APPLICATIONS NOTICE

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APPLIC. NOTICE GENERAL LIST

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FROM: T. KING / K. EDWARDS

SUBJECT: RUAM THONG MOTORS AS REPLACEMENTS FOR SISME, ELCO & OLMO EMMERSON (MESSA) MOTORS.

UNITS: SPLIT SYSTEMS, HIDEAWAYS, UNITARY C150 SERIES, FAN COIL UNITS

NOTE: THIS NOTICE SUPERCEDES THE NOW OBSOLETE ISSUE 05/93.

We are now using Ruam Thong electric motors instead of the Sisme motors that we have been using for the last three years. The Ruam Thong motor is also a suitable alternative to the Elco and Olmo Emmerson (Messa) 4 pole and 6 pole motors that we have been using in various air conditioning units since 1972.

The Ruam Thong motor like the Sisme and Elco motor has the advantage that it can replace both the Messa 4 pole and 6 pole motor. However, if only one fan is fitted on the motor then the 50 watt version of the motor should be used.

All units that previously used the Olmo Emmerson (Messa), Elco or Sisme motors will now be fitted with Ruam Thong motors (this commenced mid 1995).

Ruam Thong 120 watt - 3 available speeds	Part No. 021-046-000-156
Ruam Thong 50 watt - 3 available speeds	Part No. 021-046-000-154

However, there are some complications to be encountered when substituting the Ruam Thong motor as a replacement for an existing Sisme, Elco or Messa motor.

1. The mounting bracket supplied with the Ruam Thong motor has differing mounting hole positions and only two of the four holes match the positions of the existing Messa motor mounting holes. Some modification is therefore required.

2. It is important to know the difference in wiring of these motors, especially as there were two breeds of Olmo Emmerson (Messa) motors with different wire colours. Also note that early versions of the Elco motor were fitted with a terminal block, the later version had colour coded wires attached. A wiring guide is tabled overleaf.

P.T.O.

Speed	Pre 1984 Olmo Emmerson (Messa)	1984 Olmo Emmerson (Messa)	1986 Elco	1987 Elco	1992 Sisme	1995 Ruam Thong & 1994 Sisme
	(- - - - - - - Neutral Tapping - - - - - - -)				**(Phase Tapping)**	
	4 pole	**4 pole**				
1	Black (High)	Black (High)	Terminal 1	Black	Brown	Brown (High)
2	Blue (Med)	Blue (Med)	Terminal 2	Grey	Grey	Red (Med)
3	Red (Low)	Yellow (Low)	Terminal 3	Blue	Orange	Red (Med)
	(- - - - - - - - Neutral Tapping - - - - - - - -)					
	6 pole	**6 pole**				
4	Black (High)	Black (High)	Terminal 4	Orange	Purple	White (Low)
5	Blue (Med)	Blue (Med)	Terminal 5	Brown	Red	White (Low)
6	Red (Low)	Yellow (Low)	Terminal 6	Red	White	-
7	-	-	-	-	Yellow	-
	(- - - - - - - - - - - Phase - - - - - - - - - - -)				**(- - Neutral - -)**	
Common	White	Brown	Terminal 10	White	Blue	Blue
Earth	Green/ Yellow	Green/ Yellow	Green/ Yellow	Green/ Yellow	Green/ Yellow	Green/ Yellow

3. If a motor has only one fan fitted instead of two, then the 50 watt motor should be used (the 120 watt motor would be so lightly loaded it would run close to top speed on all speed tappings).

4. Where two motors are fitted in a single unit and are speed controlled then it is important to separate the two sets of motor wiring by using a double bank Arrow Hart speed control switch - our stock Part No. 021-012-000-047. This prevents back feeding from one motor to the other on the speed tappings not in actual use.

5. Units manufactured with Ruam Thong or Sisme motors have them wired Blue as Neutral (Common) and the speed wires are available as phase speed tapping options. The 3 speeds available generally relate to speeds 1, 3 and 5 on earlier models.

   NOTE: The common wire (blue) on the Ruam Thong motor is Neutral; the speed tappings are phase tappings.