277 VAC, 22.0 amps. May be used to switch either 24V, 120V or 220V. Consult amp rating of unit for proper sizing. **Compatible with MP heaters.**	
 [ACCP] TH-1F80	Single-stage operation. 24V or millivolt advanced programmable heat/cool digital T-Stat with batteries. 5+1+1 (4 Period) operation. 45°-90° F range. White color, swing door and backlit LCD display. 24V - 1.5 amp (5 heaters w/24VAC & 40VA transformer). Features include °C or °F display, easy programming, 12/24 clock and temperature hold.	
 [ACCP] TH-115	Single-stage Thermostat with rain tight enclosure and 40° to 100°F range. Rugged weatherproof control for use in agricultural, industrial and commercial environments with heavy moisture atmospheres. 16.0 FLA, 25.0 amps resistive at 120V. NEMA 4X rated. Can be used with 24-277 VAC. Consult amp rating of unit for proper sizing. **Compatible with MP heaters.**	
 [ACCP] TH-115-60B	Single-stage Thermostat with rain tight enclosure and 0° to 120°F range. A 60" stainless steel sensing bulb for remote sensing is attached. Ideal for rugged, weatherproof control in outdoor or freeze protection applications. 16.0 FLA, 25.0 amps resistive at 120V. NEMA 4X rated. Can be used with 24-277 VAC. Consult amp rating of unit for proper sizing.	

MP SERIES CONTROL OPTIONS

 [ACCP] TH-PU1	This advanced microprocessor based controller, loaded with powerful and custom features, is a smart logic controller that offers optimal performance out of your MP Series heater . Allows heater(s) to modulate will full PID controller that considers various inputs and outputs, utilizes the current set temperature (based on an on-board thermistor or an externally connected zone sensor), mode selected, and other variables to determine the rate of modulation. Optional integration with remote sensors (sold separately).	
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 [ACCP] MP-P	Potentiometer. Used to control MP Series heater(s) in outdoor or spot heating environments to allow the user to manually control the heater's firing rate based on the dial position.	
 [ACCP] MP-T	Remote temperature sensor, 10kohm for use with the MP Series heater. Indoor use only.	
 [ACCP] MP-T-OD	Remote temperature sensor, 10kohm for use with the MP Series heater. For "indoor wet environments" or outdoor use.	


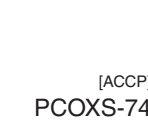

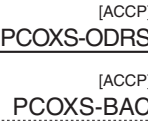

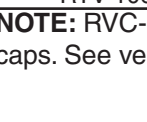
ADVANCED CONTROL OPTIONS

PART NO.	DESCRIPTION	QTY.
 CNG-GDIC	Control panel consisting of the TH-BR52 thermostat, 4000-01V transformer, with a 12" x 10" x 4" NEMA 1 box. Commonly used in CNG applications as it also comes with an internal relay to allow a 120V signal to open the relay and deactivate the call for heat.	
 [ACCP] TH-1F95-TS	White Rogers Programmable MV-30V, single or two stage, touch-screen display thermostat with remote sensing. Adjustable temperature differential (0.6-1.2). 4 and 2 period; 7 or 5+1+1 day programming options. 1.5 amps per terminal allows operation of up to 30 two-stage heaters w/ HLRB boards and transformer. Used with one (1) remote sensor (RS-F145).	
 [ACCP] RS-F145	Remote sensor for use with TH-1F95-TS. For indoor use only. Sensor can be placed up to 200 feet away.	
 [ACCP] RS-F145-OD	Remote sensor for use with TH-1F95-TS. For "indoor wet environments" or outdoor use. Sensor can be placed up to 200 feet away.	
 [ACCP] TH-HWC2	Electronic temperature controller with 2 temperature inputs, 4 SPDT relays, single or two stage. 1 RS-SIS sensor included. 24,120 240V°F, max 2 sensors, heaters require 24VAO or HLRP.	
 [ACCP] RS-ODS	Remote 1097 ohm outdoor air temperature sensor for use with TH-HWC2 (probe mounted in weather-proof case).	
 [ACCP] RS-SIS	Remote 1097 ohm indoor air temperature sensor (probe only). For use with TH-HWC2. NOTE: One RS-SIS is included with the TH-HWC2 temperature controller.	
 [ACCP] RS-WRS	Wall mount remote 1097 OHM air sensor for use with TH-HWC2 (probe mounted in case).	
 [ACCP] BBS-AO	Black bulb sensor add-on. Upgrade remote sensor to be enclosed in a black bulb for jobs that require radiant temperature sensing inside a black bulb. Must be used in conjunction with sensors rated for "indoor wet environments." Refer to sensor descriptions for compatibility. Contact factory for guidance.	




NOTE: When using the PCOXS to interface with a BMS, a software card must be ordered.



Required info for a programming device:

- Device I.D. • Baud Rate • Address

PART NO.	DESCRIPTION	QTY.
 [ACCP] PCOXS-32	State-of-the-art pre-programmed building management controller panel. Use as a stand-alone unit or part of an overall building management system. Features include a password protected LCD user interface with keypad, 4 daily set-points, runtime tracking, ability to label each zone, expandable, housed in a stylish and durable enclosure.	See 32, 74 & 116 interfaces below
 [ACCP] PCOXS-74	Designed to handle small applications. Accommodates up to 3 single stage / 2 dual stage heater zones. Maximum of 20 single stage / 10 dual stage heaters per zone.	
 [ACCP] PCOXS-116	Designed to handle mid-sized applications. Accommodates up to 7 single stage / 4 dual stage heater zones. Maximum of 20 single stage / 10 dual stage heaters per zone.	
 [ACCP] PCOXS-RS	Designed to handle large applications. Accommodates up to 11 single stage/6 dual stage heater zones. Maximum of 20 single stage/10 dual stage heaters per zone.	
 [ACCP] PCOXS-ODRS	Deluxe wall mount 24V remote temperature sensor. 14°F to 158°F temperature range. Delivers a 4-20mA signal to controller up to 300 ft. 10Kohm.	
 [ACCP] PCOXS-BAC	Outdoor deluxe wall mount 24V remote temperature sensor. 14°F to 158°F temperature range. Delivers a 4-20mA signal to controller up to 300 ft. 10Kohm.	
 [ACCP] PCOXS-LON	For "indoor wet environments" or outdoor use. For use with PCOXS and TH-BR52 controllers.	
 [ACCP] PCOXS-MOD	BACnet Software Card	
	LonWork Software Card	
	Mod-Bus Software Card	








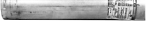



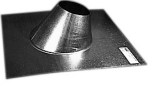
AIR COMPONENTS












 [ACTB] WIV-4	Wall inlet cap, 4" O.D. with bird screen. For use with outside air option. Bird screen insures open air flow to unit. Used for 0-20' of 4" intake.	
 [ACTB] WIV-5	5" version of WIV-4. For use with air intake lengths of 20-30 ft.	
 [ACTB] WIV-6	6" version of WIV-4. For use with air intake lengths of 30-40 ft.	

 [ACTB] AIRH	4" flexible air inlet rubber hose with DWV adapter affixed. Mates to 4" DWV pipe. Clear color for visibility. Includes 4" DWV adapter and worm clamp. 18" in length.	
 [ACTB] RTV-106	Tube of high temperature sealant. Capable of withstanding temperatures up to 500°F. Commonly used for sealing venting, combustion air inlet, and burner boxes. Meets NFPA - 54 requirements.	

NOTE: RVC-4 & RVC-6 may also be used for roof intake caps. See venting section on pages 14-15.

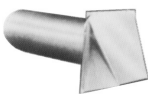







ACCESSORIES USED ONLY ON 3-INCH TUBE MODELS





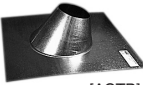





PART NO.	DESCRIPTION	QTY.
 [ACTB] DB-DSK	3 in. vent package. Complete sidewall venting kit for lengths up to 12 feet. Includes: 1)DB-208, 1)DB-209, 1)DB-210, 1)DB-211, 3)DB-213 and 1)RTV-106 sealant. 30 in. assembled length.	
[ACTB] DB-DSKA	Coming Soon	
 [ACTB] WVE-3	3 in. O.D. galvanized steel vent outlet cap with flapper. Flapper insures proper static pressure for proper unit operation. Must be used in unvented applications. Not for use in residential applications (all residential heaters must be externally vented). Also known as DB-WVE.	
 [ACTB] DB-208	3 in. Duravent vent cap. Used for sidewall venting of the 3 in. Series models. Diameter is 7-3/4 in.	
 [ACTB] DB-210	3 in. wall thimble. Used in conjunction with B-vent for penetrations through combustible walls and/or roofs.	
 [ACTB] DB-211	3 in. Duravent B to C adapter. This union is used to join C-vent with B-vent.	
 [ACTB] DB-211A	Coming Soon	
 [ACTB] DB-209	3 in. x 18 in. doublewall B-vent. Used for penetrations through combustible walls or roofs while venting 3 in. models.	
 [ACTB] DB-209A	Coming Soon	
 [ACTB] DB-BVP	3 in. x 60 in. doublewall B-vent. Used for penetrations through combustible walls or roofs while venting 3 in. models.	
 [ACTB] DB-BVPA	Coming Soon	
 [ACTB] DB-FS	3 in. rooftop firestop spacer. For use with 3 in. venting through the ceiling. 8 in. x 8 in. square. Galvanized steel construction.	
 [ACTB] DB-ARF	3 in. adjustable rooftop flashing. For use with 3 in. venting through the roof. Adjustable angle of flat to 6/12 pitch. Galvanized steel construction.	

PART NO.	DESCRIPTION	QTY.
 [ACTB] DB-RTVP	3 in. rooftop vent package. Complete kit for vertical venting through roof. Includes: DB-211, DB-RVC, DB-FS, DB-ARF, DB-SC, DB-VE and RTV-106 sealant. NOTE: B or C vent pipe material is not included.	
[ACTB] DB-RTVPA	Coming Soon	
 [ACTB] DB-RVC	3 in. rooftop vent cap. All aluminum construction. For use on vertical rooftop vent applications only. Diameter is 7-1/4 in.	
 [ACTB] DB-YSM	Dual exhaust assembly, "Y" shaped, 26 gauge galvanized steel, 3 in. O.D. x 4 in. O.D. x 3 in. O.D. Units connect at a 90° angle to the 3 in. leg. 4 in. vent connection is crimped for ease of vent hook-up. Adjustable elbows are not included. Heaters must share a common thermostat.	
 [ACTB] BVT-3	3 in. double-wall B-vent tee with clean out. For venting with clean out requirements.	
 [ACTB] BVE-3	3 in., 90° double-wall B-vent elbow. 3 in. O.D. allows for connection of vent pipe to roof vent packages.	
 [ACTB] BVEX-3	3 in. x 12 in. double-wall B-vent extender. Use to add length to a straight length of B-vent. Adds 3" to 10" of length. Requires a 2" overlap.	
 [ACTB] ATIS	Help keep vent from touching insulation using a 3 in. attic insulation shield. Includes a collar to help prevent the entrance of insulation into the cylinder.	
 [ACTB] VT-3	3 in. Vent Tee with a 3 in. clean out. 26 gauge galvanized steel vent pipe construction. For venting with clean out requirements.	
 [ACTB] DB-213	3 in. x 2 ft. single wall C-vent. 26 gauge galvanized steel. Commonly referred to as "smoke pipe". Not to be used for penetrations through a combustible wall or roof.	
 [ACTB] DB-SC	3 in. storm collar. For use with 3 in. venting through the roof. Prevents rain from entering flashing. Galvanized steel construction.	
 [ACTB] DB-VE	3 in., 90° vent elbow. 26 gauge galvanized steel, 3 in. O.D. allows for connection of vent pipe to roof vent packages. One end is crimped. DB-VE may not be substituted for DB-E6.	

NOTE: An approved vent cap must be used when sidewall venting. **Consult local codes when venting.**



4 INCH VENT MATERIALS



PART NO.	DESCRIPTION	QTY.
 [ACTB] WVE-GALV	Galvanized steel vent outlet cap 4 in. O.D. with flapper. Flapper insures proper static pressure for proper unit operation. Must be used with unvented units. Known as WVE-4.	
 [ACTB] 4-DSK	4 in. Duravent sidewall vent kit with all items for sidewall venting. Includes: SWD-4, WT-4, 18BV-4, DHC-4. No vent pipe material is included. 29 in. long when fully assembled. NOT APPROVED FOR V2 200,000 Btu/h MODELS.	
[ACTB] 4-DSKA	Coming Soon	
 [ACTB] SWD-4	Duravent sidewall vent cap. All aluminum construction. For use on all V3 models. Diameter is 8-3/4 in.	
 [ACTB] WT-4	4 in. wall thimble. Protection for venting through a sidewall application. Measures 8.5 in. outer diameter, 6.5 in. inner diameter. Adjustable 4 in. to 6 in. depth.	
 [ACTB] SK-4	Field Controls 4 in. vent terminal with internal screen. For use when sidewall venting. V2 200,000 Btu/h models only. Diameter is 10.25 in.	
[ACTB] 18BV-4	4 in. x 18 in. Doublewall B-vent. Used for penetrating through combustible wall and/or roofs. 18 in. long.	
 [ACTB] 18BV-4A	Coming Soon	
[ACTB] BVP-4	4 in. x 60 in. Doublewall "B" type vent. Used for penetrating through combustible wall and/or roofs.	
 [ACTB] BVP-4A	Coming Soon	
 [ACTB] TF-9	4 in. side wall vent terminal with screen. 16 gauge aluminized steel construction, 18 in. long, one 4 in. clamp, with high temperature black coating. Bird screen on exhaust end. Not approved on V2 200,000 BTU/h models.	

PART NO.	DESCRIPTION	QTY.
 [ACTB] RVC-4	4 in. Simpson Duravent rooftop vent cap. All aluminum construction. For use on intake or exhaust vertically through the roof. Diameter is 8 in.	
 [ACTB] RTVP-4	4 in. rooftop vent/intake package. Complete kit for vertical venting through the roof. Includes: RVC-4, DHC-4, FS-4, ARF-4, SC-4, VE-4, VT-4 and RTV-106 sealant. NOTE: Vent and B-vent must be ordered separately.	
[ACTB] RTVP-4A	Coming Soon	
[ACTB] DHC-4	4 in. draffhood connector. B-C adapter for connecting vent pieces.	
 [ACTB] DHC-4A	Coming Soon	
 [ACTB] FS-4	4 in. rooftop firestop spacer. For use with 4 in. venting through the ceiling. 8 in. x 8 in. square, galvanized steel construction.	
 [ACTB] ARF-4	4 in. adjustable rooftop flashing. For use with 4 in. venting through the roof. Galvanized steel. Adjustable angle of flat to 6/12 pitch.	
 [ACTB] SC-4	4 in. storm collar. For use with 4 in. venting through the roof. Galvanized steel. Prevents rain from entering flashing.	
 [ACTB] VE-4	4 in. 90° vent elbow. 26 gauge galvanized steel, 4 in. O.D. allows for connection of vent pipe to roof unit packages. One end is crimped. VE-4 may not be substituted for E6.	
 [ACTB] 4GV60F	Duravent 4 in. Dura-connect flexible exhaust duct. Construction features: 60 in. long, .012 aluminum flex. Can be used with 4-DSK.	
 [ACTB] RRF	Rubber roof flashing for contoured or deck style roofs. Can be used with pipe diameters from 4.25 in. to 7.5 in.	
 [ACTB] VT-4	4 in. vent tee with 4 in. clean out. 26 gauge galvanized steel vent pipe construction. For venting with clean out requirements.	

NOTE: An approved vent cap must be used when sidewall venting. **Consult local codes when venting.**












6 INCH VENT MATERIALS - COMMON VENT MATERIALS







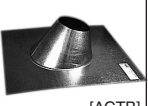

PART NO.	DESCRIPTION	QTY.
 [ACTB] Y	Dual exhaust assembly, Y-shaped, 16 gauge aluminized steel. 4 in. O.D. x 6 in. O.D. x 4 in. O.D. Two tube clamps included. For use when common venting two heaters. Heaters must share a common thermostat. Dimensions - 21.5 in. left-right, 13 in. high. Ideal for use if heaters are joined right after radiant pipe ends.	
 [ACTB] YSM	Dual exhaust assembly, Y-shaped, 26 gauge galvanized steel with baffle. 4 in. O.D. x 6 in. O.D. x 4 in. O.D. Adjustable elbows are not included. For use when common venting two heaters. Heaters must share a common thermostat. Dimensions - 14 in. left-right, 13 in. high. Ideal for use if vent pipe is between heaters and 'Y' fitting.	

PART NO.	DESCRIPTION	QTY.
 [ACTB] RTSM	Dual exhaust assembly, 26 gauge galvanized steel, 4 in. O.D. x 6 in. O.D. x 4 in. O.D. One 4 in. unit connection at 45° angle to vertical stack, other 4 in. unit connection straight to 6 in. common/vertical stack. 6 in. vent connection is crimped for ease of vent hook-up. Two adjustable elbows included to ease installation. Heaters must share a common thermostat.	
 [ACTB] RTVP-8	8 in. rooftop vent package. Complete kit for vertical venting through the roof. Includes 8GVC draft hood connector, ARF-8 adjustable rooftop flashing, 8GVDC vent cap, 8GVFS firestop, 8GVSC storm collar, two YSM's, two 8x8x6 sheet metal Y's and two tubes of silicone sealant. B-vent must be ordered separately (60 in. BVP-8 \$134).	

NOTE: An approved vent cap must be used when sidewall venting. **Consult local codes when venting.**

6 & 8 INCH VENT MATERIALS - DUAL VENT MATERIALS

 [ACTB] 6-DSK	6 in. Duravent sidewall vent kit with all items for sidewall venting. Includes: SWD-6, WT-6, 18BV-6, DHC-6. No vent pipe material is included. 30 in. long when fully assembled.	
 [ACTB] 6-DSKA	Coming Soon	
 [ACTB] SWD-6	Duravent sidewall vent cap. All aluminum construction. For use on all V3 models. Diameter is 10.5 in.	
 [ACTB] SK-6	Field Controls 6 in. vent terminal with internal screen. Can only be used for dual side wall venting of V2 200,000 Btu/h models only. Diameter is 12.5 in.	
 [ACTB] WT-6	6 in. wall thimble. Protection for venting through a sidewall application.	
 [ACTB] 18BV-6	6 in. x 18 in. double wall B-vent. Used for penetrating through combustible wall/roofs.	
 [ACTB] 18BV-6A	Coming Soon	
 [ACTB] BVP-6	6 in. x 60 in. double wall B-vent. Used for penetrating through combustible wall/roofs.	
 [ACTB] BVP-6A	Coming Soon	
 [ACTB] VE-6	6 in. 90° vent elbow. 26 gauge galvanized steel, 6 in. O.D. allows for connection of vent pipe to roof unit packages. One end is crimped.	
 [ACTB] VT-6	6 in. Vent Tee with a 6 in. clean out. 26 gauge galvanized steel vent pipe construction. For venting with clean out requirements.	

 [ACTB] RTVP-6	6 in. rooftop vent package. Complete kit for vertical venting through the roof. Includes: RVC-6, DHC-6, FS-6, ARF-6, and SC-6, VE-6 RTV-106 sealant VT-6. No vent pipe or B-vent material is included.	
 [ACTB] RTVP-6A	Coming Soon	
 [ACTB] RVC-6	6 in. rooftop vent cap. All aluminum construction. For use on air intake or vent exhaust. Diameter is 11.5 in.	
 [ACTB] DHC-6	6 in. draft hood connector. B-C adapter for connecting vent pieces.	
 [ACTB] DHC-6A	Coming Soon	
 [ACTB] FS-6	6 in. rooftop firestop spacer. For use with 6 in. venting through the ceiling. 8 in. x 8 in. square. Galvanized steel construction.	
 [ACTB] ARF-6	6 in. adjustable rooftop flashing. For use with 6 in. venting through the roof. Adjustable angle of flat to 6/12 pitch. Galvanized steel construction.	
 [ACTB] SC-6	6 in. storm collar. For use with 6 in. venting through the roof. Prevents rain from entering flashing. Galvanized steel construction.	

NOTE: An approved vent cap must be used when sidewall venting. **Consult local codes when venting.**

BURNER (BRN) OPTIONS ¹		
PART NO.	DESCRIPTION	QTY.
BRN-FT-BTU-GAS-MP	MP Series Burner & Baffle	
BRN-FT-BTU-GAS-HL3	HL3 Series Burner & Baffle	
BRN-FT-BTU-GAS-HL2-SB	HL2-SB Series Burner & Baffle	
BRN-FT-BTU-GAS-DX3L	DX3L Series Burner & Baffle	
BRN-FT-BTU-GAS-DX2-SB	DX2-SB Series Burner & Baffle	
BRN-FT-BTU-GAS-DET3	DET3 Series Burner & Baffle	
BRN-FT-BTU-GAS-DES3	DES3 Series Burner & Baffle	
BRN-FT-BTU-GAS-LD3	LD3 Series Burner	
BRN-FT-BTU-GAS-LS3	LS3 Series Burner	
BRN-FT-BTU-GAS-SV	SV Series Burner	

*LD3 & LS3 cannot replace LD & LS series (V2). Consult Factory.
-SB comes with stainless steel control box.

MOUNTING KIT ADD-ONS			
<i>Can only be ordered when purchasing a BRN.</i>			
PART NO.	DESCRIPTION	STANDARD QTY.	SSKAO QTY.
BKAO-10	10 Ft. Mounting Kit		N/A
BKAO-20	15-20 Ft. Mounting Kit		
BKAO-30	25-30 Ft. Mounting Kit		
BKAO-40	40 Ft. Mounting Kit		
BKAO-50	50 Ft. Mounting Kit		
BKAO-60	60 Ft. Mounting Kit		
BKAO-70	70 Ft. Mounting Kit		
BKAO-80	80 Ft. Mounting Kit		
MPKAO ³	MP Series Kit Add-On. Substitutes (1) FC-24 with (1) FC-36.		N/A

Must add-on the **SSKAO** to the mounting kit for stainless steel. Mounting kit includes applicable hangers, clamps and center supports. Also included is (1) FC-24, (2) reflector end caps, and (8) clips. **NOTE:** Kits for 150,000-200,000 BTU/h models receive one stainless steel tube clamp.

¹ Component burners do not include any mounting accessories.

² TPK Packages do not include any mounting accessories. Use caution to assure that the proper combustion chamber is utilized. In most cases - aluminized (50,000 to 125,000 BTU/h) or titanium (150,000 to 200,000 BTU/h) steel.

³ FC-36 replaces FC-24 when MPKAO is specified.

FACTORY CONVERSIONS	
# CONV.	<p>Net conversion fee to change BTU or gas type on new (less than 18 months), stock (never sold or used) heaters. Includes all labels, baffle changes and changes to burner. Does not include defective parts or new shipping cartons, if necessary. DRP does not pay any shipping fees. No switching between Series of heater (ex. DES3 to HL3) and no changes between low or high BTU models (50-125 = low, 150-200 = high). Do not return kit unless Detroit Radiant Products is to drop ship back to customer. Net pricing applies.</p> <p>T1-CONV - BTU or Gas change only @ ____ (QTY). T2-CONV - High/Low Burner change @ ____ (QTY).</p>

TUBE & REFLECTOR PACKAGES ²		
PART NO.	DESCRIPTION	QTY.
TPK-A	Type-10-HRT	35 lbs.
TPK-B	Type-20-ALUM-HRT	70 lbs.
TPK-C	Type-20-HRT	70 lbs.
TPK-D	Type-30-ALUM-HRT	110 lbs.
TPK-E	Type-40-ALUM-HRT	145 lbs.
TPK-F	Type-40-TITAN-ALUM-HRT	145 lbs.
TPK-G	Type-10-ALUM	35 lbs.
TPK-H	Type-20-ALUM	70 lbs.
TPK-I	Type-30-ALUM	110 lbs.
TPK-J	Type-40-ALUM	145 lbs.
TPK-K	Type-40-TITAN-ALUM	145 lbs.
TPK-R	Type-10-SS	35 lbs.
TPK-S	Type-20-SS	98 lbs.
TPK-U	Type-30-SS	137 lbs.
TPK-V	Type-40-SS	181 lbs.

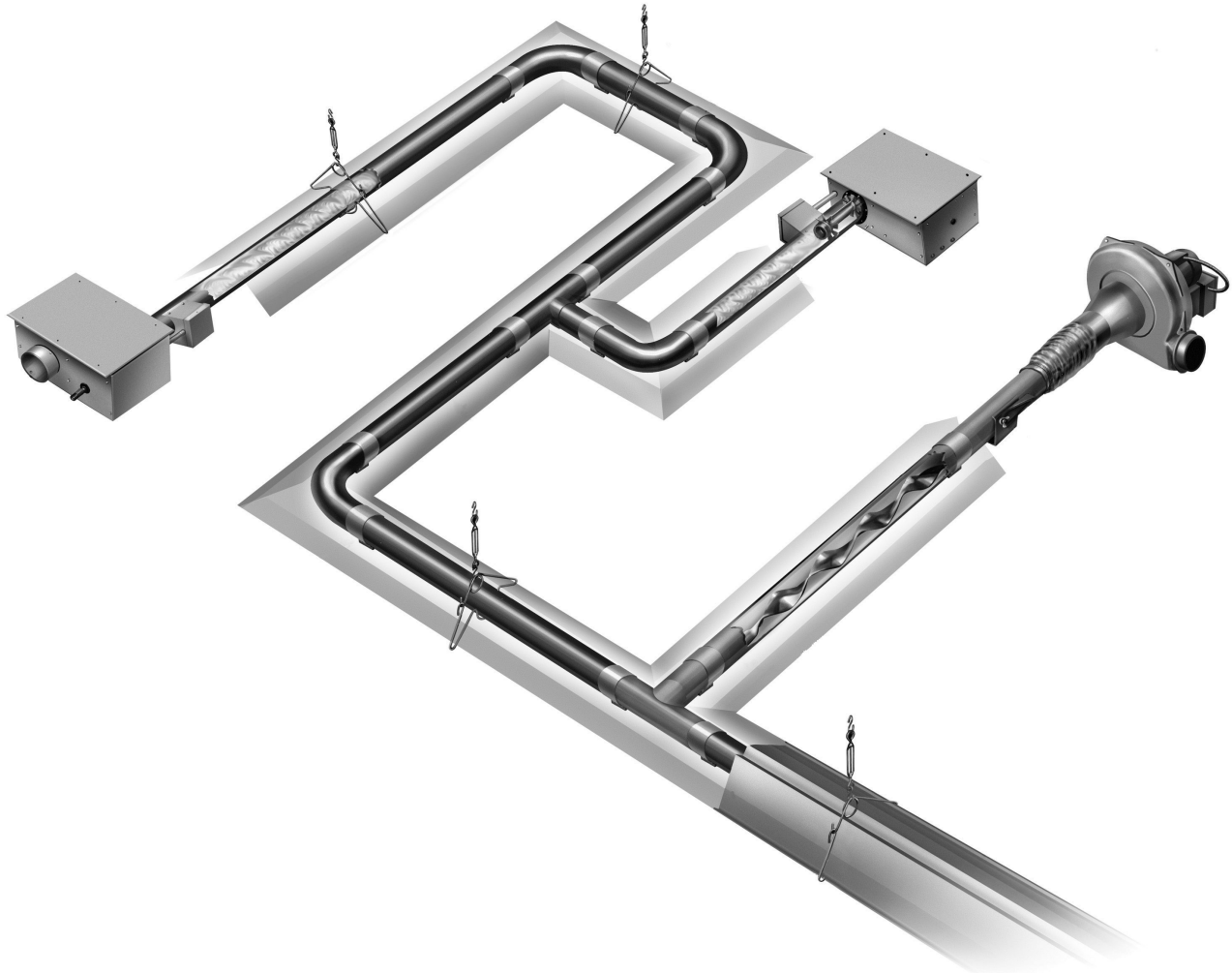
MOUNTING KIT REPLACEMENT OPTIONS			
<i>To be purchased as a replacement only.</i>			
PART NO.	DESCRIPTION	STANDARD QTY.	SSKAO QTY.
DB-10Kit	10 Ft. - 3" Mounting Kit		N/A
DB-20Kit	15-20 Ft. - 3" Mounting Kit		N/A
DB-30Kit	30 Ft. - 3" Mounting Kit		N/A
10-Kit	10 Ft. - 4" Mounting Kit		N/A
20-Kit	20 Ft. - 4" Mounting Kit		
30-Kit	25-30 Ft. - 4" Mounting Kit		
40-Kit	40 Ft. - 4" Mounting Kit		
50-Kit	50 Ft. - 4" Mounting Kit		
60-Kit	60 Ft. - 4" Mounting Kit		
70-Kit	70 Ft. - 4" Mounting Kit		
80-Kit	80 Ft. - 4" Mounting Kit		
MPKAO ³	MP Series Kit Add-On. Substitutes (1) FC-24 with (1) FC-36.		N/A

Must add-on the **SSKAO** to the mounting kit for stainless steel. Mounting kit includes applicable hangers, clamps and center supports. Also included is (1) FC-24, (2) reflector end caps, and (8) clips. **NOTE:** Kits for 150,000-200,000 BTU/h models receive one stainless steel tube clamp.



HLV Series

**Gas-Fired, Low Intensity, Multiple Burner
Engineered Infrared Heating Vacuum System**



BURNER PACKAGES				
QTY.	Model No.	BTU/H High Fire	BTU/H Low fire	Gas Type (circle one)
	HLV-40	40,000	40,000	Natural or Propane
	HLV-50	50,000 ¹	50,000	Natural or Propane
	HLV-60	60,000 ¹	50,000	Natural or Propane
	HLV-75	75,000	60,000	Natural or Propane
	HLV-80	80,000	64,000	Natural or Propane
	HLV-90	90,000	72,000	Natural or Propane
	HLV-100	100,000	80,000	Natural or Propane
	HLV-110	110,000	88,000	Natural or Propane
	HLV-120	120,000	96,000	Natural or Propane
	HLV-125	125,000	100,000	Natural or Propane
	HLV-140	140,000	112,000	Natural or Propane
	HLV-150	150,000	120,000	Natural or Propane
	HLV-170	170,000	136,000	Natural or Propane
	HLV-175	175,000	140,000	Natural or Propane
	HLV-180	180,000	144,000	Natural or Propane
	HLV-200	200,000	160,000	Natural or Propane

Shipping Weight = 30 lbs.

Included: 1) TP-21B², 1) TP-19B, 1) TP-105 with 4 clips, 1) GC-50 ball valve and 1) 24 in. stainless steel flexible gas connector.

IMPORTANT

Each HLV burner must be ordered with one titanium combustion chamber (TR-C).

Titanium tube must be placed first tube after burner, regardless of burner BTU.

¹CNG-AO available 50 and 60MBH models.

²Models HLV-150, -170, -175, -180 and -200 receive TP-220 Stainless Steel Clamp in place of TP-21B.

TUBE AND REFLECTOR PACKAGES				
BLACK COATED TITANIUM COMBUSTION CHAMBER AND REFLECTOR PACKAGES				
QTY.	Model No.	Description		
	TR-C	1) 10' x 4" Titan. tube, 1) TP-21B clamp, 2) TP-19B hangers, 1) TP-82 RCS		35 lbs.
	TR-C2	2) 10' x 4" Titan. tubes, 2) TP-21B clamps, 4) TP-19B hangers, 2) TP-82 RCS		70 lbs.
	TR-C3	3) 10' x 4" Titan. tubes, 3) TP-21B clamps, 6) TP-19B hangers, 3) TP-82 RCS		110 lbs
	TR-C4	4) 10' x 4" Titan. tubes, 4) TP-21B clamps, 8) TP-19B hangers, 4) TP-82 RCS		145 lbs.

BLACK COATED ALUMINIZED TUBE AND REFLECTOR PACKAGES				
QTY.	Model No.	Description		
	10EA	1) 10' x 4" Alum. tube, 1) TP-21B clamp, 1) TP-19B hanger, 1) TP-82 RCS		35 lbs.
	20EA	2) 10' x 4" Alum. tubes, 2) TP-21B clamps, 2) TP-19B hangers, 2) TP-82 RCS		70 lbs.
	30EA	3) 10' x 4" Alum. tubes, 3) TP-21B clamps, 3) TP-19B hangers, 3) TP-82 RCS		110 lbs
	40EA	4) 10' x 4" Alum. tubes, 4) TP-21B clamps, 4) TP-19B hangers, 4) TP-82 RCS		145 lbs.
	TR60	1) 5' radiant tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger		20 lbs.

UNCOATED HOT-ROLLED STEEL TUBE AND REFLECTOR PACKAGES ³				
QTY.	Model No.	Description		
	10HRE	1) 10' x 4" HRT tube, 1) TP-21B clamp, 1) TP-19B hanger		35 lbs.
	20HRE	2) 10' x 4" HRT tubes, 2) TP-21B clamps, 2) TP-19B hangers		70 lbs.
	30HRE	3) 10' x 4" HRT tubes, 3) TP-21B clamps, 3) TP-19B hangers		110 lbs
	40HRE	4) 10' x 4" HRT tubes, 4) TP-21B clamps, 4) TP-19B hangers		145 lbs.
	HRE-60	1) 5' HRT tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger		20 lbs.

³150,000 to 200,000 BTU/h burners with hot-rolled steel tube package require an aluminized secondary combustion chamber (10EA) to be installed immediately downstream the titanium stabilized (TR-C) combustion chamber.

NOTE: All clamps, hangers and other kit items are shipped with the tubes and reflectors.

VACUUM EXHAUSTER PACKAGES

QTY.	Model No.	Total System MBH Range	Max. Burners per Pump ⁵	Input Voltage	Ph.	HP	Amps	Weight	Inlet Adapter	Outlet Adapter
	NC-7A ^{4,6}	40-150	2 max.	120V	1	1/15	2.2	25 lbs	N/A	N/A
	HLV-PB8A ⁶	50-275	4 max.	120V	1	1/2	7.6	65 lbs	4" (V-55A)	4" (V-55A)
	HLV-PB9A ⁶	280-545	5 max.	120V	1	3/4	9.6	72 lbs	5" (V-56A)	4" (V-55A)
	HLV-PB10A ⁶	550-750	6 max.	120V	1	1	11.4	78 lbs	6" (V-57A)	5" (V-56A)
	HLV-PB10F ⁶	550-750	6 max.	460V	3	1	1.6	78 lbs	6" (V-57A)	5" (V-56A)

⁴NC-7 is for non-condensing systems only. ⁵Consult factory if exceeding maximum burners is required.

⁶Pumps are pre-wired for 24V control. Order PB pumps with a B suffix (in lieu of A) for 208V 3 phase. **Consult factory on pricing.**





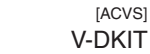
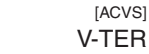




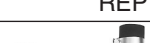
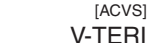


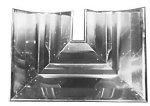


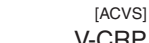


Vacuum pumps come with a pre-assembled exhaustor panel which includes a post-purge timer and hook-up for 24V controls. All pumps have internal over-load protection. **NC-7 Pump Includes:** 1) V-D Damper, 1) TP-105 Endcap, 4) TP-106 Clips, 1) TP-21B 4" Clamp, 3) TP-65I Baffles and Silicone.

PB Series Pump Includes: 1) V-D-SS Stainless Damper, 1) TP-105 Endcap, 4) TP-106 Clips, 1) TP-220 SS 4" Clamp, 3) TP-65I Baffles, 2) Adapters, 2) V-23 16" Isolation Boots, 4) V-24 Hose Clamps and Silicone.



ADD-ON / UPGRADE ITEMS


QTY.	PART NO.	DESCRIPTION
	CNG-AO	Upgrades system to be CNG designated. Includes one liner tube to be installed into each combustion tube. One CNG-AO required per burner. Only used on 60MBH models and under.
	H-DRVAO	Modifies the existing HLV internal wiring when replacing an older DRV Series burner.

HLV SERIES ACCESSORIES

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
 [ACVS] V-D	16 in. damper used to equalize the pressure on each leg of the vacuum system. 16 gauge aluminized steel, 4 in. diameter with 1) tube clamp. A V-D must be used on each run from the pump (except the longest) that has a 5' ft. (or greater) length differential from any other leg in the system.		 [ACVS] V-T	Tee fitting used to join two legs of a vacuum system. 16 ga. aluminized steel, 4 in. diameter tee with black coating. Includes: 1) tube clamp, 1) hanger, 3) end caps and 12) clips. Dimensions: 21 in. across top (with neither end swaged) by 13 in. NOTE: the 13 in. middle leg is swaged.	
 [ACTB] REF-18	18 in. aluminum reflector. Includes 1) RCS, 1) end cap and 4) clips. Used to cover damper.		 [ACVS] V-RTE	Reflector used to cover a V-T or V-TI. Polished one side bright aluminum. Reflector assembly includes: left, right and center sections, 2) brackets and 15) screws.	
 [ACVS] V-DKIT	V-D (damper) and REF-18 (reflector) package.		 [ACVS] V-TER	V-T package with V-RTE reflector package.	
 [ACTB] E6	Elbow - 6 in. radius, 90° bend, 4 in. diameter 16 ga. alum. steel with black coating, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips. Consult IOM for minimum distance from burner.		 [ACVS] V-TI	In-line tee fitting used to join two legs of a vacuum system. 16 ga. aluminized steel, 4 in. diameter tee, with black coating. Includes: 1) tube clamp, 1) hanger, 3) end caps and 12) clips. Dimensions: 21 in. across top (with one end swaged) by 13 in. NOTE: the 13 in. middle leg is not swaged.	
 [ACTB] RE	Reflector Elbow - 90° bend, with polished, one side bright, aluminum reflector elbow. Designed to fit atop one elbow (not included). Sq. dimension 27 in. x 27 in.		 [ACVS] V-RTE	Reflector used to cover a V-T or V-TI. Polished one side bright aluminum. Reflector assembly includes: left, right and center sections, 2) brackets and 15) screws.	
 [ACTB] REP	Reflector and elbow package - One RE and one E6. Consult IOM for minimum distance to burner. No end caps or clips included.		 [ACVS] V-TI and V-RTE packages.		
 [ACTB] TF1B	180° fitting, used to make a U-shaped heater configuration. 16 ga. aluminized steel, 4 in. diameter fitting with black coating. Also included: 1) tube clamp, 1) wire hanger, 2) reflector end caps, and 8) clips. Adds 14 in. to overall unit length, center to center 16 in. Consult IOM for minimum distance from burner.		 [ACVS] V-CR	Cross fitting used to join three legs of a vacuum system. 16 ga. aluminized steel, 4 in. diameter cross with black coating. Includes: 1) tube clamp, 1) RCS, 4) end caps, and 16) clips. Swaged on one end of the four legs. Dim: 21 in. x 21 in.	
 [ACTB] RU	Reflector U designed to cover a TF1B fitting. 180° bend U-reflector for attachment to standard reflectors. Polished one side bright aluminum. One TP-82 RCS included. NOTE: reflectors cannot be rotated on a mounting angle upon installation of this RU fitting.		 [ACVS] V-RCR	Reflector assembly designed to cover V-CR cross fitting. Polished one side bright aluminum. Field assembled with aluminum gussets and pop rivets provided. Included are 4) center sections, 4) angle brackets, and 24) screws.	
 [ACTB] RUP	Reflector and "U" bend package - One TF1B and one RU. Consult IOM for minimum distance to burner. No end caps or clips included.		 [ACVS] V-CRP	Vacuum Cross and Reflector package. Includes V-CR and V-RCR packages.	
 [ACTB] 45E	Elbow - 6 in. radius, 45° bend, 4 in. diameter, 16 ga. black coated aluminized steel, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips. Consult IOM for minimum distance from burner.		 [ACVS] V-TTS	Tandem Tee Set. Designed to emulate in series burners. Includes: 1) V-TERI, 1) V-DKIT, 1) REP, 3) TP-21B clamps, 2) TP-19B hangers and 1) TP-82 RCS. Must attach to TR-C or a min. 10 ft. space between burner and elbow.	

HLV SERIES ACCESSORIES

QTY.	PART NO.	DESCRIPTION
	 [ACVS] V-TB	Turnbuckle for sloping condensing tailpipe. One piece required for each 5 ft. & 10 ft. tube. Designed to fit standard "S" hook.
	 [ACVS] V-SMK	Vacuum pump sidewall mounting kit. Designed to support PB Series vacuum pumps installed on a sidewall application.

QTY.	PART NO.	DESCRIPTION
	[ACTB] WVE-ALUM	Aluminum sidewall vent cap with flapper. WVE is to be used for sidewall venting applications. 4 in. diameter.
	 [ACVS] HLV-PAI	Powered air inlet used to bring in outside air for combustion. To be used on runs that exceed 20 ft. but are limited to 150 ft. 5 in. intake (WIV-5 for sidewall cap) and a 6 in. exhaust adapter are included. 265 CFM, 115V, 50/60 HZ, auto-reset and thermal protection.




STAINLESS STEEL TUBE AND REFLECTOR PACKAGES


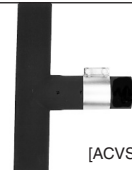




QTY.	MODEL NO.	DESCRIPTION	
	10STP	1) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220, 1) TP-19B & 1) TP-82	38 lbs.
	20STP	2) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 2) TP-220, 2) TP-19B & 2) TP-82	76 lbs.
	30STP	3) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 3) TP-220, 3) TP-19B & 3) TP-82	120 lbs.
	40STP	4) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 4) TP-220, 4) TP-19B & 4) TP-82	157 lbs.
	STP-60	1) Type 304 5' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220 & 1) TP-19B	22 lbs.

NOTE: Observe 18 in. top clearance on all condensing tailpipe not covered by a reflector. Minimum 60 ft. downstream of burner.

NOTE: STP packages & stainless steel accessories are not black coated unless otherwise specified.

STAINLESS STEEL ACCESSORIES

QTY.	PART NO.	DESCRIPTION
	 [ACVS] V-D-SS	16 in. damper used to equalize the pressure on each leg of a vacuum system. 304 grade stainless steel, 4 in. diameter with 1) stainless steel tube clamp. A V-D-SS must be used on each leg from the pump (except the longest) that has a 5 ft. (or greater) length differential from any other leg in the system.
	[ACVS] V-DSKIT	V-D-SS (SS damper) and REF-18 (Alum. reflector) package.
	 [ACTB] E6-SS	304 grade stainless steel elbow. 6" radius, 90° bend, 4" diameter, 16 gauge. Includes 1) stainless steel tube clamp, 1) stainless steel hanger and 2) stainless steel reflector end caps with 8) clips.
	[ACTB] RE-SS ⁷	Reflector Elbow - 90° bend. 304 grade stainless steel.
	 [ACTB] TF1B-SS	180° bend, used to make a U-shaped heater configuration. 16 ga. 304 grade stainless steel, 4 in dia. fitting. Also included: 1) stainless steel tube clamp, 1) stainless steel hanger, 2) stainless steel reflector end caps, and 8) clips.
	[ACTB] RU-SS ⁷	Reflector 'U'. 304 grade stainless steel. 1) stainless steel RCS included. NOTE: Reflectors cannot be rotated on a mounting angle upon installation of this RU fitting.

QTY.	PART NO.	DESCRIPTION
	 [ACTB] 45E-SS	Elbow - 6 in. radius, 45° bend, 4 in. diameter, 16 ga. 304 grade stainless steel, 1) SS tube clamp, 1) SS hanger, and 2) SS reflector end caps with 8) clips.
	 [ACVS] V-T-SS	Tee fitting used to join two legs of a vacuum system. 304 grade stainless steel, 4 in. diameter tee. Includes: 1) SS tube clamp, 1) SS hanger, 3) SS end caps and 12) clips. Dim: 21 in. across top (with neither end swaged) by 13 in. NOTE: The 13 in. middle leg is swaged.
	 [ACVS] V-TI-SS	In-line tee fitting used to join two legs of a vacuum system. 304 grade stainless steel, 4 in. dia. tee. Includes: 1) SS clamp, 1) SS hanger, 3) end caps and 12) clips. Dim: 21 in. across top (with one end swaged) by 13 in. NOTE: The 13 in. middle leg is not swaged.
	[ACVS] V-RTE-SS ⁷	304 grade stainless steel reflector used to cover a V-T-SS or a V-TI-SS.
	 [ACVS] V-CR-SS	Cross fitting used to join three legs of a vacuum system. 304 grade stainless steel, 4 in. diameter cross. Includes: 1) SS tube clamp, 1) SS RCS, 4) SS end caps and 16) clips. Swaged on one end of the four legs. Dim: 21 in. x 21 in.
	[ACVS] V-RCR-SS ⁷	304 grade stainless steel reflector used to cover a V-CR-SS.
	 [ACVS] V-CT	Condensate trap and 26 gauge venting tee used for condensate disposal on condensing systems. Required on vertical venting.
	 [ACVS] V-CN	Condensate neutralization kit. Rated for systems with total heat load up to 800 MBH. Used for when condensate neutralizing is required prior to disposal. Utilizes CaCO ₃ (Calcium Carbonate) as the neutralizing substance.

HLV Series Limited Warranty:

1 Year - Vacuum Pump.
3 Years - Controls, Hot Rolled & Stainless Steel Tubes.
5 Years - Aluminized & Titanium Tubes.
10 Years - Burner.

Extended Warranties:

CWO - Control Warranty Option (\$29 net p/ year, per burner, max. 4 years).
EWO - Exchanger Warranty Option (\$7 net p/ year, per tube, max. 5 years).
VPWO - Pump Warranty Option (\$96 net p/ year, per pump, max. 4 years).

⁷Aluminum reflector accessories are recommended for use with stainless steel accessory fittings when system is fitted with standard aluminum reflector sections. See page 19.



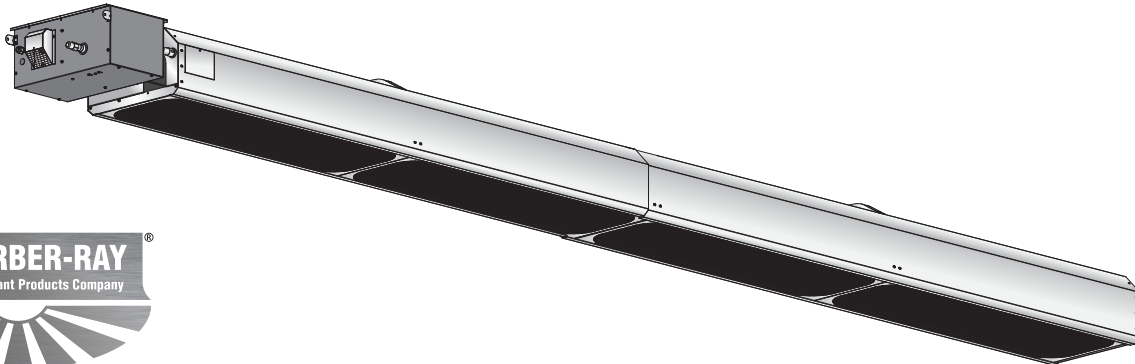
Specialty Low Intensity



DST Series

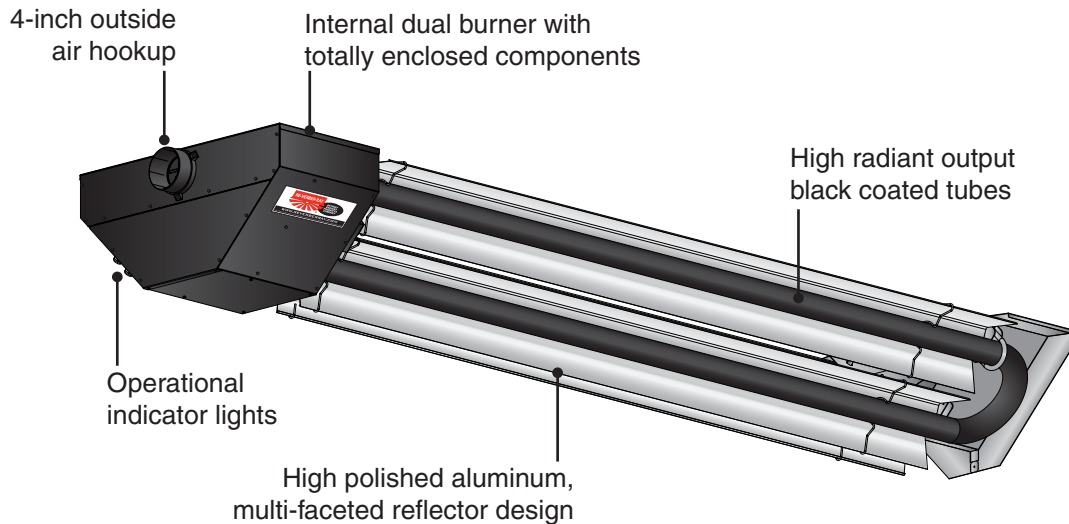


QTS2 & QTD2 Series



HL2-DS Series

QT2 SERIES INFRARED HEATER STANDARD FEATURES



QT SERIES BURNER PACKAGES

Model No.	Description	Gas Type	BTU/h High Fire	BTU/h Low Fire	QTY. BRN Only	QTY. (Complete Assembly) ¹
BRN QTD2-60N	QT2 - Tube Burner - Dual Stage	Natural	60,000	40,000		
BRN QTD2-80N			80,000	50,000		
BRN QTD2-60P		Propane	60,000	40,000		
BRN QTD2-80P			80,000	50,000		
BRN QTS2-60N	QT2 - Tube Burner - Single Stage	Natural	60,000	60,000		
BRN QTS2-80N			80,000	80,000		
BRN QTS2-60P		Propane	60,000	60,000		
BRN QTS2-80P			80,000	80,000		

NOTE: Outdoor Approval Kit (P/N: OD-KIT) **MUST** be added to the heater when applying heaters outdoors.

¹The necessary Tube & Reflector Package (TPK-QT2) must be added as a separate line item.

QT SERIES TUBE AND REFLECTOR PACKAGES

Model No.	Description	QTY.
TPK-QT2	QT2 Series U Tube and Reflector Package ¹	

Shipping/Boxing:

B = Burner Box (45#) & (31.5"L x 17.5"W x 15.5"H)
T = Large Tube Box (95#) & (98.5"L x 29.25"W x 13"H).



IMPORTANT: Burner and tube components are sold separately - complete assemblies require both BRN burner and TPK-QT2 tube packages.

ADD-ON / UPGRADE ITEMS

PART NO.	DESCRIPTION	QTY.
[ACTB] OD-KIT	Outdoor approval kit for QTD2 and QTS2 Series. Includes: 24V control cord (when applicable), SILSEAL, 90° air inlet collar, and with outdoor rating label.	

NOTE: Refer to the accessory and controls section of this book for more options.

4" VENT MATERIALS

PART NO.	DESCRIPTION	QTY.
VH-4	Vent hood/diffuser specific to the QT2 Series heater. Must be used with unvented units. Also known as a TP-6189.	

LIMITED WARRANTY INFORMATION

STANDARD WARRANTY	BURNER BOX COMPONENTS	TUBES/ EXCHANGERS	BURNER
QTD2, QTS2	1 Year	3 Years	5 Years

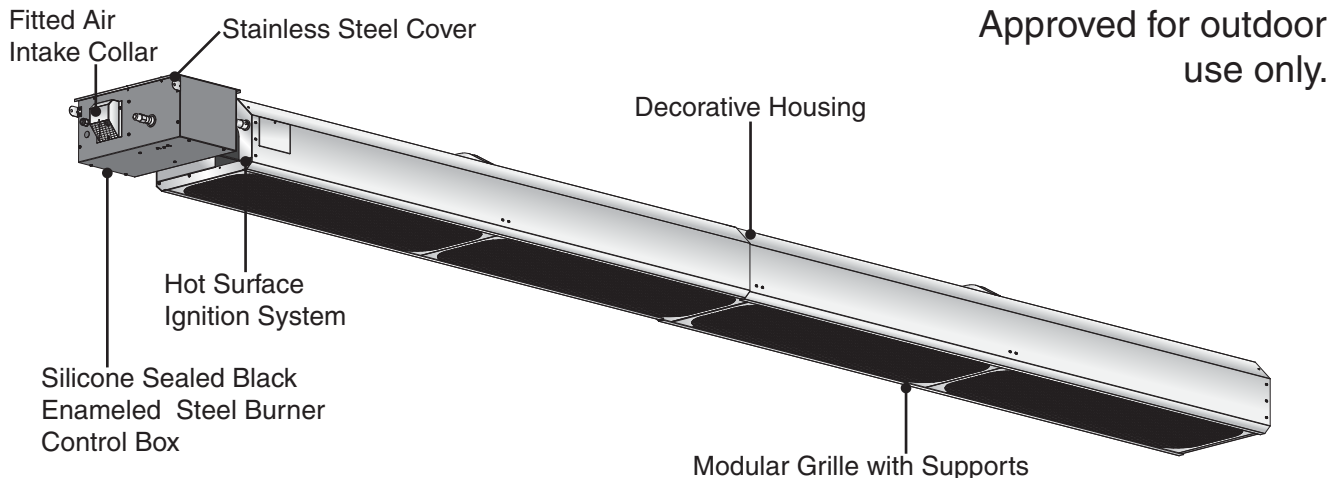
All limited warranties, are defined in the Series Manual Insert for the particular Series of heaters. Please contact the factory for further information on the terms and conditions.

TYPICAL/RECOMMENDED MOUNTING HEIGHTS[†]

BTU Range	Typical Use	
	Single Stage	Dual Stage
60,000	8 ft. to 12 ft.	8 ft. to 12 ft.
80,000	10 ft. to 14 ft.	10 ft. to 14 ft.

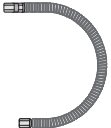
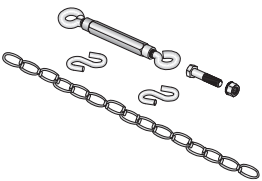
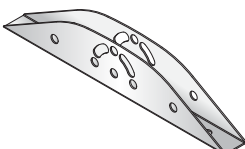
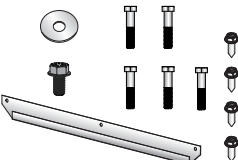
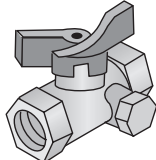
[†] Typical or recommended mounting heights are listed as a guideline. If infrared heaters are mounted too low or too high, they may produce adverse results.

HL2-DS SERIES INFRARED PATIO HEATER STANDARD FEATURES



Limited Warranty: 3-5-10 (Components-Tubes-Burners)

HL2-DS SERIES KIT CONTENTS

TP-83 1/2" x 24" 304 Stainless Steel Flexible Gas Connector 	HL2DS-HANG Hanging Kit 	TP-885 Hanging Bracket (x2) 	HL2DS-ASSY Assembly Kit 	TP-33B 1/2" Shut-Off Valve (Ball Valve & Inlet Tap) 
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HL2-DS SERIES MODELS (OUTDOOR CERTIFIED ONLY)

Qty.	Model No.	Gas Type	BTU/h High Fire	BTU/h Low Fire	Overall Unit Length	Mounting Heights ¹	Ship Weight ²
	HL2-DS-30-65	Nat. or Prop.	65,000	50,000	16'-4"	9 ft. to 15 ft.	190 lbs.
	HL2-DS-30-80	Nat. or Prop.	80,000	52,000	16'-4"	9 ft. to 15 ft.	190 lbs.
	HL2-DS-30-100	Nat. or Prop.	100,000	65,000	16'-4"	9 ft. to 15 ft.	190 lbs.

¹ Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variances from the above data.


² Truckline only.

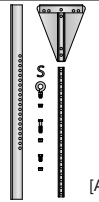
NOTE: Gas connection requires a 3/4" NPT adapter fitting.

Shipping/Boxing:

Burner Box	(38"L x 24"W x 10"H)
Housing Box (x2)	(96"L x 22"W x 12"H)
Grille Box	(50"L x 16"W x 4"H)

HL2-DS SERIES ACCESSORIES

PART NO.	DESCRIPTION	QTY.
 [ACTB] THGH10	Optional gripper for sway bracing . 10 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.	
[ACTB] THGH15-SS	Stainless steel gripper for sway bracing . 15 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.	

PART NO.	DESCRIPTION	QTY.
 [ACTB] DS-BKT20	21" - 32" hanging bracket kit. Kit includes components to hang 1 heater. When this option is selected the HL2DS-HANG is not included with the heater.	
[ACTB] DS-BKT33	34" - 45" hanging bracket kit. Kit includes components to hang 1 heater. When this option is selected the HL2DS-HANG is not included with the heater.	

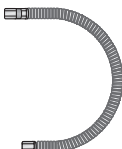
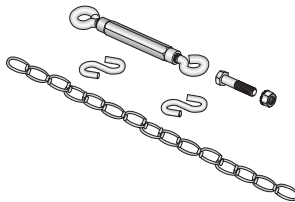

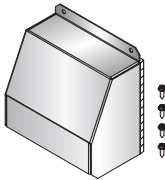
NOTE: Refer to the control section of this book for control options.

DST SERIES INFRARED PATIO HEATER STANDARD FEATURES



Limited Warranty: 3-5-10 (Components-Tubes-Burners)

DST SERIES STANDARD KIT CONTENTS

FC-24 1/2" x 24" 304 Stainless Steel Flexible Gas Connector 	DST-HANG Hanging Kit 	DST-GRIP Grippler Kit for Standard Mounting 	DST-EXH Exhaust Kit 
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*Required to be installed on 80 MBH

DST SERIES MODELS

QTY.	Model No.	Gas Type	BTU/h High Fire	BTU/h Low Fire	Dimensions			Mounting Heights ¹	Ship Weight ²
					Height	Length	Depth		
	DST-60N	Natural	60,000	40,000	12.75"	119.0"	17.25"	8 ft. to 13 ft.	155 lbs.
	DST-60P³	Propane	60,000	50,000					
	DST-80N³	Natural	80,000	40,000	12.75"	119.0"	17.25"	9 ft. to 14 ft.	155 lbs.






¹ Typical or recommended mounting heights are provided as a guideline. Actual conditions may dictate variances from the above data.

² Truckline only.

³ Patio use only.

NOTE: Gas connection requires a 3/4" NPT adapter fitting.

DST SERIES ACCESSORIES

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
 [ACTB] RTVP-4	4 in. rooftop vent/intake package. Complete kit for vertical venting through the roof. Includes: RVC-4, DHC-4, FS-4, ARF-4, SC-4, VE-4, VT-4 and RTV-106 sealant. NOTE: Vent and B-vent must be ordered separately. For use with 60 MBH only.		 [ACTB] 4-DSK	4 in. Duravent sidewall vent kit with all items for sidewall venting. Includes: SWD-4, WT-4, 18BV-4, DHC-4. No vent pipe material is included. 29 in. long when fully assembled. For use with 60 MBH only.	
 [ACTB] THGH10	Optional gripper for sway bracing . 10 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.		 [ACTB] VE-4	4 in. 90° optional air intake elbow. One end is crimped.	
 [ACTB] THGH15-SS	Stainless steel gripper for sway bracing . 15 foot length of looped cable with a locking fastener per assembly. Working load limit of 100 lbs with a 5:1 load safety ratio.				

NOTE: Refer to the controls section of this book for control options.