AD-1651

VIBRATORY SPOON

INSTRUCTION MANUAL

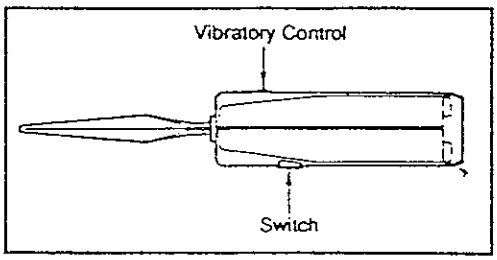
owners-AD-1651-v.1 89.05.20 BLP

VIBRATORY SPOON ACCESSORY

A&D Mercury PTY.LTD.

A&D MERCURY PTY. LTD.
32 Dew St, Thebarton, S.A., 5031
Telephone (08) 352 3033 Facsimile (08) 352 7409

AD-1651 Vibratory Spoon



- The optional AD-1651 Vibratory Spoon makes it easy to accurately feed powders to be weighed. For remote control of the Spoon, the AD-1652 Remote Controller or OP-03 is required.

- With the cable supplied with the Vibratory Spoon, connect one end to the "I/O" connection in the back of the Spoon, and the other end to the "FEEDER" connection in the rear panel of the balance.
- Since no DC power is supplied from the balance, make sure that there are batteries in the Spoon, or connect the AC Adaptor.

Target Weight

- The target weight will be in the weighing unit last on the balance display as you go into the setting mode. Later, if you change the weighing units, the target weight will also be converted. For example: the target weight of 10.0000g is displayed as 50.000ct in carat mode.
- If the unit weight (cnt) or 100% weight (Pct) is not registered in cnt/Pct mode, the target weight shows zero. But, after the registration, target weight is converted to each unit.
- You cannot set the target weight over the capacity.

Viewing/Setting Target Weight

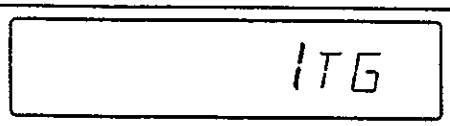
Step 1.

- Press the [FUNC] key, then the TARGET key. The display will show the target weight in the balance memory, if any.

NOTE:

- If desired, you may exit now by pressing the [FUNC] key again.

Step 2.



- For example, set the target weight as 1.0000g by pressing the [1] key, then the [ENTER] key ([-] key to exit, no changes).

Step 3.

You will return to the weighing mode, and the display will return as you left it. Please see the START/STOP SPOON FEEDING section (p. 2) for operation.

Viewing/Setting Target Weight

Ex 1. | ? | T | G | cr↵ | Request the balance to send the target weight presently set.

- For example if the balance has 2g set as the target weight, then it will send:

T	G	,	+	0	0	2	.	0	0	0	0	(20H)	(20H)	g	cr↵

Ex 2. | T | G | 4 | . | 0 | (20H) | (20H) | g | cr↵ | Set a new target weight (ex: 4g).

| T | G | 4 | . | 0 | (20H) | o | z | cr↵ | Set a new target weight (ex: 4oz).

Start/Stop Spoon Feeding

○ **To START:** (Do one of the following)

1) Press the AD-1651 Vibratory Spoon button.

AD-1652 RC 2) START Press the **START** key on the AD-1652 Remote Controller.

RS-232C 3) | F | E | E | D | Send a 'FEED' command via the RS-232C.

○ **To STOP:**

- Spoon feeding stops when the display reaches near the target weight; or when the display becomes stable, even though under the target weight.
- To manually stop: (Do one of the following)

AD-1652 RC 1) STOP Press the **STOP** key on the AD-1652 Remote Controller.

RS-232C 2) | S | T | O | P | Send a 'STOP' command via the RS-232C.

○ **To START after feeding has been stopped:**

- If the display is under the target weight, you may restart by any of the methods in the **To START** section above.
- If the display is over the target weight, you must press the button on the AD-1651 Spoon to restart.

Feeding Accuracy

○ Feeding accuracy may be decreased by following causes:

1) Flow rate changes because the angle of AD-1651 Spoon is changed.
2) Free Fall weight (weight of airborne sample) changes due to AD-1651 Spoon being move further away from the weighing pan.
3) Sample is not uniform.
4) Flow rate is too large for the target weight.
5) Flow rate is too small (Display changes slowly on average).
6) Display is not in high-speed mode (see 'Display Refreshing Rate' "**Speed 1c1**", FR SERIES INSTRUCTION MANUAL p. 28.

AD-1651 I/O Terminal