

### 2FQ5

TUBE	A	B	C	D	SKT
2FQ5	2	D	1	B	3
2FS5	2	D	2	A	3
2FV6	2	E	2	A	3
2FY5	2	E	6	B	3
2GK5	2	E	6	B	3
*2J2	2	H	1	H	5
(Normal Short D, F, H-K)					
*2T4	2	D	4	B	3
(Normal Short A, E)					
*2V2	2	H	4	H	1
(Normal Short C, E, H-K)					
2V3	2	H	5	H	1
*2W3	2	B	5	C	1
(Normal Short F, H-K)					
2X3	2	B	5	H	1
*3A2	3	H	1	H	5
(Normal Short D, H-K)					
3A3	3	H	7	H	1
*3A4	3	F	3	E	3
(Use 7 Pin Adapter)					
(Normal Short B and D)					
*3A5	1	F	5	C	3
(Normal Short A, E, H-K)					
3A8	3	G	1	F	1
	3	G	1	D	1
	3	G	1	H	1
*3AF4	3	D	4	B	3
(Normal Short, A, E)					

7

### 3AJ8

TUBE	A	B	C	D	SKT
3AJ8	3	E	5	B	4
	3	F	5	G	4
3AL5	3	E	5	B	3
	3	E	5	E	3
3AU6	3	D	5	A	3
3AV6	3	G	5	C	3
	3	G	5	D	3
	3	F	5	A	3
*3AW3	3	H	1	H	1
(Normal Short H-K)					
3B5	3	E	7	D	1
3B7	3	D	3	B	6
	3	D	3	E	6
3BA6	3	D	5	A	3
3BC5	3	E	2	A	3
3BE6	3	D	5	A	3
*3BN4	3	E	2	E	3
(Normal Short A, D)					
3BN6	3	H	5	C	3
(Emission & short test only)					
3BU8	3	D	5	E	4
3BX6	3	D	1	B	4
3BY6	3	D	5	A	3
3BY7	3	D	3	B	4
3BZ6	3	D	5	A	3
*3C2	3	H	4	H	1
(Normal Short C, E, H-K)					

### 3C4

TUBE	A	B	C	D	SKT
3C4	3	G	3	D	3
(Use 7 Pin Adapter)					
3C5	3	F	7	D	1
3C6	3	F	7	C	6
	3	F	7	D	6
3CB6	3	D	5	A	3
3CE5	3	D	2	A	3
3CF6	3	D	5	A	3
3CS6	3	E	5	A	3
3CY5	3	E	2	A	3
3D6	1	E	7	E	6
3DK6	3	D	5	A	3
3DT6	3	E	5	A	3
3E5	3	F	3	D	3
(Use 7 Pin Adapter)					
3E6	3	F	4	E	6
3EA5	3	E	6	A	3
3EH7	3	D	1	B	4
3EJ7	3	D	1	B	4
3ER5	3	E	6	B	3
3ES5	3	E	6	B	3
3EY5	3	E	6	A	3
3FH5	3	E	6	B	3
3FQ5	3	E	6	B	3
3FY5	3	E	5	B	3
3GK5	3	E	6	B	3
3GS8	3	D	5	E	4
3LE4	3	E	7	E	6

8

### 3LF4

TUBE	A	B	C	D	SKT
3LF4	3	E	7	E	6
*3Q4	3	F	3	A	3
(Use 7 Pin Adapter)					
(Normal Short B and D)					
3Q5	3	D	7	D	1
*3S4	3	F	3	A	3
(Use 7 Pin Adapter)					
(Normal Short B and D)					
3V4	3	F	3	D	3
(Use 7 Pin Adapter)					
*3W4	3	F	3	A	3
(Use 7 Pin Adapter)					
(Normal Short B and D)					
3Z4	3	F	3	A	3
(Use 7 Pin Adapter)					
(Normal Short B and D)					
4A6	4	G	7	C	1
	4	G	7	D	1
4AU6	4	D	5	A	3
4AV6	4	F	5	A	3
	4	G	5	C	3
	4	G	5	D	3
4BA6	4	D	5	A	3
4BC5	4	E	2	A	3
4BC8	4	E	5	B	4
	4	E	5	E	4
4BE6	4	D	5	A	3

### 4BL8

TUBE	A	B	C	D	SKT
4BL8	4	D	5	B	4
	4	D	5	G	4
*4BN4	4	E	2	E	3
(Normal Short A, D)					
4BN6	4	H	5	C	3
(Emission & short test only)					
4BQ7	4	E	5	B	4
	4	E	5	E	4
4BS8	4	E	5	B	4
	4	E	5	E	4
4BU8	4	D	5	E	4
4BX8	4	E	5	B	4
	4	E	5	E	4
4BZ6	4	D	5	A	3
4BZ7	4	E	5	B	4
	4	E	5	E	4
4BZ8	4	E	5	B	4
	4	E	5	E	4
4CB6	4	D	5	A	3
4CE5	4	E	2	A	3
4CS6	4	E	5	A	3
4CX7	4	E	8	B	4
	4	E	8	E	4
4CY5	4	E	2	A	3
4DE6	4	D	5	A	3
4DK6	4	D	5	A	3
4DT6	4	E	5	A	3
4EH7	4	D	1	B	4

9

### 5AU4

TUBE	A	B	C	D	SKT
*5AU4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5AV8	5	E	5	B	4
	5	E	5	D	4
*5AW4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
*5AX4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
*5AZ4	5	B	5	C	6
	5	B	5	E	6
(Normal Short A, H-K)					
5B8	5	D	5	B	4
	5	D	5	D	4
5BE8	5	D	5	A	4
	5	D	5	G	4
5BK7	5	E	5	B	4
	5	E	5	E	4
*5BQ5	5	C	1	B	4
5BQ7	5	E	5	B	4
	5	E	5	E	4
5BR8	5	D	5	A	4
	5	D	5	G	4
5BS8	6	E	5	B	4
	6	E	5	E	4

10

### 4EJ7

TUBE	A	B	C	D	SKT
4EJ7	4	D	1	B	4
4ES8	4	D	5	B	4
	4	D	5	E	4
4EW6	4	D	5	A	3
4FS7	4	D	5	B	4
	4	E	5	D	4
4GM6	4	D	5	A	3
4GS8	4	D	5	E	4
5A6	5	C	8	E	4
5AM8	5	F	5	F	4
	5	D	5	B	4
5AN8	5	D	5	B	4
	5	D	5	F	4
5AQ5	5	C	6	A	3
*5AR4	5	A	1	C	1
	5	A	1	E	1
(Normal Short F, H-K)					
*5AS4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5AS8	5	F	5	D	4
	5	D	5	B	4
*5AT4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5AT8	5	D	5	A	4
	5	D	5	G	4

### 5EA8

TUBE	A	B	C	D	SKT
5EA8	5	D	5	G	4
	5	D	5	B	4
5EH8	5	D	1	B	4
	5	D	1	E	4
5ES8	5	E	5	B	4
	5	E	5	E	4
5EUB	5	D	5	B	4
	5	D	5	E	4
5EW6	5	D	5	A	3
5FG7	5	D	5	G	4
	5	E	5	A	4
5FV8	5	D	5	A	4
	5	D	5	G	4
5GH8	5	D	5	G	4
	5	D	5	B	4
5GM6	5	D	5	A	3
5J6	5	E	5	C	3
	5	E	5	D	3
*5R4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
*5T4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5T8	5	G	5	A	4
	5	G	5	B	4
	5	G	5	D	4
	5	F	5	F	4

11

### 5U4

TUBE	A	B	C	D	SKT
*5U4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5U8	5	D	5	G	4
	5	D	5	B	4
*5V3	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
*5V4	5	B	5	C	1
	5	B	5	E	1
(Normal Short F, H-K)					
5V6	5	C	5	D	1
*5W4	5	B	5	C	1
	5	B	5	E	1
(Normal Short F, H-K)					
*5X4	5	A	5	C	2
	5	A	5	E	2
(Normal Short H-K)					
5X8	5	E	5	B	4
	5	E	5	E	4
*5Y3	5	B	5	C	1
	5	B	5	E	1
(Normal Short F, H-K)					
5Y4	5	B	5	C	2
	5	B	5	E	2
*5Z4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					

### 5BT8

TUBE	A	B	C	D	SKT
5BT8	5	G	5	A	4
	5	G	5	B	4
	5	D	5	F	4
5BW8	5	F	5	A	4
	5	F	5	C	4
	5	D	5	D	4
5BZ7	6	E	5	B	4
	6	E	5	E	4
*5CG4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5CG8	5	E	3	A	4
	5	E	3	G	4
5CL8	5	D	5	A	4
	5	D	5	G	4
5CM6	5	C	4	C	4
5CM8	5	F	5	G	4
	5	E	5	B	4
5CQ8	5	D	5	G	4
	5	D	5	B	4
5CR8	5	E	5	G	4
	5	D	5	B	4
*5CU4	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5CZ5	5	C	4	C	4
5DH8	5	F	5	A	4
	5	D	5	G	4

### 6A5

TUBE	A	B	C	D	SKT
6A5	6	C	7	D	1
6A8	6	E	5	D	1
6AB4	6	E	2	D	3
6AB7	6	D	5	C	1
6AB8	6	F	5	B	4
	6	D	5	G	4
6AC5	6	F	5	D	1
6AC7	6	D	5	C	1
6AD5	6	F	5	D	1
6AD7	6	G	5	A	1
	6	G	5	D	1
6ADB	6	G	5	E	4
	6	G	5	F	4
	6	E	5	B	4
6AE5					



## OPERATING INSTRUCTIONS FOR THE MIGHTY MITE TUBE TESTER

Operate the TC109 Mighty Mite as follows:

1. Plug line cord into 110 to 120 volts AC, 60 cycle receptacle.
2. Locate tube in this booklet. Tubes are listed numerically and alphabetically. Looking to the right of the tube listing, note the set up information for controls A, B, C, and D and the tube socket number. Some tubes have more than one listing. This is for tubes that effectively have more than one tube in an envelope. Each section is tested independently.
3. Set the controls as indicated and insert the tube in the socket indicated. Where more than one listing is shown make complete checks using each listing. "Short" test need be made only once.
4. Set the FUNCTION switch to CAL and set the meter to the line marked CAL on the extreme right hand side of the meter by adjusting the screwdriver adjustment marked CAL. You do not need to make this adjustment every time the tester is used but it should be made the first time that the tester is used. After that, it is only necessary to switch to CAL to be sure that the meter reads on this line.
5. Next, switch the FUNCTION switch to the test desired. You will find some ways to short cut these tests but for a complete check, proceed as follows:

1

- e. Switch the FUNCTION switch to EMISSION if all checks to this point have been satisfactory. Read the tube emission quality on the top scale on the meter. If all tests have been satisfactory, the tube is in excellent condition and should not be replaced. Please note the cap lead which should be placed on all tubes having caps.

### TO CHECK PICTURE TUBES:

Use the same procedure as above with the following in mind. Use the picture tube socket provided. For 110 degree tubes, it will be necessary to use an adaptor socket which is readily available at your parts distributor. Set the filament voltage, switch A, to 6 for most picture tubes. A few new tubes have filaments as low as 2 volts, so, it is a good idea to start at 2 volts and switch up to 6 to be sure that the filament does not burn out. Watch the picture tube neck for brilliance. The settings for the other controls are as follows:

Set Switch B to G  
Set Switch C to 5  
Set Switch D to H

### USE YOUR THUMB AS MARKER

It is a good idea to use your thumb as a marker on the settings so that you don't lose your place between switch settings or when locating the socket. This is easily done as the set-up is a one hand operation. If you want to make the set-up fast, remember the numbers like a telephone number.

3

## 1E3

TUBE	A	B	C	D	SKT
1E3	1	D	3	A	4
1E4	1	F	5	D	1
1E5	2	G	5	H	1
1E7	2	E	5	C	1
	2	E	5	D	1
1F5	2	E	5	D	1
1F7	2	G	5	C	1
	2	G	5	D	1
	2	G	5	H	1
*1G3	1	H	2	H	1
	(Normal Short F, H-K)				
1G4	1	F	5	D	1
1G5	2	E	5	D	1
1G6	1	F	5	C	1
	1	F	5	D	1
*1H2	1	H	1	H	5
	(Normal Short D, H-K)				
1H4	2	F	5	D	1
1H5	1	G	5	D	1
	1	G	5	H	1
1H6	2	G	5	C	1
	2	G	5	D	1
	2	F	5	E	1
*1J3	1	H	2	H	1
	(Normal Short F-H-K)				
1J5	2	E	5	D	1

5

## 1J6

TUBE	A	B	C	D	SKT
1J6	2	F	5	C	1
	2	F	5	D	1
*1K3	1	H	2	H	1
	(Normal Short F-H-K)				
1L4	1	F	3	D	3
	(Use 7 Pin Adapter)				
1L6	1	G	5	E	3
	(Use 7 Pin Adapter)				
1LA4	1	F	5	E	6
1LA6	1	F	5	C	6
1LB4	1	F	3	E	6
1LB6	1	F	5	E	6
1LC5	1	F	4	E	6
1LC6	1	F	5	C	6
1LD5	1	G	5	C	6
	1	G	5	E	6
1LE3	1	F	5	E	6
1LF3	1	F	5	E	6
1LG5	1	F	4	E	6
1LH4	1	G	5	C	6
	1	F	5	E	6
1LN5	1	F	4	E	6
*1N2	1	H	2	H	1
	(Normal Short F, H-K)				
1N5	1	F	5	H	1
1N6	1	F	5	D	1
	1	G	5	E	1

- a. Set FUNCTION switch to SHORT TEST and switch D to H-K position.
- b. SHORT IND. lamp will glow if leakage of 50,000 ohms or less exists between heater and cathode in any tube.
- c. While in the SHORT TEST position, rotate switch D through all settings from H-K to A. Watch the SHORT IND. lamp for additional shorts or leakage between elements. If the lamp glows, be sure that it glows brightly on both electrodes. One dimly lit electrode may be stray pick-up. Before rejecting tube, note whether or not this tube is marked with an asterisk (\*) in the tube chart. If it is, this means that there are extra internal connections that will show up as a short and the tube should not be rejected if it lights on these settings only.

NOTE: Some tubes marked with an asterisk may not show shorts. This is because some tube manufacturers use the spare base pins for extra internal connections, whereas other manufacturers of the same tube type do not.

- d. If short check is OK, switch FUNCTION switch to GRID LEAKAGE. Also, reset switch D to setting indicated in chart. Note the lower meter scale marked GOOD-BAD and questionable (?). This important check will locate many tubes that may otherwise be passed. If the meter reads in the GOOD area but is slowly moving into the questionable area, wait for a minute or so to see if the meter will finally move into the BAD area. This is the type of tube that is hard to find on many other testers. These particular tubes may not give serious trouble in power output or rectifier stages but should be rejected immediately if operating in any other stage.

2

## 1A5

TUBE	A	B	C	D	SKT
1A5	1	G	5	D	1
1A7	1	G	5	D	1
1AB5	1	E	7	E	6
1AB6	1	F	5	E	3
	(Use 7 Pin Adapter)				
1AC6	1	F	5	E	3
	(Use 7 Pin Adapter)				
1AE4	1	G	3	D	3
	(Use 7 Pin Adapter)				
1AF4	1	F	3	D	3
	(Use 7 Pin Adapter)				
1AF5	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adapter)				
*1AG2	1	H	1	H	5
	(Normal Short D, F, H-K)				
*1AG3	1	H	1	H	5
	(Normal Short D, F, H-K)				
1AH5	1	G	2	D	3
	1	H	2	A	3
	(Use 7 Pin Adapter)				
1AJ4	1	G	3	D	3
	(Use 7 Pin Adapter)				
1AM4	1	G	3	D	3
	(Use 7 Pin Adapter)				
1AN5	1	C	2	A	3
1AQ5	1	G	3	E	3
	(Use 7 Pin Adapter)				

4

## 1AR5

TUBE	A	B	C	D	SKT
1AR5	1	G	3	D	3
	1	H	3	A	3
	(Use 7 Pin Adapter)				
1AS5	1	G	5	D	3
	1	H	5	E	3
	(Use 7 Pin Adapter)				
*1AU3	1	H	2	H	1
	(Normal Short F, H-K)				
*1AX2	1	H	1	H	5
	(Normal Short D, H-K)				
*1B3	1	H	2	H	1
	(Normal Short F, H-K)				
1B7	1	G	5	D	1
1B8	1	G	5	F	1
	1	G	5	H	1
	1	F	5	D	1
1C3	1	F	2	D	3
	(Use 7 Pin Adapter)				
1C5	1	F	5	D	1
1C7	2	F	5	D	1
1D5	2	F	5	H	1
1D7	2	F	5	D	1
1D8	1	G	5	F	1
	1	G	5	H	1
	1	F	5	D	1
1DN5	1	F	5	D	3
	1	H	5	E	3
	(Use 7 Pin Adapter)				

## 1P5

TUBE	A	B	C	D	SKT
1P5	1	F	5	H	1
1Q5	1	E	5	D	1
1R4	1	H	5	C	6
1R5	1	F	3	E	3
	(Use 7 Pin Adapter)				
*1S2	1	H	1	H	5
	(Normal Short D, H-K)				
*1S4	1	F	3	A	3
	(Use 7 Pin Adapter)				
	(Normal Short B and D)				
1S5	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adapter)				
1SA6	1	F	5	C	1
1SB6	1	G	5	D	1
	1	G	5	F	1
1T4	1	F	3	D	3
	(Use 7 Pin Adapter)				
1T5	1	E	5	D	1
1U4	1	F	3	D	3
	(Use 7 Pin Adapter)				
1U5	1	G	5	D	3
	1	H	5	E	3
	(Use 7 Pin Adapter)				
1U6	1	G	5	E	3
	(Use 7 Pin Adapter)				
1V2	1	H	3	A	5

6

## 1W4

TUBE	A	B	C	D	SKT
1W4	1	F	5	D	3
	(Use 7 Pin Adapter)				
*1X2	1	H	1	H	5
	(Normal Short D, H-K)				
*2AF4	2	D	4	B	3
	(Normal Short A, E)				
*2B3	1	H	1	H	1
	(Normal Short H-K)				
*2BN4	2	E	2	E	3
	(Normal Short A, D)				
2C22	6	E	7	H	1
2C26	6	E	7	H	1
2C50	12	E	7	A	2
	12	E	7	D	2
2C52	12	F	7	A	2
	12	F	7	D	2
2CY5	2	E	2	A	3
2E25	6	C	5	D	1
*2E26	6	C	1	D	1
	(Normal Short C, E)				
2E30	6	C	6	A	3
2EA5	2	E	6	A	3
2EN5	2	F	5	B	3
	2	F	5	E	3
2ER5	2	E	6	B	3
2ES5	2	E	6	B	3
2EV5	2	E	6	A	3
2FH5	2	E	6	B	3



**6AN6**

TUBE	A	B	C	D	SKT
6AN6	6	F	5	A	3
	6	F	5	B	3
	6	F	5	C	3
	6	F	5	E	3
(Use 7 Pin Adapter)					
6AN7	6	E	5	B	4
	6	F	5	G	4
6AN8	6	D	5	B	4
	6	D	5	F	4
*6AQ4	6	E	4	A	3
(Normal Short B, C)					
6AQ5	6	C	6	A	3
6AQ6	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
6AQ7	6	G	5	A	2
	6	G	5	C	2
	6	F	5	D	2
6AQ8	6	D	5	B	4
	6	D	5	E	4
6AR5	6	C	5	A	3
*6AR6	6	G	5	E	2
(Emission & Short Test Only; Normal Short F, H-K)					
6AR7	6	G	5	D	6
	6	G	5	E	6
	6	F	5	H	6
6AR8	6	D	5	D	4

**6AS5**

TUBE	A	B	C	D	SKT
6AS5	6	C	3	B	3
6AS6	6	E	5	A	3
6AS7	6	A	5	A	2
	6	A	5	D	2
6AS8	6	F	5	D	4
	6	D	5	B	4
6AT6	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
6AT8	6	D	5	A	4
	6	D	5	G	4
6AU4	6	A	2	E	2
6AU5	6	C	5	A	1
6AU6	6	D	5	A	3
6AU7	6	D	8	B	4
	6	D	8	E	4
6AU8	6	E	5	B	4
	6	D	5	E	4
6AV4	6	A	5	A	3
	6	A	5	D	3
6AV5	6	C	5	A	1
6AV6	6	G	5	C	3
	6	G	5	D	3
6AW7	6	G	5	C	2
	6	G	5	D	2
	6	F	5	B	2

**6BJ7**

TUBE	A	B	C	D	SKT
6BJ7	6	F	5	B	4
	6	F	5	D	4
	6	F	5	F	4
6BJ8	6	E	5	A	4
	6	E	5	D	4
	6	D	5	F	4
*6BK4	6	G	2	D	1
(Normal Short C, E, F)					
6BK5	6	C	6	C	4
6BK6	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
<del>6BK7</del>	6	E	5	B	4
	6	E	5	E	4
6BL4	6	A	2	E	2
6BL7	6	C	5	A	2
	6	C	5	D	2
6BL8	6	D	5	B	1
	6	D	5	G	1
6BM5	6	C	6	A	3
6BM8	6	F	5	A	4
	6	C	5	C	4
*6BN4	6	E	2	E	3
(Normal Short A, D)					
6BN5	6	C	7	B	4
6BN6	6	H	5	C	3
(Emission & short test only)					

**6BN7**

TUBE	A	B	C	D	SKT
6BN7	6	F	5	B	4
	6	C	5	E	4
6BN8	6	E	5	A	4
	6	E	5	D	4
	6	F	5	F	4
6BQ5	6	C	1	B	4
6BQ6	6	C	5	D	1
6BQ7	6	E	5	B	4
	6	E	5	E	4
6BR7	6	F	1	B	4
6BR8	6	D	5	A	4
	6	D	5	G	4
6BS5	6	C	1	B	4
6BS7	6	G	1	H	4
6BS8	6	E	5	B	4
	6	E	5	E	4
6BT4	6	B	3	A	6
	6	B	3	E	6
6BT6	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
6BT8	6	G	5	A	4
	6	G	5	B	4
	6	D	5	F	4
*6BU4	6	G	2	D	1
(Normal Short C, E, F)					
6BU5	6	G	2	D	2

**6CH7**

TUBE	A	B	C	D	SKT
6CH7	6	E	7	B	4
	6	E	7	E	4
6CH8	6	E	5	F	4
	6	E	5	E	4
6CJ5	6	E	2	E	6
*6CJ6	6	C	1	B	4
(Normal Short D, E, F, G)					
6CK4	6	C	2	A	1
6CK6	6	C	5	B	4
*6CL5	6	C	4	C	1
(Normal Short A, B, E, F)					
*6CL6	6	C	8	B	4
(Normal Short C, F)					
6CL8	6	D	5	A	4
	6	D	5	G	4
6CM5	6	A	2	D	1
6CM6	6	C	4	C	4
6CM7	6	E	2	E	4
	6	E	2	F	4
6CMB	6	F	5	G	4
	6	E	5	B	4
6CN6	6	C	5	D	1
6CN7	6	F	8	A	4
	6	F	8	B	4
	6	F	8	E	4
6CQ4	6	A	2	E	2
6CQ6	6	E	5	A	3

**6CQ8**

TUBE	A	B	C	D	SKT
6CQ8	6	D	5	G	4
	6	D	5	B	4
*6CR5	6	C	7	C	4
(Normal Short A, B, D, E)					
6CR6	6	G	5	B	3
	6	E	5	E	3
6CR8	6	D	5	G	4
	6	D	5	B	4
6CS5	6	C	4	C	4
6CS6	6	E	6	A	3
6CS7	6	C	2	C	4
	6	F	2	E	4
6CS8	6	F	5	G	4
	6	D	5	B	4
6CT7	6	D	5	E	6
	6	G	5	B	6
6CU5	6	C	3	B	3
6CU6	6	C	5	D	1
6CU7	6	E	5	C	6
	6	E	5	E	6
6CUB	6	E	5	F	4
	6	E	5	E	4
6CV7	6	F	5	B	6
	6	G	5	D	6
	6	G	5	F	6
*6CW5	6	C	1	B	4
6CW7	6	E	6	B	4
	6	D	6	D	4

**6AW8**

TUBE	A	B	C	D	SKT
6AW8	6	F	5	B	4
	6	D	5	E	4
6AX4	6	A	2	E	2
6AX5	6	B	5	B	1
	6	B	5	D	1
6AX6	6	A	5	B	1
	6	A	5	D	1
6AX7	6	F	8	B	4
	6	F	8	E	4
6AX8	6	D	5	G	4
	6	D	5	B	4
6AZ8	6	D	5	G	4
	6	D	5	D	4
6B3	6	B	5	E	5
6B4	6	C	5	D	1
6B6	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
6B8	6	G	5	C	1
	6	G	5	D	1
	6	E	5	H	1
6BA6	6	D	5	A	3
6BA7	6	D	7	B	4
6BA8	6	E	5	B	4
	6	D	5	E	4
6BC4	6	D	6	C	5
6BC5	6	E	2	A	3

**6BC7**

TUBE	A	B	C	D	SKT
6BC7	6	E	5	B	4
	6	E	5	D	4
	6	E	5	F	4
6BC8	6	E	5	B	4
	6	E	5	E	4
6BD4	6	G	5	D	1
6BD5	6	C	5	A	1
6BD6	6	D	5	A	3
6BD7	6	G	5	D	4
	6	G	5	F	4
	6	F	5	B	4
6BE6	6	D	5	A	3
6BE7	6	F	7	E	4
6BE8	6	D	5	A	4
	6	D	5	G	4
6BF5	6	C	6	A	3
6BF6	6	G	5	C	3
	6	G	5	D	3
	6	E	5	A	3
6BG6	6	C	5	D	1
6BH5	6	F	7	B	4
6BH6	6	E	5	A	3
6BH8	6	E	5	B	4
	6	D	5	E	4
6BJ5	6	C	5	A	3
6BJ6	6	D	5	A	3

**6BU6**

TUBE	A	B	C	D	SKT
6BU6	6	G	5	C	3
	6	G	5	D	3
	6	E	5	A	3
6BU8	6	D	5	E	4
6BV7	6	G	8	A	4
	6	G	8	D	4
	6	E	8	F	4
6BV8	6	E	5	D	4
	6	E	5	G	4
	6	E	5	B	4
6BW4	6	B	5	A	4
	6	B	5	E	4
*6BW6	6	C	1	B	4
6BW7	6	D	1	B	4
6BW8	6	F	5	A	4
	6	F	5	C	4
	6	E	5	D	4
6BX4	6	A	5	A	3
	6	A	5	D	3
6BX6	6	D	1	B	4
6BX7	6	C	5	A	2
	6	C	5	D	2
6BX8	6	E	5	B	4
	6	E	5	E	4
6BY5	6	A	2	C	1
	6	A	2	D	1
6BY6	6	D	5	A	3
6BY7	6	D	3	B	4

**6BY8**

TUBE	A	B	C	D	SKT
6BY8	6	E	5	D	4
	6	D	5	A	4
6BZ6	6	D	5	A	3
6BZ7	6	E	5	B	4
	6	E	5	E	4
6BZ8	6	E	5	B	4
	6	E	5	E	4
6C4	6	E	1	D	3
6C5	6	E	5	D	1
6C8	6	F	5	H	1
	6	F	5	D	1
6CA4	6	A	2	A	4
	6	A	2	E	4
6CA5	6	C	3	B	3
6CA7	6	C	6	D	1
*6CB5	6	C	4	C	1
(Normal Short A, B, E, F)					
6CB6	6	D	5	A	3
6CD6	6	C	5	D	1
6CE5	6	D	2	A	3
6CF6	6	D	5	A	3
6CF8	6	F	5	G	4
6CG6	6	E	5	A	3
6CG7	6	E	5	B	4
	6	E	5	E	4
6CG8	6	E	3	A	4
	6	E	3	G	4
6CH6	6	C	1	B	4

**6CX7**

TUBE	A	B	C	D	SKT
6CX7	6	E	8	B	4
	6	E	8	E	4
6CX8	6	E	5	B	4



6DZ8

TUBE	A	B	C	D	SKT
6DZ8	6	F	5	A	4
	6	C	5	C	4
6E8	6	D	5	H	1
6EA5	6	E	6	A	3
6EA7	6	D	5	A	2
	6	F	5	D	2
6EA8	6	D	5	G	4
	6	D	5	B	4
6EB5	6	F	5	B	4
	6	F	5	E	4
6EB8	6	F	5	B	4
	6	C	5	E	4
6EF6	6	C	5	D	1
6EH5	6	C	3	B	3
6EH7	6	D	1	B	4
6EH8	6	D	1	B	4
	6	D	1	E	4
6EJ7	6	D	1	B	4
6EL7	6	D	1	B	4
6EM5	6	C	4	C	4
6EM7	6	F	5	D	2
	6	D	5	A	2
6EQ7	6	E	5	B	4
	6	G	5	E	4
6ER5	6	E	6	B	3
6ES5	6	E	6	B	3
6ES6	6	D	5	A	3

6ES8

TUBE	A	B	C	D	SKT
6ES8	6	D	8	B	4
	6	D	8	E	4
6ET6	6	D	5	A	3
6ET7	6	F	5	B	4
	6	F	5	C	4
	6	D	5	E	4
6EU8	6	D	5	B	4
	6	D	5	E	4
6EV5	6	E	6	A	3
6EV7	6	E	5	B	4
	6	E	5	E	4
6EV8	6	D	5	A	4
	6	D	5	G	4
6EW6	6	D	5	A	3
6EW7	6	F	3	B	4
	6	C	3	E	4
6EX6	6	C	5	D	1
6EY6	6	C	5	D	1
6EZ5	6	C	5	D	1
6EZ8	6	E	5	B	4
	6	E	5	E	4
	6	E	5	G	4
6F5	6	F	5	H	1
6F6	6	B	5	D	1
6F8	6	E	5	H	1
	6	E	5	D	1
6FA7	6	F	5	E	4
	6	G	5	C	4

6FC7

TUBE	A	B	C	D	SKT
6FC7	6	D	6	B	4
	6	D	6	D	4
6FD6	6	F	5	A	3
6FD7	6	C	2	C	4
	6	F	2	E	4
6FES	6	C	5	D	1
6FG5	6	D	2	A	3
6FG7	6	D	5	G	4
	6	F	5	A	4
6FHS	6	E	6	B	3
6FH6	6	C	5	D	1
6FHB	6	E	5	B	4
	6	E	5	D	4
6FM8	6	F	5	B	4
	6	F	5	F	4
*6FN5	6	C	3	D	1
(Normal Short A, B, E, F)					
6FQ5	6	D	1	B	3
6FQ7	6	E	5	B	4
	6	E	5	E	4
6FR7	6	F	3	E	4
	6	C	3	B	4
6FSS	6	D	2	A	3
6FV6	6	E	5	A	3
6FVB	6	D	5	A	4
	6	D	5	G	4
6FW5	6	C	5	A	1

6FW8

TUBE	A	B	C	D	SKT
6FW8	6	E	5	B	4
	6	E	5	E	4
6FY5	6	D	1	B	3
6FY8	6	F	5	A	4
	6	E	5	C	4
6G6	6	D	5	D	1
6GB5	6	C	4	A	5
*6GC6	6	C	3	D	1
(Normal short A, E)					
6GEB	6	F	5	F	4
	6	D	5	C	4
6GCS	6	C	1	C	4
6GH8	6	E	5	G	4
	6	E	5	B	4
6GJ8	6	E	5	B	4
	6	E	5	G	4
6GK5	6	E	6	B	3
6GK6	6	C	5	B	4
6GMS	6	C	3	D	5
6GM6	6	D	5	A	3
6GM8	6	E	5	B	4
	6	E	5	E	4
6GN8	6	G	5	B	4
	6	C	5	E	4
6GS8	6	D	5	E	4
6GW6	6	C	5	D	1
6GX6	6	E	5	A	3

6GY6

TUBE	A	B	C	D	SKT
6GY6	6	E	5	A	3
6GY8	6	E	5	A	4
	6	E	5	C	4
	6	H	5	D	4
6H4	6	F	5	C	1
6H6	6	E	5	B	1
	6	E	5	D	1
6H8	6	G	5	C	1
	6	G	5	D	1
	6	D	5	H	1
6HB6	6	C	3	A	4
6HC8	6	F	5	A	4
	6	C	5	C	4
6HF8	6	D	5	E	4
	6	F	5	B	4
6HG8	6	D	5	B	4
	6	E	5	D	4
6HJ8	6	G	5	F	4
	6	D	5	B	4
6HK8	6	E	5	B	4
	6	E	5	E	4
6HS8	6	D	5	E	4
6HU8	6	C	5	B	4
	6	C	5	D	4
6HZ8	6	F	5	B	4
	6	D	5	E	4

6N7

TUBE	A	B	C	D	SKT
6N7	6	E	5	C	1
	6	E	5	D	1
6N8	6	G	5	E	4
	6	G	5	F	4
	6	F	5	B	4
6P5	6	F	5	D	1
*6P7	6	F	5	H	1
(Normal Short B)					
6P8	6	F	5	D	1
	6	E	5	H	1
6Q4	6	D	6	A	5
6Q5	6	F	5	D	1
6Q6	6	G	5	D	1
	6	F	5	H	1
6Q7	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
6R3	6	A	2	G	4
6R4	6	C	5	A	4
6R6	6	E	5	H	1
6R7	6	G	5	C	1
	6	G	5	D	1
	6	E	5	H	1
6R8	6	G	5	A	4
	6	G	5	D	4
	6	G	5	B	4
	6	E	5	F	4

6J4

TUBE	A	B	C	D	SKT
*6J4	6	H	1	E	3
(Emission & Short Test Only; Normal Short C, D)					
6J5	6	E	5	D	1
6J6	6	E	5	C	3
	6	E	5	D	3
6J7	6	F	5	H	1
6J8	6	F	5	D	1
	6	F	5	H	1
6JC8	6	E	1	F	4
	6	D	1	B	4
6JEB	6	F	5	B	4
	6	D	5	E	4
6K5	6	F	5	H	1
6K6	6	B	5	D	1
6K7	6	E	5	H	1
6K8	6	E	5	D	1
6L5	6	F	5	D	1
6L6	6	C	5	D	1
6L7	6	F	5	H	1
6M5	6	C	4	B	4
6M6	6	F	5	D	1
6M7	6	D	5	H	1
6M8	6	G	5	F	1
	6	G	5	D	1
	6	F	5	H	1
6N3	6	A	2	G	4
*6N4	6	D	6	A	3
(Normal Short B, D)					

6SR7

TUBE	A	B	C	D	SKT
6SR7	6	G	5	D	2
	6	G	5	E	2
	6	E	5	B	2
6SS7	6	E	5	C	1
6ST7	6	G	5	D	2
	6	G	5	E	2
	6	F	5	B	2
6SU7	6	F	5	A	2
	6	F	5	D	2
6SV7	6	G	5	E	2
	6	F	5	B	2
6SZ7	6	G	5	D	2
	6	G	5	E	2
	6	F	5	B	2
*6T4	6	D	4	B	3
(Normal Short A, E)					
6T6	6	E	5	H	1
6T7	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
6T8	6	G	5	A	4
	6	G	5	B	4
	6	G	5	D	4
	6	F	5	F	4
6U3	6	A	1	G	4
6U4	6	A	5	E	2
6U6	6	C	5	D	1
6U7	6	E	5	H	1

6U8

TUBE	A	B	C	D	SKT
6U8	6	D	5	B	4
	6	D	5	G	4
6V3	6	A	3	E	5
6V4	6	A	5	A	4
	6	A	5	E	4
6V5	6	C	5	E	2
6V6	6	C	5	D	1
6V7	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
6V8	6	F	5	D	4
	6	G	5	B	4
	6	G	5	E	4
	6	G	5	G	4
6W4	6	A	2	E	2
6W5	6	B	5	B	1
	6	B	5	D	1
6W6	6	C	5	D	1
6W7	6	F	5	H	1
6X4	6	B	5	A	3
	6	B	5	D	3
6X5	6	B	5	B	1
	6	B	5	D	1
6X8	6	E	5	B	4
	6	E	5	E	4
6Y3	6	F	5	H	1
6Y6	6	C	5	D	1

6S2

TUBE	A	B	C	D	SKT
6S2	6	H	1	H	5
6S4	6	C	3	H	4
6S6	6	D	5	H	1
6S7	6	E	5	H	1
6S8	6	G	5	A	2
	6	G	5	C	2
	6	G	5	D	2
	6	F	5	H	2
6SA7	6	D	5	D	1
6SB7	6	D	5	D	1
6SC7	6	F	5	C	2
	6	F	5	D	2
6SD7	6	D	5	C	1
6SE7	6	F	5	C	1
6SF5	6	F	5	C	2
6SF7	6	G	5	B	2
	6	D	5	E	2
6SG7	6	D	4	C	1
6SH7	6	D	4	C	1
6SJ7	6	E	5	C	1
6SK7	6	D	5	C	1
6SL7	6	F	5	A	2
	6	F	5	D	2
6SN7	6	E	5	A	2
	6	E	5	D	2
6SQ7	6	G	5	D	2
	6	G	5	E	2
	6	F	5	B	



7FC7					
TUBE	A	B	C	D	SKT
7FC7	7	D	6	B	4
	7	D	6	D	4
7G7	6	F	5	E	6
7G8	6	F	5	C	6
	6	F	5	E	6
7H7	6	D	5	E	6
7HG8	7	D	5	B	4
	7	E	5	D	4
7J7	6	F	5	C	6
	6	E	5	E	6
7K7	6	G	5	D	6
	6	G	5	E	6
	6	F	5	C	6
7L7	6	F	5	E	6
7N7	6	E	5	C	6
	6	E	5	E	6
7Q7	6	E	5	C	6
7R7	6	G	5	B	6
	6	G	5	C	6
	6	F	5	E	6
7S7	6	E	5	C	6
	6	D	5	E	6
7T7	6	E	5	E	6
7V7	6	E	5	E	6
7W7	6	D	7	E	6
7X6	6	B	5	B	6
	6	B	5	E	6

25

7X7					
TUBE	A	B	C	D	SKT
7X7	6	F	5	B	6
	6	G	5	E	6
	6	G	5	D	6
7Y4	6	B	3	B	6
	6	B	3	E	6
7Z4	6	B	3	B	6
	6	B	3	E	6
8AU8	8	E	5	B	4
	8	D	5	E	4
8AW8	8	F	5	B	4
	8	D	5	E	4
8B8	8	C	5	C	4
	8	F	5	A	4
8BA8	8	E	5	B	4
	8	D	5	E	4
8BH8	8	E	5	B	4
	8	D	5	E	4
8BN8	8	E	5	A	4
	8	E	5	D	4
	8	F	5	F	4
*8BQ5	8	C	1	B	4
8BQ7	8	E	5	B	4
	8	E	5	E	4
8BV7	8	E	6	F	4
	8	G	6	D	4
	8	G	6	A	4
8CG7	8	E	5	B	4
	8	E	5	E	4

8CM7					
TUBE	A	B	C	D	SKT
8CM7	8	E	2	E	4
	8	D	2	F	4
8CN7	8	F	8	A	4
	8	F	8	B	4
	8	F	8	E	4
8CS7	8	C	2	C	4
	8	F	2	E	4
*8CW5	8	C	1	B	4
8CX8	8	E	5	B	4
	8	C	5	E	4
8CY7	8	C	2	C	4
	8	E	2	E	4
8DX8	8	F	5	A	4
	8	D	5	F	4
8EB8	8	F	5	B	4
	8	C	5	E	4
8EM5	8	C	4	C	4
8ET7	8	F	5	B	4
	8	F	5	C	4
	8	D	5	E	4
	8	E	5	E	4
	8	D	5	E	4
8GN8	8	G	5	B	4
	8	C	5	E	4
8HGB	8	D	5	B	4
	8	E	5	D	4
8JEB	8	F	5	B	4
	8	D	5	E	4

26

8SN7					
TUBE	A	B	C	D	SKT
8SN7	8	E	5	A	2
	8	E	5	D	2
9A8	9	D	5	B	4
	9	E	5	G	4
9AK8	9	G	5	A	4
	9	G	5	D	4
	9	G	5	B	4
	9	F	5	F	4
9AQ8	9	D	5	B	4
	9	D	5	E	4
9AU7	9	D	8	B	4
	9	D	8	E	4
9BM5	9	C	6	A	3
9BR7	9	E	8	D	4
	9	E	8	E	4
	9	E	8	B	4
9BR8	9	E	5	A	4
	9	D	5	G	4
9BW6	9	C	1	B	4
9CL8	9	D	5	A	4
	9	D	5	G	4
9D7	9	E	1	B	4
9DZ8	9	F	5	A	4
	9	C	5	C	4
9EF6	9	C	5	D	1
9U8	9	D	5	B	4
	9	D	5	G	4

9X8					
TUBE	A	B	C	D	SKT
9X8	9	E	5	B	4
	9	E	5	E	4
*10BQ5	10	C	1	B	4
10C8	10	E	5	B	4
	10	D	5	F	4
10DA7	10	E	2	E	4
	10	C	2	C	4
10DE7	10	E	3	E	4
	10	C	3	B	4
10DR7	10	E	3	E	4
	10	C	3	B	4
10EB8	10	F	5	B	4
	10	C	5	E	4
10EG7	10	D	5	A	2
	10	E	5	D	2
10EM7	10	D	5	A	2
	10	F	5	E	2
10EW7	10	F	3	B	4
	10	C	3	E	4
10FD7	10	C	3	B	4
	10	D	3	B	4
10FR7	10	C	3	B	4
	10	F	3	E	4
10HF8	10	D	5	E	4
	10	F	5	B	4
11C5	11	C	3	B	3
11CY7	11	E	2	E	4
	11	C	2	C	4

27

12AJ7					
TUBE	A	B	C	D	SKT
12AJ7	12	G	8	B	4
	12	F	8	E	4
12AJ8	12	E	5	B	4
	12	F	5	G	4
12AK7	12	C	5	C	1
12AL5	12	E	5	B	3
	12	E	5	E	3
12AL8	12	G	5	C	4
	12	E	5	F	4
12AQ5	12	C	6	A	3
12AS5	12	C	3	B	3
12AT6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
12AT7	12	E	8	B	4
	12	E	8	E	4
12AU6	12	D	5	A	3
12AU7	12	D	8	B	4
	12	D	8	E	4
12AU8	12	D	5	E	4
	12	E	5	B	4
12AV5	12	C	5	A	1
12AV6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
12AV7	12	E	8	B	4
	12	E	8	E	4
12AW6	12	E	5	A	3

28

11JE8					
TUBE	A	B	C	D	SKT
11JE8	11	E	5	B	4
	11	D	5	E	4
12A4	12	C	3	E	5
12A6	12	C	5	D	1
12A8	12	E	5	D	1
*12AB5	12	C	4	C	4
	(Normal Short A, F,)				
12AC5	12	C	2	E	6
12AC6	12	F	5	A	3
12AD5	12	F	7	B	4
12AD6	12	F	5	A	3
12AD7	12	F	8	B	5
	12	F	8	E	5
12AE6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
12AE7	12	F	8	B	4
	12	G	8	E	4
12AF3	12	A	2	G	4
12AF6	12	F	5	A	3
12AG6	12	F	5	A	3
12AH6	12	D	5	A	3
12AH7	12	F	5	A	2
	12	F	5	E	2
12AH8	12	F	8	E	4
	12	F	8	B	4
12AJ6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3

12BL6					
TUBE	A	B	C	D	SKT
12BL6	12	F	5	A	3
12BN6	12	H	5	C	3
	(Emission & short test only)				
12BQ6	12	C	5	D	1
12BR7	12	E	8	D	4
	12	E	8	E	4
	12	E	8	B	4
12BT6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
12BU6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
*12BV7	12	C	4	B	4
	(Normal Short C, G)				
12BW4	12	B	5	A	4
	12	B	5	E	4
12BX6	12	D	1	B	4
*12BY7	12	C	4	B	4
	(Normal Short C, G)				
12BZ6	12	D	5	A	3
12BZ7	12	F	8	B	4
	12	F	8	E	4
12C5	12	C	3	B	3
12C8	12	G	5	C	1
	12	G	5	D	1
	12	E	5	H	1
12CA5	12	C	3	B	3

29

12AX4					
TUBE	A	B	C	D	SKT
12AX4	12	A	2	E	2
12AX7	12	F	8	B	4
	12	F	8	E	4
12AY7	12	F	8	B	4
	12	F	8	E	4
12AZ7	12	E	8	B	4
	12	E	8	E	4
12B3	12	C	5	E	5
12B4	12	C	3	E	5
12B6	12	G	5	D	1
	12	F	5	H	1
12B7	12	E	5	E	6
12B8	12	F	5	F	1
	12	E	5	H	1
12BA6	12	D	5	A	3
12BA7	12	D	7	B	4
12BD5	12	C	5	A	1
12BD6	12	D	5	A	3
12BE6	12	D	5	A	3
12BF6	12	G	5	C	3
	12	G	5	D	3
	12	E	5	A	3
12BH7	12	D	8	B	4
	12	D	8	E	4
12BK5	12	C	6	C	4
12BK6	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3

12DL8					
TUBE	A	B	C	D	SKT
12DL8	12	C	5	C	4
	12	G	5	G	4
	12	G	5	A	4
12DM4	12	A	2	E	2
12DM5	12	C	3	B	3
12DM7	12	E	8	B	4
	12	E	8	E	4
12DQ6	12	C	5	D	1
*12DQ7	12	C	4	B	4
	(Normal Short C, G)				
12DS7	12	G	5	A	4
	12	G	5	G	4
	12	D	5	C	4
12DT5	12	C	4	C	4
12DT6	12	E	5	A	3
12DT7	12	G	8	B	4
	12	G	8	E	4
12DT8	12	E	5	B	4
	12	E	5	E	4
12DU7	12	G	5	E	4
	12	G	5	G	4
	12	D	5	A	4
12DV7	12	G	8	B	4
	12	G	8	C	4</



12EZ6

TUBE	A	B	C	D	SKT
12EZ6	12	F	5	A	3
12F5	12	F	5	H	1
12F8	12	G	5	A	4
	12	G	5	D	4
	12	F	5	F	4
12FA6	12	F	5	A	3
12FK6	12	G	5	D	3
	12	G	5	C	3
	12	F	5	A	3
12FM6	12	G	5	D	3
	12	G	5	C	3
	12	F	5	A	3
12FQ8	12	F	5	B	4
	12	F	5	E	4
12FR8	12	F	5	C	4
	12	G	5	A	4
	12	G	5	G	4
12FT6	12	G	5	D	3
	12	G	5	C	3
	12	F	5	A	3
12FX8	12	G	5	D	4
	12	F	5	B	4
12FY8	12	F	5	A	4
	12	E	5	C	4
12G4	12	E	3	D	3

31

12G7

TUBE	A	B	C	D	SKT
12G7	12	G	5	C	1
	12	G	5	D	1
	12	F	5	H	1
12G8	12	F	8	C	4
	12	F	8	F	4
12GA6	12	F	5	A	3
*12GC6	12	C	3	D	1
		(Normal short A, E)			
12GW6	12	C	5	D	1
*12H4	12	E	2	F	3
		(Normal Short A, C)			
12H6	12	E	5	B	1
	12	E	5	D	1
12HUB	12	C	5	B	4
	12	C	5	D	4
12J5	12	E	5	D	1
12J7	12	F	5	H	1
12J8	12	F	5	F	4
	12	F	5	G	4
	12	D	5	A	4
12K5	12	D	4	C	3
12K7	12	E	5	H	1
12K8	12	E	5	D	1
12L6	12	C	5	D	1
12Q7	12	G	5	C	1
	12	G	5	D	1
	12	F	5	H	1
12R5	12	C	3	B	3

14A7

TUBE	A	B	C	D	SKT
14A7	14	E	5	E	6
14AF7	14	E	5	C	6
	14	E	5	D	6
14B6	14	G	7	B	6
	14	G	7	D	6
	14	F	7	E	6
14B8	14	F	5	C	6
14C5	14	C	5	E	6
14C7	14	E	5	E	6
14DA7	14	C	2	C	4
	14	E	2	E	4
14E6	14	G	7	D	6
	14	G	7	E	6
	14	F	7	B	6
14E7	14	G	5	B	6
	14	G	5	C	6
	14	E	5	E	6
14F7	14	F	5	C	6
	14	F	5	D	6
14G6	14	G	8	D	4
	14	G	8	F	4
	14	G	8	B	4
14GT8	14	F	5	B	4
	14	F	5	D	4
	14	F	5	F	4
14H7	14	D	5	E	6

33

14J7

TUBE	A	B	C	D	SKT
14J7	14	F	5	C	6
	14	D	5	E	6
14JG8	14	E	5	B	4
	14	E	5	D	4
	14	F	5	F	4
14K7	14	D	5	E	6
	14	F	5	C	6
14L7	14	F	3	E	6
	14	G	3	D	6
	14	E	5	C	6
	14	E	5	D	6
14Q7	14	E	5	C	6
14R7	14	G	5	B	6
	14	G	5	C	6
	14	F	5	E	6
14S7	14	F	5	C	6
	14	D	5	E	6
14V7	14	E	5	E	6
14W7	14	D	7	E	6
14X7	14	G	5	D	6
	14	G	5	E	6
	14	F	5	B	6
14Y4	14	B	5	B	6
	14	B	5	E	6
14Y7	14	D	5	B	4
	14	F	5	G	4
15A6	15	C	5	B	4

19BG6

TUBE	A	B	C	D	SKT
19BG6	19	C	5	D	1
19C8	19	F	5	F	4
	19	G	5	B	4
	19	G	5	D	4
	19	G	5	A	4
19CL8	19	D	5	A	4
	19	D	5	G	4
19CS4	19	A	5	E	2
19D8	19	E	5	B	4
	19	F	5	G	4
19DE7	19	C	3	B	4
	19	E	3	E	4
19EAB	19	D	5	G	4
	19	D	5	B	4
19EZ8	19	E	5	B	4
	19	E	5	E	4
	19	E	5	G	4
19HY8	19	D	5	G	4
	19	F	5	A	4
19J6	19	E	5	C	3
	19	E	5	D	3
19T8	19	G	5	A	4
	19	G	5	B	4
	19	G	5	D	4
	19	F	5	F	4
19V8	19	G	5	E	4
	19	F	5	F	4
	19	G	5	B	4
	19	G	5	G	4

35

19X3

TUBE	A	B	C	D	SKT
19X3	19	A	2	G	4
19X8	19	E	5	B	4
	19	E	5	E	4
19Y3	19	A	2	G	4
20D4	20	D	5	B	4
	20	D	5	G	4
20EQ7	20	E	5	B	4
	20	G	5	E	4
20J8	20	E	5	H	1
	20	F	5	D	1
*21A6	21	C	1	B	4
21A7	21	E	5	E	6
	21	F	5	C	6
*21B6	21	C	1	B	4
21EX6	21	C	5	D	1
22DE4	22	A	2	E	2
25A6	25	C	5	D	1
25A7	25	B	5	E	1
	25	C	5	D	1
25AC5	25	F	5	D	1
25AU4	25	A	2	E	2
25AV5	25	C	5	A	1
25AX4	25	A	2	E	2
25B6	25	C	5	D	1
25B8	25	F	5	F	1
	25	E	5	H	1
25BK5	25	C	6	C	4

12S7

TUBE	A	B	C	D	SKT
12S7	12	E	5	E	6
	12	G	5	B	6
12S8	12	G	5	A	2
	12	G	5	C	2
	12	G	5	D	2
	12	F	5	H	2
12SA7	12	D	5	D	1
12SC7	12	F	5	C	2
	12	F	5	D	2
12SF5	12	F	5	C	2
12SF7	12	G	5	E	2
	12	D	5	B	2
12SG7	12	D	4	C	1
12SH7	12	D	4	C	1
12SJ7	12	E	5	C	1
12SK7	12	D	5	C	1
12SL7	12	F	5	A	2
	12	F	5	D	2
12SN7	12	E	5	A	2
	12	E	5	D	2
12SQ7	12	G	5	E	2
	12	G	5	D	2
	12	F	5	B	2
12SR7	12	G	5	E	2
	12	G	5	D	2
	12	F	5	B	2
12SS7	12	E	5	C	1

32

12ST7

TUBE	A	B	C	D	SKT
12ST7	12	E	5	B	2
	12	G	5	D	2
	12	G	5	E	2
12SW7	12	G	5	E	2
	12	G	5	D	2
	12	E	5	B	2
12SX7	12	E	5	A	2
	12	E	5	D	2
12SY7	12	D	5	D	1
12U7	12	G	8	B	4
	12	G	8	E	4
12V6	12	C	5	D	1
12W6	12	C	5	D	1
12X4	12	B	5	A	3
	12	B	5	D	3
13CM5	13	A	2	D	1
13DE7	13	E	3	G	4
	13	C	3	B	4
13DR7	13	E	3	G	4
	13	C	3	B	4
13EM7	13	D	5	A	2
	13	F	5	D	2
13FD7	13	C	3	B	4
	13	F	3	E	4
13FR7	13	C	3	B	4
	13	F	3	E	4
14A4	14	E	4	E	6
14A5	14	C	5	E	6

15A8

TUBE	A	B	C	D	SKT
15A8	15	F	5	B	1
	15	C	5	C	1
*15CW5	15	C	1	B	4
15EA7	15	D	5	A	2
	15	F	5	D	2
15EW6	15	D	5	A	3
16A5	16	C	7	B	4
16A8	16	E	5	A	4
	16	C	5	C	4
16AQ3	16	A	1	C	3
16GK8	16	C	5	C	4
	16	F	5	A	4
17AV5	17	C	5	A	1
17AX4	17	A	2	E	2
17BQ6	17	C	5	D	1
17C5	17	C	3	B	3
17C8	17	G	5	E	4
	17	G	5	F	4
	17	F	5	B	4
17CA5	17	C	3	B	3
17CQ4	17	A	2	E	2
17CU5	17	C	3	B	3
17D4	17	A	2	E	2
17DE4	17	A	2	E	2
17DM4	17	A	2	E	2
17DQ6	17	C	5	D	1
17EW8	17	E	5	B	4
	17	E	5	E	4

34

17GW6

TUBE	A	B	C	D	SKT
17GW6	17	C	5	D	1
17H3	17	B	6	C	4
17HC8	17	F	5	A	4
	17	C	5	C	4
17L6	17	C	5	D	1
17R5	17	C	3	B	3
17W6	17	C	5	D	1
17Z3	17	A	2	G	4
18A5	18	C	5	A	1
18AK5	18	E	2	A	3
18AQ5	18	C	6	A	3
18DZ8	18	F	5	A	4
	18	C	5	C	4
18FW6	18	D	5	A	3
18FX6	18	E	5	A	3
18FY6	18	G	5	C	3
	18	G	5	D	3
	18	F	5	A	3
18GD6	18	D</			



## 32L7

TUBE	A	B	C	D	SKT
32L7	32	A	5	E	1
	32	C	5	D	1
34GD5	34	C	3	B	3
35A3	35	B	5	C	3
35A5	35	C	5	E	6
35B5	35	C	6	A	3
35C3	35	B	5	C	3
35C5	35	C	3	B	3
35CD6	35	C	5	D	1
*35D5	35	C	8	A	4
(Normal Short B, C, E, F)					
35DZ8	35	F	5	A	4
	35	C	5	C	4
35EH5	35	C	3	B	3
*35FM5	35	C	4	C	1
(Normal Short A, B, E, F)					
35GL6	35	C	4	B	3
35HBB	35	F	5	A	4
	35	C	5	G	4
35L6	35	C	5	D	1
35W4	35	A	4	C	3
35Y4	35	A	3	A	6
35Z3	35	A	5	A	6
35Z4	35	B	5	D	1
35Z5	35	B	2	D	1
35Z6	35	B	5	B	1
	35	B	5	D	1
36AM3	36	A	4	C	3

37

## 38A3

TUBE	A	B	C	D	SKT
*38A3	38	A	2	G	4
40FR5	40	C	3	B	3
40Z5	40	B	2	D	1
45A5	45	C	2	E	6
*45B5	45	C	1	B	4
45Z3	45	B	2	D	3
(Use 7 Pin Adaptor)					
45Z5	45	B	2	D	1
50A5	50	C	5	E	6
50AX6	50	A	5	B	1
	50	A	5	D	1
50B5	50	C	6	A	3
50BK5	50	C	6	C	4
50BM8	50	F	5	A	4
	50	C	5	C	4
50C5	50	C	3	B	3
50C6	50	C	5	D	1
50CA5	50	C	3	B	3
50CD6	50	C	5	D	1
50DC4	50	A	4	C	1
50EH5	50	C	3	B	3
50FA5	50	C	3	B	3
50FE5	50	C	5	D	1
50FK5	50	C	3	B	3
50FY8	50	F	5	A	4
	50	E	5	C	4
50HCB	50	C	4	B	3
50L6	50	C	5	D	1

## 5642

TUBE	A	B	C	D	SKT
5642	1	H	5	H	3
(Insert two tube leads into pins 3 & 4, touch cap lead to top lead on tube)					
5654	5	E	2	A	3
5656	6	E	2	A	3
5679	6	E	3	B	6
	6	E	3	E	6
*5686	6	C	3	B	4
(Normal Short A, D, F, G)					
5687	12	C	7	B	4
	12	C	7	E	4
5691	6	F	5	A	2
	6	F	5	D	2
5692	6	E	5	A	2
	6	E	5	D	2
5693	6	E	5	C	1
5694	6	F	5	C	1
	6	F	5	D	1
5725	6	E	5	A	3
5726	6	E	5	B	3
	6	E	5	E	3
5749	6	D	5	A	3
5750	6	D	5	A	3
5751	12	F	8	B	4
	12	F	8	E	4
5763	6	C	7	G	4

39

## 5814

TUBE	A	B	C	D	SKT
5814	12	E	8	B	4
	12	E	8	E	4
5824	25	C	5	D	1
5838	12	B	5	B	1
	12	B	5	D	1
5839	26	B	5	B	1
	26	B	5	D	1
5844	6	G	5	C	3
	6	G	5	D	3
5845	5	G	6	A	3
	5	G	6	C	3
5852	6	B	5	B	1
	6	B	5	D	1
5857	6	C	5	D	1
5871	6	C	5	D	1
5879	6	F	5	A	4
5881	6	C	5	D	1
5910	1	G	3	D	3
(Use 7 Pin Adaptor)					
5915	6	E	5	A	3
5920	6	F	5	C	3
	6	F	5	D	3
*5931	5	A	5	C	1
	5	A	5	E	1
(Normal Short F, H-K)					
5932	6	C	5	D	1
5963	12	E	8	B	4
	12	E	8	E	4

## 6098

TUBE	A	B	C	D	SKT
*6098	6	G	5	E	2
(Emission and Short test only; normal short F, H-K)					
6099	6	E	5	C	3
	6	E	5	D	3
6100	6	E	1	D	3
6101	6	E	5	C	3
	6	E	5	D	3
*6106	5	B	5	C	1
	5	B	5	E	1
(Normal Short F, H-K)					
6113	6	F	5	A	2
	6	F	5	D	2
6132	6	C	1	B	4
6134	6	D	5	C	1
6135	6	E	1	D	3
6136	6	D	5	A	3
6137	6	D	5	C	1
6145	6	E	5	E	6
*6146	6	C	6	D	1
(Normal Short A, C)					
*6159	6	C	6	D	1
(Normal Short A, C)					
6180	6	E	5	A	2
	6	E	5	D	2
6186	6	E	2	A	3
6187	6	E	5	A	3
6188	6	F	5	A	2
	6	F	5	D	2

41

## 6189

TUBE	A	B	C	D	SKT
6189	12	D	8	B	4
	12	D	8	E	4
*6197	6	C	8	B	4
(Normal Short C, F)					
6201	12	E	8	B	4
	12	E	8	E	4
6202	6	B	5	A	3
	6	B	5	D	3
6203	6	B	5	A	4
	6	B	5	G	4
6211	12	F	8	B	4
	12	F	8	E	4
*6215	1	H	5	H	1
(Normal Short F, H-K)					
*6216	6	C	4	B	4
(Normal Short C, F)					
6227	6	C	1	B	4
6265	6	E	5	A	3
6267	6	F	5	G	4
*6287	6	C	6	F	4
(Normal Short C, D, G)					
6325	6	A	5	C	2
	6	A	5	E	2
6327	6	C	1	D	1
6336	6	C	5	A	2
	6	C	5	D	2
6350	12	E	8	C	4
	12	E	8	F	4

## 50X6

TUBE	A	B	C	D	SKT
50X6	50	A	5	B	6
	50	A	5	E	6
50Y6	50	B	5	B	1
	50	B	5	D	1
50Y7	50	A	6	B	1
	50	A	6	D	1
50Z6	50	A	5	B	1
	50	A	5	D	1
50Z7	50	A	6	B	1
	50	A	6	D	1
*55N3	55	A	2	G	4
60EH5	60	C	3	B	3
60FX5	50	C	3	B	3
XXB	1	F	7	C	6
	1	F	7	D	6
XXD	12	E	5	C	6
	12	E	5	D	6
XXFM	6	G	5	D	6
	6	F	5	B	6
	6	F	5	E	6
XXL	6	E	5	E	6
X6030	3	F	3	D	1
*815	12	C	4	A	6
	12	C	4	D	6
(Normal Short B, E)					
*1201	6	E	6	A	2
(Normal Short B, C, D, F, H-K)					
1223	6	F	5	H	1

38

## 1273

TUBE	A	B	C	D	SKT
1273	6	F	5	E	6
1280	12	F	5	E	6
1294	1	H	5	C	6
1612	6	F	5	H	1
1614	6	C	5	D	1
1619	2	C	5	D	1
1620	6	F	5	H	1
1621	6	C	5	D	1
1622	6	C	5	D	1
1631	12	C	5	D	1
1632	12	C	5	D	1
1633	25	E	5	A	2
	25	E	5	D	2
1634	12	F	5	C	2
	12	F	5	D	2
1635	6	F	5	C	1
	6	F	5	D	1
*1654	1	H	2	H	3
(Use 7 Pin Adaptor)					
1679	6	E	5	C	3
	6	E	5	D	3
1852	6	E	5	C	1
1853	6	D	5	C	1
5590	6	F	6	A	3
5591	6	E	2	A	3
5610	6	D	3	D	3

## 5964

TUBE	A	B	C	D	SKT
5964	6	E	5	C	3
	6	E	5	D	3
5965	12	E	8	B	4
	12	E	8	E	4
5992	6	C	5	D	1
5998	6	C	5	A	2
	6	C	5	D	2
6000	26	C	5	A	1
6004	5	B	5	H	1
	5	B	5	H	1
(Change clip lead from one tube cap to other)					
6005	6	C	6	A	3
6006	6	D	4	C	1
6028	20	E	2	A	3
6042	6	E	5	A	2
	6	E	5	D	2
6045	6	E	5	C	3
	6	E	5	D	3
6046	25	C	5	D	1
6057	12	G	8	B	4
	12	G	8	E	4
6058	6	E	5	B	3
	6	E	5	E	3
6059	6	F	5	H	1
6060	12	E	8	B	4
	12	E	8	E	4
6061	6	C	5	D	1

40

## 6063

TUBE	A	B	C	D	SKT
6063	6	B	5	A	3
	6	B	5	D	3
6064	6	D	5	A	3
6065	6	E	5	A	3
6066	6	F	5	A	3
	6	G	5	C	3
	6	G	5	D	3
6067	12	D	8	B	4
	12	D	8	E	4
6072	12	E	8	B	4
	12	E	8	E	4
6080	6	C	5	A	2
	6	C	5	D	2
6082	26	C	5	A	2
	26	C	5	D	2
6084	6	G	5	G	4
6085	12	E	8	B	4
	12	E	8	E	4
*6087	5	B	5	C	1
	5	B	5	E	1
(Normal Short F, H-K)					
*6094	6	C	4	A	5
(Normal Short C, G)					
6096	6	E	2	A	3
6097	6	E	5	B	3
	6	E	5	E	3

## 6360

TUBE	A	B	C	D	SKT
6360	12				



6887

TUBE	A	B	C	D	SKT
6887	6	E	5	B	3
	6	E	5	E	3
6888	6	C	5	C	1
6900	12	C	7	B	4
	12	C	7	E	4
6913	12	E	8	B	4
	12	E	8	E	4
6919	6	E	5	B	3
	6	E	5	E	3
6922	6	E	5	B	4
	6	E	5	E	4
6927	6	E	5	C	3
	6	E	5	D	3
6928	6	C	6	A	3
6939	12	C	8	A	4
	12	C	8	C	4
6954	6	E	5	A	3
6955	12	D	8	B	4
	12	D	8	E	4
6968	6	E	2	A	3
*6973	6	C	4	C	4
	(Normal Short A, F)				
7000	6	F	5	H	1
7001	6	C	2	A	3
7025	12	G	8	B	4
	12	G	8	E	4
*7027	6	C	6	D	1
	(Normal Short A, C)				

43

7036

TUBE	A	B	C	D	SKT
7036	6	D	5	A	3
7044	12	C	7	B	4
	12	C	7	E	4
7054	13	C	8	B	4
7055	6	E	5	B	3
	6	E	5	E	3
7056	13	E	5	A	3
7057	13	E	5	B	4
	13	E	5	E	4
7058	13	F	5	B	4
	13	F	5	E	4
7059	13	D	5	B	4
	13	D	5	G	4
7060	13	D	5	B	4
	13	D	5	F	4
*7061	13	C	4	C	4
	(Normal Short A, F)				
7062	12	E	8	B	4
	12	E	8	E	4
7105	13	C	5	A	2
	13	C	5	D	2
7119	12	D	7	B	4
	12	D	7	E	4
7137	6	H	1	E	3
	(Emission & Short Test Only; Normal Short C, D)				
7167	13	E	2	A	3
7189	6	C	1	B	4

7732

TUBE	A	B	C	D	SKT
7732	6	D	5	A	3
*7733	12	C	4	B	4
	(Normal Short C, G)				
7867	6	C	5	D	1
7876	6	C	5	D	1
7892	12	D	7	B	4
	12	D	7	E	4
9001	6	F	2	A	3
*9002	6	E	2	D	3
	(Normal Short A, C)				
9003	6	E	2	A	3
*9006	6	F	1	C	3
	(Normal Short B, E)				
FOREIGN TUBES					
1C1	1	G	3	E	3
	(Use 7 Pin Adapter)				
1D13	1	H	2	D	3
	(Use 7 Pin Adapter)				
1F2	1	F	3	D	3
	(Use 7 Pin Adapter)				
1F3	1	G	3	D	3
	(Use 7 Pin Adapter)				
1FD9	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adapter)				
*1P10	3	F	3	A	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				

45

1P11

TUBE	A	B	C	D	SKT
1P11	3	F	3	D	3
	(Use 7 Pin Adapter)				
*3ART	3	F	3	E	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
6D2	6	E	5	B	3
	6	E	5	E	3
6F12	6	D	5	A	3
40SUA	2	F	5	D	1
43MG	25	C	5	D	1
*805	5	A	5	C	1
	5	A	5	E	1
	(Normal Short, F, H-K)				
A863	6	F	5	H	1
B36	12	E	5	A	1
	12	E	5	D	1
B65	6	E	5	A	1
	6	E	5	D	1
B152	12	E	8	B	4
	12	E	8	E	4
B309	12	E	8	B	4
	12	E	8	E	4
B329	12	D	8	B	4
	12	D	8	E	4
B339	12	F	8	B	4
	12	F	8	E	4
B719	6	D	5	B	4
	6	D	5	E	4

DH63

TUBE	A	B	C	D	SKT
DH63	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
DH76	12	G	5	C	1
	12	G	5	D	1
	12	F	5	H	1
DH77	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
	6	G	7	D	6
	6	F	7	E	6
DH81	6	G	7	B	6
DH147	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
DH149	6	G	7	B	6
	6	G	7	D	6
	6	F	7	E	6
DH719	6	F	5	F	4
	6	G	5	E	4
	6	G	5	B	4
	6	G	5	A	4
	(Use 7 Pin Adapter)				
DK32	1	G	5	D	1
DK91	1	G	3	E	3
DK92	1	F	5	E	3
	(Use 7 Pin Adapter)				

47

DK96

TUBE	A	B	C	D	SKT
DK96	1	F	5	E	3
	(Use 7 Pin Adapter)				
DL31	1	F	5	D	1
DL33	3	D	7	D	1
DL35	1	E	5	D	1
DL36	1	E	5	D	1
DL63	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
*DL91	1	F	3	A	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
*DL92	3	F	3	A	3
	(Normal Short B, D)				
	(Use 7 Pin Adapter)				
*DL93	3	F	3	E	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
DL94	3	F	3	D	3
	(Use 7 Pin Adapter)				
*DL95	3	F	3	A	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
DL96	3	F	3	D	3
	(Use 7 Pin Adapter)				
DL74M	12	G	5	C	1
	12	G	5	D	1
	12	F	5	H	1

7199

TUBE	A	B	C	D	SKT
*7199	6	E	5	E	4
	6	F	5	G	4
*7212	6	C	4	D	1
	(Normal Short A, E)				
7236	6	C	5	A	2
	6	C	5	D	2
7244	6	E	5	D	3
	6	E	5	E	3
*7245	6	H	1	E	3
	(Emission & Short Test only; Normal Short C, D)				
7247	12	D	8	B	4
	12	G	8	E	4
7258	13	D	5	B	4
	13	D	5	F	4
7308	6	E	5	B	4
	6	E	5	E	4
7316	12	E	8	B	4
	12	E	8	E	4
*7320	6	C	1	B	4
7355	6	C	5	E	1
7360	6	E	5	C	4
7370	40	D	6	B	4
	40	D	6	E	4
7408	12	C	5	D	1
7543	6	D	5	A	3
*7551	12	C	1	B	4
	(Normal Short C, F)				

44

7558

TUBE	A	B	C	D	SKT
*7558	6	C	1	B	4
	(Normal Short C, F)				
7581	6	C	5	D	1
7591	6	C	3	E	1
*7607	6	C	1	D	1
	(Normal Short C, E)				
7643	6	D	5	B	4
	6	E	5	G	4
7687	6	E	5	B	4
	6	F	5	G	4
7693	6	E	5	A	3
7695	50	C	3	D	5
7716	13	D	5	E	4
	13	F	5	B	A
7717	6	E	2	A	3
7719	12	F	1	E	5
7721	6	C	1	B	4
7722	6	C	1	B	4
7724	14	F	5	F	4
	14	G	5	D	4
	14	G	5	B	4
7728	12	E	8	B	4
	12	E	8	E	4
7729	12	F	8	B	4
	12	F	8	E	4
7730	12	D	8	B	4
	12	D	8	E	4
7731	6	D	5	B	4
	6	D	5	G	4

BD3

TUBE	A	B	C	D	SKT
BD3	6	D	5	A	3
BPMO4	6	C	6	A	3
C108	2	F	5	D	1
D63	6	F	5	B	1
	6	F	5	D	1
D77	6	E	5	B	3
	6	E	5	E	3
*D92	3	F	3	A	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
D152	6	E	5	B	3
	6	E	5	E	3
*D193	3	F	3	E	3
	(Use 7 Pin Adapter)				
	(Normal Short B, D)				
*D430	1	H	2	H	1
D2M9	6	E	5	B	3
	6	E	5	E	3
DA90	1	H	2	D	3
	(Use 7 Pin Adapter)				
DAC32	1	G	5	D	1
	1	F	5	H	1
DAE32	1	G	5	D	1
	1	F	5	H	1
DAF91	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adapter)				

46

DAF92

TUBE	A	B	C	D	SKT
DAF92	1	G	5	D	3
	1	H	5	E	3
	(Use 7 Pin Adapter)				
DAF96	1	G	2	D	3
	1	H	2	A	3
	(Use 7 Pin Adapter)				
DCC90	3	F	5	C	3
	(Normal Short A, E, H-K)				
DD6	6	E	5	B	3
	6	E	5	E	3
DD7	6	E	5	B	3
	6	E	5	E	3
DF32	1	F	4	E	6
DF33	1	F	5	H	1
DF91	1	G	3	D	3
	(Use 7 Pin Adapter)				
DF92	1	F	3	D	3
	(Use 7 Pin Adapter)				
DF96	1	G	3	D	3
	(Use 7 Pin Adapter)				
DF97	1	C	2	A	3
DF904	1	G	3	D	3
	(Use 7 Pin Adapter)				
DH142	14	F	3	E	6
	14	G	3	D	6
	14	G	3	B	6

DL82

TUBE	A	B	C	D	SKT
DL82	6	G	7	B	6
	6	G	7	D	6
	6	F	7	E	6
DL93	3	F	3	E	3
	(Normal Short B, D)				
	(Use 7 Pin Adapter)				
DP51	6	E	2	A	3
DP61	6	E	2	A	3
*DY30	1	H	2	H	1
	(Normal Short, F, H-K)				
DY70	1	H	5	H	3
	[Insert two parallel leads into Pins 3 & 4; touch cap lead to top lead on tube]				
*DY80	1	H			



EB91					
TUBE	A	B	C	D	SKT
EB91	6	E	5	B	3
	6	E	5	E	3
EBC3	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
EBC33	6	G	5	C	1
	6	G	5	D	1
	6	F	5	H	1
EBC41	6	F	5	B	6
	6	G	5	D	6
	6	G	5	F	6
EBC81	6	G	5	D	4
	6	G	5	F	4
	6	F	5	B	4
EBC90	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
EBC91	6	G	5	C	3
	6	G	5	D	3
	6	F	5	A	3
EBF80	6	G	5	E	4
	6	G	5	F	4
	6	F	5	B	4
EBF89	6	G	5	E	4
	6	G	5	F	4
	6	D	5	B	4
EC80	6	D	6	A	5
EC81	6	C	5	A	4

49

EC90					
TUBE	A	B	C	D	SKT
EC90	6	E	1	D	3
*EC91	6	E	4	A	3
		(Normal Short B, C)			
EC92	6	E	2	D	3
*EC93	6	D	4	B	3
		(Normal Short A, G)			
EC95	6	E	6	B	3
EC97	6	D	1	B	3
ECC32	6	E	5	A	2
	6	E	5	D	2
ECC35	6	D	4	B	1
ECC81	12	E	8	B	4
	12	E	8	E	4
ECC82	12	D	8	B	4
	12	D	8	E	4
ECC83	12	F	8	B	4
	12	F	8	E	4
ECC84	6	D	6	B	4
	6	E	6	D	4
ECC85	6	D	5	B	4
	6	D	5	E	4
ECC86	6	F	5	B	4
	6	F	5	E	4
ECC88	6	D	8	B	4
	6	D	8	E	4
ECC91	6	E	5	C	3
	6	E	5	D	3

EL83					
TUBE	A	B	C	D	SKT
EL83	6	C	5	B	4
*EL84	6	C	1	B	4
EL85	6	C	7	B	4
*EL86	6	C	1	B	4
EL90	6	C	6	A	3
EL91	6	C	5	A	3
EL95	6	E	6	A	3
EL803	6	C	5	B	4
*EL821	6	C	1	B	4
EL822	6	C	5	B	4
EN93	6	F	5	A	3
EQ80	6	F	7	E	4
*EY80	6	A	5	G	4
*EY81	6	A	5	G	4
*EY82	6	A	2	G	4
*EY86	6	H	1	H	5
*EY88	6	A	4	C	5
EZ35	6	B	5	B	1
	6	B	5	D	1
EZ40	6	B	3	A	6
	6	B	3	E	6
EZ80	6	A	5	A	4
	6	A	5	E	4
EZ81	6	A	8	A	4
	6	A	8	E	4
EZ90	6	B	5	A	3
	6	B	5	D	3

51

GZ30					
TUBE	A	B	C	D	SKT
*GZ30	5	B	5	C	1
	5	B	5	E	1
		(Normal Short F, H-K)			
*GZ31	5	A	5	C	1
	5	A	5	E	1
		(Normal Short, F, H-K)			
*GZ32	5	A	5	C	1
	5	A	5	E	1
		(Normal Short F, H-K)			
*GZ34	5	A	5	C	1
	5	A	5	E	1
		(Normal Short, F, H-K)			
H36	6	G	5	H	1
*H52	5	A	5	C	1
	5	A	5	E	1
		(Normal Short, F, H-K)			
H63	6	F	5	H	1
HABC80	19	G	5	A	4
	19	G	5	B	4
	19	G	5	D	4
	19	F	5	F	4
HBC90	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3
HBC91	12	G	5	C	3
	12	G	5	D	3
	12	F	5	A	3

53

N18					
TUBE	A	B	C	D	SKT
*N18	3	F	3	A	3
		(Use 7 Pin Adapter)			
		(Normal Short B, D)			
N19	3	F	3	D	3
		(Use 7 Pin Adapter)			
N77	6	C	5	A	3
N144	6	C	2	A	3
N148	6	C	5	E	6
*N152	21	C	1	B	4
N329	16	C	4	B	4
*N359	21	C	7	B	4
*N707	6	C	1	B	4
*N709	6	C	1	B	4
OF1	6	E	5	H	1
OM6	6	E	5	H	1
OM10	6	E	5	D	1
OSW311	6	D	5	C	1
PABC80	9	G	5	A	4
	9	G	5	B	4
	9	G	5	D	4
	9	F	5	F	4
PCC84	7	E	4	B	4
	7	E	4	D	4
PCC85	8	D	5	B	4
	8	D	5	E	4
PCC88	7	D	5	B	4
	7	D	5	E	4

PCF80					
TUBE	A	B	C	D	SKT
PCF80	9	D	5	B	4
	9	E	5	G	4
PCF82	9	D	5	B	4
	9	D	5	G	4
PCL82	16	F	5	A	4
	16	C	5	C	4
PF9	6	E	5	H	1
*PL36	25	C	1	D	1
PL81	22	C	4	B	4
PL82	16	C	4	B	4
PL83	15	C	5	B	4
PL84	15	C	1	B	4
*PL87	16	C	4	B	4
PMO4	6	D	5	A	3
PMO5	6	E	2	A	3
*PY80	19	A	5	G	4
*PY81	17	A	5	G	4
*PY82	19	A	4	B	4
PY83	17	A	5	G	4
QA2400	6	E	5	A	3
QA2401	6	E	1	D	3
QA2406	12	E	8	B	4
	12	E	8	E	4
QA2407	6	B	5	D	3
	6	B	5	D	3
QA2408	6	E	5	A	2
	6	E	5	D	2

ECC189					
TUBE	A	B	C	D	SKT
ECC189	6	D	8	B	4
	6	D	8	E	4
ECC801S	12	E	8	B	4
	12	E	8	E	4
ECC802S	12	D	8	B	4
	12	D	8	E	4
ECF80	6	F	5	B	4
	6	F	5	G	4
ECF82	6	D	5	B	4
	6	D	5	G	4
ECF86	6	D	5	B	4
	6	E	5	D	4
ECH33	6	E	5	D	1
ECH35	6	D	5	H	1
ECH36	6	E	5	D	1
ECH42	6	E	5	C	6
	6	E	5	E	6
ECH81	6	D	5	G	4
	6	F	5	B	4
ECH83	6	D	8	B	4
	6	D	8	E	4
	6	D	8	B	4
ECL80	6	F	5	B	4
	6	D	5	G	4
ECL82	6	F	5	A	4
	6	C	5	C	4
ECL84	6	D	5	F	4
	6	F	5	A	4

50

EF22					
TUBE	A	B	C	D	SKT
EF22	6	F	5	E	6
EF39	6	E	5	H	1
*EF41	6	E	2	E	6
EF80	6	D	1	B	4
*EF82	6	C	1	B	4
EF85	6	D	1	B	4
EF86	6	F	5	G	4
*EF89	6	D	4	B	4
EF91	6	D	5	A	3
EF92	6	E	5	A	3
EF93	6	D	5	A	3
EF94	6	D	5	A	3
EF95	6	E	2	A	3
EF96	6	D	5	A	3
EF97	6	D	5	A	3
EF98	6	D	5	A	3
EF183	6	D	1	B	4
EF184	6	D	1	B	4
EH90	6	D	5	A	3
EK90	6	D	5	A	3
EL33	6	F	5	D	1
EL34	6	C	5	D	1
*EL36	6	C	3	D	1
EL37	6	C	5	D	1
EL38	6	C	5	D	1
*EL41	6	E	2	E	6
*EL81	6	C	6	B	4
		(Normal Short A, D, G)			

HCC85					
TUBE	A	B	C	D	SKT
HCC85	17	E	5	B	4
	17	E	5	E	4
HCH81	12	D	5	C	1
HD14	1	G	5	D	1
	1	F	5	H	1
HF93	12	D	5	A	3
HF94	12	D	5	A	3
HK90	12	D	5	A	3
HL90	19	C	6	A	3
HL92	50	C	3	B	3
HL94	30	C	3	B	3
HMO4	6	D	5	A	3
HY90	35	B	4	C	1
KBC32	2	G	5	C	1
	2	G	5	D	1
	2	F	5	E	1
KF35	2	F	5	D	1
KK32	1	E	5	D	1
KL35	2	E	5	D	1
KT32	25	C	5	D	1
KT61	6	F	5	D	1
KT63	6	B	5	D	1
KT66	6	C	5	D	1
KT81	6	C	5	E	6
KT88	6	C	5	D	1
KTW63	6	E	5	H	1
L63	6	E	5	D	1
L77	6	E	1	D	3

52

LN152					
TUBE	A	B	C	D	SKT
LN152	6	F	5	B	4
	6	D	5	G	4
M8079	6	E	5	B	3
	6	E	5	E	3
M8080	6	E	1	D	3
M8081	6	E	5	C	3
	6	E	5	D	3
M8083	6	D	5	A	3
M8100	6	E	2	A	3
M8136	12	D	8	B	4
	12	D	8	E	4
M8161	6	E	5	A	3
M8162	12	E	8	B	4
	12	E	8	E	4
M8196	6	E	5	A	3
M8212	6	E	5	B	3
	6	E	5	E	3
*M8232	6	G	5	E	3
		(Emission and Short Test only;			
		Normal Short C, D)			
M8245	6	C	6	A	3
N14	1	E	5	D	1
N15	3	G	3	D	1
N16	3	F	7	D	1
*N17	3	F	3	A	3
		(Normal Short B, D)			
		(Use 7 Pin Adapter)			

QE05/40					
TUBE	A	B	C		



### UCH42

TUBE	A	B	C	D	SKT
UCH42	12	G	5	D	6
	12	G	5	E	6
UCH81	19	E	5	D	1
UCL82	50	F	5	A	4
	50	C	5	C	4
*UF41	6	G	5	D	1
UF89	12	D	4	B	4
*UL41	45	C	2	E	6
UL84	45	C	1	B	4
UR1C	2	F	5	D	1
*UY41	31	B	2	A	6
UY42	55	A	5	G	4
UY85	38	A	5	G	4
VP12D	12	G	5	C	1
	12	G	5	D	1
	12	F	5	H	1
V2M70	6	B	5	A	3
	6	B	5	D	3
W17	1	F	3	D	3
	(Use 7 Pin Adaptor)				
W76	12	E	5	H	1
W81	6	E	5	E	6
W147	6	E	5	H	1
W148	6	E	5	E	6
W149	6	E	5	E	6
W179	6	D	5	B	4
W727	6	D	5	A	3
X14	1	G	5	D	1

### X17

TUBE	A	B	C	D	SKT
X17	1	G	3	E	3
	(Use 7 Pin Adaptor)				
X18	1	F	5	E	3
X63	6	E	5	D	1
X64	6	F	5	H	1
X65	6	E	5	D	1
X66	6	E	5	D	1
X71M	12	E	5	D	1
X75	12	E	5	D	1
X76M	12	E	5	D	1
X79	6	F	5	E	4
	6	E	5	B	4
X719	6	E	5	B	4
	6	E	5	G	A
X727	6	D	5	A	3
XC95	2	E	6	B	3
XCC189	4	D	5	B	4
	4	D	5	E	4
XCF80	4	D	5	B	4
	4	D	5	G	4
XF183	3	D	1	B	4
XF184	3	D	1	B	4
YF183	4	D	1	B	4
YF184	4	D	1	B	4
Z14	1	F	5	H	1
Z63	6	F	5	H	1
Z77	6	D	5	A	3

55

### Z152

TUBE	A	B	C	D	SKT
Z152	6	D	5	B	4
Z179	6	D	5	B	4
Z729	6	F	5	G	4
ZD17	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adaptor)				
ZD19	1	G	5	D	3
	1	H	5	A	3
	(Use 7 Pin Adaptor)				

TUBE A B C D SKT

56