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Data Weighing Systems, Inc.

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OPERATING INSTRUCTIONS FOR **GOID-COUNT**TM

Taped Axial, Radial & SMT Component Counter

Model GC-10/GC-12 (GC-RS w/GC-12 only)



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I. SYSTEM INVENTORY

A. GC-12

- 1. Base Unit (GC-10 counter)
- 2. Front Slide Block (attached)
- 3. Power Cord
- 4. Pin-Wheel assembly for SMD (attached) with magnetic guide
- 5. Reel Stand (GC-RS) w/Crank Handle

II. UTILITIES

A. Power......115 VAC, 50/60Hz, 1 Amp (220 VAC, 50/60Hz, 1 Amp, Option)

- **III. SET-UP AND INSTALLATION**
 - (Refer to Fig. 1)
 - A. Reel Stand

 - Position reel stand on sturdy benchtop
 Place Counter Unit on Reel Stand, insert 4 feet in holes provided in base



Insure that 2 pins on each Back Plate fit "into" SMT reels





Fig. 1 GC-12



IV. SET COUNTER FOR AXIAL, RADIAL OR SMD

A. Surface Mount Components (refer to Figs. 1, 2 & 3)

- 1. Slide Reel Back Plate on each spindle towards the front position, turn to right to lock
- 2. Remove Reel Limiter
- 3. Install full reel at left side with components feeding from top of reel. Insure that 2 pins in Back Plate fit into both reels. (refer to Fig.1a, Pg. 2)
- 4. Replace Reel Limiter with thumb screw tightened into Key-way on spindle (Secure reel on pins against foam rubber on Reel Back Plate)
- 5. Install take-up reel at right side
- 6.. Replace Reel Limiter with thumb screw tightened into Key-way on spindle (Secure reel on pins against foam rubber on Reel Back Plate)
- 7. Install Pin-wheel assembly (tighten thumb screw)-see Fig. 3
- 8. Install magnetic SMT guide against back Sensor Guide Block (Fig.3)
- 9. Loosen and rotate front Tape Guide so that stainless steel tape guide faces Sensor Guide Block (Fig. 5)
- 10. Adjust Front Slide Guide so that front edge lines up with proper mm mark on gauge
- 11. Feed components through guide on counter so that front slide guide allows tape to move freely from left to right take-up reel (lock guide thumb screw)
- 12. Adjust Delrin Guides for tape width: Refer to Fig 4. (keep components centered all along the track)
- 13. Attach crank handle to take-up reel side
- 14. Adjust tensioners so that reels don't backspin(Fig. 1a)







SMT count set-up: Fig. 2



- B. Axial Components (Refer to Fig. 3)
 - 1. Remove Pin-Wheel assembly and SMT Guide (magnetic), and store both behind counter (Fig. 7a)
 - 2. Position both Reel Back Plates in rear position against Tensioner Block
 - 3. Remove Reel Limiter
 - 4. Install full reel at left side with components feeding from top of reel
 - 5. Replace Reel Limiter with thumb screw tightened into Key-way on axil (compress reel tight against foam rubber on Back Plate)
 - 6. Loosen and rotate front Tape Guide so that side with gold rail faces Sensor Guide Block (Fig. 5)
 - 7. Feed components through guide on counter so that front slide guide allows tape to move freely from left to right take-up reel (lock guide thumb screw)
 - 8. Install take-up reel at right side with taped components feeding clockwise
 - 9. Place Reel Limiter with thumb screw tightened into Key-way on axil (compress reel tight against foam rubber on Back Plate)
 - 10. Set Delrin Roller Guides to width of tape Fig. 4 (keep components centered all along the track)
 - 11. Attach crank handle to take-up reel side
 - 12. Adjust tensioners so that reels don't backspin (Fig. 1a)



Delrin Tape Guide Set-ups: Fig. 4



Pg. 4



- C. Radial Components (Refer to Figs. 5 & 7)
 - 1. Remove Pin-Wheel assembly and SMT Guide (magnetic), and store both behind counter (Fig. 7a)
 - 2. Position both Reel Back Plates in rear position against Tensioner Block
 - 3. Remove Reel Limiter
 - 4. Install full reel at left side with components feeding from top of reel
 - 5. Replace Reel Limiter with thumb screw tightened into Key-way on axil (compress reel tight against foam rubber on Back Plate)
 - 6. Loosen and rotate front Tape Guide so that side with gold rail faces Sensor Guide Block (Fig. 5)
 - 7. Feed components through guide on counter so that front slide guide allows tape to move freely from left to right (lock guide thumb screw)

NOTE: Depending on configuration of taped radial components, the components can face forward against the slide guide or towards the rear sensor guide block

- 8 Install take-up reel at right side with taped components feeding clockwise
- 9. Replace Reel Limiter with thumb screw tightened into Key-way on axil (compress reel tight against foam rubber on Back Plate)
- 10.Set Delrin Roller Guides to width of tape (keep components centered all along the track) Fig. 4, pg. 4
- 11. Attach crank handle to take-up reel side
- 12. Adjust tensioners so that reels don't backspin (Fig. 1a)





SMT guide & pin-wheel storage behind counter **Fig. 7a**

Radial count set-up Fig. 7



V. COUNTER OPERATION

A. Normal AC Operation

- 1. Plug cord into 110 VAC outlet
- 2. Press main power on, but don't hold (red indicator)
- 3. Press Reset button before counting parts
- 4. To turn off, press and hold ON/OFF for 2 seconds
- B. Set Divide-By (see examples at right)
 - 1. Press Divide-By Button until proper number appears
 - 2. Use 1 for axial components, 2 to 7 for radials (one for each lead) and 1 to 7 for SMDs depending on # of holes per device.
 - 3. For 0402 SMTs with 2 components per hole, set to 0 (it multiplies by 2)
 - 4. Changes take effect after reset is pressed

VII. DAILY REGULAR MAINTENANCE

Clean upper and lower sensors with clean dry compressed air.

CALIBRATION NOTE: This GC-Series counter does not require (yearly) calibration; however, APS offers this service to customers who require it (215-938-1000).

DIVIDE-BY EXAMPLES		
Tape configuration	<u>Set at</u>	
	0	
	1	
	3	
	3	



Controls Fig. 8



Reel Stand Parts			
<u>Qty.</u>	Part No.	Description	
2	GC-101	Reel Limiter	
4	GC-111	Tape Limiter	
1	GC-121	Crank Handle	
2	GC-131	Reel Shaft Assembly	
1	GC-141	Left Upright	
1	GC-151	Right Upright	
2	GC-161	Tape Limiter Shaft	
1	GC-171	Base Plate	
2	GC-181	Reel Back Plate Assembly	
4	GC-132	Roller Bearings	
		-	

GC-10 Counter			
<u>Qty.</u>	Part No.	Description	
1	GC-191	Rear Guide Assembly	
1	GC-211	Front Guide Assembly	
1	GC-221	Tape Marker w/spring	
1	GC-231	Sensor Assembly	
1	GC-241	Magnetic SMT Guide	
1	GC-251	Pin Wheel Assembly	
1	GC-261	Gauge Sticker	
1	GC-271	Power Cord	
1	GC-281	Fuse (50 mA 250V)	
1	GC-311	Cherry Switch	
1	GC-321	Lighted Switch	
1	GC-331	Reset Switch	
1	GC-341	Power Receptacle	
1	GC-351	Counter PCB Assembly	
1	GC-361	Enclosure (top & bottom)	
1	GC-381	Main PCB	
1	GC-391	Display PCB	

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