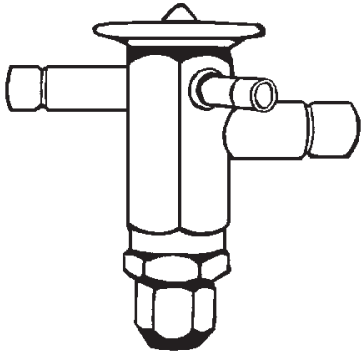


HF, HFK, TF Thermal Expansion Valve



①

Applications	Operating Ranges (°F)
R134a/R12/R401A Domestic Refrigeration and Freezers Ice Makers Dehumidifiers Transport Refrigeration Medium Temperature Supermarket Equipment Medium Temperature Commercial Equipment	FC/MC
	FZ/MZ
	EW 15/MW 15 (MOP)
	EW 35/MW 35 (MOP)
	MW 55
R22/R407C/R407A Residential AC & Heat Pumps Commercial and Industrial Chillers Dehumidifiers Transport Refrigeration Medium Temperature Supermarket Equipment Commercial Air Handlers	HAA/HCA AIR CONDITIONING & HEAT PUMP
	HW 100
	HC
	HW 35 (MOP)
	HW 65 (MOP)
R404A/R502/R402A/R507 Low Temp Freezers & Display Cases Ice Makers Commercial AC Soft Ice Cream Machines Environmental Chambers	RC/SC/PC
	RZ/SZ/PZ
	RW 45/SW 45/PW 45 (MOP)
	RW 65/SW 65/PW 65 (MOP)
	ZW 195
R410A	

Charge Selection

Selección de Carga

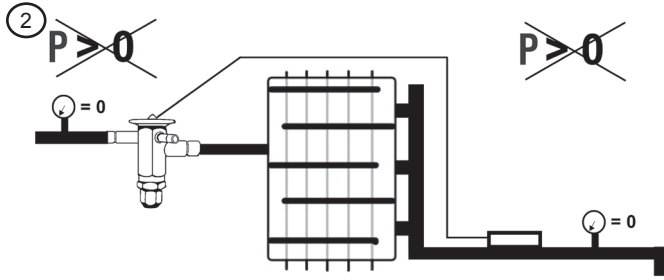
Seleção da Carga

Sélection de la charge

チャージ選定

차지 선택

充注选择



System Pressures: Installation or Removal

Reguladores de Presión del Sistema : Instalación o Remoción

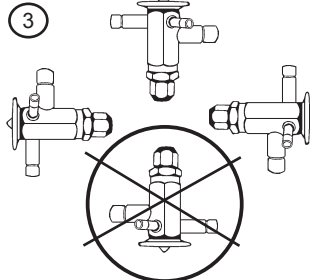
Pressões de Sistema:- Instalação ou Remoção

Systèmes sous pression: Installation ou enlèvement

装置圧力：取付け時または、取外し時

시스템 압력: 설치 혹은 제거

系统压力: 安装或拆除



Valve Orientation

Orientación de Válvulas

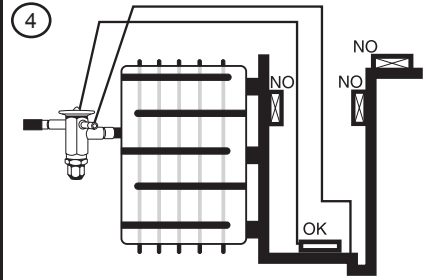
Orientação da Válvula

Orientation de la valve

バルブの向き

밸브 방향

阀的安装角度



Bulb & External Equalizer Locations

Ubicación del Bulbo Sensor y del Igualador Externo

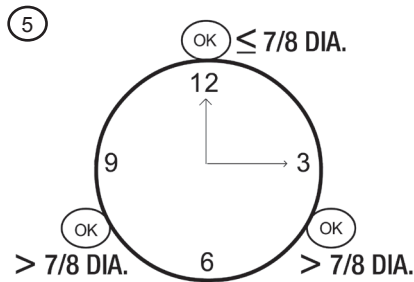
Localização do Bulbo e do Equalizador Externo

Location de la bulbe et de l'égalisateur externe

感温筒と外部均圧管取付け位置

감온구 과 외부 균압관 위치

感温包和外平衡管位置



Bulb Location

Ubicación del Bulbo Sensor

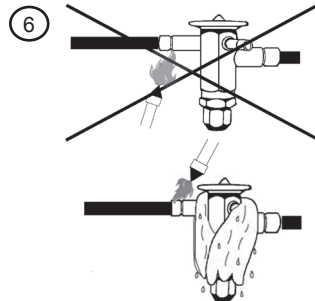
Localização do Bulbo

Location de la bulbe

感温筒の取付位置

감온구 위치

感温包位置



Solder Techniques

Técnicas para Soldar

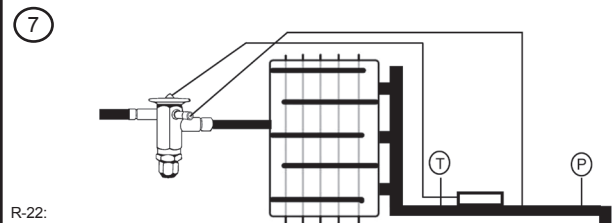
Técnicas de Soldagem

Technique de soudure

溶接方法

용접 기술

焊接技术



R-22:

1. T = 52°F (11°C)

2. P = 68 psig (4.7 bar g) → Tp = 40°F (4°C)

3. T - Tp = T_{SH}
52°F (11°C) - 40°F (4°C) = 12°F (7°C)

Determining Superheat

Determinación del Sobrecalentamiento

Definindo o Superaquecimento

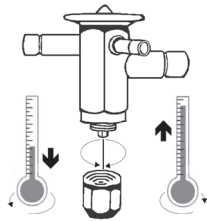
Détermination de la surchauffe

過熱度の設定

측정 과열도

确定过热度

8



Adjust Superheat

Sobrecalentamiento

Ajuste o Superaquecimento

Ajustement de la surchauffe

過熱度調整

과열도 조절

調整过热度.

9

TXV SUPERHEAT ADJUSTMENT							
Valve Family	"Total Turns"	Degrees of SH Per Turn					
		R-22		R-134a	R-404A/507A		R-410A
		+20°F	-20°F	+20°F	+20°F	-20°F	+40°F
HF	10	2.2	4.2	3.8	1.8	3.2	N/A
TF	10	3.0	5.0	4.5	2.0	4.0	2.0

Turn adjustment clockwise to increase superheat, counterclockwise to decrease superheat. To return to approximate original factory setting, turn adjustment stem counterclockwise until the spring is completely unloaded (reaches stop or starts to "ratchet"). Then, turn it back in one half of the "Total Turns" shown on the chart.

Approximate Superheat Change Per Turn

Grado de cambio aproximado de sobrecalentamiento por vuelta

Variação aproximada do superaquecimento por volta

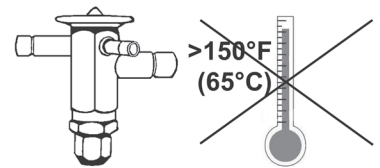
Changement approximatif de la surchauffe par tour

一回転あたりのおよその過熱度変化

한 바퀴당 변하는 대략의 과열도

每旋转一圈过热度的变化

10



Maximum Working Temperatures

Temperaturas Máximas de Trabajo

Temperatura Máxima de Operação

Température de fonctionnement maximal

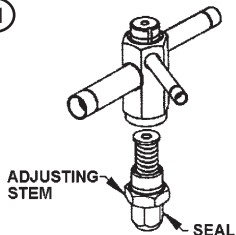
最高作動温度

최대 작동 온도

最高工作温度

Special Instructions - HF, HFK Standard Body Thermal Expansion Valve

11



Remove Adjusting Stem

Remueva el Vástago de ajuste

Remova o parafuso de ajuste

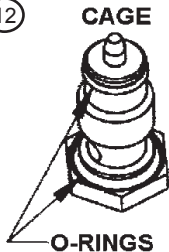
Enlever la tige d'ajustement

調整ステムを取り外す

조정변 제거

除去调节杆

12



Lubricate O Rings

Lubrique los "O" Rings

Lubrifique os anéis o'ring

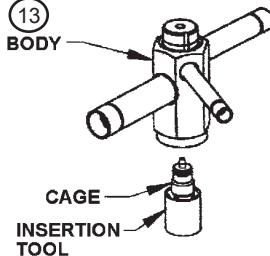
Lubrification des joints

オーリングに潤滑剤を塗る

윤활용 오링

润滑 O 型圈

13



Insert Cage and Hand Tighten

Inserte la Aguja y apriete manualmente

Insira o núcleo e aperte manualmente

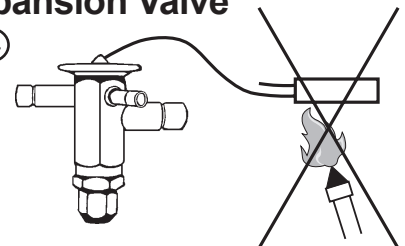
Insérer la cage et serrer à main

ケージを挿入し、手締めする

케이지 삽입후 조임

插入阀芯并用手拧紧

14



WARNING: Do Not Place Open Flame On or Near Bulb!

ADVERTENCIA: No coloque la llama abierta encendida sobre o cerca del bulbo!

AVISO: Não coloque a chama aberta sobre ou proximo ao bulbo!

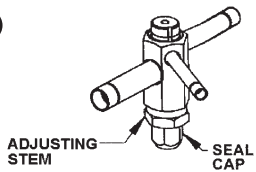
AVERTISSEMENT: Ne Pas Placer la Flamme Ouverte Sur ou près de l'Ampoule!

警告: 感温筒の周辺では火気厳禁

경고: 화기를 감온구 위나 근처에 두지 마시오.

警告: 请勿将感温包放置在明火附近!

15



Install Adjusting Stem Assembly - Hand Tighten Plus One Wrench Flat

Instale el ensamble del Vástago de ajuste.- Apriete manualmente y después una vez más con una llave plana

Instale o parafuso de ajuste da haste manualmente e depois aperte com uma chave de boca

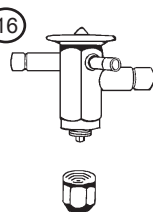
Installer la tige d'ajustement. Serrer à main plus un tour de clé

調整ステムアセンブリを取付け、手締め後にレンチフラット一個分を締める

조절부분 설치후, 한바퀴 더 완전히 조임

安装调节杆。用手拧紧并用扳手拧紧一圈

16



Remove Seal Cap

Quite el Tapón

Remova o Tampão

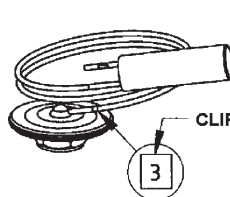
Enlever le capuchon étanchéité

シールキャップを取外す

봉인캡 제거

拿掉密封帽

17



Install Cage Clip Code

Instale el Clip identificador del número de la Aguja

Instale a identificação do orifício

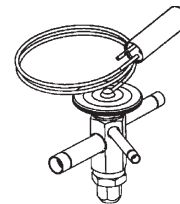
Installer le code de la cage avec l'attache

케이지코드클리프를取付ける

케이지 클립 설치

安装阀芯号码标签

18



Screw Power Element On Top of Body & Hand Tighten Plus One Wrench Flat

Atornille el Elemento de Poder a la parte superior del cuerpo y apriete manualmente y después una vez más con una llave plana

Rosquear a cabeça Termostática no topo do corpo manualmente e depois aperte com uma chave de boca

Viser l'élément thermostatique sur le corps et serrer à main plus un tour de clé

本体上部にパワーエレメントを手締めし、さらにレンチフラット一個分締める

바디 상부의 파워 엘리먼트 나사를 조인후, 한바퀴 더 완전히 조임

将动力头旋上阀体上端, 用手拧紧并用扳手拧紧一圈