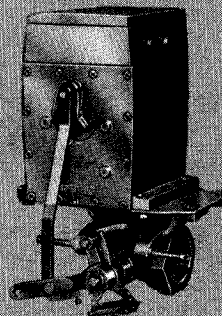


Honeywell

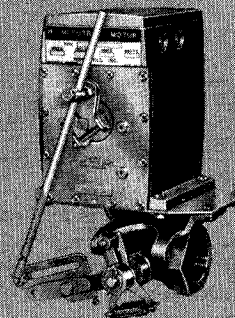
LINKAGES

THE Q100A,B,C ARE LINKAGES FOR COUPLING V51B,E BUTTERFLY VALVES TO MODUTROL MOTORS OR ACTIONATOR MOTORS. THE LINKAGES MAY BE USED WITH VALVES OF ANY SIZE. STRAIN RELEASE AND STOP BRACKET ARE NOT INCLUDED WITH THE LINKAGES.

- Q100A links V51B and Modutrol motors.
- Q100B links V51E and Modutrol motors.
- Q100C links V51E and Actionator motors.
- Adaptable to all V51 valves.
- May be used with Modutrol or Actionator motors.
- Easily mounted.
- Compact lightweight unit is easy to handle and requires little space on the installation.



Q100A



Q100B



Q100C

Q100A,B,C

SPECIFICATIONS

MODELS:

- Q100A Linkage, for use with V51B and Modutrol motors.
- Q100B Linkage, for use with V51E and Modutrol motors. Linkage is adjustable to fit all sizes of motors and valves.
- Q100C Linkage, for use with V51E and Actionator motors. Linkage includes adapter bracket.

MOUNTING MEANS: One end connects to power crank-arm of the motor and the other end connects to the actuating lever on the valve.

TEMPERATURE RATING: Limited only by temperature rating of motor and valve.

DIMENSIONS:

MODEL NUMBER	USED WITH	VALVE SIZE (in.)	LENGTH OF LINKAGE ^a ROD (in.)
Q100A	V51B	1-1/2 or 2	6-3/16
		2-1/2 or 3	6-5/8
		4	7-1/4
		5 or 6	8-15/32
Q100B	V51E	All sizes	10-3/4
Q100C	V51E	1-1/2 or 2	8-1/8
		1-1/2 or 3	8-1/2
		4	9-1/8
		5 or 6	9-5/16

^aConnecting holes for pins are 5/16 in. in diameter and 1/4 in. from each end of the rod.

INSTALLATION

LOCATION

The Q100 is mounted on the gear end of a Modutrol or Actionator motor. The motor must be installed with the crankshaft horizontal. Be sure to allow enough clearance above or below the valve for mounting the motor and for service after installation.

Refer to the instructions packed with the valve and motor for information on the installation. Use the following procedures to install the linkages.

CONNECTING MODUTROL MOTOR AND V51B VALVE USING Q100A LINKAGE (See Fig. 1)

Special parts, nuts, and screws needed are in the furnished bag assemblies. Install the motor and linkage

as follows (see Fig. 1):

1. Mount plate on stop bracket with 3 No. 10 screws.
2. Mount motor on plate with three 1/4 in. screws, lockwashers, and nuts.
3. Install the special crankarm in position shown. With crankarm tight against shoulder of shaft, tighten clamp screw securely.
4. One end of link measures 1-1/4 in. from end to bend. Slip this end over drive pin. Place washer on drive pin. Insert cotter pin in drive pin. Spread cotter pin ends.
5. Slip the other end of link into the forked end of arm and insert the pin, moving the arm as necessary. Insert cotter pin in pin. Spread cotter pin ends.

(continued on page 3)

ORDERING INFORMATION

WHEN ORDERING REFER TO THE TRADELINE CATALOG OR PRICE SHEETS FOR COMPLETE ORDERING SPECIFICATION NUMBER, OR . . .

SPECIFY—

1. LINKAGE MODEL NUMBER.
2. V51 VALVE SIZE.

ORDER FROM—

1. YOUR USUAL SOURCE, OR
2. HONEYWELL
1885 DOUGLAS DRIVE NO.
GOLDEN VALLEY, MINNESOTA 55422-3992
(IN CANADA—HONEYWELL LIMITED/HONEYWELL LIMITEE
740 ELLESMERE ROAD
SCARBOROUGH, ONTARIO M1P 2V9)

INTERNATIONAL SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD.

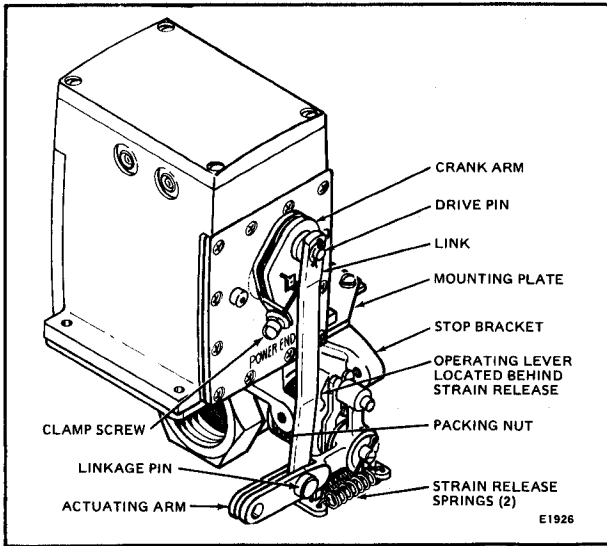


FIG. 1—Q100A LINKAGE ASSEMBLY.

CONNECTING MODUTROL MOTOR AND V51E VALVE USING Q100B LINKAGE (See Fig. 2)

Special parts needed for the basic assembly are furnished in bag assemblies. For adapting Q100B linkage to operate dampers, auxiliary valves, or other equipment, see burner manufacturer's instructions. Install the motor and linkage on the valve as follows (refer to Fig. 2):

1. Mount motor on plate with four 1/4-20 x 1-1/2 in. screws, lockwashers, 1/4 in. steel spacers and nuts.
2. Make sure the motor is in the "closed" position (the position assumed when motor terminals are shorted Red-to-White). Install motor crankarm and tighten clamp screw securely.

3. Install valve actuating link as shown in Fig. 2 and adjust as desired. Do not tighten ball joint setscrews until stroke has been properly set. Refer to V51E specification sheet (form 60-2102-3) for linkage adjustments.

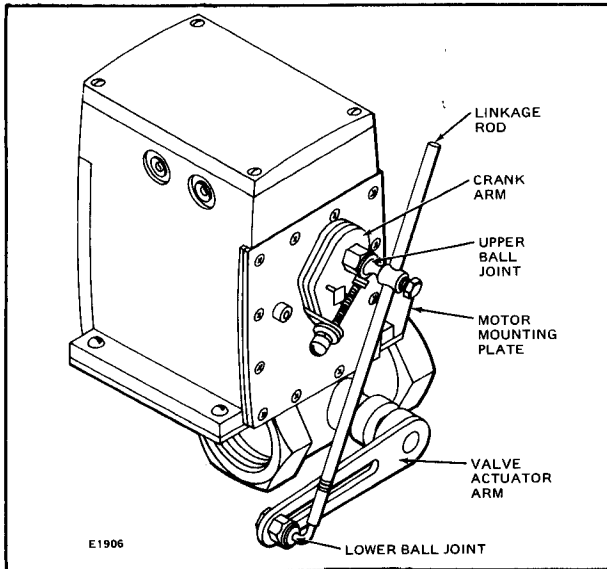


FIG. 2—Q100B LINKAGE ASSEMBLY.

CONNECTING ACTIONATOR MOTOR AND V51B,E VALVES USING Q100C LINKAGE (See Fig. 3 & Fig. 4)

1. Mount small plate (included with Q100C linkage) to the large plate on the valve with three No. 10 screws and lockwashers.

2. Mount motor to the small plate with four 1/4 in. hexagonal head screws and lockwashers.

3. Install crankarm to motor as shown in Fig. 3. With the crankarm tight against the shoulder of the motor shaft, tighten the clamp screw securely.

4. Assemble the drive pin (drive and linkage pins are identical) to the link end which is farthest from the bend in the link (link bend is to be facing away from the motor). Place a flat washer onto the pin and insert the drive pin through the motor crankarm and secure it with a nut and lockwasher.

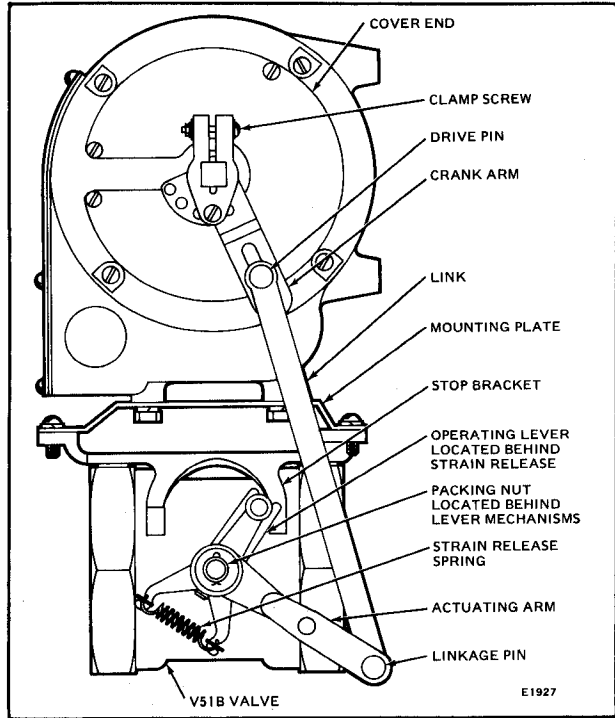


FIG. 3—Q100C LINKAGE ASSEMBLY (V51B).

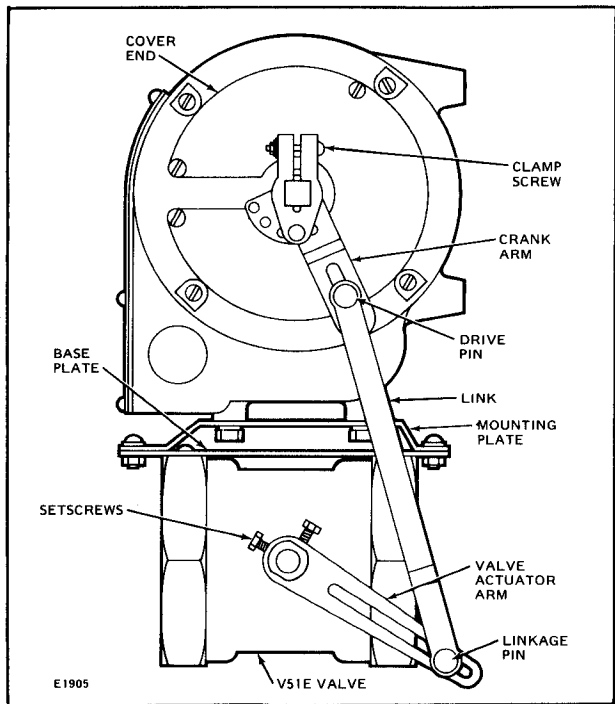


FIG. 4—Q100C LINKAGE ASSEMBLY (V51E).

5. Assemble the bend end of the link to the valve arm using the linkage pin (second pin), flat washer, nut, and lockwasher.

6. Refer to V51E specification sheet (form 60-2102—3) for the linkage adjustment procedure.

ADJUSTMENTS

Q100B

1. Loosen setscrew in upper ball joint to allow linkage rod to slide freely. Loosen lower ball joint so that it will slide freely in the actuating arm slot.

2. Short the motor terminals Red-to-White to drive the motor closed.

3. Hold valve disc open at the desired low-fire position and tighten the lower ball joint hand tight against the outer end of the actuating arm slot. Tighten setscrew in the upper ball joint to provide some friction on the rod, but not enough to prevent it from sliding if the valve hits its stop.

4. Short the motor terminals Red-to-Blue. As motor drives open, note the valve travel. Reset the lower ball joint to give the proper high-fire valve position.

NOTE: When the lower ball joint is moved, the upper ball joint usually must be readjusted if the valve is to keep the same low-fire position.

Adjustments at the lower and upper ball joints enable the installer to set the valve for any span of travel and for any minimum and maximum setting without loss of

motor positions. Refer to V51E specification sheet, form 60-2102—3.

Q100A

MINIMUM FLOW ADJUSTMENT

Using the motor, drive the valve to the closed position. Loosen the lock nut on the stop screw. Turn this screw in against the operating lever, until the desired minimum flow position is obtained. If full-closed is the minimum position desired, back the screw out until its inner end is flush with the stop bracket. Tighten the lock nut.

Q100A

MAXIMUM FLOW ADJUSTMENT

Using the motor, drive the valve to the open position. Loosen the lock nut on the stop screw. Turn this screw in against the operating lever until the desired maximum flow adjustment is obtained. If full-open is the maximum position desired, back the screw out until its inner end is flush with the stop bracket. Tighten the lock nut.

SERVICE AND CHECKOUT

Operate the system to make sure valve, motor, and linkage assembly function as intended. See the instructions packed with the motor and valve for more specific

checkout procedures. Place a few drops of SAE20 or heavier oil on the linkage bearings whenever required.