

Features to Compare for Tracking/GOTO systems

Feature/Function	ServoCAT	ServoCAT Jr	Stepper driven A	Stepper driven B	Eq Platform
<i>Tracking</i>	continuous full time	continuous full time	continuous full time	every object requires a 45 sec "learning" run to track	50-80 minutes
<i>Track Comets, Asteroids</i>	yes	yes	no	no	no
<i>Track man made satellite</i>	yes	yes	no	no	no
<i>Track Planets</i>	yes - even in retrograde	yes - even in retrograde	no	no	no
<i>GOTO</i>	as standard - 29,000 object database	as standard - 29,000 object database	as standard 9000 object database	none	none
<i>Planetarium GOTO Support</i>	yes - multiple programs including PDA's more being added	yes - multiple programs including PDA's more being added	yes - one program	no	no
<i>DSC Compatible</i>	yes	yes	yes	yes	N/A (can be used separately)
<i>Planetarium Program Support</i>	Yes - supports all programs that support Sky Commander	Yes - supports all programs that support Sky Commander	Yes - supports all programs that support Sky Commander	no	requires option and PC
<i>Speeds available</i>	6 - available at all times - no "mode" switching required	6 - available at all times - no "mode" switching required	3 - "mode" switching required	2	2
<i>User Programmable</i>	Full Windows based program: ratio, Slew(2), Jog(2), Guide(2), Accel, Backlash, Install direction	Full Windows based program: ratio, Slew(2), Jog(2), Guide(2), Accel, Backlash, Install direction	ratio only, speeds not user customizable for their scope and usage needs	n/a	no
<i>Backlash Comp settable</i>	yes (settable in arcmin or arcsec increments)	yes (settable in arcmin or arcsec increments)	no	no	no
<i>Ratio set precision (ex: 20" scope) [effects track precision]</i>	0.01%	0.01%	0.35%	?	N/A
<i>Ratio set method available</i>	Automatic - precisely setting ratio	Automatic - precisely setting ratio	manual guesstimate	manual guesstimate	N/A
<i>Handpad Controller</i>	Yes	Yes	Yes	Yes	?
<i>Handpad Functions</i>	21 (more being added in the SuperProgram Suite of utilities)	21 (more being added in the SuperProgram Suite of utilities)	15	?	
<i>Handpad B-Stop [emergency stop controlled by handpad]</i>	will emergency "button" stop by depressing ANY 3 or more handpad buttons	will emergency "button" stop by depressing ANY 3 or more handpad buttons	dedicated button push required	?	no
<i>Additional Handpad functions available</i>	Local high precision sync, "slip return"	Local high precision sync, "slip return"	none	?	n/a
<i>Search Capability</i>	True Spiral Search with 2 spiral search rates and widths covering up to 6 sq degrees of sky, stop by pushing any motion button and it resumes tracking there (4 Spiral search speeds in next software release)	True Spiral Search with 2 spiral search rates and widths covering up to 6 sq degrees of sky, stop by pushing any motion button and it resumes tracking there (4 Spiral search speeds in next software release)	done manually - pressing buttons and trying to manually move around the sky	box search - one configuration	done manually - pressing buttons and trying to manually move around the sky
<i>motor "smoothness"</i>	continuous movement	continuous movement	step increments	step increments	step increments
<i>motor speed control</i>	closed loop position/velocity controller (0 error)	closed loop position/velocity controller (0 error)	open loop speed control	open loop speed control	open loop speed control
<i>motor control sample rate</i>	0.0005 mS	0.0005 mS	open loop - not sampled	open loop - not sampled	none
<i>Top Slew Speed</i>	~ 6 degrees/sec (user settable)	~10 degrees/sec (user settable, default normally 7-9 deg/sec)	~ 4 deg/sec	1.5 - 3 deg/sec	1-3 deg/sec
<i>Torque Capability</i>	~ 200 lbf-ft	~70 lbf-ft	?	?	N/A
<i>Current Draw while tracking</i>	typical: 0.2 - 0.3A	typical: 0.2 - 0.3A	?	?	?
<i>Current Draw while slewing</i>	1-3A	1-3A	est 1-3A	?	limited slew speed
<i>Average current consumption</i>	0.3 - 0.4A (10-15 hours on a 7Ah battery)	0.3 - 0.4A (10-15 hours on a 7Ah battery)	? (8 hours on a 7Ah battery)	?	?
<i>Front Panel E-Stop</i>	yes	yes	?	?	not needed - no hs slew
<i>Weight</i>	~6#	~5#	11#	~4#	any where from 25 - 50#
<i>Height addition</i>	none	none	none	none	4-8"

<i>additional "pieces" to carry</i>	none	none	none	none	minimum 1 (platform) but can be multiple with additional ramps and blocks
<i>Upgradeability</i>	yes, free user upgrades	yes, free user upgrades	change hardware	change hardware	if any - change hardware
<i>User installable</i>	yes on most any Dobsonian	yes on most any Dobsonian	no	no	N/A
<i>Manual operation</i>	yes - as normal	yes - as normal	yes - as normal	yes - as normal	yes - as normal
<i>AutoGuide capable</i>	yes (works with AUX HP port currently, ST4 compatible connector on board with SW to come in next releases)	yes (works with AUX HP port currently, ST4 compatible connector on board with SW to come in next releases)	no	no	some
<i>Customer Support Hours</i>	until 10 PM EST 7 days/week/350 days per year	until 10 PM EST 7 days/week/350 days per year	?	?	
<i>Sizes installable on</i>	10 - 40"	8 - 16"	only available 12.5 - 30	8 - ~25"	
<i>Options available</i>	"second scope" kit, Ground Board, Powered Ground Board, Laptop PowerSupply, Wireless Handpad, Wireless PC Connect, USB PC connection, AC Supplies, custom cabling. Cattail. installation	"second scope" kit, Ground Board, Powered Ground Board, Laptop PowerSupply, Wireless Handpad, Wireless PC Connect, USB PC connection, AC Supplies, custom cabling. Cattail. installation	second wired handpad	hi-resolution track (which slows down top slew rate), GOTO using a PC	none
<i>Customer "privileges" with purchase</i>	Use of observing pad w/power in dark sky site in Arizona	Use of observing pad w/power in dark sky site in Arizona			
<i>"Second scope - reduced install price</i>	yes - from \$499 complete	yes - from \$499 complete	no	no	n/a
<i>base price to install</i>	from ~ \$1600	from ~\$1400	N/A	N/A	\$800 - \$3500

All systems detailed as normally sold by their primary vendors