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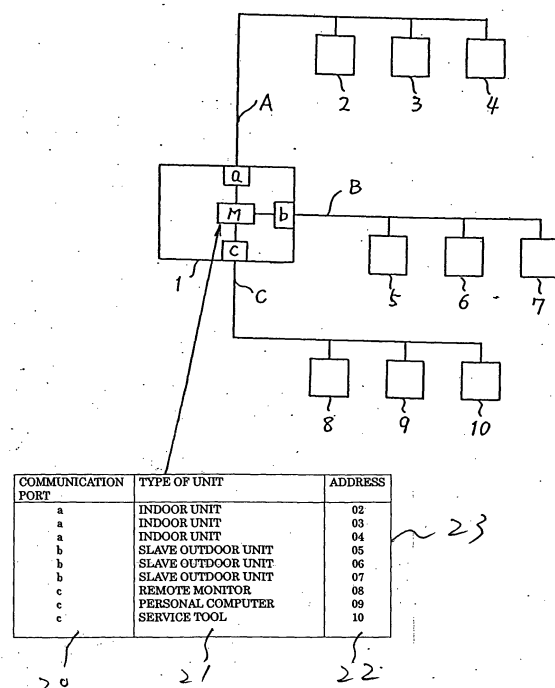
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(54) **Communication network system and data communication method therefor**

(57) A communication network system for an air conditioner in which at least one outdoor unit, plural indoor units and other units are connected to one another through plural communication networks to perform an air-conditioning operation, including at least one master unit (1) having plural communication ports (a,b,c, d), plural communication networks (A, B, C) connected to the communication ports (a, b, c, d) of the master device (1), and at least one slave unit (2, 3, 4, 5, 6, 7, 8, 9, 10, 11) connected to each of the communication networks (A, B, C), wherein the master unit (1) has a table (23) containing information for indicating the locations of the slave units (2, 3, 4, 5, 6, 7, 8, 9, 10, 11) connected to the communication networks (A, B, C), and means (M) for selecting on the basis of the table (23) a communication network route through which communication data addressed to a prescribed unit are transmitted to the prescribed unit.

FIG. 2





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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 5 751 572 A (MACIULEWICZ ET AL) 12 May 1998 (1998-05-12) * column 1, line 51 - column 2, line 15; figure 1 *	1,8	F24F11/00
A	EP 0 678 718 A (SANYO ELECTRIC CO., LTD) 25 October 1995 (1995-10-25) * column 1, line 52 - column 3, line 47; figure 1 *	1,8	
A	EP 0 742 636 A (CARRIER CORPORATION) 13 November 1996 (1996-11-13) * column 3, line 19 - line 48; figure 1 *	1,8	
A	US 5 630 324 A (YOSHIDA ET AL) 20 May 1997 (1997-05-20) * abstract; figure 1 *	1,8	
A	PATENT ABSTRACTS OF JAPAN vol. 012, no. 286 (M-727), 5 August 1988 (1988-08-05) & JP 63 061835 A (DAIKIN IND LTD), 18 March 1988 (1988-03-18) * abstract *	1	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 13, 30 November 1998 (1998-11-30) & JP 10 227511 A (DAIKIN IND LTD), 25 August 1998 (1998-08-25) * abstract *	1	F24F G05D
A	PATENT ABSTRACTS OF JAPAN vol. 012, no. 164 (M-698), 18 May 1988 (1988-05-18) & JP 62 280538 A (MITSUBISHI ELECTRIC CORP), 5 December 1987 (1987-12-05) * abstract *	1	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 29 July 2005	Examiner Valenza, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

2
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EUROPEAN SEARCH REPORT

Application Number
EP 02 02 7703

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 036 (M-1205), 29 January 1992 (1992-01-29) & JP 03 244954 A (HITACHI LTD), 31 October 1991 (1991-10-31) * abstract * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 29 July 2005	Examiner Valenza, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2
EPO FORM 1503 03.82 (P04C01)

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ON EUROPEAN PATENT APPLICATION NO.**

EP 02 02 7703

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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29-07-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5751572	A	12-05-1998	NONE	
EP 0678718	A	25-10-1995	BR 9501396 A	27-02-1996
			CA 2147220 A1	20-10-1995
			CN 1121573 A	01-05-1996
			EP 0678718 A2	25-10-1995
			JP 8005133 A	12-01-1996
			SG 28253 A1	01-04-1996
			US 5603225 A	18-02-1997
EP 0742636	A	13-11-1996	US 5570586 A	05-11-1996
			BR 9602198 A	07-04-1998
			EP 0742636 A2	13-11-1996
			SG 42390 A1	15-08-1997
US 5630324	A	20-05-1997	JP 2667950 B2	27-10-1997
			JP 7091718 A	04-04-1995
			US 5499510 A	19-03-1996
JP 63061835	A	18-03-1988	NONE	
JP 10227511	A	25-08-1998	JP 3206476 B2	10-09-2001
JP 62280538	A	05-12-1987	JP 2004507 C	20-12-1995
			JP 7006658 B	30-01-1995
JP 03244954	A	31-10-1991	JP 2708256 B2	04-02-1998