


# TIMING EQUIPMENT OPERATOR CLINIC

ARIZONA SWIMMING






# **EQUIPMENT OPERATOR REQUIREMENTS**

- Required for AZSI equipment rentals
  - Must have taken clinic and passed
  - Responsible for equipment rented & return
  - Fluent in connections
  - Capable of simple repairs
  - Identify non-working equipment
- 



# TIMING EQUIPMENT SELECTION

- Prelims/Finals
  - # Lanes
  - Pads
  - Scoreboard
  - Length of cord
  - Meet format / deck layout
  - Scoring tables placement
- 

# HOW TO RENT EQUIPMENT

Submit AZSI Rental Agreement Form

[www.azswimming.org](http://www.azswimming.org)

in the Document Library/Documents & Forms

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. Some are at the top, some at the bottom, and some in the middle. The largest droplet is on the right side, near the bottom.

# **DECK SET-UP & CONNECTIONS**

Follow a logical progression

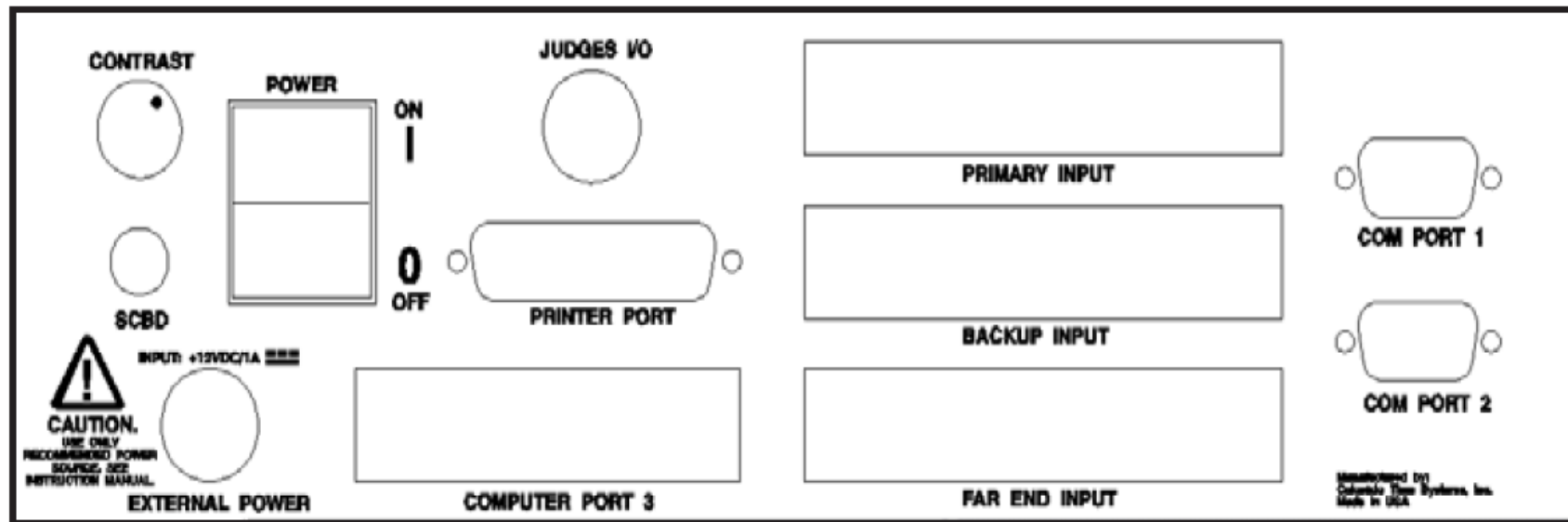
Start with the scoring table

# THE SCORING TABLE

POOL  
START END

<b>Swimmer 5 Console</b>	<b>Swimmer 5 Printer</b>	<b>(paper/toner/ stapler/paper clps/calculator Paperweights/ 3-hole punch)</b>	<b>Computer Meet Manager</b>	<b>Computer P Printer  Results File</b>
Timing Equip Operator	Timing Judge/trainee	Admin Official	Computer Operator	Meet Manager trainee/

# SYSTEM 5 REAR PANEL LAYOUT



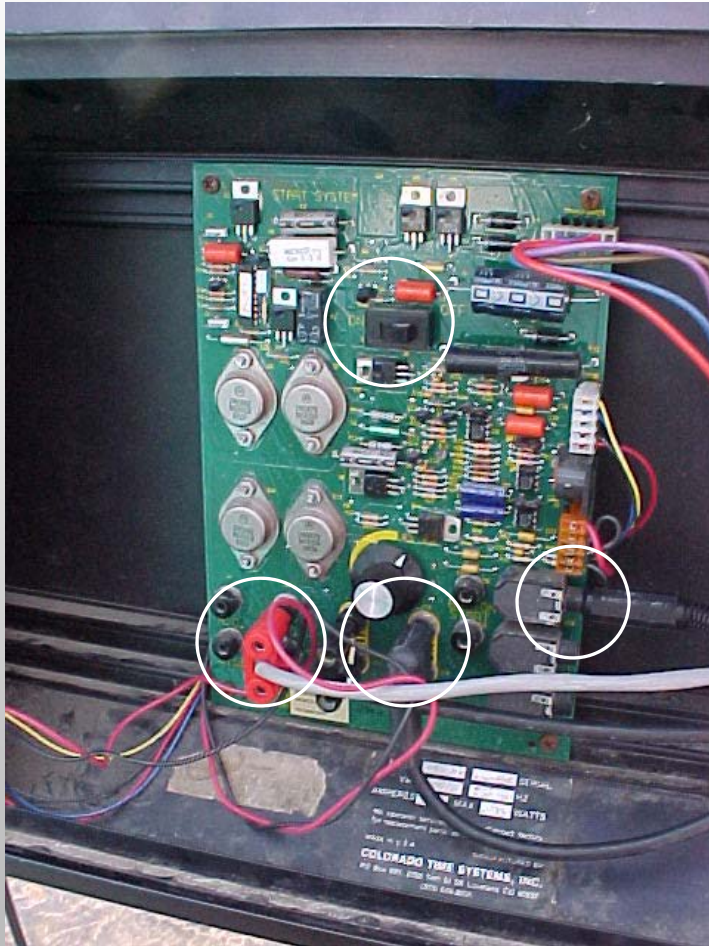
- COMPUTER PORT 3 not used (program updates)
- COM PORT 2 not used (TV scoreboard input)
- BACKUP INPUT usually not used
- JUDGES I/O not currently used

# CONNECTIONS AT SWIMMER 5

- Use 2 Main Power sources / extension cords
- Use 2 surge protector cords or a power block at table.
- At the Swimmer 5 Rear Panel:
  - Plug power source transformer plug into “EXTERNAL POWER”
  - Plug Prime Cord into S5 “PRIMARY INPUT.” & lay –out across ends of lanes
  - Plug Computer into “COM PORT 1”
  - Plug S5 Printer into “PRINTER” (may need adapter plug – Radio Shack)
  - Plug Scoreboard Plug into “SCBD “(back panel)



# START STAND CONNECTIONS



## Remember:

Turn “off” when not connecting or not using

- Microphone
- Speakers to speakers
- **Start to prime cord**

NO=not omega

# CONNECTIONS AT THE START STAND

- Only when in “off” position)
  - Plug Start Stand into power.
  - Plug Starter’s Mic into “MIC”receptacle
  - Plug Speakers cords into “SPEAKERS”
  - Plug Start Stand Speaker into “SPEAKERS”
  - Plug “Start” cord into “ N.C. START”

# START CORD / PRIME CORD



- “START” NOT  
BACKUP

# CONNECTIONS AT THE LANES

- Plug “Start” cord (red) from Start Stand into prime cord at “START” outlet
- Locate speakers at lanes 1 & 8. Connect to speaker cord from start stand.
- Poolside, at each Lane:
  - Plug each lane’s pad into “prime” & button into “button.” on the prime cord receptacle #’d for that lane.
  - Clean out prime cord receptacles
- Set-up a separate Announcer audio system
- Keep x-tra buttons & pads at hand for quick change-outs.

# EQUIPMENT TROUBLE SHOOTING

- Buttons: watch for no button or always-late/early button
- Pads: “no touches” or always firing
  - Colorado test meter
  - Colorado Inflation/deflation needle & syringe
- Prime cord: when pads & buttons verified
- Start stand: check connections
- Microphone: have alternates on hand
- Power source consistent / no “tripping.”
- Printer: extra toner cartridges
- All connections water free
  - LPS 3 rust inhibitor spray; .22 gauge reamer



# COLORADO TIMING SYSTEM BASIC OPERATION

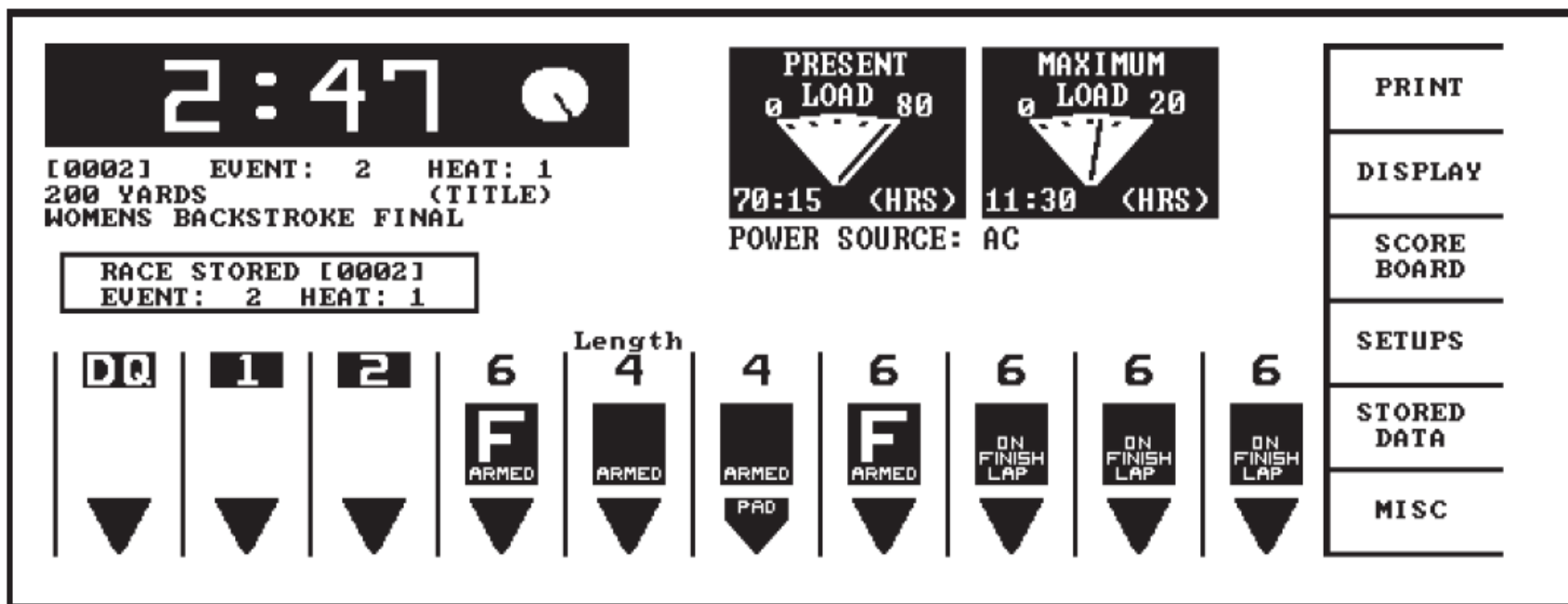
- System 5

<b>2:47</b>		<b>PRESENT LOAD 80</b>	<b>MAXIMUM LOAD 20</b>	<b>PRINT</b>
[0002] EVENT: 2 HEAT: 1 200 YARDS (TITLE) WOMENS BACKSTROKE FINAL		70:15 <HRS>	11:30 <HRS>	<b>DISPLAY</b>
RACE STORED [0002] EVENT: 2 HEAT: 1		POWER SOURCE: AC		<b>SCORE BOARD</b>
<b>DQ</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>SETUPS</b>
			<b>F</b>	<b>STORED DATA</b>
			<b>ARMED</b>	<b>MISC</b>
			<b>ARMED</b>	
			<b>ARMED</b>	
			<b>ARMED</b>	
			<b>ON FINISH LAP</b>	
			<b>ON FINISH LAP</b>	
			<b>ON FINISH LAP</b>	



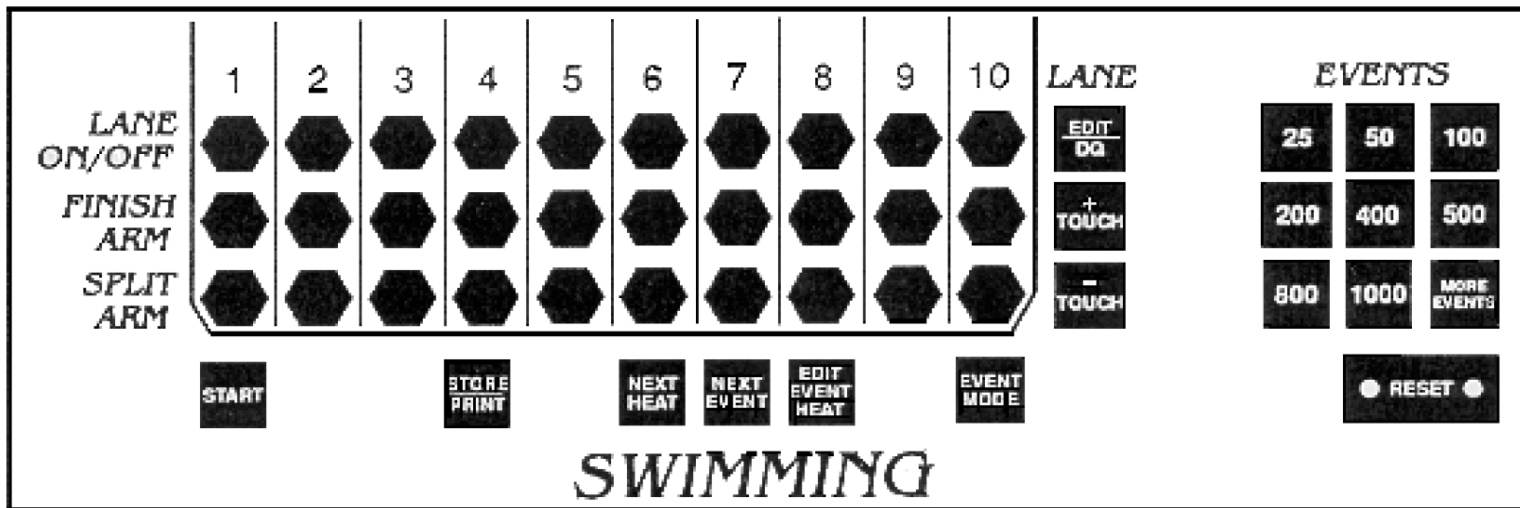
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>LANE</b>	<b>EVENTS</b>			
<b>LANE ON/OFF</b>	●	●	●	●	●	●	●	●	●	●	<b>EDIT DQ</b>	<b>25</b>	<b>50</b>	<b>100</b>	
<b>FINISH ARM</b>	●	●	●	●	●	●	●	●	●	●	<b>+ TOUCH</b>	<b>200</b>	<b>400</b>	<b>500</b>	
<b>SPLIT ARM</b>	●	●	●	●	●	●	●	●	●	●	<b>- TOUCH</b>	<b>800</b>	<b>1000</b>	<b>MORE EVENTS</b>	
<b>START</b>	<b>STORE PRINT</b>		<b>NEXT HEAT</b>	<b>NEXT EVENT</b>	<b>EDIT EVENT HEAT</b>	<b>EVENT MODE</b>	<b>● RESET ●</b>								
<b>SWIMMING</b>															

# OPERATING COLORADO TIMING DISPLAY



- Lane disqualified
- Finish place
- On length 6 finished armed
- On length four pad armed
- Oops.. Pad fault
- On length 6 – finish lap noted
- Race number; event & heat numbers plus race description
- Race stored data information
- Battery condition and power source
- Soft keys
- Running race time

# COLORADO TIMING KEYBOARD

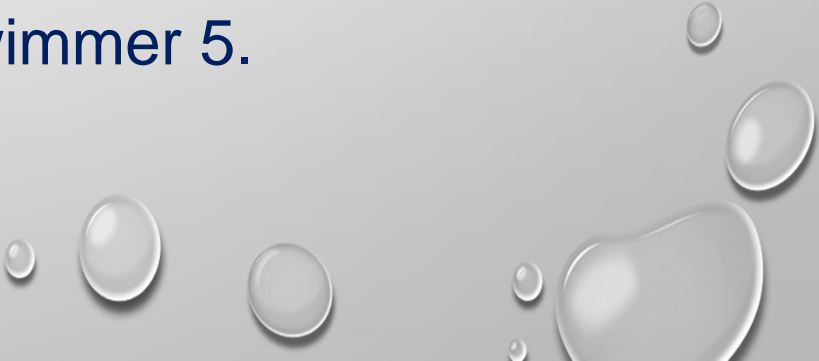


- Start (if automatic FAILS)
- Store race in memory & print it
- Advances race to next heat
- Advances race to next event
- Edit event or heat if its wrong
- Mode of entering events
- Add or subtract touches (pads only)
- Finish arm lane
- Split arm lane
- Reset (two fingers)
- Enter DQ or edit lane – on fly
- Heat distance if not uploaded





# GETTING STARTED

- Turn on by flipping red toggle switch in back.
  - Wait for warm-up to end.
  - After warm-up, select “Swimming & Diving.”
  - Should change to “reset” screen. If not, press “Quit” to get there.
  - You are ready to Set-up the Swimmer 5.
- 

# SET-UP OF SYSTEM 5

SETUPS	CHOICE	OPTIONS
Start	1	Default printer
Finish/Buttons	2	User Defined printer control codes
Hardware Setup	3	Store/Print format
Splits	4	View/edit sponsor's messages
Timing	5	Print Setup Options
Pool	▼ 6	Pica (Type Size)
Scoreboard	7	Elite (Type Size)
→ Printer	8	Condensed (Type Size)
Event Sequence	9	Print 8 lines per inch
Time/date	▼ 0	Always Print on Store/Print Key

Setups = Softkeys                      Options = Numeric Key Pad

- Press **“Set-ups”** soft key
- Press **“UP/DOWN”** Soft key to Get to each SETUPS area
- Press **1-10** keys, Enter to change
- Review all options— you’d be surprised

Push Setup; brings up

UP	▲
DOWN	▼
	▲
RECORD SETUPS	▲
	▼
	▲

# START SETUP

SETUPS	CHOICE	OPTIONS
→ Start	▶ 1	Automatic
Finish/Buttons	2	Manual
Hardware Setup		
Splits		
Timing		
Pool		
Scoreboard		
Printer		
Event Sequence		
Time/date		

Setups = Softkeys                      Options = Numeric Key Pad

- Obvious choice is  
AUTOMATIC for start
- (press “1” key and “Enter”)

# FINISH/ BUTTONS SETUP

SETUPS	CHOICE	OPTIONS
Start	▼ 1	Pad (Prime Finish)
→ Finish/Buttons	2	One Button (Prime Finish)
Hardware Setup	3	Two Buttons (Prime Finish)
Splits	4	Three Buttons (Prime Finish)
Timing	▼ 5	One Button (Backup Finish)
Pool	6	Two Buttons (Backup Finish)
Scoreboard	7	Three Buttons (Backup Finish)
Printer	▼ 8	Compare Button Early to Pad
Event Sequence	9	Compare Pad-Button difference
Time/date		

Setups = Softkeys

Options = Numeric Key Pad

- For pads select 1, 5 and 9 (press 1 & Enter, 5 & Enter, 9 & Enter.
- For 2 button system select 3 (press "3" & Enter)

# HARDWARE SETUP

SETUPS	CHOICE	OPTIONS
Start	1	Speaker volume (0 to 3) = 1
Finish/Buttons	2	Low swimming i/o voltage
→ Hardware Setup	3	Allow Remote Setup
Splits	4	Relay Judging Using Platforms
Timing		
Pool		
Scoreboard		
Printer		
Event Sequence		
Time/date		

Setups = Softkeys

Speaker volume (0=low...3=high)?  
**1**

- Volume is for speaker inside system 5 not the start system. Set to 1 (press 1 & Enter)
- Turn on allow remote set-up if you want to upload from Hy-tek

# SPLITS SET-UP

<u>SETUPS</u>	<u>CHOICE</u>	<u>OPTIONS</u>
Start	▶ 1	Print Cumulative Splits
Finish/Buttons	▶ 2	Print Splits by lap
Hardware Setup		
→ Splits		
Timing		
Pool		
Scoreboard		
Printer		
Event Sequence		
Time/date		

Setups = Softkeys                      Options = Numeric Key Pad

- Option of cumulative splits or lap splits. Pick one
- Generally “Cumulative” is selected

# TIMING SET-UP

SETUPS	CHOICE	OPTIONS
Start	▶ 1	Timing Accuracy = .01 seconds
Finish/Buttons	2	Timing Accuracy = .001 seconds
Hardware Setup	3	Near-End Pad Split Delay = 15 sec.
Splits	4	Far-End Pad Split Delay = 8 sec.
→ Timing	▶ 5	Display Time Warning messages
Pool	6	Pad Delay At Start = 3 sec.
Scoreboard	7	Scoreboard Length Count Down
Printer	8	Screen Length Count Down
Event Sequence		
Time/Date		

Setups = Softkeys

Near end pad split delay (1-99)?  
**15**

- Always 1 never 2
- 3 is for start end pad delay during race (press 3, press 15, Enter)
- 4 is for far end pad delay during race (15)
- 5 is for the error message. Should be off.
- 6. Pad delay on start – 10 is ok because of over top starts.

# POOL SET-UP

SETUPS	CHOICE	OPTIONS
Start	▶ 1	Lanes Normal (ex: 1 - 10)
Finish/Buttons	2	Lanes Reversed (ex: 10 - 1)
Hardware Setup	3	Lanes In Pool = 10
Splits	4	Far-End Splits
Timing	▶ 5	Short Course Pool
→ Pool	6	Long Course Pool
Scoreboard	▶ 7	Race Distance Units - Yards
Printer	8	Race Distance Units - Meters
Event Sequence		
Time/Date		

Setups = Softkeys

Number of lanes in pool?  
**10**

- 1 if Start stand is next to Lane 1; 2 if next to Lane 8.
- If using far end splits you must turn on 4. If starting from turn end, it must be off.
- Specify # of lanes in meet.
- Choose 5 or 6.
- Choose 7 or 8.



# SCOREBOARD SETUP

SETUPS	CHOICE	OPTIONS
Start	▶ 1	High Speed (Data Transmission)
Finish/Buttons	2	Self Test
Hardware Setup	3	Define Module(s)
Splits	4	Blank Module(s)
Timing	5	Five-Line Scoreboard
Pool	6	Times To Step One-Line Scb = 1
→ Scoreboard	7	One-Line Scb Sequence Time = 5
Printer	8	One-Line Scb Sequence List
Event Sequence	▶ 9	Display Results In Lane Order
Time/Date	0	Display Results In Place Order

Setups = Softkeys

Options = Numeric Key Pad

- Ask facility for assistance!!
- For multi-lane scoreboard, **1** and **9** are all you need.

# PRINTER SET-UP

SETUPS	CHOICE	OPTIONS
Start	1	Default printer
Finish/Buttons	2	User Defined printer control codes
Hardware Setup	3	Store/Print format
Splits	4	View/edit sponsor's messages
Timing	5	Print Setup Options
Pool	▶ 6	Pica (Type Size)
Scoreboard	7	Elite (Type Size)
▶ Printer	8	Condensed (Type Size)
Event Sequence	9	Print 8 lines per inch
Time/date	▶ 0	Always Print on Store/Print Key

Setups = Softkeys

Options = Numeric Key Pad

- Always select 0
- **Condensed, 8,** gets all lanes on one page

# EVENT SEQUENCE SET-UP

SETUPS	CHOICE	OPTIONS
Start	1	None
Finish/Buttons	2	Boys High School
Hardware Setup	3	Girls High School
Splits	4	Boys/Girls H.S.
Timing	5	NCAA 13 Event Prog.
Pool	6	NCAA 15 Event Prog.
Scoreboard	7	NCAA 16 Event Prog.
Printer	8	User Defined 1
→ Event Sequence	9	User Defined 2
Time/Date	0	View/Edit Selected Sequence

Setups = Softkeys                      Options = Numeric Key Pad

- What “Choice” did the computer operator send the meet to ? generally either **8** or **9**. Select correct meet.
- System 5 must be set to “RESET” for the 5 to accept an upload !!

# FINAL SET UP TIPS

- Some items require 'enter' to be pushed after selection
- After uploading events to the S5, "record setups" to save the upload of events
- Replace batteries prior to start of meet
- Print copy of setups by going to "PRINTER".
- press soft key to "PRINT SETUPS."
- Recheck set-ups daily. Somehow they magically change.
- Turn-off 5 at end of each session and after data entered into Hy-tek.

# BASIC RACE OPERATION

- Test starts:
  - Press “EDIT EVENT”
  - PRESS #S 999 For event and 1 for heat and “ENTER” after each.
- Each race:
  - Check to see if event#/heat #s are correct; if not, “EDIT” them.
  - S5 automatically starts at beep. If not press “START” asap.
  - “OFF’ empty lanes.
  - Listen for “beep” and each start-end turn for each lane.
    - May have to press ”ADD TOUCH” if swimmer misses pad.
    - May have to “-TOUCH” if deck person steps on pad during race.
  - Check to be certain each lane on “FINISH ARM” at last lap.
    - If not press. “FINISH ARM.”
- At end of race:
  - Press “STORE/PRINT”, “NEXT HEAT” or “NEXT EVENT,” and “RESET”.
  - May have to press “OK” on top soft key if race has discrepancies.

# RACE PRINT-OUT

```

3) 04 42.19 3) LATE .06 4) 04 45.07 4) LATE .09 5) 04 47.94
5) EARLY .03 6) 04 51.09 6) EARLY .11 1) 06 1:05.02 1) EARLY .26
2) 06 1:10.06 2) EARLY .10 3) 06 1:13.04 3) LATE .09 4) 06 1:15.99
4) EARLY .17 5) 06 1:18.41 5) EARLY .17 6) 06 1:22.90 6) EARLY .13
1) 08 1:31.81 2) 08 1:32.49 3) 08 1:33.21 4) 08 1:33.79 5) 08 1:34.38
6) 08 1:35.03
  
```

```

          Lane 1 Lane 2 Lane 3 Lane 4 Lane 5 Lane 6
BACKUP  1:31.65 1:32.35 1:33.18 1:33.76 1:34.31 1:34.98
  
```

-----> Colorado Time Systems

```

*****> RACE SUMMARY <----- Race 0008 <-----
                                     Wednesday 10-20-95 12:24.14 pm
  
```

Colorado Time Systems

200 YARDS WOMENS MEDLEY RELAY  
EVENT: 1 HEAT: 8

```

----- By Lane -----
Lane  Place  Time
  1     1    1:31.81
  2     2    1:32.49
  3     3    1:33.21
  4     4    1:33.79
  5     5    1:34.38
  6     6    1:35.03
  
```

```

----- By Place -----
Place Lane  Time
  1     1    1:31.81
  2     2    1:32.49
  3     3    1:33.21
  4     4    1:33.79
  5     5    1:34.38
  6     6    1:35.03
  
```

-----> Colorado Time Systems

# RE-PRINTING PREVIOUS HEATS

Stored data

200 YARDS--MENS FREESTYLE RELAY  
100021 EVENT: 2 HEAT: 2  
THU 08-19-93 2:23.20 PM  
Print in Results: YES

Lane	Place	Time	Backup	Relay
1	1	00:57.24	1:00:57.28	-
2	2	01:00.20	2:01:00.27	-
3	3	01:01.19	3:01:02.63	-
4	4	01:01.91	4:01:03.03	-
5	5	01:03.45	5:01:04.38	-
6	6	01:04.38	6:01:05.15	-
7	7	01:05.15	7:01:05.93	-
8	8	01:05.86	8:01:06.55	-
9	9	01:06.58	9:01:07.58	-
10	10	01:07.51	10:01:07.58	-

(WRITE-IN)  
Reset EVENT: HEAT: 50 YARDS

ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
----	----	----	----	----	----	----	----	----	----

NEXT RACE  
PREVIOUS RACE  
NEXT EVENT  
PREVIOUS EVENT  
PRINT RACE  
--MORE--

- Press “**STORED DATA**” soft key, then “**PREVIOUS RACE.**”
- Notice this is by race number, but you can scroll back to find your race. Press **Race Summary, Print, Yes.**
- Then press “**Quit**” takes you back to current race.

# MORE QUESTIONS ???

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