for operation of Mode-S transponder systems while on the ground. When the transponder receives an on-ground indication (P1-27 = Gnd), it disables all replies to ATCRBS, ATCRBS/Mode-S All-Call, and Mode-S Only All-Call interrogations. But the transponder will continue to reply to discretely addressed Mode-S interrogations.

2.3.7 Mode-S Address Programming

For mode S operation, each TDR-94/94D (all statuses) must have an aircraft identification code that is different from all other aircraft identification codes. This code is given to the equipment during installation. Each transponder has 24 special configuration strap inputs (MODE S ADDRESS inputs B1 thru B24) for this function. The configuration strap inputs are on pins P1-33 thru P1-56 of the rear connector.

Regulatory agencies in each country have their own procedures to give identification codes to aircraft. If you can not find the applicable agency for a country, Mr. Edward Godberson at ICAO headquarters in Montreal, Canada can help you find this data. His telephone number is 514-954-8189 and his fax number is 514-954-6759.

For aircraft registered in the USA, the aircraft identification code is given by the Aircraft Registration Branch of the FAA Aeronautical Center. This agency is in Oklahoma City, Oklahoma. Their telephone number is 405-954-3116. The aircraft identification code (MODE S ADDRESS) is given at the same time that the aircraft N number is registered. Refer to this web site for more data.

http://162.58.35.241/acdatabase/acmain.htm

The aircraft registration agency uses a special procedure to give aircraft identification codes. This procedure is not available in printed form. The FAA supplies an octal number that the installer must change to the necessary 24-bit strap code.

> Note

> If the aircraft tail number (or N number) changes, a new aircraft identification code (MODE S ADDRESS) must be given by the aircraft registration agency. The applicable 24-bit strap code (MODE S ADDRESS) of the transponder must then be changed.

Use Table 2-4 to change the octal number to the 24-bit strap code. The two paragraphs that follow give data that will help the technician use Table 2-4.

To use Table 2-4, you must enter one number of the given 8-number octal code in the empty space at the top of each column. Enter the numbers from left to right in the sequence given. Then, read down each column to the row that has the same number as the number you entered in the empty space at the top of that column. The configuration strap pins that show in that cell of the table are the pins that you must connect to ground for that number of the octal number.

Table 2-4. 8-Number Octal Number Conversion to 24-Bit Strap Code

Octal Digit	*	*	*	*	*	*	*	*
0	None	None	None	None	None	None	None	None
1	P1-35	P1-38	P1-41	P1-44	P1-47	P1-50	P1-53	P1-56
2	P1-34	P1-37	P1-40	P1-43	P1-46	P1-49	P1-52	P1-55
3	P1-34 P1-35	P1-37 P1-38	P1-40 P1-41	P1-43 P1-44	P1-46 P1-47	P1-49 P1-50	P1-52 P1-53	P1-55 P1-56
4	P1-33	P1-36	P1-39	P1-42	P1-45	P1-48	P1-51	P1-54
5	P1-33 P1-35	P1-36 P1-38	P1-39 P1-41	P1-42 P1-44	P1-45 P1-47	P1-48 P1-50	P1-51 P1-53	P1-54 P1-56
6	P1-33 P1-34	P1-36 P1-37	P1-39 P1-40	P1-42 P1-43	P1-45 P1-46	P1-48 P1-49	P1-51 P1-52	P1-54 P1-55
7	P1-33 P1-34 P1-35	P1-36 P1-37 P1-38	P1-39 P1-40 P1-41	P1-42 P1-43 P1-44	P1-45 P1-46 P1-47	P1-48 P1-49 P1-50	P1-51 P1-52 P1-53	P1-54 P1-55 P1-56

* Enter one number of the 8-number octal number in the empty cell at the top of each column.