

# 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



# EQUIPMENT RENTAL PROCESS

- Rental form
- Coordinating pick up / return
- Upcoming form for equipment failed / problems
- Upcoming training / qualification of equipment operator
  - At least one person per club that rents equipment



# DECK SET-UP & CONNECTIONS

Follow A logical progression

- Scoring table / equipment
- Cord / pad / buttons layout
- Power source / cords
- Start stand / horns
- Scoreboard
- Announcer audio
- Secure trailer



# EQUIPMENT TROUBLE SHOOTING

- Buttons: watch for no button or always late/early button
- Pads: “no touches” or always firing
  - Colorado test meter
  - 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



# RETURN EQUIPMENT PROPERLY

- Identify non-working equipment with yellow caution tape
- Pads
  - Cart – white / yellow
- Equipment boxes
  - Black (major)
  - Yellow
  - System 5 case
  - Printer
  - UPS
  - NEW start stand
- Trailer
  - Secure equipment for travel



# COLORADO TIMING SYSTEM TRAINING

- 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>SETUPS</b>									
<b>STORED DATA</b>									
<b>MISC</b>									
<b>DQ</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
			<b>F</b> ARMED	<b>ARMED</b>	<b>ARMED</b> PAD	<b>F</b> ARMED	<b>ON FINISH LAP</b>	<b>ON FINISH LAP</b>	<b>ON FINISH LAP</b>

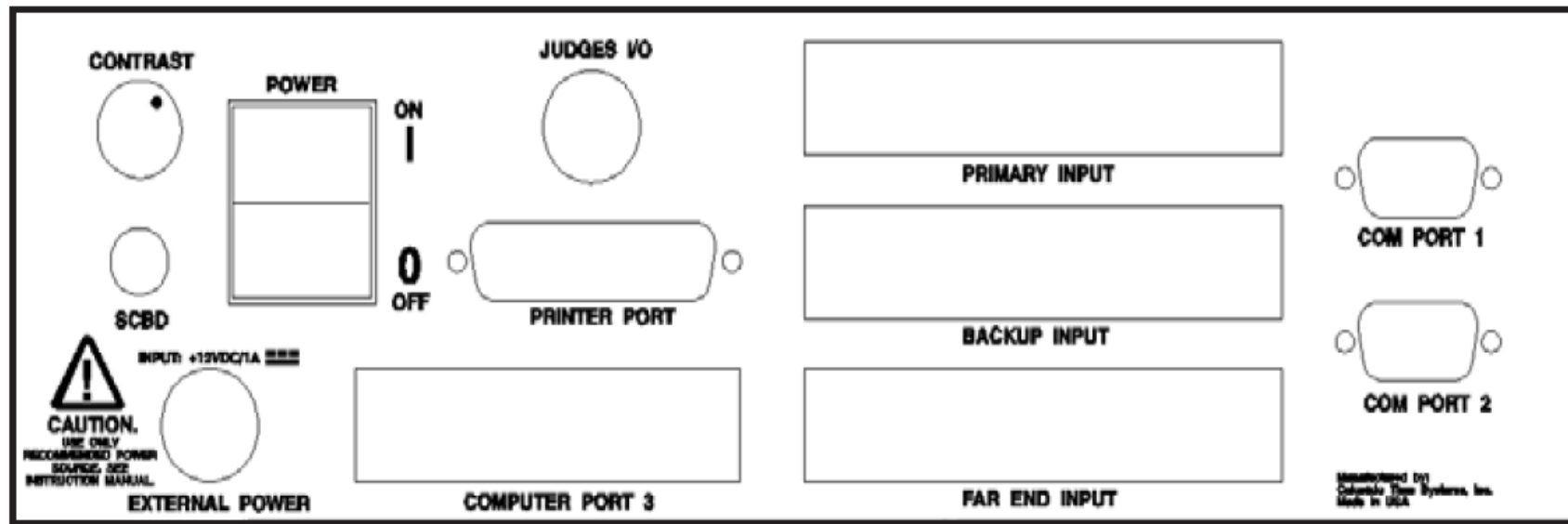


	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>LANE</b>	<b>EVENTS</b>		
<b>LANE ON/OFF</b>	●	●	●	●	●	●	●	●	●	●	<b>EDIT DQ</b>	<b>25</b>	<b>50</b>	<b>100</b>
<b>FINISH ARM</b>	●	●	●	●	●	●	●	●	●	●	<b>+ TOUCH</b>	<b>200</b>	<b>400</b>	<b>500</b>
<b>SPLIT ARM</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>														





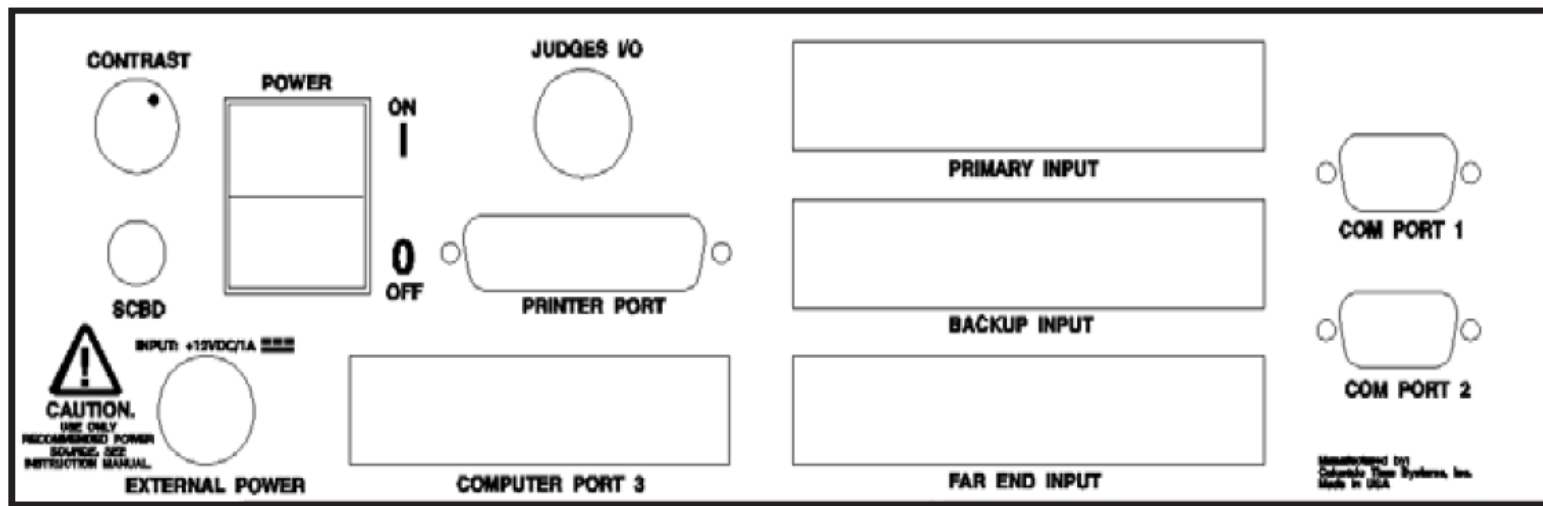
# SYSTEM 5 REAR PANEL LAYOUT



- Computer port 3 not used (program updates)
- Com port 2 not used (TV scoreboard input)
- Backup input not used (2 system 5s)
- Judges I/O not currently used



# S5 EQUIPMENT CONNECTIONS

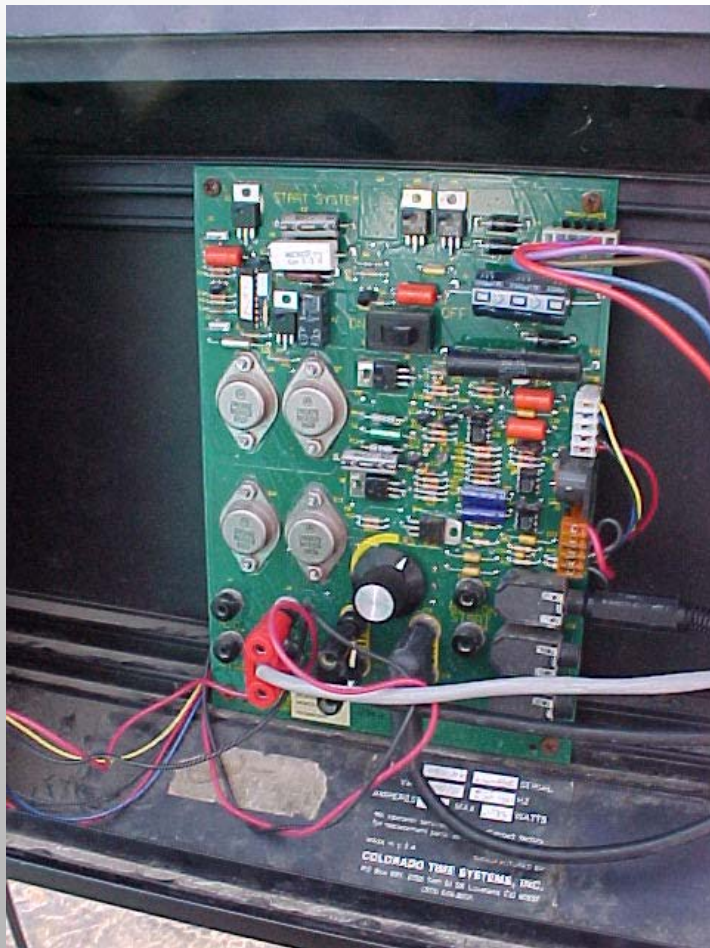


## System 5 connections layout

- Primary input: to prime cord
- Com port 1 to hy-tek
- Printer port to printer
- SCBD to scoreboard



# START STAND CONNECTIONS



- Microphone
- **Start to prime cord**  
NO=not omega
- Speakers

## Remember:

Turn “off” when not in use when no power source is connected.



# START CORD / PRIME CORD



- “START “ NOT  
BACKUP

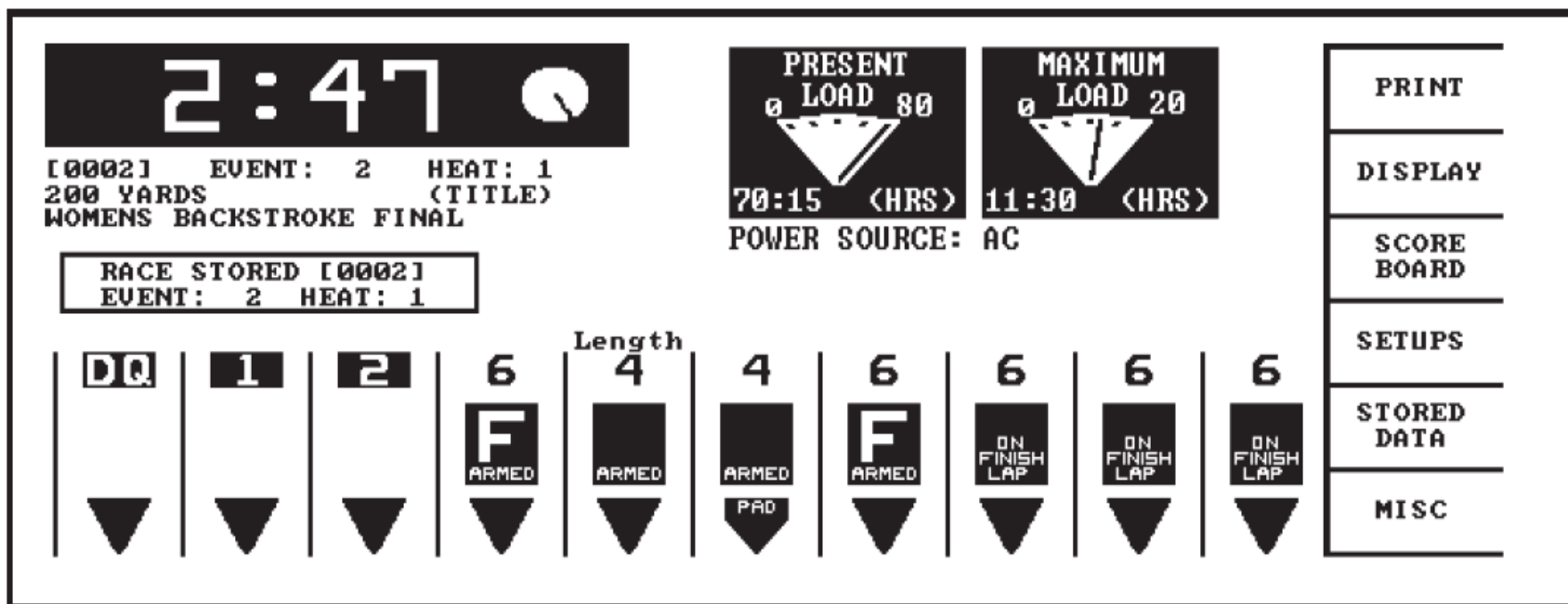


# CONNECTIONS, CONT'D

- Hy-Tek meet manager computer
  - To a reliable power source
  - To swimmer 5
  - To printer
- Prime cord @ each lane
  - Pad connects to “prime”
  - Button connects to “button”



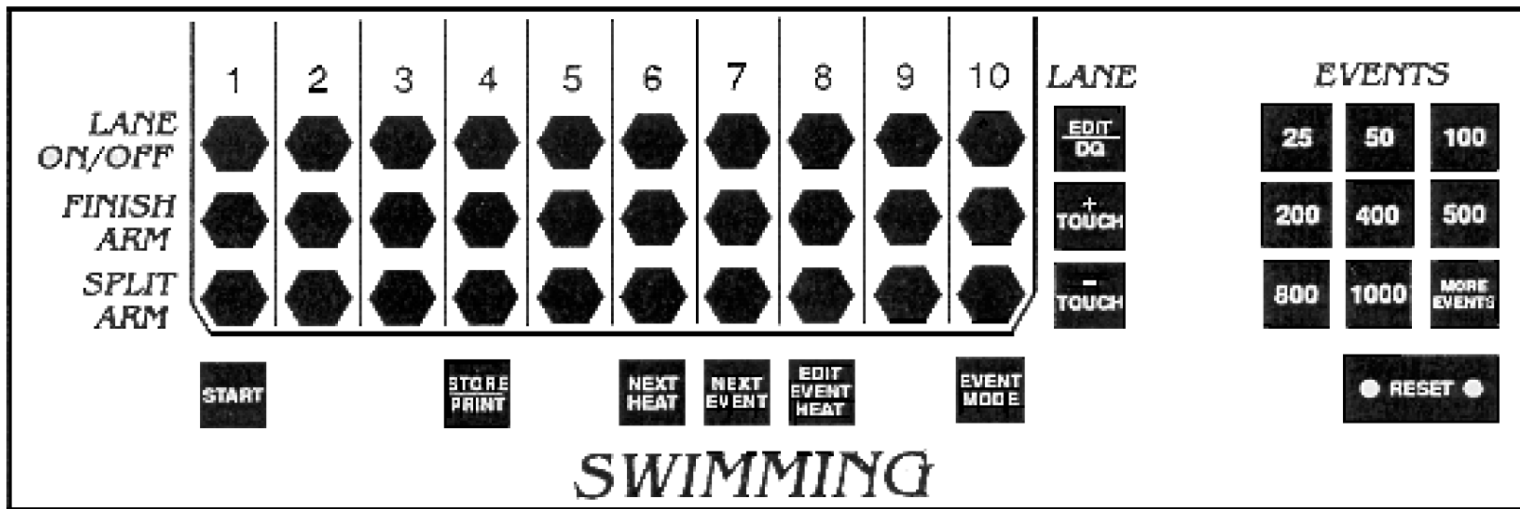
# OPERATING COLORADO TIMING DISPLAY



- 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

- Flip red toggle switch in back to turn-on Swimmer 5.
- After warm-up, select “Swimming Program.”
- Land on “reset” screen.
- You are ready to set-up swimmer 5.





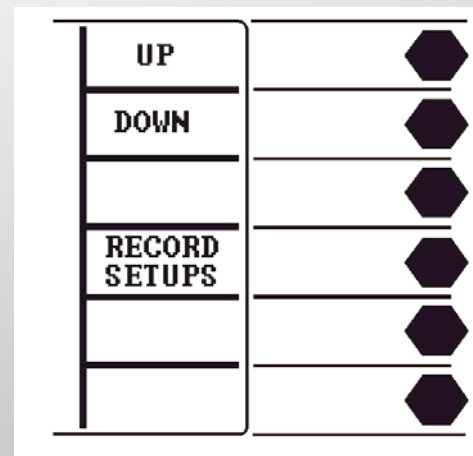
# SET-UP OF SYSTEM 5

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
- **UP/DOWN** to areas
- **1-10** keys enter to change
- Review all options— you’d be surprised

Push Setup; brings up



# SET-UP --- START

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



# SET-UP --- FINISHES / BUTTONS

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 2 button system select 3
- For pads select 1, 5 and 9 (8 only gives early button to pad.. You want to see both)



# SET-UP --- 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. What ever you like
- Turn on allow remote set-up if you want to upload from Hy-tek



# SET-UP --- SPLITS

<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

- You can use both cumulative splits and lap
- Generally cumulative is selected



# SET-UP --- TIMING

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)?
<b>15</b>

- Always 1 never 2
- 3 is for start end pad delay during race (13-15)
- 4 is for far end pad delay during race (13-15)
- 5 is for the error message. Should be off.
- 6. Pad delay on start – 10 is ok because of over top



# SET-UP --- POOL

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 or 2 depends on where start stand is
- If using far end splits you must turn on.. Except for the 50 must be off if starting from turn end!! Start end delay must be set low.



# SET-UP --- SCOREBOARD

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. One line are tricky.





# SET-UP --- PRINTER

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



# SET-UP --- EVENT SEQUENCE

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

- When you upload from computer generally select either **8** or **9**. Select correct meet.
- System 5 must be set to reset for the 5 to accept a upload!!



# FINAL SET UP TIPS

- Some items require 'enter' to be pushed after selection
- After uploading events to the S5, resave setups to save the upload of events
- Replace batteries prior to start of meet
- Print copy of setups for admin. Keep copy with the 5: while in printer, press soft key to "print set-ups"
- Recheck set ups daily. Somehow they magically change.
- Turn-off 5 at end of each session and after data entered into Hy-tek.



# RE-PRINTING PREVIOUS HEATS

Stored data

200 YARDS--MENS FREESTYLE RELAY  
 I00021 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	1:01:22.7	-
3	3	01:01.19	1:02:03	-
4	4	01:01.91	1:03:03	-
5	5	01:03.45	1:04:22	-
6	6	01:04.38	1:05:15	-
7	7	01:05.15	1:05:43	-
8	8	01:05.86	1:06:55	-
9	9	01:06.58	1:07:58	-
10	10	01:07.51	1:07:58	-

(WRITE-IN)  
Reset

EVENT:      HEAT:      50 YARDS

ON    ON    ON    ON    ON    ON    ON    ON    ON    ON

NEXT RACE

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PREVIOUS RACE

---

NEXT EVENT

---

PREVIOUS EVENT

---

PRINT RACE

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--MORE--

- Press “**STORED DATA**” soft key, then “**PREVIOUS RACE.**”
- Notice again this is by race number, but you can scroll through to find your race and reprint.
- “**Quit**” takes you back to current race



# MORE QUESTIONS ???

- Rob Clark: Equipment Chair [equipment@azswimming.org](mailto:equipment@azswimming.org)
  - Questions about equipment
- Art Gramer: Officials Chair [officials@azswimming.org](mailto:officials@azswimming.org)
  - Questions about officiating
- Carla Morelli: Executive Director [office@azswimming.org](mailto:office@azswimming.org)
  - Certification applications, officials gear, membership
- Greg Dozer: General Chair [generalchair@azswimming.org](mailto:generalchair@azswimming.org)

