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### SmartPAC2 Global Cams

SmartPAC2 ProCamPAC is an option that provides 8 or 16 channel programmable limit switch (PLS) functions. Normally PLS outputs control functions that may require adjustment from tool to tool or adjustment while a job runs. Typical functions include: feed advance timing, pilot release, blow off, cam/cylinder timing, and spray lubrication timing.

The image shows a screenshot of the SmartPAC2 ProCamPAC control screen. At the top left, a box contains the tool information: 'TOOL# 1237654' and 'AB123CD7654'. Below this, a list of eight cam functions is displayed, each with a number, a description, a mode, and a timing value. At the bottom left, a message reads 'PRESS THE RESET KEY WHEN DONE.'. On the right side of the screen, there is a vertical column of eight large, light-blue buttons. At the bottom right, a button labeled 'RETURN TO MAIN MENU' is visible.

1	FEED ADVANCE	ON/OFF	266/283
2	PILOT RELEASE	AUTO	105/126
3	TOP STOP	AUTO	263/276
4	PART BLOW OFF	TIMED	223-350
5	CUTOFF	ON/OFF	229/247
6	SPRAY LUBE	ON/OFF	280/301 335/353
8	CONVEYOR	DSV ON	30

Sometimes common outputs are required for all tools and it's important that they function on all jobs. Events that remain the same on all tools can be programmed as **Global Cams** and will apply to all tools entered into SmartPAC2. **Once the Global Cam is programmed in the initialization mode it is permanently included in all SmartPAC 2 tool numbers, no additional programming is required.**

- Global Cam functions are available with any 8 or 16 channel SmartPAC2 ProCamPAC. Global cams can be used to set press-related functions once for all tools for as many as 5 or 13 cams.

You might think of a global cam channel as the electronic equivalent of an electro mechanical rotating limit switch channel. The differences are the global cam is much more flexible, easier to initially set up, and change. Secondly the global cam is not suitable for use as control reliable press clutch/brake control functions.

Typical uses for Global Cams include hydraulic overload reset, press lube system timing, timing for shut height adjustment, and scrap conveyor control. Global Cams can be named and secured though initialization.

Next Data Group: 1

**GLOBAL CAMS**

USE THE CURSOR KEYS TO CHOOSE A CAM CHANNEL. PRESS THE ENTER KEY TO PROGRAM. PRESS THE RESET KEY WHEN DONE.

THE \* MEANS THAT THE CAM IS PROGRAMMED GLOBALLY.

- \* 1 LUBE
- \* 2 ACTIVATE GAG
- \* 3 TONNAGE RESET
- \* 4 PART BLOW OFF
- \* 5 FEED ADVANCE
- \* 9 CHANNEL 9
- \*10 CHANNEL 10
- 11 CHANNEL 11
- 12 CHANNEL 12
- 13 CHANNEL 13
- 14 CHANNEL 14
- 15 CHANNEL 15
- 16 **CHANNEL 16**

**VIEW GLOBAL CAM SUMMARY**

**CHANGEOVER/SETUP**

7.7.6 Notice: Data logging is not occurring! Please contact your system administrator

As with standard PLS channels Global Cams can be programmed to operate in various ways:

- **Standard on/off angles.** For example turn on at 270° and turn off at 355°
- **Multiple on/off** (up to 6 on/off events with a maximum of 4 on any given channel)
- **On angle with timed output** – set the turn on angle then set the on time (dwell) in milliseconds up to 500 msec (½ second). Batch counters can be used for applications requiring longer dwell.
- **Auto advance** - You can make an auto advance setting whenever you want SmartPAC 2 to automatically compensate the cam timing for changes that occur in press speed. You can set up a maximum of two channels as “auto.” Advance constant is equal to the number of degrees of advance per 100 RPM increase in press speed which is determined at SmartPAC2 initialization.
- **On with dual safety valve (DSV).** Use when you want a Global cam channel to stay on all the time that the press is running and perhaps a while longer. The channel will turn on when the dual safety valve (DSV) goes on and the press starts running, then turn off some time after the DSV goes off. The setting you make is the length of time the cam stays on after the DSV valve goes off (0-254 seconds). DSV ON timing is useful for controlling conveyors and other accessories.

Programmable limit switch capability with Global Cam functions can be added to any SmartPAC2. Global Cams are unique to SmartPAC2 and not available on original SmartPAC. Promotions are available to upgrade to SmartPAC2.

Your Production Resources Application Engineer is available to assist you.