

# REFRIGERANT SERVICE TOOLS

MANIFOLDS / CHARGING HOSES / VALVES





# High efficiency & High workability with ball valve

## BALL VALVE MANIFOLD AD



### Ball valve

- Open & close at 90 degrees.  
The valve fully opens at 90 degrees.

### Sight glass



- Possible to check a flow and condition of refrigerant during recovering and charging.

### Access port with valve core



- Access port that can be used for vacuuming and charging of refrigerant.

### ø80mm Color gauge

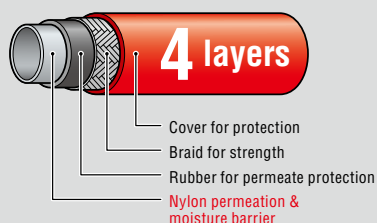


- Large and easy to read even on a picture.

### Body by aluminum material

- Body made by high quality aluminum material.

### Charging hose



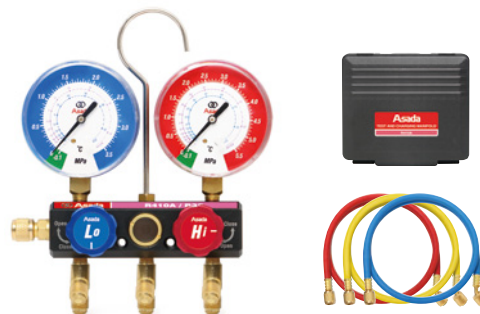
- Applicable to new refrigerant Four-layer double protection with rubber for permeate protection and special nylon for CHC, HCFC, and HFC.
- Special nylon prevents refrigerant from contamination with moisture.

For R32 • R410A

### Manifold AD Kit (with ball valve)

Code No. **AI115C**

R32 applicable	R410A applicable	Gauge diameter ø80mm	Ball valve	Sight glass
Low pressure	-0.1 ~ 3.5MPa	High pressure	-0.1 ~ 5.5MPa	
Connecting port size	1/4" flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa		



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm x 3, Case

※ 5/16" flare and charging hose are available.

For R12 • R22 • R502

### Manifold AD Kit (with ball valve)

Code No. **AI110C**

R12 • R22 • R502 applicable	Gauge diameter ø80mm	Ball valve	Sight glass
Low pressure	-0.1 ~ 2.5MPa	High pressure	-0.1 ~ 3.5MPa
Connecting port size	1/4" flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm x 3, Case

For R407C • R404A • R507A • R134a

### Manifold AD Kit (with ball valve)

Code No. **AI112C**

R407C • R404A • R507A applicable	R134a applicable	Gauge diameter ø80mm	Sight glass
Low pressure	-0.1 ~ 2.5MPa	High pressure	-0.1 ~ 3.5MPa
Connecting port size	1/4" flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm x 3, Case



# Standard & Simple manifold

## MANIFOLD BR

### Handle

- Outstanding airtightness with double O ring & high quality nylon packing.  
Easy to change a piston with a slide type.

### Sight glass



- Possible to check a flow and condition of refrigerant during recovering and charging.

### ø80mm Color gauge



- Large and easy to read even on a picture.

### Charging hose



**4 layers**

- Cover for protection
- Braid for strength
- Rubber for permeate protection
- Nylon permeation & moisture barrier

- Applicable to new refrigerant Four-layer double protection with rubber for permeate protection and special nylon for CHC, HCFC, and HFC.
- Special nylon prevents refrigerant from contamination with moisture.

For R32 • R410A

### Manifold BR Kit

Code No. **AI118**

R32 applicable	R410A applicable	Gauge diameter ø80mm	Sight glass
Low pressure	-0.1 ~ 3.5MPa	High pressure	-0.1 ~ 5.5MPa
Connecting port size	1/4" flare (UNF 7/16 ~ 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm × 3, Case

※ 5/16" flare and charging hose are available.

For R12 • R22 • R502

### Manifold BR Kit

Code No. **AI116**

R12・R22・R502 applicable		Gauge diameter ø80mm		Sight glass	
Low pressure	-0.1～2.5MPa		High pressure	-0.1～3.5MPa	
Connecting port size	1/4" flare (UNF 7/16～20TPI)		Proof: 5.5MPa / Burst: 27.5MPa		



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm × 3, Case

For R407C • R404A • R507A • R134a

### Manifold BR Kit

Code No. **AI125**

R407C • R404A • R507A applicable	R134a applicable	Gauge diameter ø80mm	Sight glass
Low pressure	-0.1 ~ 2.5MPa	High pressure	-0.1 ~ 3.5MPa
Connecting port size	1/4" flare (UNF 7/16 ~ 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	



Gauge diameter	Standard accessories
ø80mm	1/4" charging hose 92cm × 3, Case



For R32・R410A

## Ball Valve Type Single Manifold


R32  
applicable

R410A  
applicable

Plus II hose

Low pressure -0.1 ~ 3.5MPa

Connecting port size 5/16" Flare (UNF 1/2 ~ 20TPI)

ø80mm large gauge.

3 port type no need to change the connection from vacuuming to charging.

Code No.	Gauge Diameter	Standard Accessories
ES551	ø80mm	5/16" Charging hose 92cm×2, Case

※ Contact us for Calibration Certificate. (additional cost required)

For R410A

## Manifold Kit



R410A  
applicable

Plus II hose

Low pressure -0.1 ~ 3.5MPa

High pressure 0 ~ 5.5MPa

Connecting port size 5/16" Flare (UNF 1/2 ~ 20TPI) Proof: 5.5MPa / Burst: 27.5MPa

	Code No.	Gauge Diameter	Standard Accessories
	Y40951	ø68mm	5/16" Charging hose 92cm×3
	Y40951C	ø68mm	5/16" Charging hose 92cm×3, Case
	Y41715	ø68mm	5/16" Charging hose 152cm×3
	Y41715C	ø68mm	5/16" Charging hose 152cm×3, Case

※ Contact us for Calibration Certificate. (additional cost required)

For R32・R410A

## Manifold Kit


R32  
applicable

R410A  
applicable

Plus II hose

Low pressure -0.1 ~ 3.5MPa

High pressure 0 ~ 5.5MPa

Connecting port size 5/16" Flare (UNF 1/2 ~ 20TPI) Proof: 5.5MPa / Burst: 27.5MPa

Code No.	Gauge Diameter	Standard Accessories
Y4095132	ø80mm	5/16" Charging hose 92cm×3
Y4095132C	ø80mm	5/16" Charging hose 92cm×3, Case

※ Contact us for Calibration Certificate. (additional cost required)

For R32・R410A

## 4valve Manifold AF Kit

R32  
applicable

R410A  
applicable

Sight glass

Low pressure -0.1 ~ 3.5MPa

High pressure -0.1 ~ 5.5MPa

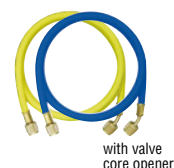
Connecting port size 5/16" Flare (UNF 1/2 ~ 20TPI) Proof: 5.5MPa / Burst: 27.5MPa

Code No.	Gauge Diameter	Standard Accessories
AI109C	ø80mm	1/4" Charging hose 92cm×3, 3/8" Charging hose 92cm×1, Case

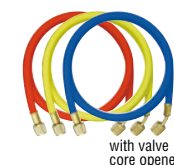
※ Contact us for Calibration Certificate. (additional cost required)


Suitable for R410A・R32 room air conditioner!!

Applicable to R32



※ Case is only for spec with case

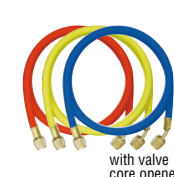
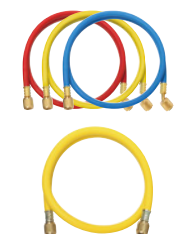


	Code No.	Gauge Diameter	Standard Accessories
	Y41711	ø68mm	5/16" Charging hose 92cm×3
	Y41711C	ø68mm	5/16" Charging hose 92cm×3, Case
	Y40954	ø68mm	5/16" Charging hose 152cm×3
	Y40954C	ø68mm	5/16" Charging hose 152cm×3, Case

Applicable to R32



※ Case is only for spec with case


4valve・4port improve working efficiency!!  
3/8" vacuuming port cuts working time!!




For R407C • R404A • R134a

## Manifold Kit


R407C • R404A • R507A  
applicable

R134a  
applicable

Plus II hose

Low pressure	-0.1 ~ 1.7MPa	High pressure	0 ~ 3.5MPa
Connecting port size	1/4" Flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	

Code No.	Gauge Diameter	Standard Accessories
Y40967	ø 68mm	1/4" Charging hose 92cm × 3
Y40969	ø 68mm	1/4" Charging hose 92cm × 3, Case

※ Contact us for Calibration Certificate. (additional cost required)

**MOST USED IN THE WORLD YELLOW JACKET  
SIDE VALVE MODEL !!**



※ Case is only for spec with case


with valve  
core opener

For R407C • R404A • R134a

## Manifold Kit (With ball valve)


R407C • R404A • R507A  
applicable

R134a  
applicable

Plus II hose

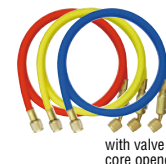
Low pressure	-0.1 ~ 1.7MPa	High pressure	0 ~ 3.5MPa
Connecting port size	1/4" Flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	

Code No.	Gauge Diameter	Standard Accessories
Y40970	ø 68mm	1/4" Charging hose 152cm × 3
Y40972	ø 68mm	1/4" Charging hose 152cm × 3, Case

※ Contact us for Calibration Certificate. (additional cost required)



※ Case is only for spec with case


with valve  
core opener

For R12 • R22 • R502

## Manifold Kit


R12 • R22 • R502  
applicable

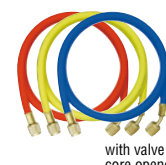
Low pressure	-0.1 ~ 2.4MPa	High pressure	-0.1 ~ 3.4MPa
Connecting port size	1/4" Flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	

Code No.	Gauge Diameter	Standard Accessories
Y41273	ø 68mm	1/4" Charging hose 92cm × 3
Y41274	ø 68mm	1/4" Charging hose 92cm × 3, Case

※ Contact us for Calibration Certificate. (additional cost required)



※ Case is only for spec with case


with valve  
core opener

For R12 • R22 • R502

## Manifold Kit (For heat pump)

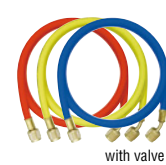

R12 • R22 • R502  
applicable

Low pressure	-0.1 ~ 3.4MPa	High pressure	-0.1 ~ 3.4MPa
Connecting port size	1/4" Flare (UNF 7/16 - 20TPI)	Proof: 5.5MPa / Burst: 27.5MPa	

Manifold kit with a gauge for heat pump.

Code No.	Gauge Diameter	Standard Accessories
Y41373	ø 68mm	1/4" Charging hose 92cm × 3, Case

※ Contact us for Calibration Certificate. (additional cost required)


with valve  
core opener



## Manifold gauge

**Manifold Gauge for R32 • R410A**

R32

R410A

Indicates accurate pressure by flutterless technology.

*Easy to read even on a picture !!*

Y49147



AI129



Y49148



AI126

**For high pressure**

Item	Code No.	Connecting screw	Pressure reading
ø68mm high pressure gauge (for R32)	Y49147	1/8"NPT	-0.1 ~ 5.5MPa
ø80mm high pressure gauge	AI129	1/8"NPT	-0.1 ~ 5.5MPa

**For low pressure**

Item	Code No.	Connecting screw	Pressure reading
ø68mm low pressure gauge (for R32)	Y49148	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm low pressure gauge	AI126	1/8"NPT	-0.1 ~ 3.5MPa

## Manifold gauge

**Manifold Gauge for R410A**

R410A

Indicates accurate pressure by flutterless technology.

Gauge with calibration certificate is suitable for sites required severe accuracy control.

*Easy to read even on a picture !!*

Y49053



Y49153 • Y49253



Y49054



Y49154 • Y49254

**For high pressure**

Item	Code No.	Connecting screw	Pressure reading
ø68mm high pressure gauge	Y49053	1/8"NPT	0 ~ 5.5MPa
ø80mm high pressure gauge	Y49153	1/8"NPT	-0.1 ~ 5.5MPa
ø80mm high pressure gauge with calibration certificate	Y49253	1/8"NPT	-0.1 ~ 5.5MPa

**For low pressure**

Item	Code No.	Connecting screw	Pressure reading
ø68mm low pressure gauge	Y49054	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm low pressure gauge	Y49154	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm low pressure gauge with calibration certificate	Y49254	1/8"NPT	-0.1 ~ 3.5MPa

**Gauge protector (2pcs)**

Protector for manifold gauges.  
Absorbs shock to the gauge and prevent off position of the needle.

*For protection of gauges from damage !!*

Item	Code No.
ø68mm	Y49090
ø80mm	Y49190

**Crystal gauge**

Cover for manifold gauge.



Item	Code No.
ø68mm	Y49010
ø80mm	Y49100





## Manifold gauge

### Manifold Gauge for R407C•R404A•(R507A)•R134a

Indicates accurate pressure by flutterless technology.

Gauge with calibration certificate is suitable for sites required severe accuracy control.

R407C • R404A • R507A  
※ ø68 gauge only for R507A

R134a

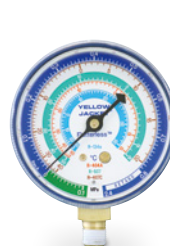
*Easy to read even on a picture !!*



Y49059



Y49163 • Y49263



Y49060



Y49164 • Y49264

#### For high pressure

Item	Code No.	Connecting screw	Pressure reading
ø68mm high pressure gauge	Y49059	1/8"NPT	0 ~ 3.5MPa
ø80mm high pressure gauge	Y49163	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm high pressure gauge with calibration certificate	Y49263	1/8"NPT	-0.1 ~ 3.5MPa

#### For low pressure

Item	Code No.	Connecting screw	Pressure reading
ø68mm low pressure gauge	Y49060	1/8"NPT	-0.1 ~ 1.7MPa
ø80mm low pressure gauge	Y49164	1/8"NPT	-0.1 ~ 2.4MPa
ø80mm low pressure gauge with calibration certificate	Y49264	1/8"NPT	-0.1 ~ 2.4MPa

## Manifold gauge

### Manifold Gauge for R12 • R22 • R502

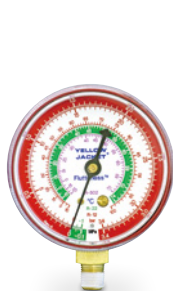
Indicates accurate pressure by flutterless technology.

Gauge with calibration certificate is suitable for sites required severe accuracy control.

Glycerine-filled gauges for less flutter to read accurate value.

R12 • R22 • R502

*Easy to read even on a picture !!*



Y49025



Y49143 • Y49243



Y49171



Y49026



Y49144 • Y49244



AI124



AI127

#### For high pressure

Item	Code No.	Connecting screw	Pressure reading
ø68mm high pressure gauge	Y49025	1/8"NPT	-0.1 ~ 3.4MPa
ø80mm high pressure gauge	Y49143	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm high pressure gauge with calibration certificate	Y49243	1/8"NPT	-0.1 ~ 3.5MPa
ø80mm glycerine high pressure gauge	Y49171	1/8"NPT	0 ~ 3.5MPa
ø80mm high pressure gauge	AI124	1/8"NPT	-0.1 ~ 3.5MPa

#### For low pressure

Item	Code No.	Connecting screw	Pressure reading
ø68mm low pressure gauge	Y49026	1/8"NPT	-0.1 ~ 2.4MPa
ø80mm low pressure gauge	Y49144	1/8"NPT	-0.1 ~ 2.4MPa
ø80mm low pressure gauge with calibration certificate	Y49244	1/8"NPT	-0.1 ~ 2.4MPa
ø80mm low pressure gauge (for heat pump)	Y49029	1/8"NPT	-0.1 ~ 3.4MPa
ø80mm low pressure gauge	AI127	1/8"NPT	-0.1 ~ 2.5MPa

### Gauge protector (2pcs)

Protector for manifold gauges.

Absorbs shock to the gauge and prevent off position of the needle.

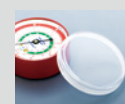
*For protection of gauges from damage !!*



Item	Code No.
ø68mm	Y49090
ø80mm	Y49190

### Crystal gauge

Cover for manifold gauge.



Item	Code No.
ø68mm	Y49010
ø80mm	Y49100





# Safe recovery of high pressure refrigerant !!

For R32 • R410A

## CHARGING HOSE PLUS II

Charging Hose Plus II is applicable to R410A and R32

Refrigerant pressure

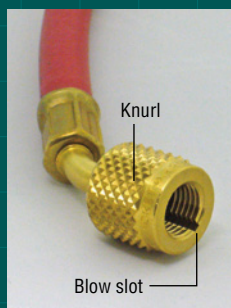
R22 → 1.6 times → R410A / R32

**4 layers**

- Cover for protection
- Braid for strength
- Rubber for permeate protection
- Nylon permeation & moisture barrier

■ Applicable to new refrigerant Four-layer double protection with rubber for permeate protection and special nylon for CHC, HCFC, and HFC.

■ Special nylon prevents refrigerant from contamination with moisture.



■ Large fitting with knurl is easy to turn by hand with a glove.

■ Blow slot prevents the residual refrigerant from blowing against the operator.

Screw size	5/16" flare (UNF 1/2 - 20TPI)
Working temperature	-28.8 ~ 82.2°C
Burst pressure	27.5MPa
Working pressure	5.5MPa
Safety factor	Working pressure 1 : Burst pressure 5
Max length of hose	~30m

※ Charging hoses for refrigerant are not applicable to Nitrogen Airtightness Test.

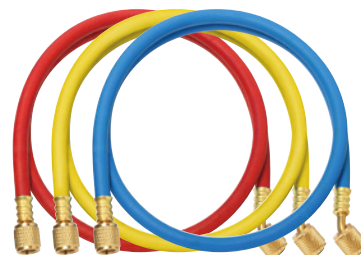
for R32 • R410A

### Charging Hose

R32	R410A	screw size 5/16"
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Ideal for R32 • R410A with high quality 4 layers.

#### Standard model for R32 • R410A



Length	Color	Code No.
92cm	Yellow	A1142
	Blue	A1144
	Red	A1140
	3 PCS	A1146

※ These hoses are not Plus II hose.

Length	Color	Code No.
152cm	Yellow	A1143
	Blue	A1145
	Red	A1141
	3 PCS	A1147

for R32 • R410A

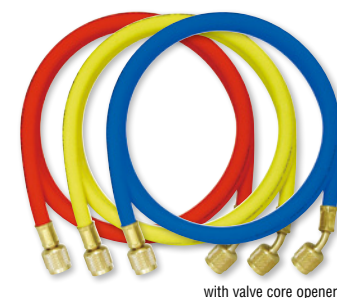
### Charging Hose Plus II PAT.



R32	R410A	screw size 5/16"
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Ideal for recovering R410A & R32 with 4 layers. Regardless of many layers, strong but flexible and easy to use.

#### High quality hose with high pressure resistance !!



Length	Color	Code No.
92cm	Yellow	Y21503
	Blue	Y21523
	Red	Y21563
	3 PCS	Y21583
152cm	Yellow	Y21505
	Blue	Y21525
	Red	Y21565
	3 PCS	Y21585

Length	Color	Code No.
244cm	Yellow	Y21508
	Blue	Y21528
	Red	Y21568
	3 PCS	Y21588

for R32 • R410A

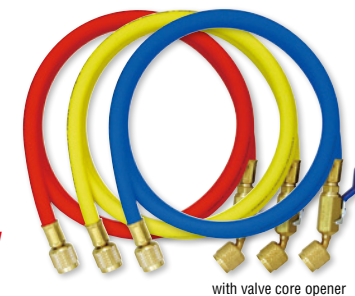
### Charging Hose Plus II (with ball valve) PAT.



R32	R410A	screw size 5/16"
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Hose for HCFC and HFC with ball valve to prevent refrigerant from venting. The tip of ball valve is adjustable opener that can be connected to the access port directly.

#### Prevent refrigerant from leaking !!



Length	Color	Code No.
92cm	Yellow	Y29003
	Blue	Y29203
	Red	Y29603
	3 PCS	Y29993
152cm	Yellow	Y29005
	Blue	Y29205
	Red	Y29605
	3 PCS	Y29995

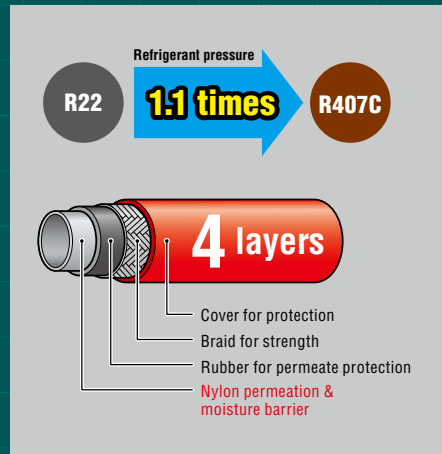
Length	Color	Code No.
244cm	Yellow	Y29008
	Blue	Y29208
	Red	Y29608
	3 PCS	Y29998



**High quality hose,  
high pressure resistance  
for safe works !!**

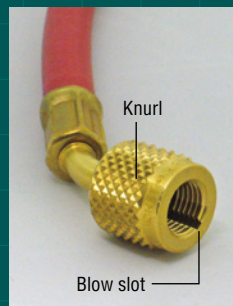
**For R407C • R404A • R507A • R34a**

## CHARGING HOSE PLUS II



■ Applicable to new refrigerant Four-layer double protection with rubber for permeate protection and special nylon for CHC, HCFC, and HFC.

■ Special nylon prevents refrigerant from contamination with moisture.



■ Large fitting with knurl is easy to turn by hand with a glove.

■ Blow slot prevents the residual refrigerant from blowing against the operator.

Screw size	1/4" flare (UNF 7/16-20TPI)
Working temperature	-28.8~82.2°C
Burst pressure	27.5MPa
Working pressure	5.5MPa
Safety factor	Working pressure 1 : Burst pressure 5
Max length of hose	~30m

※ Charging hose for CFC can't be used for Nitrogen Airtight Test.

for R407C • R404A • R507A • R134a

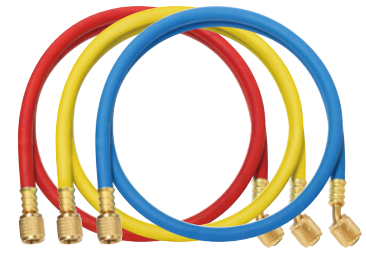
### Charging Hose

R407C • R404A • R507A

R134a

R12 • R22 • R502

screw size 1/4"



Length	Color	Code No.
92cm	Yellow	AI134
	Blue	AI136
	Red	AI132
	3 PCS	AI138

※ These hoses are not Plus II hose.

Length	Color	Code No.
152cm	Yellow	AI135
	Blue	AI137
	Red	AI133
	3 PCS	AI139

for R407C • R404A • R507A • R134a

### Charging Hose Plus II

PAT.



R407C • R404A • R507A

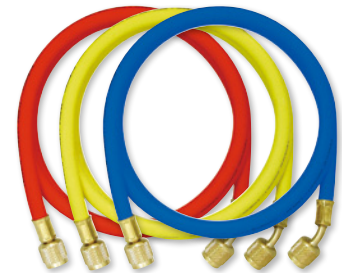
R134a

R12 • R22 • R502

screw size 1/4"

Four-layer double protection with rubber for permeate protection and special nylon hose for HFC such as R407C and R404A and HCFC like R22. Regardless of many layers, strong but flexible and easy to use.

**High quality hose with  
high pressure resistance !!**



with valve core opener

Length	Color	Code No.
30cm	Yellow	Y21012
	Blue	Y21212
	Red	Y21612
	3 PCS	---
92cm	Yellow	Y21036
	Blue	Y21236
	Red	Y21636
	3 PCS	Y21983
152cm	Yellow	Y21060
	Blue	Y21260
	Red	Y21660
	3 PCS	Y21985

Length	Color	Code No.
183cm	Yellow	Y21072
	Blue	Y21272
	Red	Y21672
	3 PCS	Y21986
244cm	Yellow	Y21096
	Blue	Y21296
	Red	Y21696
	3 PCS	Y21988

for R407C • R404A • R507A • R134a

### Charging Hose Plus II (with ball valve)

PAT.



R407C • R404A • R507A

R134a

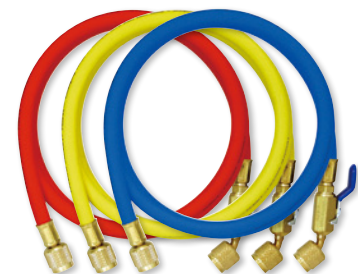
R12 • R22 • R502

screw size 1/4"

Hose for HCFC and HFC with ball valve to prevent refrigerant from venting.

The tip of ball valve is adjustable opener that can be connected to the access port directly.

**Prevent refrigerant from venting  
with a ball valve !!**



with valve core opener

Length	Color	Code No.
92cm	Yellow	Y29036
	Blue	Y29236
	Red	Y29636
	3 PCS	Y29983
152cm	Yellow	Y29060
	Blue	Y29260
	Red	Y29660
	3 PCS	Y29985

Length	Color	Code No.
183cm	Yellow	Y29072
	Blue	Y29272
	Red	Y29672
	3 PCS	---
244cm	Yellow	Y29096
	Blue	Y29296
	Red	Y29696
	3 PCS	Y29988



## Charging hose (different diameters)

**1/4" × 5/16" Charging Hose Plus II**

PAT.

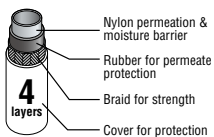
R32

R410A

R407 • CR404A • R507A

R134a

R12 • R22 • R502

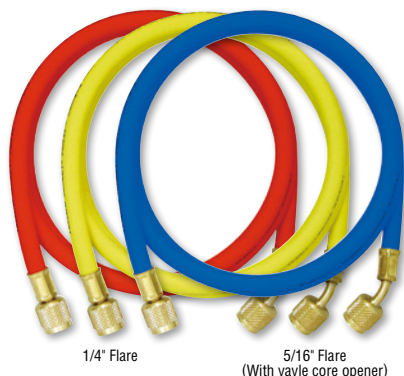


Screw size	1/4" Flare (UNF 7/16 - 20TPI) × 5/16" Flare (UNF 1/2 - 20TPI)
Proof / Burst	5.5MPa / 27.5MPa

Hose for R410R or R32 with metal fitting (1/4" and 5/16") to prevent refrigerant from venting. Regardless of many layers, strong but flexible and easy to use.

**One side 5/16" and the other side 1/4".**

**No need of different diameter adapter when connect R410A equipment to recovery machine !!**



Length	Color	Code No.
92cm	Yellow	Y21403
152cm	Yellow	Y21405
152cm	Blue	Y21425
152cm	Red	Y21465
183cm	Yellow	Y21406

## Charging hose (large diameter)

**3/8" Charging Hose Plus II**

PAT.

R32

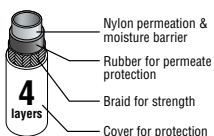
R410A

R407C • R404A • R507A

R134a

R12R • 22R • 502

Large flow



Screw size	3/8" Flare (UNF 5/8 - 18TPI)
Proof / Burst	4.1MPa / 20.7MPa
Working temperature	-28.8 ~ 82.2°C
Safety factor	1 (Proof) : 5 (Burst)

4-layers and large diameter long Plus II Hose.

Regardless of many layers, strong but flexible and easy to use.

**3/8" thick hose keeps enough flow specially for long distance works !!**



Length	Code No.	Length	Code No.
30cm	Y14512	500cm	Y14617
92cm	Y14536	762cm	Y14625
152cm	Y14560	1000cm	Y14633
183cm	Y14572	1500cm	Y14650
244cm	Y14596	2200cm	Y14675
366cm	Y14612	3000cm	Y14699

## Long charging hose

**1/4" Charging Hose Plus II (long type)**

PAT.

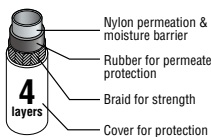
R32

R410A

R407 • CR404A • R507A

R134a

R12 • R22 • R502



Screw size	1/4" Flare (UNF 7/16 - 20TPI)
Proof / Burst	5.5MPa / 27.5MPa

Long type of Plus II Hose with four-layers.

Regardless of many layers, strong but flexible and easy to use.

**For any long distance works of charging / recovering refrigerant !!**



With valve core opener

Length	Code No.	Length	Code No.
500cm	Y21117	2200cm	Y21175
762cm	Y21125	3000cm	Y21200
1000cm	Y21133	5000cm	Y00211
1500cm	Y21150		

※ Please refer to P.33 for different diameter 5/16" female × 1/4" male. (Y06110K)

## Charging hose with hose reel (large diameter)

**3/8" Charging Hose Plus II (with Hose Reel)**

PAT.

Code No. **XP582**

R32

R410A

R407C • R404A • R507A

R134a

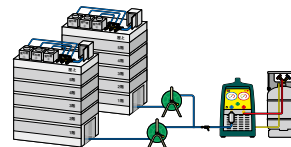
R12R • 22R • 502

Large flow

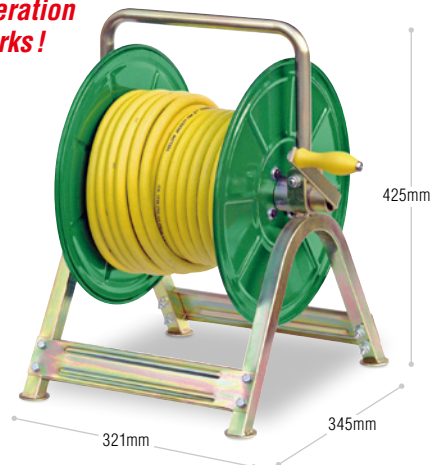
For 3/8" charging hose.

Reel up to 40m.

※ 30m Plus II hose in set.



**Prevent a decrease in efficiency of the operation at long distance works !**



Rollable hose size	Diameter : 3/8" • Length : ~ 40m
Accessories	3/8" Charging Hose Plus II 30m, Hose Reel



### Charging hose for large diameter

## 1/2" Heavy Duty Charging Hose Plus II

PAT.



R32

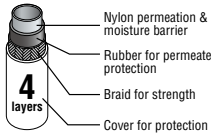
R410A

R407C•R404A•R507A

R134a

R12R•22R•502

Large flow



Screw size	1/2" Flare (UNF 3/4 - 16TPI)
Proof / Burst	4.1MPa / 20.7MPa
Working temperature	-28.8 ~ 93.3°C
Safety factor	1 (Proof) : 5 (Burst)

4-layers and large diameter long Plus II Hose.  
Regardless of many layers, strong but flexible and easy to use.

Length	Code No.	Length	Code No.
30cm	Y15812 (※1)	500cm	Y15917 (※1)
61cm	Y15824	762cm	Y15925 (※1)
92cm	Y15836	1000cm	Y15933 (※1)
183cm	Y15872	1500cm	Y15950 (※1)
244cm	Y15896	2200cm	Y15975 (※1)
366cm	Y15912 (※1)	3000cm	Y15999 (※1)

※ Other length of hoses are available. (max length - 50m)  
※1 Contact us for delivery date available.

*Even recover or vacuum from a distance, no decrease in efficiency with large diameter!!*



### Charging hose for large diameter

## 5/8" Heavy Duty Charging Hose Plus II

PAT.



R32

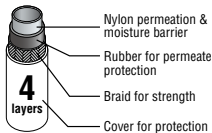
R410A

R407C•R404A•R507A

R134a

R12R•22R•502

Large flow



Screw size	5/8" Flare (UNF 7/8 - 14TPI)
Proof / Burst	4.1MPa / 20.7MPa
Working temperature	-28.8 ~ 93.3°C
Safety factor	1 (Proof) : 5 (Burst)

4-layered 5/8" heavy duty charging hose never become flat - ideal for vacuuming.  
Ideal for using a large recovery machine.

Length	Code No.	Length	Code No.
30cm	Y16012 (※1)	762cm	Y16125 (※1)
92cm	Y16036	1000cm	Y16133 (※1)
152cm	Y16060	1500cm	Y16150 (※1)
244cm	Y16096	2200cm	Y16175 (※1)
366cm	Y16112 (※1)	3000cm	Y16199 (※1)

※ Other length of hoses are available. (max length - 50m)  
※1 Contact us for delivery date available.

*Even recover or vacuum from a distance, no decrease in efficiency with large diameter!!*



### Charging hose for large diameter

## 3/4" Heavy Duty Charging Hose Plus II

PAT.



R32

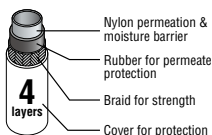
R410A

R407C•R404A•R507A

R134a

R12R•22R•502

Large flow



Screw size	3/4" Flare (UNF 1 1/16 - 14TPI)
Proof / Burst	4.1MPa / 20.7MPa
Working temperature	-28.8 ~ 93.3°C
Safety factor	1 (Proof) : 5 (Burst)

4-layered 3/4" heavy duty charging hose never become flat - ideal for vacuuming.  
Ideal for using a large recovery machine.

Length	Code No.	Length	Code No.
92cm	Y18436 (※1)	1500cm	Y18550 (※1)
244cm	Y18496	2000cm	Y18566 (※1)
300cm	Y18510	2200cm	Y18575 (※1)
500cm	Y18517 (※1)	2500cm	Y18582 (※1)
600cm	Y18520 (※1)	3000cm	Y18599 (※1)
1000cm	Y18533 (※1)	3800cm	Y18598 (※1)
1200cm	Y18540 (※1)		

※ Other length of hoses are available. (max length - 50m)  
※1 Contact us for delivery date available.

*Even recover or vacuum from a distance, no decrease in efficiency with large diameter!!*





Charging hose for standard A/C units R134a

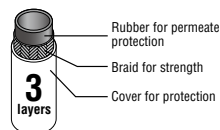
## Charging Hose for R134a M10



Blue: Code No. **Y02409M**

**R134a**

**Screw size M10**



Screw size	M10-1.5
Proof / Burst	3.4MPa / 17.2MPa
Working temperature	-10 ~ 40°C
Safety factor	1 (Proof) / 5 (Burst)

With valve opener which can be used for standard A/C units R134a.

### Repair parts

Item	Code No.
Hose packing for M10 (10 PCS)	<b>Y02501A</b>
Valve core opener (1 PCE)	<b>XP408</b>

Short hose with ball valve

## 3/8" Hose with Ball Valve (male × female) PAT.

Yellow: Code No. **Y26202**

**R32**

**R410A**

**R407C-R404A-R507A**

**R134a**

**R12R-22R-502**

**Large flow**



**Ideal for R134a equipments like heat pump !!**



M10 Flare (with valve core opener)

**Ideal for stopping refrigerant venting when removing the hose.**

**With Ball Valve, easy to see if the valve is Open/Close by the handle position !!**



23.5cm

Short hose with ball valve

## 1/4" Hose with Ball Valve (male × female) PAT.

Yellow: Code No. **Y25002**

Blue: Code No. **Y25202**

Red: Code No. **Y25602**

3 PCS: Code No. **Y25980**

**R32 (※)**

**R410A (※)**

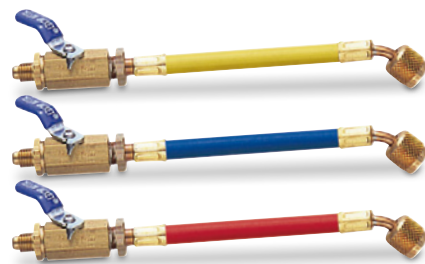
**R407C-R404A-R507A**

**R134a**

**R12-R22-R502**



**Ideal for stopping refrigerant venting when removing the hose.**



with valve core opener

23cm

※ When using for R32 and R410A, **Y19173**: 5/16" × 1/4" quick adapter and **Y19174**: 1/4" × 5/16" quick adapter are optionally required.

Short hose with ball valve

## 1/4" Hose with Ball Valve (female × male) PAT.

Yellow: Code No. **Y29001**

Blue: Code No. **Y29201**

Red: Code No. **Y29601**

3 PCS: Code No. **Y29980**

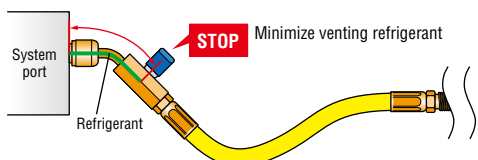
**R32 (※)**

**R410A (※)**

**R407C-R404A-R507A**

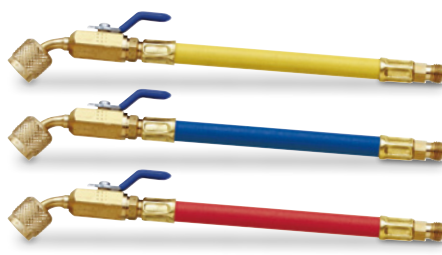
**R134a**

**R12-R22-R502**



**Stop venting refrigerant when removing the hose!!**

with valve core opener



23.5cm

※ When using for R32 and R410A, **Y19173**: 5/16" × 1/4" quick adapter and **Y19174**: 1/4" × 5/16" quick adapter are optionally required.



# High durability charging hose

## 1/4" Stainless Steel Braid Charging Hose



R32 (※) R410A (※) R407C•R404A•R507A R134a R12•R22•R502

Braided with stainless steel wire, high durability even under high pressure or high temperature.  
Penetration and moisture proof.

Suitable for high degree vacuuming.

Applicable to HFC, HCFC, CFC, R123, and other refrigeration oils.

※ Not applicable to ammonia.

Length	Code No.	Minimum bending radius	Screw size	Working pressure	Safety factor
92cm	Y81636	140mm or more	1/4" Flare (UNF 7/16-20TPI)	8.8MPa	1:4
122cm	Y81648				
152cm	Y81660				
1000cm	Y81733				
2000cm	Y81766				

※ Other screw size and hose length are available.

※ When using for R32 and R410A, Y19173: 5/16" × 1/4" quick adapter is optionally required.

**Ideal for vacuuming, charging, vibration isolating device, and movable parts !!**

**High durability with stainless steel braid !!**



# High durability charging hose (large flow)

## 1/8" Stainless Steel Braid Charging Hose



92cm : Code No. Y81736 122cm : Code No. Y81748

152cm : Code No. Y81760

R32 (※) R410A (※) R407C•R404A•R507A R134a R12•R22•R502

Braided with stainless steel wire, high durability even under high pressure or high temperature.  
Penetration and moisture proof.

Suitable for high degree vacuuming.

Applicable to HFC, HCFC, CFC, R123, and other refrigeration oils.

※ Not applicable to ammonia.

Minimum bending radius	165mm or more
Safety factor	1 (working pressure) : 5 (burst pressure)
Screw size	3/8" Flare (UNF 5/8-18TPI)
Working pressure	6.9MPa

**Ideal for vacuuming, charging, vibration isolating device, and movable parts !!**

**High durability with stainless steel braid !!**



# Solder typed charging hose

## Solder Joints Stainless Hose



R32 R410A R407C•R404A•R507A R134a R12•R22•R502

Ideal for permanent joint.

Connectable female to copper pipe and male to fitting.

Braided with stainless steel wire, high durability even under high pressure or high temperature.

Penetration and moisture proof.

Suitable for high degree vacuuming.

Applicable to HFC, HCFC, CFC, R123, and other refrigeration oils.

※ Not applicable to ammonia.

Length	Code No.	Pipe fitting size		Working pressure	Safety factor
		female	male		
92cm	Y86136	1/4"	—	8.8MPa	1:5
	Y86236	3/8"	—	6.9MPa	1:5
	Y86336	1/2"	—	8.3MPa	1:3.3
	Y85136	—	1/4"	8.8MPa	1:5
	Y85236	—	3/8"	6.9MPa	1:5
	Y85336	—	1/2"	8.3MPa	1:3.3

**Ideal for vacuuming, charging, vibration isolating device, movable parts, and also permanent joint !!**





For removing valve core

## Valve Core Tool


Code No. **Y19306**
**R32**  
applicable

**R410A**  
applicable

For removing valve core in service port.  
Possible to storage valve cores.  
Valve core applicable to CFC • HCFC • HFC.



Weight	Dimension	Standard accessories
50g	ø19×H42mm	Valve core×6 PCS

### Optional

Item	Code No	Quantity
Valve Core	<b>Y19305</b>	10 PCS

Preventing refrigerant from venting

## Ball Valve


**R32**  
(※)

**R410A**  
(※)

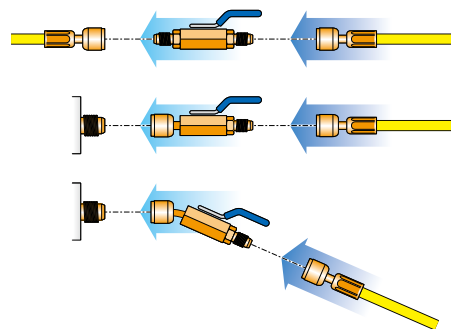
**R407C • R404**  
**R507A**
**R12 • R22**  
**R502**
**R134a**

Opening / closing •  
flowing • releasing  
Prevention

※ R32 &amp; R410A applicable to 5/16" port size items.

High performance Ball Valve applicable to CFC, HCFC, HFC.  
Applicable to high pressure refrigerant such as R32/R410A.  
Opening and closing are obvious in handle position with ball valve.

**Various valves in accordance with the situation.**  
**Ideal for stopping refrigerant venting !!**



Item				Code No.	Size	
					female	male
<b>1/4" Ball Valve</b>  With valve core opener	female × male	male × male	female × male	<b>Y93844</b>	1/4"	1/4"
			male × male	<b>Y93834</b>	—	1/4"
<b>1/4" Ball Valve 45°</b>  With valve core opener			female × male	<b>Y93843</b>	1/4"	1/4"
<b>3/8" Ball Valve</b>	female × male	male × male	female × male	<b>Y93846</b>	3/8"	3/8"
			male × male	<b>Y93836</b>	—	3/8"
<b>1/2" Ball Valve</b>	female × male	male × male	female × male	<b>Y93848</b>	1/2"	1/2"
			male × male	<b>Y93838</b>	—	1/2"
<b>5/16" Ball Valve 45°</b> (R32/R410A)  With valve core opener			female × male	<b>Y93827</b>	5/16"	5/16"
<b>1/4" × 5/16" Ball Valve 45°</b> (R32/R410A)  With valve core opener			female × male	<b>Y93826</b>	1/4"	5/16"
			female × male	<b>Y93825</b>	5/16"	1/4"
<b>1/8" NPT × 1/4" Ball Valve</b>			female × male	<b>Y69067</b>	1/4"	1/8" NPT



For connecting different sizes

## Adapter for Different Diameter



For the joints of different diameter



① quick type

with valve  
core opener


For port size change !!

② wrench tightning type



③ hand tightning type



Item	Code No.	Size	
		female	male
Adapter for Different Diameter (Quick type)	① Y19102	1/4"	3/8"
	② Y19130	3/8"	1/4"
	③ Y19133	1/2"	3/8"
Adapter for Different Diameter (Wrench tightning type)	② Y19131	1/2"	3/8"
	② Y19132	1/2"	1/4"
	② Y19133	3/8"	1/2"
Adapter for Different Diameter (Hand tightning type)	③ Y06110K	5/16"	1/4"
	③ Y06114K	1/4"	5/16"
	③ Y06115K	5/16"	3/8"
	③ Y06116K	1/4"	3/8"

### Repair parts

Item	Code No.
O-ring for Adapter for Different Diameter P6	XP542
O-ring for Adapter for Different Diameter 10 PCS (For Y19133)	Y19030

For port size change !!



Item	Code No.	Size	
		female	male
Adapter for Different Diameter (Copper packing)	XP765	3/4"	5/8"
	XP766	5/8"	1/2"
	XP767	1/2"	1/4"
	XP769	5/8"	3/4"
	XP770	1/2"	5/8"
	XP773	3/8"	1/2"
	ES358	1/4"	1/2"

For preventing leaks from ports

## Metal Cap with Strap

Strong metal flare cap.

Packing doesn't come off when detaching under the pressure.

To prevent leakage of refrigerant from A/C and storage tanks.



Item	Code No.	Item	Code No.
① 1/4"	AP3953	③ 3/8"	AP3955
① 1/4" (4PCS)	AP053	③ 3/8" (2PCS)	AP055
② 5/16"	AP3954	④ 1/2"	AP3957
② 5/16" (2PCS)	AP054		

Replacement gaskets for rubber charging hose

## Hose Gasket (10PCS)



1/4" • 5/16" : Code No. Y19020

3/8" : Code No. Y19011

1/2" • 5/8" : Code No. Y19015

3/4" : Code No. Y19012

Gaskets for rubber Charging Hose, Quick Charging Valve, Ball Valve, Quick Adapter, and Adapter for different diameters.



Y19020

Y19011

Y19015

Y19012

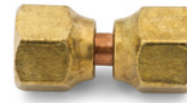
※ Please refer to P.30 for charging hoses whose code no. ends with A or M.

Copper pipe fitting

## Brass Fitting

For copper pipe fitting !

① Flare Female Joint



② Flare Plug


③ Internal Flare Union  
(with copper packing)

④ Flare Seal Cap  
(with gasket)


Item	Code No.	Quantity
① Flare Female Joint 1/4"	BF0020	1
① Flare Female Joint 3/8"	BF0021	1
① Flare Female Joint 1/2"	BF0022	1
① Flare Female Joint 5/8"	BF0023	1
② Flare Plug 1/4"	BF0015	5
② Flare Plug 3/8"	BF0016	5
② Flare Plug 1/2"	BF0017	5
② Flare Plug 5/8"	BF0018	1
② Flare Plug 3/4"	BF0019	1
③ Internal Flare Union 1/4"	XP502	1
③ Internal Flare Union 3/8"	ES714	1
③ Internal Flare Union 1/2"	XP504	1
④ Flare Seal Cap 1/4"	BF0024	5

For preventing leaks from ports

## Flare Cap (6PCS)

1/4" : Code No. XP693

5/16" : Code No. XP793

Packing doesn't come off when detaching under the pressure.

To prevent leakage of refrigerant from A/C and storage tanks.



Material	Plastic
----------	---------

Replacement valve opener for charging hose

## Valve Core Opener (10PCS)



Code No. Y19302

Valve core opener for Charging Hose, Ball Valve, Quick Adapter.



Size	For 1/4" • 5/16"
------	------------------

※ Please refer to P.30 for charging hoses whose code no. ends with A or M.



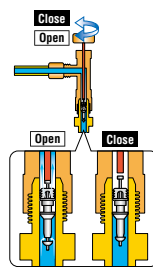
Stop venting refrigerant

## Access Control Valve

Valve opener

Insert to the service port and control refrigerant flow by open/close valve.  
Prevent venting refrigerant when disconnect the hose.

Code No.	<a href="#">Y18994A</a>	<a href="#">Y18993C</a>
Applicable to	R32, R410A	R407C, R404A, R507A, R134a, R12, R22, R502
Size	5/16" (UNF 1/2-20)	1/4" (UNF 7/16-20)
Spare Parts	Gasket (1pcs): <a href="#">Y020010ES</a>	O-ring P8 (10pcs) HNBR: <a href="#">XP576</a> O-ring P4 (10pcs) HNBR: <a href="#">XP577</a> Gasket (10pcs): <a href="#">Y08000K</a>



**Prevent refrigerant from venting when disconnect the hose !!**



For charging refrigerant safely with filter

## Charge Faster

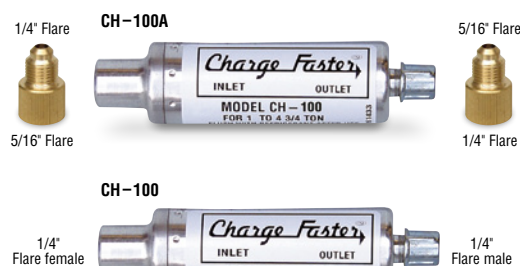
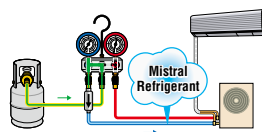
CH-100A: Code No. [WA6628](#)

CH-100: Code No. [WA6625](#)

Built-in mesh filters prevent dust from entering.

**Changes liquid refrigerant to vapour and charges to the system safely without load !!**

Item	CH-100A	CH-100
Applicable to	R32, R410A	R407C, R404A, R507A, R134a, R12, R22, R502
Screw size	5/16" Flare female x 5/16" Flare male	1/4" Flare female x 1/4" Flare male
Application	Small system (~3/4t)	Small system (~3/4t)



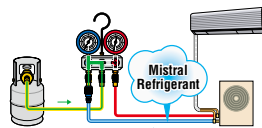
For charging refrigerant safely

## Liquid Charge Adapter



**Changes liquid refrigerant to vapour and charges to the system safely without load !!**

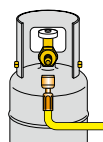
Code No.	<a href="#">Y41124</a>	<a href="#">Y41123</a>
Applicable to	R32, R410A	R407C, R404A, R507A, R134a, R12, R22, R502
Screw size	5/16" Flare female x 5/16" Flare male	1/4" Flare female x 1/4" Flare male
Application	Small system	Small system
Spare Parts	5/16" O-ring • Orifice (for LC adapter): <a href="#">Y41138</a>	1/4" O-ring • Orifice (for LC adapter): <a href="#">Y41132</a>



Adapter for connecting

## Cylinder Adapter

Adapter for connecting refrigerant cylinder to charging hose.



**For direct connection of a refrigerant cylinder for R32 • R410A to a charging hose !!**

Code No.	<a href="#">Y07101A</a>	<a href="#">Y07102A</a>	<a href="#">XP451</a>	<a href="#">XP563</a>	<a href="#">XP564</a>
Applicable to	R32, R410A	R407C, R404A, R507A, R134a, R12, R22, R502	R407C, R404A, R507A, R134a, R12, R22, R502	R407C, R404A, R507A, R134a, R12, R22, R502	R407C, R404A, R507A, R134a, R12, R22, R502
Size	W26-14 female 5/16" male flare	W26-14 female 1/4" male flare	W26-14 female 3/8" male flare	W26-14 female 1/2" male flare	W26-14 female 3/4" male flare
Spare Parts	Gasket for Cylinder Adapter (1/4" • 5/16" • 3/8"): <a href="#">XP555</a>	Gasket for Cylinder Adapter (1/2"): <a href="#">XP672</a> , Gasket for Cylinder Adapter (3/4"): <a href="#">XP673</a>	Gasket for Cylinder Adapter (1/4" • 5/16" • 3/8"): <a href="#">XP555</a> , Gasket for Cylinder Adapter (1/2"): <a href="#">XP672</a> , Gasket for Cylinder Adapter (3/4"): <a href="#">XP673</a>	Gasket for Cylinder Adapter (1/4" • 5/16" • 3/8"): <a href="#">XP555</a> , Gasket for Cylinder Adapter (1/2"): <a href="#">XP672</a> , Gasket for Cylinder Adapter (3/4"): <a href="#">XP673</a>	Gasket for Cylinder Adapter (1/4" • 5/16" • 3/8"): <a href="#">XP555</a> , Gasket for Cylinder Adapter (1/2"): <a href="#">XP672</a> , Gasket for Cylinder Adapter (3/4"): <a href="#">XP673</a>