

## JOHNSON CONTROLS

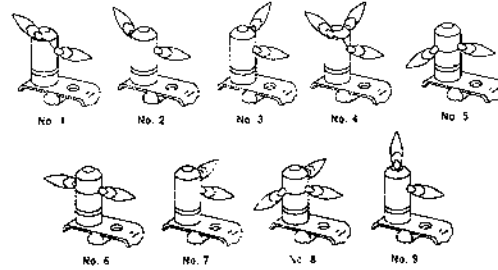
### J SERIES MULTI-MOUNT UNIVERSAL PILOT BURNER

- Mounting bracket on all four sides
- 3 Tapped holes in each bracket end for vertical adjustment
- LP & Natural Gas orifice supplied
- Nuts & bolts furnished in each package



RMI Part No.	Description
J999MHA-2	Universal Pilot Burner
J999MKA-2	Universal Pilot Burner
J999MYA-2	Universal Pilot Burner

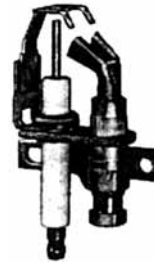
### J SERIES COMBINATION TYPE PILOT BURNERS



RMI Part No.	Tip Position
J993MDA-2	3
J996MDA-2	6
J998MDA-2	8
J999MDA-2	9

## HONEYWELL

### Q345A IGNITER-SENSOR



RMI PART NO.	POSITION
Q345A 1305	Straight
Q345A 1313	Left
Q345A 1321	Right

Q345A Pilot assemblies are factory set for natural gas. LP orifices are below.

#### LP ORIFICES

RMI Part No.	OEM #	Size
390686-1	BBR10	.010
390686-25	BBR12	.012

## ROBERT SHAW PILOT ORIFICES



1890 (#11EA)

RMI Part No.	Pilot Usage	Gas Type	Tube Size	Orifice Size
10-067	#11EA	LP		.010



1898 (#40, #70 & #71)

RMI Part No.	Pilot Usage	Gas Type	Tube Size	Orifice Size
10-067	#70 & #71	LP		.010
10-045	#40	LP		.013



1820, 1830 (2C, 2CH)

RMI Part No.	Gas Type	Tube Size	Orifice Size
10-114	LP	1/4"	.010
10-210	LP	1/4"	.016
10-211	LP	1/4"	.011



1898 (#40, #70 & #71)  
(MP100, 400, #54, #55, #63, #64, #65)

RMI Part No.	Pilot Usage	Gas Type	Tube Size	Orifice Size
10-035	#54, MP100	LP	1/4"	.010

## FERRULE COMPRESSION SLEEVE

RMI Part No.	Description
600-1/8	1/8" Ferrule Sleeve
600-3/16	3/16" Ferrule Sleeve
600-1/4	1/4" Ferrule Sleeve
600-3/8	3/8" Ferrule Sleeve



## COMPRESSION NUT

RMI Part No.	Description
610-1/8	1/8" Compression Nut
610-3/16	3/16" Compression Nut
610-1/4	1/4" Compression Nut
610-3/8	3/8" Compression Nut
4590-817	1/4" Extended Nut



610 Series  
Standard Nut



4590-817  
Extended Nut

## UNION TUBE TO TUBE

RMI Part No.	Description
62-2	1/8" Compression Union
62-3	3/16" Compression Union
62-4	1/4" Compression Union
62-6	3/8" Compression Union



## BREAKAWAY FERRULES



Standard Breakaway



Extended Breakaway

RMI Part No.	Description
620-1/8	1/8" x 1/8" Tube
620-3/16	3/16" x 3/16" Tube
620-1/4	1/4" x 1/4" Tube
620-3/8	3/8" x 3/8" Tube
R-4669	1/4" x 3/16" Tube
R-1633-1/8	1/4" x 1/8" Extended
R-2972	1/4" x 1/4" Extended

## PILOT TUBING



### ALUMINUM TUBING—50 Ft. Coils

RMI Part No.	Description
11-191	1/8" Aluminum Tube—50 Ft. Coil
11-192	3/16" Aluminum Tube—50 Ft. Coil
11-193	1/4" Aluminum Tube—50 Ft. Coil
11-194	5/16" Aluminum Tube—50 Ft. Coil
11-195	3/8" Aluminum Tube—50 Ft. Coil
11-198	1/2" Aluminum Tube—50 Ft. Coil

### PILOT TUBING KIT

ALUMINUM TUBING—5 Ft. Coils  
w/nuts, sleeves & breakaway ferrules

RMI Part No.	Description
ALUM-1/8-5	1/8" Aluminum Tubing Kit
ALUM-3/16-5	3/16" Aluminum Tubing Kit
ALUM-1/4-5	1/4" Aluminum Tubing Kit
ALUM-5/16-5	5/16" Aluminum Tubing Kit
ALUM-3/8-5	3/8" Aluminum Tubing Kit
ALUM-7/16-5	7/16" Aluminum Tubing Kit

## COMPRESSION FITTING KIT



Contains 20 popular fittings.  
Kit box included for storage of fittings.

### Kit Includes:

- 12 ea.—R-1633-1/8; R-2972
- 12 ea.—600-1/4; 600-1/8; 600-3/16; 600-3/8
- 12 ea.—610-1/4; 610-1/8; 610-3/16; 610-3/8
- 12 ea.—620-1/4; 620-1/8; 620-3/16; 620-3/8
- 12 ea.—62-2; 62-3; 62-4
- 6 ea.—62-6

RMI PART NO.	COMPFITKIT-1
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## UNIVERSAL 9B PILOT UNI-KIT

The 1800-100 is a 4-ported pilot designed to replace all obsolete Model 98 pilot variations. Kit fits 1/4" or 3/16" tubing and orifices for LP-Gas and Natural Gas.

RMI Part No.	Description
1800-100	Universal 9B Pilot Uni-K



## UNIVERSAL 2B PILOT UNI-KIT

The 1810-100 is designed to replace all obsolete 2B pilot which is no longer in production. Kit fits 1/4" or 3/16" tubing and orifices for LP and Natural Gas.



RMI Part No.	Description
1810-100	Universal 2B Pilot Uni-K

## PG9 REPLACEMENT PILOT UNI-KITS

UniKit comes with a natural gas orifice installed and a separate LP orifice. Special 1/4" tubing adaptor is provided. These 1820 series UniKits feature aerated type pilots, providing non-linting characteristics. No air shutters or supplementary shields are required.



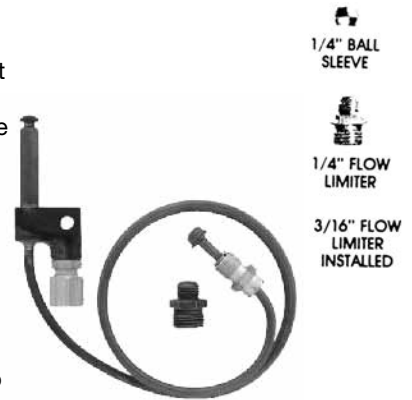
RMI Part No.	Flame Pattern	Thermopile Included	Replaces Part
1820-009	90° Right	Yes	PG9A42JTL020
1820-019	90° Left	Yes	PG9A41JTL020
1820-029	90° Right	Pilot Only	
1820-039	90° Left	Pilot Only	

**OTHER ROBERTSHAW, HONEYWELL, AND JOHNSON CONTROLS PILOT BURNERS ARE AVAILABLE**

**PLEASE CALL RAY MURRAY INC. CUSTOMER SERVICE FOR ALTERNATIVE RECOMMENDATIONS OR SELECTIONS**

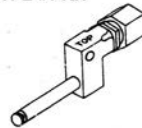
## MINI-PILOTS

The 1851 Combination Pilot Burner and Thermocouple Kits are designed to provide coverage of the Mini-Pilot 100 Series with less inventory. Mini-Pilots are non-aerated (no primary air) and can be used on all gases with no orifice change. Kits come with 3/16" flow limiter installed and with fittings to adapt to 1/4" inlet size when required.



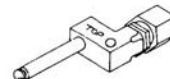
- 1/4" BALL SLEEVE
- 1/4" FLOW LIMITER
- 3/16" FLOW LIMITER INSTALLED

HORIZONTAL ANGLE TYPE #1 KIT



RMI Part No.	Tube Length
1851-052	36"

HORIZONTAL ANGLE TYPE #2 KIT



RMI Part No.	Tube Length
1851-002	24"
1851-052	36"

HORIZONTAL ANGLE TYPE #4 KIT



RMI Part No.	Tube Length
1851-152	36"

## JUNCTION BLOCK ADAPTOR

Converts any Johnson Controls Thermocouple lead to a junction block application.

RMI Part No.	Description
Y99AN-1	Junction Block Adaptor



## INCINERATOR TARGET PILOT UNI-KIT

The 1830 Series Pilot Uni-Kit is designed to be used with all Uni-Line and competitive thermocouples. Kits include an adaptor that converts a threaded thermocouple/thermopile model 2CH to a snap-in thermocouple type, model 2C. Fits 1/4" tubing and has orifices for LP-Gas and Natural Gas.



RMI Part No.	Flame Pattern
1830-110	Standard
1830-111	Left Hand

## ROBERTSHAW CONTROLS THERMOCOUPLES

1970 SERIES	
RMI Part No.	Length
1970-018	18"
1970-024	24"
1970-030	30"
1970-036	36"
1970-048	48"
1970-060	60"
1970-072	72"

- Universal 30mv Thermocouples
- Adapter with Push in clip
- Available in variety of lead lengths



1980 SERIES	
RMI Part No.	Length
1980-018	18"
1980-024	24"
1980-030	30"
1980-036	36"
1980-048	48"
1980-060	60"
1980-072	72"

With its snap-fit adapter, the 1980 series is the **SIMPLEST REPLACEMENT THERMOCOUPLE AVAILABLE TODAY!**

## ROBERTSHAW CONTROLS LOW MASS THERMOCOUPLES

- Low-mass or quick dropout thermocouple
- For applications that require an ODS on the thermo safety
- Used on many applications that require quick dropout with loss of pilot flame.



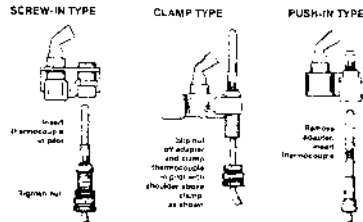
RMI Part No.	Description
1960-027	Low-mass Thermocouple 27"

## HONEYWELL CONTROLS

Mounting the Q340 thermocouple.

### UNIVERSAL 30 MV THERMOCOUPLES

- Bottom Lock Design
- Positive Positioning



RMI Part No.	Description
Q340A1066	18" Universal Thermocouple
Q340A1074	24" Universal Thermocouple
Q340A1082	30" Universal Thermocouple
Q340A1090	36" Universal Thermocouple
Q340A1108	48" Universal Thermocouple

## HONEYWELL THERMOPILES

- Compatible with the majority of millivolt gas valves
- 750mv thermopiles
- Easy installation



RMI Part No.	Description
Q313A1022	35" Thermopile
Q313A1055	47" Thermopile
Q313A1170	35" Thermopile w/PG9 adapter
Q313A1188	35" Thermopile w/push in clip

## ROBERTSHAW THERMOPILE/PILOT GENERATOR

- S/S outer jacket for long life and resistance to heat blistering
- Combination of copper and nickel alloys for good electrical conductivity
- Mica washer to insulate from shorting conditions

RMI Part No.	Length	Pilot Adapter Included	Connection Type
1950-001	36"	Yes - PG9	
1950-002	48"	Yes - PG9	
1950-532	36"	No	
1951-001	36"	Yes - PG9	
1951-536	36"	No	

## JOHNSON CONTROLS K15DS STANDARD BASO THERMOCOUPLES

RMI Part No.	Length	Milivolt Range
K15DS-18	18"	20 - 28
K15DS-24	24"	20 - 28
K15DS-30	30"	20 - 28
K15DS-36	36"	20 - 28



## K16BT HUSKY™ HIGH OUTPUT THERMOCOUPLES

RMI Part No.	Length	Milivolt Range
K16BT-18	18"	25 - 35
K16BT-24	24"	25 - 35
K16BT-30	30"	25 - 35
K16BT-36	36"	25 - 35



## K19 SUPER SLIM JIM™ UNIVERSAL REPLACEMENT THERMOCOUPLES

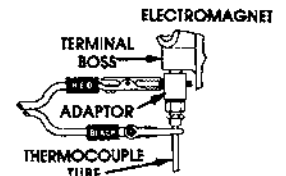
RMI Part No.	Length	Milivolt Range
K19AT-18	18"	25 - 35
K19AT-24	24"	25 - 35
K19AT-30	30"	25 - 35
K19AT-36	36"	25 - 35
K19AT-48	48"	25 - 35
K19AT-60	60"	25 - 35
K19AT-72	72"	25 - 35



## TEST ADAPTERS

for Thermocouples & Thermopiles (STYLE MAY VARY)

RMI Part No.	Description
10-038	Thermocouple Test Adapter
10-238	Thermopile Test Adapter



10-238



10-038