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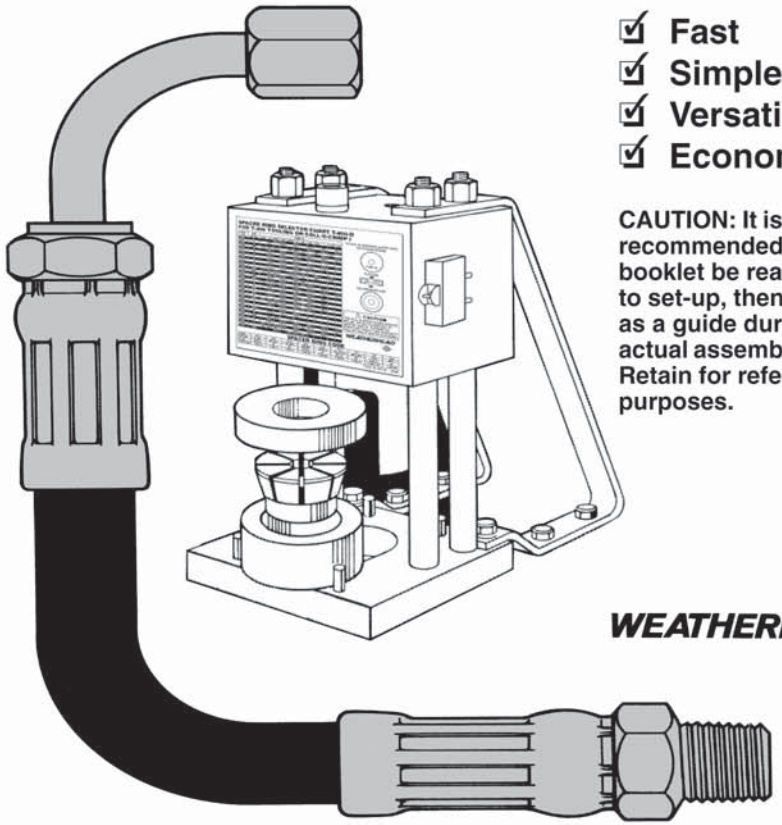
COLL-O-CRIMP® I Model T-400-1

Set up and operating instructions

COLL-O-CRIMP



- ☑ Fast
- ☑ Simple
- ☑ Versatile
- ☑ Economical

CAUTION: It is recommended this booklet be read prior to set-up, then used as a guide during actual assembly. Retain for reference purposes.

WEATHERHEAD®

Specifications and Equipment

T-400-1 Coll-O-Crimp®
Press Specifications

Crimping Capacity: 3/16" - 1-3/8" I.D. 2-wire Hose

Weight: 113 lbs.

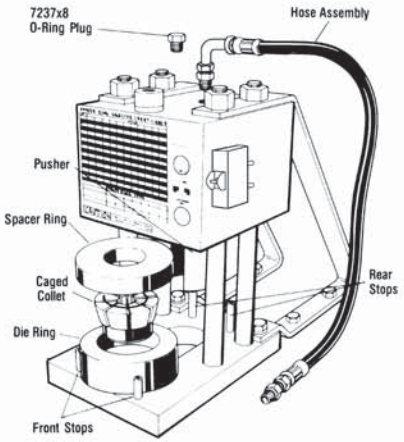
T-400 Coll-O-Crimp® Press with tooling includes one each of the following:

T-400-1	Coll-O-Crimp® Press
T-400-2C	Collet - 1/4"
T-400-3C	Collet - 3/8"
T-400-4C	Collet - 1/2"
T-400-5C	Collet - 3/4"
T-400-6C	Collet - 1"
T-400-8	Die Ring - 3/16" thru 1-3/8"
T-400-10	Spacer Ring (black)
T-400-62	Spacer Ring (yellow)
T-400-11	Spacer Ring (silver)
T-432-15	Pusher
T-400-D	Spacer Ring Decal
T-400-M	Instruction Kit
FS-1100	Label Set/Layout Guide ('U' Series Hose Ends)

The T-400 package also includes one of the hose and fitting options below. If no pump is ordered, the T-400-16 is supplied.

* **T-400-16**	36" Hose assembly & fittings for use with T-401-1 and T-411 Electric Pump.
** **T-400-18**	108" Hose assembly & fittings for use with T-402-1 Air/Hydraulic Pump.
T-400-19	60" Hose assembly & fittings for use with T-403-1 Hand Pump.

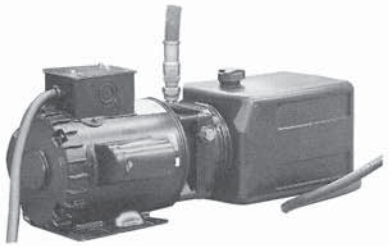
* Hose assembly includes (2) 4315X6X8 For-Seal adapters.
** Hose assembly includes a 4205X6X6 & 4315X6X8 For-Seal adapter.



Coll-O-Crimp®
Press

T-421U Electric Pump

Dimensions	7-1/2" high, 10" wide, 22" long
Weight	75 lbs.
Pressure	4000-4200 psi
Reservoir Size	6 quarts
Outlet Port Size	3/4-16 Straight Thread
Motor	1 H.P., 3450 RPM, 220 volts 60 cycle, single phase
Hydraulic Oil	Automatic Transmission Fluid (ATF) or equivalent.**SAE 10 Grade, ISO 32
Reservoir Capacity	6 quarts
Flow	2.6 GPM @ 900 psi



**** USE ONLY IF OPERATING TEMP. IS BELOW 0°F or above 160°F.**

NOTE: The electric pump must be on an individual 15 amp fused circuit.

CAUTION: The Coll-O-Crimp power source has the pressure relief valve set at 4000 to 4,200 psi. Damage to the press will result and the warranty may be voided if higher pressures are used.

CAUTION: The Coll-O-Crimp power source has the pressure relief valve set at 4000 to 4,200 psi. Damage to the press will result if higher pressures are used and warranty may be voided.

Notes

Notes

Optional Tooling and Kits

The Weatherhead tools listed below are offered in kits for any given hose type. Collets and tools can be purchased individually by catalog number.

'U' Series Collets - (For Rubber Hose H017, H039, H104, H105,H114,H115,H145,H146,H245,H300,H324,H338 & H425).

T-400-2C Collet - 1/4"
T-400-3C Collet - 3/8"
T-400-4C Collet - 1/2"
T-400-64C Collet - 5/8"
T-400-5C Collet - 3/4"
T-400-6C Collet - 1"
T-400-12 Collet - 1-1/4"

T-400-67 Kit includes 1 each of the above.
FS-1100 Label Set/Layout Guide

NOTE: Black, Green, Yellow or Silver Spacer Ring required for Rubber Hose.

069 'E' Series Collets

(For Truck Hose H066, H069, H166, H169 & H369).

T-400-54C Collet - 3/16"
T-400-55C Collet - 1/4"
T-400-56C Collet - 5/16"
T-400-57C Collet - 13/32"
T-400-58C Collet - 1/2"
T-400-59C Collet - 5/8"
T-400-60C Collet - 7/8"

FS-1500 Label Set/Layout Guide

NOTE: Black, Silver or Yellow Spacer Ring required for Truck Hose.

'S' Series Collets

(For Rubber Hose H039, H104, H14516, H425, H245).

T-400-2C Collet - 1/4"
T-400-3C Collet - 3/8"
T-400-4C Collet - 1/2"
T-400-5C Collet - 3/4"
T-400-6C Collet - 1"
T-400-12 Collet - 1-1/4"

NOTE: Black, Silver or Yellow Spacer Ring Required for Rubber Hose.

E' Series Collets

(For Nylon & Teflon Hose H009, H243, H435 & H436).

T-400-113C Collet - 3/16" (For H243 Hose only)
T-400-31C Collet - 1/4"
T-400-32C Collet - 5/16"
T-400-33C Collet - 3/8"
T-400-34C Collet - 1/2"
T-400-35C Collet - 3/4"
T-400-36C Collet - 1"

T-400-30C Kit includes 1 ea. of the above.
FS-1200 Label Set/Layout Guide

NOTE: Black Spacer Ring required for Nylon Hose. Green or Red Spacer Ring required for Teflon Hose. Spacer Rings not included in T-400-30 kit.

265 'P' Series Collets

(For Thermoplastic Hose H265, H275, H285).

T-400-2C Collet - 1/4"
T-400-3C Collet - 1/2"
T-400-64C Collet - 3/4"

NOTE: Black, Green or Silver Spacer Ring Required for Thermoplastic Hose.

757 'E' Series Collets - (For Refrigerant Hose H757).

T-400-105C Collet - 5/16"
T-400-106C Collet - 13/32"
T-400-107C Collet - 1/2"
T-400-108C Collet - 5/8"

T-400-114 Kit includes 1 ea. of the above. **FS-3200** Label Set

NOTE: Black Spacer Ring Required. Spacer Ring not included in T-400-10 kit.

229 'P' Series Collets - (For Truck Hose H229).

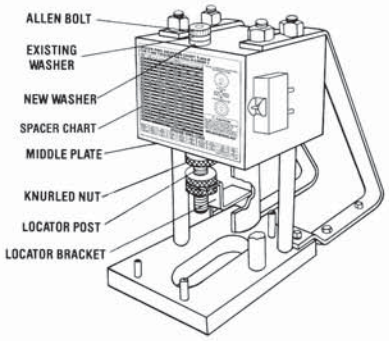
T-400-80C Collet - 3/16"
T-400-81C Collet - 5/16"
T-400-82C Collet - 13/32"
T-400-83C Collet - 1/2"

NOTE: Black Spacer Ring Required for Truck Hose.

'M' Series Collets - (For Pressure Washer Hose H345).

T-400-109C Collet - 1/4"
T-400-110C Collet - 3/8"
T-400-111C Collet - 1/2"

NOTE: Yellow Spacer Ring Required for Pressure Washer Hose.



CRIMP LOCATOR T-400-9

The T-400-9 allows you to make large volumes of hose assemblies by automatically aligning hose ends in proper crimp location.

T-400-9 Crimp Locator Installation Instructions:

1. Remove the front allen bolt using an allen wrench or tool provided with kit.
2. Add the washer provided with the kit to existing washer as shown and torque the bolt down to approximately 75ft.-lbs.
3. Attach the locator post of the pre-assembled locator to the bottom of the middle plate and lock it in place with one of the knurled nuts.
4. Align the dimples on the first assembly with the top of the collet to locate the crimp. Drop the locator bracket down to rest on top of the hose end. Lock the bracket in position with remaining two knurled nuts. The locator now can be used, instead of dimples, to locate crimp accurately and consistently for the remaining hose ends of the same size and type.

NOTE: Remove locator assembly when crimping bent tube ends.

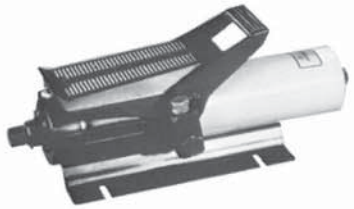
Power Unit Specifications

T-402-1 Air/Hydraulic Pump

(Some models have air port on right side)

Dimensions ..... 5-1/4" high, 5" wide, 12-1/2" deep
Weight ..... 18 lbs.
Pressure ..... 4000-4200 psi
Reservoir Size ..... 37.2 cu. in.
Outlet Port Size ..... 3/8" NPT
Inlet (air) Port Size ..... 1/4" NPT
Air Pressure ..... 60 to 120 psi
Hydraulic Oil ..... Automatic Transmission Fluid (ATF) or equivalent
Reservoir Capacity ..... 1 pint
Filter F23A3T00
Regulator R23RGL00
Lubricator L43MPL00

NOTE: It is recommended that a filter, regulator, lubricator and air pressure gauge be installed in the air line as close as possible to the pump. Filter, Regulator and Lubricator units not included.



T-403-2 Hand Pump

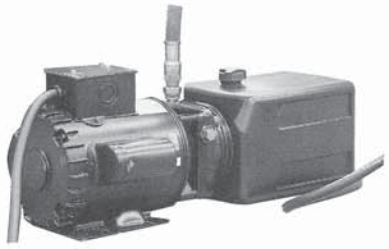
Dimensions ..... 6-1/4" high, 4" wide, 21-3/4" deep
Weight ..... 19 lbs.
Pressure ..... 5000 psi max.
Reservoir Size ..... 58 cu. in.
Outlet Port Size ..... 3/8" NPT
Hydraulic Oil ..... Automatic Transmission Fluid (ATF) or equivalent
Reservoir Capacity ..... 1 quart

T-412 Mobile Electric Pump

Dimensions ..... 7-1/2" high, 9" wide, 14-1/8" long
Weight ..... 65 lbs.
Pressure ..... 4000-4200 psi
Reservoir Size ..... 145 cu. in.
Outlet Port Size ..... 3/4-16 straight thread
Motor ..... 12 volt DC
Hydraulic Oil ..... Automatic Transmission Fluid (ATF) or equivalent **SAE 10 Grade
**Use only if operating temp. below 0°F or above 160°F
Reservoir Capacity ..... 3 quarts
Flow ..... 0.5 GPM

T-421U Electric Pump

Dimensions ..... 7-1/2" high, 10" wide, 22" long
Weight ..... 75 lbs.
Pressure ..... 4000-4200 psi
Reservoir Size ..... 6 quarts
Outlet Port Size ..... 3/4-16 Straight Thread
Motor ..... 1 H.P., 3450 RPM, 220 volts 60 cycle, single phase
Hydraulic Oil ..... Automatic Transmission Fluid (ATF) or equivalent **SAE 10 Grade
**Use only if operating temp. below 0°F or above 160°F
Reservoir Capacity ..... 6 quarts
Flow ..... 2.6 GPM to 900 psi



CAUTION: All of the above approved Coil-O-Crimp® electric power sources have the pressure relief valve set at 4000 to 4,200 psi. Damage to the press will result and the warranty may be voided if higher pressures are used.

Notes

Hose End and Tool Selector Chart

Nominal crimp diameters are for Weatherhead hose and end fittings when crimped with Weatherhead Coll-O-Crimp® tooling.

Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Spacer Ring Color	Spacer Ring Flat Side	Nominal Crimp Dia.
H16912	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080
H16916	7/8	N/R	06916E	T-400-60C	Black	Up	1.275
H16920	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520
H16924	1-3/8	N/R	06924E	T-400-70	Black	Up	1.730
H20904	1/4	N/R	04E	T-400-31C	Black	Dn	.455
H20905	5/16	N/R	05E	T-400-32C	Black	Dn	.555
H20906	3/8	N/R	06E	T-400-33C	Black	Dn	.615
H20908	1/2	N/R	08E	T-400-34C	Black	Dn	.765
H24303	3/16	N/R	03E	T-400-113C	Tan	Dn	.355
H24304	1/4	N/R	04E	T-400-31C	Green	Up	.405
H24305	5/16	N/R	05E	T-400-32C	Red	Up	.475
H24306	3/8	N/R	06E	T-400-33C	Red	Up	.545
H24308	1/2	N/R	08E	T-400-34C	Red	Up	.695
H24312	3/4	N/R	12E	T-400-35C	Red	Up	.978
H24316	1	N/R	16E	T-400-36C	Red	Up	1.225
H24504	1/4	N/R	*04U	T-400-2C	Yellow	Dn	.560
H24506	3/8	N/R	*06U	T-400-3C	Yellow	Dn	.740
H24508	1/2	N/R	*08U	T-400-4C	Yellow	Dn	.865
H24510	5/8	N/R	10U	T-400-64C	Yellow	Up	1.010
H24512	3/4	N/R	*12U	T-400-5C	Yellow	Dn	1.160
H24516	1	N/R	*16U	T-400-6C	Yellow	Up	1.465
H24520	1-1/4	N/R	*20U	T-400-12	Yellow	Dn	1.795
H26506	3/8	N/R	06E	T-400-33C	Black	Up	.660
H26508	1/2	N/R	08E	T-400-34C	Black	Up	.810
H26512	3/4	N/R	12E	T-400-35C	Black	Up	1.090
H26516	1	N/R	16E	T-400-36C	Black	Up	1.340
H26504	1/4	N/R	26504P	T-400-2C	Green	Up	.520
H26506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640
H26508	1/2	N/R	26508P	T-400-3C	Black	Up	.788
H26512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070
H27506	3/8	N/R	06E	T-400-33C	Black	Up	.660
H27508	1/2	N/R	08E	T-400-34C	Black	Up	.810
H27512	3/4	N/R	12E	T-400-35C	Black	Up	1.090
H27516	1	N/R	16E	T-400-36C	Black	Up	1.340
H27504	1/4	N/R	26504P	T-400-2C	Green	Up	.520
H27506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640
H27508	1/2	N/R	26508P	T-400-3C	Black	Up	.788
H27512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070
H28504	1/4	N/R	04E	T-400-31C	Black	Up	.500
H28506	3/8	N/R	06E	T-400-33C	Black	Up	.660
H28508	1/2	N/R	08E	T-400-34C	Black	Up	.810
H28512	3/4	N/R	12E	T-400-35C	Black	Up	1.090
H28516	1	N/R	16E	T-400-36C	Black	Up	1.340
H28504	1/4	N/R	26504P	T-400-2C	Green	Up	.520
H28506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640
H28508	1/2	N/R	26508P	T-400-3C	Black	Up	.788
H28512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070
H28504 requires hose end assembly tool T-101.							
H30004	1/4	N/R	04U	T-400-2C	Black	Dn	.560
H30006	3/8	N/R	06U	T-400-3C	Black	Dn	.740
H30008	1/2	N/R	08U	T-400-4C	Black	Up	.925
H30010	5/8	N/R	10U	T-400-64C	Black	Up	1.050
H30012	3/4	N/R	12U	T-400-5C	Black	Up	1.215
H32406	3/8	N/R	06U	T-400-3C	Black	Up	.785
H33806	3/8	N/R	33806P	T-400-102C	Black	Dn	.700
H33808	1/2	N/R	33808P	T-400-103C	Black	Dn	.795
H34504	1/4	N/R	04M	T-400-109C	Yellow	Up	.630
H34506	3/8	N/R	06M	T-400-110C	Yellow	Up	.765
H34508	1/2	N/R	08M	T-400-111C	Yellow	Dn	.915
H36606	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H36608	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H36904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H36906	5/16	N/R	06906E	T-400-56C	Yellow	Up	.650
H36908	13/32	N/R	06908E	T-400-57C	Black	Dn	.735
H36910	1/2	N/R	06910E	T-400-58C	Black	Dn	.865
H36912	5/8	N/R	06912E	T-400-59C	Black	Up	1.045
H36916	7/8	N/R	06916E	T-400-60C	Black	Dn	1.220
H36920	1-1/8	N/R	06920E	T-400-61C	Black	Dn	1.500
H36924	1-3/8	N/R	06924E	T-400-70	Black	Dn	1.690

Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Spacer Ring Color	Spacer Ring Flat Side	Nominal Crimp Dia.
H42504	1/4	N/R	*04U	T-400-2C	Black	Up	.620
H42506	3/8	N/R	*06U	T-400-3C	Black	Up	.795
H42508	1/2	N/R	*08U	T-400-4C	Black	Up	.925
H42510	5/8	N/R	10U	T-400-64C	Black	Up	1.050
H42512	3/4	N/R	*12U	T-400-5C	Black	Up	1.215
H42516	1	N/R	*16U	T-400-6C	Silver	Up	1.525
H42520	1-1/4	N/R	*20U	T-400-12	Black	Up	1.845
H42512	3/4	Brush†	43012E	T-420-5C	N/R		1.255
H42516	1	Brush†	43016E	T-420-6C	N/R		1.545
H42520	1-1/4	Brush†	43020E	T-420-7C	N/R		1.860
H42512	3/4	Brush†	43012E	T-410-5C	N/R		1.255
H42516	1	Brush†	43016E	T-410-6C	N/R		1.545
H42520	1-1/4	Brush†	43020E	T-410-7C	N/R		1.860
H42524	1-1/2	Brush†	43024E	T-410-8C	N/R		2.115
H42532	2	Brush†	43032E	T-410-9	N/R		2.690
H43008	1/2	T-410-30	43008E	T-420-4C	N/R		.950
H43012	3/4	T-410-31	43012E	T-420-5C	N/R		1.255
H43016	1	T-410-32	43016E	T-420-6C	N/R		1.545
H43020	1-1/4	T-410-33	43020E	T-420-7C	N/R		1.860
H43012	3/4	N/R	43012U	T-420-5CN	N/R		1.406
H43016	1	N/R	43016U	T-420-6CN	N/R		1.705
H43020	1-1/4	N/R	43020U	T-420-7CN	N/R		2.035
H43008	1/2	T-410-30	43008E	T-410-4C	N/R		.950
H43012	3/4	T-410-31	43012E	T-410-5C	N/R		1.255
H43016	1	T-410-32	43016E	T-410-6C	N/R		1.545
H43020	1-1/4	T-410-33	43020E	T-410-7C	N/R		1.860
H43024	1-1/2	T-410-34	43024E	T-410-8C	N/R		2.115
H43032	2	T-410-35	43032E	T-410-9	N/R		2.690
H43012	3/4	N/R	43012U	T-410-5CN	N/R		1.406
H43016	1	N/R	43016U	T-410-6CN	N/R		1.705
H43020	1-1/4	N/R	43020U	T-410-7CN	N/R		2.035
H43504	1/4	N/R	04E	T-400-31C	Black	Dn	.455
H43505	5/16	N/R	05E	T-400-32C	Black	Dn	.555
H43506	3/8	N/R	06E	T-400-33C	Black	Dn	.615
H43508	1/2	N/R	08E	T-400-34C	Black	Dn	.765
H43512	3/4	N/R	12E	T-400-35C	Black	Dn	1.035
H43516	1	N/R	16E	T-400-36C	Black	Dn	1.295
H43604	1/4	N/R	04E	T-400-31C	Black	Dn	.455
H43605	5/16	N/R	05E	T-400-32C	Black	Dn	.555
H43606	3/8	N/R	06E	T-400-33C	Black	Dn	.615
H43608	1/2	N/R	08E	T-400-34C	Black	Dn	.765
H43612	3/4	N/R	12E	T-400-35C	Black	Dn	1.035
H43616	1	N/R	16E	T-400-36C	Black	Dn	1.295
H43908	1/2	T-410-30	43008E	T-420-4C	N/R		.950
H43912	3/4	T-410-31	43012E	T-420-5C	N/R		1.255
H43916	1	T-410-32	43016E	T-420-6C	N/R		1.545
H43920	1-1/4	T-410-33	43020E	T-420-7C	N/R		1.860
H43912	3/4	N/R	43012U	T-420-5CN	N/R		1.406
H43916	1	N/R	43016U	T-420-6CN	N/R		1.705
H43920	1-1/4	N/R	43020U	T-420-7CN	N/R		2.035
H43908	1/2	T-410-30	43008E	T-410-4C	N/R		.950
H43912	3/4	T-410-31	43012E	T-410-5C	N/R		1.255
H43916	1	T-410-32	43016E	T-410-6C	N/R		1.545
H43920	1-1/4	T-410-33	43020E	T-410-7C	N/R		1.860
H43924	1-1/2	T-410-34	43024E	T-410-8C	N/R		2.115
H43932	2	T-410-35	43032E	T-410-9	N/R		2.690
H43912	3/4	N/R	43012U	T-410-5CN	N/R		1.406
H43916	1	N/R	43016U	T-410-6CN	N/R		1.705
H43920	1-1/4	N/R	43020U	T-410-7CN	N/R		2.035
H47008	1/2	T-410-50	47008E	T-420-8C	N/R		.980
H47012	3/4	T-410-52	47012E	T-420-9C	N/R		1.250
H47016	1	T-410-53	47016E	T-420-10C	N/R		1.570
H47020	1-1/4	T-410-54	47020E	T-420-11	N/R		2.030
H47008	1/2	T-410-50	47008E	T-470-8C	N/R		.980
H47012	3/4	T-410-52	47012E	T-470-12C	N/R		1.250
H47016	1	T-410-53	47016E	T-470-16C	N/R		1.570
H47020	1-1/4	T-410-54	47020E	T-470-20	N/R		2.030
H47024	1-1/2	T-410-55	47024E	T-470-24	N/R		2.360
H47032	2	T-410-56	47032E	T-470-32	N/R		3.050
H75706	5/16	N/R	75706E	T-400-105C	Black	Dn	.495
H75708	13/32	N/R	75708E	T-400-106C	Black	Dn	.595
H75710	1/2	N/R	75710E	T-400-107C	Black	Dn	.695
H75712	5/8	N/R	75712E	T-400-108C	Black	Dn	.850

Designates Hose End and Tooling Change (T-400)

Designates Hose End and Tooling Change (Alternate)

Designates Hose End and Tooling Change (T-420)

Designates Hose End and Tooling Change (T-410)

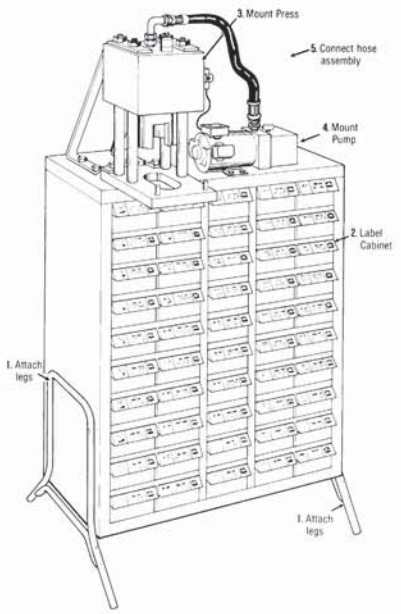
Lubricate the tapered cone seat with Lubriplate grease or equivalent.

N/R – Not required **Dn** – Down

†**Wire Brush** – Method of hose cover removal.

*Stainless Steel Hose End and Tool Selector Chart on page 56 of 411g catalog.

Cabinet Mounting Instructions



The FH-135X Stock Cabinet is designed specifically for your Coll-O-Crimp hose service program. The Coll-O-Crimp® press T-400-1 and T-421U electric pump mount conveniently on top of the cabinet. If T-403-2 hand pump is used, a mounting bracket with hardware **(Part No. FH-136)** is available. The Coll-O-Crimp unit can also be powered by the air driven hydraulic pump T-402-1 with hand/foot treadle actuator which fits easily under the cabinet for foot operation or mounts to surface for hand use.

The FH-135X cabinet has 50 heavy duty plastic drawers which divide into one, two, three or four compartments providing ample space for a large selection of hose ends and adapters.

CAUTION: It is recommended these instructions be read thoroughly prior to set up, then used as a guide during actual assembly.

STEP 1 & 2: Attach legs with bolts, nuts and washers provided. Then label cabinet using the layout guide provided.

STEP 3: Mount T-400-1 Press on top left of cabinet. Predrilled holes align the press. Insert bolts from top of cabinet. Washers and nuts are threaded from underneath. Tighten.

STEP 4: T-421U Electric Pump. Mount on top right side of cabinet. Predrilled holes align the pump. Insert bolts from top of cabinet. Washers and nuts are installed from underneath. Tighten.

STEP 4a: T-402-2 Air/Hydraulic Pump. Mount on top right side of cabinet (see step 4) or place on the floor for easy foot pedal operation.

STEP 4b: T-403-2 Hand Pump. Mount on top right of cabinet (see step 4) by installing the FH-136 mounting bracket.

STEP 5: Remove plug from middle port on top of press.

STEP 6: Locate press/pump connecting hose assembly and remove 4315X6X8 For-Seal adapter from hose assembly. Thread into port on press (from Step 5) and tighten.

STEP 7: Remove plug from port on pump. (See page 2 for illustration of appropriate pump connecting port).

Electric Pump (T-421U): Remove 4315X6X8 For-Seal adapter from hose assembly (T-400-16) and thread into the top middle port of pump and tighten. Connect hose assembly to pump and press.

Air/Hydraulic Pump (T-402-1): Remove 4315X6X8 For-Seal adapter from hose assembly (T-400-18) and thread into middle port of press. Thread 4205X6X6 For-Seal adapter into the female 3/8" NPTF hydraulic swivel connector of the air pump. Connect (T-400-18) assembly to press and pump.

Hand Pump (T-403-2): Remove 4315X6X8 For-Seal adapter from hose assembly (T-400-19) and thread into middle port of press. Thread 4205X6X6 For-Seal adapter into rear port of pump. Connect hose assembly to press and pump.

Shop/Work Table Mounting

The following method of mounting your Coll-O-Crimp equipment package is offered as a guide and may be varied to suit your particular needs.

1. Open shipping cartons and remove all equipment and components.
2. Prepare mounting surface for Coll-O-Crimp press and power unit. Refer to Figure 1 for bolt hole layout and optimum working height.

   IMPORTANT - Care must be taken to insure that the surface to which the press is bolted is capable of supporting the weight of the press (approximately 113 lbs.) which extends 8-5/8" over the front edge of the mounting surface.
3. Bolt T-421U press to the mounting surface.
4. Place power unit on mounting surface adjacent to the T-421U press within convenient working distance.
5. Remove plug from middle port on top of press.
6. Locate press/pump connecting hose assembly and remove 4315X6X8 For-Seal adapter from hose assembly. Thread into port on press (from Step 5) and tighten.
7. See page 5 (step 7) for appropriate connecting port.
8. **ELECTRIC PUMP (T-421U):** Remove 4205X6X8 For-Seal adapter from hose assembly (T-400-16) and thread into the top middle port of pump. Connect hose assembly to pump and press.

Figure 1 - Bench Layout for Coll-O-Crimp® Equipment Set-Up

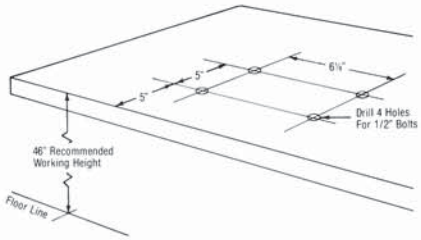
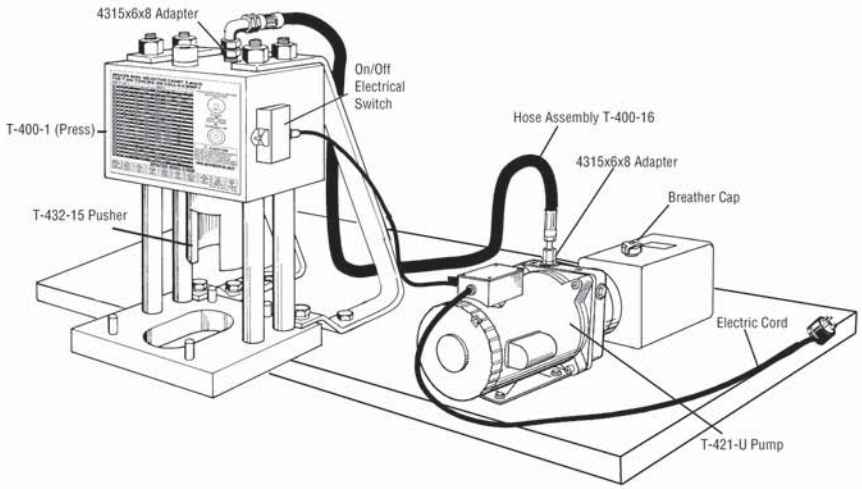


Figure 2 - Typical Coll-O-Crimp® Equipment Set-up on Shop/Work Table.



Hose End and Tool Selector Chart

WARNING – Proper Selection of Hose Ends: Selection of the proper end fittings for the hose end application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the end fittings for your application can result in leakage or the hose ends blowing off the hose, leading to serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong end fitting, you should carefully review the information in this catalog.

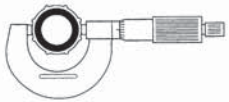
WARNING – Coll-O-Crimp® Hose, Hose Fittings and Assembly Equipment Compatibility: The Coll-O-Crimp® Equipment Package, Coll-O-Crimp® End Fittings, and Coll-O-Crimp® Hose have been engineered and designed as a complete hose assembly system. Each component of the Coll-O-Crimp® hose assembly system is compatible with other Coll-O-Crimp® components to which it relates. Component compatibility, along with the use of quality components, insures the production of reliable hose assemblies when assembled properly. The use or intermixing of fittings and hose not specifically engineered and designed for use with each other and Coll-O-Crimp® equipment is not recommended and may result in the production of unsafe or unreliable hose assemblies. This can result in hose assembly leakage, hose separation or other failures which can cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances. The Weatherhead warranty is limited to apply only when Coll-O-Crimp® end fittings and compatible Coll-O-Crimp® hose are used with Coll-O-Crimp® assembly equipment.

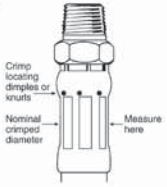
Nominal Crimp Diameter Measurement

Measuring crimp diameters should be a part of the normal hose assembly procedure. To insure a proper crimp diameter reading, follow these steps.

1. Measure the nominal crimp diameter of the hose end.
2. Place the caliper in a position to allow for a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters on following chart.

NOTE: In the larger sizes, calipers may be used. In the smaller sizes and in the 'E' Series thermoplastic hose ends, a point micrometer will provide an accurate reading.





Nominal crimp diameters are for Weatherhead hose and end fittings when crimped with Weatherhead Coll-O-Crimp® tooling.

Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Spacer Ring Color	Spacer Ring Flat Side	Nominal Crimp Dia.
H00905	5/16	N/R	05E	T-400-32C	Black	Up	.585
H00906	3/8	N/R	06E	T-400-33C	Black	Up	.655
H00908	1/2	N/R	08E	T-400-34C	Black	Up	.805
H01704	1/4	N/R	04U	T-400-2C	Yellow	Up	.580
H01706	3/8	N/R	06U	T-400-3C	Black	Up	.785
H01708	1/2	N/R	08U	T-400-4C	Silver	Up	.940
H01712	3/4	N/R	12U	T-400-5C	Silver	Up	1.235
H01716	1	N/R	16U	T-400-6C	Silver	Up	1.525
H01720	1-1/4	N/R	20U	T-400-12	Black	Up	1.785
H03912	3/4	N/R	*12U	T-400-5C	Silver	Up	1.230
H03916	1	N/R	*16U	T-400-6C	Silver	Up	1.520
H03920	1-1/4	N/R	*20U	T-400-12	Black	Dn	1.790
H03924	1-1/2	N/R	43024E	T-410-8C	White	Up	2.160
H03932	2	N/R	43032E	T-410-9	N/R		2.690
H06904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H06905	1/4	N/R	06905E	T-400-55C	Black	Up	.585
H06906	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H06908	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H06910	1/2	N/R	06910E	T-400-58C	Black	Up	.910
H06912	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080
H06916	7/8	N/R	06916E	T-400-60C	Black	Up	1.275
H06920	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520
H06924	1-3/8	N/R	06924E	T-400-70	Black	Up	1.730
H10404	1/4	N/R	*04U	T-400-2C	Black	Dn	.560
H10406	3/8	N/R	*06U	T-400-3C	Black	Dn	.740
H10408	1/2	N/R	*08U	T-400-4C	Black	Dn	.865
H10410	5/8	N/R	10U	T-400-64C	Black	Dn	1.000
H10412	3/4	N/R	*12U	T-400-5C	Black	Dn	1.160
H10416	1	N/R	*16U	T-400-6C	Black	Dn	1.445
H10420	1-1/4	N/R	*20U	T-400-12	Black	Dn	1.785
H10504	1/4	N/R	04U	T-400-2C	Black	Up	.610
H10506	3/8	N/R	06U	T-400-3C	Black	Up	.790
H10508	1/2	N/R	08U	T-400-4C	Silver	Up	.940
H10512	3/4	N/R	12U	T-400-5C	Silver	Up	1.230
H10516	1	N/R	16U	T-400-6C	Silver	Up	1.515
H10504	1/4	N/R	11504H	T-400-2C	Black	Up	.612
H10506	3/8	N/R	11506H	T-400-3C	Green	Up	.698
H10508	1/2	N/R	11508H	T-400-4C	Green	Up	.825
H10512	3/4	N/R	11512H	T-400-5C	Black	Up	1.210
H11404	1/4	N/R	04U	T-400-2C	Green	Up	.520
H11406	3/8	N/R	06U	T-400-3C	Green	Up	.695
H11408	1/2	N/R	08U	T-400-4C	Green	Up	.830
H11504	1/4	N/R	04U	T-400-2C	Black	Up	.610
H11506	3/8	N/R	06U	T-400-3C	Black	Up	.790
H11508	1/2	N/R	08U	T-400-4C	Silver	Up	.940
H11512	3/4	N/R	12U	T-400-5C	Silver	Up	1.230
H11516	1	N/R	16U	T-400-6C	Silver	Up	1.515
H11520	1-1/4	N/R	20U	T-400-12	Silver	Up	1.860
H11504	1/4	N/R	11504H	T-400-2C	Silver	Up	.645
H11506	3/8	N/R	11506H	T-400-3C	Black	Dn	.740
H11508	1/2	N/R	11508H	T-400-4C	Black	Dn	.865
H11512	3/4	N/R	11512H	T-400-5C	Silver	Up	1.240
H14504	1/4	N/R	04U	T-400-2C	Green	Up	.520
H14506	3/8	N/R	06U	T-400-3C	Green	Up	.695
H14508	1/2	N/R	08U	T-400-4C	Yellow	Dn	.870
H14510	5/8	N/R	10U	T-400-64C	Yellow	Up	1.010
H14512	3/4	N/R	12U	T-400-5C	Yellow	Dn	1.160
H14516	1	N/R	16S	T-400-6C	Yellow	Dn	1.445
H14516	1	N/R	43016U	T-420-6CN	Orange	Up	1.655
H14516	1	N/R	43016U	T-410-6CN	Orange	Up	1.655
H14604	1/4	N/R	04U	T-400-2C	Green	Up	.520
H14606	3/8	N/R	06U	T-400-3C	Green	Up	.695
H14608	1/2	N/R	08U	T-400-4C	Green	Up	.830
H16604	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H16605	1/4	N/R	06905E	T-400-55C	Black	Up	.585
H16606	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H16608	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H16610	1/2	N/R	06910E	T-400-58C	Black	Up	.910
H16612	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080
H16616	7/8	N/R	06916E	T-400-60C	Black	Up	1.275
H16620	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520
H16904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H16905	1/4	N/R	06905E	T-400-55C	Black	Up	.585
H16906	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H16908	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H16910	1/2	N/R	06910E	T-400-58C	Black	Up	.910

Designates Hose End and Tooling Change (T-400)

Designates Hose End and Tooling Change (Alternate)

Designates Hose End and Tooling Change (T-420)

Designates Hose End and Tooling Change (T-410)

Lubricate the tapered cone seat with Lubriplate grease or equivalent.

*Stainless Steel Hose End and Tool Selector Chart on page 56 of 411g catalog.

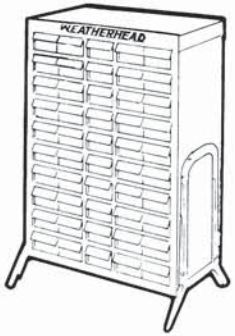
N/R – Not required **Dn** – Down

Stock Cabinets and Labels

FH-135X STOCK CABINET

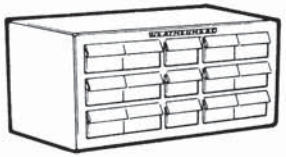
The FH-135X stock cabinet is designed specifically for your Coll-O-Crimp® hose service program. It provides an ideal hose service center by combining your hose assembly equipment and stock into one convenient location.

The sturdy FH-135X cabinet contains 50 heavy duty plastic drawers that can be divided into one, two, or three compartments allowing you ample space for a large selection of Coll-O-Crimp® hose ends and adapters.



FH-15X STOCK CABINET

Here is the ideal way to organize your inventory of hose ends and adapters. Stock it any way you want – to fit your particular needs. It can be used for field service or as a jobber display and stock cabinet. The rugged FH-15X cabinet contains 15 plastic drawers for stocking hose ends and adapters.



LABEL SETS FOR FH-15X & FH-135X CABINETS

LABEL SET NUMBER	DESCRIPTION
FS-100	Swivel Adapters
FS-200	JIC Steel Adapters
FS-300	Split Flange Adapters
FS-500	Barb-Tite® Hose Ends
FS-600	Reusable Hose Ends - 069 'D' & 247 'N' Series
FS-700	Reusable Hose Ends - 425 'N' Series
FS-1100	Coll-O-Crimp® Hose Ends - 'U' Series
FS-1200	Coll-O-Crimp® Hose Ends - 'E' Series
FS-1300	Coll-O-Crimp® Hose Ends - 430 'E' Series
FS-1500	Coll-O-Crimp® Hose Ends - 069 'E' Series
FS-1800	Coll-O-Crimp® Hose Ends - 470 'E' Series
FS-2000	Steel Pipe Adapters
FS-2200	Ready-Lok® Hose Ends & Adapters
FS-2300	Drain Cocks, Valves and Hose Ends
FS-2400	For-Seal Adapters
FS-2500	Metric Hose Ends
FS-2600	Metric Adapters
FS-3200	Coll-O-Crimp® Hose Ends - 757 'E' Series

Mobile Set-Up Instructions

INTRODUCTION: T-412 is designed for use with the Coll-O-Crimp I machine. See page 4 for specifications. Due to the mobile equipment application, caution must be taken when installing the DC unit. Adequate wiring is imperative for proper operation. If the battery is grounded to the engine, make sure the engine is grounded to the frame of the vehicle with the same wire gauge used for the power unit cable. Attach the positive cable to the positive battery terminal. Connect the opposite end of the positive cable to the power unit solenoid start switch while the DC unit is in operation. The vehicle's engine must be running to avoid battery discharge. Remember, the battery ground to the engine only is not sufficient. (See Diagram 'B' below). The current draw is several hundred amperes, so adequate wire size and battery capacity is absolutely essential. (See Diagram 'A' below). Direct wire ground to battery. Welding cable recommended.

Set Up Instructions:

The following method of setting up your Coll-O-Crimp equipment package is offered as a guide and may be varied to suit your needs.

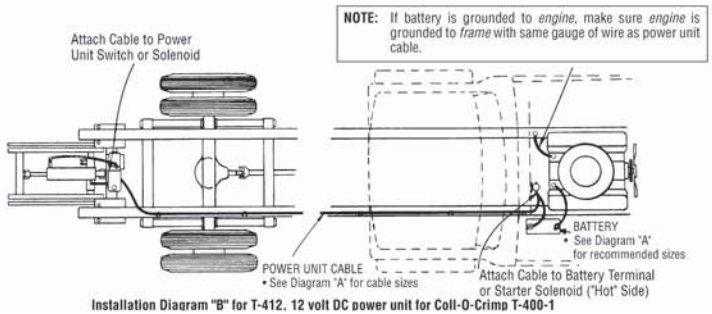
1. Before opening any shipping cartons, be sure proper grounding and wiring are used (See Diagram 'A' below).
   a. Check for a proper ground path. A ground from the battery to only the engine is not sufficient. Be sure the battery is grounded to the frame of the vehicle with the same gauge wire as the cable required for the pump. (See Diagram 'B' below).
   b. The pump must be grounded to the vehicle frame and not to the body. There are two 3/8-18 UNC tapped holes in the bottom of the pump housing for mounting the pump to the vehicle frame.
   c. Since current draw can exceed 200 amperes during the crimping cycle, adequate wire size is essential. Number 4 gauge wire is required for a cable length of up to 20 feet from the battery to the pump. Number 2 gauge wire is required for a cable length between 20 and 40 feet from the battery to the pump (see Diagram 'A' below).
   d. The 12 volt battery should have an ampere-hours rating of at least 70 and have a minimum of 11 plates per cell. For constant usage, when a large number of hose assemblies are to crimped, it would be appropriate during crimping to run the engine at a fast idle to maintain battery charge.
2. Open the shipping cartons and remove all equipment and components.
3. Prepare the mounting surface or surfaces for the Coll-O-Crimp press and the DC pump. **NOTE:** Care should be taken to insure that the press mounting surface is capable of supporting 113 pounds. The front edge of the press will extend 8-5/8 inches beyond the edge of the mounting surface. Figure 1, page 6, shows a typical bench layout for the crimper. Figure 2, page 6, shows a typical equipment set up with the DC Pump.
4. Bolt the press to the mounting surface using 1/2 inch bolts.
5. Remove the plug from the top of the press and connect the 4205X6X6 adapter from the hose assembly (T-400-21). This adapter can be adjusted easily for the best alignment of the hose assembly after the pump is mounted.
6. Place the T-412 DC pump on a properly grounded mounting surface within convenient working distance of the press. Remove the plug from the pressure port from the top-center of the pump housing and connect the 4315X6X8 adapter from the hose assembly (T-400-21). Loosely connect the T-400-21 hose assembly to the adapters in the press and pump. Locate the pump so that the hose will appear as shown in Figure 2, page 6.
7. Locate and drill mounting holes for the pump. There are two 3/8-16 UNC tapped holes, 1/2 inch deep and five inches apart in the bottom of the pump housing.
8. Bolt the pump to the mounting surfaces.
9. Tighten the hose connections.

   Check once again to be sure the pump and battery are properly grounded to the vehicle frame.

   Run a #1, #4 or #2 gauge wire power cable directly from the 'hot side' of the battery, or the 'hot side' of the engine starter solenoid, to the solenoid start switch on the pump. The solenoid start switch is strap mounted to the outside of the DC motor. The proper connection is the top post on the solenoid which also has a small wire going into the actuator mounting box on the side of the pump housing.

DIAGRAM 'A'

Minimum Wire Gauge & Battery Size									
Total Length of Cable								12 Volt Battery	
15 ft.	20 ft.	30 ft.	40 ft.	50 ft.	60 ft.	70 ft.	80 ft.	Number Plates/Cell	Amp. Hours
#4	#4	#2	#2	#1	#0	#0	#00	11	70



Installation Diagram "B" for T-412, 12 volt DC power unit for Coll-O-Crimp T-400-1

Check-out Procedure

Check oil level in power unit. The oil reservoirs in all power units have been filled at the factory; however, if oil is required see pages 2 and 4 for the recommended hydraulic oil.

CAUTION: Throughout the Check-out Procedure check all hose assembly/adapter connections for any leaks. Tighten if necessary.

Check-out using electric pump (T-421U)

1. Plug power cord into 220 volt, 60 cycle, single phase outlet. It is recommended that this unit have a 15 amp fused circuit.
2. Remove pipe plug from fluid fill port on top of reservoir and replace with plastic breather cap.
3. **The following steps should be conducted without tooling in press.**
4. Turn the electric motor switch to the 'on' position and hold during the crimp stroke. Allow piston to travel out of the cylinder until it bottoms (approximately 1"). NOTE: When the electric motor switch is turned on, the hydraulic pump is activated causing the piston on the press to travel downward.
5. Release electric motor switch. Piston will retract.
6. Repeat steps 4 and 5 approximately six times. This will purge the system.
7. With system properly purged, crimp stroke time will be approximately 3-5 seconds.
8. Attach pusher T-432-15 to press. See page 9 for crimping operation.

Check-out using air pump (T-402-1)

1. Connect air line to 1/4" NPT port on air pump. Air pressure available should be from 60 psi to 120 psi. NOTE: To insure that your pump does not become inoperative due to internal corrosion caused by moist air it is recommended that a suitable air line lubricator be installed near the pump air inlet. (Ref. page 4 for Weatherhead lubricator.) If a lubricator is not used, place 3 or 4 drops of a high grade oil directly into the air inlet port weekly.
2. Turn on air pressure to pump.
3. **The following steps should be conducted without tooling in press.**
4. Push hand/foot treadle. Allow the piston to travel out of the cylinder until it bottoms (approximately 1").
5. Release hand/foot treadle to return piston.
6. Repeat steps 4 and 5 approximately six times. This will purge the system.
7. With a system pressure of 95 psi, crimp stroke will be approximately 18-30 seconds.
8. Shut-off air supply to pump.
8. Attach Pusher T-432-15 to press. See page 9 for crimping operation.

Check-out using hand pump (T-403-2)

1. **Perform the following steps without tooling in press.**
2. Open finger tip control valve and pump the handle until piston bottoms (approximately 1").
3. Release finger tip control valve allowing the piston to return.
4. Repeat steps 2 and 3 approximately six times. This will purge the system.
5. Purging completed, attach pusher T-432-15 to press. See page 9 for crimping operation.

Check-out Procedure Using 12-Volt DC Pump (T-412)

1. Remove pipe plug from the port on top of the reservoir and replace with plastic breather cap.
2. **The following steps should be conducted without tooling in press.**
3. Turn the electric motor switch to the 'on' position and hold during the crimp stroke. Allow piston to travel out of the cylinder until it bottoms (approximately 1"). NOTE: When the electric motor switch is turned on, the hydraulic pump is activated causing the piston on the press to travel downward.
4. Release electric motor switch. Piston will retract.
5. Repeat steps 4 and 5 approximately six times. This will purge the system.
6. With system properly purged, crimp stroke time will be approximately 3-5 seconds.
7. Attach pusher T-432-15 to press. See page 9 for crimping operation.

Troubleshooting Procedures

Troubleshooting Coll-O-Crimp T-421U Electric Pump

IMPORTANT: Pressure must be relieved from system before disconnecting hose, installing gauge or removing valves from pump.

Step 1: Check fuse, loose wire connections, switch malfunctions or for damaged cord. Pump electric cord must be plugged into a grounded 220 volt, 60 cycle, single phase outlet on a 15 amp fused electrical circuit.

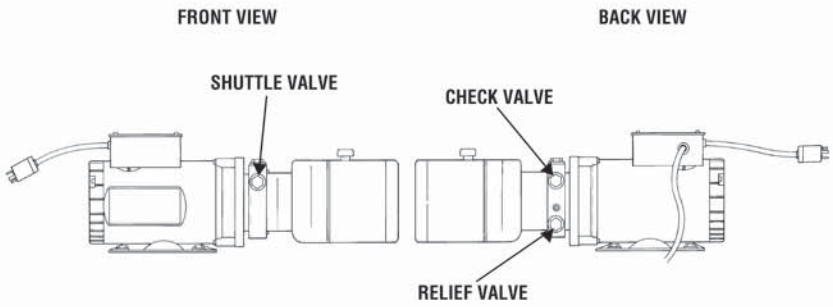
Step 2: Check oil level - after assembly and system has been purged of air the fluid level should be 1/2" from top of reservoir. Clean, anti-wear type, hydraulic oil having a (ISO 32) 300 SSU/100°F is recommended. Use only if operating temperature is below 0°F or above 160°F. (See current 411 catalog for oil types.) Oil is needed to:

1) Transmit power easily through system
2) Lubricate moving parts
3) Provide seal clearances between parts
4) To cool or dissipate heat

Step 3: Clean or Reset Relief Valve - A 6000 PSI pressure gauge, a 5/16" Allen wrench, a 1" socket and a screwdriver are required. Remove cap from relief valve. Remove adjustment screw, spring and ball. Ball should be attached to spring. Check ball and seat for possible scoring. Replace spring and ball in cavity. Insert a small punch through spring against ball. Give punch a moderate tap to seat ball. Return adjustment screw to original position making sure adjustment screw is at least one turn from bottoming. Remove 3/8" NPTF plug from port above check valve and install a 6000 PSI pressure gauge. With 6000 PSI pressure gauge in place, operate unit to full crimping position. Gauge should read 4000-4200 PSI. To raise setting, turn screw in (clockwise); to lower, turn screw out (counterclockwise); in 1/4 turn increments. After each adjustment, recycle and read gauge for proper setting. Run a cycle of the crimping system for final gauge reading before removing gauge and reinstalling pipe plug.

Step 4: Shuttle Valve - If the shuttle valve is in a closed position and Coll-O-Crimp pusher will not retract it may be helpful to tap the shuttle valve cap several times to dislodge any silt that may be causing stem to bind. If this does not free valve and allow pusher to retract use extreme caution prior to proceeding with shuttle valve removal as the system is still under pressure. It may be advisable to relieve pressure at a hose connection to avoid an oil bath. After pressure is removed from system, remove cap and valve cartridge. Soak cartridge in a PETROLEUM BASED SOLVENT ONLY (clean Stoddard solvent). Do not use Triethene, Gasoline or Paint Thinner as they will damage the O-Ring Seals. If cartridge disassembly is required, use care in removing stem as it has a .0005 metal seal fit. Rotate stem in solvent and push from seat end to remove from cartridge. Do not lose the loose ball. Wash parts in clean solvent and examine for any surface markings. If necessary polish with a fine crocus cloth. After final cleaning, reassemble cartridge. Shake cartridge and check for free movement of ball and stem. Replace cartridge if not functional at this point. Reassemble shuttle valve into its cavity and check crimping cycle prior to using system.

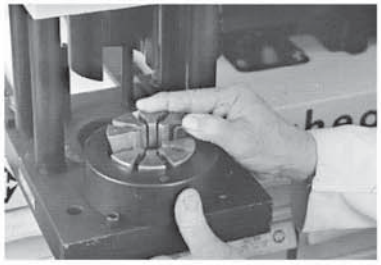
Troubleshooting Procedures



Troubleshooting Coll-O-Crimp T-421U Electric Pump

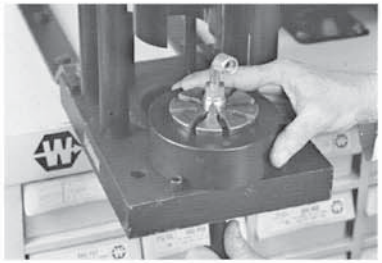
PROBLEM	CAUSE	SOLUTIONS (Page 13)
Pump/motor does not start	Blown fuse; Improper electrical hookup (cut cord, loose wire, switch malfunctions)	Step #1
Motor starts but blows fuses	High Amps; Pusher doesn't advance; Pump binding or scored; Cold oil	Step #1 Replace Pump
Motor runs - Pusher does not advance	Shuttle stuck open; Pump coupling sheared; Pump unload valve stuck open	Step #4 Replace Pump
Motor runs - Pusher advances but doesn't develop final crimp pressure, blows fuse	Pump unload valve stuck shut	Replace Pump
Motor runs - Pusher advances but doesn't develop final crimp pressure.	Relief valve leaking; Shuttle valve leaking; Relief valve set low	Step #3 Step #4 Step #3
Pusher won't retract	Shuttle valve stuck closed	Step #4
Pusher erratic movement	Low oil level Worn seal	Step #2 Replace Pump
Pump noisy: On start up only (Continuous)	Low room temp. - oil too thick Air leaking - low oil level	Use lighter weight oil Step #2
Oil temperature hot	Having unit operate at crimping PSI too long Low oil level; Pump worn (longer cycle time) Leaking RV, shuttle valve	Operate for 3 seconds at crimp pressure Step #2 Replace Pump Step #3, #4

Operating Instructions

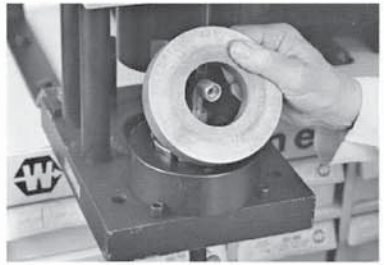


1. Place die ring T-400-8 on base plate against front stops.
2. Insert properly sized matched collet halves into the die ring. See chart on press.
   NOTE: For initial use, lubricate the tapered cone seat with lubriplate grease or equivalent premium grade pressure grease.

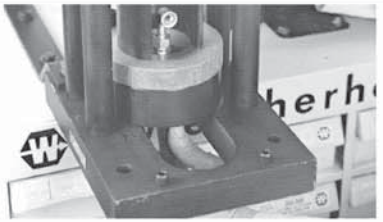
3. Place proper size Coll-O-Crimp hose end on hose. Be sure hose is bottomed in hose end. Reference Figure A, page 10.



4. Insert hose assembly from below between collet halves. Align the dimples on the hose end collar with the top of the collet. When using 757 Series ends, the collar should be flush with the top of the collet.*



5. Reference page 10, Figure B. Place appropriate side of spacer ring on top of collet with uncrimped hose assembly held in place.
6. Slide entire assembly back against rear locating stops.



7. Activate pump to crimp hose end to hose. When spacer ring contacts die ring, crimping is complete. Release the electric switch to retract pusher. Slide entire assembly forward and remove spacer ring.

8. Remove factory quality crimped hose assembly and visually inspect the crimped end. The crimp on the collar should be located ± 1/16" from the dimples or ridges.
9. To insure a proper crimp has been completed, measure the nominal crimp diameter as shown on page 10, Figure C.

CAUTION: Always hold the hose assembly in place from below throughout the crimping operation.

Operating Instructions (Con't)

Figure A

Insertion Depth

Place hose ends on hose until hose is bottomed in collar.
To insure that hose is bottomed in collar, mark the insertion depth on the hose before inserting it into the hose end. On aluminum hose ends, hose is bottomed when hose is visible in viewing hole in collar.

Hose I.D.	"U" Series Rubber	"E" Series Nylon/Teflon	069 "E" Series Truck Hose	757 Series Refrigerant Hose
3/16	---	7/8	1	–
1/4	1-1/2	7/8	1	–
5/16	---	15/16	1-3/32	1
3/8	1-7/16	15/16	---	–
13/32	---	---	1-3/32	1-1/8
1/2	1-7/16	1-1/16	1-3/32	1-3/32
5/8	1-15/16	---	1-5/16	1-3/32
3/4	2-1/8	1-1/4	---	–
7/8	---	---	1-5/16	–
1	2-3/16	1-11/32	---	–
1-1/8	---	---	1-3/8	–
1-1/4	2-5/16	---	---	–

Figure B

COLL-O-CRIMP® Spacer Ring

Typical spacer ring illustrating both sides of ring.

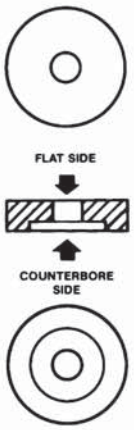


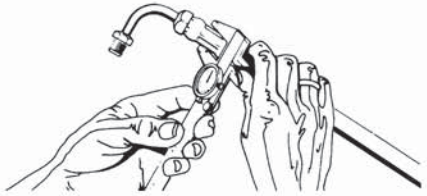
Figure C

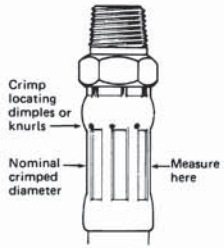
Nominal Crimp Diameter Measurement

Measuring crimp diameters should be a part of the normal hose assembly procedure. To insure a proper crimp diameter reading, follow these steps:

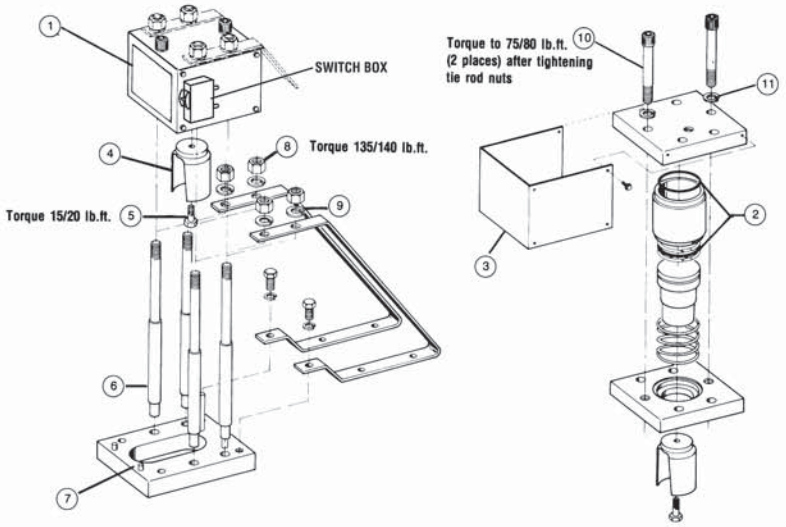
1. Measure the nominal crimped diameter of the hose end.
2. Place the caliper in a position to allow for a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters on pages 15 and 16.

NOTE: In the larger sizes, calipers may be used. In the smaller sizes and in the "E" Series thermoplastic hose ends, a point micrometer will provide an accurate reading.





Repair and Replacement Items



Item #	Part Number	Description
Not Shown	T-400-CG	Collet Feeler Gauge
1	T-400-D	Spacer Ring Selector Decal
2	T-400-K1*	Seal replacement kit for T-400-1 presses where the serial number ends with "04" or the "C"
2	T-400-K*	Seal replacement kit for T-400-1 presses other than above
3	T-400-S	Replacement press shroud with decals
4	T-432-15	Pusher
Not Shown	T-400-13	Replacement collet cage for T-400 'U' series collet with a 'C' suffix. (1/4" & 3/8" sizes only), (2 required for each collet).
Not Shown	T-400-14	Replacement collet cage for T-400 'U' series collet with a 'C' suffix (1/2"-1" sizes only), (2 required for each collet).
Not Shown	T-400-90	Replacement collet cage for T-400 'E', and 757 'A' & 'E' series collet with a 'C' suffix (2 required for each collet).
5	120-00428#	Cap screw-Hex head
6	140-04705#	Tie Rod
7	140-04704#	Base Plate
8	120-10273#	Nut
9	120-72274-13#	Lockwasher
10	120-00424-10#	Cap screw - socket head
11	120-72275-13#	Lockwasher

*Contents - O-ring upper cylinder (1 req'd) #Special order item
T-Ring (1 req'd)
Back-up rings (2 req'd)